

# Siebel

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## **Desktop Integration Siebel Agent Guide**

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# Preface

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

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To find guides for Oracle Applications, go to the Oracle Help Center at <http://docs.oracle.com/>.

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# 1 What's New in This Release

## What's New in Desktop Integration Siebel Agent Guide, Siebel CRM 20.11 Update

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

| Topic                     | Description   |
|---------------------------|---|
| <i>Reconfiguring DISA</i> | Modified topic. As of Siebel CRM 20.11 Update, the parameter whiteList has been renamed to allowList. For existing installations that you have updated from prior releases, you must manually rename this parameter in the config.properties file in accordance with this change. |

## What's New in Desktop Integration Siebel Agent Guide, Siebel CRM 20.4 Update

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

| Topic                                     | Description  |
|---|--|
| Generating and Deploying DISA Certificate | Obsolete topic. This topic has been removed from the guide.                                |
| <i>Enhancing DISA Security</i>            | New topic. This describes the configurations to implement DISA enhanced security solution. |

## Whats New in Desktop Integration Siebel Agent 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 Desktop Integration Siebel Guide, Siebel CRM 19.8 Update

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

| Topic                               | Description  |
|-------------------------------------|--|
| <i>Editing an Inline Attachment</i> | Modified topic. It describes the change is functionality of the Inline Attachment Editing feature and the configurations of the user property. |

## What's New in Desktop Integration Siebel 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 Desktop Integration Siebel Agent Overview

## Desktop Integration Siebel Agent Overview

Siebel CRM depends on Java applets to support key desktop integration features. However, browser support for the Netscape PlugIn Application Programming Interface (NPAPI) was discontinued because of performance and security issues. The Desktop Integration Siebel Integration (DISA) replaces NPAPI in Siebel CRM. This chapter includes the following topics:

- *Desktop Integration Siebel Agent Framework*

## Desktop Integration Siebel Agent Framework

The Desktop Integration Siebel Agent (DISA) is a generic framework that is based on the WebSocket protocol. This document assumes you are using DISA with the current release of Siebel CRM (such as Siebel CRM 20.11 Update or later).

The DISA framework consists of two key components:

- **WebSocket Client.** Implemented in the Siebel Open UI application in the browser.
- **WebSocket Server.** Installed on the agent workstation. It is the interface between Siebel Open UI and workstation native access.

## Supported Platforms and Client

DISA can be installed and run on Microsoft Windows and supports the Siebel Web Client.

DISA also provides backward compatibility through an internal component version scheme. The compatibility check happens when the component is invoked to determine whether a client and a server are compatible.

For additional information on feature support and DISA extensibility, refer to the *DISA Development Guide*, available here:

<https://github.com/OracleSiebel/ConfiguringSiebel/tree/master/ExampleCode/DISA>

## Supported Features

DISA supports the following features:

- *Inline Attachment Editing*
- *F9/Microsoft Outlook Integration*
- *Configuring CTI Hoteling Telesets*
- *Web Notifications for Siebel CTI*
- *Batch Fulfillment Printing*

**Note:** Siebel for Outlook Drag and Drop feature does not rely on the DISA framework. The Microsoft Outlook to Siebel Open UI Drag and Drop Installer is available on My Oracle Support. Refer to Microsoft Outlook to Siebel Open UI Drag and Drop (Doc ID 2117212.1).

For Open UI F9/MS Outlook Integration, refer to Siebel CRM Open UI F9/Microsoft Outlook Integration (Doc ID 2117013.1).

# 3 Installing Desktop Integration Siebel Agent

## Installing Desktop Integration Siebel Agent

This chapter includes the following topics:

- *DISA Installation Process*
- *Downloading the DISA Installer*
- *Installing and Configuring DISA*
- *Deploying DISA to Siebel Desktop Computers*
- *Deploying DISA in Multi-User Environments*
- *Upgrading DISA*
- *Enhancing DISA Security*
- *Uninstalling DISA*

## DISA Installation Process

To install and Deploy DISA, perform the following tasks:

1. *Downloading the DISA Installer*
2. *Installing and Configuring DISA*
3. *Deploying DISA to Siebel Desktop Computers*

## Downloading the DISA Installer

The Desktop Integration Siebel Agent (DISA) Installer is available on My Oracle Support.

## Installing and Configuring DISA

To install and configure DISA, perform the following tasks:

1. *Installing GUI Based DISA*
2. *Verifying DISA Installation Folder*
3. *Enabling DISA in Mozilla Firefox*
4. *Verifying the DISA Installation*
5. *Reconfiguring DISA*

## Installing GUI Based DISA

DISA is installed in the following two modes:

- **GUI mode.** Presents a step-by-step user interface for installation. GUI mode can be also used to create a response file, which is used while deploying DISA on Agent desktops.
- **Silent mode.** Uses the response file to deploy DISA on Agent desktops. For more information, see [Deploying DISA to Siebel Desktop Computers](#).

To install DISA in the GUI mode

1. After you download the latest DISA version, double-click on Desktop\_Integration\_Siebel\_Agent.exe to run the DISA Installer.
  2. Select an appropriate location for installation.
  3. In the Configure DISA screen, enter the following:
    - Port Number: a valid and unique port number within the specified range. The default port number is 18443.
    - Allow List: a list of domains names using semicolons (;) as separators.
  4. In the DISA Certificate screen, select one of the two options:
    - Option 1: Generate Keystore and Certificate (recommended for the first time setup).  
Generates keystore (disa.jks) and certificate (disa.der).  
Creates files in <CURRENT\_DISA\_HOME>/DesktopIntSiebelAgent.
    - Option 2: Generate Certificate Using Existing Keystore.  
Creates a new certificate (disa.der) from an existing keystore file (disa.jks).  
Copies both keystore (disa.jks) and certificate (disa.der) in <CURRENT\_DISA\_HOME>/DesktopIntSiebelAgent.
- Note:** Only self-signed certificates can be used for DISA.
5. In the Choose Shortcut Folder screen, choose where to add shortcuts for the DISA application (Desktop Integration Siebel Agent) and the uninstaller (Change DISA Installation).
  6. In the Pre-Installation Summary screen, click the Installation. The installation begins.
  7. In the Install Complete screen, click Done.

## Verifying DISA Installation Folder

Navigate to the DISA folder and drill down to verify that it contains the following subfolders and files.

- Folder Name:
  - DesktopIntSiebelAgent
- Subfolders names:
  - lib
  - log

- plugins
- config.properties
- File Names:
  - disa.der
  - disa.exe
  - disa.jks

## Enabling DISA in Mozilla Firefox

To enable DISA in Mozilla Firefox:

1. Make sure DISA is running.
2. Open Mozilla Firefox, and then from the Tools menu, select Options.
3. Navigate to Advanced, and then to the Certificates tab.
4. Click View Certificates.
5. In the pop-up window, select the Servers tab.
6. Select the default localhost 18443 and click Add Exception.
7. In the Add Security Exception window, in the Location field, enter the following address:

`https://localhost:18443`

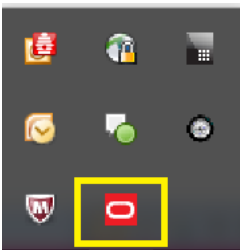
**Note:** The port 18443 must be changed to the port number which you configured for disa.exe in config.properties file.

8. Click Get Certificate, and then Confirm Security Exception.

You will find a new record is added in the Servers tab.

## Verifying the DISA Installation

In the Task Tray, verify whether the DISA icon (which is the letter O in a solid red box) appears as shown in the following image:



## Reconfiguring DISA

To reconfigure DISA after installation:

1. Navigate to the DISA Install folder and open the config.properties file.
2. In the config.properties file, configure the following:

Add the server hostname (without the port number), then the separate server names using semicolons (;) as separators. For example:

```
allowList=example.com;www.example.com;2ndexample.com
```

For example:

```
allowList=sla02kfo.us.oracle.com;slc02kfo
```

```
port=18443
```

You can update allowList information as needed.

3. Restart DISA for the changes to take effect.

**Note:** As of Siebel CRM 20.11 Update, the parameter whiteList has been renamed to allowList. For existing installations that you have updated from prior releases, you must manually rename this parameter in the config.properties file in accordance with this change.

## Troubleshooting DISA

To troubleshoot DISA, set the Log Level.

**Note:** Set the log level only to troubleshoot if DISA is not functioning properly.

To set the log level

1. Navigate to the DISA Install folder and open the config.properties file.
2. Add the log level value. For example, to set the log level to 8, add the following in the config.properties file:

```
logLevel=8
```

The following are the statuses for each log level:

| Log Level | Status |
|-----------|--------|
| 0         | OFF    |
| 1         | SEVERE |

| Log Level | Status  |
|-----------|---------|
| 2         | WARNING |
| 3         | INFO    |
| 4         | CONFIG  |
| 5         | FINE    |
| 6         | FINER   |
| 7         | FINEST  |
| 8         | ALL     |

3. Check the log file after the log level is reset.

## Deploying DISA to Siebel Desktop Computers

To deploy DISA to agents' desktop computers

1. Generate a response file:
  - a. Run the following command in a command-line window:
 

```
Desktop_Integration_Siebel_Agent.exe -r d:\resp.txt
```
  - b. Finish the installation steps as described in *Installing GUI Based DISA*. All the user selection and inputs are recorded in the response file D:\resp.txt.
2. On the agents' desktop computers, perform DISA Silent Mode Installation. In a command-line window, run the following:

```
Desktop_Integration_Siebel_Agent.exe -i silent -f d:\resp.txt
```

This command starts the DISA installer in silent mode using the recorded user inputs in the D:\resp.txt file.

**Note:** Depending on the corporate policy, customers can skip certificate import and use other means to import the certificate into the Trusted Root on agents' desktop computers.

To skip certificate import, the recommended install steps for Administrator are:

- a. Run the DISA Installer once; choose Generate Keystore and Certificate in the DISA Certificate panel.
- b. Find and copy disa.jks and disa.der files in the DISA install folder \DesktopIntSiebelAgent.

- c. Record a response file by running the following command:

```
Desktop_Integration_Siebel_Agent.exe -r d:\resp.txt
```

- Choose Generate Certificate Using Existing Keystore and specify the Keystore Location path to disa.jks, which was copied in the previous substep.
- Clear the Import Certificate into Trusted Root check box.
- Deploy the disa.der certificate, which was copied in the previous substep to agents' computers by any other means.
- To deploy DISA on agents' computers, run the command:

```
Desktop_Integration_Siebel_Agent.exe -i silent -f d:\resp.txt
```

The administrator can also modify the variable USER\_INPUT\_KEY\_LOC in the response file and specify the disa.jks location as needed.

## Deploying DISA in Multi-User Environments

Desktop Integration Siebel Agent (DISA) provides a background service for Siebel applications by listening on a local port. However, on multi-user environments, because of a system limitation, a DISA instance cannot share the same port for different users. Each instance of DISA requires a unique port number for each user on the same computer.

In a multi-user environment, DISA and Siebel Server each can use a file to maintain the user-port map in place of the config.properties file and system preferences.

The deployment of DISA in a multi-user environment involves the following steps:

1. Deploying DISA on Agent computers.
2. Making configurations on the Siebel Server side.

## DISA Deployment Process in a Multi-User Environment

Perform the following tasks to deploy DISA on a multi-user environment:

1. *Preparing the Port List*
2. *Configuring DISA on an Agent Computer*
3. *Installing Patch for Siebel Server*

### Preparing the Port List

The administrator assigns each agent a port number. Normally the range of port number is 1 to 65535, of which some numbers may be reserved. Choose a valid port number and ensure that it does not conflict with another service on each agent's computer. For agents who may have logged in to the same terminal server, each agent must have a unique port number to avoid conflict with that of others.

An agent will have in the following accounts in the two port lists where the agent's port number must be consistent in both the lists.

- Windows user account
- Siebel user account



## Windows User to Port (For DISA)

- This file must be a text file; contain agents' Windows user names in uppercase; the port number assigned to the agent and connected with Equal to (=). Each record takes a single line as follows:

```
<WINDOWS_USER_NAME>=<port number>
```

**Note:** In Windows, open a command-line window and run the following command:

```
echo %username%
```

- It will print the current user name, use this name in uppercase as the Windows user name in the list.

```
>C:\Users\winuser1>echo %username%
```

```
>winuser1
```

- Windows user name is case insensitive, but for consistency, the port list accepts only uppercase Windows user name. For example:

```
WINUSER1=18445
WINUSER2=18446
WINUSER3=18447
WINUSER4=18448
WINUSER5=18449
WINUSER6=18450
...
```

## Siebel User ID to Port (For Siebel Server)

- This file must be a text file; contain the agent's Siebel user ID in uppercase; the port number assigned to the agent and connected with Equal to (=). Each record takes a single line as following:

```
<SIEBEL_USER_ID>=<port number>
```

**Note:** In Siebel application, go to Administration - User view and then Employees view. The User ID filed value must be used as the Siebel user ID in uppercase.

- Siebel User ID accepts uppercase only. For example:

```
SIEBELUSER1=18445
SIEBELUSER2=18446
SIEBELUSER3=18447
SIEBELUSER4=18448
SIEBELUSER5=18449
SIEBELUSER6=18450
...
```

## Configuring DISA on an Agent Computer

To configure DISA on an agent computer

1. Install and configure DISA. Refer to *Installing and Configuring DISA*. For multi-user environment, users on the same computer can share one DISA installation.
2. Configure DISA for multi-user environment. Do the following:
  - a. Open the <DISA\_Install\_Dir>\DesktopIntSiebelAgent folder.
  - b. Open the config.properties file with a text editor and add the following line:

```
portListPath=<path_to_port_list_file>
```

3. Replace the place holder <path\_to\_port\_list\_file> with the path that points to the Windows user to port file from the previous step. The path can point to a shared location.

**Note:** If the path contains a backslash (\), replace the single backslash with a forward slash (/) or a double backslash (\\).

Every time DISA starts, it will try to find the port number with the current Windows user name, if no such record is found, DISA will use the port number that is specified in the config.properties file.

To verify the change, set logLevel to 8 and restart DISA. In the newest DISA log file, you will see a log entry similar to this:

```
2017-01-19 10:52:37.623:INFO:info: Start server @127.0.0.1:18443
```

Check if the port number is correct.

**Note:** The portListPath property must be applied only to DISA for multiple-user environment agents. It is not recommended for regular environments.

## Installing Patch for Siebel Server

To install the Siebel IP2016 patchset 12 on the Siebel server

1. Add System Preference
  - a. Log in to Siebel with administrative privileges.
  - b. Go to Administration - Application, and then to System Preference.
  - c. Add a new System Preference as follows - (this is also shown in the following image):
    - System Preference Name: For example, DISAPortListPath.
    - System Preference Value: The path to the Siebel user ID to port list file in previous tasks. For example: \\slc02pfg\shared\port.txt.

The screenshot shows the 'System Preferences' window in Siebel. At the top, there's a tab labeled 'System Preference:'. Below it, the title 'System Preferences' is displayed. There are two input fields: one for 'System Preference Name' and one for 'System Preference Value'. The 'System Preference Name' field contains 'DISAPortListPath'. The 'System Preference Value' field contains '\\slc02pfg\shared\port.txt'. A blue box highlights the value field. To the right of the value field is a blue circular button with a right-pointing arrow.

Make sure the path is accessible to the Siebel server machine. Restart the server for changes to take effect.

To verify the change, log in to a Siebel application with a Siebel User ID, from the list file. If DISA is running and configured, you will be able to use DISA functionalities. If DISA is not running, you will see the following message in the browser console:

```
WebSocket connection to 'wss://localhost:18443/' failed:Error in connection
```

`establishment`

Check the `wss://localhost:<port>`, to see if the port number is correct in this message.

## Upgrading DISA

The DISA installer can automatically detect a DISA installation on a local computer. If the DISA installer detects an older version, it prompts the user to upgrade to the current installed version of DISA.

In Upgrade mode, DISA installer picks up install settings from the previous DISA installation. User input is not required in upgrade mode.

**Tip:** Exit DISA before upgrading to avoid restarting the computer during or after the upgrade process.

After the upgrade process is complete, the configuration file, key store file, and custom plugins from the old DISA installation are retained.

## Enhancing DISA Security

DISA, with enhanced security, now communicates only to Siebel Open UI with a trust method between the DISA executable and Siebel Open UI instead of server communication. DISA works with all authentication types used by Siebel Open UI.

### DISA Communication Process

DISA communicates with Siebel Open UI as follows:

1. Siebel Open UI accesses DISA over localhost using a WebSocket port.
2. DISA checks the Siebel Open UI origin (proxy/Application Interface name) with the list of servers in the allowlist in the DISA configuration file as part of the authentication cycle.
3. On successful authentication, Siebel Open UI calls DISA. DISA rejects the request if the allowlist does not have the Siebel Open UI server details.

## Configuring DISA with MS Outlook Integration

To implement the security enhancement solution using DISA with MS Outlook Integration, apply the following steps.

**Note:** If DISA is not used with MS Outlook Integration, apply only step 2.

1. Update browser settings to save the downloadable file to a specific location. By default, the location will be set to

`c:\Users\<USER NAME>Downloads`

- o For Google Chrome:
  - i. Navigate to Chrome Settings and click Advanced to view advanced settings.

- ii. Navigate to the Downloads section and set the required download location.
  - iii. Disable the Ask where to save each file before downloading option by using the toggle switch.
- o For Mozilla Firefox:
  - i. Click Open menu in the browser toolbar and click Options.
  - ii. Navigate to the Files and Applications section.
  - iii. Select the Save files to option and set the required location.

**Note:** While downloading any file for the first time, browser will display a pop-up window where you must select the Save File option.

- o For Microsoft Internet Explorer:
  - i. Click Settings and more in the browser toolbar and then click Settings.
  - ii. Navigate to the Downloads section and set the required download location.

**Note:** While downloading any file, browser will display a pop-up window where you must select the Save File option.

2. Upgrade DISA to 2.20.2 or above.
3. Update the DISA configuration properties file.
  - o Add the filedownloadpath parameter to the config.properties file in DISA.
  - o Specify the required location as the value for the filedownloadpath parameter. For example:  
filedownloadpath=C:\\Users\\TESTUSER\\Downloads\\.

**Note:** The download path specified in the previous step should be same as the location specified in the browser settings.

4. Apply a POC to Siebel Server or upgrade to Siebel 20.4+.

## Uninstalling DISA

To uninstall DISA

1. Locate the DISA Uninstaller Change DISA Installation.exe.
2. Double-click on the DISA uninstaller - Change DISA Installation.exe file to begin the process of uninstallation.

**Note:** At any point during the uninstall process, if you choose to cancel the uninstallation and close the wizard, an alert dialog box will appear. Select Quit to exit. To continue with uninstallation, click Resume.

3. In the Configure DISA wizard, the default selection is Uninstall Product. Click Next to continue the uninstallation.

On selecting Repair Product, the wizard repair process checks the DISA installation steps once again and corrects the missing files and key store problems, if any.

4. Click Next in the Uninstall DISA screen. The uninstallation begins.

5. In the Uninstall Complete screen, if DISA files are still in use, there will be a prompt to restart the system and the option Yes, restart my system is selected by default. The system restart is required if DISA is still running during the uninstall process and the uninstaller could not remove some files that are still in use.

Select *No, I will restart myself to continue with your work*. The uninstalled files will be removed the next time the system restarts.

Click Done. Based on the option selected, the system either restarts or the Configure DISA wizard closes.

**Note:** It is recommended to exit DISA before the uninstallation process to avoid restarting the computer after uninstall.



# 4 DISA Supported Features

## DISA Supported Features

This chapter provides information about DISA features. It includes the following topics:

- *Inline Attachment Editing*
- *F9/Microsoft Outlook Integration*
- *Configuring CTI Hoteling Telesets*
- *Web Notifications for Siebel CTI*
- *Batch Fulfillment Printing*

## Inline Attachment Editing

Inline Attachment Editing allows users to edit an attachment without having to download and re-upload. It includes the following information:

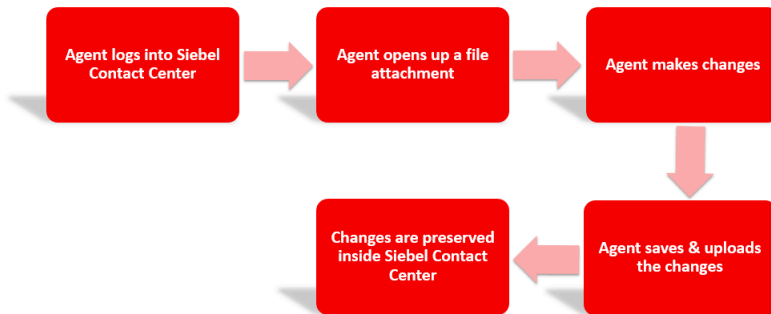
- *Working Process of Inline Attachment Editing*
- *Applicable Releases*
- *Inline Attachment Editing Features*
- *Editing an Inline Attachment*
- *Viewing Files*

## Working Process of Inline Attachment Editing Feature

The following diagram shows the Inline Attachment Editing process and it includes the following steps:

1. The agent logs into the Siebel Contact Center.
2. The agent opens up a file attachment.
3. The agent makes changes to the file.
4. The agent saves the changes and uploads the changes.
5. The changes made to the file are preserved in the Siebel Contact Center.

## DISA - Inline Attachment Editing



## Applicable Releases

The base Inline Attachment Editing feature is applicable to the following releases:

- Latest release of Desktop Integration Siebel Agent
- Siebel Innovation Pack 2014, Patchset 14 or later (version.14.14 or later)
- Siebel Innovation Pack 2015, Patchset 8 or later (version.15.8 or later)
- Siebel Innovation Pack 2016 and above

The Auto detection of DISA feature is applicable to the following releases:

- Latest release of Desktop Integration Siebel Agent
- Siebel Innovation Pack 2015, Patchset 13 or later (version.15.13 or later)
- Siebel Innovation Pack 2016, Patchset 3 or later (version.16.3 or later)
- Siebel Innovation Pack 2017 and above

The Support multiple files read-only access feature is applicable to the following releases:

- Latest release of Desktop Integration Siebel Agent
- Siebel Innovation Pack 2016, Patchset 10 or later (version.16.10 or later)
- Siebel Innovation Pack 2017 and above

## Inline Attachment Editing Features

Desktop Integration Siebel Agent (DISA) supports the Inline Attachment Editing feature. The Inline Attachment Editing feature allows editing the attachment online. The following are the features of Inline Attachment Editing:

- *Auto Detection of DISA*
- *Support Multiple Files Read-only Access*



## Auto Detection of DISA

The Inline Attachment Editing feature is functional based on two conditions:

1. Configuration settings (Prerequisite): The FileDownloadSave user property configuration.
2. DISA Availability: DISA installed and running. The application auto detects DISA availability.

When users click on a file attachment, based on the configuration settings, the Inline Attachment Editing feature functions in conjunction with DISA as follows:

- When the FileDownloadSave user property is configured and DISA is available and running, the application enables the Inline Attachment Editing feature. When users click on a file attachment for download, the Edit button in the pop-up message box is enabled. Users can click the Edit button to open up the file attachment, make the changes to the document and upload the changes back to Siebel application.
- When the FileDownloadSave user property is configured and DISA is not available (DISA is either not installed or not running), the application informs the users that DISA cannot be connected. When DISA is unavailable, the Edit button remains disabled. Users can only download a file to their local computer and make the changes offline. They need to re-upload the changed file back to Siebel application.

## Support Multiple Files Read-only Access

Users can now view multiple files at once. Users can pre-select multiple files and click the View Files button to open up the selected files at the same time. By default, some files will be in read-only mode, such as .doc and .docx, while some other files will be in edit mode. However, users cannot save the changes online; the changes must be saved offline.

Previously, users could only open and view one file at a time. To view another file, they had to close the current file.

**Note:** The View Files button is disabled when the Siebel CRM application is unable to connect to DISA.

## Editing an Inline Attachment

To edit an inline attachment, you must set configurations to enable the feature.

### Configuring the User Property

You must configure the FileDownloadSave user property to be able to use the Inline Attachment Edit feature.

To configure FileDownloadSave user property

1. Log in to Siebel Web Tools.
2. Navigate to the Object Explorer and click Application.
3. In the Applications list, query the application name that you are modifying. For example, Siebel Universal Agent.
4. In the Object Explorer, expand the Application tree, and then click Application User Prop.
5. In the Application User Props list, query the FileDownloadSave property that you are modifying.

If the property does not exist, add it.

6. Set the FileDownloadSave property to one of the following values:
  - All. Enables the Edit button for all the file download requests.
  - Semicolon separated file extensions. Enables the Edit button only for the files with the file extensions specified in the property. For example, .html; .doc; .gif.

- Blank. The Edit button is always disabled.

## 7. Install and deploy DISA on Siebel desktops.

## Editing an Inline Attachment

After you configure the user property, the application allows you to edit an attachment online when DISA is available.

To edit an inline attachment

1. Open the Siebel Call Center application and log in.
2. Drill down to the attached document and click on the document name. A file download dialog box appears.
3. You can edit the document online or offline based on whether DISA is available or not. The application auto detects DISA, as described in *Auto Detection of DISA*.

- If DISA is available, the Edit button is enabled. Click Edit to open the document. Make the required changes, save and close the document.

To upload the document after changes, click the Edit button without opening a document. The File Editing dialog box opens. Click Finish.

**Tip:** Note the timestamp and file size before and after the upload to know if the file is updated.

If you do not save the edited file and leave it open and click Finish, the system displays an error message, "System has detected an open attachment. Please save and close it." Save and close the file. Click OK, Finish.

**Note:** From DISA 2.16.8 release onwards, the option IAEFileAction is available in the DISA configuration file config.properties. When it is configured as open, the attachment will be opened by the default program associated with the file type. If the value is configured as edit, the attachment will be opened by the default program associated to edit the file type. For most file types, they are the same program. This configuration is mainly for images like TIFF, PNG, JPEG formats. When it is open, images will be opened by a photo viewer (like Windows Photo Viewer); when it is edit, images will be opened by Paint.

- If DISA is not available, the Edit button is disabled. Click Download to save a copy of the document in your local drive. Edit the document and upload the edited version.

## Viewing Files

To view a file or multiple files at once

1. Select a file or multiple files in the Attachments applets, such as Contact Attachment applet.

**Tip:** To select multiple files, when using the mouse to select file record, hold Ctrl or Shift key in the keyboard.

2. Click the View Files button to open one file or multiple files one after another.

**Note:** From DISA 2.17.4 release onward, by default the files will open in read-only mode. This can be changed by modifying IAEViewFileAsReadonly option in DISA configuration file config.properties. By default, IAEViewFileAsReadonly=true. By changing IAEViewFileAsReadonly to false, files will open in normal mode.

## F9/Microsoft Outlook Integration

When using Siebel CRM applications to manage customer interactions through emails, application users may choose using third-party email clients to send outbound emails. With the DISA framework, Siebel CRM application users can start to benefit from the full integration between Siebel Email Response (F9) and Microsoft Outlook Client. The solution is supported with Siebel on Open UI. This topic includes the following information:

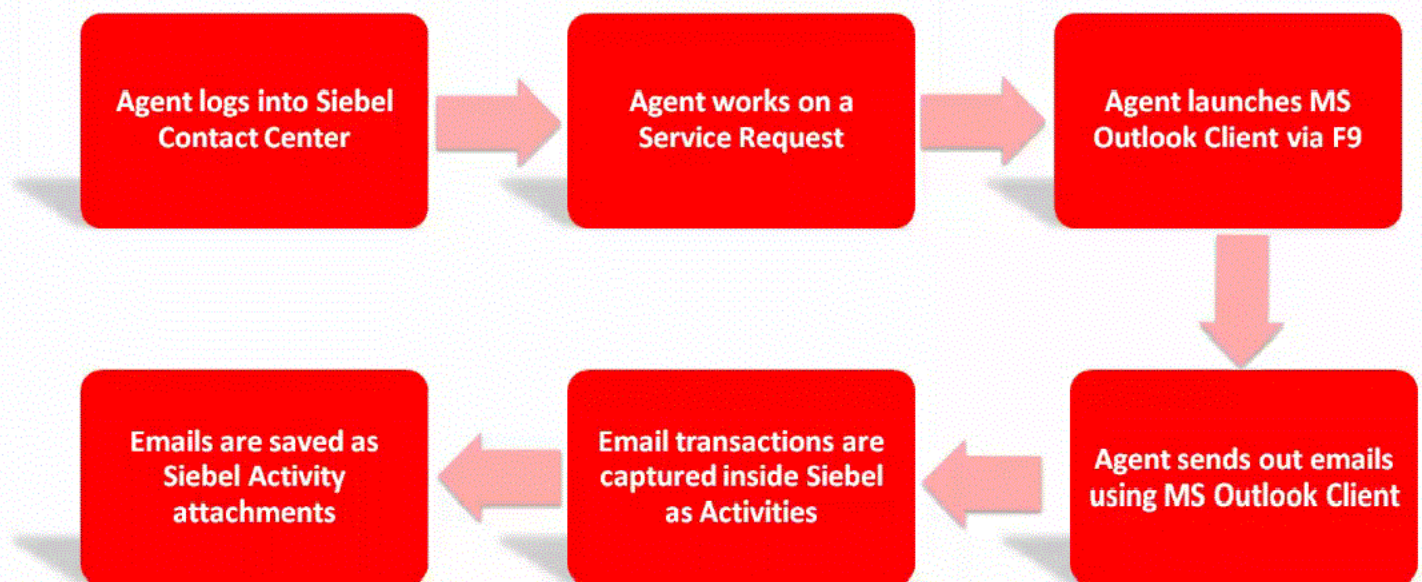
- *Working Process of F9/Microsoft Outlook Integration*
- *Applicable Releases*

### Working Process of F9/Microsoft Outlook Integration

The following diagram shows the F9/Microsoft Outlook Integration process and it includes the following steps:

1. The agent logs in to the Siebel Contact Center.
2. The agent works on a Service Request.
3. The agent launches Microsoft Client Outlook client using F9.
4. The agent sends out emails using Microsoft Client Outlook client.
5. Email transactions are captured inside Siebel Activities.
6. Emails are saved as Siebel Activity attachments.

### Desktop Integration Siebel Agent - Siebel Email Integration with MS Outlook Client



## Applicable Releases

The Siebel Open UI F9/Microsoft Outlook Integration feature is applicable to the following releases:

- Latest release of Desktop Integration Siebel Agent
- Siebel Innovation Pack 2014, Patchset 16 or later (version.14.16 or later)
- Siebel Innovation Pack 2015, Patchset 10 or later (version.15.10 or later)
- Siebel Innovation Pack 2016
- Siebel Innovation Pack 2017

The following table describes the patch-wise feature support:

| Siebel Release   | External Email Client  | Microsoft Outlook  |
|--|--|--|
| IP14, IP14 PatchSet 1 to 15<br><br>P15, IP15 PatchSet 1 to 9                       | F9 in Open UI: Supported<br><br>Supports native email clients with limitations (no attachments from Siebel, no HTML template, limited body length). Native email clients refers to Microsoft Outlook or Mozilla Thunderbird.<br><br>Required step:<br><br>Configure Email Response to capture emails sent with external email clients.   | Not applicable   |
| IP14 PatchSet 16 or later<br><br>IP15 PatchSet 10 or later<br><br>IP16<br><br>IP17 | F9 in Open UI: Supported<br><br>Supports native email clients with limitations (no attachments from Siebel, no HTML template, limited body length). Native email clients refers to Microsoft Outlook or Mozilla Thunderbird.<br><br>Required steps:<br><br><ol style="list-style-type: none"> <li>1. Add manifest configurations of emailmodel.js (not applicable to IP2016). See Doc ID 2117013.1 on My Oracle Support.</li> <li>2. Configure email response to capture emails sent with external Email Clients. Refer to Configuring Email Response to Capture Emails Sent with External Email Clients.</li> </ol> | F9 in Open UI: Supported<br><br>Supports full integration between MS Outlook Client and Siebel.<br><br>Required Steps:<br><br><ol style="list-style-type: none"> <li>1. Install and configure Desktop.</li> <li>2. Add manifest configurations of emailmodel.js (not applicable to IP2016). See Doc ID 2117013.1 on My Oracle Support.</li> <li>3. Configure email response to capture emails sent with external Email Clients. Refer to Configuring Email Response to Capture Emails Sent with External Email Clients.</li> </ol> |

## Configuring CTI Hoteling Telesets

You can configure the telesets in your call center for hoteling, which allows an agent to log in to the Siebel application from any one of a pool of telesets and computers that have been configured for this purpose and allows the agent to use voice communications features.

This topic includes the following information:

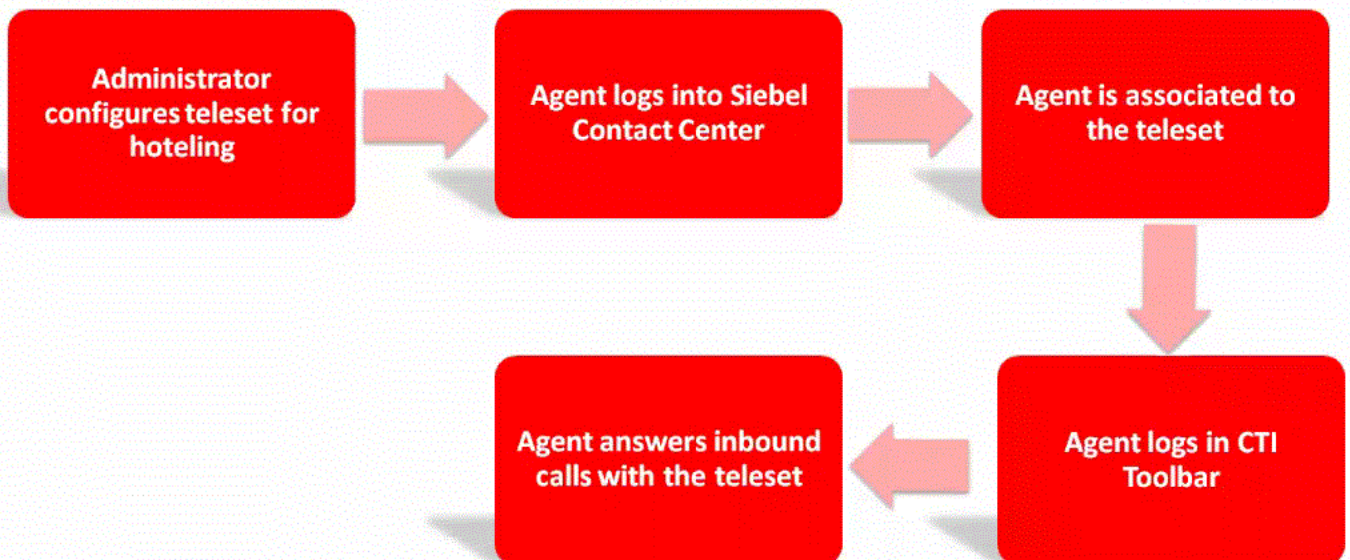
- *Configuring the CTI Hoteling Telesets*
- *Applicable Releases*

## Configuring the CTI Hoteling Telesets

The following diagram shows how to configure the CTI Hoteling telesets feature and it includes the following steps:

1. The administrator configures teleset for hoteling.
2. The agent logs in to Siebel Contact Center.
3. The agent is associated to the teleset.
4. The agent logs in to CTI Toolbar.
5. The agent answers inbound calls with the teleset.

### Desktop Integration Siebel Agent - Siebel CTI Hoteling



## Applicable Releases

- Latest release of Desktop Integration Siebel Agent
- Siebel Innovation Pack 2014, Patchset 14 or later (version.14.14 or later)
- Siebel Innovation Pack 2015, Patchset 8 or later (version.15.8 or later)
- Siebel Innovation Pack 2016
- Siebel Innovation Pack 2017

## Web Notifications for Siebel CTI

When Siebel CTI or Chat agents are using Siebel Contact Center to manage their customer communications, sometimes they may need to temporarily look up other applications or browsers for other work. In such cases the Siebel browser may get either minimized or hidden behind other application or browser windows. If there is an incoming call or chat, a visual notification is required at desktop so the agents do not miss customer calls or chats.

Siebel CRM integrates Web Notifications API with Siebel CTI and Chats. When the Siebel application browser is minimized or hidden behind other application windows, an alert window will display to notify agents about incoming calls or chats. On clicking inside the notification window, the Siebel application browser comes to the front.

**Note:** Siebel CTI Web Notifications feature supports the Siebel application browser to come to front only if a single browser tab is open and not if multiple browser tabs are open.

Siebel CTI Web Notifications feature is based on the standard Web Notifications API (<http://www.w3.org/TR/notifications/>). The World Wide Web Consortium (W3C) recommends the Web Notifications API. It is designed for end-user notifications and can alert user outside the context of a Web page of an occurrence.

The Siebel CTI Web Notifications feature supports the following visual notifications to agents for incoming calls or chats.

- Displaying pop-up window
- Flashing browser title bar
- Bringing the Siebel application browser to the front when one more browser is running

This topic includes the following information:

- *Working Process of the Web Notifications*
- *Configuring Web Notifications Display*
- *Applicable Releases*
- *Viewing Web Notifications*
- *Browser Add-ons*

## Working Process of the Web Notifications

The following is a typical flow of the Web Notifications feature:

1. The agent starts the Siebel application.

The first-time user must enable the browser notifications.

**Note:** Follow browser-specific instructions to enable browser notifications.

2. The agent logs in to the Siebel CTI toolbar and gets ready to take incoming calls or chats.
3. The agent either minimizes the Siebel browser and starts to do other work or directly switches to other applications.
4. A call or chat comes in. A pop-up window shows up to alert the agent about the incoming call or chat. The Siebel browser title bar starts flashing the title.
5. The agent clicks inside the notification pop-up window. The Siebel Call Center window comes to the front when one another browser tab is open.

If there are multiple incoming calls or chats, multiple notification pop-up windows appear. On clicking inside a notification pop-up window, all of the existing pop-up windows close. Multiple chats at a time can be initiated from the Siebel application.

## Configuring Web Notifications Display

You can configure when and how to display the Web Notifications from the User Preferences > Bring Siebel to Front selection. The following are the options:

- **On all Incoming Work Items.** Use this to display the Web Notifications for both incoming calls and chats.
- **On Matching Events.** Use this to display the Web Notifications pop-up window every time a matched event triggers an event handler.
- **Off.** Use this to disable the display of Web Notifications.

## Applicable Releases

The Web Notifications for Siebel CTI feature is applicable to the following releases:

- Latest release of Desktop Integration Siebel Agent
- Siebel Innovation Pack 2015, Patchset 13 or later (version.15.13 or later)
- Siebel Innovation Pack 2016, Patchset 3 or later (version.16.3 or later)
- Siebel Innovation Pack 2017

## Viewing Web Notifications

Log in to the Siebel application, bring up the communications panel, and open the CTI session. When Siebel application browser is minimized or hidden behind other application windows, a notification alert window pops up when a new call comes in and the Siebel application comes up to the front.

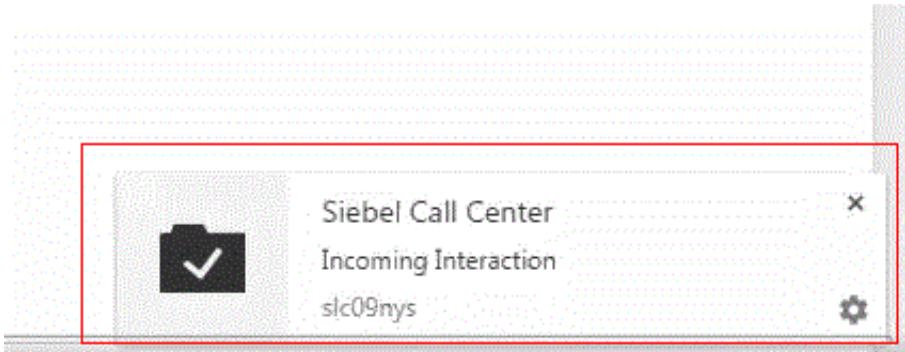
The Web Notifications display in the following scenarios:



## Scenario 1: Working on one browser one chat

When working on one browser, in this case the Siebel application, a notification appears for example as follows (and also shown in the following image):

**Siebel Call Center Incoming Interaction**



You can either close the notification and continue with the work or click on the notification pop-up window to go to the Siebel application. The chat icon flashes. You can accept the chat and start chatting with the support agent.

## Scenario 2: Working on two browsers one chat

While working on another browser tab and Siebel application browser is minimized, when a notification arrives, it appears on the active browser.

On clicking on the notification, the Siebel application comes to the front. The chat icon flashes and the title bar switches between Incoming Interaction and Service Request Activities.

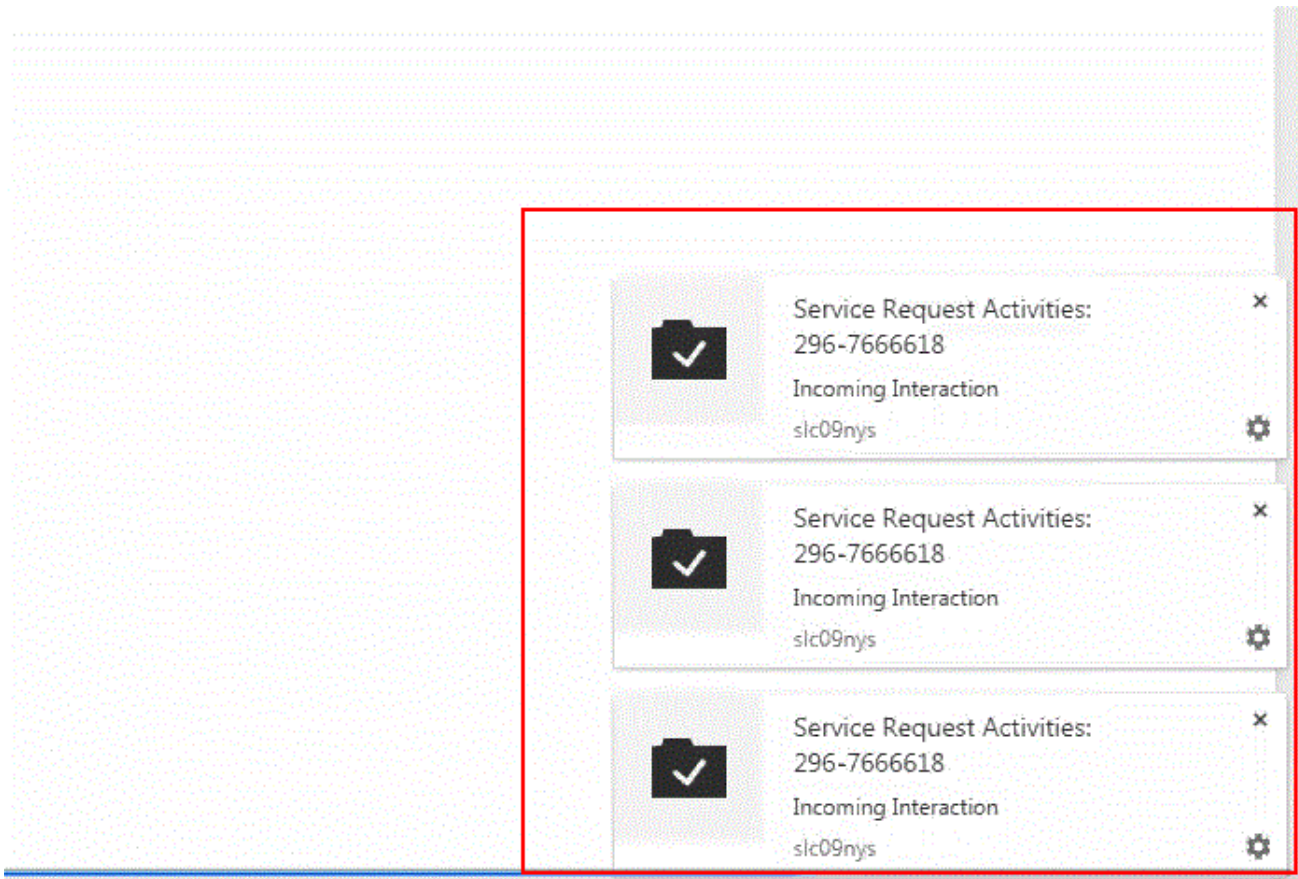
You can either close the notification and continue with your work or click on the notification pop-up window to go to the Siebel application where you can accept the chat and start chatting with the support agent.

## Scenario 3: Working on multiple chat requests in the same browser

With multiple incoming calls, multiple notifications display together for example as follows:

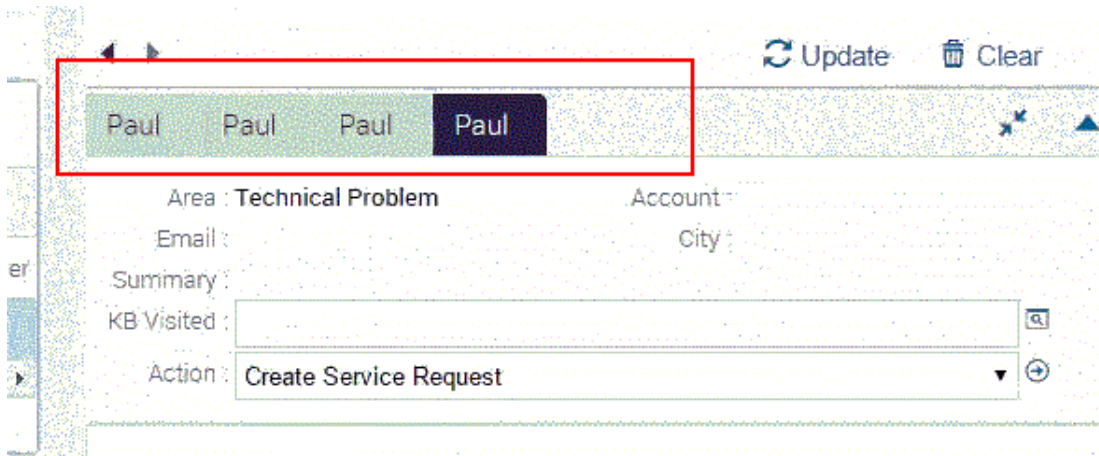
```
Service Request Activities 296-xxxxxxx Incoming Interaction
Service Request Activities 296-xxxxxxx Incoming Interaction
Service Request Activities 296-xxxxxxx Incoming Interaction
```





Agents can do the following:

- Close all the notification windows and continue with their work.
- Go to the Siebel application by clicking on one notification. On clicking one notification, all the other notifications also close and the Siebel application opens.
- If multiple chat requests flash, click each request and begin the chats simultaneously.



## Browser Add-ons

DISA supports the following browser add-ons:

- *Internet Explorer*
- *Google Chrome and Mozilla Firefox*

### Internet Explorer

DISA supports Web Notifications in Microsoft Internet Explorer (IE) for customers to use the IE Web Notifications feature built on DISA, without a need to install the Internet Explorer Web Notifications third-party add-on. Customers who want to use the Web Notifications feature for IE browser have two options:

1. Use a third-party IE add-on to support Web Notifications. For example, <http://ie-web-notifications.github.io/>
2. Use Desktop Integration Siebel Agent (DISA) to support Web Notifications. DISA 2.0.13+ is required to support this feature.

**Note:** When both a third-party IE add-on and DISA are available, the third-party add-on is the default add-on for notification pop-up. Disable the third-party add-on to use the DISA solution delivered through Siebel product.

Starting with DISA 2.0.13, two new settings can be added into config.properties to support flexible configuration for IE users:

- maxNotificationCount=3 - The maximum notification count for displaying the pop-ups at the same time
- notificationLife=0 - The life of a notification in seconds. 0 is the default value, meaning the life of the notification is indefinite, which requires user interaction to close out a pop-up. When the value is a positive integer, such as 30, the life of the notification is 30 seconds. The notification will close by itself after 30 seconds.

Both settings are applicable to the IE browser only.

### Google Chrome and Mozilla Firefox

Google Chrome and Mozilla Firefox browsers support Web Notifications API natively. If you are using these browsers, you need only to upgrade to the releases that support the feature. There are no extra steps to implement the feature.

## Batch Fulfillment Printing

Batch printing simplifies the task of printing multiple correspondence items. The user first selects one or more correspondence items, and then selects the Print option from the menu. The documents are then printed on the appropriate printer.

Siebel applications support two types of batch printing. These are:

- **Client-based.** This is the default configuration. The print menu item appearing in the Correspondence and Fulfillment screens performs the client-based batch printing.
- **Server-based.** This printing option can be configured either in addition to, or instead of, client-based batch printing. The administrator can use Siebel Tools to reconfigure these menus to use server-based batch printing.

## Applicable Releases

- Desktop Integration Siebel Agent 2.0.9 or later
- Siebel Innovation Pack 2016
- Siebel Innovation Pack 2017

