Siebel Server Sync Guide

Siebel Innovation Pack 2013
Version 8.1/8.2
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Contents

Chapter 5: Configuring Siebel Server Sync for Microsoft Exchange Server

1 What's New in This Release

What's New in Siebel Server Sync Guide, Version 8.1/8.2

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 8.1, Rev. D and Version 8.2, Rev. A

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

Table 1. What's New in Siebel Server Sync Guide, Version 8.1, Rev. D and Version 8.2, Rev. A

Topic	Description
"About Siebel Server Sync for Microsoft Exchange Server" on page 13	Modified topic. Removed references to unsupported products.
"Applying SSSE Index Files to the Database" on page 47	New topic. It describes how to apply the Oracle Siebel Server Sync for Microsoft Exchange Server (SSSE) indexes to the logical and physical Siebel CRM schemas. Activating the SSSE indexes improves PIMSI Dispatcher performance.
"About Migrating SSSE Users to Microsoft Exchange Server 2010" on page 48	Modified topic. After migrating SSSE user records to Microsoft Exchange Server 2010, the user's synchronization status is updated in the S_SD_EXCH_STATE and S_SD_STATE_DATA tables for each domain.
"Configuring System Alerts for Email Notification of PIMSI Engine Synchronization Errors" on page 143	Modified topic. If you configure large error message notifications, then increase the maximum notification size by setting the NOTIFYMSGSIZE parameter to an appropriate value.
Task Reminders and Alarms	Deleted topic. Task reminders set in Microsoft Outlook and alarm flags set in Siebel CRM are not synchronized.

2 Introducing Siebel Server Sync for Microsoft Exchange Server

This chapter provides introductory information about Oracle's Siebel Server Sync for Microsoft Exchange Server (SSSE) product. It includes the following topics:

About Siebel Server Sync for Microsoft Exchange Server

Siebel Server Sync is a server-side integration product that synchronizes Siebel Business Applications data with Personal Information Manager (PIM) server products. The current version of Siebel Server Sync supports synchronization with Microsoft Exchange Server only. 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. For more detailed information about supported PIM server products, see *Siebel System Requirements and Supported Platforms* on Oracle Technology Network.

NOTE: For Siebel CRM product releases 8.1.1.9 and later and for 8.2.2.2 and later, the system requirements and supported platform certifications are available from the Certification tab on My Oracle Support. For information about the Certification application, see article 1492194.1 (Article ID) on My Oracle Support.

SSSE can synchronize data that appears in the My Activities, My Calendar, My Contacts, My Personal Contacts, and All Employees views of Siebel Business Applications. Synchronization of data between Siebel Business Applications 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 Siebel Business Applications, then SSSE automatically exports or synchronizes the change with Microsoft Exchange. Likewise, if anyone adds or changes a record in Microsoft Exchange, then SSSE automatically imports or synchronizes the change with Siebel Business Applications. 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 Deployment Options

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

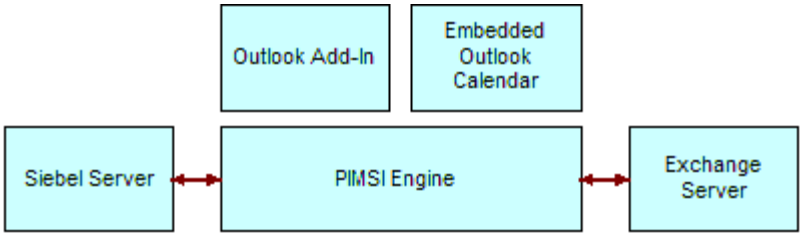

Figure 1. SSSE deployment options with related servers

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

- **PIM Server Integration (PIMSI) Engine and Dispatcher.** Allows server-based synchronization of data between Siebel Business Applications and Microsoft Exchange. See Chapter 3, "Siebel Server Sync for Microsoft Exchange Server 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 Siebel Business Applications. 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 for Microsoft Exchange Server Architecture Overview"
- Chapter 4, "Installing Siebel Server Sync for Microsoft Exchange Server"
- Chapter 5, "Configuring Siebel Server Sync for Microsoft Exchange Server"
- Chapter 6, "Administering Siebel Server Sync for Microsoft Exchange Server"
- Chapter 8, "Using Siebel Server Sync for Microsoft Exchange Server"

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 2.

Table 2. 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 Siebel Business Applications are exported to Microsoft Exchange Server.
Import Only **NOTE:** Import Only synchronization is supported for the calendar domain only.	Changes made to calendar records in Microsoft Exchange Server are imported to Siebel Business Applications. For information about Import Only synchronization, see “Implementing Import-Only Synchronization of Calendar Records” on page 133 and “About the Limitation Against Import Only Synchronization Level” on page 114.
None	No synchronization of data takes place.

Administrators set synchronization levels. Administrators can set these options for each user on each Siebel information domain. The Siebel domains for which synchronization of data is supported are:

- Task items
- Business contacts
- Personal contacts
- Employees
- Calendar items

Table 3 shows the default synchronization settings for each Siebel domain.

Table 3. Default Synchronization Settings for Siebel Domains

Siebel Domain	Default Synchronization Level
Business Contact	Full Sync
Personal Contact	Full Sync **NOTE:** Synchronization of Personal Contacts is supported only with Microsoft Exchange 2007.
Employee	Export Only **NOTE:** Synchronization of Employees is supported only with Microsoft Exchange 2007.
Siebel Calendar	Full Sync
Siebel Task	Full Sync

Synchronization levels are set for users. 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 125.

If synchronization is enabled for calendar and task (to do activity) items for a user, then SSSE automatically synchronizes new or changed calendar and task records for that user. The administrator can optionally configure SSSE so that records that originate in Microsoft Exchange are not synchronized with Siebel Business Applications 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, then 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 Chapter 8, "Using Siebel Server Sync for Microsoft Exchange Server."

Related Topics

"Setting Siebel Domain-Level Synchronization" on page 114

"Enabling and Disabling Contact Records for Synchronization" on page 196

"Enabling and Disabling Employee Records for Synchronization" on page 202

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 Business Contacts, Calendar, Employees, Personal Contacts, and Tasks.

  NOTE: Synchronization of data from the personal contacts and employees domains is not supported if you are using Microsoft Exchange 2010.

- **PIM Domain.** A set of PIM objects that SSSE considers for synchronization with Siebel Business Applications. The PIM domains currently include Microsoft Exchange Contacts, Calendar, and Tasks.
- **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.

3 Siebel Server Sync for Microsoft Exchange Server Architecture Overview

This chapter provides an overview of the architecture of SSSE, including information about the SSSE Server components, PIMSI Engine and PIMSI Dispatcher. This chapter also describes the initial extract and ongoing extract synchronization processes. 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 Siebel Business Applications. 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 Siebel Business Applications 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.

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.

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

The SSSE Exchange Connector is responsible for all communications between the PIMSI Engine and the Microsoft Exchange Server. The Exchange Connector reads from and writes to the Exchange Server mailboxes of all synchronization-enabled users. The method used by SSSE to provide Exchange Connector functionality varies according to the version of Microsoft Exchange Server that you are using:

- For Exchange Server 2010 implementations, SSSE Exchange Connector functionality is provided by a Web service Exchange Connector.
- For Exchange Server 2007 implementations, SSSE Exchange Connector functionality is provided by a DCOM Exchange Connector application.

If your implementation includes Microsoft Exchange 2010 servers and Microsoft Exchange 2007 servers, both types of Exchange Connectors must be enabled. For information on configuring the Exchange connectors, see Chapter 5, "Configuring Siebel Server Sync for Microsoft Exchange Server."

About the Web Service Exchange Connector

If you are using Microsoft Exchange 2010, SSSE Exchange Connector functionality is provided by the Siebel PIMSI Connector business service.

When a PIMSI engine synchronization task is initiated, the PIMSI Connector business service generates a new instance of the Web service Exchange Connector; this connector runs in the same address space as the PIMSI engine.

A dedicated connector is assigned to each PIMSI engine user synchronization task, for both initial extract synchronization processes and ongoing synchronization extract processes. The PIMSI Connector service issues Web service calls to transfer data between the PIMSI engine and the Exchange Server, as shown in Figure 2.

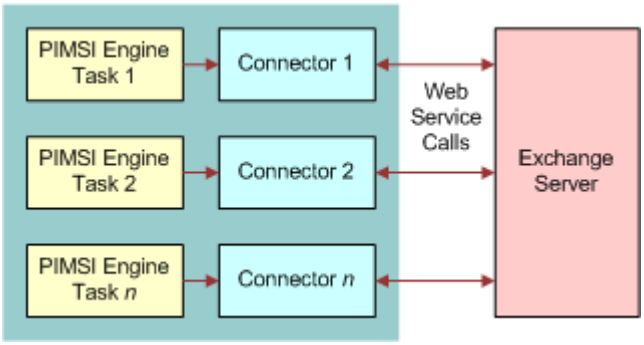

Figure 2. Synchronization Process With the Web Service Exchange Connector

About the DCOM Exchange Connector

The DCOM Exchange Connector is installed during the Siebel Server installation process. 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. In a DCOM Exchange Connector environment, multiple PIMSI engines can interact with multiple Exchange Connectors at a time.

When a PIMSI engine synchronization task is initiated, a connection is made to a DCOM Exchange Connector. Each Exchange Connector processes a defined number of user synchronization requests and, once the number of users exceeds the defined limit, a new connector process is initiated to exchange data with the Exchange Server. The DCOM Exchange Connector process runs in a separate address space to the PIMSI Engine.

The DCOM Exchange Connector uses several APIs to communicate with Microsoft Exchange Server. As shown in Figure 3, the Exchange Connector currently uses Messaging Application Programming Interface (MAPI), CDO, WebDAV and ADSI APIs.

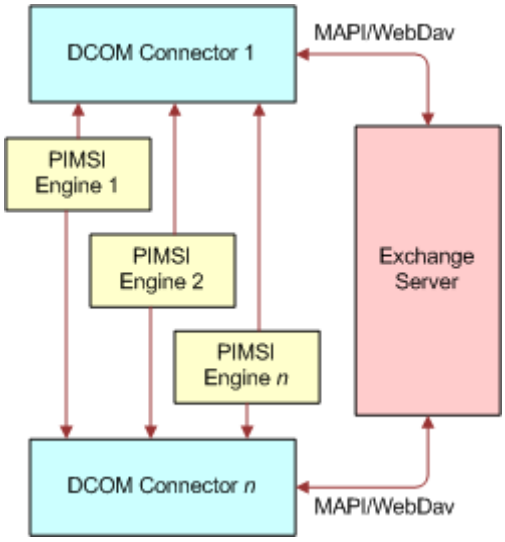

Figure 3. Synchronization Process With the DCOM Exchange Connector

PIMSI Engine Task Flow

This topic outlines the sequence of steps that are performed when data is synchronized between Siebel CRM and Microsoft Exchange Server. The process is as follows:

1. An administrator enables a user for synchronization.
2. At preconfigured intervals, PIMSI Dispatcher determines which users have synchronization enabled.

   For each synchronization-enabled 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. The PIMSI engine:
   - 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
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 Enterprise Application Integration (EAI) methods to write data from the Microsoft Exchange Server to the Siebel database. EAI includes Siebel Adapter, Data Mapper, and XML Converter.

NOTE: For specific operations, such as Delete or Visibility Change operations, the PIMSI Engine data flow relies upon database triggers recording information in the S_SD_SYNC_INFO table about changes to Siebel data.

SSSE Architecture

The SSSE architecture is illustrated in Figure 4.

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 acts as an intermediary for communications between PIMSI Engine and the Microsoft Exchange Server host.

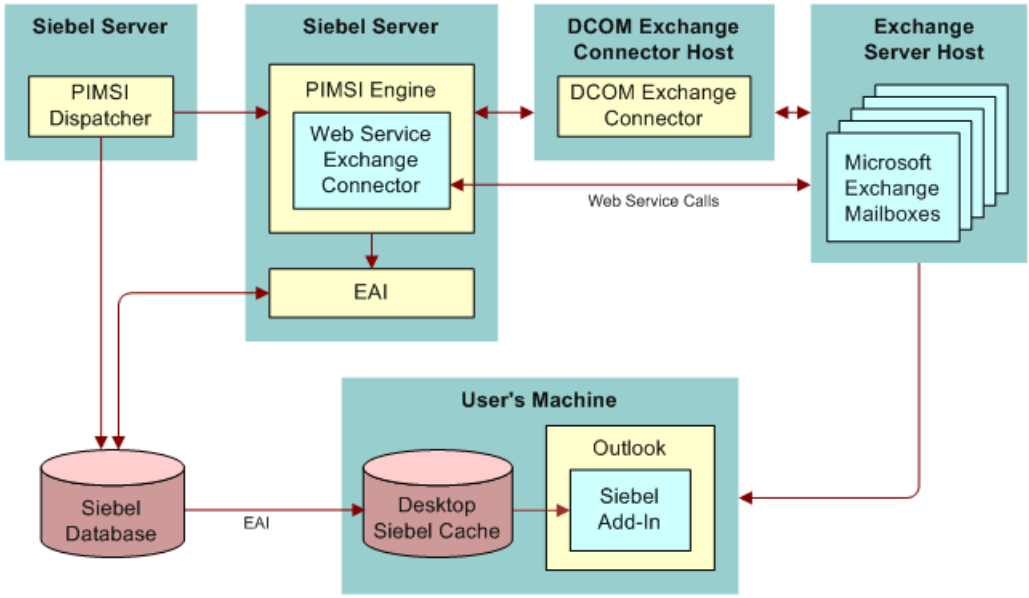

Figure 4. SSSE Architecture

If you are using a DCOM Exchange Connector with Microsoft Exchange Server 2007, you can deploy it on a host computer at a central location within the Siebel Enterprise, or you can deploy multiple DCOM Exchange Connectors on hosts at geographic locations near Microsoft Exchange Servers.

If your implementation includes firewalls between SSSE components, you might 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 43.

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:
  - For proper operation, only one instance of the PIMSI Dispatcher component can be run at a time in a Siebel Enterprise. However, you can run multiple instances of the PIMSI Engine component, either on a single Siebel Server or on multiple Siebel Servers.
  - 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 *Siebel System Requirements and Supported Platforms* on Oracle Technology Network.

    NOTE: For Siebel CRM product releases 8.1.1.9 and later and for 8.2.2.2 and later, the system requirements and supported platform certifications are available from the Certification tab on My Oracle Support. For information about the Certification application, see article 1492194.1 (Article ID) on My Oracle Support.
  - 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 names under which the PIMSI Engine and the DCOM 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 *Siebel Performance Tuning Guide*.

    NOTE: 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.
  - 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 *Siebel Global Deployment Guide*.
- **DCOM Exchange Connector Host.** The computer on which the Siebel DCOM Exchange Connector software resides. 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.

Initial Extract and Ongoing Extract

This topic describes the initial extract and ongoing extract processes 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 Siebel Business Applications. (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 the 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 the 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 synchronizes 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. 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 task records in Microsoft Exchange and Siebel Business Applications, 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 124. For information about how SSSE matches contact records, see "About SSSE Contact Record Matching" on page 35.
- **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 134.
- **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 136.
- **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 *Siebel Applications Administration Guide*.

For additional information on initial and ongoing extractions, see:

- "Initial Extract of Microsoft Exchange Contact Records" on page 27
- "Initial Extract of Microsoft Exchange Task and Calendar Records" on page 33
- "About Synchronizing Records During the Ongoing Extract Process" on page 33
- "About SSSE Contact Record Matching" on page 35

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 "Modifying Enterprise and Server Component Parameters" on page 54.

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 4 on page 28 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 5 on page 31.

Table 4. 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 4. 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 4. 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 5 shows how SSSE handles Microsoft Exchange contact records during an initial extract when the OnlySyncCategorizedContacts parameter is set to TRUE.

Table 5. 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 5. 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 26

"About Synchronizing Records During the Ongoing Extract Process" on page 33

Initial Extract of Microsoft Exchange Task and Calendar Records

Table 6 shows how SSSE handles Microsoft Exchange task and calendar records during the initial extract process. For additional information on the initial extract process, see "About Synchronizing Records during Initial Extract" on page 26.

Table 6. 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 the Microsoft Exchange record.	SSSE creates a new Siebel record and associates it with the Microsoft Exchange record

About Synchronizing Records During the Ongoing Extract Process

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 26 and "About SSSE Contact Record Matching" on page 35.

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.

  NOTE: You can change the SSSE default behavior so that when update conflicts occur, the changes in the Microsoft Exchange environment are preserved and are written to the Siebel environment. For information, see "Changing SSSE Default Values For Synchronization Conflicts" on page 112.

- 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 7.

Table 7. 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

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
- The 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 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 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. If a user's visibility is set to All, SSSE checks all Siebel records visible to the user in the Contact domain for duplicate contact records. For information on the Visibility setting, see "Setting User-Level Synchronization" on page 125.

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 115.

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 Siebel Business Applications (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 37.

   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 Siebel Business Applications 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 Siebel Business Applications 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 Siebel Business Applications.

Related Topics

"About Synchronizing Records during Initial Extract" on page 26

"About Synchronizing Records During the Ongoing Extract Process" on page 33

4 Installing Siebel Server Sync for Microsoft Exchange Server

This chapter describes preinstallation and installation tasks for the SSSE components PIMSI Engine and PIMSI Dispatcher. It includes the following topics:

For information about hardware and software requirements, see "SSSE System Requirements" on page 24. For information about installing the Siebel Outlook Add-In deployment option, see "Process of Setting Up Siebel Outlook Add-In" on page 208. For information about installing the Embedded Outlook Calendar deployment option, see "Process of Setting Up Embedded Outlook Calendar" on page 239.

Roadmap for Installing SSSE

To install SSSE, perform the following processes and tasks:

1. "Process of Preparing a Microsoft Exchange 2007 Environment for SSSE Installation" on page 40

   There are no specific tasks you must perform to prepare a Microsoft Exchange Server 2010 environment for SSSE installation.

2. "Configuring Firewalls for Use with SSSE" on page 43
3. "Installing Siebel Server for SSSE" on page 44
4. (Optional) "Installing a Remote DCOM Exchange Connector" on page 45

   This is an optional step in SSSE installations that implement the DCOM Exchange Connector. This task does not apply to SSSE installations that implement only the Web service Exchange Connector.

5. (Optional) "Applying SSSE Index Files to the Database" on page 47

   To improve PIMSI Dispatcher performance, it is recommended that you activate SSSE indexes.

Process of Preparing a Microsoft Exchange 2007 Environment for SSSE Installation

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

This process is a step in "Roadmap for Installing SSSE" on page 39.

To prepare a Microsoft Exchange 2007 Server environment before installing SSSE, perform the following tasks. Except where otherwise indicated, perform these tasks on each PIMSI Engine computer and each DCOM Exchange Connector computer:

1. "Installing Exchange 2007 System Management Tools" on page 40
2. "Installing Messaging Application Program Interface" on page 41
3. "Installing MSXML 4.0 SP2" on page 42
4. "Checking Domain Controller Properties" on page 42

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 Preparing a Microsoft Exchange 2007 Environment for SSSE Installation" on page 40.

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 40, 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 DCOM 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 Preparing a Microsoft Exchange 2007 Environment for SSSE Installation" on page 40.

NOTE: This task must be performed for all DCOM 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

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 Preparing a Microsoft Exchange 2007 Environment for SSSE Installation" on page 40.

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 Preparing a Microsoft Exchange 2007 Environment for SSSE Installation" on page 40.

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.

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 "Roadmap for Installing SSSE" on page 39.

The appropriate placement of firewalls varies depending on the type of Exchange Connector that you are using in your Siebel deployment to communicate with Microsoft Exchange. Regardless of the type of Exchange Connector used, however, a firewall is likely to exist between the Exchange Connector host and the Microsoft Exchange Server host.

Firewall Between PIMSI Engine and Exchange Server 2010 Host

If a firewall is located between the Siebel Server that hosts a PIMSI Engine and the Microsoft Exchange Server host that the Web service Exchange Connector communicates with, then ask the firewall administrator to open ports for HTTP or HTTPS traffic as appropriate. Generally port 80 is used for HTTP traffic, and port 443 is used for HTTPS traffic.

Firewall Between PIMSI Engine and DCOM Exchange Connector

If you are using Microsoft Exchange Server 2007, a typical location for a firewall is between a Siebel Server that hosts a PIMSI Engine and a computer that runs the Siebel DCOM Exchange Connector. If this is where your firewall is located, have the firewall administrator open the ports listed in Table 8, and configure your Siebel Server to use the same range of ports for DCOM.

Table 8. Ports for a Firewall Located Between PIMSI Engine and DCOM Exchange Connector

Traffic Type	Firewall Port to Open
DCOM DCOM traffic requires the use of 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. For more information about using DCOM with firewalls, go to the Microsoft Support Web site at the following URL http://support.microsoft.com	Any available port
End Point Mapper (EPM)/ Service Control Manager (SCM)	135
LDAP	389
LDAP to Global Catalog Server	3268

Firewall Between DCOM Exchange Connector and Exchange Server

If you are using Microsoft Exchange Server 2007, it is possible (but not recommended) to place a firewall between a computer that runs the Siebel DCOM Exchange Connector and the Microsoft Exchange Servers that the DCOM Exchange Connector communicates with. In this case, the firewall administrator must open additional ports, such as those listed in Table 9. On your Siebel Server, be sure to configure corresponding port numbers and port number ranges.

Table 9. Ports for a Firewall Between DCOM 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
HTTPS	443 or your designated HTTPS port
LDAP	389
LDAP to Global Catalog Server	3268
MAPI to Exchange 2007	Create registry entries on the Exchange Server computer that specify static MAPI ports. For information on configuring Exchange Server static port mappings, see the following URL http://support.microsoft.com
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 SSSE

The first part of the SSSE installation process is to install Siebel Enterprise Server software on the computers that will host the SSSE components and your Siebel application (such as Siebel Sales).

This task is a step in "Roadmap for Installing SSSE" on page 39.

CAUTION: Never install Microsoft Outlook on a computer that will run the Siebel DCOM Exchange Connector application. Microsoft Outlook overwrites a critical Microsoft Exchange library used by the DCOM Exchange Connector with a less functional version. Microsoft Outlook can be installed on computers that run the Web service Exchange Connector.

To install Siebel Server for SSSE

1 Install the Siebel Server software components.

Install the Siebel Server software components as described in *Siebel Installation Guide* for the operating system you are using. Make sure that you choose a language that is supported for SSSE. For more information, see *Siebel System Requirements and Supported Platforms* on Oracle Technology Network.

NOTE: For Siebel CRM product releases 8.1.1.9 and later and for 8.2.2.2 and later, the system requirements and supported platform certifications are available from the Certification tab on My Oracle Support. For information about the Certification application, see article 1492194.1 (Article ID) on My Oracle Support.

2 After the installation of files is complete, follow Configuration Wizard prompts to configure the Siebel Server software components.

For information on configuring the Siebel Server software components, see "Using the Siebel Configuration Wizard to Configure SSSE" on page 51 and *Siebel Installation Guide* for the operating system you are using.

Do not attempt to start the PIMSI Engine server component at this time. You cannot start the PIMSI Engine successfully until after you have configured the Exchange Connector. For information on configuring the Siebel Exchange Connector, see Chapter 5, "Configuring Siebel Server Sync for Microsoft Exchange Server."

Installing a Remote DCOM Exchange Connector

This topic describes how to install a remote DCOM Exchange Connector. This task is applicable to Microsoft Exchange 2007 environments only; Exchange Connector functionality in Microsoft Exchange 2010 environments is provided by the Web service Exchange Connector.

This task is an optional step in "Roadmap for Installing SSSE" on page 39.

About Remote DCOM Exchange Connectors

The DCOM Exchange Connector comprises two Windows DCOM applications: SSPICNFM and SSPICNEA, which are installed with the other SSSE components during the Siebel Server installation process described in "Installing Siebel Server for SSSE" on page 44. The DCOM Exchange Connector can run on more than one Windows server. Any DCOM Exchange Connector that resides on a computer that does not contain a PIMSI Engine is known as a remote DCOM Exchange Connector.

Each DCOM Exchange Connector must have a shared directory on the computer running the Exchange Connector; the shared directory is used by the PIMSI Engine to locate the DCOM Exchange Connector servers. During installation, one Exchange Connector share is created.

Installing Remote DCOM Exchange Connectors

There is no stand-alone installation available for remote DCOM Exchange Connectors. When you install PIMSI Engine, DCOM Exchange Connector software is automatically installed on the same computer. Whether or not you use the DCOM Exchange Connector software on a PIMSI Engine computer depends on later configuration steps. The following procedure describes how to install a remote DCOM Exchange Connector.

To install a remote DCOM Exchange Connector

1. Install SSSE following the instructions found in "Installing Siebel Server for SSSE" on page 44 but do not enable or run the Siebel Server, PIMSI Engine, or PIMSI Dispatcher software that is installed with the DCOM Exchange Connector.
2. When the configuration wizard prompts you to specify a name for a share for the DCOM Exchange Connector, specify a real value.

   Configuration values for the Server, Engine, and Dispatcher can be arbitrary, since the remote DCOM Exchange Connector computer does not use them. For information about configuring DCOM Exchange Connectors on PIMSI Engine computers and on remote DCOM Exchange Connector hosts, see Chapter 5, "Configuring Siebel Server Sync for Microsoft Exchange Server."

CAUTION: Never install Microsoft Outlook on a computer that will run the Siebel DCOM Exchange Connector application. Microsoft Outlook overwrites a critical Microsoft Exchange library used by the DCOM Exchange Connector with a less functional version. Microsoft Outlook can be installed on computers that run the Web service Exchange Connector.

Requirements for Installing SSSE Components in a Cluster Configuration

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 DCOM Exchange Connector components.

When installing SSSE components in a clustered environment, ensure the following requirements are met:

- Install PIMSI Dispatcher in an active-passive server cluster.

  In an active-passive server cluster, one server actively runs applications and services and the stand-by server is idle unless the active server fails. This cluster configuration is required because only one instance of the PIMSI Dispatcher component can run in the Enterprise. For information on server clustering, see *Siebel Deployment Planning Guide*.

- If applicable to your environment, register the Siebel DCOM Exchange Connector components in the system registry of all computers that run the DCOM Exchange Connector applications. For information on this task, see Step 3 of the topic "Configuring the Exchange Connector DCOM Settings" on page 79.

Applying SSSE Index Files to the Database

A number of indexes are provided with Siebel CRM that are designed to enhance the performance of the PIMSI Dispatcher. Because these indexes are relevant only to SSSE, they are not included in the Siebel Repository by default. Instead, they are provided in an archive (SIF) file that must be imported into the repository, then applied to the physical database. This topic describes how to perform these tasks.

This task is an optional step in "Roadmap for Installing SSSE" on page 39.

To apply SSSE indexes to the database to improve PIMSI Dispatcher performance, perform the steps in the following procedure.

To apply SSSE index files to the database

1. In the Siebel Tools installation directory, navigate to the REPPATCH directory, for example, navigate to `\Siebel\8.1\Tools_1\REPPATCH\`.
2. Locate the following files:
   - SSSE_indexes_active_hor.sif (Siebel Cross-Industry Applications)
   - SSSE_indexes_active_sia.sif (Siebel Industry Applications)
3. Depending on the type of Siebel CRM application you have implemented, import either the SSSE_indexes_active_hor.sif file or the SSSE_indexes_active_sia.sif file into the Siebel Repository.

   For detailed information on importing SIF files to the Siebel Repository, see *Using Siebel Tools*.
4. After importing the SIF file, deploy the indexes by applying the database schema changes to the following database tables:
   - S_ACT_CONTACT
   - S_ACT_EMP
   - S_ADDR_ORG
   - S_ADDR_PER
   - S_CONTACT
   - S_CONTACT_BU
   - S_CONTACT_INFO
   - S_EVT_ACT
   - S_OPTY
   - S_ORG_EXT
   - S_PARTY
   - S_POSTN

- S_POSTN_CON
- S_PROJ
- S_SRV_REQ
- S_USER

For detailed information on applying schema changes to the physical database, see the chapter on configuring tables in *Configuring Siebel Business Applications*.

About Migrating SSSE Users to Microsoft Exchange Server 2010

If you upgrade your SSSE environment from Microsoft Exchange Server 2003 or 2007 to Microsoft Exchange Server 2010, the first time you run SSSE with Microsoft Exchange 2010, SSSE runs a number of processes to migrate previously synchronized user records so that they are compatible with Exchange Server 2010. After records have been migrated successfully, record synchronization takes place in the subsequent synchronization session.

Siebel administrator intervention is not required to run the migration processes; they are run automatically if SSSE is installed with Microsoft Exchange Server 2010 and if previously synchronized records are detected. However, understanding the migration process is helpful in troubleshooting synchronization errors that can occur if a record is unsuccessfully migrated.

Every Microsoft Exchange Server calendar, contact, or task record is uniquely identified with a MAPI identifier; SSSE stores this identifier for use in future update or delete operations on the record. With the introduction of Exchange Web Services in Microsoft Exchange Server 2010, MAPI IDs can no longer be used to identify the corresponding record in the Microsoft Exchange Server, and any update or delete operations to such records cannot be synchronized.

To address this issue, the SSSE migration process converts all MAPI IDs from older versions of Microsoft Exchange Server to identifiers that use the Microsoft Exchange 2010 format. Specifically, the SSSE migration process performs the following tasks:

1. All the MAPI IDs in the S_SD_PIM_ROW table are converted to the Web service based IDs used by Microsoft Exchange Server 2010.
2. The user's synchronization status for the synchronization session (the Sync State value) is updated in the S_SD_EXCH_STATE and S_SD_STATE_DATA tables for each domain.
3. After successfully migrating all of a user's records, the migration process adds the value EXCH2010 in the CURR_VERSION column of the S_SD_USER_MAP table. This indicates that all of the user's synchronized records have been migrated to Exchange Server 2010 format without error.

5 Configuring Siebel Server Sync for Microsoft Exchange Server

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

About Configuring SSSE

Most of the tasks described in this chapter are required for configuring SSSE. For information about the correct order for performing these required configuration tasks, see "Roadmap for Configuring SSSE" on page 50.

Some configuration and administration steps are required only if you want all of your SSSE users to be able to select which calendar and task records to synchronize from Microsoft Exchange to Siebel Business Applications. For information about providing users with this capability, see "About Setting Calendar and Task Record Synchronization Options" on page 133.

Roadmap for Configuring SSSE

To configure SSSE, perform the following tasks:

- "Using the Siebel Configuration Wizard to Configure SSSE" on page 51
- "Modifying Enterprise and Server Component Parameters" on page 54
- Review "About the Exchange Service Account" on page 68
- "Configuring User Mailbox Access for the Exchange Service Account" on page 69
- "Configuring Exchange Connector Support" on page 71
- "Process of Configuring the Web Service Exchange Connector" on page 72
- "Process of Configuring the DCOM Exchange Connector" on page 75
- "Modifying SSSE Log File Settings" on page 98
- "About Enabling and Disabling Components on SSSE Servers" on page 101
- "Restarting Siebel Services" on page 101
- "Configuring and Starting PIMSI Dispatcher" on page 101

The following configuration tasks are optional:

- "Configuring the Database for SSSE" on page 100
- "Configuring Support for Items Archived in Microsoft Outlook" on page 105
- "Configuring Recurring Appointments" on page 106

■ “Process of Configuring Additional Appointment Instances for Recurring Appointments” on page 107

About the Default Account Setting

One of the configuration items you can set using the Configuration Wizard is the Default Account setting. This topic describes how this setting affects synchronization.

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 with 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.

Using the Siebel Configuration Wizard to Configure SSSE

This topic briefly describes choices you must make when you install and configure a Siebel Server in order to include the installation and configuration of SSSE components.

This task is a step in “Roadmap for Configuring SSSE” on page 50. For additional information on installing the Siebel Server, see “Installing Siebel Server for SSSE” on page 44.

When you run the Siebel Configuration Wizard to configure the Siebel Server, you are presented with prompts for many Siebel Server configuration settings. Table 10 lists the SSSE-related configuration settings presented by the wizard and outlines the information you must provide.

Table 10. Siebel Server Configuration Wizard Settings for SSSE

Wizard Prompt	Action to Take
Enable Component Groups	Select the PIMSI check box, along with any other component groups required for your Siebel implementation.
Additional Server Task Selection	Select the Exchange Server Synchronization check box, along with any other configuration tasks required for your Siebel implementation.
Create local share for the Exchange Server Synchronization Connector	Select the check box if you want to run the DCOM Exchange Connector on the current computer. Do not select the check box if you are using the Web service Exchange Connector with Microsoft Exchange Server 2010.
Exchange Server Synchronization Connector Share Name	Enter the computer name and path to a shared directory that the DCOM Exchange Connector will use on this computer. Not applicable if you are using the Web service Exchange Connector with Microsoft Exchange Server 2010.
Employee Login for External Meeting Organizer	Enter a previously created employee login for your Siebel application. Use a login that is dedicated to owning activity records that are created by individuals who are not employees listed in the Siebel database. Do not enable synchronization for this login. Corresponds to the GenericOrganizerLogin parameter. For additional information on this parameter, see “PIMSI Engine Server Component Parameters” on page 56.
Extract Start Date	Enter the date of the oldest appointments and tasks that you want SSSE to synchronize. Corresponds to the ExtractStartDate parameter. For additional information on this parameter, see “PIMSI Engine Server Component Parameters” on page 56 and “Setting Extract Start Dates for Users” on page 132.
Format of Extract Start Date	Enter the format of the value you specified for the Extract Start Date, such as MM/DD/YYYY.
Default account for new contacts for Exchange Server Synchronization	(Optional) Enter the name of an account that already exists in your Siebel application. When SSSE synchronizes a new contact from Microsoft Exchange to the Siebel database, this account is assigned to the new Siebel contact record.
Default account location for new contacts	Enter an account location that already exists in your Siebel application. When SSSE synchronizes a new contact from Microsoft Exchange to the Siebel database, this account location is assigned to the new Siebel contact record.

Table 10. Siebel Server Configuration Wizard Settings for SSSE

Wizard Prompt	Action to Take
Enable Exchange Server Synchronization Dispatcher Component	Select the check box if the current computer is the one Siebel Server in your Enterprise that will run the PIMSI Dispatcher.
Enable Exchange Server Synchronization Engine	Select the check box if the current computer will run the PIMSI Engine.

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 *Siebel 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 for the PIMSI Engine server component are ConnectorMaxUsers and MaxTasks (also called Maximum Tasks).

ConnectorMaxUsers

The ConnectorMaxUsers parameter is a Siebel Enterprise Server parameter that defines the maximum number of users in the Enterprise who can be assigned to each instance of the DCOM Exchange Connector. In general, if you increase the value of this setting, your DCOM Exchange Connector computers use less memory for connector instances.

NOTE: This parameter is not applicable to the Web service Exchange Connector.

In versions of SSSE prior to Siebel CRM version 8.0, it was useful to set ConnectorMaxUsers to a low value when performing many initial extracts. This was because initial extracts could share connector instances with ongoing synchronizations unless ConnectorMaxUsers (which was then called MaxUsers) was set to a value of 1. When an initial extract shared a connector instance with ongoing synchronizations, there was a chance that the ongoing synchronizations might be delayed while the initial extract used the connector instance connection to the Microsoft Exchange Server. However, beginning with Siebel CRM version 8.0, every initial extract is automatically assigned to a dedicated connector instance which terminates when the initial extract operation is complete. The ConnectorMaxUsers parameter now applies only to ongoing synchronizations.

MaxTasks

The MaxTasks setting controls the total number of PIMSI Engine jobs that can run simultaneously on a single Siebel Server computer. The value you choose for the MaxTasks parameter can limit the total number of connector instances that run at any one time, preventing the connector computers from becoming overloaded.

Selecting and Testing ConnectorMaxUsers 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 ConnectorMaxUsers 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.

Choosing an Appropriate Dispatcher Repeat Interval

When you are satisfied with your ConnectorMaxUsers 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 101.

Modifying Enterprise and Server Component Parameters

Many Siebel Enterprise Server parameters and PIMSI server component parameters that affect the operation of SSSE are set automatically during the Siebel installation and configuration process. You can choose different values for these parameters if the default values do not suit your Siebel implementation. It is recommended that you set SSSE-related parameters at the Enterprise level rather than at the server component level; this ensures that SSSE settings are consistent on all the Siebel Servers in your Enterprise. However, a number of parameters must be set for the PIMSI Engine or PIMSI Dispatcher at the server component level.

The following procedures describe how to view and modify Siebel Enterprise Server and PIMSI server component parameters that affect the operation of SSSE using the Server Administration views in the Siebel application and using the srvrmgr command-line interface. For information about additional parameters that affect SSSE performance, see “About Tuning SSSE for Optimal Performance” on page 53.

This task is a step in “Roadmap for Configuring SSSE” on page 50.

For a list of the PIMSI server component parameters and the SSSE-related Siebel Enterprise Server parameters, see the following topics:

- "PIMSI Engine Server Component Parameters" on page 56
- "SSSE-Related Siebel Enterprise Server Parameters" on page 58

Modifying Enterprise and Server Component Parameters Using Server Administration Views

The following procedure describes how to change the value of Siebel Enterprise Server or server component parameters using the Siebel Server Administration views.

To modify Enterprise and server component parameters using Server Administration views

1. Perform one of the following:
   - To view or change SSSE-related Siebel Enterprise Server parameters, navigate to the Administration - Server Configuration screen, Enterprises, and then the Parameters view.
   - To view or change PIMSI Engine or PIMSI Dispatcher component parameters, navigate to the Administration - Server Configuration screen, Enterprises, and then the Component Definitions view.

     In the Component Definitions list, select either PIMSI Dispatcher or PIMSI Engine.
2. In the Component Parameters or Enterprise Parameters list, locate the parameter you want to view or change.

   See Table 11 on page 56 and Table 12 on page 58 for a description of some of the SSSE-related server component parameters and Siebel Enterprise Server parameters.
3. Change the value of the relevant parameter.
4. Take any required action to make the change effective, such as restarting the Siebel Server.

Modifying Enterprise and Server Component Parameters Using srvrmgr

You can change the value of Siebel Enterprise Server or server component parameters using the Siebel Server Manager command-line interface (srvrmgr program) as described in the following procedure.

To modify Enterprise and server component parameters using srvrmgr

1. Start the Server Manager command-line interface.

   For information on how to start and use the srvrmgr program, see *Siebel System Administration Guide*.
2. At the srvrmgr> prompt, enter an appropriate command to change the parameter. For example, the following command sets the Enable Inbound Activity Filter parameter to a value of TRUE:

```
change ent param EnableInboundActivityFilter="TRUE"
```

3 Take any required action to make the change effective, such as restarting the Siebel Server.

PIMSI Engine Server Component Parameters

Table 11 lists PIMSI Engine server component parameters. These parameters cannot be set at the Siebel Enterprise Server level.

CAUTION: You must specify the same values for the Extract Start Date and Generic Siebel Organizer parameters on all Siebel Servers in the Enterprise. If you do not, unpredictable results can occur.

Table 11. PIMSI Engine Server Component Parameters

Parameter Name	Parameter Alias	Comments
Engine Id	EngineID	A unique identifier for each PIMSI Engine server component. This is a system field and cannot be changed.

Table 11. PIMSI Engine Server Component Parameters

Parameter Name	Parameter Alias	Comments
Extract Start Date	ExtractStartDate	Determines which calendar and task records are excluded from synchronization because of their date settings. For more information, see: ■ "Factors That Determine Calendar Synchronization" on page 183 ■ "Factors That Determine Task Record Synchronization" on page 191 ■ "Setting Extract Start Dates for Users" on page 132
Generic Siebel Organizer Login	GenericOrganizerLogin	The Siebel login to use if the meeting organizer is not an employee listed in the Siebel database. Specify a login that meets the following conditions: ■ The login must correspond to a valid Siebel employee record that includes an email address. ■ The login is mapped to a valid Exchange account that has an Active Directory entry. ■ For a production environment, use the login name of an SSSE administrator who does not have synchronization enabled; this ensures the Generic Siebel Organizer is assigned only those meetings where the owner cannot be resolved. If the Generic Siebel Organizer has synchronization enabled, appointments assigned to that user include both unassigned meetings and the user's own meetings, which can lead to confusion. (Test environments do not have to meet this condition.) **NOTE:** If the Generic Siebel Organizer is the only meeting attendee, the meeting is deleted. For example, if User A accepts a meeting invitation from an individual who is neither an SSSE user nor an employee in the Siebel database, the meeting is synchronized to Siebel Business Applications with the Generic Siebel Organizer as the meeting organizer and User A as the attendee. If User A later declines the meeting in Microsoft Outlook, User A is removed from the meeting during the subsequent synchronization cycle. As the Generic Siebel Organizer is now the only attendee, the meeting is deleted by SSSE.

Related Topic

"Modifying Enterprise and Server Component Parameters" on page 54

SSSE-Related Siebel Enterprise Server Parameters

Table 12 lists SSSE-related Siebel Enterprise Server parameters. Most of these parameters relate to the PIMSI Engine. If a parameter relates to the PIMSI Dispatcher, this is indicated.

Table 13 on page 64 lists SSSE-related Siebel Enterprise Server parameters that are applicable only if your SSSE environment implements the DCOM Exchange Connector.

Table 12. SSSE Siebel Enterprise Server Parameters

Parameter Name	Parameter Alias	Comments
Business Service Query Access	BusinessServiceQueryAccessList	The Siebel database and Microsoft Exchange differ in how they store addresses. This parameter specifies the name of the script that is used to combine two Siebel address field values when transmitting address data to Microsoft Exchange, and split one Microsoft Exchange address field value into two values when transmitting address data to the Siebel database. The value for this parameter, SSSE Address Parser (eScript), is set automatically during installation.
Calendar Lock Expire After	CalendarLockExpireAfter	The lock on a calendar record expires after the specified number of seconds. A calendar record is locked whenever it is being updated.
Calendar Lock Sleep Time	CalendarLockSleepTime	Time interval that SSSE waits before checking the calendar lock again.
Dispatcher Abort Limit Low B Applies to the PIMSI Dispatcher component only.	DispAbortLowBound	When the PIMSI Dispatcher inspects changed records to determine which users the PIMSI Engine must synchronize, if the total number of changed records to inspect is larger than DispAbortLowBound, then the Dispatcher stops inspecting records individually and sets a flag that notifies the PIMSI Engine to search for changed records for all SSSE users. This improves SSSE performance in situations where large numbers of records are changed frequently.

Table 12. SSSE Siebel Enterprise Server Parameters

Parameter Name	Parameter Alias	Comments
Dispatcher Abort Limit Per Use Applies to the PIMSI Dispatcher component only.	DispAbortLimit	The maximum number of updates that the Dispatcher processes for each dispatch cycle. If there are more changes in the Siebel database than this number, then the Dispatcher stops searching for changes and sends dispatch messages for the users determined so far.
Dispatcher Garbage Collection Applies to the PIMSI Dispatcher component only.	DispGCCycleCount	Determines how many times the Dispatcher runs before information that is no longer required is removed from the S_SD_SYNC_INFO table. The S_SD_SYNC_INFO table stores information about data to synchronize. Using default values, this removal of unnecessary information occurs once an hour, because the Dispatcher job is normally run every five minutes.
Dispatcher Notification Frequency Applies to the PIMSI Dispatcher component only.	DispNotificationFreq	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 requests a response from an unresponsive PIMSI Engine before attempting to recover it. **NOTE:** The PIMSI Dispatcher automatically attempts to recover users' data changes that are being processed on 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 logs for information that might help you diagnose why the Engine stopped responding.

Table 12. SSSE Siebel Enterprise Server Parameters

Parameter Name	Parameter Alias	Comments
Dispatcher Reconciliation Dura Applies to the PIMSI Dispatcher component only.	DispReconciliationDuration	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.
Distribution List Query Size	DistributionListQuerySize	When the Siebel Exchange Connector determines the members of a Distribution List, it requests information about one or more batches of members. This setting specifies the maximum number of members in each batch. Maximum valid value is 1500 for Windows 2003. Minimum value is 1.
Enable Inbound Activity Filter	EnableInboundActivityFilter	When set to TRUE for the PIMSI Engine server component, synchronizes calendar and task items that originate in Microsoft Exchange only if the value of the Category field matches a valid Siebel Value for an LOV that has Siebel LIC Type set to TODO_Type. When this parameter is set to FALSE, SSSE attempts to synchronize all calendar and task items that originate in Microsoft Exchange for each user who has synchronization enabled. For more information on using this parameter, see: ■ "About Setting Calendar and Task Record Synchronization Options" on page 133 ■ "Setting Up Translation Mappings for Inbound Activity Filtering" on page 138

Table 12. SSSE Siebel Enterprise Server Parameters

Parameter Name	Parameter Alias	Comments
Extract Start Date Format	ExtractStartDateFormat	Format of the Extract Start Date parameter. Default value is MM/DD/YYYY. 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. For information on the Extract Start Date parameter, see "PIMSI Engine Server Component Parameters" on page 56.
Force Transcode	ForceTranscode	Forces text conversion to use transcode. Set this parameter to TRUE if your Siebel implementation uses a transcode database type.
Max Alarm Lead Minutes	MaxAlarmLead	Maximum number of minutes for an appointment alarm lead time. The maximum value you can specify is 1440 minutes (1 day).
Max Extract Request Batch Size Applies to the PIMSI Dispatcher component only.	MaxExtReqBatchSize	Maximum number of user extractions that can be requested in one synchronization request. The default value is 10. For example, if the Max Extract Request Batch Size parameter is set to 10, and if 1000 users have synchronization enabled, the PIMSI Dispatcher creates 100 PIMSI Engine jobs, each containing 10 user extractions. The data for 100 users is synchronized at one time, because each PIMSI Engine processes each user in a job sequentially. When specifying a value for this parameter, consider the number of users who have synchronization enabled, and the number of jobs that your server can process in parallel without affecting performance. If there are multiple users in a single PIMSI Engine job, data, such as LOVs and system parameters, is queried only once and is shared by the jobs for each user.

Table 12. SSSE Siebel Enterprise Server Parameters

Parameter Name	Parameter Alias	Comments
Maximum Tasks	MaxTasks	The maximum number of PIMSI Engine jobs that can run simultaneously on a single Siebel Server computer. For more information about this setting, see "About Tuning SSSE for Optimal Performance" on page 53. The value of the Maximum Tasks parameter determines the total number of users who can be synchronized in parallel. For example, if the Maximum Tasks parameter is set to a value of 50, and the PIMSI engine is installed on three Siebel Server computers in your SSSE environment, then 150 users can be synchronized simultaneously.
Only Sync Categorized Contacts	OnlySyncCategorized Contacts	Determines whether or not initial extract operations synchronize only Microsoft Exchange contact records that have the Category field set to a specified value—the value that matches the Siebel domain's PIM Category Value setting—or all contact records. Valid values are TRUE and FALSE, case-insensitive. For more information about this parameter, see "Initial Extract and Ongoing Extract" on page 25 and "Setting PIM Category Values for Siebel Domains" on page 115.
Preserve Attachments	PreserveAttachments	Indicates whether or not the Exchange Connector preserves PIM attachments for non Calendar domains. (Calendar attachments are automatically preserved.) If this parameter is set to FALSE, attachments are removed when the Exchange Connector updates the record in Microsoft Exchange. This setting does not affect Siebel attachments.
Preserve Unmapped Fields	PreserveFields	Indicates whether or not the Exchange Connector preserves the data for PIM fields which are not mapped for synchronization for non Calendar domains. If this parameter is FALSE, any data in an unmapped field is removed from the record in Microsoft Exchange.

Table 12. SSSE Siebel Enterprise Server Parameters

Parameter Name	Parameter Alias	Comments
Query External Exchange Domain	QueryExtExDomains	When the Exchange Connector cannot locate a calendar record attendee or organizer in the Active Directory Global Catalog, this setting determines whether or not to perform an exhaustive Active Directory search. If set to TRUE, Exchange Connector queries as many domain controllers in the Active Directory topology as required to resolve the missing name. The default value is FALSE.
Remove Attendees With No Email	RemoveOutAttendees WithoutEmail	If set to TRUE, do not synchronize attendees who do not have email addresses when synchronizing from Siebel Business Applications to Microsoft Exchange.
Resolve Contact by Email	ResolveContactbyEmail	When synchronizing Microsoft Exchange calendar records with Siebel Business Applications, SSSE categorizes calendar record attendees as employees, contacts, or unresolved attendees. When matching attendees to Siebel contact records, the value of the Resolve Contact by Email parameter determines whether or not the attendee and the contact record must have identical email addresses to be considered as matching records. If the Resolve Contact by Email parameter is TRUE, an attendee's email address must be identical to the email address of a single Siebel contact record for the records to be considered a match. SSSE does not match records on the basis of matching names if the email address differs (or does not exist). If the Resolve Contact by Email parameter is FALSE, if an attendee's email address is not identical to the email address of a single contact record, SSSE searches for a contact record with the same first and last names as the attendee. If a record is found with matching first and last names, then provided that the records do not contain different email addresses, SSSE treats the two records as a match.

Table 13 lists SSSE-related Siebel Enterprise Server parameters that apply to the DCOM Exchange Connector. You do not have to specify values for these parameters if you use the Web service Exchange Connector only.

Table 13. SSSE Siebel Enterprise Server Parameters For DCOM Exchange Connector

Parameter Name	Parameter Alias	Comments
Connector Attendee Cache Verify Duplicate Member	ConnectorAttCacheVerifyDupMems	Determines whether or not the DCOM Exchange Connector verifies the content of the attendee cache when using a cache value or when adding new attendees to the cache. The default value is FALSE. Set to TRUE only if you expect users to create one or both of the following: ■ Distribution lists that share list names with existing distribution lists but contain different members. ■ Private distribution lists that have email addresses as their list names that match the email addresses of public distribution lists.
Connector Client Cert Name	ConnectorClientCertName	String value containing a certificate name. The default value is an empty string. Applies only if ConnectorUseHTTPS is set to TRUE. This parameter is required if you are using HTTPS and the Exchange Server is set up to require client certificates. If this setting does not contain an empty string, then the connector provides the value when making the HTTPS connection. The connector computer must have access to the certificate.
Connector HTTP Connect Timeout	ConnectorHTTPConnectTimeout	Number of seconds the Siebel Exchange Connector waits while attempting to establish an HTTP or HTTPS communication socket with the Exchange Server. Applies to synchronization of calendar data only.
Connector HTTP Port	ConnectorHTTPPort	HTTP or HTTPS port number that the Siebel Exchange Connector uses to synchronize calendar data.

Table 13. SSSE Siebel Enterprise Server Parameters For DCOM Exchange Connector

Parameter Name	Parameter Alias	Comments
Connector HTTP Receive Timeout	ConnectorHTTPReceive Timeout	Number of seconds the Siebel Exchange Connector waits to receive a single response packet from the Exchange Connector. Applies to both HTTP and HTTPS, but for synchronization of calendar data only.
Connector HTTP Resolve Timeout	ConnectorHTTPResolve Timeout	Number of seconds the Siebel Exchange Connector waits while attempting to map a Domain Name Server (DNS) host name to a corresponding IP address. Applies to both HTTP and HTTPS, but for synchronization of calendar data only.
Connector HTTP Send Timeout	ConnectorHTTPSendTimeout	Number of seconds the Siebel Exchange Connector waits while attempting to send a single packet of information to the Exchange Server. Applies to both HTTP and HTTPS, but for synchronization of calendar data only.
Connector Idle Timeout	ConnectorIdleTimeout	Determines how long an idle Siebel Exchange Connector application waits before terminating automatically. Applies to ongoing synchronizations, but not to initial extractions, which always terminate automatically.
Connector Ignore CN	ConnectorIgnoreCN	Indicates whether or not the Exchange Connector is to ignore certificate errors related to a mismatch between the visited hostname and the certificate name being used on the Exchange Server. Default value is TRUE. Applies only if ConnectorUseHTTPS is set to TRUE. When TRUE, if the certificate has a mismatching name, synchronization succeeds because the errors are ignored. When FALSE, if the certificate has a mismatching name, then synchronization fails because the error is not ignored.

Table 13. SSSE Siebel Enterprise Server Parameters For DCOM Exchange Connector

Parameter Name	Parameter Alias	Comments
Connector Ignore Invalid Date	ConnectorIgnoreInvalidDate	Indicates whether or not the Exchange Connector is to ignore certificate errors related to invalid certificate dates or expired certificates. Default value is TRUE. Applies only if ConnectorUseHTTPS is set to TRUE. When TRUE, if the certificate has date errors, synchronization succeeds because the errors are ignored. When FALSE, if the certificate has a date error, then synchronization fails since the error is not ignored.
Connector Ignore Server Errors	ConnectorIgnoreServer Errors	Indicates whether or not all certificate-related errors are ignored. Default value is TRUE. Applies only if ConnectorUseHTTPS is set to TRUE. When TRUE, then any certificate-related errors are ignored and the synchronization succeeds. When FALSE, synchronization fails if there are any certificate-related errors. **NOTE:** Setting this parameter to FALSE causes the Exchange Connector to ignore the other Connector Ignore settings listed in this table, because any certificate error results in a failed synchronization attempt. To trap specific certificate errors but allow others, set this parameter to TRUE and choose other Connector Ignore parameters to set to FALSE.
Connector Ignore Unknown CA	ConnectorIgnoreUnknownCA	Indicates whether or not the Exchange Connector is to ignore unknown Certificate Authority errors. Default value is TRUE. Applies only if ConnectorUseHTTPS is set to TRUE. When TRUE, then if the Certificate Authority (CA) who issued the certificate that is associated with the Web Server for Microsoft Exchange is not a trusted CA on the Connector computer, then synchronization still succeeds because the error is ignored. When FALSE, if the CA is not trusted then synchronization fails because the certificate error is not ignored.

Table 13. SSSE Siebel Enterprise Server Parameters For DCOM Exchange Connector

Parameter Name	Parameter Alias	Comments
Connector Ignore Wrong Usage	ConnectorIgnoreWrong Usage	Indicates whether or not the Exchange Connector is to ignore certificate errors related to malformed certificates such as a certificate with no subject name. Default value is TRUE. Applies only if ConnectorUseHTTPS is set to TRUE. When TRUE, if the certificate is malformed, synchronization succeeds because the errors are ignored. When FALSE, synchronization fails since the error is not ignored.
Connector Max Users	ConnectorMaxUsers	It specifies the maximum number of users for which each instance of a DCOM Exchange Connector application can simultaneously perform ongoing extract synchronizations. This parameter does not apply to initial extracts—each initial extract uses a dedicated instance of the DCOM connector application. Maximum value is 200. For more information about this setting, see “About Tuning SSSE for Optimal Performance” on page 53.
Connector Reconnect Timeout	ReconnectTimeout	When a running Exchange Connector application detects that no PIMSI Engine instance is exchanging data with it, the application waits the number of seconds specified in this setting for a PIMSI Engine instance to reestablish a connection. If no connection is established, the Exchange Connector application shuts down to conserve resources. You might want to increase the value of this setting if your users run SSSE over a slow network.
Connector Retry Count	ConnectorRetryCount	Maximum number of times that the Siebel Exchange Connector retries an unsuccessful calendar synchronization operation.
Connector Sleep Time	ConnectorSleepTime	Number of seconds the Siebel Exchange Connector waits between retries when retrying a calendar operation.

Table 13. SSSE Siebel Enterprise Server Parameters For DCOM Exchange Connector

Parameter Name	Parameter Alias	Comments
Connector Timeout	ConnectorTimeout	Number of seconds the Siebel Exchange Connector application waits for a PIMSI Engine to establish a connection to the connector application after the PIMSI Engine spawns the application.
Connector Use HTTPS	ConnectorUseHTTPS	Indicates whether or not the connector is to use HTTPS when synchronizing the Calendar domain. The default value is FALSE. When FALSE, set the Connector HTTP Port parameter to the value of the unsecured HTTP port that is configured on the Web Server for Microsoft Exchange (typically port 80). When TRUE, set the Connector HTTP Port parameter to the value of the secure HTTP port that is configured on the Web Server for Microsoft Exchange (typically port 443).

Related Topic

"Modifying Enterprise and Server Component Parameters" on page 54

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 (SMTP email address).

NOTE: If you are using the DCOM Exchange Connector, 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. However, if you are using the Web service Exchange Connector, the Siebel Server service must run with the credentials of the Exchange service account user.

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 User Mailbox Access for the Exchange Service Account" on page 69. 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 User Mailbox Access for the Exchange Service Account

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. This topic describes how to configure access privileges to users' mailboxes for the Exchange Connector user account. For more information about these privileges, see "About the Exchange Service Account" on page 68.

This task is a step in "Process of Configuring the Web Service Exchange Connector" on page 72 and "Process of Configuring the DCOM Exchange Connector" on page 75.

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

- **Script Method.** The method that uses a script is recommended if the Exchange Connector requires access to many users' mailboxes, as would be typical during deployment of SSSE. Separate scripts are provided for the different supported versions of Microsoft Exchange Server (2010, 2007). For more information on using the script method, see "Configuring Exchange Service Account Access Permissions Using a Script" on page 70.
- **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 more information on using the manual method, see "Configuring Exchange Service Account Access Permissions Manually" on page 71.

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 Exchange Service Account Access Permissions Using a Script

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

The following procedure describes how to use a script in a Microsoft Exchange 2007 or 2010 environment to configure user mailbox access for the Exchange service account.

To configure access to user mailboxes for the Microsoft Exchange 2007 or 2010 service account 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 the Administration - PIM Server Integration screen, Sync Access Control, and then the User Map view.
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 in Step 5, 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 appropriate archive file for your version of Exchange Server:
   - Exchange Server 2007

     install_directory\siebsrvr\bin\ssse_exchange2k7_permissions.zip
   - Exchange Server 2010

     install_directory\siebsrvr\bin\ssse_exchange2k10_permissions.zip

   where *install_directory* is the installation directory for your Siebel implementation.
9. Extract the ssse_exchange2k7_permissions.ps1 file or the ssse_exchange2k10_permissions.ps1 file.
10. Use a text editor to edit the extracted 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 or the ssse_exchange2k10_permissions.ps1 file.

Configuring Exchange Service Account Access Permissions 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 access to user mailboxes for the Microsoft Exchange 2007 or 2010 service account 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 Exchange Management Console.

3 In the console tree, expand Recipient Configuration, then select Mailbox.

4 In the result pane, select the user mailbox to which you want to grant access, then select Manage Full Access Permission from the action pane.

5 On the Manage Full Access Permission page, select Add.

6 Select the user to whom you are granting full access permission (the user account under which the Exchange Connector application runs), then click OK.

7 Click Manage, then click Finish.

8 In the action pane, select Manage Send As Permission.

9 On the Manage Send As Permission page, select Add.

10 Select the Exchange Connector user account, then click OK.

11 Click Manage, then click Finish.

12 Repeat Step 4 on page 71 to Step 11 on page 71 for each user who will use SSSE.

Configuring Exchange Connector Support

In SSSE's modular architecture, the Exchange Connector module provides the interface through which the PIMSI Engine communicates with an Exchange Server. SSSE supports two Exchange Connectors: a Web service Exchange Connector and a DCOM Exchange Connector.

This topic describes how to configure the type of Exchange Connector support that is available in your SSSE implementation. You can choose to support the Web service Exchange Connector only, or both the DCOM and Web service Exchange Connectors.

This task is a step in "Roadmap for Configuring SSSE" on page 50.

The following procedure describes how to configure Exchange Connector support.

To configure Exchange Connector support

1. Navigate to the Administration - PIM Server Integration screen, then the Configuration view.
2. In the PIM Server Integration Configuration list, select the Exchange Web Service Profile.
3. In the Configuration Parameters list, navigate to the Connector Support section, and set the value of the Type parameter to one of the following values, depending upon your requirements:
   - Set Type to BOTH to enable support for both the DCOM and the Web service Exchange Connectors in your SSSE implementation (you cannot enable support for the DCOM Exchange Connector only).
   - Set Type to WEB_SERVICE to support only the Web service Exchange Connector in your SSSE implementation.

After configuring Exchange Connector support for your environment, you must configure the supported Exchange Connector as follows:

- If you selected the WEB_SERVICE option, perform the tasks outlined in "Process of Configuring the Web Service Exchange Connector" on page 72.
- If you selected the BOTH option, perform the tasks outlined in both of the following topics:
  - "Process of Configuring the Web Service Exchange Connector" on page 72
  - "Process of Configuring the DCOM Exchange Connector" on page 75

Process of Configuring the Web Service Exchange Connector

This topic describes the tasks involved in configuring the Web service Exchange Connector.

This process is a step in "Roadmap for Configuring SSSE" on page 50.

To configure the Web Service Exchange Connector, perform the following tasks:

- Ensure that you have enabled support for the Web service Exchange Connector as described in "Configuring Exchange Connector Support" on page 71.
- Ensure that you run the Siebel Server system service with the credentials of the Microsoft Exchange service account user, and that the Exchange service account user has access to user mailboxes as described in "Configuring User Mailbox Access for the Exchange Service Account" on page 69.
- "Configuring the Autodiscover Service URL" on page 73.
- "Importing Autodiscover and EWS SSL Certificates" on page 73.
- "Configuring SSSE for Multiple AD Forest Environments (Web Connector)" on page 74.
- "Configuring the IIS Web Server for Microsoft Exchange (Web Connector)" on page 74.

Configuring the Autodiscover Service URL

This topic describes how to configure the Microsoft Exchange Autodiscover service for each domain in your corporate network. The Autodiscover service provides a variety of functions, such as automatic configuration and updating of Microsoft Outlook user profile settings; it also provides Outlook clients with the URLs required to access Microsoft Exchange Web services.

This task is a step in "Process of Configuring the Web Service Exchange Connector" on page 72.

In order that the Autodiscover service can locate the Exchange Servers of synchronization-enabled users, you must configure an Autodiscover URL for each domain containing Microsoft Exchange Server 2010 hosts. It is necessary to define only one Autodiscover URL for each domain in your environment, even if a domain includes multiple Microsoft Exchange Server 2010 hosts.

NOTE: Microsoft Exchange Server 2007 Autodiscover functionality is not supported.

To configure the Autodiscover service URL

1. Navigate to the Administration - PIM Server Integration screen, then the Configuration view.
2. In the PIM Server Integration Configuration list, select the Exchange Web Service profile.
3. In the Configuration Parameters list, click New to add a new section and complete the fields as shown in the following table:

Field	Value
Section	AutoDiscover URL
Parameter	Value
Value	`https://`*`HOSTNAME`*`/Autodiscover/autodiscover.svc` where *`HOSTNAME`* is the name of a Microsoft Exchange Server 2010 host computer

4. Repeat Step 3 on page 73 for each domain containing Microsoft Exchange Server 2010 hosts in your SSSE environment.

Importing Autodiscover and EWS SSL Certificates

Communications between Microsoft Outlook clients and the Autodiscover and Exchange Web services provided by the Microsoft Exchange 2010 server use SSL. You must install a valid SSL certificate on the Exchange Server and import this certificate into the Siebel Server.

This task is a step in "Process of Configuring the Web Service Exchange Connector" on page 72.

For information on creating and installing SSL certificates on the Microsoft Exchange Server, see the Microsoft documentation. For information on importing SSL certificate files into your Siebel Server environment, see *Siebel Security Guide*.

Configuring SSSE for Multiple AD Forest Environments (Web Connector)

SSSE provides support for Microsoft Exchange environments that include more than one Active Directory forest. This topic describes how to configure SSSE to run in an environment in which a Web service Exchange Connector is implemented, and the Siebel Server computer running the Web service Exchange Connector is in a different AD forest to the host computer(s) running the Microsoft Exchange Server(s).

This task is a step in "Process of Configuring the Web Service Exchange Connector" on page 72.

To run SSSE in a multiple AD forest Microsoft Exchange environment with the Web service Exchange Connector, perform the following procedure.

To configure SSSE for multiple AD forest environments (Web Service Exchange Connector)

1. Ensure the following requirements have been met:
   - You must be using Microsoft Exchange 2010.
   - The Web service 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.

     If the Web service Exchange Connector user account is not in the same domain as the Microsoft Exchange Server, then there must be a trust relationship between the two domains. There does not necessarily have to be a trust relationship between Microsoft Exchange Servers in different domains.
2. For each domain containing Microsoft Exchange Server 2010 hosts that is in a different AD forest to the Exchange Connector host computer, configure an Autodiscover URL as described in "Configuring the Autodiscover Service URL" on page 73.

Configuring the IIS Web Server for Microsoft Exchange (Web Connector)

This topic describes the Internet Information Server (IIS) configuration tasks you must perform on the Microsoft Exchange Server host to enable Web service Exchange Connector communications with the host.

This task is a step in "Process of Configuring the Web Service Exchange Connector" on page 72.

Microsoft Exchange 2010 uses Internet Information Services (IIS) 7, which supports anonymous and Integrated Windows authentication by default. On the Microsoft Exchange Server host, ensure that the IIS authentication settings for the Autodiscover and Exchange Web Services (EWS) virtual directories are set to these default values. For information on setting authentication properties for IIS virtual directories, see the Microsoft documentation.

Process of Configuring the DCOM Exchange Connector

This topic describes the tasks involved in configuring the DCOM Exchange Connector. Some of these tasks are required; others are optional.

This process is a step in "Roadmap for Configuring SSSE" on page 50.

To configure the DCOM Exchange Connector, perform the following tasks:

- Ensure that you have enabled support for the DCOM Exchange Connector as described in "Configuring Exchange Connector Support" on page 71.
- Ensure that the Exchange service account user has access to user mailboxes as described in "Configuring User Mailbox Access for the Exchange Service Account" on page 69.
- "Setting Up the DCOM Exchange Connector Share Directory" on page 75.
- "Configuring DCOM Exchange Connector Application Security" on page 77.
- "Configuring the IIS Web Server for Microsoft Exchange (DCOM Connector)" on page 82.
- "Designating Trusted Microsoft Exchange Servers" on page 83.
- (Optional) "Setting DCOM Exchange Connector Log Levels" on page 83.
- (Optional) Review "About Mapping DCOM Exchange Connectors to Microsoft Exchange Servers" on page 84.
- Review "About Using Exchange Virtual Directories" on page 86.
- "Configuring DCOM Exchange Connector Parameters" on page 88.
- "Using Fully Qualified Email Addresses" on page 91.
- (Optional) "Process of Configuring SSSE for Multiple AD Forests (DCOM Connector)" on page 94.

Setting Up the DCOM Exchange Connector Share Directory

The SSSE DCOM Exchange Connector is a Distributed Component Object Model (DCOM) application which SSSE starts 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, then configure the security and permissions for the shared directory to give the user account that runs PIMSI Engine full access rights to the directory. The user account that runs PIMSI Engine is sometimes called the SSSE *startup user.*

The SSSE installation and configuration process automatically creates and configures one connector share directory. The procedures in this topic describe how to create each additional shared directory, and then register its location with SSSE. These tasks are steps in "Process of Configuring the DCOM Exchange Connector" on page 75.

Creating the Shared Connector Directory

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

To create the shared connector directory

1. On each computer where the DCOM 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.

Registering the Shared Directory with SSSE

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 the Administration - PIM Server Integration screen, Configuration, and then the PIM Server Integration Configuration view.
2. In the PIM Server Integration Configuration list, select the Exchange 2000/2003 Connector record.
3. Navigate to the Configuration Parameters list, Engine Shares section.
4. In the Value field, specify the path of the shared directory using the following format:

*ComputerName**ShareName*

where:

- *ComputerName* is the name of the DCOM Exchange Connector computer
- *ShareName* is the name of the shared directory

5 For each additional shared directory that you created, 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) Increment the Parameter value to match the instance of the DCOM 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.
Value	*share pathname*

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

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

Configuring DCOM Exchange Connector Application Security

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

This task is a step in "Process of Configuring the DCOM Exchange Connector" on page 75.

Figure 5 illustrates the access settings that you must configure for the DCOM Exchange Connector application.

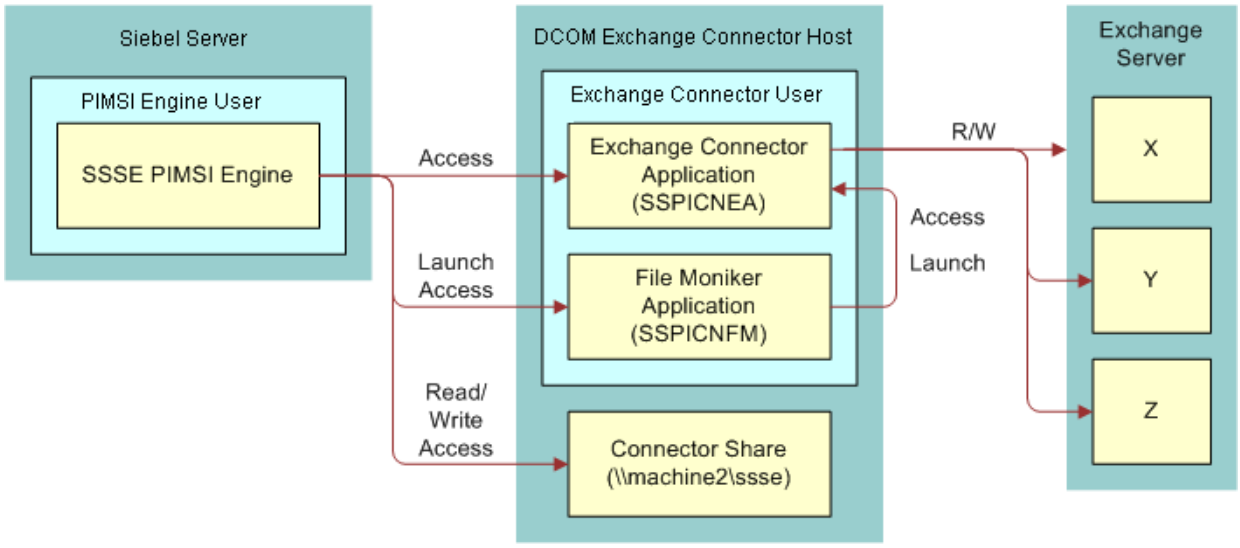

Figure 5. DCOM Exchange Connector Application Access Requirements

NOTE: The PIMSI Engine and the Exchange Connector can run using the same user account or using different user accounts.

About Security Settings for the SSPICNEA Application

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

Table 14 on page 78 lists the DCOM settings you must specify for the SSPICNEA application.

Table 14. DCOM Configuration Settings for SSPICNEA (DCOM 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 DCOM 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 79.

About Security Settings for the SSPICNFM Application

The SSPICNFM application is the file moniker application, which allows PIMSI Engine instances to work with DCOM 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 DCOM Exchange Connector software and where you plan to run the DCOM 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

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

NOTE: Register the DCOM Exchange Connector components in the system registry of all computers that run the DCOM Exchange Connector applications.

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 DCOM 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. DCOM Exchange Connector Information to Verify in the Windows Registry

Exchange Connector File	Windows Registry Path to Verify
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 DCOM Exchange Connector

You must complete an additional task to configure access to the PIMSI Engine component for the DCOM Exchange Connector application. The following procedure provides instructions for this configuration task for a Windows 2003 environment.

To configure access to the PIMSI Engine for the DCOM Exchange Connector

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.

Configuring the IIS Web Server for Microsoft Exchange (DCOM Connector)

This topic describes the Internet Information Server (IIS) configuration tasks you must perform on the Microsoft Exchange Server host to enable DCOM Exchange Connector communications with the host.

This task is a step in "Process of Configuring the DCOM Exchange Connector" on page 75.

The URLScan tool protects your Web server by restricting the types of HTTP requests that IIS processes. 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 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, DCOM Exchange Connector log files record the rejected URL. You can use the URL from the DCOM Exchange 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 might be useful for debugging purposes.

Designating Trusted Microsoft Exchange Servers

If the DCOM Exchange Connector application runs in a Windows 2003 environment, you must designate all of your Exchange Servers as trusted sites for your local intranet, as described in the following procedure.

This task is a step in "Process of Configuring the DCOM Exchange Connector" on page 75.

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

To designate trusted Exchange Servers for DCOM Exchange Connectors in Windows 2003

1. On each Windows 2003 computer that runs the Siebel DCOM 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 HTTP or HTTPS URL 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.

Setting DCOM Exchange Connector Log Levels

Log files for the DCOM Exchange Connector are located in the *SIEBEL_ROOT*\siebsrvr\log directory on each computer where the sspicnea.exe application runs. The DCOM Exchange Connector log files have names with the format PIMSIExchConnApp_*processID*.log. These log files contain DCOM Exchange Connector messages regarding the synchronization of users with Microsoft Exchange. For each message listed in the log files, SSSE provides the name of the user who caused the logged event to be generated. By default, the DCOM 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 a step in "Process of Configuring the DCOM Exchange Connector" on page 75.

NOTE: The Web service Exchange Connector log messages are included in the PIMSI engine component log files. For additional information on these log files, see "Modifying SSSE Log File Settings" on page 98.

To set the log level of a DCOM Exchange Connector application

1. On each computer where the DCOM 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, inclusive, and then click OK twice.
7. Restart all of your PIMSI Engine components.

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

When SSSE performs an initial extract, a new instance of the DCOM Exchange Connector application is dedicated to the extraction of the relevant user's data. A new (and also dedicated) log file is started for the application instance. DCOM Connector logs for ongoing extracts typically contain information about synchronization of multiple users. When you review DCOM connector log files, you can distinguish between initial extract logs and ongoing extract logs by noting the log file characteristics listed in Table 17.

Table 17. DCOM Exchange Connector Log File Characteristics

Log File Characteristic	Initial Extract Log	Ongoing Extract Log
Initial Extract Application	TRUE	FALSE
Maximum Users	1	Greater than 1
PIM User Id	Present	Not present
Idle Timeout	Not present	Present

About Mapping DCOM Exchange Connectors to Microsoft Exchange Servers

This topic provides background information about how DCOM Exchange Connector applications work with Microsoft Exchange Servers. It is important to understand this information before proceeding to the task, "Configuring DCOM Exchange Connector Parameters" on page 88.

This task is an optional step in "Process of Configuring the DCOM Exchange Connector" on page 75.

There are two basic ways you can configure DCOM Exchange Connector applications to work with Microsoft Exchange Servers: without Connector Application Map records and with Connector Application Map records.

If you have implemented a simple network topology, you do not have to map DCOM 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. The following paragraphs describe each configuration type in more detail.

Configurations That Exclude Connector Application Map Records

In this configuration type, you do not create any Connector Application Map records. SSSE dynamically assigns a DCOM Exchange Connector application to synchronize each user, as required—any DCOM 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 DCOM Exchange Connector computers.

This configuration type has the following characteristics:

- There are no Connector Application Map records in the Siebel implementation.
- Each DCOM Exchange Connector computer can synchronize users on any Microsoft Exchange Server.
- When the DCOM Exchange Connector has to run a new instance of the application, it counts the number of connector applications that are running on each DCOM 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 DCOM Exchange Connector application, see "Setting Up the DCOM Exchange Connector Share Directory" on page 75.

Configurations That Include Connector Application Map Records

In this configuration type, you create Connector Application Map records that assign specific DCOM 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 might be optimized when each DCOM 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 a DCOM Exchange Connector computer to synchronize users on a single Microsoft Exchange Server. In Connector Application Map records, each DCOM Exchange Connector computer is represented by its Engine Share. Engine Shares are UNC path configurations that indicate which computers are to run DCOM Exchange Connector applications (sspicnea.exe files).

- A Microsoft Exchange Server can be listed in multiple Connector Application Map records, but DCOM Exchange Connector computers can only be designated by one record each. This means each Microsoft Exchange Server can be synchronized by multiple DCOM Exchange Connector computers, but no DCOM 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 a Connector Application Map does not assign any DCOM Exchange Connector computers to a particular Microsoft Exchange Server, then any DCOM Exchange Connector with a PIMSI Engine Share that is not already mapped to an Exchange Server can synchronize the unmapped Exchange Server.
- When the DCOM Exchange Connector has to run a new instance of the application, it counts the number of Exchange Connector applications that are running on each DCOM 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 DCOM Exchange Connector applications running when it is checked.

For information on creating Connector Application Maps, see “Configuring DCOM Exchange Connector Parameters” on page 88.

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 DCOM 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 “Configuring DCOM Exchange Connector Parameters” on page 88.

This task is a step in “Process of Configuring the DCOM Exchange Connector” on page 75.

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.EXAMPLE.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 DCOM Exchange Connector Parameters

The Siebel DCOM Exchange Connector has various parameters that you can adjust to optimize performance. This topic describes how to tune DCOM Exchange Connector parameters.

This task is a step in "Process of Configuring the DCOM Exchange Connector" on page 75.

The DCOM Exchange Connector, PIMSI Engine, and PIMSI Dispatcher can all be located on different computers. DCOM Exchange Connectors can run on any computer that is equipped with the sspicnea.exe executable file and certain SSSE DLLs. Use the following procedure to configure DCOM Exchange Connector parameters on any computer where DCOM Exchange Connector software is installed.

To configure Siebel DCOM Exchange Connector parameters

1. Navigate to the Administration - PIM Server Integration screen, Configuration, and then the PIM Server Integration Configuration view.
2. In the PIM Server Integration Configuration list, select the record in which the value of Profile Name is Exchange 2000/2003 Connector.
3. In the Configuration Parameters list, create or modify and save records as required, using the information in Table 20 on page 89.

   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 2000/2003 Connector Configuration Parameters

Section	Parameter	Default	Comments
Calendar	Exchange Virtual Directory Map *n*	Not applicable	Optional if the default virtual directory of Exchange is defined. If it is not defined, creating this parameter lets you map Exchange Server virtual directory names to a particular Exchange Server computer. The value of this parameter must match another Section in the same profile. For more information about how to set this parameter, see "About Using Exchange Virtual Directories" on page 86.
	UserMailBoxIDSource	EMAILLEFT	For Microsoft Exchange 2007 servers, you must specify EMAILFULL for this parameter. For additional information on setting values for this parameter, see "Using Fully Qualified Email Addresses" on page 91.

Table 20. Exchange 2000/2003 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 might be able to improve performance by assigning synchronization tasks for each Exchange Server to DCOM Exchange Connector applications that run nearby. 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 DCOM Exchange Connector to serve. You can create as many Connector Application Map records as you have Engine Shares. For more information about this setting, see "About Mapping DCOM Exchange Connectors to Microsoft Exchange Servers" on page 84. **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 a computer that is not associated with any particular Microsoft Exchange Server. This share can serve users on any Exchange Server that is not explicitly specified in a Connector Application Map record.

Table 20. Exchange 2000/2003 Connector Configuration Parameters

Section	Parameter	Default	Comments
Engine Shares	Share*n* or Share*nn* (for example, Share1 or Share01) 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 DCOM Exchange Connector Share Directory" on page 75.
Preferred Global Catalog Servers	Global Catalog Server*n* (replace *n* with 1, 2, and so on)	Not applicable	(Optional) Enter the name of a Global Catalog server. Indicates one or more preferred Active Directory Global Catalog servers for the DCOM Exchange Connector to contact when identifying SSSE user mailboxes.

Using Fully Qualified Email Addresses

This topic describes how to configure SSSE to use fully qualified SMTP addresses when accessing users' mailboxes.

This task is a step in "Process of Configuring the DCOM Exchange Connector" on page 75.

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@example.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 be used to access a Microsoft Exchange mailbox. For example, for user email@example.com, the following URL can be used to access the Microsoft Exchange mailbox

http://server/exchange/email@example.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.

About the UserMailBoxIDSource Parameter

With Microsoft Exchange Server 2007 you must use fully qualified SMTP email addresses. You can specify the method used to access users' mailboxes using the Siebel DCOM 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.

The following procedure describes how to set the UserMailBoxIDSource parameter to implement the use of fully qualified SMTP email addresses for all Exchange Servers in your environment.

To use fully qualified SMTP email addresses for all Exchange Servers

1. Follow the procedure to configure DCOM Exchange Connector parameters as described in "Configuring DCOM Exchange Connector Parameters" on page 88.
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 DCOM Exchange Connector component is installed.

About Configuring SSSE for Multiple AD Forest Environments (DCOM Connector)

This topic provides background information on using SSSE in environments in which the DCOM Exchange Connectors or Microsoft Exchange Servers are in different Active Directory forests to the Siebel Server(s) running the PIMSI Engine.

The DCOM Exchange Connector acts as an intermediary for all communications between the PIMSI engine and the Exchange Server. The DCOM 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 DCOM Exchange Connector(s) server is located, provided there is a trust relationship between the domains. Each DCOM Exchange Connector can also reside in a different AD forest to any other DCOM Exchange Connector.

If a DCOM Exchange Connector is configured to process communications with a specific Microsoft Exchange Server, the DCOM 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 6 illustrates the SSSE multiforest architecture if a DCOM Exchange Connector is deployed. (Each domain in Figure 6 is in a separate AD forest).

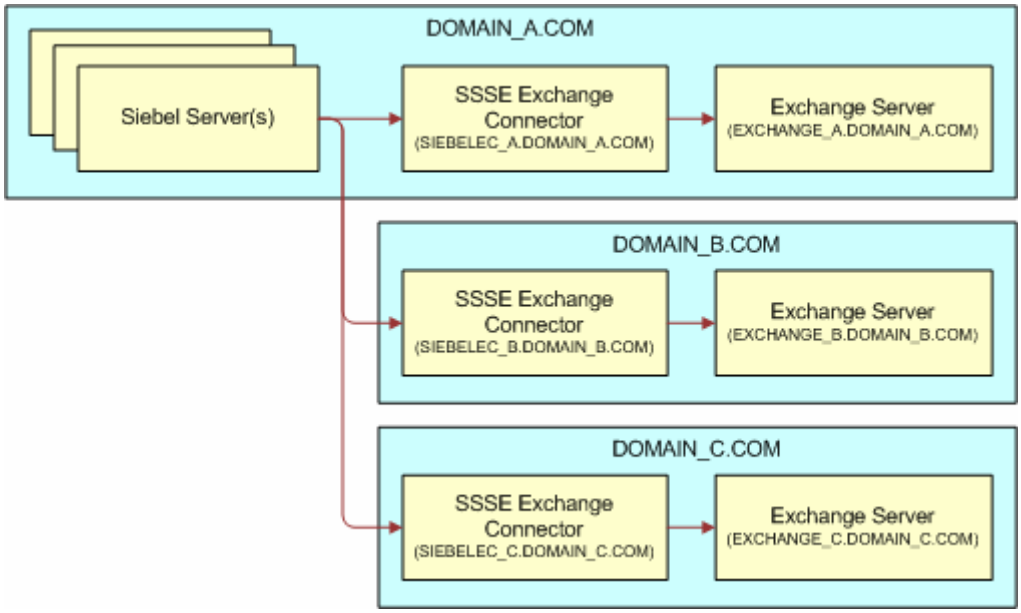

Figure 6. SSSE Multiforest Remote Connector Architecture

To run SSSE in a multiple AD forest Microsoft Exchange environment with the DCOM Exchange Connector, the following requirements must be met:

- You must be using Microsoft Exchange 2007 or later.
- You must 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 91.

- 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 a DCOM Exchange Connector and an 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 AD Forests (DCOM Connector)" on page 94.

Process of Configuring SSSE for Multiple AD Forests (DCOM Connector)

This topic outlines the steps you must perform to use SSSE in a multiple AD forest Microsoft Exchange environment if you are using a DCOM Exchange Connector. For additional information on using SSSE in multiple AD forest environments, see "About Configuring SSSE for Multiple AD Forest Environments (DCOM Connector)" on page 92.

This task is an optional step in "Process of Configuring the DCOM Exchange Connector" on page 75.

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 94
2. "Configuring the DCOM Exchange Connector in a Multiple Active Directory Forest Environment" on page 95
3. "Providing Access to the PIMSI Engine in a Multiple Active Directory Forest Environment" on page 96
4. "Configuring SSSE for Multiple Active Directory Forest Support" on page 97

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 DCOM 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 AD Forests (DCOM Connector)" on page 94.

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 User Mailbox Access for the Exchange Service Account" on page 69.

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

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

This topic describes how to install and configure the DCOM 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 AD Forests (DCOM Connector)" on page 94.

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

To install and configure the DCOM Exchange Connector

1 Log into the DCOM 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 94.

2 Run the Configuration Wizard to install the Siebel Server software as described in "Using the Siebel Configuration Wizard to Configure SSSE" on page 51.

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 DCOM 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 DCOM Exchange Connector share directory, see "Setting Up the DCOM Exchange Connector Share Directory" on page 75.

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 DCOM Exchange Connector Application Security" on page 77 to configure the DCOM Exchange Connector application security settings, specifying the values shown in the following table:

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 (*example: sadmin@Domain_A.com)* DCOM Exchange Connector User (*example: SSSE_DomainX@Domain_X.com)*	The PIMSI Engine makes RPC calls to SSPICNEA; SSPICNFM makes calls to SSPICNEA
	Launch	DCOM Exchange Connector User (*example:SSSE_DomainX@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 "Designating Trusted Microsoft Exchange Servers" on page 83.

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 DCOM 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 AD Forests (DCOM Connector)" on page 94.

To grant default access rights to each of the DCOM Exchange Connector SSSE administration users, perform the procedure outlined in "Configuring Access to the PIMSI Engine for the DCOM Exchange Connector" on page 81.

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 AD Forests (DCOM Connector)" on page 94.

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.
2. Navigate to the Administration - Server Configuration screen, Enterprises, and then the Parameters view.
3. In the Enterprise Parameters list, set the parameter, Query External Exchange Domains, to TRUE.
4. 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*).
5. Navigate to the Administration - PIM Server Integration screen, then the Sync Access Control view.
6. 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.
7. Navigate to the Administration - PIM Server Integration screen, then the Configuration view.
8. 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*. *Example:\\SiebelEC_A.Domain_A.COM\PIMSI*
Engine Shares	Share02	Specify the Connector share for Domain *B*. *Example:\\SiebelEC_B.Domain_B.COM\PIMSI*
Engine Shares	Share03	Specify the Connector share for Domain *C*. *Example:\\SiebelEC_C.Domain_C.COM\PIMSI*
Calendar	UserMailBoxIDSource	EMAILFULL When you select EMAILFULL, the entire email address (username@example.com) is used for WebDAV calls.

Section	Parameter	Value
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*. *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*. *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*. *Example:EXCHANGE_C*
Preferred Global Catalog Servers	Global Catalog Server1	Specify the Global Catalog server for Domain_*A*. If there is a global catalog that encompasses all domains, this record is unnecessary.
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.

Modifying SSSE 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 each event listed in the log files, SSSE provides the name of the user who caused the event to be generated. The following procedures describe how to change log levels for SSSE log files, and how to consolidate SSSE log files.

NOTE: Siebel DCOM Exchange Connector logs are separate from other SSSE logs. For more information about DCOM Exchange Connector log files, see "Setting DCOM Exchange Connector Log Levels" on page 83. The Web service Exchange Connector log messages are included in the PIMSI engine component log files.

This task is a step in "Roadmap for Configuring SSSE" on page 50.

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 logs the most information.

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 Database for SSSE

SSSE relies on the presence of certain database triggers in your Enterprise database. You can use an Oracle-provided script to create these triggers. A script is also included for removing database triggers. Table 21 lists the script names for various database environments. These scripts are located in the `siebsrvr/BIN` directory on your Siebel Server.

This task is an optional step in "Roadmap for Configuring SSSE" on page 50.

Table 21. Scripts for Adding and Removing Standard Database Triggers for SSSE

Database Type	Script to Add Database Triggers	Script to Remove Database Triggers
DB2	ssse_triggers_db2.sql	ssse_drop_triggers_db2.sql
DB2 390	ssse_triggers_db2_390.sql	ssse_drop_triggers_db2_390.sql
MS SQL Server	ssse_triggers_mssql.sql	ssse_drop_triggers_mssql.sql
Oracle	ssse_triggers_ora9.sql	ssse_drop_triggers_ora9.sql

If your SSSE implementation includes a significant number of customizations, you might have to add custom database triggers. For more information about custom triggers, see "Process of Customizing SSSE" on page 152.

NOTE: SSSE also includes triggers for position change, synchronization level change, and visibility change. For help with changing these triggers, contact your Oracle sales representative for Oracle Advanced Customer Services to request assistance from Oracle's Application Expert Services.

The following procedure briefly describes how to use the scripts that create standard database triggers for SSSE.

To create standard database triggers for SSSE

1. Determine the names of the following items:
   - The Table Owner for tables in your Siebel database
   - The script to remove SSSE database triggers from your Siebel database
   - The script to add SSSE database triggers to your Siebel database
2. In case old triggers are present, run the script to remove SSSE database triggers from your Siebel database.
3. Run the script to add SSSE database triggers to your Siebel database.
4. Provide the Table Owner name when you are prompted to do so.

About 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. For proper operation of SSSE, follow the guidelines in this topic when enabling and disabling server components and component groups. For detailed procedural information on enabling and disabling server components and component groups, see *Siebel System Administration Guide*.

This task is a step in "Roadmap for Configuring SSSE" on page 50.

It is recommended that you enable the following:

- 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.

Restarting Siebel Services

You must restart the Siebel Servers and the 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 "Roadmap for Configuring SSSE" on page 50.

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.

This task is a step in "Roadmap for Configuring SSSE" on page 50.

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 DispNotificationFreq 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 DispNotificationFreq parameter by the value specified for the DispReconciliationDuration parameter. The DispReconciliationDuration parameter determines how many seconds the PIMSI Dispatcher waits after signalling a PIMSI Engine.

For additional information on the DispNotificationFreq and the DispReconciliationDuration parameters, and on the other parameters that influence PISSI Dispatcher operation, see Table 13 on page 64.

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. For information on creating the PIMSI Dispatcher job if you implement PIMSI Dispatcher user groups, see "Creating PIMSI Dispatcher User Groups" on page 103.

To create the PIMSI Dispatcher job and tune its parameters

1. Log in to your Siebel application as an administrator.
2. Navigate to the Administration - Server Management screen, then the Jobs view.
3. In the Jobs List or the Jobs Detail form, click New.
4. 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.

Field	Comment
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. **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).

5 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 procedure in this topic describes how to:

1 Define a PIMSI Dispatcher user group.

2 Assign users to the new PIMSI Dispatcher user group.

3 Create a job template for the PIMSI Dispatcher user group.

4 Create a PIMSI Dispatcher job based on the job template you have created.

To configure PIMSI Dispatcher user groups

1 Define a new PIMSI Dispatcher user group as follows:

a Navigate to the Administration – Data screen, then the List of Values view.

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 Step 1 on page 103 as follows:

a Navigate to the Administration – PIM Server Integration screen, Sync Access Control, and then the User Map view.

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 the Administration - Server Configuration screen, then the Job Templates view.

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* where *value* is the name of the PIMSI Dispatcher user group you are defining. For example, for the *Sync Group EMEA* user group, specify the following for the Value field: DispatcherGroup:Sync Group EMEA

4 Create a new PIMSI job using the job template you created in Step 3 as follows:

a Navigate to the Administration - Server Management screen, then the Jobs view.

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 104, 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 102.

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 Siebel Business Applications. However, you can choose to maintain Siebel records for calendar or task 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 "Roadmap for Configuring SSSE" on page 50.

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 Siebel Business Applications.

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.

2 Navigate to the Administration - PIM Server Integration screen, then the Configuration view.

3 Select the Exchange Calendar profile.

4 In the Configuration Parameters list, create a record with the following values:

Section	Parameter	Value
Archive	ArchiveGracePeriod	*n* 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 the number of individual appointments that are created in Siebel Business Applications for Microsoft Outlook appointments that have a recurrence pattern that is not supported in Siebel Business Applications.

This task is an optional step in "Roadmap for Configuring SSSE" on page 50.

Siebel Business Applications do not support the same appointment recurrence options as Microsoft Outlook Exchange, for example, meetings that occur twice a month. If you select an appointment recurrence option in Microsoft Outlook that is not supported by Siebel Business Applications, when the appointment is synchronized, SSSE represents the recurrence pattern by creating individual appointments in Siebel Business Applications to represent individual instances of the recurring appointment; this process is known as *fanning* the appointments. The number of individual appointments that is created is determined by the value of the Max Recurring Instances field for the Siebel Calendar domain. This topic describes how to specify a value for the Max Recurring Instances field.

Once the number of appointments specified by the Max Recurring Instances parameter have been created, SSSE does not create any further occurrences for that meeting unless both of the following conditions apply:

- The appointment continues to recur in Microsoft Outlook.
- You configure SSSE so that additional records are generated for the recurring appointment at regular intervals.

  This configuration task is described in "Process of Configuring Additional Appointment Instances for Recurring Appointments" on page 107.

To configure the number of Siebel appointment instances that are created for recurring Microsoft Outlook appointments, perform the following procedure.

To configure recurring appointment values

1 Navigate to the Administration - PIM Server Integration screen, then the Siebel Domains view.

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 synchronized Microsoft Outlook appointment that has an unsupported recurrence value.

Related Topic

"Process of Configuring Additional Appointment Instances for Recurring Appointments" on page 107

Process of Configuring Additional Appointment Instances for Recurring Appointments

This topic describes how to configure SSSE so that additional records are generated in Siebel Business Applications during the synchronization process for Microsoft Outlook appointments that:

- Have a recurrence pattern that is not supported in Siebel Business Applications
- 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 Recurring Appointments" on page 106.

This process is an optional step in "Roadmap for Configuring SSSE" on page 50.

To configure additional appointment instances for recurring appointments, perform the following tasks:

1 "Creating and Running the Refan Job" on page 107

2 "Updating the Siebel Calendar Profile" on page 108

3 "Creating a New PIMSI Data Map Entry" on page 109

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 creates additional records for appointments with unsupported recurrence patterns beyond the initial number of instances specified by the Max Recurring Instances setting.

This task is a step in "Process of Configuring Additional Appointment Instances for Recurring Appointments" on page 107.

To create and run the refan job

1 Navigate to the Administration - Server Configuration screen, then the Job Templates view.

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 the Administration - Server Management screen, then the Jobs view.

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.

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.

This task is a step in "Process of Configuring Additional Appointment Instances for Recurring Appointments" on page 107.

To update the Siebel Calendar Profile

1 Navigate to the Administration - PIM Server Integration screen, then the Configuration view.

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 Siebel Business Applications 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 Recurring Appointments" on page 106.
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, 2011 and the DaysinNumber value is 20, additional records are initially generated for the appointment through March 30, 2011. If the refan job you created (see "Creating and Running the Refan Job" on page 107) is scheduled to run on March 17, 2011, additional appointments are generated through April 6, 2011 (20 days after the refan job runs on March 17, 2011).

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.

This task is a step in "Process of Configuring Additional Appointment Instances for Recurring Appointments" on page 107.

To update the PIMSI data map

1 Navigate to the Administration - Integration screen, then the Data Map Editor view.

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

"Configuring Recurring Appointments" on page 106

6 Administering Siebel Server Sync for Microsoft Exchange Server

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
- Enabling inbound activity filtering
- 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 22 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.

NOTE: Synchronization of data from the Siebel Personal Contacts and Siebel Employee domains is not supported if you are using Microsoft Exchange 2010.

CAUTION: PIMSI Engine functions correctly using only the PIM and Siebel domains listed in Table 22. 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 22. 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 Task	Exchange Task

Changing SSSE Default Values For Synchronization Conflicts

If data in Siebel Business Applications and Microsoft Exchange Server has been modified in such a way that SSSE cannot synchronize the differences, SSSE resolves the conflict by using the Siebel data.

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 task 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 preserves the Siebel data which is synchronized to Microsoft Exchange.

You can change the default behavior of SSSE so that when synchronization conflicts occur, SSSE resolves the conflicts by preserving the Microsoft Exchange data instead of the Siebel data, and synchronizes this data to Siebel CRM. To configure SSSE to use Microsoft Exchange data by default when synchronization conflicts occur, perform the steps in the following procedure.

To change SSSE default values for synchronization conflicts

1. Log in to Siebel Tools as the Siebel administrator.
2. In the Object Explorer, click Applet, and then locate the PIMSI Domain Map List Applet in the Applets list.
3. Change the status of the Conflict Winner column to Active.
4. Log in to your Siebel application as the Siebel administrator.
5. Navigate to the Administration - Data screen, then the List of Values view.
6. In the Type field, query for the PIMSI_CONFLICT_WINNER LOV.
7. Change the value of the Display Value field to PIM Record.

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, designate required fields, and specify whether or not record deletions are allowed for the domain.

To configure the Siebel and PIM domains, perform the following tasks:

- “Setting Siebel Domain-Level Synchronization” on page 114
- “Setting PIM Category Values for Siebel Domains” on page 115
- “Enabling and Disabling Contact Record Matching” on page 115
- “Setting Required Siebel Domain Fields and Defaults” on page 116
- “Setting Required PIM Domain Fields and Defaults” on page 117
- “Allowing or Preventing Record Deletions” on page 121

After the characteristics of Siebel domains and PIM domains are established, you can map domain fields and set field-level synchronization. For information on these tasks, see “Mapping Siebel Domain and PIM Domain Fields” on page 123.

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 113.

The following procedure describes how to set domain synchronization.

To set domain synchronization

1. Navigate to the Administration - PIM Server Integration screen, then the Siebel Domains view.
2. In the Siebel Domains list, select a record.
3. In the Domain Sync Support field, select a synchronization level for the domain.

   Table 2 on page 15 describes the synchronization levels available for Siebel domains and Table 3 on page 16 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 to allow one-way synchronization of calendar records, from Microsoft Exchange to Siebel Business Applications. For information on configuring import-only synchronization for calendar items, see "Implementing Import-Only Synchronization of Calendar Records" on page 133.

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 Siebel Business Applications 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, if someone changes synchronized data in either Siebel Business Applications or Microsoft Exchange, that change is reflected for other users in both applications. For example, one member of a sales team might learn that a business contact's phone number has changed. All members of the team would soon see the new phone number in both Siebel Business Applications 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, a Siebel data change is reflected for other users in both Siebel Business Applications 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 Siebel Business Applications overwrites the data in Microsoft Exchange. So, a business contact phone number changed in Siebel Business Applications is visible to all team members, in both applications. However, a phone number changed in Microsoft Exchange is 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 113.

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 Siebel Business Applications, 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 130.

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 the Administration - PIM Server Integration screen, then the Siebel Domains view.
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.

This task is a step in "Process of Configuring Siebel and PIM Domain Characteristics" on page 113.

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 36.

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 the Administration - PIM Server Integration screen, then the Configuration view.
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 Siebel Business Applications, 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 113.

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 the Administration - PIM Server Integration screen, then the Siebel Domains view.
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 Siebel Business Applications, 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 113.

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 the Administration - PIM Server Integration screen, then the PIM Domains view.

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.

About Allowing or Preventing Record Deletions for a Domain

SSSE includes a setting called Allow Record Deletions for each Siebel domain and each PIM domain. The basic purpose of this setting is to let the administrator govern whether delete operations in one domain will affect the corresponding record in the domain to which it synchronizes. Specifically, the value of the Allow Record Deletions setting affects what happens in the following situations:

- What happens to a record in the selected Siebel domain when a corresponding Microsoft Exchange record is deleted.
- What happens to corresponding Siebel and Microsoft Exchange records when a user is removed from the Siebel record's Sync List.
- What happens to a PIM record when a corresponding Siebel record is deleted.

The following additional factors can also affect what happens in each of these situations:

- Which domain the record belongs to (behavior varies by domain)
- The value of the Enable Inbound Activity Filter parameter
- The value of the PIM Domain Category Field setting

The removal of a single occurrence of a recurring calendar item is not considered a delete operation and is not affected by the status of the Allow Record Deletions setting. That is, if you delete a single occurrence of a recurring Siebel appointment, the corresponding occurrence is deleted in Microsoft Exchange at the next synchronization. Similarly, if you delete a single occurrence of a recurring Microsoft Exchange appointment, the corresponding occurrence is deleted in the Siebel database at the next synchronization.

For information about how the Allow Record Deletions setting affects the Business Contacts, Personal Contacts, and Employee domains, see Table 23 on page 118. (Synchronization of data from the Siebel Personal Contacts and Siebel Employee domains is not supported if you are using Microsoft Exchange 2010.) For information about how the Allow Record Deletions setting affects the Calendar and Tasks domains, see Table 24 on page 120. For more information on how to specify the Allow Record Deletions setting, see "Allowing or Preventing Record Deletions" on page 121.

Table 23. Effect of Allow Record Deletion Setting on Contacts and Employees Records

Allow Record Deletion Selected?	Delete Operation Originated From	Destination System Behavior	Behavior After Future Record Modification
Yes	Siebel	PIM record is deleted.	Not applicable
Yes	PIM	Siebel personal contacts record is deleted. User is removed from Sync List for Siebel business contacts record. Siebel employees records are unchanged, because the Employees domain only allows one-way synchronization, from the Siebel record to the PIM record.	Not applicable

Table 23. Effect of Allow Record Deletion Setting on Contacts and Employees Records

Allow Record Deletion Selected?	Delete Operation Originated From	Destination System Behavior	Behavior After Future Record Modification
No	Siebel	The value in the Category field of the PIM record is deleted, but the rest of the record is not changed.	If the PIM record is modified but the Category field remains empty, then the changes are not synchronized. If the PIM record is modified and the Category field is set to a valid value (such as Siebel Contact), then the record is synchronized in such a way that a new record is created in the Siebel database.
No	PIM	For Business Contacts, Personal Contacts, and Employees domains, SSSE deletes its internal mapping between the PIM record and the Siebel record, but the Siebel record is not physically deleted. For domains where synchronization is configured to be bidirectional, the user is removed from the Siebel record's Sync List. For domains that only allow one-way synchronization (for example, the Employees domain), the user is not removed from the Siebel record's Sync List.	For domains where synchronization is configured to be bidirectional, future modifications to the Siebel record are not synchronized for the relevant user unless the user adds himself or herself to the record's Sync List again. This corresponds to the behavior of previous versions of SSSE. For domains that only allow one-way synchronization (for example, the Employees domain), future changes to the Siebel record are synchronized with PIM despite the earlier deletion of the PIM record, because that deletion originated on the PIM and was not allowed to affect the Sync List of the Siebel record.

Table 24 on page 120 shows how the Allow Record Deletions setting affects the Calendar and Tasks domains.

Table 24. Effect of Allow Record Deletion Setting on Calendar and Tasks Records

Allow Record Deletion Selected?	Delete Operation Originated From	Inbound Activity Filtering Enabled?	PIM Domain Category Field Status	Destination System Behavior	Behavior After Future Record Modification
Yes	Siebel	Not applicable	Not applicable	Record is physically deleted from PIM.	No future modification is possible, since both PIM and Siebel records are deleted.
Yes	PIM	Not applicable	Not applicable	Record is physically deleted from the Siebel database.	No future modification is possible, since both PIM and Siebel records are deleted.
No	PIM	Not applicable	Not applicable	The Siebel record is not deleted. SSSE deletes its internal mapping between the PIM record and the Siebel record.	SSSE treats modification of the remaining Siebel record as if it were a new record. This causes the creation of a corresponding PIM record at the next synchronization.
No	Siebel	Yes	Field is specified (required when inbound activity filtering is enabled)	The PIM record is not deleted, but its Category field is cleared. SSSE deletes its internal mapping between the PIM record and the Siebel record.	SSSE treats modification of the remaining PIM record as if it were a new record. Whether or not the modified record synchronizes to Siebel depends on whether the Category field value is acceptable to Inbound Activity Filtering.

Table 24. Effect of Allow Record Deletion Setting on Calendar and Tasks Records

Allow Record Deletion Selected?	Delete Operation Originated From	Inbound Activity Filtering Enabled?	PIM Domain Category Field Status	Destination System Behavior	Behavior After Future Record Modification
No	Siebel	Yes	Field is not specified (invalid when inbound activity filtering is enabled)	The PIM record is preserved unchanged. SSSE deletes its internal mapping between the PIM record and the Siebel record. An error message is logged.	SSSE treats modification of the remaining PIM record as if it were a new record. Whether or not the modified record synchronizes to Siebel depends on whether the Category field value is acceptable to Inbound Activity Filtering.
No	Siebel	No	Not applicable	The PIM record is preserved unchanged. SSSE deletes its internal mapping between the PIM record and the Siebel record.	SSSE treats modification of the remaining PIM record as if it were a new record. This causes the creation of a corresponding Siebel record at the next synchronization.

Allowing or Preventing Record Deletions

The administrator determines whether or not the act of deleting a record in one domain will delete the corresponding record in the domain to which it synchronizes. For detailed information about this feature, including information about how Sync Lists are affected, see "About Allowing or Preventing Record Deletions for a Domain" on page 117.

This task is a step in "Process of Configuring Siebel and PIM Domain Characteristics" on page 113.

The following procedure describes how to set the Allow Record Deletions setting for Siebel domains.

To set Allow Record Deletions for a Siebel domain

1. Navigate to the Administration - PIM Server Integration screen, then the Siebel Domains view.
2. In the Siebel Domains list, select one of the following domains:

- Siebel Business Contact
- Siebel Calendar
- Siebel Personal Contact
- Siebel Task

NOTE: It is not useful to select the Siebel Employees domain, because that domain only allows one-way synchronization from Siebel records to PIM records. Changes to PIM records do not affect Siebel employee records, regardless of how you set Allow Record Deletions for the Siebel Employees domain.

3 In the Allow Record Deletions field, select or clear the check box as follows:

- To allow deletion of a PIM record to cause deletion of the corresponding Siebel record (except for employees records), select the check box.
- To prevent deletion of a PIM record from causing deletion of the corresponding Siebel Record, clear the check box.

4 Repeat Step 2 and Step 3 as required for other Siebel domains.

This change takes effect after you restart the Siebel Server.

The following procedure describes how to set the Allow Record Deletions setting for PIM domains.

To set Allow Record Deletions for a PIM domain

1 Navigate to the Administration - PIM Server Integration screen, then the PIM Domains view.

2 In the PIM Domains list, select one of the following domains:

- Exchange Calendar
- Exchange Contact
- Exchange Task

3 In the Allow Record Deletions field, select or clear the check box as follows:

- To allow deletion of a Siebel record to cause deletion of the corresponding PIM record, select the check box.
- To prevent deletion of a Siebel record from causing deletion of the corresponding PIM Record, clear the check box.

4 Repeat Step 2 and Step 3 as required for other PIM domains.

This change takes effect after you restart the Siebel Server.

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 the PIM and the Siebel application are the same record. For information on these tasks, see the following topics:

- "Creating Field Mappings" on page 123
- "Setting Field-Level Synchronization" on page 124
- "Setting Key Fields" on page 124

Creating Field Mappings

Administrators can map individual fields between the Siebel and PIM domains. This mapping determines the fields in Siebel Business Applications 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 *Siebel Applications Administration Guide*.

The following procedure describes how to create a field mapping.

To create a new field mapping

1. Navigate to the Administration - PIM Server Integration screen, then the Domain Map view.
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.

Field	Description
Key Field	Select this check box if you want this field to be a key field. See "Setting Key Fields" on page 124.
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 124.

Related Topics

"Mapping Siebel Domain and PIM Domain Fields" on page 123

"Setting Field-Level Synchronization" on page 124

"Setting Key Fields" on page 124

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 delete field mappings to disable synchronization.

To enable or disable field synchronization

1. Navigate to the Administration - PIM Server Integration screen, then the Domain Map view.
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 123

"Creating Field Mappings" on page 123

"Setting Key Fields" on page 124

Setting Key Fields

The first time SSSE synchronizes a particular record, SSSE uses Key fields to determine if a calendar, employee, or to do activity record in Siebel Business Applications is the same record as a record in Microsoft Exchange Server. If the values in all key fields of a record match, SSSE assumes that the record is the same record, and SSSE synchronizes the record. 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 35.

The following procedure describes how to set key fields.

To set key fields

1. Navigate to the Administration - PIM Server Integration screen, then the Domain Map view.
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

"Mapping Siebel Domain and PIM Domain Fields" on page 123

"Creating Field Mappings" on page 123

"Setting Field-Level Synchronization" on page 124

Process of Setting SSSE Group and User Access Controls

To allow users to synchronize between Microsoft Exchange Server and Siebel Business Applications, 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 Task). 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 Siebel Business Applications.

To set SSSE group and user access controls, perform the following tasks:

- (Optional) "Setting User-Level Synchronization" on page 125
- "Setting Group-Level Synchronization" on page 128
- "Mapping Individual Users" on page 130
- "Mapping Multiple Users" on page 130
- "Enabling or Disabling User Synchronization" on page 131

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 Task). 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 125.

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 131.

The following procedure describes how to set user-level synchronization.

To set user-level synchronization

1. Navigate to the Administration - PIM Server Integration screen, Sync Access Control, and then the User Level Access Control view.
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 Task.
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 128.
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: ■ **Business Contact Domain.** Available Visibility values are All, Sales Rep, or no value (empty). Default value is Sales Rep. ■ **Employee Domain.** Available Visibility values are All or no value (empty). Default value is All. ■ **Personal Contact Domain.** Available Visibility values are Personal or no value (empty). Default value is Personal. ■ **Tasks Domain.** Available Visibility values are Personal or no value (empty). Default value is Personal. For information about the meanings of these Visibility values, see Table 25 on page 128.

4 Repeat Step 3 on page 126 for each additional domain where you want to specify user-level access for the selected user.

Table 25 on page 128 describes the values you can specify for the Visibility Type field.

Table 25. 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. **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

"SSSE Synchronization Options" on page 15

"Setting Siebel Domain-Level Synchronization" on page 114

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 Siebel Business Applications.

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 131.

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 125.

This task is a step in "Process of Setting SSSE Group and User Access Controls" on page 125.

The following procedure describes how to set group-level synchronization.

To set group-level synchronization

1 Navigate to the Administration - PIM Server Integration screen, Sync Access Control, and then the Group Access Control view.

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 Task.
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 Siebel Business Applications 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 125.

To map a Siebel user to a PIM user

1. Navigate to the Administration - PIM Server Integration screen, Sync Access Control, and then the User Map view.
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@example.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.
PIM Server Type	Select Exchange 2000/2003.
Language	Select a language.
Extract Start Date	The date of the oldest appointments and tasks that SSSE is to synchronize during the extract for the user.
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 Siebel Business Applications and Microsoft Exchange Server. You can use this method to map all employees in a Siebel deployment, for example, or any subset of employees that you can specify by using a predefined query. 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 125.

The following procedure describes how to map multiple users.

To map multiple users

1 If you want to map a subset of your deployment's users, create a predefined query to specify the users you want to map.

For example, you could create a predefined query that finds all employees in the Sales department in the UK region. For information about creating predefined queries, see *Siebel Fundamentals*.

If you want to map all of your users, skip to Step 2 on page 131.

2 Navigate to the Administration - PIM Server Integration screen, Sync Access Control, and then the User Map view.

3 In the User Map list, click Map User.

The PIM Server Integration User Map dialog box appears.

4 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 2000/2003.
Default Language	Select a language. (Example: English-American).
Predefined Query	Select a predefined query that specifies the set of users whom you want to map. If you want to map all users in the business object, leave this field blank.

The mapped users appear in the User Map list.

NOTE: If there are many users, this process can take some time.

5 From the Edit menu, choose Select All.

6 From the Edit menu, choose Change Records.

7 Under 1st Field to Change, in the field called Field, select Sync Enabled.

8 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 "Process of Setting SSSE Group and User Access Controls" on page 125.

To enable or disable user synchronization

1. Navigate to the Administration - PIM Server Integration screen, Sync Access Control, and then the User Map view.
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 Extract Start Dates for Users

During the initial extract process when Siebel data and Microsoft Exchange Server data for a user is first synchronized, the value of the Extract Start Date parameter determines the date of the oldest appointments and tasks that SSSE synchronizes. 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.

NOTE: The Extract Start Date parameter applies to initial extracts *and* to ongoing extract cycles. After the initial extract, if a user edits a task record or a calendar record in Microsoft Outlook, it is synchronized to the Siebel application only if it has a completion date after the Extract Start Date.

About the System-Wide Extract Start Date

The system-wide Extract Start Date and Extract Start Date Format parameters are set and amended using Server Manager. For further information, see "Modifying Enterprise and Server Component Parameters" on page 54. You can also set these parameters using the Siebel Configuration Wizard when configuring the Siebel Server during the initial installation of your Siebel application. For further information, see "Using the Siebel Configuration Wizard to Configure SSSE" on page 51.

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 the Administration - PIM Server Integration screen, Sync Access Control, and then the User Map view.
2. In the User Map list, select a user record.
3. In the Extract Start Date field, select 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 only one-way synchronization of calendar items occurs—from Microsoft Exchange to Siebel Business Applications. Calendar items created by a user in Microsoft Outlook are synchronized with Siebel Business Applications, 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 114.
2. Navigate to the Administration - PIM Server Integration screen, then the Configuration view.
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 the Siebel calendar and task domains, SSSE automatically synchronizes all new or changed calendar and to do 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:

- **Enabling inbound activity filtering.** If you enable this option, SSSE synchronizes only calendar or task records originating in Microsoft Outlook that the user designates for synchronization by placing an appropriate value in a designated Microsoft Exchange field.
- **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. With the inbound activity filtering feature, a number of values can be configured for filtering inbound 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, and without enabling inbound activity filtering. 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 Siebel Business Applications 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, and without enabling inbound activity filtering, 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 Siebel Business Applications. 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 Task domains:

- "Implementing Opt-In Synchronization for Calendar and Task Records" on page 134
- "Skipping Private Calendar or Task Records During Synchronization" on page 136
- "Process of Enabling Inbound Activity Filtering" on page 137

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 Siebel Business Applications when the Full Sync option is selected for the Siebel Calendar or Task 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 Siebel Business Applications. 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 for Microsoft Exchange Server."

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 the Administration - PIM Server Integration screen, Configuration, and then the PIM Server Integration Configuration view.
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 135 but specify Task for the Section field.

6 Navigate to the Administration - Data screen, then the List of Values view.

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 the Administration - PIM Server Integration screen, then the Siebel Domains view:

   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 Siebel Business Applications 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 Siebel Business Applications, 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])" where: *Siebel Task* is the PIM Category Value you have specified for the Siebel Task domain.

For additional information on setting PIM Category values, see "Setting PIM Category Values for Siebel Domains" on page 115.

b Recompile the Siebel Repository File.

For additional information on using Siebel Tools, see *Configuring Siebel Business Applications*.

Related Topic

"About Setting Calendar and Task Record Synchronization Options" on page 133

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 Siebel Business Applications when the Full Sync option is implemented for the Calendar or Task 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 the Administration - PIM Server Integration screen, Configuration, and then the PIM Server Integration Configuration view.

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 136 but specify Task for the Section field.

6 In the PIM Server Integration Configuration list, select the Connector Profile.

7 In the Configuration Parameters list, create a new record for the Task and Calendar domains as appropriate, using values similar to those shown in the following table:

Section	Parameter	Value
IPM.Task	Private Flag Value	2
IPM.Appointment	Private Flag Value	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 Setting Calendar and Task Record Synchronization Options" on page 133

Process of Enabling Inbound Activity Filtering

This topic describes how to enable inbound activity filtering. Inbound activity filtering allows SSSE users to select which calendar and task records to synchronize from Microsoft Exchange to Siebel Business Applications.

To enable inbound activity filtering, perform the following tasks:

1 Set the EnableInboundActivityFilter server component parameter to TRUE.

For information on the EnableInboundActivityFilter parameter, see "Modifying Enterprise and Server Component Parameters" on page 54.

2 For the Siebel Calendar and Siebel Task domains, set the default value of the Type field to Not Set, as described in "Setting a Default Value for the Type Field" on page 138.

3 (Optional) "Setting Up Translation Mappings for Inbound Activity Filtering" on page 138.

Select maps and set LOV values to determine the Microsoft Exchange fields SSSE uses to evaluate which Microsoft Exchange calendar and task records to synchronize with the Siebel database.

Setting a Default Value for the Type Field

To enable inbound activity filtering, you must set the default value of the Type field for the Siebel Calendar and Task domains to Not Set. The following procedure describes how to do this.

This task is a step in "Process of Enabling Inbound Activity Filtering" on page 137.

To set the default value of the Type domain field

1. Navigate to the Administration - PIM Server Integration screen, then the Siebel Domains view.
2. In the Siebel Domains list, select the Siebel Calendar record.
3. In the Siebel Domain Fields list, use standard query techniques to select the record with the Name field set to Type.
4. In the Default Value field, enter Not Set.
5. In the Siebel Domains list, select the Siebel task record.
6. In the Siebel Domain Fields list, use standard query techniques to select the record with the Name field set to Type.
7. In the Default Value field, enter Not Set.

Setting Up Translation Mappings for Inbound Activity Filtering

If you want your SSSE users to be able to select which calendar and task records to synchronize from Microsoft Exchange to Siebel Business Applications, you can accomplish this by setting up inbound activity filtering with translation maps that specify which field and which field values to interpret as requests for synchronization. Users request record synchronization by entering one of the specified field values in the specified field in the record. The Exchange field that is inspected is whichever field you map to the Siebel Type field. By default, the Category field in Microsoft Exchange is the field that is mapped to the Siebel Type field.

This task is a step in "Process of Enabling Inbound Activity Filtering" on page 137.

The following procedure describes how to set up translation maps for inbound activity filtering.

NOTE: You do not have to set up translation maps if you want inbound activity filtering to inspect the default Category field in Microsoft Exchange and synchronize for any value that matches a value in the Siebel Type field picklist.

To set up translation maps for inbound activity filtering

1. Navigate to the Administration - PIM Server Integration screen, then the Domain Map view.
2. In the Domain Map list, select Siebel-Exchange Calendar Map.
3. In the Field Map list, use standard query techniques to select the record in which Siebel Field has a value of Type.

4 In the selected record, set LOV Translation Map to Category to Activity Type.

5 Repeat Step 2 through Step 4, replacing Siebel-Exchange Calendar Map with Siebel-Exchange Task Map.

6 Navigate to the Administration - PIM Server Integration screen, Configuration, and then the LOV Translation view.

7 In the LOV Translation list, use standard query techniques to discover whether there is a record that has Name set to Category to Activity Type.

- If the record exists, modify it as required to match the information in the following table.
- If the record does not exist, click New and complete the fields as described in the following table.

Field	Value
Name	Category to Activity Type
Siebel LIC Type	TODO_TYPE
Siebel Value	Appointment
PIM LIC Type	IMMEDIATE
PIM Value	Specify the Exchange Category value that users will enter to indicate that the calendar or task record is to be synchronized from Microsoft Exchange to the Siebel database.
Siebel Default	Select the check box.

8 If you want additional Category values to indicate that the calendar or task record is to be synchronized, repeat Step 7 as required, creating a new record and supplying a new PIM Value each time.

Related Topic

"About Setting Calendar and Task Record Synchronization Options" on page 133

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 DispGCCycleCount (Dispatcher Garbage Collection). For more information about setting the DispGCCycleCount configuration parameter, see "Modifying Enterprise and Server Component Parameters" on page 54.

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 enable 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 enable synchronization for that user again, 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 130.

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 SSSE Log File Settings" on page 98.

The following information, which can be useful during troubleshooting, is logged for the Exchange Connector:

- 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 26.

Table 26. Typical SSSE Log Messages

SSSE Event	Example of Log Message for Event
User Extract Session Start	PIMSIEngSvc PIMSIInformational 3 0000000544a11a80:0 2006-06-27 04:56:10 (ssuserinit.cpp (3347)) BatchMgr: MADAMS: Starting extract for user.
Extract data from Exchange Start	PIMSIEngSvc PIMSIInformational 3 0000000544a11a80:0 2006-06-27 04:56:13 (exchangeconnector.cpp (830)) Connector: madams@esexch2.siebel.com: Extracting domain. PIM Domain Id = IPM.Contact.
Extract data from Exchange End	PIMSIEngSvc PIMSIInformational 3 0000000544a11a80:0 2006-06-27 04:56:16 (exchangeconnector.cpp (871)) Connector: madams@esexch2.siebel.com: Extracted 0 records. PIM Domain Id = IPM.Contact.
Extract data from Siebel Start	PIMSIEngSvc PIMSIInformational 3 0000000544a11a80:0 2006-06-27 04:56:16 (ssuserinit.cpp (4906)) BatchMgr: MADAMS: Starting extraction for Siebel Domain PIMSI Intermediate PersonalContact.
Extract data from Siebel End	PIMSIEngSvc PIMSIInformational 3 0000000544a11a80:0 2006-06-27 04:56:17 (ssuserinit.cpp (4958)) BatchMgr: MADAMS: Extracted 0 records for Siebel domain PIMSI Intermediate PersonalContact.
Import an Exchange record to Siebel	PIMSIEngSvc PIMSIDebug 5 0000003744a11a80:0 2006-06-27 06:47:29 (ssuserinit.cpp (1545)) BatchMgr: MADAMS: Pushed row: RowID=05349df89d16844da90998f8cdaedf54000000234ca3, User=madams@esexch2.siebel.com, Domain=IPM.Appointment.
Export a Siebel record to Exchange	PIMSIEngSvc PIMSIDebug 5 0000004344a11a80:0 2006-06-27 07:14:31 (ssuserinit.cpp (803)) BatchMgr: RBROWN: Pushed row: RowID=42-5HDSZ, User=RBROWN, Domain=PIMSI Intermediate Business Contact.
User Extract Session End	PIMSIEngSvc PIMSIInformational 3 0000004344a11a80:0 2006-06-27 07:15:34 (ssuserinit.cpp (3604)) BatchMgr: RBROWN: Successfully extracted domain All Domains for user RBROWN.

For information on the SSSE error messages that can occur when a user's data is synchronized, see "Synchronization Error Messages" on page 203.

About Moving or Deleting Mailboxes for SSSE Users

From time to time, you might have to move users' Microsoft Exchange mailboxes from one Microsoft Exchange Server to another, or you might 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.

NOTE: SSSE does not support moving user mailboxes to an earlier release of Microsoft Exchange Server, for example, do not move user mailboxes from a server running Exchange Server 2010 to a server running Exchange Server 2007. Moving user mailboxes to later releases of Microsoft Exchange Server is supported by SSSE and additional configuration is not required.

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.

To enable record skipping during synchronization

1. Navigate to the Administration - PIM Server Integration screen, Configuration, and then the PIM Server Integration Configuration view.
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 (disable record skipping).

If you set the value of the Always Save Syncstate parameter to Y to enable record skipping (recommended), then it is also recommended that you configure SSSE so that the administrator is notified when a record is skipped because of a synchronization error. For information on configuring SSSE so that the administrator is notified by email when synchronization errors occur, see "Process of Configuring Email Notification of Synchronization Errors" on page 143.

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 DCOM Exchange Connector.

To configure SSSE so that the administrator receives email notification of synchronization errors, perform the following tasks:

- "Configuring System Alerts for Email Notification of PIMSI Engine Synchronization Errors" on page 143
- "Configuring System Alerts for Email Notification of DCOM Exchange Connector Synchronization Errors" on page 147

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, including errors relating to the Web service Exchange Connector.

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 143.

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 the Administration - Server Configuration screen, Enterprises, and then the System Alerts view.

   b In the System Alerts list, create a new system alert, specifying values similar to the following:

Alert Definition Name	Alias	Media
Alertname Example: Administrator Email Alerts	*Alertalias* Example: AdminEmailAlert	EmailNotification

   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.example.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 the Administration - PIM Server Integration screen, Configuration, and then the PIM Server Integration Configuration view.

   b Select the Exchange Calendar Profile.

c In the Configuration Parameters list, create records with values similar to those shown in the following table.

NOTE: The Domain name you specify must match an existing Domain Identifier field, for example, IPM Task. To view domain identifiers, navigate to the Administration - PIM Server Integration screen, then the PIM Domains view.

Section	Parameter	Value
Email Template:*Domain Name*	MsgBody1	Specify the body of the email with place holders. Place holders are case sensitive. The supported place holders are: ■ %Domain%. Name of the domain is substituted. ■ %login%. Name of the login is substituted. ■ %ErrorMessage%. Description of the error. ■ [Field Identifier]. Substitutes the value of the Siebel domain field identifier in the parentheses. To view the Siebel domain field identifiers, navigate to the Administration - PIM Server Integration screen, Siebel Domains, and then the Siebel Domain Fields view.
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 Set the value of the NOTIFYMSGSIZE parameter to determine the maximum size of error message notifications 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=nnnn for server servername
```

where:

- *nnnn* is the maximum notification size

- *servername* is the server for which you are setting the NOTIFYMSGSIZE parameter

If an error message is generated which is larger than the value of the NOTIFYMSGSIZE parameter, the error notification email includes only the following message:

```
SSSE Inbound Synch failed for User:Username,Domain:Domain
Please see PIMSIEng log
```

Therefore, if you configure large error message notifications, increase the maximum notification size by setting the NOTIFYMSGSIZE parameter to a higher value, for example 1024.

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 146.

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 might 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 the Administration - PIM Server Integration screen, Configuration, and then the PIM Server Integration Configuration view.
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% \n The record has the following characteristics \n Subject: [Subject] Start Date: [StartDate] End Date: [EndDate] \n The error **NOTE:** The characters \n indicate the start of a new line.
Email Template:IPM.Task	MsgBody2	Message was %ErrorMessage%

Assume the values shown in the following table exist for the placeholders used in the message body of the email template defined in this example:

Placeholder	Value
Domain	IPM.Task
Login	GABBO
Subject	Meeting in the month of March
Start Date	3/3/2011
End Date	3/5/2011
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: 3/3/2011
End Date: 3/5/2011
The error Message was: One or more required fields are missing.
```

Configuring System Alerts for Email Notification of DCOM Exchange Connector Synchronization Errors

This topic describes how to configure SSSE so that the administrator receives email notification of errors generated by the DCOM Exchange Connector during the inbound synchronization process.

This task is a step in "Process of Configuring Email Notification of Synchronization Errors" on page 143.

To enable email notification of DCOM Exchange Connector synchronization errors, perform the following procedure.

To configure system alerts for DCOM Exchange Connector synchronization errors

1. Navigate to the Administration - PIM Server Integration screen, Configuration, and then the PIM Server Integration Configuration view.
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 shown in the following table:

Section	Parameter	Value
AdminNotify	AdminEmailAddress	A comma delimited email address list of the administrators to be notified
AdminNotify	FromAddress	The originating address of the email notification
AdminNotify	SMTPServer	SMTP server name or IP address through which the email is sent
AdminNotify	SMTPServerPort	Port number of the SMTP server

For each error generated by the DCOM Exchange Connector, an email notification is sent which includes the following information:

- PIM user ID
- PIM domain
- PIM record ID
- Error message

  The error message is the error code generated by the Exchange Connector.

The following shows an example of the information included in the email notification for a DCOM Exchange Connector error:

```
PIM User Id: sara.smith@example.com

PIM Domain: IPM.Appointment

PIM Record Id: 4a737936622710408b008129a27f503700000002a1c5

Error Message: 0x80045004
```

7 Customizing Siebel Server Sync for Microsoft Exchange Server

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.
- Changing the delta queries that SSSE uses to find changed Siebel data that is to be synchronized for a particular user.
- Creating custom delete triggers that direct SSSE to delete PIM records. This capability supports actions such as converting a record from one domain to another.

The customization process can involve changing some or all of the following entities:

- Integration Objects
- Integration Data Maps
- Domain configurations
- Field configurations
- Delta Query profile
- Delete triggers

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 27 lists the tables in each Siebel Domain that can have fields added for synchronization. You can add most fields from these tables for synchronization. If a field based on a particular table is a multivalue group (MVG), then SSSE synchronizes only the Primary value from the MVG.

NOTE: Synchronization of data from the Siebel Personal Contact and Employee domains is not supported if you are using Microsoft Exchange 2010.

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 27. 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 27. 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 153

   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 158

   Change the Inbound and Outbound data maps to reflect the new or amended fields.

3. "Changing Siebel Domain Configurations" on page 160

   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 162

   Add the new or amended field to the PIM domain.

5. "Changing Domain Map Configurations" on page 167

   Map the Siebel domain field to the PIM domain field so that the two fields can be synchronized.

Depending on the type of customization you are making, you might have to perform one or more of the following additional tasks:

- "Changing User Filtering Configurations" on page 170
- "Changing Delta Query Profile Configuration Parameters" on page 172
- "Creating Custom Delete Triggers" on page 174

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 28 shows the Integration Objects for each domain that SSSE handles.

Table 28. Integration Object Names for Siebel Domains

Domain	Siebel Integration Object	Intermediate Integration Object
Business Contact	PIMSI Business Contact	PIMSI Intermediate Business Contact PIMSI Intermediate EWS Business Contact (Web service Exchange Connector only)
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, see "Changing Integration Objects" on page 153.

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 29 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 Siebel Business Applications, because only changed records are synchronized.

This task is a step in "Process of Customizing SSSE" on page 152.

Table 29. 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 153. 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 154.

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. Select the integration component for which a field is to be changed or added.
4. Change the field properties of the integration component as required.
5. Save the record.
6. 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 might 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. Make the Spouse field available 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 153.

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 Integration Component.
   d. In the Object List Editor, select Contact.
   e. In the Object Explorer, 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, select Integration Component.
   c. In the Object List Editor, select Business Contact.
   d. In the Object Explorer, 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 might not work properly for information that travels from Microsoft Exchange to Siebel Business Applications.

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 If you are using the Web service Exchange Connector, repeat Step 6 on page 155 but select the PIMSI Intermediate EWS Business Contact integration object in Step a.

8 Make the Spouse field available 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.

9 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 159.

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 30 shows the names of the data maps for each domain that SSSE handles.

Table 30. 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 If using the Web service Exchange Connector, you also use the following data maps: ■ PIMSI EWS Create Contact Outbound Map ■ PIMSI EWS Update Contact Outbound Map
Calendar	PIMSI Calendar Inbound Map	PIMSI Calendar Outbound Map
Employee	PIMSI Employee Inbound Map	PIMSI Employee Outbound 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 158.

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 158. For an example of how to change data maps for a new field to be synchronized, see “Example of Changing Data Maps” on page 159.

This task is a step in “Process of Customizing SSSE” on page 152.

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 160. If this is not done, then Siebel administration screens for SSSE might 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 your Siebel application, navigate to the Administration - Integration screen, then the Data Map Editor view.
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 158.
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 might use this feature differently, depending on your business requirements.

Continuing with the example from "Example of Changing Integration Objects" on page 154, 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 153.

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 154.
2. In your Siebel application, navigate to the Administration - Integration screen, then the Data Map Editor view.
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 160.

If you have implemented a DCOM Exchange connector only, data map configuration is now completed. If you have implemented a Web service Exchange Connector, you must also complete the following additional steps.

10 In the Integration Object Map list, select the PIMSI EWS Create Contact Outbound Map.

11 In the Integration Component Map list, select the Contact_BusinessContact record.

12 Repeat Step 5 through Step 6 on page 160.

13 In the Integration Object Map list, select the PIMSI EWS Update Contact Outbound Map.

14 In the Integration Component Map list, select the Contact_BusinessContact record.

15 Repeat Step 5 through Step 6 on page 160.

You must now change Siebel domain configurations, as described in "Example of Changing Siebel Domain Configurations" on page 161.

Changing Siebel Domain Configurations

The following procedure describes how to change a Siebel domain configuration, as part of customizing SSSE. 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.

This task is a step in "Process of Customizing SSSE" on page 152.

For more information about SSSE PIM domain configuration, see “Changing PIM Domain Configuration” on page 162. 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 161.

To change a Siebel domain configuration

1 Navigate to the Administration - PIM Server Integration screen, then the Siebel Domains view.

2 In the Siebel Domains list, select the domain to reconfigure.

3 In the Siebel Domain Fields list, click Sync Fields.

   This action copies the values in the inbound data maps to the corresponding fields in the Siebel domain, so the domain acquires the new fields and field modifications that were made in the 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 might 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 might use this feature differently, depending on your business requirements.

Continuing with the example from “Example of Changing Integration Objects” on page 154, 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 the Administration - PIM Server Integration screen, then the Siebel Domains view.

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 166.

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 152.

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 160. 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 166.

To change a PIM domain configuration

1. Navigate to the Administration - PIM Server Integration screen, then the PIM Domains view.
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. **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 the Administration - PIM Server Integration screen, then the Configuration view.

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 31 and Table 32.

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 31. PIM Field Configuration Parameters and Values (General Information)

Field	Comments
Section	Enter the value you specified for Name in Step 3 on page 162.
Parameter	Enter the name of the Exchange API that provides access to the PIM field you want to synchronize. For more information, see Table 32.
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 32.

Table 32. PIM Field Configuration Parameters and Values (Domain-Specific Information)

PIM Domain	Parameter	Values
Exchange Contact Exchange Task	MAPIPropertyName	A MAPIPropertyName value is required for all Microsoft Exchange Contact or Exchange Task fields. ■ For MAPI named properties, specify the identifier of the MAPI property. ■ For MAPI non-named properties, specify the 8-digit hexadecimal identifier of the MAPI field. For more information about MAPI properties, see the MAPI documentation.
	PropertySetGUID	A PropertySetGUID value is required for Microsoft Exchange Contact or Exchange Task fields that are MAPI named properties. 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. For more information about property set GUIDs for MAPI named properties, consult the 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.
	WSPropertyName	The Web service field name defined by Microsoft Exchange Web Services. For example, the field name of the job title field for contacts is: `contacts:JobTitle` **NOTE:** This parameter is required if you use a Web service Exchange Connector.

Table 32. 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 WebDAV property name, specify that name. 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. 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. 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. 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. For more information about property set GUIDs for MAPI named properties, see the MAPI documentation.

Table 32. PIM Field Configuration Parameters and Values (Domain-Specific Information)

PIM Domain	Parameter	Values
Exchange Calendar	SubNamespace	A SubNamespace value is required for Microsoft Exchange Calendar fields that are MAPI named properties. Specify the value String.
	WSPropertyName	The Web service field name defined by Microsoft Exchange Web Services. **NOTE:** This parameter is required if you use a Web service Exchange Connector.

Example of Changing PIM Domain Configurations

This topic gives one example of changing PIM domain configuration settings as part of customizing SSSE. You might use this feature differently, depending on your business requirements.

Continuing with the example from "Example of Changing Integration Objects" on page 154, 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 the Administration - PIM Server Integration screen, then the PIM Domains view.
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 the Administration - PIM Server Integration screen, then the Configuration view.
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 For information on MAPI property names, navigate to the Microsoft MSDN Web site at the following URL 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 168.

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 152.

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 168.

To change a Domain Map configuration after designating a field for synchronization

1 Navigate to the Administration - PIM Server Integration screen, then the Domain Map view.

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 might use this feature differently, depending on your business requirements.

Continuing with the example from "Example of Changing Integration Objects" on page 154, 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 the Administration - PIM Server Integration screen, then the Domain Map view.

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 require synchronization 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 33 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 170.

Table 33. 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

Table 33. Default SSSE User Filtering Configuration

Business Object	Business Component	Fields Mapped to Database Last Update Time
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 require synchronization 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 169.

This task is a step in "Process of Customizing SSSE" on page 152.

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 the Administration - PIM Server Integration screen, Configuration, and then the PIM Server Integration Configuration view.

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.

About Customizing Delta Queries

The SSSE PIMSI Engine component uses *delta queries* to find out which Siebel records and fields have changed since the last time an SSSE user's data was synchronized. The delta queries that are supplied with SSSE check certain standard fields for changes to be synchronized—fields that record the date and time that certain database tables were last updated. When SSSE detects a value in a monitored date-time field that is later than the most recent successful synchronization, all of the mapped fields in the changed record are synchronized, including any custom fields that you have set up for synchronization.

However, unmonitored date-time fields cannot trigger synchronization. If your Siebel implementation has added tables to business components that SSSE synchronizes, then you must customize the appropriate delta queries to monitor the date-time fields that track changes in those tables.

You must also modify a delta query if you add a new multi-value group (MVG) field that you want monitored for changes because changes in custom MVGs are tracked in different date-time update fields than changes in single-value fields or in existing MVGs. For a new MVG, you must also take certain prerequisite actions in Siebel Tools.

You can also modify delta queries to direct SSSE to ignore changed update date-time values in tables that would ordinarily trigger synchronization. For more information on customizing delta queries, see "Changing Delta Query Profile Configuration Parameters" on page 172.

NOTE: If you have to modify a delta query, you might also have to modify a user filter. For more information, see "About SSSE User Filtering" on page 169 and "Changing User Filtering Configurations" on page 170.

Changing Delta Query Profile Configuration Parameters

If you change business component configurations that were supplied along with your Siebel software, you might have to make a corresponding change to the delta query that monitors the applicable tables for changes. This topic describes how to modify a delta query by changing or adding configuration parameters for the Delta Query profile.

Table 34 provides configuration parameter information that you will have to change to complete either of these tasks. For more information about changing delta queries, see "About Customizing Delta Queries" on page 171.

Table 34. Delta Query Profile Configuration Parameters

Field	Comments
Section	SSSE Domain name
Parameter	SSSE Business component
Value	List of date-time fields to query for the specified domain and business component, with the fields to query separated by commas.

The following procedure describes how to modify existing Delta Query profile parameters. You would ordinarily use this procedure if you want SSSE to ignore changed values in update date-time fields that would ordinarily trigger synchronization.

To modify configuration parameters for the Delta Query profile

1. In your Siebel application, navigate to the Administration - PIM Server Integration screen, Configuration, then the PIM Server Integration Configuration view.
2. In the PIM Server Integration Configuration list, select Delta Query.
3. In the Configuration Parameters list, select the record that you want to modify, and make the change.

   For more information about the Configuration Parameters list, see Table 34 on page 172.
4. To make the changes take effect, restart the PIMSI Engine server component.

   If you have modified the User Filter, as well as the Delta Query, you must also restart the PIMSI Dispatcher server component.

   If you have not modified the User Filter, restarting the PIMSI Dispatcher is optional.

The following procedure describes how to add a parameter to the Delta Query profile. Use this procedure when you want SSSE to start monitoring a new date-time field for updates. This would ordinarily occur when you add a new multi-value group (MVG) that you want SSSE to monitor for changes.

To add a configuration parameter for the Delta Query profile

1 If you have created a new MVG, complete the following substages before continuing; otherwise, skip to Step 2.

   a In Siebel Tools, find the SSSE business component that corresponds to the domain where you added the new MVG.

      For example, if you added the MVG to the Contacts business component, find the Contact PIM Server business component.

   b Add a link to the primary element for the new MVG.

   c Add the field that will track the last update date for the new MVG.

      Make a note of the field name, which you will specify in a later step.

   d Save your changes, recompile the SRF, and deploy the new SRF to your Siebel Servers.

2 In your Siebel application, navigate to the Administration - PIM Server Integration screen, Configuration, then the PIM Server Integration Configuration view.

3 In the PIM Server Integration Configuration list, select Delta Query.

4 In the Configuration Parameters list, click New and complete the fields.

   For more information about the fields in the Configuration Parameters list, see Table 34 on page 172.

5 To make the changes take effect, restart the PIMSI Engine server component.

   If you have modified the User Filter, as well as the Delta Query, you must also restart the PIMSI Dispatcher server component.

   If you have not modified the User Filter, restarting the PIMSI Dispatcher is optional.

About Creating Custom Delete Triggers

A *delete trigger* is a record that a database trigger places in the table S_SD_SYNC_INFO, to direct SSSE to delete a PIM record. By default, SSSE uses delete triggers in the situations described in the following paragraphs.

NOTE: The following paragraphs assume that the Allow Record Deletions setting is selected. If Allow Record Deletions is not selected, then SSSE takes different actions, as described in "About Allowing or Preventing Record Deletions for a Domain" on page 117.

- If a user moves a record from one Siebel domain to another, such as by changing a Siebel personal contact to a Siebel business contact, the delete trigger deletes the corresponding PIM record (in this case, the record that corresponds to the Personal Contact).
- If a user removes a Siebel personal contact, business contact, or employee record from his or her Sync List, the delete trigger deletes the corresponding PIM record.
- If a user changes the owner of a Siebel activity record, the delete trigger deletes the previous owner's corresponding PIM record.

- If a user changes the owner of a Siebel contact record, the delete trigger deletes the previous owner's corresponding PIM record.

You can create custom delete triggers to perform similar deletions for your customized SSSE implementation. For more information on creating custom delete triggers, see "Creating Custom Delete Triggers" on page 174.

Creating Custom Delete Triggers

The following procedure describes how to create a custom delete trigger. For more information about custom delete triggers, see "About Creating Custom Delete Triggers" on page 173.

CAUTION: If you want to create custom delete triggers, you must contact your Oracle sales representative for Oracle Advanced Customer Services to request assistance from Oracle's Application Expert Services. If you do not, you might invalidate your support agreement.

To create a custom delete trigger

1 Determine which Siebel domain is associated with the record to be deleted, and use the following table to determine the corresponding SEBL_DOMAIN_IDEN value to use in a later step.

Siebel Domain Name	SEBL_DOMAIN_IDEN Value
Siebel Business Contact	PIMSI Intermediate Business Contact
Siebel Calendar	PIMSI Intermediate Calendar
Siebel Employee	PIMSI Intermediate Employee
Siebel Personal Contact	PIMSI Intermediate PersonalContact **NOTE:** There is no space between Personal and Contact in this value.
Siebel Task	PIMSI Intermediate Task

2 Locate the script that creates the database triggers that are supplied along with SSSE for your database environment.

The following table lists the script names for each database environment. These scripts are typically located in the `siebsrvr/BIN` directory on your Siebel Server.

Database	Script Name
DB2	ssse_triggers_db2.sql
DB2 390	ssse_triggers_db2_390.sql
Microsoft SQL Server	ssse_triggers_mssql.sql
Oracle	ssse_triggers_ora9.sql

3 In the appropriate script file for your database environment, review existing delete triggers to see examples of the specific language required for each domain and operation.

The following table lists some existing trigger names and the contexts in which they direct SSSE to delete specified PIM records.

Delete Trigger Name	Trigger Requests Deletion of PIM Record if:
SSSE_ACT_EMP_PIM3	A user changes the owner of an activity record (calendar or task)
SSSE_CONT_INFO_T1	A user removes a business contact, employee, or personal contact record from his or her Sync List
SSSE_CONTACT_PIM1	A user converts a personal contact record to a business contact record
SSSE_CONTACT_PIM3	A user changes the owner of a personal contact record
SSSE_EVT_ACT_PIM1	A user converts a calendar record to a task record, or a task record to a calendar record

4 Write the new delete trigger you require, using an appropriate existing trigger as a model.

For an example of one existing trigger, see "Sample Delete Trigger" on page 175.

5 Use a tool such as SQL Query Analyzer to apply the new trigger to the database.

6 Test the trigger by completing the following substeps:

a Create a Siebel record of the type that your new trigger is designed to monitor, such as a business contact record.

b If necessary, add the record to your Sync List, and verify that SSSE creates a corresponding PIM record.

c Perform the operation that your new trigger is designed to detect, such as deleting or updating the business contact record, or removing it from your Sync List.

d Verify that the expected result occurs—one or more delete trigger records are added to the S_SD_SYNC_INFO table, and SSSE deletes or updates the corresponding PIM record, as specified in your trigger.

Sample Delete Trigger

This topic contains the text of an existing delete trigger, SSSE_CONT_INFO_T1, and two drop-trigger statements that precede it. This trigger resides in the ssse_triggers_mssql.sql file, which is intended for Siebel implementations that use a Microsoft SQL Server database. The trigger operates when a record is deleted from table S_CONTACT_INFO. For more information about delete triggers, see "About Creating Custom Delete Triggers" on page 173 and "Creating Custom Delete Triggers" on page 174.

NOTE: In this sample text, *database_owner* serves as a placeholder for the name of the database user who owns the table that the trigger modifies (in this case, the table is S_CONTACT_INFO). Leading hyphens indicate a comment for a Microsoft SQL Server database script.

```
-- Delete of S_CONTACT_INFO
--
--
-- Drop the 7.8 trigger name

IF exists (select name from sysobjects

   where name = 'S_CONTACT_INFO_T1'

       and type = 'TR')

drop trigger database_owner.S_CONTACT_INFO_T1

GO

IF exists (select name from sysobjects

   where name = 'SSSE_CONT_INFO_T1'

   and type = 'TR')

drop trigger database_owner.SSSE_CONT_INFO_T1

GO

CREATE TRIGGER database_owner.SSSE_CONT_INFO_T1
on database_owner.S_CONTACT_INFO
FOR delete
AS

 insert into database_owner.S_SD_SYNC_INFO ( ROW_ID,

       CREATED,
       CREATED_BY,
       LAST_UPD,
       LAST_UPD_BY,
       MODIFICATION_NUM,
       CONFLICT_ID,
       SEBL_DOMAIN_IDEN,
       SEBL_ROW_IDEN,
       SEBL_USER_ID,
       OPERATION_TYPE,
       DB_LAST_UPD,
       DB_LAST_UPD_SRC)

   select NULL,

       GETUTCDATE(),
       'PIMSI',
       GETUTCDATE(),
       'PIMSI',
       0,
       '0',
       'PIMSI Intermediate PersonalContact',
       dd.TARGET_PER_ID,
```

```
       dd.OWNER_PER_ID,
       'delete',
       GETUTCDATE(),
       'PIMSI'

   from deleted dd

insert into database_owner.S_SD_SYNC_INFO ( ROW_ID,

       CREATED,
       CREATED_BY,
       LAST_UPD,
       LAST_UPD_BY,
       MODIFICATION_NUM,
       CONFLICT_ID,
       SEBL_DOMAIN_IDEN,
       SEBL_ROW_IDEN,
       SEBL_USER_ID,
       OPERATION_TYPE,
       DB_LAST_UPD,
       DB_LAST_UPD_SRC)

   select NULL,

       GETUTCDATE(),
       'PIMSI',
       GETUTCDATE(),
       'PIMSI',
       0,
       '0',
       'PIMSI Intermediate Business Contact',
       dd.TARGET_PER_ID,
       dd.OWNER_PER_ID,
       'delete',
       GETUTCDATE(),
       'PIMSI'

   from deleted dd

insert into database_owner.S_SD_SYNC_INFO ( ROW_ID,

       CREATED,
       CREATED_BY,
       LAST_UPD,
       LAST_UPD_BY,
       MODIFICATION_NUM,
       CONFLICT_ID,
       SEBL_DOMAIN_IDEN,
       SEBL_ROW_IDEN,
       SEBL_USER_ID,
       OPERATION_TYPE,
       DB_LAST_UPD,
       DB_LAST_UPD_SRC)

   select NULL,
```

```
        GETUTCDATE(),
        'PIMSI',
        GETUTCDATE(),
        'PIMSI',
        0,
        '0',
        'PIMSI Intermediate Employee',
        dd.TARGET_PER_ID,
        dd.OWNER_PER_ID,
        'delete',
        GETUTCDATE(),
        'PIMSI'

    from deleted dd

GO
```

The following facts might be useful to you as you create new delete triggers based on existing triggers such as the preceding sample:

- Delete triggers can also be used to operate when records are updated. SSSE_CONTACT_PIM3 and SSSE_ACT_EMP_PIM3 are examples of existing triggers of this type.
- The list of columns inserted by each delete-trigger is the same for each record that is created in the S_SD_SYNC_INFO table. In the preceding sample, the list of columns begins with ROW_ID and ends with DB_LAST_UPD_SRC.

8 Using Siebel Server Sync for Microsoft Exchange Server

This chapter describes the common end-user tasks for using SSSE. It contains the following topics:

About Using SSSE

SSSE allows you to synchronize Siebel application data with Microsoft Exchange Server, the server for Microsoft Outlook client software. The types of Siebel data available for synchronization 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 Siebel Business Applications, and what types of data users are able to synchronize. After the administrator sets the necessary synchronization settings, the synchronization of data between Siebel Business Applications and Microsoft Exchange is automatic.

Scenarios for Using SSSE

This topic gives the following examples of how SSSE might be used. You might use SSSE differently, depending on your business model:

- "Scheduling a Meeting Using the Calendar" on page 180
- "Recording a Task or To Do Activity" on page 180
- "Storing Personal Contact Information" on page 181
- "Storing Business Contact Information" on page 181
- "Accessing Employee Information" on page 181

Scheduling a Meeting Using the Calendar

A Siebel Business Applications 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 or her Microsoft Outlook calendar. SSSE then removes that user from the list of employees associated with this calendar record in Siebel Business Applications.

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 Siebel Business Applications. Upon saving the changes, the Siebel to Outlook Connector updates the task in the user's Outlook database on the Microsoft Exchange Server.

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.

Storing Business Contact Information

A Siebel application user creates a My Contacts record in Siebel Business Applications 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 Siebel Business Applications and all SSSE users who appear on the Sync List have the change propagated to their Microsoft Outlook Contacts List.

Accessing Employee Information

A Siebel application user would like certain employees in Siebel Business Applications 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 administrator can also optionally implement one-way synchronization of calendar items from Microsoft Exchange to Siebel Business Applications 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 133. 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 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 Inbound Activity Filtering

By default, the inbound activity filtering feature is disabled and all of a sync-enabled user’s calendar (and task) records are synchronized. No user action is required.

However, if the administrator enables inbound activity filtering, sets the Calendar domain's synchronization option to Full Sync, and sets field default values for the purpose of preventing indiscriminate synchronization, then inbound activity filtering directs SSSE to synchronize only the Exchange calendar records that have certain predefined values in a predefined field.

The Microsoft Exchange field that is examined for these values is whichever field is mapped to the Siebel field Activity Type. By default, the Category field in Microsoft Exchange is the field that is mapped to Activity Type, but an administrator can configure a different field to map to Activity Type if required. The predefined Microsoft Exchange field values that allow a record to be synchronized are all valid values for the Siebel Activity Type field. End users can specify which calendar records to synchronize by placing a valid value in the appropriate Exchange Calendar field.

If inbound activity filtering is enabled and the default value for the Type field is Not Set, then SSSE does not attempt to synchronize Exchange calendar records with blank Category fields. For more information about setting up inbound activity filtering, see "Process of Enabling Inbound Activity Filtering" on page 137.

About Using the Opt-in Feature

If the Full Sync option is implemented for the Calendar or Task 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 Task 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 183
- "About Activities and Calendar Records" on page 184
- "About Creating, Modifying, or Deleting an Appointment" on page 185
- "Modifying Recurring Appointments" on page 185
- "All-Day Appointments" on page 186
- "About Adding an Attachment to an Appointment" on page 187

■ “Calendar Appointments with Multiple Attendees” on page 187

Factors That Determine Calendar Synchronization

This topic describes the factors that determine calendar record synchronization. Assuming that the administrator has enabled synchronization for a relevant user, then whether or not a calendar record for the user 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 Siebel Business Applications. For information on the InboundCalendarOnly parameter, see “Implementing Import-Only Synchronization of Calendar Records” on page 133.
- 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. For information on setting the extract start date, see “Setting Extract Start Dates for Users” on page 132.
- Whether a calendar record that is created in Siebel Business Applications 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 Siebel Business Applications has Display In set to Calendar and Activities (this Display In value is required for synchronization).
- Whether an administrator has set the Enable Inbound Activity Filtering parameter to True, what translation mappings exist for Type, and the value of the Category field for any calendar record that is created in Microsoft Exchange. If Inbound Activity Filtering is enabled and the Category value is set to a value that matches a Type translation mapping, then the calendar record is synchronized with the Siebel database.
- 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 182 and “About the Ignore Private Records Feature” on page 182.
- 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 105.

Related Topic
"About Using SSSE with Calendar Records" on page 181

About Activities and Calendar Records

In Siebel Business Applications, task and calendar records are both types of activity records, that is, calendar records are a subset of activity records. When viewed in Siebel Business Applications, 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 35 summarizes how activities created in Siebel Business Applications are synchronized based on the value of the Display In field.

Table 35. 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 Communications and Activities	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 36 summarizes how the Display In field is set when a record that was created in Microsoft Outlook is synchronized with Siebel Business Applications.

Table 36. 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 Siebel Business Applications, 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.

For both calendar and task records created in Microsoft Exchange, the value of the Category field sometimes also affects whether the record is synchronized. This depends on whether or not the administrator has set up inbound activity filtering, either with or without translation mappings. For more information about inbound activity filtering, see "Process of Enabling Inbound Activity Filtering" on page 137.

For information on the synchronization behavior that occurs when the administrator disables Allow Record Deletions in the PIM Domain record for Exchange calendar, see "About Allowing or Preventing Record Deletions for a Domain" on page 117.

Related Topic

"About Using SSSE with Calendar Records" on page 181

About Creating, Modifying, or Deleting an Appointment

You can add a new appointment, change an existing appointment, or remove an appointment in either Siebel Business Applications or Microsoft Outlook. Synchronization is automatic except in the instances described in "Factors That Determine Calendar Synchronization" on page 183.

In the specific case where the Owner adds or removes a contact attendee from an appointment in Siebel Business Applications, 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 Siebel Business Applications, 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 Siebel Business Applications.

Modifying Recurring Appointments

Siebel Business Applications do not support the same recurrence options as Microsoft Outlook, for example, appointments that occur every other week are supported by Microsoft Outlook, but not by Siebel Business Applications. Siebel Business Applications support a Meeting Repeat frequency of every day, week, month, quarter, and year.

If you set a recurrence pattern that is not supported by Siebel Business Applications, when the appointment is synchronized, SSSE creates individual read-only appointments in Siebel Business Applications to represent individual instances of the recurring appointment. However, there is a limit to the number of individual read-only appointments that can be created by synchronizing an appointment with an unsupported recurrence pattern. This limit is determined by the value of the Max Recurring Instances setting for the Siebel Calendar domain. For information on specifying a value for the Max Recurring Instances setting and on configuring recurring appointments, see "Configuring Recurring Appointments" on page 106.

If you modify a particular instance of a recurring appointment in Microsoft Outlook, you cannot modify that appointment in Siebel Business Applications 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 Siebel Business Applications.

Related Topic

"About Using SSSE with Calendar Records" on page 181

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 it is, 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 Siebel Business Applications 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, 2011 and end date-time is 12:00 AM Jan 3, 2011.

  - 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 might display as 12:00 AM in one time zone but other time values in other time zones. If Microsoft Outlook and Siebel Business Applications 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 Using SSSE with Calendar Records" on page 181

About Adding an Attachment to an Appointment

If you add an attachment to a Microsoft Outlook calendar appointment, the attachment is not synchronized with Siebel Business Applications 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 Siebel Business Applications and resynchronize with Microsoft Outlook.

Related Topic

"About Using SSSE with Calendar Records" on page 181

Calendar Appointments with Multiple Attendees

This topic describes how SSSE handles calendar appointments that have multiple attendees in Microsoft Exchange or multiple participants in Siebel Business Applications. The way in which appointments are synchronized can vary depending on whether the appointment was created in Microsoft Exchange or in Siebel Business Applications, and whether or not the appointment owner is enabled to use SSSE. Each of these scenarios is described in the following topics:

- "Calendar Items Created in Siebel Business Applications" on page 187
- "Calendar Items Created in Microsoft Exchange" on page 188

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.

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 Siebel Business Applications, 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 Siebel Business Applications, 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.

Synchronization of Calendar Items

SSSE performs synchronization of Microsoft Outlook calendar appointments with Siebel CRM through the appointment Organizer's calendar only, provided that the Organizer is enabled to use SSSE. This means that appointments created in Microsoft Outlook, or changes or updates to appointments made in Microsoft Outlook, are only synchronized to Siebel CRM when the Organizer's records are synchronized, and not when appointment attendee records are synchronized.

Changes made by attendees to calendar appointments in Microsoft Outlook, for example, accepting or deleting meeting invitations, are propagated within Microsoft Outlook to the Organizer and other attendees. When SSSE synchronizes the Organizer, any changes made to the appointment in Microsoft Outlook by the Organizer or attendees since the last synchronization cycle are reflected in the Organizer's calendar and are synchronized with Siebel CRM.

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 Siebel Business Applications. 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.

Employee participants can view the calendar item in their Siebel calendars. The calendar appointment is created regardless of each participant's Accept/Decline status.

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.

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 any attendee modifies the Siebel calendar item, subsequent synchronizations propagate the modifications to attendees' copies of the appointment in Microsoft Exchange.

NOTE: It is recommended that changes to calendar items created in Microsoft Exchange are made in Microsoft Exchange, not in Siebel Business Applications.

If the meeting Organizer does not have synchronization enabled, the calendar item is synchronized with Siebel CRM for all attendees who have synchronization enabled, and a calendar (activity) record is created in Siebel CRM with the Siebel administrator as the owner. For additional information, see "Special Handling When the Exchange Organizer Is Not Mapped or Enabled to Use SSSE" on page 190.

About Contact Distribution Lists

If you specify a contacts distribution list as an attendee on the Scheduling tab of a Microsoft Outlook calendar item, SSSE resolves the distribution list into its individual members when synchronizing the calendar item to the Siebel application. SSSE does not preserve the distribution list name during this operation. If the calendar item is modified in Siebel Business Applications, the individual attendee names replace the original distribution list when the item is synchronized back to Microsoft Exchange. This functionality applies to distribution lists created in individual users' Contacts folders, and to distribution lists created in Active Directory at the domain local, global or universal levels.

If a calendar event such as a recurring meeting has a distribution list specified as an attendee, and if the distribution list is modified after the creation of the event, then newer members of the distribution list might see past instances of the event in their calendars, even though they were not originally invited to those instances.

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 with the Siebel application. If the administrator has not configured a value for the Generic Siebel Organizer setting, SSSE does not synchronize the calendar appointment.

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 Siebel Business Applications.

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.

Related Topic

"About Using SSSE with Calendar Records" on page 181

About Using SSSE with Task Records

Siebel to do activities are called tasks in Microsoft Outlook. The SSSE administrator sets task 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. In general, however, 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 task records, see:

- "Factors That Determine Task Record Synchronization" on page 191
- "About Creating, Modifying, or Deleting a Task Record" on page 192
- "About Creating or Modifying a Recurring Task Record" on page 193
- "About Adding an Attachment to a Task Record" on page 193
- "Assigning Tasks to Other Users" on page 193
- "How Priorities and Status Values Are Set for a Task Record" on page 194
- "About Using SSSE with Contact Records" on page 195

The information in these topics assumes that task synchronization is set to Full Sync.

Factors That Determine Task Record Synchronization

This topic outlines the factors that determine whether or not a task record is synchronized. Assuming that the administrator has enabled synchronization for a relevant user, then whether or not a task record for the user is synchronized depends on the following factors:

- 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 task 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 Extract Start Dates for Users" on page 132.

- 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 182 and "About the Ignore Private Records Feature" on page 182.
- Whether or not the administrator has enabled the Inbound Activity Filtering option. For additional information, see "About Inbound Activity Filtering" on page 181.
- The value of the Display In field for each individual task record. (SSSE synchronizes task records for which the value of the Display In field is `To Do and Activities`.)

The following section describes the synchronization behavior that occurs when the administrator has disabled Allow Record Deletions in the PIM Domains list record for the Exchange Task domain.

Allow Record Deletions Is Not Selected

If the administrator has cleared the Allow Record Deletions check box in the PIM Domains record for Exchange Task, the following situation can occur:

A task item is created in Microsoft Outlook. Provided that Inbound Activity Filtering is disabled or the record contains a value that Inbound Activity Filtering accepts as valid for synchronization, SSSE synchronizes the task to the Siebel database. A user deletes the task in the Siebel To Do list. On subsequent synchronizations, no change occurs to the Microsoft Outlook task, but the task is not re-synchronized with the Siebel database. However, if a user makes a change to the Microsoft Outlook task (or if Microsoft Exchange detects a possible change resulting from accessing the task), then that task will be re-synchronized with the Siebel database (again, provided that Inbound Activity Filtering is disabled or provided that the task record contains a value that Inbound Activity Filtering recognizes as valid for synchronization). For more information about the Allow Record Deletions setting, see "About Allowing or Preventing Record Deletions for a Domain" on page 117.

Related Topic

"About Using SSSE with Task Records" on page 191

About Creating, Modifying, or Deleting a Task Record

You can add a new task record, change an existing task record, or remove a task record in either Siebel Business Applications or in Microsoft Outlook. Synchronization is automatic for task (to do activity) records that are created in Siebel Business Applications. For task records that are created in Microsoft Outlook, whether or not synchronization is automatic depends on the following:

- If your administrator has enabled inbound activity filtering or 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 Inbound Activity Filtering" on page 181 and "About Using the Opt-in Feature" on page 182.

- If you select the Private check box for the record, and if the administrator has enabled the Ignore private records option for the Task domain, the record is not synchronized. For additional information, see "About the Ignore Private Records Feature" on page 182.

About Creating or Modifying a Recurring Task Record

Siebel Business Applications do not support recurring activities except for the calendar domain, but Microsoft Outlook and Exchange do. If you set a task recurrence in Microsoft Outlook, when that task is synchronized, a single, one-time activity record with a Display In value of `To Do` and `Activities` is created in Siebel Business Applications.

Related Topic

"About Using SSSE with Task Records" on page 191

About Adding an Attachment to a Task 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 activity record is updated, the next synchronization updates the Microsoft Outlook task without affecting the attachment. Similarly, if a Siebel to do activity 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 "Modifying Enterprise and Server Component Parameters" on page 54.

Related Topic

"About Using SSSE with Task Records" on page 191

Assigning Tasks to Other Users

You can assign tasks to other users in either Siebel Business Applications or in Microsoft Outlook. During synchronization, SSSE makes the appropriate changes in Siebel Business Applications 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 Siebel Business Applications, you assign a to do activity 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 Task Records" on page 191

How Priorities and Status Values Are Set for a Task Record

This topic describes how priorities and status values are set for task records that are synchronized from Siebel Business Applications to Microsoft Exchange Server.

The Priority level assigned to a Siebel to do activity when the item is synchronized to Microsoft Exchange Server is shown in Table 37 (these are default values). For information on changing these values, see "Creating Field Mappings" on page 123.

Table 37. Priority Synchronization

Siebel Priority Value	Exchange Priority Value
1-ASAP	High
2-High	High
3-Medium	Normal
4-Low	Low

Table 38 indicates how a to do activity's status is set when the record is synchronized between Siebel Business Applications and the Microsoft Exchange Server.

Table 38. Status Synchronization

Siebel Status Value	Exchange Status Value
Acknowledged	0
Not Started	0
In Progress	1
Done	2
On Hold	3

Table 38. Status Synchronization

Siebel Status Value	Exchange Status Value
Cancelled	4
Declined	4

Related Topic

"About Using SSSE with Task Records" on page 191

About Using SSSE with Contact 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 Siebel Business Applications or Microsoft Outlook, but users can only change business contacts to personal contacts in Microsoft Outlook.

NOTE: Synchronization of data from the Siebel Personal Contact domain is not supported if you are using Microsoft Exchange Server 2010.

Contacts are synchronized only if the user uses the Add To Sync List command to request that the contact record is synchronized. The Add To Sync List command adds the current user to the Sync List MVG field for the selected record. For additional information, see "Enabling and Disabling Contact Records for Synchronization" on page 196. 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.

SSSE applies the following rules when synchronizing contact records:

- For successful synchronization of business contact records that have either account information or Business Address information, when synchronizing from Microsoft Exchange to a Siebel application, the contact information must include both an Account Name and an Account Location.
- If an 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 Siebel Business Applications. 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 Siebel Business Applications. 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 Siebel Business Applications. 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 synchronization for the Contacts domain is set to Full Sync.

- "Enabling and Disabling Contact Records for Synchronization" on page 196
- "About Creating, Modifying, or Deleting a Contact" on page 197
- "About Adding an Attachment to a Contact" on page 198
- "Creating a Personal Contact" on page 198
- "Account-to-Contact Relationships" on page 199
- "About Changing Contact Domains" on page 200
- "Synchronization of Contact Phone Numbers" on page 200

Enabling and Disabling Contact Records for Synchronization

This topic describes how to designate contact records for synchronization and how to disable contact records from synchronizing.

Contacts (both personal and business) in Siebel Business Applications 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, then the 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.

The following procedure describes how to stop synchronizing one or more contact records that you have previously synchronized.

To stop synchronizing selected contact records

1. Navigate to Contacts, then the 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 Topic

"About Using SSSE with Contact Records" on page 195

About Creating, Modifying, or Deleting a Contact

You can add a new contact, modify an existing contact, or delete a contact in either Siebel Business Applications or in Microsoft Outlook.

If you add a new contact in Siebel Business Applications, 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 "Enabling and Disabling Contact Records for Synchronization" on page 196.

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 Siebel Business Applications. 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 201.

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 Siebel Business Applications, 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 Siebel Business Applications, 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 Siebel Business Applications.

Related Topic

"About Using SSSE with Contact Records" on page 195

About Adding an Attachment to a Contact

You can add attachments to contact records in both Microsoft Outlook and Siebel Business Applications. 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 "Modifying Enterprise and Server Component Parameters" on page 54.

Related Topic

"About Using SSSE with Contact Records" on page 195

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 Siebel Business Applications. If the Private check box is not selected, the contact is considered a business contact and appears in the My Contacts view in Siebel Business Applications.

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 Contact Records" on page 195

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 Siebel Business Applications 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 Siebel Business Applications. Any accounts previously associated with that contact remain associated but are not primary.

CAUTION: Users must not delete the association between an account and a contact in Microsoft Outlook. Users must 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, during the next synchronization cycle, SSSE deletes A1 from the account MVG for the contact. In the process, A2 (next account record) becomes primary and this change is synchronized with Microsoft Exchange. The end-result is that the user who cleared A1 now sees A2 in its place. This has the potential for confusion and data loss.

Contact Access

For a business contact in Siebel Business Applications to be accessible to SSSE during the outbound synchronization process, the Siebel user must have designated the individual contact record for synchronization by adding it to his or her Sync List.

During the inbound synchronization process for a user, a business contact is accessible to SSSE if either of the following conditions apply:

- On the user's User Map record, the Visibility Type specified for the user for the Siebel Business Contact domain is All.
- If Visibility Type is set to Sales Rep, contact records to be synchronized must be visible in the user's My Contacts list.

Related Topic

"About Using SSSE with Contact Records" on page 195

About Changing Contact Domains

You can change a personal contact to a business contact in either Siebel Business Applications 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 Siebel Business Applications, 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 Siebel Business Applications.

Related Topic

"About Using SSSE with Contact Records" on page 195

Synchronization of Contact Phone Numbers

This topic describes how contact phone numbers are formatted and displayed when SSSE synchronizes business or personal contacts between Microsoft Outlook and Siebel Business Applications.

Inbound Synchronization

When SSSE synchronizes a Microsoft Outlook contact, the contact phone numbers are displayed in Siebel Business Applications as follows:

- If the Microsoft Outlook contact number does not contain a country code, the default country code is used and an informational message is logged. The default country code is the country code of the system locale in which the SSSE Engine is running.
- If the Microsoft Outlook contact number contains a country code, the number is formatted using that country code.

  If a PHONE_FORMAT LOV is configured for the country code, the phone number is formatted using the configured value. If a PHONE_FORMAT LOV is not configured, the phone number is formatted as a custom phone number. For information on specifying phone-number formats, see *Siebel Applications Administration Guide*.
- If a formatted contact number plus any format string is larger than the maximum length defined for the field, the number is trimmed and a message is logged.
- If the country code is null and the contact phone number starts with 0, a country code is not added to the number.

- Phone numbers that are not formatted and that are less than 10 characters in length are padded with x characters. SSSE attempts to reformat such numbers.

Outbound Synchronization

Phone numbers that are exported from Siebel Business Applications to Microsoft Outlook are formatted as international numbers containing the + country code indicator and the country code.

If the country code cannot be determined, the number is exported with just the + country code indicator character preceding the phone number. In cases where the country code can be determined, it is included and is space-delimited from the rest of the number.

About Using SSSE with Employee Records

Employees in Siebel Business Applications 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.

SSSE does not support the synchronization of Microsoft Outlook or Microsoft Exchange Server distribution lists. SSSE can synchronize only individual contacts and employees.

NOTE: Synchronization of data from the Siebel Employee domain is not supported if you are using Microsoft Exchange Server 2010.

For more information about Using SSSE with employee records, see:

- "About Synchronizing Employees" on page 201
- "Enabling and Disabling Employee Records for Synchronization" on page 202
- "About Creating, Modifying or Deleting an Employee" on page 203

About Synchronizing Employees

Bidirectional synchronization is not supported for the Employee domain because its use could allow users to create unauthorized employee records in Microsoft Outlook, and to synchronize those records with the Siebel database for the Enterprise, causing data corruption. The synchronization level for employees must either be set to the default value of Export Only or to None.

If Employee synchronization is set to Export Only, an employee's data is exported from Siebel Business Applications to Microsoft Exchange at the time that you designate the employee record for synchronization. For information about how to do this, see "Enabling and Disabling Employee Records for Synchronization" on page 202. As long as the employee remains on your Sync List, SSSE automatically exports employee record changes from Siebel Business Applications to Microsoft Exchange.

Related Topics

"Setting Siebel Domain-Level Synchronization" on page 114

"About Using SSSE with Employee Records" on page 201

Enabling and Disabling Employee Records for Synchronization

This topic describes how to designate employee records for synchronization and how to disable employee records from synchronizing.

Employee records in Siebel Business Applications are exported to your 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.

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 Topics

"About Using SSSE with Employee Records" on page 201

"About Synchronizing Employees" on page 201

About Creating, Modifying or Deleting an Employee

Because the synchronization level for employees is Export Only, you must add or modify employees in Siebel Business Applications. Do not add or modify employees in Microsoft Outlook. Changes made to an employee record in Microsoft Outlook are not synchronized by SSSE and are overwritten when the employee record is next updated in the Siebel application. After adding an employee in the Siebel application, be sure to designate the record for synchronization, as described in "Enabling and Disabling Employee Records for Synchronization" on page 202.

If you delete an employee in Microsoft Outlook only, the employee record reappears in Microsoft Outlook the next time employee records are exported from Siebel Business Applications. To remove an employee from the Microsoft Outlook contact list, do not delete the employee record in Siebel Business Applications. Instead, users must remove their names from the Sync List for that employee.

Related Topic

"About Using SSSE with Employee Records" on page 201

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 39 on page 204, 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 142.

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 143.

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 39 contains a listing of some of the error messages that indicate partially successful synchronization.

Table 39. 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 unresolved 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 IDS_ERR_EAI_SA_DUP_CONFLICT SSASqlErrDupConflict2 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 IDS_WRN_EAI_SA_DML 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 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 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 39. 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 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 might 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 IDS_ERR_EAI_SA_PICK_ 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 Siebel Business Applications, 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 Siebel Business Applications or to use an existing link to go to a record in Siebel Business Applications.

- Right-click menu items

  The Siebel right-click menu allows you to link the selected Microsoft Outlook item to a record in Siebel Business Applications 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 Siebel Business Applications. 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 Siebel Business Applications, 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 125.

Related Topic

"About Using Siebel Outlook Add-In" on page 231

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 14.
- 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 *Siebel System Requirements and Supported Platforms* on Oracle Technology Network.

  NOTE: For Siebel CRM product releases 8.1.1.9 and later and for 8.2.2.2 and later, the system requirements and supported platform certifications are available from the Certification tab on My Oracle Support. For information about the Certification application, see article 1492194.1 (Article ID) on My Oracle Support.

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:

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 Siebel 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 Siebel 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 Siebel Business Applications 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 213.

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 *Siebel Security Guide*.

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 216.

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 217.

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 the Administration - Server Configuration screen, then the Enterprises view.
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 For a description of this parameter, see "About the Messaging Client AddIn EAI Url Parameter" on page 209.	Enter the Siebel EAI path `http://your_host/eai_language-code/`	At Server Restart
Messaging Client AddIn Cache Refresh Interval For a description of this parameter, see "About the Messaging Client AddIn Cache Refresh Interval Parameter" on page 209.	Optional. Modify the value of the cache refresh interval in minutes.	At Server Restart
Messaging Client AddIn Link History For a description of this parameter, see "About the Messaging Client AddIn Link History Parameter" on page 210.	Optional. Modify the number of days to keep quick links.	At Server Restart

5 Enable Web Client Automation as follows:

   a Navigate to the Administration - Server Configuration screen, then the Servers view.

   b In the Servers list, select the appropriate server, then click the Components tab.

   c Select the appropriate component, for example, Sales Object Manager (ENU).

   d Click the Parameters tab, then query for the EnableWebClientAutomation parameter.

   e Change the default value of the EnableWebClientAutomation parameter to True.

   f Save the record.

6 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.

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. For information about the Add-In Update Agent, see "Installing Siebel Outlook Add-In" on page 213.

To set a value for the Bucket Size user property

1 Log in to 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* 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.

(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 217.

This task is an optional step in "Process of Setting Up Siebel Outlook Add-In."

Table 40 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 40. 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 the Administration - PIM Server Integration screen, then the Siebel Objects view.
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 installation 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

This topic describes how to initialize the communication between Microsoft Outlook and Siebel Business Applications on each computer using the Siebel Outlook Add-In. It also describes how to configure the maximum number of unsuccessful attempts you can make to log in to the Siebel application from Microsoft Outlook Add-In when creating or updating the local cache before you must change the Siebel user name and password in Microsoft Outlook.

This task is a step in "Process of Setting Up Siebel Outlook Add-In."

Initializing Siebel Outlook Add-In

The following procedure describes how to initialize 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.

      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 209.
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 209. 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 Unsuccessful Siebel Login Attempts

If you enter an incorrect Siebel password in Microsoft Outlook when initializing the Siebel Outlook Add-In client (see Step 2 on page 214), the client cannot connect to the Siebel application to create or update the local cache. In these circumstances, Siebel Outlook Add-In prompts you to log in to a new Siebel session. If you log in successfully, the local cache is created or updated. However, if you enter an invalid Siebel password three times in a row (by default, the maximum number of attempts permitted), your are locked out of your Siebel account until you change the Siebel password in Microsoft Outlook.

To avoid password lockouts, use the following procedure to change the maximum number of unsuccessful attempts you can make to log in to the Siebel application before Siebel Outlook Add-In requires that you manually change the Siebel password in Microsoft Outlook.

To configure the maximum number of unsuccessful 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 Change the value of this parameter to the maximum number of Siebel login attempts you want to allow. The default value of the MaxErrorCount parameter is 3.

(Optional) Configuring Siebel Outlook Add-In for Web Single Sign-On Authentication

This topic describes how to enable Web Single Sign-On user authentication for the Siebel Outlook Add-In.

The Siebel Outlook Add-In allows users to link Microsoft Outlook records to records in the Siebel application. If the Siebel application uses Web Single Sign-On (Web SSO) as the user authentication mechanism, then the Siebel Outlook Add-In must also be configured to allow Web SSO authentication when accessing the Siebel application. For detailed information about implementing Web Single Sign-On for Siebel Business Applications, see *Siebel Security Guide*.

This task is a step in "Process of Setting Up Siebel Outlook Add-In."

The following procedure describes how to enable Web SSO for Siebel Outlook Add-In.

To configure Web SSO for Siebel Outlook Add-In

1 In the Windows Registry of each computer running the Siebel Outlook Add-In client, navigate to the following entry:

```
[HKEY_CURRENT_USER\Software\Siebel Systems, Inc.\Siebel Outlook Add-In]
EnableSSO
```

2 Set the value of the EnableSSO parameter to 1.

If the EnableSSO parameter does not exist, add it.

Testing Siebel Outlook Add-In

Perform the following task to test linking and unlinking between Microsoft Outlook and Siebel Business Applications.

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 Siebel Business Applications has been initialized and is working properly.

Related Topic

"Linking to Siebel Data from Microsoft Outlook" on page 232

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 Siebel Business Applications. 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 Siebel Business Applications. 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 233. 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.

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 from 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 an existing relationship does not exist between the Siebel object you want to make available in Microsoft Outlook and the business component underlying the records you want to associate with the object, create a relationship 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 218
2. "Creating a New PIMSI Siebel Object" on page 219
3. "Updating Integration Objects" on page 221
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 225

6 "Updating the PIMSI Domain Configuration" on page 228

7 "Updating Domain Maps" on page 230

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 217.

Perform the following procedure to create the new LOV type records.

To create the LOV type records

1 In Siebel Tools, from the Tools menu, choose Screens, System Administration, and then the Lists of Values menu item.

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.

Type	Display Value	Language Independent Code (LIC)	Description
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.
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 "Process of Configuring Custom Objects in Siebel Outlook Add-In" on page 217.

Follow the procedure below to create the new PIMSI Siebel object.

To create the new PIMSI Siebel object

1 Navigate to the Administration - PIMSI Server Integration screen, then the Siebel Objects view.

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.
Translation LOV	PIMCI_ADDIN_*HOUSEHOLD*_FIELD	The multilingual LOV defined in Step 2 on page 218 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. In choosing the view to display, ensure the following conditions exist: ■ The view business object must be the same as the business object for this record ■ The view's visibility applet type must be the same as the view mode specified for this record. ■ 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 "Process of Configuring Custom Objects in Siebel Outlook Add-In" on page 217.

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 make available 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

Attribute	Field 1	Field 2	Field 3	Field 4
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.
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 displayed 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	Not applicable	Not applicable
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 221.

This task is a step in "Process of Configuring Custom Objects in Siebel Outlook Add-In" on page 217.

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 the Administration - Integration screen, then the Data Map Editor view.

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 made available 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. See *Configuring Siebel Business Applications* for information on building expressions.
[*HouseholdId*]	*Household Id*	

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 the Administration - Integration screen, then the Data Map Editor view.

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 made available 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. See *Configuring Siebel Business Applications* for information on building expressions.
[*Household Id*]	*HouseholdId*	

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 "Process of Configuring Custom Objects in Siebel Outlook Add-In" on page 217.

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 the Administration - PIM Server Integration screen, then the Siebel Domains view.
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 that is to be made available 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 the Administration - PIM Server Integration screen, then the PIM Domains view.

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 that is to be made available 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 the Administration - PIM Server Integration screen, then the Configuration view.

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 217.

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 the Administration - PIM Server Integration screen, then the Domain Map view.
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 219.
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 Siebel Business Applications. You can also remove links using these controls.

Table 41 lists the types of Siebel records that you can link to from Microsoft Outlook.

Table 41. 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

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 231

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 217.

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 233. 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 231

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 233.

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 click Go.

The associated record is displayed in the Siebel application.

Related Topic

"About Using Siebel Outlook Add-In" on page 231

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 Siebel Outlook Add-In" on page 231

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.

  The desktop 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 216.

- 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

"About Using Siebel Outlook Add-In" on page 231

10 Setting Up and Using Embedded Outlook Calendar

This chapter describes how to set up and use the Embedded Outlook Calendar deployment option for Oracle's Siebel Server Sync for Microsoft Exchange Server (SSSE) product. The chapter includes the following topics:

About Embedded Outlook Calendar

Embedded Outlook Calendar (EOC) lets users access their Microsoft Outlook calendar from within Siebel Business Applications.

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 237.

NOTE: Support for the Embedded Outlook Calendar is not available if you are using Microsoft Outlook 2010.

About Siebel Calendars and Views

Depending on your Siebel implementation, you might have access to one or more types of calendars. Table 42 on page 238 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 Siebel Business Applications. 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 42 illustrates the calendar views associated with responsibilities.

Table 42. 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 240

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 14.

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 *Siebel System Requirements and Supported Platforms* on Oracle Technology Network.

NOTE: For Siebel CRM product releases 8.1.1.9 and later and for 8.2.2.2 and later, the system requirements and supported platform certifications are available from the Certification tab on My Oracle Support. For information about the Certification application, see article 1492194.1 (Article ID) on My Oracle Support.

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 239
2. "Enabling Embedded Outlook Calendar Visibility" on page 240

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 "Process of Setting Up Embedded Outlook Calendar" on page 239.

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 the Administration - PIM Server Integration screen, then the Configuration view.
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. You can retrieve the Outlook view names from your Outlook Calendar, by choosing View, Arrange By, and then Current View. 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 239.

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 125.
- 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.

- There must be a trust relationship between the Active Directory domain in which the EOC user's computer runs and the domain in which the EOC user's Microsoft Exchange Server runs. The user must also log into the computer using the PIM User Identifier specified for the user in the User Map of the Siebel application. For additional information, see "Mapping Individual Users" on page 130 and "Mapping Multiple Users" on page 130.

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 mean 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 114 and "Enabling or Disabling User Synchronization" on page 131.

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 the Administration - Application screen, then the Responsibilities view.
2. In the Responsibilities list, select the Embedded Outlook Calendar record.
3. In the Users list, click New, and then select a user.

Related Topic

"About Siebel Calendars and Views" on page 237

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 Siebel Business Applications 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.
  - Oracle's Siebel Mobile Web Client synchronizes with the Enterprise or Regional database.

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