



Siebel



Server Sync Guide

April 2020



April 2020

Part Number: F12794-04

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Preface

This preface introduces information sources that can help you use the application and this guide.

Using Oracle Applications

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1 What's New in This Release

What's New In Siebel Server Sync Guide, Siebel CRM 20.3 Update

The following information lists the changes described in this version of the documentation to support this release of the software.

Topic	Description
—	This guide has been updated to correct or remove obsolete product and component terms.
<i>Initializing Siebel Outlook Add-In</i>	Modified Topic. The topic describes the steps to manually configure Siebel Outlook Add-In.
<i>Suppressing Email Invitations</i>	Modified Topic. The topic describes the steps to Suppress Email Invitations.

What's New In Siebel Server Sync Guide, Siebel CRM 20.1 Update

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, Siebel CRM 19.6 Update

The following information lists the changes described in this version of the documentation to support this release of the software.

Topic	Description
<i>Integrating Office 365 with Siebel Server Sync (SSSE) for Microsoft Exchange Server</i>	New Topic. It describes the integration of SSSE with Exchange Online (a cloud based Office 365 application) function.  Note: This feature is available as an early adoption feature.

What's New In Siebel Server Sync Guide, Siebel CRM 19.1 Update

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

2 Introducing Siebel Server Sync

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*
- *SSSE Deployment Options*
- *SSSE Synchronization Options*
- *Important SSSE Terminology*

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.



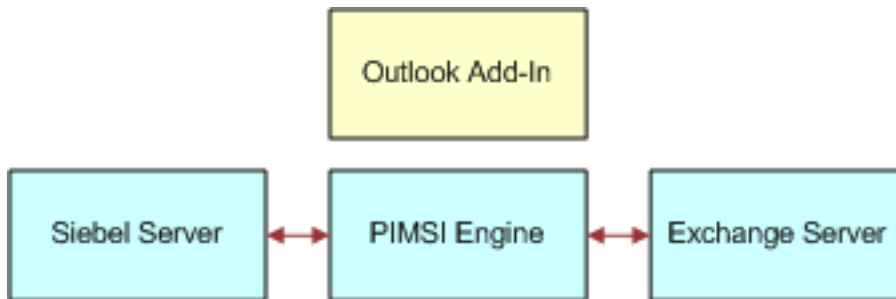
Note: For Siebel CRM product releases 8.1.1.9 and later and for 8.2.2.2 and later, the system requirements and supported platform certifications are available from the Certification tab on My Oracle Support. For information about the Certification application, see article 1492194.1 (Article ID) on My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

SSSE can synchronize data that appears in the My To Do List, My Calendar, and My Contact 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 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

The following information shows the SSSE components in relation to Siebel Server and Microsoft Exchange Server.



SSSE is composed of two 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 [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 [Setting Up and Using Siebel Outlook Add-In](#).

You can choose to deploy SSSE with or without the Outlook Add-In.

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

- [Siebel Server Sync for Microsoft Exchange Server Architecture Overview](#)
- [Installing Siebel Server Sync for Microsoft Exchange Server](#)
- [Configuring Siebel Server Sync for Microsoft Exchange Server](#)
- [Administering Siebel Server Sync for Microsoft Exchange Server](#)
- [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, if you choose to do so. For more information, see [Setting Up and Using Siebel Outlook Add-In](#).



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

SSSE Synchronization Options

SSSE supports the data synchronization options shown in the following.

Synchronization Level	Description
Full Sync	Bidirectional synchronization of data between the Siebel database and one or more Microsoft Exchange Servers occurs.

Synchronization Level	Description
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 <i>Implementing Import-Only Synchronization of Calendar Records</i> and <i>About the Limitation Against Import Only Synchronization Level</i>.
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
- Calendar items

The following table shows the default synchronization settings for each Siebel domain.

Siebel Domain	Default Synchronization Level
Business Contact	Full Sync
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*.

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 the following strategy is employed:

- If a Contact record originates in the Siebel application, then an opt-in approach is employed. This means that the user must use the Add To Sync List command to direct SSSE to synchronize that contact to be synchronized between the Siebel Server and the Microsoft Exchange mailbox for that user.
- If a Contact record originates in Microsoft Exchange, then SSSE synchronizes the record unless it is marked as Private. For more information on designating records for synchronization, see *Using Siebel Server Sync for Microsoft Exchange Server*.

Related Topics

Setting Siebel Domain-Level Synchronization

Enabling and Disabling Contact Records for Synchronization

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, and Tasks.
- **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

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*
- *About PIMSI Dispatcher*
- *About Exchange Connector*
- *PIMSI Engine Task Flow*
- *SSSE Architecture*
- *SSSE System Requirements*
- *Initial Extract and Ongoing Extract*
- *About Synchronizing Records during Initial Extract*
- *About Synchronizing Records During the Ongoing Extract Process*
- *About SSSE Contact Record Matching*

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 business contacts 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 no other end user action is 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, then 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, then 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, then 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, then 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 SSSE Exchange Connector interacts with Exchange using Exchange Web Services calls.

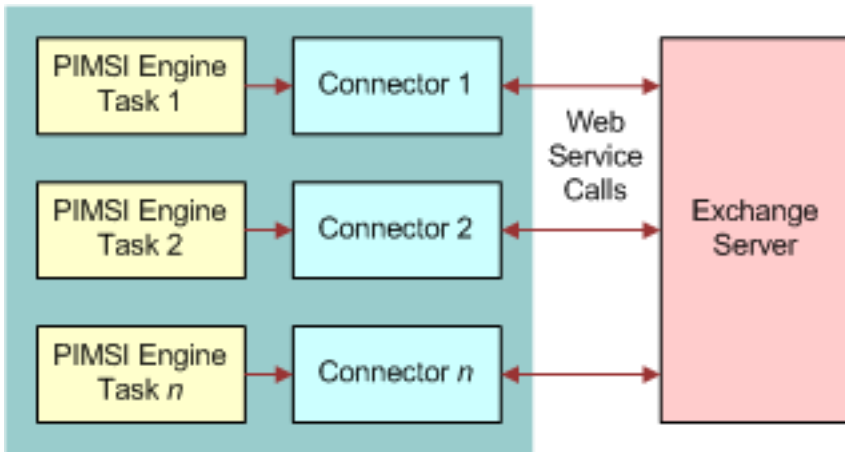
For information on configuring the Exchange connectors, see [Configuring Siebel Server Sync for Microsoft Exchange Server](#).

About the Web Service Exchange Connector

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 the following.



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.

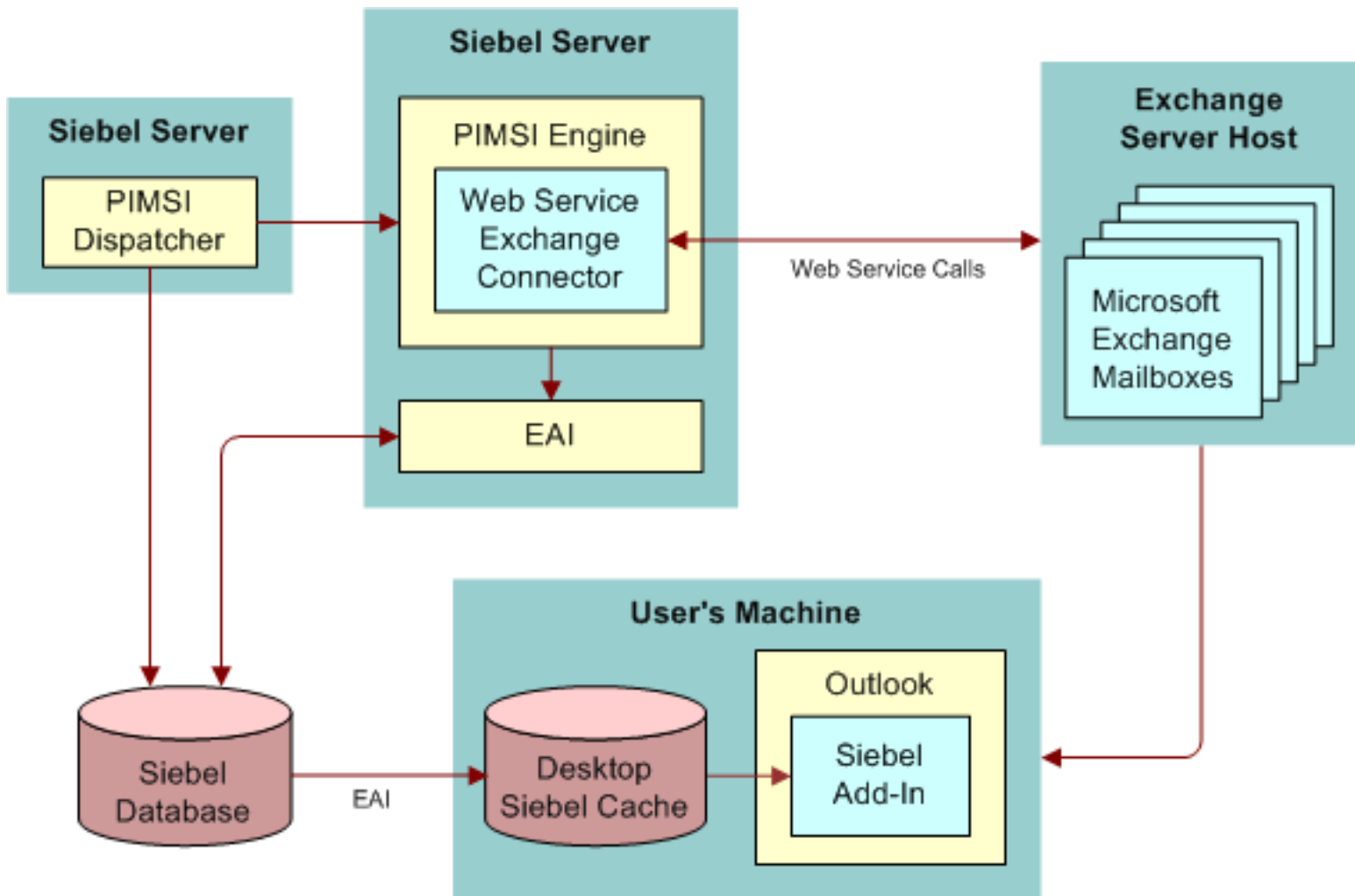


Note: For specific operations, such as Delete or Visibility Change operations, the PIMSI Engine data flow relies upon database triggers recording information in the S_SD_SYNC_INFO table about changes to Siebel data.

SSSE Architecture

The SSSE architecture is illustrated in the following figure.

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.



If your implementation includes firewalls between SSSE and Exchange components, then 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](#).

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 Microsoft Windows operating system. For information about versions 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.
- If your Siebel implementation experiences a shortage of connections to the database, then 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, 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*.

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, then 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 whether corresponding records have to be modified or whether new records have to be created.

When SSSE compares calendar 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](#). For information about how SSSE matches contact records, see [About SSSE Contact Record Matching](#).

- **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](#).

If you have enabled the Opt-in feature for calendar and task records, then 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](#).

- **Private check box status.** If you have set the Ignore option for the Private Item Behavior parameter for calendar and task records, then SSSE does not synchronize records that have the Private check box selected. For additional information, see [Skipping Private Calendar or Task Records During Synchronization](#).
- **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](#)
- [Initial Extract of Microsoft Exchange Task and Calendar Records](#)
- [About Synchronizing Records During the Ongoing Extract Process](#)
- [About SSSE Contact Record Matching](#)

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](#).

If the `OnlySyncCategorizedContacts` parameter is set to FALSE, then all the user's Microsoft Exchange contact records are considered for synchronization. By default, this parameter is set to FALSE. The following table 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 the following table.

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.
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.

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
Export Only	No	Yes	Yes	SSSE matches the existing record and overwrites it with Siebel record values if conflicts exist.	No change.
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.

The following table shows how SSSE handles Microsoft Exchange contact records during an initial extract when the 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

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	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.
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](#)

[About Synchronizing Records During the Ongoing Extract Process](#)

Initial Extract of Microsoft Exchange Task and Calendar Records

The following table 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](#).

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](#) and [About SSSE Contact Record Matching](#).

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, then 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, then 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](#).

- 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 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. SSSE does not delete the Siebel business contact, because that contact might be shared with other users or have data associated with it that is needed.

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 whether 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, then 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, then 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, then 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](#).

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), then 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, then SSSE creates a new contact record. If a matching record is found, then 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. For more information about this process, see [About the Contact Record Matching Process](#).

If the IgnoreContactMatching parameter is set to TRUE, then 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](#).

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, then SSSE then attempts to match the contact record using first and last names.

Assume a new contact is added to Microsoft Exchange and it is being synchronized to the Siebel application for the first time. In order to minimize duplicate contacts, SSSE uses the following steps to attempt to match it with any existing contacts in Siebel, rather than automatically creating a new contact:

- 1. Email matching.** If the Exchange contact has an email address, then SSSE queries all existing Siebel contacts for a contact with the same email address.
This search is meant to identify a matching record regardless of variations in the contact's name. For example, the contact William Smith with the email address `william.smith@company.com` exists in the Siebel database, and a user creates a new contact Bill Smith with email address `william.smith@company.com`. The query for the email address shows that they are the same contact, but a query that included first and last name would not have found a match.
If SSSE finds one and only one match, then it considers a match to be found and it skips the rest of the matching process.
- 2. First and Last Name and Email matching.** If no single contact match is found, then SSSE queries all existing Siebel contacts for a record with the same email address, first name, and last name. Given the previous step, this query will find a result only if the same email address is associated with multiple contacts.
There are two common examples of this. The first is the case where two people (such as a married couple) share an email address, but both contacts can exist separately in Microsoft Exchange or in the Siebel application. The second is the case where some common mailbox is shared amongst many people, such as `support@company.com`.
In either case, we need additional criteria beyond email address to identify which contact is being synchronized. If this query returns one and only one match, then SSSE considers a match to be found and it skips the rest of the matching process.
- 3. First and Last Name Matching.** As its final attempt to find a match, SSSE queries for a contact that has a match on a first and last name and that has no email address in the Siebel database.
For example, this type of query will find that the Microsoft Exchange contact named John Smith (with or without an email address) matches the Siebel contact named John Smith who does not have an email address. The reason for this is that, if the existing Siebel record for John Smith has an email address that does not match, then it is a different John Smith.
Because many people might have the same name, a match SSSE considers a match to be found only if it finds one and only one matching record.

After completing these steps, SSSE takes one of the following actions:

If a single match was found, then SSSE associate the syncing user with the existing Siebel Contact and marks the Sync Flag as true for that user.

If zero or multiple matches were found, then SSSE creates a new Siebel Contact record for the syncing user and marks the Sync Flag as true.



Note: A similar process applies if a new Siebel contact record is being synced to a Microsoft Exchange mailbox for the first time. SSSE performs these three queries to attempt to find a match before automatically creating a new contact in Exchange.

Related Topics

[About Synchronizing Records during Initial Extract](#)

[About Synchronizing Records During the Ongoing Extract Process](#)

4 Installing Siebel Server Sync for Microsoft Exchange Server

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:

- *Configuring Firewalls for Use with SSSE*
- *Requirements for Installing SSSE Components in a Cluster Configuration*

For information about hardware and software requirements, see *SSSE System Requirements*. For information about installing the Siebel Outlook Add-In deployment option, see *Process of Setting Up Siebel Outlook Add-In*.

Configuring Firewalls for Use with SSSE

If your SSSE implementation includes firewalls between components, then 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.

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.

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.

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

- The PIMSI Engine can be deployed in either active-active or active-passive mode.
- 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*.

5 Configuring Siebel Server Sync for Microsoft Exchange Server

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*
- *Roadmap for Configuring SSSE*
- *About the Default Account Setting*
- *About Tuning SSSE for Optimal Performance*
- *Modifying Enterprise and Server Component Parameters*
- *About the Exchange Service Account*
- *Configuring User Mailbox Access for the Exchange Service Account*
- *Process of Configuring the Web Service Exchange Connector*
- *Configuring the Autodiscover Service URL*
- *Configuring SSSE for Multiple AD Forest Environments (Web Connector)*
- *Configuring the IIS Web Server for Microsoft Exchange (Web Connector)*
- *Modifying SSSE Log File Settings*
- *Configuring the Database for SSSE*
- *About Enabling and Disabling Components on SSSE Servers*
- *Restarting Siebel Services*
- *Configuring and Starting PIMSI Dispatcher*
- *Configuring Support for Items Archived in Microsoft Outlook*
- *Suppressing Email Invitations*
- *About Configuring Recurring Appointments*

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*.

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](#).

Roadmap for Configuring SSSE

To configure SSSE, perform the following tasks:

- [Modifying Enterprise and Server Component Parameters](#)
- Review [About the Exchange Service Account](#)
- [Configuring User Mailbox Access for the Exchange Service Account](#)
- [Process of Configuring the Web Service Exchange Connector](#)
- [Modifying SSSE Log File Settings](#)
- [Modifying SSSE Log File Settings](#)
- [About Enabling and Disabling Components on SSSE Servers](#)
- [Restarting Siebel Services](#)
- [Configuring and Starting PIMSI Dispatcher](#)

The following configuration tasks are optional:

- [Configuring the Database for SSSE](#)
- [Configuring Support for Items Archived in Microsoft Outlook](#)

About the Default Account Setting

This topic describes how the Default Account 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, then 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.

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.

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.

Choosing an Appropriate Dispatcher Repeat Interval

When you are satisfied with your 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*.

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*.

This task is a step in *Roadmap for Configuring SSSE*.

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](#)
- [SSSE-Related Siebel Enterprise Server Parameters](#)

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 the tables in topics [SSSE-Related Siebel Enterprise Server Parameters](#) and [Configuring the Database for SSSE](#) 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. To make the change effective, restart 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

The information in the table in *SSSE-Related Siebel Enterprise Server Parameters* lists PIMSI Engine server component parameters.



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, then unpredictable results can occur.

Related Topic

Modifying Enterprise and Server Component Parameters

SSSE-Related Siebel Enterprise Server Parameters

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

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.
Dispatcher Abort Limit Per Use	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

Parameter Name	Parameter Alias	Comments
Applies to the PIMSI Dispatcher component only.		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, then 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.
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, then 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:

Parameter Name	Parameter Alias	Comments
		About Setting Calendar and Task Record Synchronization Options Setting Up Translation Mappings for Inbound Activity Filtering
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 .
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	This parameter is now obsolete.
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, then 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, then data, such as LOVs and system parameters, is queried only once and is shared by the jobs for each user.
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. 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

Parameter Name	Parameter Alias	Comments
		—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 <i>Initial Extract and Ongoing Extract</i> and <i>Setting PIM Category Values for Siebel Domains</i> .
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, then 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, then any data in an unmapped field is removed from the record in Microsoft Exchange.
Remove Attendees With No Email	RemoveOutAttendees WithoutEmail	If set to TRUE, then 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 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, then 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, then 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.

Related Topic

Modifying Enterprise and Server Component Parameters

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).

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](#).



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](#).

This task is a step in [Process of Configuring the Web Service Exchange Connector](#) and [Modifying SSSE Log File Settings](#).

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. For more information on using the script method, see [Configuring Exchange Service Account Access Permissions Using a Script](#).
- **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](#).

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.

To configure access to user mailboxes for the Microsoft Exchange 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, query for the set of users who will use SSSE.
4. From the applet menu, select Columns Displayed, and then hide all columns except PIM User Identifier.
5. Click Menu, then select Export, and then click Next (accepting the defaults)
6. 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

7. In the File Download dialog box, click Save, then select an output file name and location.
8. In the Export dialog box, click Close.
9. Navigate to `install_directory\siebsrvr\bin` where `install_directory` is the installation directory for your Siebel implementation.
10. Extract the `ssse_exchange2k10_permissions.zip` file.
11. Use a text editor to edit `ssse_exchange2k10_permissions.ps1` in accordance with the instructions included in the file, then save the file.
12. Run the script according to the instructions provided in the `ssse_exchange2k10_permissions.ps1` file.

Configuring Exchange Service Account Access Permissions Manually

The following procedure describe 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 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), 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 to Step 11 for each user who will use SSSE.

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*.

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

- 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*.
- *Configuring the Autodiscover Service URL*.
- *Configuring SSSE for Multiple AD Forest Environments (Web Connector)*.
- *Configuring the IIS Web Server for Microsoft Exchange (Web Connector)*.
- *Configuring Outbound Web Services for Microsoft Exchange*

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*.

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 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 hosts.

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	<code>https://HOSTNAME/Autodiscover/autodiscover.svc</code> where HOSTNAME is the name of a Microsoft Exchange Server host computer

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

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*.

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 that 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 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*.

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*.

Microsoft Exchange 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.

Configuring Outbound Web Services for Microsoft Exchange

You must configure outbound Web services.

This task is a step in *Process of Configuring the Web Service Exchange Connector*.

To configure outbound Web services

1. Navigate to the Administration - Outbound Web Services view.
2. Enter values for the following Web services:
 - EWSAutoDiscover = https://server/Autodiscover/autodiscover.svc
 - ExchangeWebService = https://server/EWS/Exchange.asmx



Note: Replace the word server with the name of either the Client Access Server (CAS) or a CAS Array.

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.

This task is a step in *Roadmap for Configuring SSSE*.

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. The following information 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*.

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

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



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.

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*.

It is recommended that you enable the following:

- Enable the PIMSI component group on the Enterprise.
- Enable the PIMSI Dispatcher (pimsidispatcher) component on the Enterprise and on just one Siebel Server computer.
- Enable the PIMSI Engine (pimsieng) component on the Enterprise and on one or more individual Siebel Server computers.

Restarting Siebel Services

You must restart the Siebel Servers and the Siebel Gateway 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*.

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*.

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, then 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, then 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.

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](#).

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, then 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 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, 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*.

5. Save the record and click Submit Job to start the initial extract.

Configuring Support for Items Archived in Microsoft Outlook

SSSE cannot distinguish between task and calendar items that have been archived and those that have been deleted from the message store. If an item is archived from Microsoft Outlook, then 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*.

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, then 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, then 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, then 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.

Section	Parameter	Value

Suppressing Email Invitations

Suppressing Email Invitations feature prevents outbound calendar sync from pushing employees and / or contacts on a Siebel Calendar entry to the user's Exchange Calendar, thereby preventing the employees or contacts from receiving an invitation to a meeting.

The feature is useful in situations where a Siebel user wants to create a meeting in Siebel that is associated to a Contact, but they don't actually want to invite that contact to the meeting. Meeting descriptions/bodies may contain sensitive information not intended for contacts associated with a Siebel calendar item.

To suppress the outbound sync of Calendar Contacts

1. Navigate to Administration – Server Management, and then Jobs.
2. On the first applet, create New record and set Component = PIMSI Dispatcher. Accept the default values for other fields.
3. On the last applet, create a new record and set the following:
 - Name = Encoded Input Arguments
 - Value = SuppressOutboundContactAttendees:TRUE

To suppress the outbound sync of Calendar Employees

1. Navigate to Administration – Server Management, and then Jobs.
2. On the first applet, create a new record and set Component = PIMSI Dispatcher. Accept the default values for other fields.
3. On the last applet, create a new record and set the following:
 - Name = Encoded Input Arguments
 - Value = SuppressOutboundEmployeeAttendees:TRUE

You can combine multiple arguments in Encoded Input Arguments using a semi-colon as a delimiter.

For example, if you use Dispatcher Groups, you can:

1. Navigate to Administration – Server Management, and then Jobs.
2. On the first applet, create a new record and set Component = PIMSI Dispatcher. Accept the default values for other fields.
3. On the last applet, create a new record and set the following:
 - Name = Encoded Input Arguments
 - Value =
DispatcherGroup:MyGroup;SuppressOutboundEmployeeAttendees:TRUE;SuppressOutboundContactAttendees:TRUE

Any parameter that is missing will use the default (which is FALSE for both "Suppress" parameters).

About Configuring Recurring Appointments

You can control the behavior of non-supported recurring meetings with no end date by using the parameter `FanLimit`, which is a number representing an absolute number of days in the future. The following sections summarize how the Siebel application handles recurring meetings.

Supported Meetings

Daily, Weekly, Monthly, and Yearly meetings are supported. Any recurring meetings with no end date are created in the Siebel application exactly as in Exchange. For example, if there is a recurring weekly meeting with no end date in Exchange, then there will be a recurring weekly meeting with no end date in the Siebel application.

All other recurrence patterns are not directly supported by the Siebel Calendar itself. For example, meetings scheduled for every other week cannot be directly entered into the Siebel Calendar. To address this inconsistency, SSSE performs special processing to ensure that the Exchange and Siebel calendars contain the same appointments.

Unsupported Meetings with an End Date

For unsupported recurring meetings with an end date, the meeting is fanned, which means that individual meetings are created to replicate the recurring meeting in Exchange.

For example, if a meeting in Exchange goes from April 1 to June 24 every other week, then the Siebel application creates seven individual meetings: April 1, April 15, April 29, and so on through June 27.

The Siebel application creates as many individual appointments as are needed to replicate the meetings in Exchange. The `FanLimit` parameter does not affect these meetings.

Unsupported Meetings without an End Date

For unsupported recurring meetings without an end date, it is impossible to create an infinite number of individual meetings to replicate the meetings in Exchange. Therefore, the meeting is initially fanned based on the value of the `FanLimit` parameter. However, added occurrences of the meeting are created as time passes, to replicate the recurring meeting without an end date.

For example, assume that `FanLimit` has the value 60. There is a meeting in Exchange that starts April 1, continues every other week, and lasts forever. Also, assume the first sync is on April 1.

Initially, the Siebel application creates five instances of this meeting with five instances. The reason is that May 31 is 60 days after April 1; between April 1 and May 31, a meeting that occurs every other week will take place on April 1, April 15, April 29, May 13, and May 27.

The next instance would take place on June 10, but the Siebel application has not yet created that meeting, because it is outside the `FanLimit`.

As time passes, the `FanLimit` window moves forward. On April 2, the `FanLimit` is June 1, on April 3, the `FanLimit` is June 2, and so on, until on April 11, the `FanLimit` is June 10.

If the PIMSI dispatcher's FanLimit job is running daily, then the June 10 occurrence of the meeting will be created on April 11, as this occurrence is now within the FanLimit.

As time passes, new occurrences will continue to be created, replicating a recurring meeting with no end date.

6 Administering Siebel Server Sync for Microsoft Exchange Server

Administering Siebel Server Sync for Microsoft Exchange Server

This chapter provides information about administering SSSE. It includes the following topics:

- *About Administering SSSE*
- *About SSSE Domains*
- *Changing SSSE Default Values For Synchronization Conflicts*
- *Process of Configuring Siebel and PIM Domain Characteristics*
- *Mapping Siebel Domain and PIM Domain Fields*
- *Process of Setting SSSE Group and User Access Controls*
- *Setting Extract Start Dates for Users*
- *Implementing Import-Only Synchronization of Calendar Records*
- *About Setting Calendar and Task Record Synchronization Options*
- *Implementing Opt-In Synchronization for Calendar and Task Records*
- *Skipping Private Calendar or Task Records During Synchronization*
- *Process of Enabling Inbound Activity Filtering*
- *About SSSE Table Maintenance*
- *About SSSE Log Files*
- *About Moving or Deleting Mailboxes for SSSE Users*
- *Skipping Records That Generate Synchronization Errors*
- *Process of Configuring Email Notification of Synchronization Errors*

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.

The following table shows the SSSE supported Siebel domains, PIM domains, and domain maps. The Siebel domains synchronize Siebel data with Microsoft Exchange Server data. The PIM domains synchronize Microsoft Exchange data with the Siebel database. The current version of SSSE does not support the creation of new Siebel domains.



CAUTION: PIMSI Engine functions correctly using only the PIM and Siebel domains listed in the following table. 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.

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 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, then 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, then 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 your Siebel application as the Siebel administrator.
2. Navigate to the Administration - Data screen, then the List of Values view.
3. In the Type field, query for the PIMSI_CONFLICT_WINNER LOV.
4. 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*
- *Setting PIM Category Values for Siebel Domains*
- *Enabling and Disabling Contact Record Matching*
- *Setting Required Siebel Domain Fields and Defaults*
- *Setting Required PIM Domain Fields and Defaults*
- *Allowing or Preventing Record Deletions*

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*.

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*.

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.

In the topic *SSSE Synchronization Options*, the first table describes the synchronization levels available for Siebel domains and the second table lists the default synchronization levels for each domain.

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*.

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, then 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, then 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*.



Note: If your Siebel implementation uses more than one language, then 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*.

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*.

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*.

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 values shown in the following table:

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, 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, then 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*.

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, then 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, or to do record in Siebel Business Applications, 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*.

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, then 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, then 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, then 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 domain, see the following table. For information about how the Allow Record Deletions setting affects the Calendar and Tasks domains, see the second table in this topic. For more information on how to specify the Allow Record Deletions setting, see [Allowing or Preventing Record Deletions](#).

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	User is removed from Sync List for Siebel business contacts record.	Not applicable
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.

Allow Record Deletion Selected?	Delete Operation Originated From	Destination System Behavior	Behavior After Future Record Modification
No	PIM	For Business Contacts, 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 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.

The following table shows how the Allow Record Deletions setting affects the Calendar and Tasks domains.

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.
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.	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.

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
			filtering is enabled)	and the Siebel record. An error message is logged.	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](#).

This task is a step in [Process of Configuring Siebel and PIM Domain Characteristics](#).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:
 - o Siebel Business Contact
 - o Siebel Calendar
 - o Siebel Task
3. In the Allow Record Deletions field, select or clear the check box as follows:
 - o To allow deletion of a PIM record to cause deletion of the corresponding Siebel record, select the check box.
 - o 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](#)
- [Setting Field-Level Synchronization](#)
- [Setting Key Fields](#)

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, then 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.
Key Field	Select this check box if you want this field to be a key field. See Setting Key Fields .
Sync Enabled	Select this check box if you want this field synchronized. For more information about synchronizing specific fields, see Setting Field-Level Synchronization .

Related Topics

[Mapping Siebel Domain and PIM Domain Fields](#)

[Setting Field-Level Synchronization](#)

[Setting Key Fields](#)

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](#)

[Creating Field Mappings](#)

[Setting Key Fields](#)

Setting Key Fields

The first time SSSE synchronizes a particular record, SSSE uses Key fields to determine if a calendar 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, then 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](#).

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](#)

[Creating Field Mappings](#)

[Setting Field-Level Synchronization](#)

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 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](#)
- [Setting Group-Level Synchronization](#)
- [Mapping Individual Users](#)
- [Mapping Multiple Users](#)
- [Enabling or Disabling User Synchronization](#)

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 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*.

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*.

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 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 <i>Setting Group-Level Synchronization</i> .
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.
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. ○ 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 the following table.

Field	Description

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

The following table describes the values you can specify for the Visibility Type field.

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 Business Contact domain.
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 the Task domain only. Data to be synchronized must appear in the user's My Activities view 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 Business Contacts domain.
(Empty field)	If the Visibility Type field is left blank, then 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](#)

[Setting Siebel Domain-Level Synchronization](#)

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*.



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*.

This task is a step in *Process of Setting SSSE Group and User Access Controls*.

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 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.

Field	Description
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*.

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.
PIM Server Type	Select Exchange 2000/2003.
Language	Select a language.
Sync Enabled	Select this check box to enable synchronization for this user.

Mapping Multiple Users

SSSE provides an automated method for mapping multiple users to allow synchronization between 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*.

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, then 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, then skip to Step 2 in this procedure.

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, then leave this field blank.

The mapped users appear in the User Map list.



Note: If there are many users, then 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*.

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, then 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*.

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*.
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, then 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, then 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, then 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, then 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, then 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, then 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. For information on creating user properties, 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*
- *Skipping Private Calendar or Task Records During Synchronization*
- *Process of Enabling Inbound Activity Filtering*

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, then 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 *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 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. 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](#).

- b. Recompile the Runtime Repository.

For additional information, see [Configuring Siebel Business Applications](#).

Related Topic

[About Setting Calendar and Task Record Synchronization Options](#)

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 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:
 - o For the Calendar Domain, select Exchange Calendar in the PIM Domains list, and set the value of Private Field to Private.
 - o 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

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*.

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*.
3. (Optional) *Setting Up Translation Mappings for Inbound Activity Filtering*.

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*.

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, then 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*.

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, then modify it as required to match the information in the following table.
 - If the record does not exist, then 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, then 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

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](#).

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, then 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, then 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](#).

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](#).

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 PIMSIEngxxxxx.log and PIMSIDispatcherxxxxx.log.

For examples of SSSE log messages, see the following table.

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 Business Contact.
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 Business Contact.
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](#).

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.

When you move users' Microsoft Exchange mailboxes from one Microsoft Exchange Server to another, SSSE automatically detects that the user has been moved to a new Exchange server and no additional steps are required for SSSE to continue to sync the user.

When you delete a user from Exchange, you must also disable that user for synchronization within Siebel CRM.

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**, then 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**, then 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, then 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

Field	Value
Parameter	Always Save Syncstate
Value	Enter either Y or N . The default value is Y (invalid records are skipped).

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*.

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.

To configure SSSE so that the administrator receives email notification of synchronization errors, perform the following task: *Configuring System Alerts for Email Notification of PIMSI Engine Synchronization Errors*.

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*.

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@sdcech02.siebel.com
FromAddress	The originating address of the email notification Example: ssseadmin@sdcech02.siebel.com
DLLName	ssemailntfy

2. Define the email body template to be used for PIMSI Engine error notification emails as follows:

- Navigate to the Administration - PIM Server Integration screen, Configuration, and then the PIM Server Integration Configuration view.
- Select the Exchange Calendar Profile.
- 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 in the previous field.

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, then the error notification email includes only the following message:

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

Therefore, if you configure large error message notifications, then 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*.

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.
```


7 Customizing Siebel Server Sync for Microsoft Exchange Server

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*
- *About Synchronizing Additional Fields*
- *Process of Customizing SSSE*
- *About SSSE Integration Objects*
- *Changing Integration Objects*
- *Example of Changing Integration Objects*
- *About SSSE Data Maps*
- *Changing SSSE Data Maps*
- *Example of Changing Data Maps*
- *Changing Siebel Domain Configurations*
- *Example of Changing Siebel Domain Configurations*
- *Changing PIM Domain Configuration*
- *Example of Changing PIM Domain Configurations*
- *Changing Domain Map Configurations*
- *Example of Changing Domain Map Configurations*
- *About SSSE User Filtering*
- *Changing User Filtering Configurations*
- *About Customizing Delta Queries*
- *Changing Delta Query Profile Configuration Parameters*
- *About Creating Custom Delete Triggers*
- *Creating Custom Delete Triggers*
- *Sample Delete Trigger*

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 with the Siebel Repository, 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, then SSSE does not detect changes in field values, so synchronization of changes in those tables is not supported.

The following information 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.



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.

The following table lists the supported tables in the Siebel Business Contact domain that allow fields to be added for synchronization.

Supported Tables	Is Field Based on Table an MVG
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

The following table lists the supported tables in the Siebel Calendar and Tasks domain that allow fields to be added for synchronization.

Supported Tables	Is Field Based on Table an MVG
S_EVT_ACT	No
S_OPTY	No
S_ORG_EXT	No
S_PROJ	No
S_SRV_REQ	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*

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 Runtime Repository to incorporate the field changes.

2. *Changing SSSE Data Maps*

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

3. *Changing Siebel Domain Configurations*

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*

Add the new or amended field to the PIM domain.

5. *Changing Domain Map Configurations*

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*
- *Changing Delta Query Profile Configuration Parameters*
- *Creating Custom Delete Triggers*



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. The following table shows the Integration Objects for each domain that SSSE handles.

Domain	Siebel Integration Object	Intermediate Integration Object
Business Contact	PIMSI Business Contact	PIMSI Intermediate EWS Business Contact

Domain	Siebel Integration Object	Intermediate Integration Object
Calendar	PIMSI Calendar	PIMSI Intermediate Calendar
Task	PIMSI Task	PIMSI Intermediate Task

For information on changing integration objects, see [Changing Integration Objects](#).

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. The following table 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](#).

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](#). For an example of how to perform this task for a new field that you want to synchronize, see [Example of Changing Integration Objects](#).



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. Select the Integration Object that you want to change.
2. Select the integration component for which a field is to be changed or added.
3. Change the field properties of the integration component as required.
4. Save the record.
5. Recompile the Runtime Repository 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 in the following. For more information about Integration Objects, see [About SSSE Integration Objects](#).



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. Select the View menu, and then Options.
2. Click the Object Explorer tab.
3. In the Object Explorer Hierarchy list box, select the Integration Object check box, and click OK.
4. 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 until the Inactive field is visible, and clear the Inactive check box.
5. In the Object Explorer, select Integration Object, and complete the following substeps:
 - a. In the Object List Editor, select PIMSI Intermediate EWS 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.

Field Property	Field Property Value	Comment
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.



CAUTION: For Siebel Integration Objects (but not Intermediate Integration Objects), if an MVG field is not a user key, then 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, then 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.

6. 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 until empty Field placeholders are visible.
j. In the Controls/Columns window, select and move 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.
7. Recompile the Runtime Repository for the project, then stop and restart the Siebel Server.

Use this recompiled Runtime Repository when you make corresponding changes to Data Maps, as described in *Example of Changing Data Maps*.

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. The following table shows the names of the data maps for each domain that SSSE handles.

Domain	Inbound Data Map	Outbound Data Map
Business Contact	PIMSI Business Contact Inbound Map	PIMSI EWS Create Contact Outbound Map PIMSI EWS Update Contact Outbound Map
Calendar	PIMSI Calendar Inbound Map	PIMSI Calendar Outbound Map
Task	PIMSI Task Inbound Map	PIMSI Task Outbound Map

For information on changing SSSE data maps, see *Changing SSSE Data Maps*.

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](#). For an example of how to change data maps for a new field to be synchronized, see [Example of Changing Data Maps](#).

This task is a step in [Process of Customizing SSSE](#).



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](#). 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 Runtime Repository 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](#).
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 the Siebel Repository. 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](#), 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](#).

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 Runtime Repository that contains the changes you made to Integration Objects in [Example of Changing 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 PIMSI EWS Create Contact Outbound Map.
4. In the Integration Component Map list, select the Contact_BusinessContact record.
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 EWS Update Contact Outbound Map.
8. In the Integration Component Map list, select the Map Contact Fields.
9. Repeat Step 5 through Step 6.

You must now change Siebel domain configurations, as described in *Example of Changing Siebel Domain Configurations*.

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*.

For more information about SSSE PIM domain configuration, see *Changing PIM Domain Configuration*. For an example of how to perform this task for a new field to be synchronized, see *Example of Changing Siebel Domain Configurations*.

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*, 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*.

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*.

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](#). For an example of how to perform this task for a new field to be synchronized, see [Example of Changing PIM Domain Configurations](#).

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 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 the following two tables.



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.

Field	Comments
Section	Enter the value you specified for Name in Step 3.

Field	Comments
Parameter	Enter the name of the Exchange API that provides access to the PIM field you want to synchronize. For more information, see the following table in this topic.
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 the following table in this topic.

The following table describes the parameters to configure for the Exchange Contact or Exchange Task PIM domain.

Parameter	Values
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, then specify the GUID value for PS_PUBLIC_STRINGS or PS_MAPI. If the named property is not a custom field, then 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.

The following table describes the parameters to configure for the Exchange Calendar PIM domain.

Parameter	Value
DAVPropertyName	If the field you are specifying can be defined using an existing WebDAV property name, then 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, then 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, then 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, then specify the existing GUID. For more information about property set GUIDs for MAPI named properties, see the MAPI documentation.
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*, 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

Field	Value
	http://msdn.microsoft.com

If the Spouse configuration parameter record already exists in the Siebel database, then ensure that it contains the values listed in the previous table.

You must now change domain map configurations, as described in [Example of Changing Domain Map Configurations](#).

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](#).

For an example of how to perform this task for a new field to be synchronized, see [Example of Changing Domain Map Configurations](#).

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.

Field	Comments
Key Field (Optional field)	Select the check box to directSSSE 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*, 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. The following information 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*.

Business Object	Business Component	Fields Mapped to Database Last Update Time
PIMSI Sync Info	PIMSI Sync Info	DB_LAST_UPDATE
PIMSI User Filter Action	PIMSI User Filter Action	Activity Last Upd, Act Employee Last Upd
PIMSI User Filter Action	PIMSI User Filter Action Account	Account Last Upd
PIMSI User Filter Action	PIMSI User Filter Action Contact	Action Contact Last Upd
PIMSI User Filter Action	PIMSI User Filter Action Contact 2	Contact Last Upd
PIMSI User Filter Action	PIMSI User Filter Action Contact 3	Contact Last Upd
PIMSI User Filter Action	PIMSI User Filter Action Oppty	Oppty Last Upd
PIMSI User Filter Action	PIMSI User Filter Action Project	Project Last Upd
PIMSI User Filter Action	PIMSI User Filter Action SR	SR Last Upd
PIMSI User Filter Contact	PIMSI User Filter Contact	Contact Info Last Upd, Contact Last Upd, Party Last Upd
PIMSI User Filter Contact	PIMSI User Filter Contact Account	Account Last Upd
PIMSI User Filter Contact	PIMSI User Filter Contact Business Address	Address Last Upd
PIMSI User Filter Contact	PIMSI User Filter Contact Oppty	Oppty Last Upd
PIMSI User Filter Contact	PIMSI User Filter Contact Personal Address	Address Last Upd
PIMSI User Filter Contact	PIMSI User Filter Contact Position	Contact Position Last Upd

Each time the user filtering algorithm runs, a set of queries is issued to identify the users whose records have changed since the last filtering. For example, for particular values of `last_filtering_time` and `business_component_name`, the query finds information that can be described as follows:

```
All User Ids in business_component_name where DB_LAST_UPDATE >= last_filtering_time
```

Some business components have more than one database update time field. Separate queries are issued for each of these fields, sequentially. As a result, 18 queries are issued each time the user filtering algorithm runs. The union of query results is the set of users who have records that 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](#).

This task is a step in [Process of Customizing SSSE](#).

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. Modify an existing user filtering business component or create a new user filtering business component to include the `DB_LAST_UPD` column.
2. Navigate to the Administration - PIM Server Integration screen, Configuration, and then the PIM Server Integration Configuration view.
3. In the PIM Server Integration Configuration list, select User Filter.
4. 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 <code>DB_LAST_UPD</code> .

Field	Comments

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 the Siebel Repository.

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](#).



Note: If you have to modify a delta query, then you might also have to modify a user filter. For more information, see [About SSSE User Filtering](#) and [Changing User Filtering Configurations](#).

Changing Delta Query Profile Configuration Parameters

If you change business component configurations that were supplied along with your Siebel software, then 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.

The table in the topic [About SSSE User Filtering](#) 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](#).

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 the table in [About SSSE User Filtering](#).

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, then you must also restart the PIMSI Dispatcher server component.

If you have not modified the User Filter, then 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, then complete the following substages before continuing; otherwise, skip to Step 2.
 - a. Find the SSSEbusiness component that corresponds to the domain where you added the new MVG.
For example, if you added the MVG to the Contacts business component, then 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 Runtime Repository, and deploy the new Runtime Repository 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 the table in [About SSSE User Filtering](#).

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, then you must also restart the PIMSI Dispatcher server component.

If you have not modified the User Filter, then 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](#).

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

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](#).



CAUTION: According to Oracle support policy, changes made directly to the data, rather than through Oracle-approved Siebel CRM utilities, such as the Migration Application, require approval from Oracle Advanced Customer Services. Contact your Oracle sales representative for Oracle Advanced Customer Services to request assistance from Oracle's Application Expert Services.

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 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 record from his or her Sync List
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](#).

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](#) and [Creating Custom Delete Triggers](#).



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 Business Contact' ,
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 Integrating Office 365 with Siebel Server Sync for Microsoft Exchange Server

Integrating Office 365 with Siebel Server Sync (SSSE) for Microsoft Exchange Server

This chapter describes how to integrate SSSE (Siebel Server Sync for Microsoft Exchange Server) with Exchange Online (a cloud based Office 365 application). Users can make these configuration changes to get SSSE working with Office365.

This implementation uses Azure Service Principal with Certificate-based Authentication to access Exchange Web Services (EWS) APIs.

It includes the following topics:

- *Prerequisite*
- *Configurations in Siebel Server*
- *Configurations to Integrate SSSE with Office 365*

Prerequisite

It is required to have an application in Azure AD with necessary permissions to access mailboxes. For more information on Application configuration in Azure AD, click [here](#).

Configurations in Siebel Server

Configure the following in Siebel Server to access office 365 Exchange mailboxes using EWS.

- Office 365 URL - Microsoft Outlook URL
- Office Client ID - The ID of the Azure application
- Office OAuth URL - OAuth endpoint for AD tenant
- Office Thumbprint - Extracted thumbprint from RSA public key, base64 encoded
- Office private Key file in pkcs8 format



Note: SSSE functionality remains exactly the same as before. There is no new functionality introduced. The only difference is that mailboxes in Office 365 Exchange are accessed instead of on premise mailboxes.

Configurations to Integrate SSSE with Office 365

Make the following configurations:

- *Repository Configuration*
- *JBS Configuration*
- *Manifest Administration*
- *Private Key Configuration*
- *Siebel Application Configuration*
- *Outbound Web Service Port Address Configuration*

Repository Configuration

To make repository configurations

1. Make the following repository configurations:
 - Configure the following fields for new Class for PIM Server Integration project:

Field	Value
Name	CSSAzureUISvc
DLL	PIMSIUTILSVC
Super Class	CSSSWEUIService

- Configure the following fields for new Business Service for PIM Server Integration project:

Field	Value
Name	SSSE Azure UI Business Service
Class	CSSAzureUISvc

- In this business service, go to Business Service Methods, and complete the fields as shown in the following table:

Field	Value
Name	Upload

- Create the following Business Service for PIM Server Integration project:

Field	Value
Name	SSSE JBS
Class	CSSJavaBusinessService

- o In this business service, go to Business Service User Properties, and complete the fields as shown in the following table:

Field	Value
User Property 1	
Name	@JVMSubsys
Value	JAVA64
User Property 2	
Name	@class
Value	com.siebel.ssse.JwtJBS

2. Navigate to the application, and query for the Siebel Universal Agent (or if you are using a different component you will need to query for that component), then to Application User Properties.
3. Add a new Application User Property as shown in the following table:

Field	Value
Name	ClientBusinessServiceN
Value	SSSE Azure UI Business Service

4. Deliver the Workspace.

JBS Configuration

To configure JBS

1. Navigate to the Administration - Server Configuration, Enterprises, and then Profile Configuration.
2. Complete the fields as shown in the following table.

Field	Value
Profile Configuration	JAVA64
Container URL	http://localhost:port /siebel/jbs

For the port number, check for server.xml file in the “conf” folder, for example as in, "C:\Siebel\ses\applicationcontainer\conf".

Manifest Administration

This topic describes the following:

- *Configuring Manifest Files*
- *Configuring Objects*

Configuring Manifest Files

To configure manifest files

1. Navigate to the Administration - Application screen, and then the Manifest Files view.
2. Click + (Plus) to add a new file.
3. Add the following configurations in the file:

Field	Value
Inactive Flag	N
Name	siebel/pimsilistappletpr.js

Configuring Objects

To configure objects

1. Navigate to the Administration - Application screen, and then the Manifest Administration view.
2. In the Objects list, specify the following object.

Field	Value
Type	Applet
Usage Type	Physical Renderer
Name	PIMSI Configuration List Applet

3. In the Objects Expression list, specify the following object.

Field	Value
Level	1
File Name	siebel/pimsilistappletpr.js

Configuring the Private Key

To configure the Private key file,

1. Open Siebel UI to upload the private Key File.
2. Navigate to Administration - PIM Server Integration Configuration, Exchange Web Service.
3. Click the Upload button.

- To generate certificate, see the following:

Refer to *Configuring a X.509 public cert for your application*.

- To convert private key to pkcs8 format, see the following:

<https://gist.github.com/destan/b708d11bd4f403506d6d5bb5fe6a82c5>

Configuring the Siebel Application to Integrate to Office 365

To configure the Siebel application to integrate to Office 365

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 from PIMSI Config Profiles List Applet.
3. Complete the fields as shown in the following tables:

Field	Value
Section	Office 365 URL
Parameter	Value
Value	https://outlook.office365.com

Field	Value
Section	Office Client Id
Parameter	Value
Value	*****

Field	Value
Section	Office OAuth URL
Parameter	Value

Field	Value
Value	https://login.microsoftonline.com/{Tenant id}/oauth2/token

Field	Value
Section	Office Thumbprint
Parameter	Value
Value	*****

Configuring the Outbound Web Service Port Address

To configure the Outbound Web Service port address,

1. Log in to the Callcenter or similar applications.
2. Navigate to Administration - Web Services > Outbound Web Service.
3. Query for ExchangeWebService.
4. In Service Ports Applet select row with Name: ExchangeServicePortType.
5. Enter the Value for address: https://outlook.office365.com/EWS/Exchange.asmx.

9 Using Siebel Server Sync for Microsoft Exchange Server

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*
- *Scenarios for Using SSSE*
- *About Using SSSE with Calendar Records*
- *Factors That Determine Calendar Synchronization*
- *About Activities and Calendar Records*
- *About Creating, Modifying, or Deleting an Appointment*
- *All-Day Appointments*
- *About Adding an Attachment to an Appointment*
- *Calendar Appointments with Multiple Attendees*
- *About Using SSSE with Task Records*
- *Factors That Determine Task Record Synchronization*
- *About Creating, Modifying, or Deleting a Task Record*
- *About Adding an Attachment to a Task Record*
- *Assigning Tasks to Other Users*
- *How Priorities and Status Values Are Set for a Task Record*
- *About Using SSSE with Contact Records*
- *Enabling and Disabling Contact Records for Synchronization*
- *About Creating, Modifying, or Deleting a Contact*
- *About Adding an Attachment to a Contact*
- *Creating a Personal Contact*
- *Account-to-Contact Relationships*
- *About Changing Contact Domains*
- *Synchronization of Contact Phone Numbers*
- *Synchronization Error Messages*

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, and My Contacts 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*
- *Recording a Task or To Do Activity*
- *Storing Business Contact Information*

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 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.

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*. 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*.

About Using the Opt-in Feature

If the Full Sync option is implemented for the Calendar or Task domains, then 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, then 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](#)
- [About Activities and Calendar Records](#)
- [About Creating, Modifying, or Deleting an Appointment](#)
- [Modifying Recurring Appointments](#)
- [All-Day Appointments](#)
- [About Adding an Attachment to an Appointment](#)
- [Calendar Appointments with Multiple Attendees](#)

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](#).
- 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, then 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](#).
- 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](#) and [About the Ignore Private Records Feature](#).
- 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](#).

Related Topic

[About Using SSSE with Calendar Records](#)

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. The following table summarizes how activities created in Siebel Business Applications are synchronized based on the value of the Display In field.

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. The following table summarizes how the Display In field is set when a record that was created in Microsoft Outlook is synchronized with Siebel Business Applications.

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, then 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*.

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*.

Related Topic

About Using SSSE with Calendar Records

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*.

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, then 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, then 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, then 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 *About Configuring Recurring Appointments*.

If you modify a particular instance of a recurring appointment in Microsoft Outlook, then 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

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, then 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

About Adding an Attachment to an Appointment

If you add an attachment to a Microsoft Outlook calendar appointment, then 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

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*
- *Calendar Items Created in Microsoft Exchange*

Calendar Items Created in Siebel Business Applications

If an SSSE user who is enabled for synchronization creates a calendar item in a Siebel application, then that user is listed in the Owner field of the Calendar Detail form for the item.

If the calendar item has multiple participants, then 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, then 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, then 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, then 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), then 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, then 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, then 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, then 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, then 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*.

About Contact Distribution Lists

If you specify a contacts distribution list as an attendee on the Scheduling tab of a Microsoft Outlook calendar item, then 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, then 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, then 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, then 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, then 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](#)

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](#)
- [About Creating, Modifying, or Deleting a Task Record](#)
- [About Creating or Modifying a Recurring Task Record](#)

- [About Adding an Attachment to a Task Record](#)
- [Assigning Tasks to Other Users](#)
- [How Priorities and Status Values Are Set for a Task Record](#)
- [About Using SSSE with Contact Records](#)

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, then that item is not synchronized. For additional information on setting the extract start date, see [Setting Extract Start Dates for Users](#).

- 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](#) and [About the Ignore Private Records Feature](#).
- Whether or not the administrator has enabled the Inbound Activity Filtering option. For additional information, see [About Inbound Activity Filtering](#).
- 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, then 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](#).

Related Topic

[About Using SSSE with Task Records](#)

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, then 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](#) and [About Using the Opt-in Feature](#).
- 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, then the record is not synchronized. For additional information, see [About the Ignore Private Records Feature](#).

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, then 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](#)

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, then 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, then the next synchronization updates 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](#).

Related Topic

[About Using SSSE with Task Records](#)

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, then 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](#)

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 the following (these are default values). For information on changing these values, see *[Creating Field Mappings](#)*.

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

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

Siebel Status Value	Exchange Status Value
Acknowledged	0
Not Started	0
In Progress	1
Done	2
On Hold	3
Cancelled	4
Declined	4

Related Topic

About Using SSSE with Task Records

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 business contacts synchronization levels.

Contacts in Outlook are presumed to be business contacts unless the Private Flag is checked. A user can change a contact from personal to business in Outlook by clearing the Private Flag. It is not possible to change a contact from business to personal in the Siebel application.

Contacts are synchronized from the Siebel application to Microsoft Exchange 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*. 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, then contacts are synchronized with the user's primary position.
- If a new account is added to a business contact in Microsoft Outlook, then 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, then 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, then 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 the My Contacts view, and they assume that synchronization for the Contacts domain is set to Full Sync.

- *Enabling and Disabling Contact Records for Synchronization*
- *About Creating, Modifying, or Deleting a Contact*
- *About Adding an Attachment to a Contact*
- *Creating a Personal Contact*
- *Account-to-Contact Relationships*
- *About Changing Contact Domains*
- *Synchronization of Contact Phone Numbers*

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 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.
2. In the My Contacts list, select one or more records.
3. In the My 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.
2. In the My 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](#)

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, then 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](#).

If you add a new contact in Microsoft Outlook, then 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.

If you delete a business contact in Microsoft Outlook, then 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 any Siebel user is removed from the Sync List of a business contact record in Siebel Business Applications, then 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](#)

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, then 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, then 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*.

Related Topic

About Using SSSE with Contact Records

Creating a Personal Contact

In Microsoft Outlook, the Private check box determines if a contact is a business or personal contact. If the Private check box is selected, then the contact is considered a personal contact and will not be synced to Siebel. If the Private check box is not selected, then 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.

Related Topic

About Using SSSE with Contact Records.

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, then 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.

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, then 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, then contact records to be synchronized must be visible in the user's My Contacts list.

Related Topic

[About Using SSSE with Contact Records](#)

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.

Because personal contacts are never synchronized, a personal contact exists in one application only. After you convert a personal contact to a business contact in either application, that contact becomes eligible for synchronization using the same rules as for all business contacts.

You can also change business contacts to personal contacts in Microsoft Outlook by checking the Private checkbox. Then synchronization occurs as follows:

- If the business contact has already been synchronized between the two systems, then the current user is removed from the Sync List for this Contact, but the contact is not deleted in the Siebel application. Contacts are never deleted in the Siebel application, because they could be tied to other records.

- If the business contact exists in Microsoft Outlook but has never been synchronized to the Siebel application, nothing occurs after the user marks it as private in Microsoft Outlook. It is not synchronized during future synchronizations.



Note: It is not possible to change a business contact to a personal contact in Siebel Business Applications.

Related Topic

About Using SSSE with Contact Records

Synchronization of Contact Phone Numbers

This topic describes how contact phone numbers are formatted and displayed when SSSE synchronizes business 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, then 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, then the number is formatted using that country code.

If a PHONE_FORMAT LOV is configured for the country code, then 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, then the number is trimmed and a message is logged.
- If the country code is null and the contact phone number starts with 0, then 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, then 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.

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 the following, 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*.

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*.



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, then 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.

The following table contains a listing of some of the error messages that indicate partially successful synchronization.

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, then 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.

Logged Message	Error Code	Cause and Result of Error
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.
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 thatSSSE 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.

10 Setting Up and Using Siebel Outlook Add-In

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*
- *System Requirements for Siebel Outlook Add-In*
- *Process of Setting Up Siebel Outlook Add-In*
- *Setting Siebel Outlook Add-In Options*
- *Process of Configuring Custom Objects in Siebel Outlook Add-In*
- *About Using Siebel Outlook Add-In*

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, then 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*.

Related Topic

About Using Siebel Outlook Add-In

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*.
- 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 in the Siebel Repository. The third task is required only if your implementation modifies the information that Outlook Add-In makes available. An administrator can perform it wherever there is access to your Siebel application and Enterprise database. Either the administrator or the end user perform the remaining three tasks on the end user's computer.

To deploy the Siebel Outlook Add-In, complete the following tasks:

1. *Setting Enterprise Server Parameters and Enabling Web Client Automation for Outlook Add-In*
2. *(Optional) Setting the Bucket Size User Property for Siebel Outlook Add-In*
3. *(Optional) Setting Siebel Outlook Add-In Objects and Fields*
4. *Installing Siebel Outlook Add-In*
5. *Initializing Siebel Outlook Add-In*
6. *(Optional) Configuring Siebel Outlook Add-In for Web Single Sign-On Authentication*
7. *Testing Siebel Outlook Add-In*

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*.



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, then 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*.

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*.

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 <i>About the Messaging Client AddIn EAI Url Parameter</i> .	Enter the Siebel EAI path <code>http:// your_ host / eai_language-code /</code>	At Server Restart
Messaging Client AddIn Cache Refresh Interval For a description of this parameter, see <i>About the Messaging Client AddIn Cache Refresh Interval Parameter</i> .	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 <i>About the Messaging Client AddIn Link History Parameter</i> .	Optional. Modify the number of days to keep quick links.	At Server Restart

5. Enable Web Client Automation as follows:
- Navigate to the Administration - Server Configuration screen, then the Servers view.
 - In the Servers list, select the appropriate server, then click the Components tab.
 - Select the appropriate component, for example, Sales Object Manager (ENU).
 - Click the Parameters tab, then query for the EnableWebClientAutomation parameter.
 - Change the default value of the EnableWebClientAutomation parameter to True.
 - 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, then it can cause timeout errors during the data download process. If you do not set a value for the Bucket Size parameter, then 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*.

To set a value for the Bucket Size user property

1. Locate the Messaging Client Data Service business service.
2. Create a modify the Bucket Size business service user property as follows:

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, then the Outlook Add In Agent downloads 1000 records at a time to the local cache.

(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, then 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*.

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

The following table 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.

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. Select File, Options, then Add-Ins.
3. Select the Siebel Outlook Add-in and click on Add-in Options button and enter the following values in the property page:
 - o Siebel Client URL: `https://<hostname>:<port>/siebel/app/callcenter/enu`
 - o Data Source URL: `https://<hostname>:<port>/siebel/app/eai/enu`
 - o UserName: The username used to log into the Siebel Web Client, for example FALLEN.
 - o Password: The password associated with that user.

The values in the property page will be stored in Windows registry table in the location `HKEY_CURRENT_USER\SOFTWARE\Siebel Systems, Inc.\Siebel Outlook Add-In`. Note that these values can also be pre-populated for the user via Group Policy or other systems management software:

Client Parameter Name	Registry Name	Description
Siebel Client URL	URL	Used as the basis for the URL that will be opened if the user clicks the “Go” button while using the Add-in features.
Data Source URL	EAIURL	The URL of the EAI Manager that will be used to see the local cache with Accounts, Contacts, and other items to be linked to Outlook items.
UserName	EAIUserId	The user's login name—used to authenticate against the EAI Object Manager to download data for the local cache.
Password	EAIPassword	The user's password.

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, then 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, then 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), then you 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, then 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, then 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](#)

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](#). 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, then 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*
2. *Creating a New PIMSI Siebel Object*
3. *Updating Integration Objects*
4. Compile the modified integration objects to generate a new Runtime Repository, then stop the Siebel Server, deploy the new Runtime Repository, and then restart the Siebel Server.
5. *Updating the Data Maps*
6. *Updating the PIMSI Domain Configuration*
7. *Updating Domain Maps*
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*.

To create the LOV type records

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
PIMSI_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	PIMSI_ADDIN_HOUSEHOLD_FIELD	PIMSI_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.
PIMSI_ADDIN_HOUSEHOLD_FIELD	Row Id	Id	Id must be one of the fields available to display. By convention, the Display value is Row Id.
PIMSI_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.
PIMSI_ADDIN_HOUSEHOLD_FIELD	(additional field name)	(additional field name)	Add any additional fields required.
PIMSI_ASSOC_TYPE	Household	Household	The LIC value must be 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*.

Follow the procedure 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 PIMSI 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	PIMSI_ADDIN_HOUSEHOLD _ FIELD	The multilingual LOV defined in Step 2 in the topic <i>Configuring List of Values</i> 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, PIMSI_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, then 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*.



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. 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.



Note: In this table, italics indicate that you are supposed to substitute some other value for the value in the field. Values in the table that are not in italics must be entered literally.

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

Attribute	Value	Description
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	ListOfContact_Household	Specify ListOfNameAttributeValue
XML Sequence	10,006	10,000 plus the External Sequence number specified.

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.



CAUTION: 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

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

Name	Key Sequence Number	Key Type
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. 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	HouseholdInfo	Specify AddInObjectNameInfo.
Name	HouseholdInfo	Specify the value chosen for the External Name Context attribute.
Parent Integration Component	BusinessContact	The name of the parent Integration Object.
External Name	HouseholdInfo	Specify AddInObjectNameInfo.

Attribute	Value	Description
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	ListOfHouseholdInfo	Specify ListOfNameAttributeValue
XML Sequence	1	This value must always be set to 1.

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	HouseholdId	HouseholdName
Data Type	DTYPE_TEXT	DTYPE_TEXT
Len	Not applicable	Not applicable
Type	Data	Data
Ext. Name	HouseholdId	HouseholdName
Ext. Seq.	1	2
XML Seq.	1	2
XML Style	Element	Element

When you have modified the PIMSI Integration Objects, compile the modified integration objects to generate a new Runtime Repository, then stop the Siebel Server, deploy the new Runtime Repository, 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*.

This task is a step in *Process of Configuring Custom Objects in Siebel Outlook Add-In*.



Note: When performing the procedures in this topic, replace Household with the name of the Siebel object you are adding to the Siebel Outlook Add-In, and Contact with the name of the Microsoft Outlook object you want to link to the new Siebel object.

The following procedure describes how to update the Siebel 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

Source Expression	Target Field Name	Description
		field name in square brackets. It can be a more complex expression, for example, an IIF(...) expression. See <i>Configuring Siebel Business Applications</i> for information on building expressions.
[HouseholdId]	Household Id	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 <i>Configuring Siebel Business Applications</i> for information on building expressions.

5. In the Integration Object Map applet, click the Validate button to verify the mapping.

The following procedure describes how to update the Siebel Outbound Data Maps.

To update the Siebel Outbound Data Maps

1. In your Siebel application, navigate to 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 <i>Configuring Siebel Business Applications</i> for information on building expressions.
[Household Id]	HouseholdId	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 <i>Configuring Siebel Business Applications</i> for information on building expressions.

5. In the Integration Object Map applet, click the Validate button to verify the mapping.

Updating the PIMSI Domain Configuration

This topic describes how to update the PIMSI domains to reflect the updated data mappings. You must update the Siebel domain and the PIM domain, then configure the PIM domain to map the Intermediate Integration Component fields to the appropriate fields in Microsoft Exchange.

This task is a step in *Process of Configuring Custom Objects in Siebel Outlook Add-In*.



Note: When performing the procedures in this topic, replace Household with the name of the Siebel object you are adding to the Siebel Outlook Add-In, and Contact with the name of the Microsoft Outlook object you want to link to the new Siebel object.

The following procedure describes how to update the Siebel Domain.

To update the Siebel domain

1. Navigate to 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	HouseholdId	HouseholdName
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	HouseholdId	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.
Household Name	MAPIPropertyName	HouseholdName	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*.



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*.
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.

The following information lists the types of Siebel records that you can link to from Microsoft Outlook.

Microsoft Outlook Record Type	Can Link to These Siebel Record Types
Calendar	Account
Calendar	Opportunity
Calendar	Project
Calendar	Service Request
Task	Account
Task	Opportunity
Task	Project
Task	Service Request
Contact	Account
Contact	Opportunity
Contact	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, then 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](#)
- [Using Outlook Add-In Quick Links](#)

- [Using Outlook Add-In Links](#)
- [Removing Links to Siebel Data](#)
- [About Using Outlook Add-In with the Mobile Web Client](#)

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](#)

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](#).



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](#). 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

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*.

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

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

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:

- 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, then the cache is updated automatically. For information about setting the cache refresh interval, see *Setting the Cache Refresh Interval*.

- If you create items such as Siebel links in Microsoft Outlook while working offline, then 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), then 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

