



Customer Relationship
Management

CRM Connector For Domino Administrator Guide

Version 14.1

Notices

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Preface

For details, see the following topics:

- [About this documentation](#)
- [Notation conventions](#)
- [Aurea global support](#)

About this documentation

This guide is part of the documentation set for Aurea CRM.

Notation conventions

This document uses the following notation conventions:

Convention	Meaning
Fixed-width	<code>Fixed-width</code> font indicates code, path names, file names, environment variable names, parameter names, command names, machine names, URLs.
Bold Fixed-width	Bold Fixed-width font is used to indicate user input or to emphasize certain lines of code.
<i>Italic Fixed-width</i>	<i>Italic Fixed-width</i> font indicates a placeholder for which you must supply a value.
Bold Sans serif	Bold sans serif typeface indicates the names of graphic user interface elements such as dialog boxes, buttons, and fields.
<i>Italic serif</i>	In text, <i>italic serif</i> typeface indicates the first use of an important term. The term is defined in the glossary.
Underlined	Underlined text in command lines and parameter descriptions indicate that you only have to enter the underlined part of the command or parameter name. For example, if you use the <u>-LOGFILE</u> parameter in a command, you only need to enter -LOGF.
[]	Brackets enclose optional arguments.
{ a b c }	Braces enclose two or more items. You can specify only one of the enclosed items. Vertical bars represent OR separators. For example, you can specify a or b or c.

Convention	Meaning
...	Three consecutive periods indicate that you can repeat the immediately previous item. In code examples, they can be horizontal or vertical to indicate omissions.
Menu > Choice	An angle bracket between two menu items indicates that you should choose an item from a menu. For example, the notation File > > Exit means: "Open the File menu and choose Exit ."
>>	Links to related information in other chapters or documents are indicated using the >> symbol.

Aurea global support

If you encounter a problem while using an Aurea product or require assistance with downloading the software or upgrading a product release, please open a ticket on [Aurea Support Central](#). Preferably, search the articles on the [Aurea Knowledge Base](#) for solutions to your issues before opening a ticket.

Information about the support organization is available on Support Central. The product documentation is available at <https://help.aurea.com/crm/#>.

For information about purchasing an upgrade or professional services, contact your account executive. If you do not know who your account executive is, or for other queries, [contact us](#) through our [website](#).

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Introduction

CRM.connector for Domino, most commonly known as connector, is a bidirectional interface between Aurea CRM and IBM Lotus Domino server.

CRM.connector is a fully server-based solution used to transfer calendar entries, e-mails, contact persons and tasks between the two systems. For further details, see [Synchronization directions](#).

The objects to be synchronized are transferred to CRM.interface as XML data streams. CRM.interface then transfers the objects to and from Aurea CRM.

For further details on functional description, see [Functional scope: details, limitations and restrictions](#).

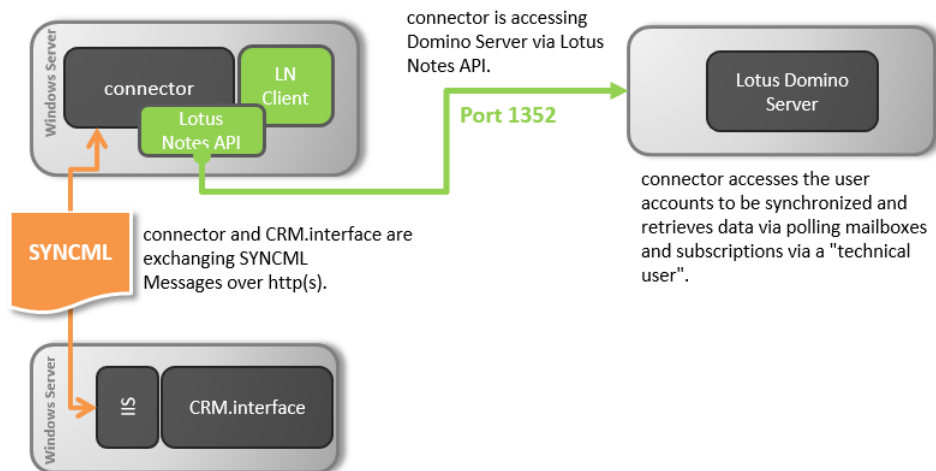
Architecture overview & brief description

CRM.connector for Domino is a rule-based interface for both the unidirectional and bidirectional Domino of objects between Aurea CRM and the Domino Server.

With the aid of the application, data is automatically transferred from the Domino Server to the Aurea CRM database and vice versa. The synchronization takes place on the server and is time-controlled, whereby user interaction is generally restricted to moving the e-mails to the defined folders.

The connector determines the objects that are to be synchronized (calendar entries, e-mails, contact persons and tasks) from the defined mailboxes and generates XML messages that are transferred to the CRM system via CRM.interface. New or edited objects in Aurea CRM are delivered to the Domino Server as part of the synchronization cycle.

Authentication on the CRM.interface takes place using tokens, which are composed of the user name, timestamp, and security token generated by the token DLL. This allows user rights in the Aurea CRM system to be taken into account.



The product essentially consists of two main parts: connector itself and CRM.interface.

In principle, both of the above mentioned product components may be installed on the same server.

The connector submits periodic queries in two directions: on the one hand, the connector polls the Domino® server at the defined intervals for new or edited Lotus Notes® objects; on the other hand, it queries CRM.interface and thus determines any changes to data in the CRM system.

Data is transferred using XML data streams in SyncML format.

As mentioned before, synchronization is rule-based and covers both unidirectional and bidirectional synchronization. The synchronization between Domino Server and Aurea CRM takes place as described in the table below.

Components	Description
E-mails	Unidirectional from Domino to Aurea CRM
Contact persons	Unidirectional from Aurea CRM to Domino
Calendar entries	Bidirectional
Tasks	(basically) unidirectional from Aurea CRM to Domino
Absences	unidirectional from Aurea CRM to Domino

For further details on functional scope, see [Functional scope: details, limitations and restrictions](#).

Appointments

Understand the function and details of how appointments work.

This table shows you the details, limitations and restrictions of appointments.

Details	Availability
Bi-directional synchronization of appointments where the chair is a synchronization user.	Yes
Recurring appointments from groupware system to Aurea CRM.	Yes
Recurring appointments from Aurea CRM to groupware system.	Yes
External appointments generated by external person.	Yes
Appointments where the chair is not a synchronization user .	Yes
Synchronization of participants.	Yes
Synchronization of participants invitation status.	Yes
Linking of appointments to additional info areas.	No
Synchronization of attachments from groupware system to Aurea CRM.	Yes
Synchronization of attachments from Aurea CRM to groupware system.	No
Deletion of appointments.	Yes
Lotus Notes Calendar delegation.	No
Turning on/off synchronization of Private appointments	Yes
Synchronization of additional fields.	Yes
Manual linking to companies/persons.	No

In Lotus Notes it is not possible to create "normal" appointments which last longer than 24 hours and on the other hand Lotus Notes "All Day Events" cannot have attendees. For further details on the caused restrictions, see [All day events](#).

E-mails, contact persons, tasks, and absences

Understand the functional scope of e-mails, contact persons, tasks, and absences.

Below are the details of E-mail, contact persons, tasks and absences with the corresponding notes:

E-mails	Notes
Synchronization of e-mails from groupware system to Aurea CRM	Yes
Synchronization of attachments	Yes
Serialization of e-mail in original mail format	Yes
Synchronization of Drafts	No
Synchronization of additional fields	No
Linking of e-mails to another info area	No

Contact persons	Notes
Synchronization of contact persons from Aurea CRM to groupware system	Yes
Synchronization of additional fields	Yes

Tasks	Notes
Synchronization of tasks from Aurea CRM to groupware System	Yes
Synchronization of additional fields	Yes
Bi-directional Synchronization of Status	Yes
Synchronization of participants	No

Absences	Notes
Synchronization of absences from Aurea CRM to groupware system	Yes
Synchronization of additional fields	Yes

General features

Details, limitations, and restrictions of general features.

General Features	Notes
Trigger synchronization manually.	No
Server side installation.	Yes
Reading list of synchronization users from file.	Yes
Opensynchronizedappointments,e-mails and contacts in CRM from Lotus Notes	Yes
Inform and stop on error.	Yes
Heartbeat.	Yes

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CRM.connector administration

CRM.connector gives administrators a wider range of possibilities in terms of usage because of its customizability.

The following steps have to be performed in order to install connector.

1. Create a technical user and set up domino privileges. For further details, see [Creating a technical user and setting up domino privileges](#) on page 12.
2. Install the connector for Domino. For further details, see [Installing and Upgrading Connector for Domino](#) on page 15.
3. Install and configure the CRM.interface. For further details, see [Configuring the CRM.interface](#) on page 16.
4. Configure users. For further details, see [Configuration of users](#) on page 18.
5. Create master user in Aurea CRM. For further details, see [Creating a master user in Aurea CRM](#) on page 20.
6. Create user settings. For further details, see [Creating user settings in Aurea CRM](#) on page 20.
7. Configure connector. For further details, see [Configuring CRM.connector for Domino](#) on page 24.

Creating a technical user and setting up domino privileges

CRM.connector uses Lotus Notes API to access the Domino Server environment.

Lotus Notes client installation on the connector machine is required since Lotus Notes doesn't provide an isolated API package but only full installations.

Note: Aurea recommends the use of Lotus Notes 8.5.3. FP3 for your Installation of connector for Domino. Alternatively you can use version 8.5.1. FP 5.

The use of Lotus Notes 8.5.2. is not supported because of a bug in the Lotus Notes API which has impact on connector functionality.

This recommendation only concerns the Lotus Notes installation on the connector server not the clients for the end users.

CRM.connector uses a service account for authentication in the Domino environment. This technical account must have the following rights in the Domino environment:

1. Manager, including delete documents, access to:
 - a. The file `names.nsf` in the users Roaming Profile folder (Note: this right is solely needed for contact person synchronization via Roaming Profile)
 - b. The file `[username].nsf` in the mail directory (the mail data base file for each user)
2. Reader access to the servers global address book (`names.nsf`) in the server root.

CRM.connector uses the credentials from the local Lotus Notes installation to access the Domino Server environment where it takes the username of the last user logged into Lotus Notes, therefore this client should solely be used by exactly this technical user.

The password of this user is stored encrypted in the `Users.xml` file.

Note: It is required, that the account under which connector service is running (by default it's the "Local System" account), has full access to the `notes.ini` of the technical user used to access Domino Server.

Note: CRM.connector doesn't require any adoption of the end user's rights but only if you use the feature "Store link to Lotus Notes emails in Aurea CRM", where users will need read access to other users mailboxes.

Setting up the rights for technical user

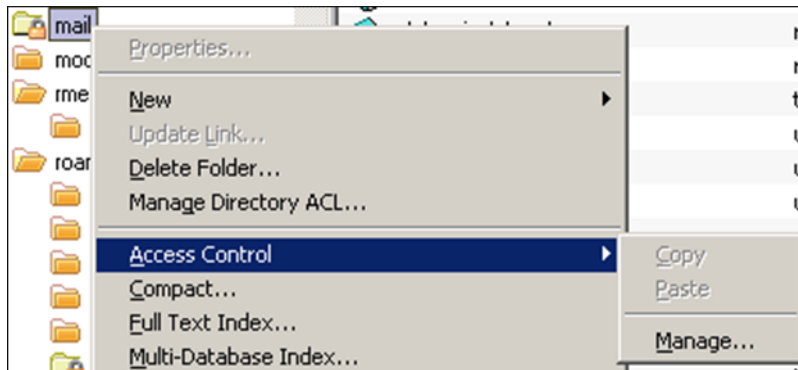
Technical users can have full access rights or limited rights to certain functions.

Follow these steps to assign manager access

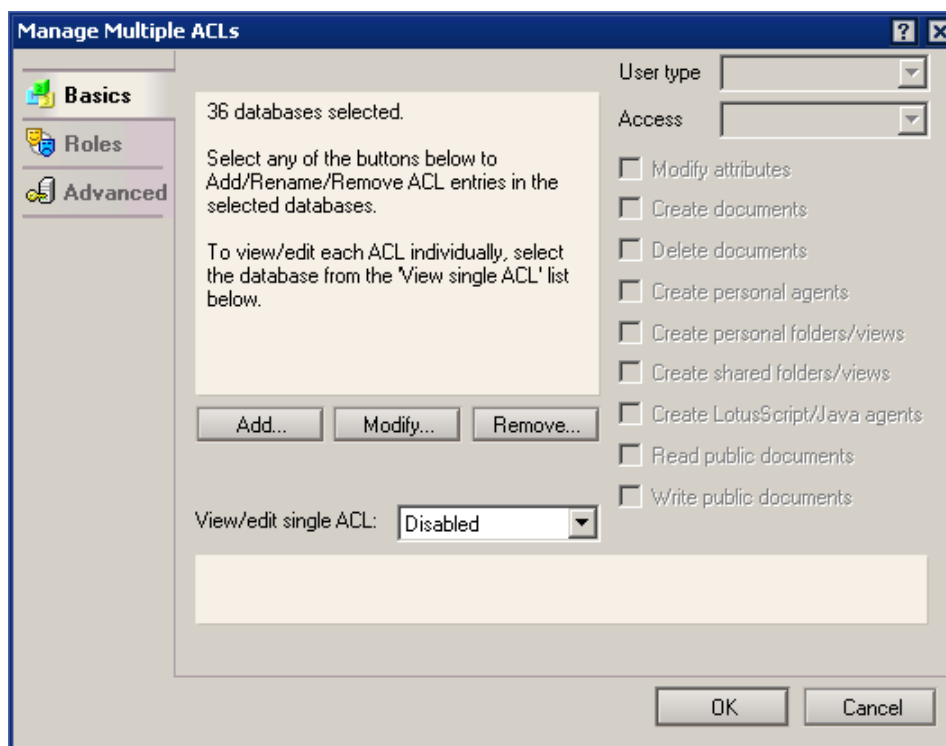
1. Open Domino Administrator and click on the **Files** tab.



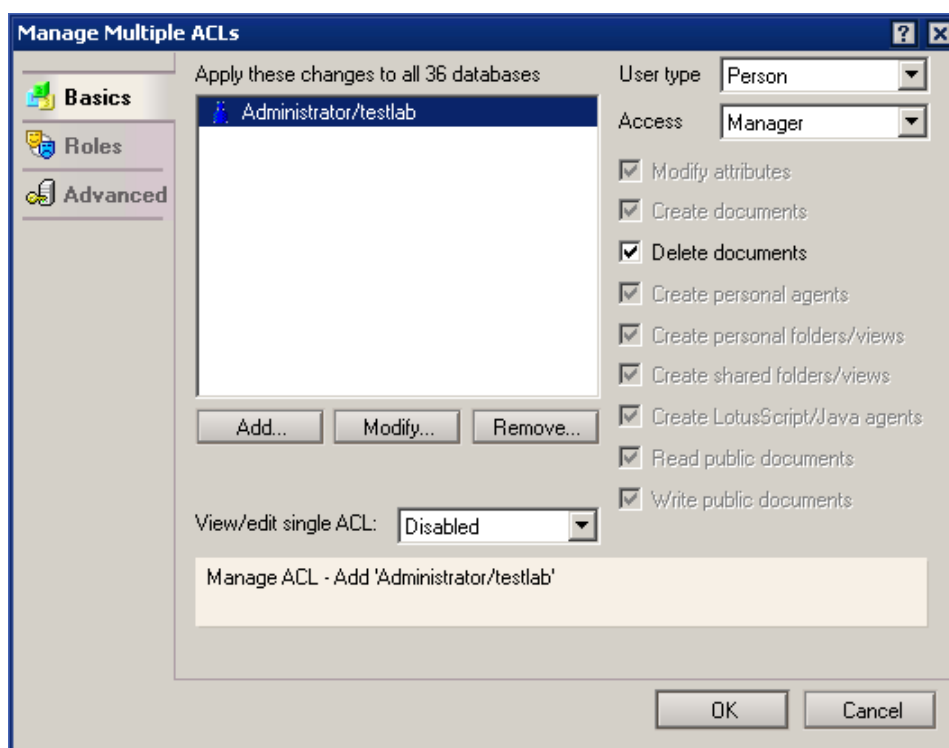
2. Open the **Access Control** for the mails files



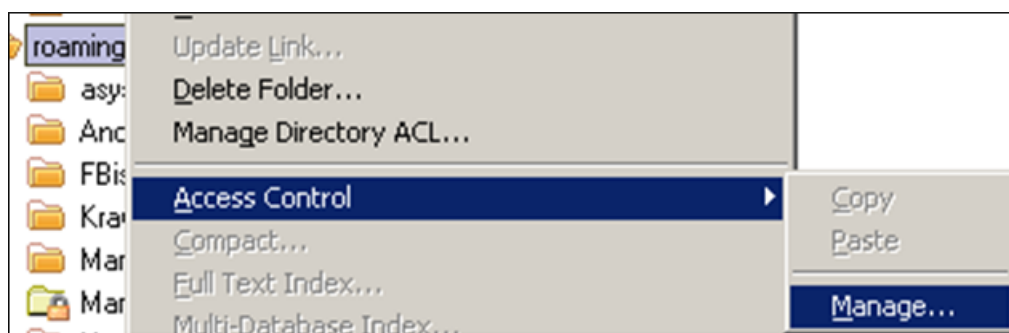
3. Click **Add** and choose your administrative user for CRM.connector for Domino



4. Assign manager access to the user and click OK.



5. Repeat the exact same procedure for the roaming user profiles.

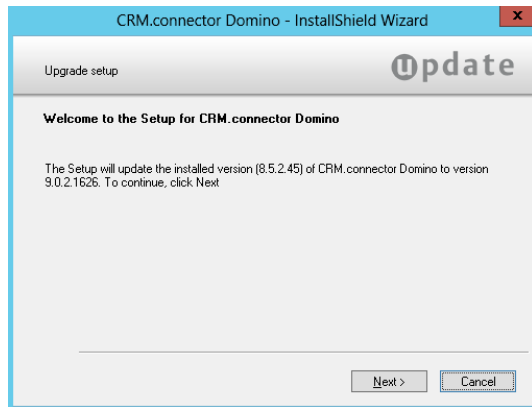


Installing and Upgrading Connector for Domino

Aurea software AG provides an installation wizard that guides you through the installation of connector and CRM.interface.

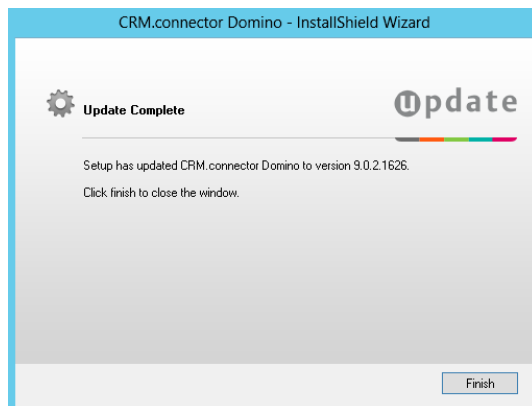
To upgrade the Connector for Domino to the latest version, perform the following steps:

1. Unzip the installation package (domino_connector_<version>_full.zip) to a local drive.
2. In the unzipped folder, double-click setup.exe. The **Upgrade setup** wizard displays.



Note: This installation setup may require administrator rights.

3. Click **Next** to start the upgrade process. The **Setup Status** window displays upgrade installation.
4. When the upgrade installation is complete, the **Update Complete** window displays.



5. Click **Finish** to complete the upgrade installation.

Configuring the CRM.interface

Users need to have access rights to certain info areas to ensure that synchronization will not have any problems.

During synchronization, the following tables in Aurea CRM are accessed, therefore, ensure that users have access rights to these info areas as listed in the table below.

Info Area	Comment	Access Type
External Key (XK)	Matchup table for Domino IDs and Aurea CRM IDs.	write
Tel.No./E-mail (TN)	This table is used to search for the participants by e-mail address.	read-only
Activity (MA),Activity Participant (MB)	E-Mails and appointment are stored in MA.	write
To-Do (TD), Message (MD), Reminder (ER)	Required for synchronization of the participation status and reminder management.	write
Company (FI), Person in Company (KP), Person (PE)		read-only
Tasks (A1)	If task synchronization is enabled.	write
Absences (A3)	If absences are synchronized.	read-only

Aurea CRM catalogs

Ensure that Aurea CRM catalogs are properly configured with correct values.

Ensure that the following catalogs and catalog values exist and that the values do not have a tenant or a lock assigned.

Catalog	Values
Ext. System (Rep)	Marketing.Manager notes
Content Type (External Key)	application/x-mmRecord text/x-mmAbsences text/x-mmPerson text/x-mmTasks text/x-vevent

Note: The language for the catalog values mentioned in the table above should be the English language for successful synchronization. Also, the default language for the "WWW"-User and the main station used for the web installation should be set to "English".

Aurea CRM module rights

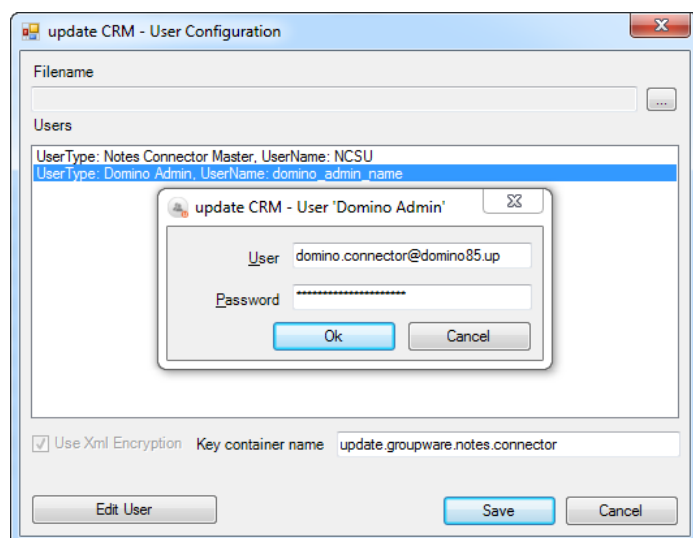
The users must have the module right **groupware connector** assigned.

Configuration of users

CRM.connector authenticates itself against Domino Server and CRM.interface Server using two technical accounts.

Note: It is mandatory to specify the SMTP address of the technical user. The SMTP address is required because this account is used to send error and warning messages.

The credentials of these technical users are stored in an encrypted XML file - `users.xml`. Use `update.Users.exe`, which is installed in the installation directory of connector, to create or modify the `users.xml` file.



You need to specify the Domino Admin user via SMTP address.

"Notes Connector Master" are the credentials of the Aurea CRM user.

In case of accessing Aurea CRM this security token is a base-64 encoded and RC2-128 encrypted string containing, among others, timestamps and the user name and password of the Administrator (NCSU) in the Aurea CRM database. The token is created based on information stored in the `users.xml`. The file contains machine-dependent keys and therefore needs to be created on the machine where the connector is installed.

If such a token is authenticated successfully and the user name matches the configured master user, the system is able to log on to another user's account on the server without requiring password verification.

The specified master user has to exist in Aurea CRM and the impersonation user has to exist in the Domino organization. For further details, see [Creating a master user in Aurea CRM](#) on page 20.

Note: When using impersonation, the user account used to give access to other accounts must have a mailbox set on the Domino server.

Creating a master user in Aurea CRM

Master user contains administrative privileges in Aurea CRM. It is by default preconfigured.

Note: If you want to use a different user name you have to change the master user in the `forms.xml` accordingly in the `<masterUser client='outlook' login='Principal,ClientID'>NCSU</masterUser>` section.

For further details, see [Configuration of users](#) on page 18.

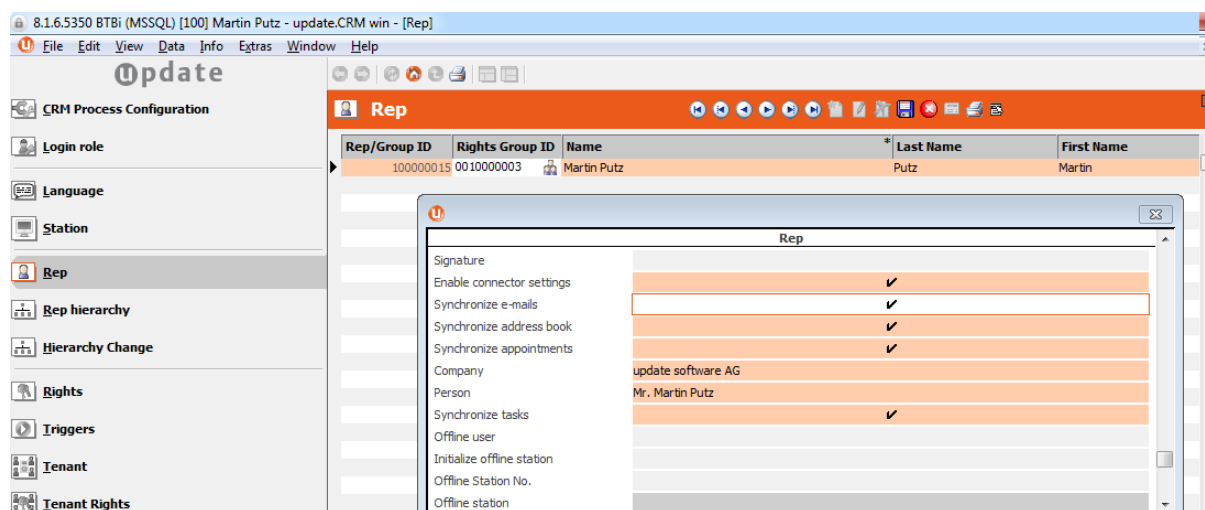
Creating user settings in Aurea CRM

Learn how to create user settings in Aurea CRM.

On start-up, connector SE requests a user list from Aurea CRM. This list is based on the Enable Connector settings flag in the rep table. In other words, in order to add a user to the synchronization process, you have to enable the Enable Connector settings check box for the rep, and enable at least one of the options Synchronize e-mails or Synchronize appointments for this user.

Note: The value in the "E-mail address 1" field must match the rep's mail address in Domino Server.

Note: As of Service Pack 2 it is possible to define additional conditions on the ID table.



Note: If you want to synchronize a mailbox of a user, this user needs to be created in Aurea CRM as a rep with a person assigned. In addition, the user must have the module right for groupware connector.

In other words, if you want to synchronize the mailbox of "Simon Seller" the following must exist:

- a KP record for Simon Seller,
- an ID record for Simon Seller,
- Login for Simon Seller with the "groupware connector" module rights and the "Enable Connector settings" option for the rep Simon Seller has to be activated.

If you have set the CRM.interface option "use FI/KP from rep" to true, CRM.interface always takes the KP record linked to the relevant ID record of the user. If not set to true, it is mandatory that the e-mail addresses of the Reps have to be unique in the KP table.

Recommended: If the person "Simon Seller" has meetings with other employees of your enterprise (whose mailboxes are not synchronized) and you want to synchronize the full information, you have to create an entry in the rep table for these colleagues, too, but there is no need to create a login for them as well.

CRM.interface's response to a delete command

All commands that are part of the synchronization activities between connector and Aurea CRM are handled by CRM.interface.

This chapter describes how CRM.interface handles the delete command used in a synchronization task.

In response to a delete command, CRM.interface returns only the following:

- Records deleted in CRM since the last synchronization. This allows the CRM.connector to delete items on the groupware side, sent as Delete command.
- Records scheduled for deletion at a specified time within a date range defined in a deletion time frame. This allows the connector to confirm the existence of items on the groupware side, sent as Get command.
- Records having their contact type enabled for synchronization with Aurea CRM.
- Records that are NOT filtered out by conditions defined by the DeleteSync handler in `forms.xml`.

Example use cases and deletion scenarios

Understand common deletion scenarios that you may encounter.

The example describes a user scenario, the settings on Aurea CRM, and the subsequent processing of the delete command by CRM.interface for each use case. Six use cases are described.

Connector server settings

- Appointments are synchronized to CRM as #1 (Visit) contact type.
- Contact types enabled for synchronization from CRM: #1 (Visit), #3 (Event).
- Synchronization time frame: 0 days in the past, 21 days into the future.
- Deletion time frame: 0 days in the past, 7 days into the future.
- Default DeleteSync handler in forms.xml :

```
<SyncHandler type="DeleteSync">
  <condition>
    <cond tablename="Contact" fieldname="FreeC1" op="!=" value="deleted"/>
    <cond tablename="Contact" fieldname="Contact" op="!=" value="#5"/>
  </condition>
</SyncHandler>
```

User activity scenario

User synchronized the following items with Aurea CRM:

- An email received today (synchronized with contact type #5).
- App1: a single appointment scheduled for today + 3 days.
- App2: a single appointment scheduled for today + 11 days.
- App3: a recurring appointment scheduled for days today – 10 days and today + 20 days occurring every day.

Use case 1: no changes done in the CRM

In this case, delete requests are processed by CRM.interface as described below:

- an email record won't be sent because its contact type was not requested.
- App1 is sent by the Get command because:
 - It is scheduled for today + 3 days which is within the deletion time frame
 - It has contact type #1
- App2 won't be sent because it is scheduled for today + 11 days which is not within deletion time frame
- App3: only occurrences falling within deletion sync frame will be sent by the Get command.

Use case 2: user deletes App1 in the CRM

In this case, delete requests are processed by CRM.interface as described below:

- An email record won't be sent because its contact type was not requested.
- App1 will be sent in Delete command because:
 - It is scheduled for today + 3 days which is within deletion time frame
 - It has contact type #1
- App2 won't be sent because it is scheduled for today + 11 days which is not within deletion time frame.
- App3: only occurrences falling within deletion sync frame will be sent in Get commands.

Use case 3: User deletes App2 in the CRM

In this case, delete requests are processed by CRM.interface as described below:

- an email record won't be sent because its contact type was not requested.
- App1 will be sent in Get command because:
 - It is scheduled for today + 3 days which is within deletion time frame
 - It has contact type #1
- App2 won't be sent because it is scheduled for today + 11 days which is not within the deletion time frame.
- App3: only occurrences falling within the deletion sync frame will be sent in Get commands.

Use case 4: User deletes App3 occurrences scheduled for today + 3, 5 and 8 days in the CRM

In this case, delete requests are processed by CRM.interface as described below:

- an email record won't be sent because its contact type was not requested.
- App1 will be sent in Get command because:
 - It is scheduled for today + 3 days which is within deletion time frame.
 - It has contact type #1.
- App2 won't be sent because it is scheduled for today + 11 days which is not within deletion time frame.
- App3
 - occurrences scheduled for today + 3 and today + 5 days will be sent in Delete commands.
 - other occurrences falling within deletion sync frame will be sent in Get commands.
 - occurrence scheduled for today + 8 days won't be sent at all (it's outside of deletion time frame).

Use case 5: User deletes App1 and App2 in the groupware

This causes the connector to send a 410 status in response to a Get command sent by interface for App1 record in CRM. Assuming the default configuration, the App1 record in CRM gets marked as deleted by setting the field FreeC1 = "deleted".

In this case, delete requests are processed by CRM.interface as described below:

- an email record won't be sent because its contact type was not requested.
- App1 won't be sent because it is filtered out by condition FreeC1 != "deleted" in DeleteSync handler.
- App2 won't be sent because it is scheduled for today + 11 days which is not within deletion time frame.
- App3: only occurrences falling within deletion sync frame will be sent in Get commands.

Use case 6: User enables contact type #5 e-mail for synchronization from CRM

In this case, delete requests are processed by CRM.interface as described below:

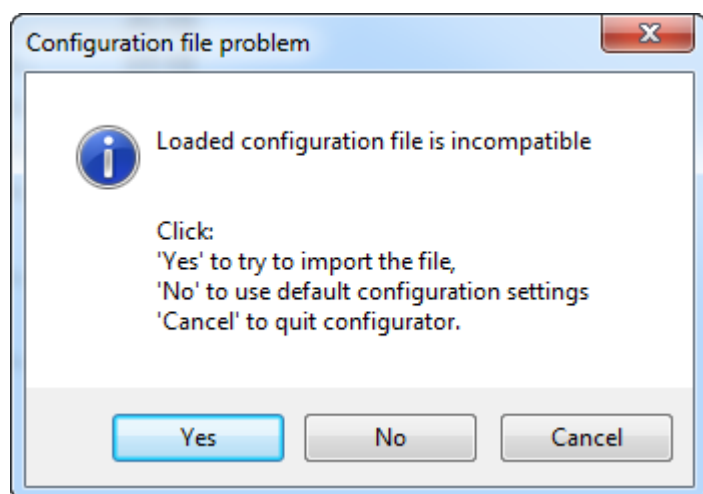
- an email record won't be sent because it is filtered out by condition Contact != "#5" in DeleteSync handler.
- App1 will be sent in Get command because:
 - It is scheduled for today + 3 days which is within deletion time frame
 - It has contact type #1
- App2 won't be sent because it is scheduled for today + 11 days which is not within the deletion time frame.
- App3: only occurrences falling within the deletion sync frame will be sent in Get commands.

Configuring CRM.connector for Domino

CRM.connector can be configured using a configuration console.

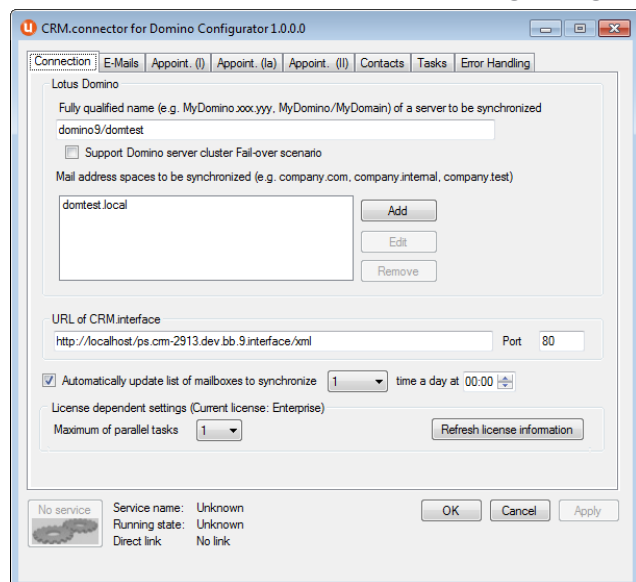
After upgrading to a new version of connector new functionality may require you to invoke additional settings. In case of incompatible configuration settings the configuration console allows you to choose between the options listed in the screenshot below.

Note: You have to run the CRM.connector administration console after every upgrade, since new functionality may require you to invoke additional settings.



Connection settings

You can define the basic settings regarding URL of EWS and CRM.interface .



Here are some configurations in the Connection Settings dialog box:

- The fully qualified domain name of the Domino® Server® should be in the following format:

`machinename.domain.suffix` or `machinename/domain/suffix`.

For example, `domino1.yourdomain.com` or `domino1/yourdomain/com`.

- **Support Domino server cluster fail-over scenario:** If this option is enabled, connector switches to the next member of the fail-over cluster in case the home server is not available.
- **Mail address spaces to be synchronized setting:** Add all mail address spaces you want to synchronize. Domino Server can store e-mail addresses from more than one e-mail space.
- **URL of CRM.interface:** CRM.interface can either be installed on the same or on a different machine as connector.
- **Port number:** This setting specifies the port number of CRM.interface since CRM.interface is running in IIS the port would be typically either 80 or 443 when using HTTPS.
- **Automatically update list of mailboxes to synchronize n time(s) a day:** Consider doing this update only once a day or even switch it off in a scenario in which the user list (users whose mailboxes are supposed to be synchronized) doesn't change often. If this setting is set to "1" you can additionally schedule when the list should be updated.
- **Maximum of parallel tasks:** CRM.connector allows Aurea CRM enterprise users to specify the number of parallel threads that are spawned by the connector to perform synchronization tasks from Aurea CRM to Domino. For further details, see [Parallel threads for synchronization tasks](#) on page 27.

Starting/stopping service and applying changed settings to running service

Service connector can be started and stopped at any given point when the administrator determines that a change must be applied.

Starting and stopping of the service connector service can not only be restarted using Microsoft Tools but also via the administrative console of the application as well.

At the bottom of the administrative console, the state of the service is displayed. Possible values are unknown and the states of Windows services (starting, started, stopping, stopped, etc.).

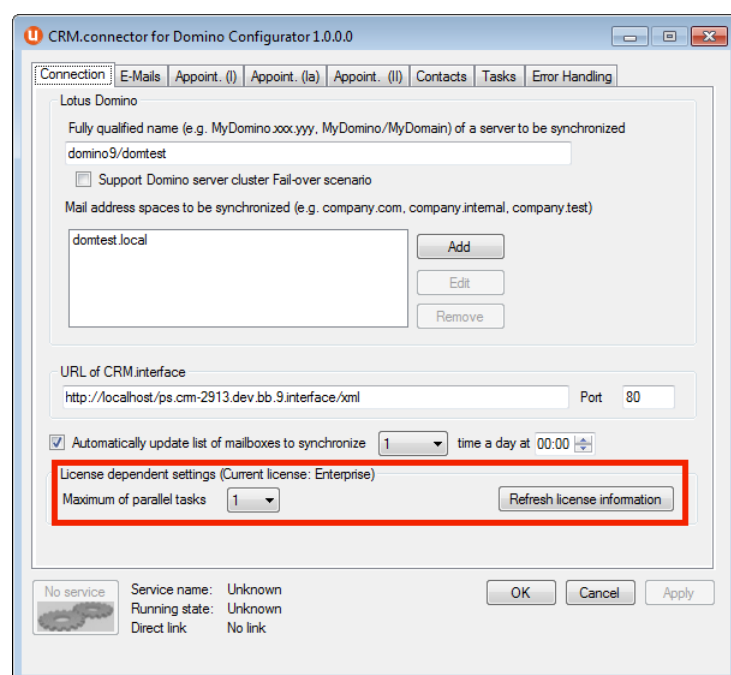
Applying changed settings to running service it is possible to apply changed settings to the running service, which means that the service doesn't need to be restarted to use the new settings. Depending on which configuration has changed, the injection of the new settings will cause a full, a partly or even no re-initialization of the service. For example, changing the URL of the EWS endpoint a full re-initialization while turning the logging on (or off) a partial re-initialization of the service.

After the injection, the configuration changes are added to the command queue of connector for Domino and processed after the connector has finished its current tasks. Typically it won't take more than a few seconds until the new settings are applied by the connector. Information on the (re)initialization progress and result are displayed at the bottom of the dialogue box along with a progress bar.

Parallel threads for synchronization tasks

CRM.connector for Domino allows you to set maximum number of threads that can be spawned.

You can specify the maximum number of parallel threads that can be spawned using the **Maximum of Parallel Tasks** setting in the Connector tab. You can set it to a minimum value of 1, to a maximum value allowed by your system. The maximum number of threads that can be spawned is equal to the number of CPU cores in the system hosting the Domino connector. See the screenshot below.

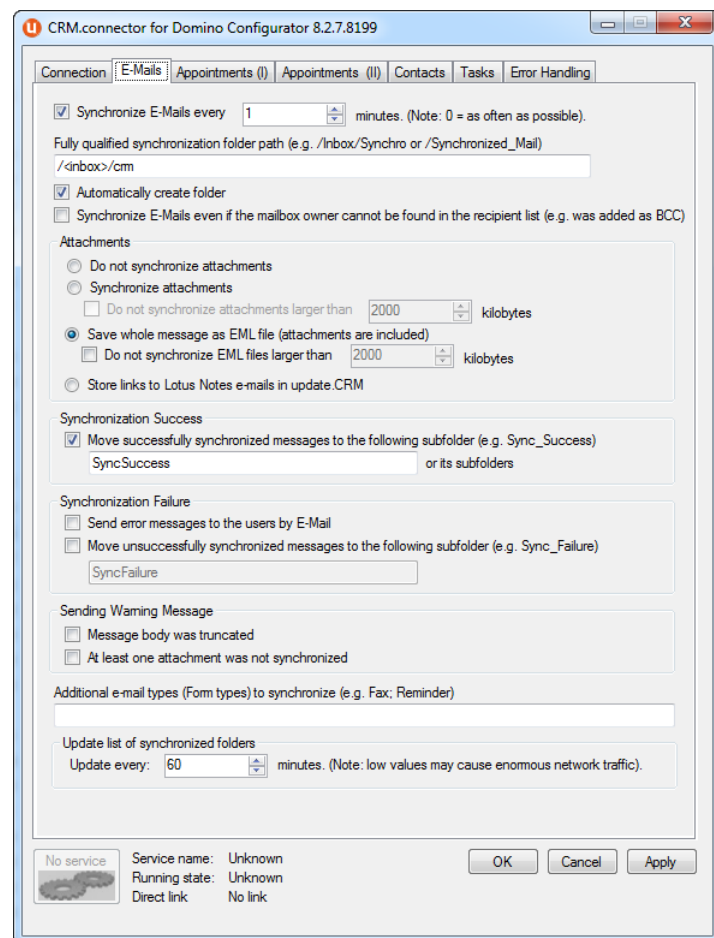


Note: This setting is activated only if you have an enterprise license for Aurea CRM. It will not have any effect on the number of threads spawned if you are using a standard version of Aurea CRM.

If you are switching from standard version to enterprise version of Aurea CRM, click **Refresh License Information** to activate this capability. On startup, the CRM.connector tries to fetch the Aurea CRM license information using the URL value set in **URL of CRM interface** setting. This option is activated if CRM.interface responds with the enterprise version and the number of maximum threads is set to the configured value.

E-mail synchronization settings

In E-mail synchronization tab, you will see the necessary configurations for e-mails.



Synchronization of e-mails and interval

In CRM.connector for Domino, you can choose to synchronize emails or not. You can also set interval of emails.

Synchronize e-mails: If this checkbox is checked, e-mails are synchronized. Uncheck the checkbox to prevent connector from synchronizing e-mails at all.

Synchronize e-mails every n minutes: You can additionally define the interval (in minutes) in which the connector checks users' mailboxes for new mails to synchronize.

Note: Connector synchronizes in cycles. The setting synchronize e-mails every n minutes relates to the interval between these cycles. Setting the interval to "10" causes connector starting the next synchronization interval 10 minutes after finishing the previous cycle. In other words, this setting defines the pause between such synchronization runs.

Defining a small interval (i.e. forcing the connector to poll the Domino Server more frequently) will cause higher network traffic and a somewhat higher load on the Domino Server.

Name of the synchronization folder and additional options

You can change path of the synchronization folder so that it can be used in the synchronization process.

Fully qualified folder path: connector synchronizes e-mails in a specific folder and its subfolders with the Aurea CRM system. This means that the user has to move or copy the mails which should be synchronized to this folder.

Note: If you change the path to the synchronization folder, the connector must be restarted for the new folder path to be used in the synchronization process.

Automatically create folder: If this option is enabled, connector adds this folder to the user mailboxes if it does not exist. If this option is unchecked, the user needs to create the synchronization folder manually.

/<inbox> is a language-independent placeholder for the inbox. If you set the parameter to /<inbox>/crm_sync_folder, the connector will create the CRM subfolder below the **Inbox** in an English or **Posteingang** in a German mailbox. As an administrator, you do not need to care about the different languages of your users' mailboxes.

Note: Although it is not mandatory that you define a subfolder of the inbox as a synchronization folder, Aurea strongly recommends against using the inbox itself as the synchronization folder for several reasons. For example, the connector would synchronize e-mails which are not CRM-relevant or potentially even spam as well. Furthermore, defining the inbox as the synchronization folder could circumvent Lotus Notes rules and cause a heavy load on the Domino Server, since inboxes typically hold store mails than a dedicated synchronization folder. Additionally, it is even illegal in some countries to automatically process the inbox.

If you choose a folder name, which already exists in a user's mailbox, all items in this folder are synchronized. To avoid this, we suggest using a folder name which limits the risk of this unwanted effect (e.g. `crm_sync_folder`).

Synchronize e-mails if the owner of the mailbox cannot be found in the recipients list (e.g. was added as BCC): if this option is enabled the owner of a mailbox is added to the recipients list (Domino by connector and CRM.interface) to allow for synchronizing such an e-mail.

Attachments settings and EML documents

You can enable or disable synchronization of attachments and also configure EML file attachments.

Do not synchronize attachments: enable this option to prevent attachments from being synchronized.

Synchronize attachments: if you enable this option, every attachment is synchronized as a single document and linked to the appointment (MA) record in the CRM system. You can also limit the size of the attachments via the **Do not synchronize attachments larger than n kilobytes** setting.

Save whole message as EML file (attachments are included): if this option is enabled, the entire e-mail including all attachments is saved as an EML document in Aurea CRM. You can also limit the size of the EML document via the **Do not synchronize EML files larger than n kilobytes** setting.

Note: This functionality requires a server-side "Domino Agent" which needs to be created in the Lotus Notes infrastructure.

Background: the C# Lotus Notes API used by connector to access Domino Server doesn't support the conversion of e-mails into EML to full extent, therefore the conversion task is delegated to a **Domino Server Agent** which needs to be created in the Lotus Notes infrastructure.

This `ConvertToMime` agent is responsible for providing a MIME format representation of e-mails to connector.

The knowledge base article "How to synchronize e-mails as EML" on the Aurea support site <http://support.aurea.com> is intended for Domino Server administrators. The article provides the Lotus Script Code and a description of how to create the `ConvertToMime` agent.

Store links to Lotus Notes e-mails in Aurea CRM: it is also possible to store a link of the Lotus Notes e-mail document in a field of the Aurea CRM appointment during the synchronization. To be able to use this option, follow these steps:

1. Create a new text field named `NotesLink` for the info area MA in Aurea CRM, length 200 (if you choose a different name do not forget to apply this to the following changes).
2. Insert the field to your Aurea CRM web or win mask so it is visible for your users.

3. Edit the style sheet `SyncML_gw2mm.xslt` in the `xml` folder of your CRM.interface installation. Insert the following values under the node, `<xsl:template name='Convertvevent'>`:

```
<xsl:if test='syncml:notesLink'>
  <xsl:element name='field'>
    <xsl:attribute name='name'>notesLink</xsl:attribute>
    <xsl:attribute name='tablename'>Contact</xsl:attribute>
    <xsl:attribute name='fieldname'>NotesLink</xsl:attribute>
    <xsl:value-of select='syncml:notesLink'>/>
  </xsl:element>
</xsl:if>
```

4. Grant your users read access to other users mailboxes if they should be able to see emails synchronized by them.
5. Restart both the connector service and CRM.interface application pool.

Synchronization success settings

You can configure successfully synchronized emails to be moved to a specified subfolder.

Move successfully synchronized e-mails to the following subfolder: if this option is enabled, e-mails which have been synchronized with Aurea CRM are moved to the specified folder or the matching subfolder of this folder respectively. In other words, if an e-mail from a subfolder of your synchronization folder is synchronized the successfully synchronized e-mail will be moved into a subfolder of the same name. These subfolders are generated by connector automatically.

Note: Since Lotus Notes items might get a new ID when moving to another folder moving synchronized e-mails back from this "success folder" to the synchronization folder might cause duplicates in the CRM system.

Synchronization failure settings

There are options you can choose whenever a synchronization fails. E-mails that fail to synchronize can be moved to a specified folder. Or, you can enable the option to notify specific users via e-mail of the failed synchronization.

Send error messages to the users by e-mail: It is not recommended to use this option without enabling Move unsuccessfully synchronized e-mails to the following subfolder as well. Connector stores the last reason for a failure on the message level (`mmSyncStatus` property) and would not send another error message unless the error reason changes, but in a scenario where connector is not able to access the `mmSyncStatus` property (e.g. if decoding of e-mail fails), it would keep sending error messages over and over.

For further details, see [Sending warning and error messages to users](#).

Move unsuccessfully synchronized e-mails to the following subfolder: If this option is enabled, e-mails which could not be synchronized are moved to the specified subfolder of the synchronization folder. For example, if you have defined `/<inbox>/crm` as the synchronization folder and `Sync_Failure` as the failure folder, the connector creates a folder `/<inbox>/crm/Sync_Failure` and moves the e-mails into this folder. The Connector no longer tries to synchronize these e-mails.

Sending warning message settings

Configure how warning message should be sent to administrator.

The following fields are synchronized from Lotus Notes to Aurea CRM.

Message body was truncated: If this option is enabled, the user will receive a warning e-mail from connector in case the message text (body field) of a synchronized message exceeds the size of the text field in Aurea CRM.

At least one attachment was not synchronized: If this option is enabled, the user will receive a warning message from connector in case an attachment could not be synchronized because its size exceeded the defined limit.

Note: Field IDs concern BTB version.

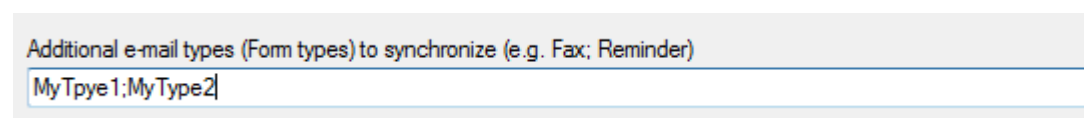
For further details, see [Sending warning and error messages to users](#).

Further e-mail settings

Configure certain e-mail types to be synchronized and the frequency of updates of folder synchronization.

Additional e-mail types to synchronize: Here you can specify additional e-mail types, which should be synchronized. Add these additional form types separated by ";".

Figure 1: additional e-mail types to synchronize



The image shows a configuration field with the label "Additional e-mail types (Form types) to synchronize (e.g. Fax; Reminder)". Below the label is a text input box containing the value "MyType1;MyType2".

Note: Out-of-the-box the form types "Memo" and "Reply" are synchronized.

Please be aware that the synchronization of thus defined additional form types requires that these form types contain all the required standard mail fields.

Just as for regular e-mails, the deletion of such items in Aurea CRM does not cause deletion in Domino Server /Lotus Notes.

In course of implementation of this feature the SNYCML request was extended by an additional node `<MessageFormType>` (e.g. `<MessageFormType>FAX</MessageFormType>`) in the `<Custom>` section of the request. Mapping different e-mail types to different contact types in Aurea CRM can be done by adapting the CRM.interface stylesheets.

11.3.7 Update list of synchronized folder every n minutes: With this setting, you can influence how frequently the connector should update the list of folders to synchronize. Retrieving the folder is quite a resource-intensive operation, therefore, increasing this value both reduces data traffic and improves performance. The only trade-off is, that newly created subfolders are not synchronized as long as the cache is active.

Improving e-mail synchronization:

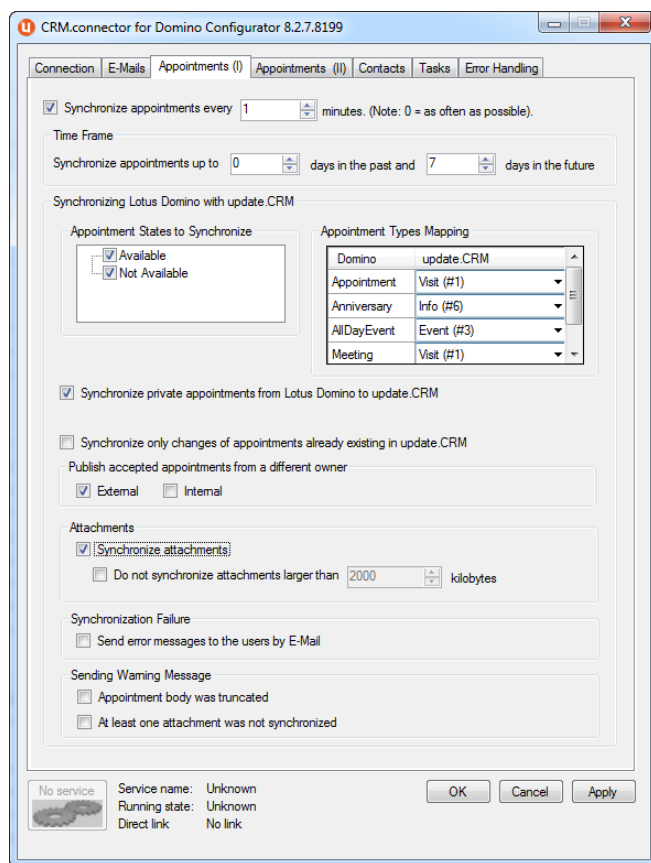
1. Enable Lotus Notes Network data compression. If you enable this feature in your Domino Server environment the documents are compressed by Domino Server, which reduces the network traffic significantly (up to 50%).
2. Retrieving the synchronization folder structure is quite a performance-expensive operation, therefore we implemented a caching option in connector (see Update list of synchronized folder every n minutes above for further details). Setting this value to 120 minutes (for example) reduces the data traffic quite a lot.
3. As of version 7.0.8.47 and higher, we implemented an alternative algorithm to fetch the e-mails for synchronization. This algorithm requires "folder references" in your Domino Server Environment. If "folder references" are activated, connector automatically switches to this new, faster algorithm – if there are no "folder references" the old mechanism is applied.

Note: Data traffic is influenced by many factors (e.g. number of e-mails, size of e-mails attachments, etc.) and therefore it's not that easy to give an absolute figure how much these measurements will reduce the traffic. However, our tests showed that the combination of these 3 measurements can reduce the traffic by 85% and more.

Appointment synchronization settings I

Appointments(I) tab contains the necessary configuration of time frame, synchronization failure, warning message settings, and appointment synchronizations.

Appointment Synchronization Settings Dialog - I



Synchronize appointments / synchronization interval

Enable synchronization of appointments and its interval of mailbox check.

Synchronize appointments: If this checkbox is checked, appointments are synchronized. To prevent connector from synchronizing appointments at all, uncheck the checkbox.

Synchronize appointments every n minutes: You can also define the interval (in minutes) in which the connector checks users' mailboxes for new or changed appointments to synchronize. Please note that defining a small interval (i.e. forcing the connector to poll the Domino Server more frequently) will cause higher network traffic and a somewhat higher load on the Domino Server.

Time frame settings

To make the synchronization mechanism clearer and to simplify configuration, the time frame settings apply to both synchronization directions.

Use this option to define how many days in the past and future appointments are synchronized from Aurea CRM to Domino and vice versa. Note that the reference date is not the date when the appointment was created, but the date the appointment is scheduled for.

Note: Defining a wide interval (many days in the past or future) will cause a higher load on the CRM data base and the Domino Server due to more costly queries.

Synchronizing Domino with Aurea CRM settings

The synchronization of appointments is bi-directional. All settings in this group concern the synchronization from Domino Server to Aurea CRM.

Note: If you change a synchronization setting specified below, restart the connector to synchronize appointments to the new setting.

Synchronize appointments as: Defines the default type (catalog value) of appointments in Aurea CRM.

Appointment States to synchronize: Use this option to define the Lotus Notes appointment states to be synchronized.

Appointment Types Mapping: Use this option to map the different Lotus Notes Appointment types to different Aurea CRM activity types. The list of Aurea CRM activity types is filled with the **get types from Aurea CRM** button on the Appointments (II) Tab. It is also possible to set a Lotus Notes appointment type to no sync which means such items will not be synchronized to Aurea CRM, if they are created or changed in Lotus Notes.

Note: This mapping comes into effect after the settings, which appointment states to synchronize. This is especially relevant for All Day Appointments which are created in Lotus Notes as available by default.

Appointment Types of items already synchronized, are not changed by connector.

Synchronize private appointments: By default, connector does not synchronize appointments marked as private. If this option is checked, private appointments are synchronized as well.

Synchronize only changes of appointments already existing in Aurea CRM: if this option is enabled, only appointments originally created in Aurea CRM are synchronized.

Modifications of such appointments are synchronized independently of the system in which the modifications were done.

You may consider activating this flag if all customer-related appointments are planned (created) in Aurea CRM.

Publish external appointments: if this option is enabled, appointments generated by external people – means where an external person is the organizer – are published from Domino Server to the Aurea CRM system.

External persons in this context are persons whose mail addresses are not part of the defined mail address spaces. For further details, see [Mail address spaces to be synchronized setting](#).

For further details see [Description of the "publishing" feature](#) below.

Publish internal appointments if this option is enabled, appointments generated by internal people – this means: an internal person is the organizer, but not a synchronization user – are published from Domino Server to the Aurea CRM system.

For further details see the description of the "publishing" feature in the section below.

Description of the "publishing" feature

- Publishing means that such appointments are synchronized unidirectional.
- Appointments will be overridden if the appointment is synchronized again from Domino to Aurea CRM.
- The idea behind this feature is that appointments generated by persons – who are not synchronization users (and independent if these persons are internal or external persons) - are showing up in the CRM calendar as well.
- "Published" appointments are always linked to the person associated with the owner of the mailbox. As a result, you must ensure, that such published appointments are not synchronized back from Aurea CRM to Domino to avoid duplicates. Other participants and the organizer of the appointment are indicated in the text field.
- Basically there are two mechanisms to realize that.
 - Mapping such published appointments to a contact type which is not synchronized back to Domino. This mechanism is implemented on the server-side out-of-the-box style sheets.
 - Triggering a flag into the MA data record (e.g. writing "published" to FreeC2) and defining proper Sync-Handler preventing such appointments. Such a mechanism is sketched in the CRM.interface style sheets as well. Just uncomment the sections as explained in chapter Marking Appointments as published in Aurea CRM below.
- To ensure privacy only appointments of the state "accepted" are published to Aurea CRM.
- Solely single appointments are published. In other words, recurring appointments are only synchronized if the owner (chair) of the appointment is a synchronization user.

Note: Due to technical restrictions it's not feasible to provide the full-blown (bi-directional) synchronization mechanism for appointments where the owner of the mailbox is not the organizer of the meeting. The synchronization of appointments from "non-organizers" can easily lead to duplicates. In the aim of keeping showing up appointments from external people in the CRM calendar as well with the

simultaneous ambition to avoid confusion of the user by potentially duplicated appointments update decided to implement this publishing method.

Synchronize attachments: If you activate this option, every attachment is synchronized as a single document and linked to the appointment (MA) record in the CRM system. You can also limit the size of the attachments via the setting **Do not synchronize attachments larger than n kilobytes**.

Handling HTML content in appointment synchronization

Ensure that the hyperlink of a body text is active when viewed in the CRM web.

Perform the following options have to perform the following tasks:

1. Start the configurator for the CRM.connector, and select the check box for the option **Enable synchronization of the HTML content**. This ensures that the CRM.connector will request the appointment body content in HTML format. See the screenshot below:

Connection | E-Mails | Appointments (I) | **Appointments (II)** | Contacts | Tasks | Error Handling

☒ Synchronize appointments every 1 minutes. (Note: 0 = as often as possible).

Time Frame
Synchronize appointments up to 0 days in the past and 7 days in the future

Synchronizing Lotus Domino with update.CRM

Appointment States to Synchronize

- ☒ Available
- ☒ Not Available

Appointment Types Mapping

Domino	update.CRM
Appointment	Visit (#1)
Anniversary	Info (#6)
AllDayEvent	Event (#3)
Meeting	Visit (#1)

☒ Synchronize private appointments from Lotus Domino to update.CRM

☒ **Enable synchronization of HTML content**

☐ Synchronize only changes of appointments already existing in update.CRM

Publish accepted appointments from a different owner

☒ External ☐ Internal

2. In the CRM.designer, perform the following:

- Create a field of type `html-text` (e.g. name=**HTMLTEXT**) in the Activity infoarea and link it to the standard text field of the Activity info area.
- Add the field to the `forms.xml` (insert `<field fieldname="HTMLTEXT"/>` into `<form type="vevent">`). See the sample file content below:

```
<form type='vevent'>
  <table tablename='Contact'>
    <field fieldname='StatNo' />
    ...
    <field fieldname='HtmlText' />
  </table>
  ...
</form>
```

- Map the type of the field **Text** with the newly created field **HTMLTEXT** in the server-side stylesheet `sync_gw2mm.xslt` file. See the sample below:

```
<xsl:if test='syncml:description'>
  <xsl:element name='field'>
    <xsl:attribute name='name'>description</xsl:attribute>
    <xsl:attribute name='tablename'>Contact</xsl:attribute>
    <xsl:attribute name='fieldname'>HtmlText</xsl:attribute>
    <xsl:choose>
      <xsl:when test='syncml:description="$now"'>
        <xsl:value-of select='$var:vNow' />
      </xsl:when>
      <xsl:otherwise>
        <xsl:value-of select='syncml:description' />
        <xsl:call-template name='CheckPublishContact' />
      </xsl:otherwise>
    </xsl:choose>
  </xsl:element>
</xsl:if>
```

Synchronization failure settings

Configure options when synchronization fails.

Send error messages to the users by e-mail: If this option is enabled, the user is notified of synchronization failures via e-mail.

Sending warning message settings

Appointment body was truncated: If this option is enabled, the user will receive a warning message from connector in case the appointment text (body field) of a synchronized appointment exceeds the size of the text field in Aurea CRM.

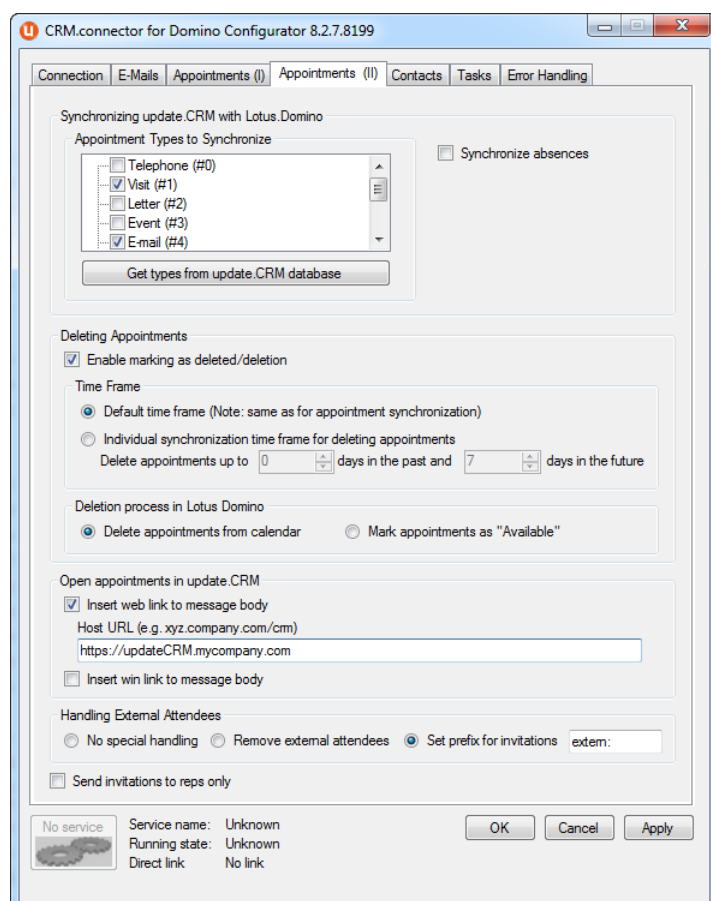
At least one attachment was not synchronized: If this option is enabled, the user will receive a warning message from connector in case that an attachment could not be synchronized because its size exceeded the defined limit.

For further details, see [Sending warning and error messages to users](#) for further information.

Appointment synchronization settings II

Appointments(II) tab contains the necessary configuration regarding appointment types to synchronize, and appointment deletion.

Figure 2: Appointment Synchronization Settings Dialog II



Synchronizing Aurea CRM with Lotus Domino settings

If you change synchronization conditions, restart the connector to ensure that all appointments are synchronized.

Appointment types to synchronize: Use this option to filter the CRM appointment types to be synchronized. Assuming you have a valid configuration, you can retrieve the appointment types in the Aurea CRM system using the Get types from Aurea CRM database button.

Notification Handling

When an appointment is synchronized from Aurea CRM to Lotus Domino, it is handled in one of the following three modes:

SendToAll: All attendees get an invite, or update, or cancel notification (new attendees get an invitation, removed attendees get a cancellation and rest get an update notification).

SendOnlyToChanged—Notifications are sent only to attendees that changed (added, removed, changed participation type from/to required/optional/resource). This also means that if attendees are not changed, nobody gets a notification even if important properties of an appointment are changed. For example, date, time or location. Hence SendOnlyToChanged mode is used only for rules that affect attendees' related properties.

SendToNone: Nobody gets a notification.

Note: When different properties have different modes assigned, the connector uses the mode with the highest priority for an appointment changed. For example, if the property **Subject** has its mode set to **SendToNone** and the property **Start** has mode set to **SendToAll** and they are both changed. Then the appointment synchronization is saved in the **SendToAll** mode.

Appointment properties monitored during synchronization

When an appointment is synchronized from Aurea CRM to Lotus Domino, the monitored properties are divided into two groups.

Monitored properties can either be built-in properties or `FieldMapping.xml` properties.

Built-in properties

The following built-in properties are monitored

- Properties of appointment class in EWS Managed API.
- Properties that describe concepts not modeled directly in the appointment class, but have meaning in terms of the “business logic” required of Aurea CRM.

The Built-in properties that are monitored for synchronization are listed below:

Start: date/time when an appointment starts

End: date/time when an appointment ends

Subject: subject of an appointment

Body: content of an appointment

Reminder: reminder settings (enabled / disabled, value)

Importance: importance level of an appointment (high / normal / low)

Sensitivity: sensitivity of an appointment (public / private)

FreeBusyStatus: availability type for an appointment (free / busy / tentative / out of office / working elsewhere)

AbsenceReason: custom property defined for appointments synchronized from crm absences

RequiredAttendees / OptionalAttendees / Resources: lists of attendees.

AttendeeResponseStatus: when response status (accept / decline / tentative) changed for ANY of attendees.

AttendeeParticipationType: when participation type (required / optional / resource) changed for ANY of attendees.

FieldMapping.xml properties

The Field mapping functionality allows you to define additional properties you want to synchronize but is not synchronized out of the box by the connector.

For example, the Location property. However, given proper know-how, it is possible to synchronize any property exposed by MAPI.

The following example shows the definition of two appointment properties for monitoring:

```
<Appointments>
  <MappableFields>
    <FieldFullName MapFieldID="1" OLDisplName="Location"
MSExFieldFullName="Location"/>
    <FieldExtName MapFieldID="2" OLDisplName="Categories" MSExFieldName="Keywords"
MSExFieldType="PT_MV_TSTRING" MSExFieldGuid="PROP_GUID_USER"/>
  </MappableFields>
  <FieldMapping>
    <Map UpdFieldName = "UpdateLocation" MapFieldID="1"/>
    <Map UpdFieldName = "UpdateCategories" MapFieldID="2"/>
  </FieldMapping>
</Appointments>
```

Appointment notification rules

You can configure notification rules of appointments using an xml file.

Notification rules that govern the synchronization are stored in the file `AppointmentNotificationRules.xml` file. If this file doesn't exist when connector Domino or configurator is started it is automatically created with default rules definitions.

A sample AppointmentNotificationRules.xml created automatically by connector SE or using the configurator is provided below. You can see that the Location and Categories properties are imported from the FieldMapping.xml properties file.

```
<AppointmentNotificationRules>

  <BuiltInProperties>
    <Start onChange="SendToAll" />
    <End onChange="SendToAll" />
    <Subject onChange="SendToAll" />
    <Body onChange="SendToAll" />
    <Reminder onChange="SendToNone" />
    <Importance onChange="SendToAll" />
    <Sensitivity onChange="SendToNone" />
    <RequiredAttendees onChange="SendOnlyToChanged" />
    <OptionalAttendees onChange="SendOnlyToChanged" />
    <Resources onChange="SendOnlyToChanged" />
    <AttendeeResponseStatus onChange="SendToNone" />
    <AttendeeParticipationType onChange="SendOnlyToChanged" />
    <FreeBusyStatus onChange="SendToNone" />
    <AbsenceReason onChange="SendToNone" />
  </BuiltInProperties>

  <FieldMappingProperties>
    <Location onChange="SendToNone" />
    <Categories onChange="SendToNone" />
  </FieldMappingProperties>

</AppointmentNotificationRules>
```

The `onChange` attribute defines the notification mode when a property value is changed. For more information on notification modes, see Notification Handling on page 36.

Properties defined within `<FieldMappingProperties>` element are automatically synchronized with the content of `FieldMapping.xml` every time connector SE or configurator is started. Properties no longer present in `FieldMapping.xml` are removed from rules. Properties added to `FieldMapping.xml` are added to rules with default `onChange` attribute value set to `SendToNone`.

Note: If you add a property directly to `<FieldMappingProperties>` element in the `AppointmentNotificationRules.xml` it will not be processed during synchronization of an appointment. Synchronization of field mapping properties is only one done from `FieldMapping.xml` to `AppointmentsNotificationRules.xml`.

Using configurator to set appointment notification rules

Users can see and modify notification rules on appointments notification rules tab in the configurator.

Property	Notification mode
Start	SendToAll
End	SendToAll
Subject	SendToAll
Body	SendToAll
Reminder	SendToNone
Importance	SendToAll
Sensitivity	SendToNone
RequiredAttendees	SendOnlyToChanged
OptionalAttendees	SendOnlyToChanged
Resources	SendOnlyToChanged
AttendeeResponseStatus	SendToNone
AttendeeParticipationType	SendOnlyToChanged
FreeBusyStatus	SendToNone
AbsenceReason	SendToNone
Location	SendToNone
Categories	SendToNone

Save changes

Start service

Service name: connector.se.v7
Running state: Stopped
Direct link: No link

OK Cancel Apply

The visible grid is automatically filled with properties defined in `AppointmentsNotificationRules.xml`, field mapping properties are always listed at the end. See the image below.

To change the notification mode for a property, select the appropriate value from the drop-down list in the **Notification mode** column. The **Save changes** button becomes active when any change to rules is done.

Note: Changes made to the notification rules are not automatically injected into a running instance of the connector. You have to restart the connector to get the new rules working.

Deleting appointments settings

Connector is capable of publishing deletion of items bi-directionally.

Note, that in Aurea CRM appointments are not deleted physically, but only marked as deleted.

Enable deletion: With this option, you can turn the publishing of deletion of items on and off.

Time Frame: Allows you to fine-tune the time frame for the deletion of appointments.

Default time frame: If you enable this option, the same time frame is used for both synchronization and deletion of appointments. In order to make the process easier to understand for the users, Aurea software AG recommends using this setting.

Individual synchronization time frame for deleting appointments: Use this option to define how many days in the past and future deletion of appointments are synchronized from Aurea CRM to Domino and vice versa.

Note: The reference date is not the date when the appointment was created, but the date the appointment is scheduled for.

Deletion process in Lotus Domino settings

You can choose to preserve appointments in Lotus Domino server while their counterpart appointments in Aurea CRM are already deleted.

Delete appointments from calendar: If this option is enabled, then appointments deleted in Aurea CRM will be deleted in Lotus Domino Server as well.

Mark appointments as free: If this option is enabled, deleted appointments in Aurea CRM are not deleted in Lotus Domino Server, but the meetings will be marked as "available" in Lotus Notes.

Open appointment in Aurea CRM settings

You can insert web link or win link to the message body of the appointment.

Insert web link to the message body: If this option is enabled, then connector during synchronization inserts a so-called protocol link to the appointment in Aurea CRM into the body text field of the appointment. This link allows you to open the appointment in Aurea CRM web from Lotus Notes directly. Additionally, you have to specify the Host URL (e.g. **<http://mycompany.com/Aurea CRM/crm>**).

Insert win link to the message body: If this option is enabled, then connector during synchronization inserts a so-called protocol link to the appointment in Aurea CRM into the body text field of the appointment. This link allows you to open the appointment in Aurea CRM win from Lotus Notes directly.

Handling external attendee settings

External attendees in this context are persons whose mail addresses are not part of the defined mail address spaces.

Connector creates notification messages (invitations), when synchronizing appointments from Aurea CRM to Lotus Notes. But, are such appointments modified in Lotus Notes these notifications are sent by Lotus Notes itself – in other words: connector has no control, which attendees are notified. connector supports three options how to handle external attendees.

- **No special handling**

If this option is enabled, connector doesn't touch external attendees in the Lotus Notes Appointment. Although connector doesn't send invitations to external attendees when the appointment changes in Aurea CRM, Lotus Notes will send invitations after changing the appointment in Lotus Notes.

- **Remove external attendees from list** (recommended and default setting)

If an appointment is created in Aurea CRM and this option is set external attendees will be removed from the attendee list in Lotus Notes. Therefore these external attendees will not receive any invitations if the appointment is changed either in Lotus Notes or Aurea CRM.

Note: while synchronizing an appointment from Aurea CRM to Domino Server any external attendee of the appointment will be stored in the mmAttendees property with a flag HiddenExternalAttendee = "true". Such external attendees are not visible as attendees in Lotus Notes (which means they are removed from the attendee fields).

During the synchronization from Domino Server to Aurea CRM such "hidden" external participants will be visible in Aurea CRM as well as external attendees additionally added by the user in Lotus Notes.

If such an appointment is synchronized from Aurea CRM to Lotus Notes again, all external participants are moved into the mmAttendees property.

-
- **Set prefix for invitations**This option was built in for compatibility to update.seven groupware for Lotus Notes. If you choose this option the external participants' email addresses will be prefixed by the defined string (default: "extern") and therefore invitations will be sent to invalid e-mail addresses.

Send invitations to reps only

Connector sends invitations to attendees if their e-mail address belongs to a mail space which is supposed to be synchronized.

See [Mail address spaces to be synchronized setting](#), for further information.

If this option is checked, connector sends invitations solely if the attendee is assigned as a Rep to the appointment and not linked as a person only.

Excursus: appointments - synchronized fields

Out-of-the-box, certain fields in the BTB version are synchronized between Aurea CRM and Lotus Notes.

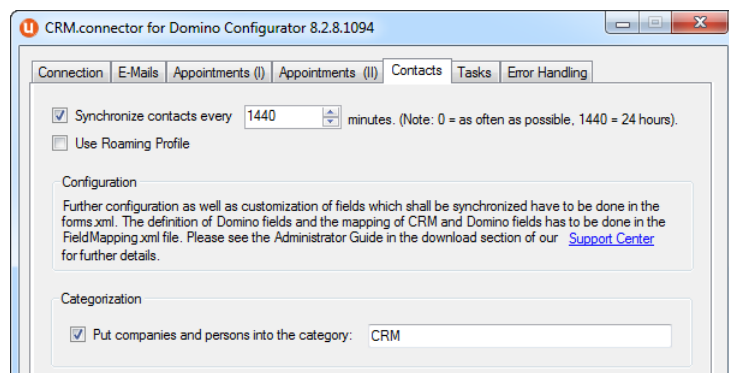
Table 1: Appointments - synchronized Fields

Aurea CRM fields		Lotus Notes
MA #103	Subject	Subject
MA #2	Date	StartDate
MA #3	Time	StartTime
MA #6	End Time	EndTime
MA #23	Text	Body
MA #120	End Date	EndDate
MA #12	Participant ID	RequiredAttendees
		OptionalAttendees
		RequiredResources
MA #25	Document 1	\$File
MA #122	Reminder Duration	\$AlarmOffset
MA [#123]	Reminder Unit	Alarm (1 if set)
MA[#8]	Rep ID	Principal

Contact Synchronization

It is possible to synchronize contact persons from Aurea CRM to Domino Server

In deference to data quality and common rights settings in the CRM system, contact persons created in Lotus Notes are not synchronized to Aurea CRM. If a user modifies synchronized contacts in Lotus Notes, these changes are overridden by the data from Aurea CRM on the next synchronization run.



Synchronize contacts every n minutes setting

With this setting, you can define how frequently contact persons are synchronized from Aurea CRM to Domino Server.

Note: Setting the frequency to a low value might cause performance impacts.

The synchronization point is not set to a fixed day time but depends on the start/re-initialization time of the connector.

Assumption: Synchronize contacts every 720 minutes.

First synchronization occurs on start time, the second on start time +720 minutes.

Use roaming profile

With this checkbox, you can define if connector should synchronize to the roaming Profile instead of to the mail file of the users.

Note: This setting only tells the connector where to store the contacts. The proper configuration on Domino Server side has to be done by the Domino Server administrator.

It is not possible to use a mixed environment, so all the configuration for all users has to be the same (if contact synchronization is used).

Categorization

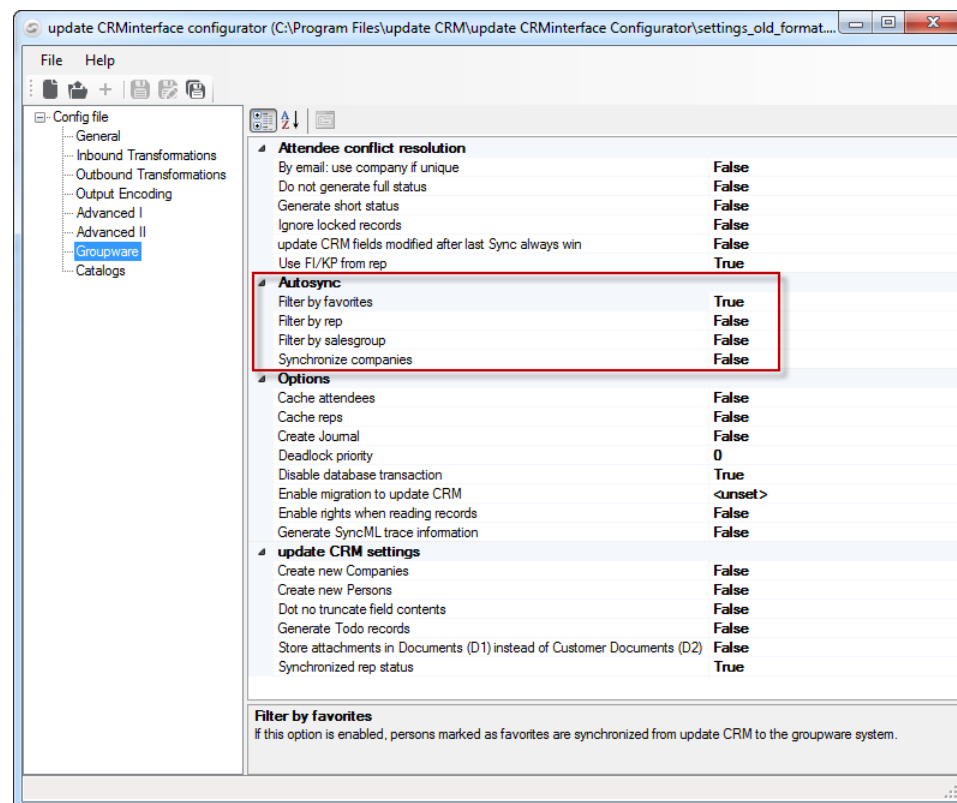
With this setting, you can define a target category in which company and person data are stored in the address book.

- Connector doesn't remove categories which have been set manually by the user.
- Connector does not set multiple categories. If the category to set is changed in the configuration, connector will remove the previously set category.

Note: It is possible to override the global settings (in the configuration) for users via the user settings in Aurea CRM. See [Categorization of contact persons](#), for further information.

Excursus: settings in CRM.interface

The criteria which contact persons are synchronized have to be defined in CRM.interface.



Filter by Rep: If this option is enabled, all persons where the current user is assigned to the "rep field" (AD field) in Aurea CRM are synchronized.

Filter by Sales group: If this option is enabled, all persons where the current user is part of the associated Sales Group are synchronized.

Sync Companies: If this option is enabled, then not only contact person data (KP) but also company information (FI) is synchronized from Aurea CRM to Domino Server.

Filter by Favorites: If this option is enabled, persons marked as favorites are synchronized from Aurea CRM to Domino Server.

Note: If you enable more than one of these options (e.g. "Rep" and "Favorites"), then the superset of persons matching these criteria is synchronized.

Since the number of persons to synchronize might be quite high, enabling all these options could cause high database activities and slow down performance reasonably.

Excursus: contacts – synchronized fields

Aurea CRM and Lotus notes synchronize with each other.

Out-of-the-box, the following fields are synchronized between Aurea CRM and Lotus Notes:

Note: Field IDs specified in the table below, correspond to the Aurea CRM for the BTB vertical.

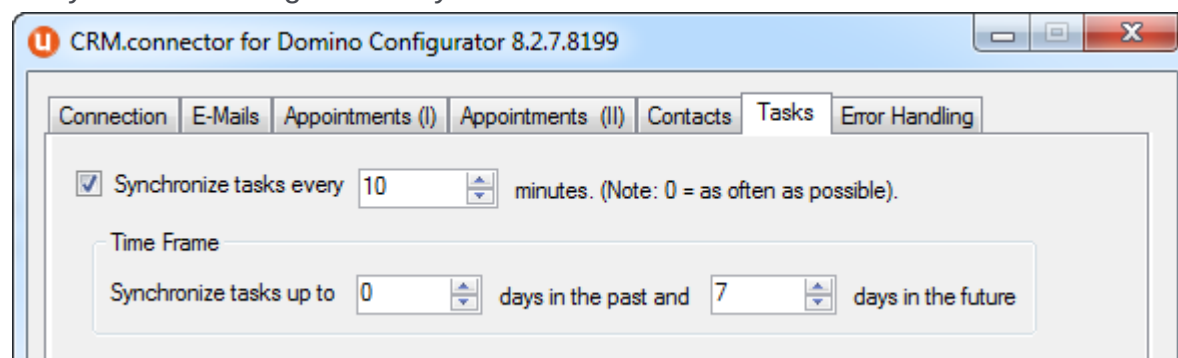
Table 2: Contact Persons - synchronized Fields

Aurea CRM		Lotus Notes
KP [#3]	First Name	First Name
KP [#4]	Last Name	Last Name
KP [#9]	E-Mail 1	Email_1
KP [#6]	Tel 1	OfficePhoneNumber

The out-of-the-box field mapping between Domino Server and Aurea CRM can be modified by the same mechanism as described in [Synchronization of additional Lotus Notes fields](#) on page 61.

Tasks synchronization tab

Connector is also capable of synchronizing tasks from Aurea CRM to Domino Server. Only status changes are synchronized from Domino to Aurea CRM.



There is no possibility to accept or decline these tasks in Lotus Notes. Other participants of the task are not synchronized to the Domino server. Therefore they are not notified via the Lotus Notes functionality.

Delegation is not supported by connector; if a task is delegated to another person connector ignores this task at all.

If an already synchronized task is delegated to another Rep in Aurea CRM a new task for this Rep is created in Lotus Notes. Note, that there is no deletion mechanism in this case so the original tasks will remain in the mailbox of the original owner (user).

Synchronize tasks: If this check box is selected, appointments are synchronized. To prevent connector from synchronizing tasks at all, de-select the checkbox.

Synchronize tasks every n minutes: Defines the interval (in minutes) at which the connector checks for new or changed tasks to synchronize. Please note that defining a small interval (i.e. forcing the connector to poll the Domino Server more frequently) will cause higher network traffic and a somewhat higher load on the Domino Server.

Time frame settings: Use this option to define how many days in the past and future tasks are synchronized from and to Domino. Note that the reference date is not the date when the task was created, but the date the task is scheduled for.

Note: Defining a wide interval (many days in the past or future) will cause a higher load on the CRM database and the Domino Server due to more “costly” queries.

Excursus: tasks – synchronized Fields

Learn certain fields that are synchronized between Aurea CRM and Lotus Notes.

Note: Field IDs specified in the table below, correspond to the Aurea CRM for the BTB vertical.

Table 3: Tasks - synchronized Fields

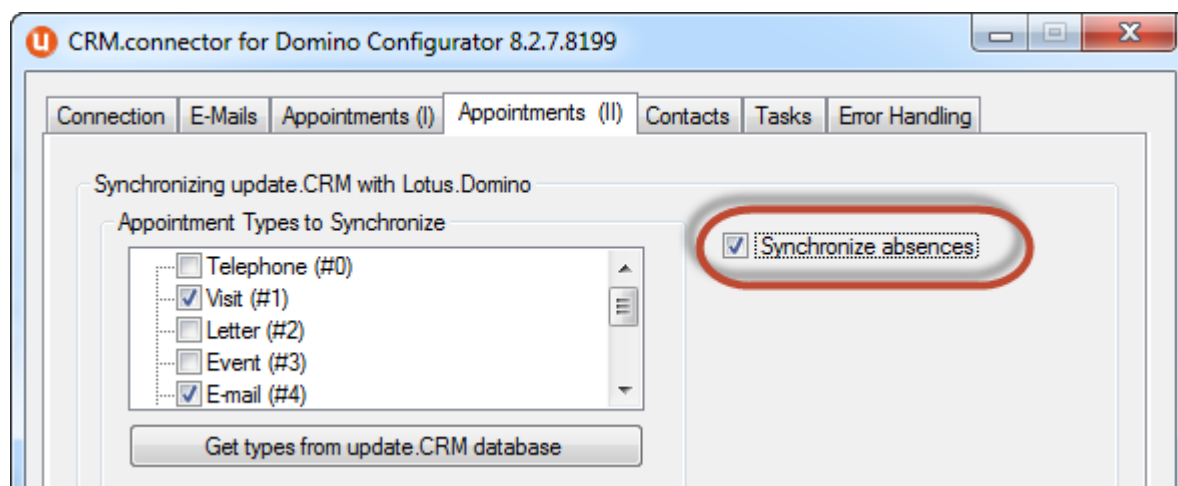
Aurea CRM		Lotus Notes
A1 [#4]	Rep	Chair
A1 [#10]	Created by Rep	From
A1 [#38]	Start date	StartDate
A1 [#14]	Due date	DueDate

Aurea CRM		Lotus Notes
A1 [#2]	Status	[calculated, see comment below]
A1 [#5]	Priority	Importance
A1 [#42]	Reminder Duration	\$AlarmOffset
A1 [#43]	Reminder Unit	\$AlarmUnit
A1 [#58]	Subject	Subject
A1 [#20]	Comments	Body

Note: See [Mapping of task status](#) on page 67, for further information.

Absence Synchronization

It is possible to synchronize absences from Aurea CRM to Domino Server.



Changes in these appointments in Lotus Notes are not synchronized back to Aurea CRM. Absences are shown in Lotus Notes as standard appointments – the only difference is the user-defined property "mmAbscence", which contains the ID of the "absence reason" catalog in Aurea CRM.

Excursus: absences – synchronized Fields

Out-of-the-box, certain fields are synchronized from Aurea CRM to Lotus Notes.

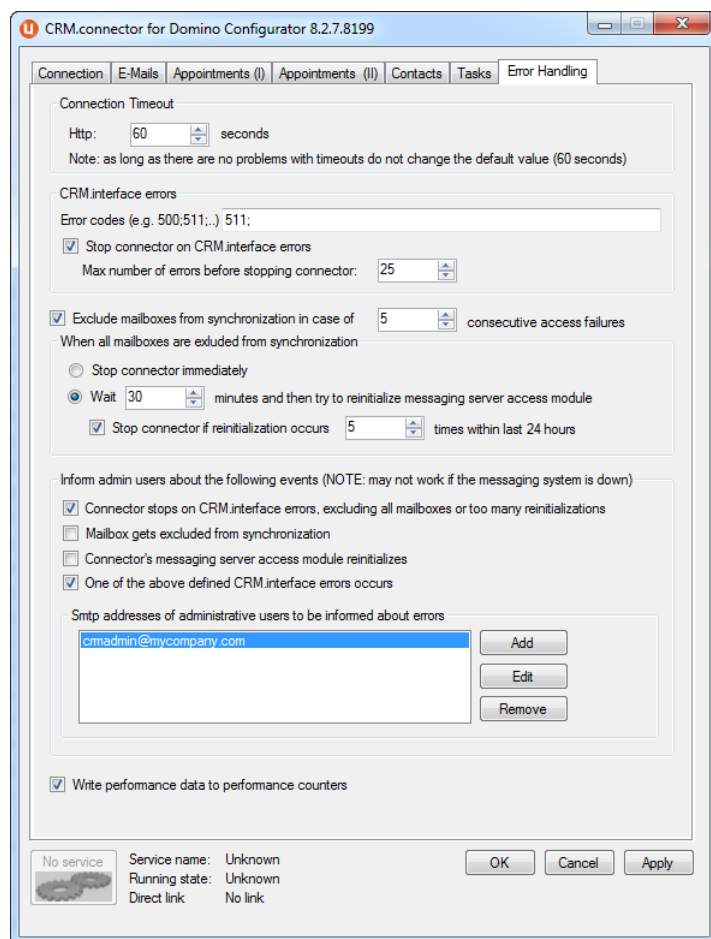
Field IDs specified in the table below, correspond to the Aurea CRM for the BTB vertical.

Table 4: Absences - synchronized Fields

Aurea CRM	Lotus Notes
A3 #5	Start Date
A3 #6	Start Time
A3 #10	Text
A3 #22	Status
A3 #23	Private
A3 #24	End Date
A3 #25	End Time
A3 #26	Reminder Duration
A3 #27	Reminder Unit
A3 #30	Subject

Error Handling

You can configure how CRM.connector handles error with options like connection timeout, error codes, and notifications sent to administrators.



Timeout n seconds: The time in seconds before timing out requests originating from the connector to the HTTP server.

Note: Normally there is no need to change the default value (60 seconds) unless you experience timeouts in the log file. Such timeouts typically are caused by "thin" connections between connector and Aurea CRM http server or when synchronizing huge attachments. This setting solely concerns the timeout of requests from connector to http server, but not requests to the EWS.

CRM.interface errors

You can define on which errors returned by CRM.interface connector should react and which actions to take.

Error codes (e.g. 500;511;...): Error codes to be monitored. Typically you would monitor SYNCML error code 511. Error 511 is returned, when something unexpected happened on CRM.interface side – a system returning a lot of 511 errors is to be considered unhealthy and you should investigate further. Typically error 500 is related to configuration errors, e.g. when CRM.interface is not able to save a record because of a rights-constraint. A typical message for such an error would be "Permission denied (required field missing)". These errors indicate that you have to change your configuration in order to ensure proper synchronization.

Stop connector on CRM.interface errors | Max number of errors before stopping connector: With this setting you can configure that connector should stop after exceeding the error count threshold.

Note: Exceeding this threshold will not necessarily stop connector immediately. Typically connector is sending packages of 10 items to CRM.interface and needs to process the whole response and send all failure messages before quitting.

If for example `MaxErrorCount="5"` and the actual error count was already set to 2 and all of the 10 items fail with `HttpErrorCodes="511"`, connector will stop after 12 errors in total.

Exclude mailboxes from synchronization in case of n consecutive access failures

You can stop synchronization for a certain mailbox that encounters a number of consecutive access failures.

In combination with the settings below you can force connector to reinitialize its messaging server interface (simplified: closing existing connection to Domino and establishing a new connection). The idea behind this feature is to exclude certain mailboxes which are not accessible due lack of access rights; for example to save processing time (typically such situations are not "self-healing").

When all mailboxes are excluded from synchronization

With this setting you can either stop connector or enforce a reinitialization of connector's messaging server interface.

Stop connector immediately: If this option is activated connector stops when all mailboxes are removed from the synchronization list due to access failures. Typically this can happen, when the Domino Web Services are not reachable.

Wait n minutes and then try the reinitialize connector's messaging server access module: You can define the interval after which connector should reinitialize the connection to EWS. Normally removing of all mailboxes from the synchronization list won't happen, unless there are connection problems or EWS is down. Therefore a certain delay between the occurrence of this problem and the reinitialization is reasonable.

Stop connector if reinitialization occurs n times within last 24 hours with this setting you can force connector to stop, which might be reasonable in situations where there is a substantial and permanent problem in the infrastructure preventing connector from accessing Domino Server. Please note, that 24 hours in this case are meant literally - the error count is monitored 24 hours after first occurrence (e.g. if it happens at 8PM the observation time frame is until 8PM next day).

Inform admin users about the following events

Select particular events of which you want notifications to be sent to administrator.

Note: In case the messaging system is down, connector will not be able to send e-mails and therefore this notification feature will fail.

Connector stops on CRM.interface errors, exclusion of all mailboxes or too many reinitializations: If this option is enabled, the defined administrative user(s) are informed when connector stops because of one of the above mentioned events.

Mailbox gets excluded from synchronization if this option is enabled the defined administrative user(s): User(s) are informed when a mailbox is removed from the list of synchronization users. Basically, there will be solely one e-mail per mailbox until connector either is restarted or reinitialized. (And – of course – the problem accessing this mailbox is persistent).

Connector's messaging server access module reinitializes: If this option is enabled the defined administrative user(s) are informed when connector reinitialized the connection to EWS.

One of the above defined CRM.interface occurs: If this option is enabled the defined administrative user(s) are informed when CRM.interface errors occur.

Smtp addresses of administrative users to be informed about errors: Specify a list of SMTP addresses the above generated messages are sent to.

Note: Only one e-mail is sent if an error occurs, e-mails are not sent if the same error occurs when subsequently synchronizing the same appointment.

Writing performance data to performance counters

If this option is enabled, connector SE is writing its state and some performance data to performance counters.

These performance data can be viewed and monitored with the Windows Performance Monitor; the counters are available in the category "CRM.connector for Exchange SE".

Note: The counters for connector are only visible for instances of connector for which the configuration option "Write performance data to performance counters" has been enabled.

Logging

Since connector is part of the Aurea CRM server family, logging is now configured as in all other server products via settings.xml.

Note: See the WIKI articles:

- [HOWTO Configure Logging on the Server](#) and
- [HOWTO configure diagnostic logging for CRM.interface](#)

for further information.

Example log configuration

```
<Logging>
<!-- logLevel - possible values are: NoLogging, Emergency, Alert, Critical, Error,
Warning, Notice, Info, Debug -->
  <Channel logLevel="Warning"
    writerName="ConnectorfileLogWriter"
    formatterName="Default"/>
<!-- rollingMode - possible values are: Date (when date changes), Size (when
exceeding defined size), Startup (on every startup). Values can be combined, e.g.
"Size,Startup" means when exceeding the size and on every restart of connector
-->
  <Writer filePath="log\connector.log"
    name="ConnectorfileLogWriter"
    maxSizeKB="50000"
    rollingMode="Size,Startup"
    compressBackup="true"
    maxBackups="50"
    includeDateInBackupFileName="true"
    closeOnIdleTimeout="5"
    type="update.Lib.Logging.Writers.FileLogWriter,update.Lib"/>
  <Formatter name="Default"
    logDate="true"
    logTicks="true"
    logFacility="true"
    logLevelFormat="Name"
    logException="true"
    logMemory="True" logCpu="True"
    type="update.Lib.Logging.Formatters.DefaultLogFormatter,update.Lib"
  />
```

```
</Logging>
```

In the example configuration above, the `logLevel="Warning"` and the log file size is limited to 50MB (`maxSizeKB="50000"`); after exceeding this limit or when connector is restarted the log file is packed into a GZ archive (`rollingMode="Size,Startup"`, `compressBackup="true"`) and a new log file is created. A maximum of 10 log archives are kept (`maxBackups="50"`).

Enhanced Logging to monitor connector synchronization

You can monitor connector synchronization activities by using the performance log configuration in the `settings.xml` file.

The synchronization activities can be logged in a separate file. Detailed information about activity types like email, appointment, contact, task, absences are captured in this file. Including the minimum, maximum, average, and total time taken along with the number of items synchronized. The following screenshot shows a sample performance log file.

```

5336 Mailboxes: 57
5337 From: 2017-05-16 18:13:25
5338 To: 2017-05-16 17:14:14
5339 Total time: 00:00:49,167
5340
5341 -----
5342 Summary CRM -> Domino
5343 -----
5344 | Type | Synced | Not Synced | Max Time | Min Time | Avg Time | Total Time |
5345 |-----|-----|-----|-----|-----|-----|-----|
5346 | Email | 55 | 2 | 00:00:00,297 | 00:00:00,048 | 00:00:00,180 | 00:00:10,272 |
5347 | Appointment | 51 | 6 | 00:00:00,288 | 00:00:00,035 | 00:00:00,173 | 00:00:09,889 |
5348 | Contact | 57 | 0 | 00:00:00,297 | 00:00:00,033 | 00:00:00,174 | 00:00:09,965 |
5349 | Task | 56 | 1 | 00:00:00,297 | 00:00:00,030 | 00:00:00,169 | 00:00:09,680 |
5350 | Absence | 57 | 0 | 00:00:00,294 | 00:00:00,032 | 00:00:00,164 | 00:00:09,357 |
5351 |-----|-----|-----|-----|-----|-----|-----|
5352
5353 Errors synchronizing emails (3.51%):
5354 - Mailbox 'user958@mail.com': Cannot connect to Domino server.
5355 - Mailbox 'user991@mail.com': Cannot connect to Domino server.
5356
5357 Errors synchronizing appointments (10.53%):
5358 - Mailbox 'user156@mail.com': Incorrect schedule time.
5359 - Mailbox 'user332@mail.com': Incorrect schedule time.
5360 - Mailbox 'user896@mail.com': Incorrect schedule time.
5361 - Mailbox 'user929@mail.com': Incorrect schedule time.
5362 - Mailbox 'user947@mail.com': Incorrect schedule time.
5363 - Mailbox 'user991@mail.com': Incorrect schedule time.
5364
5365 Errors synchronizing tasks (1.75%):
5366 - Mailbox 'user937@mail.com': Wrong task duration.
5367
5368 -----

```

The following sample shows the configuration set up to generate the performance log:

```
<Logging>

  <Channel facilityFilter="performance"
    logLevel="Debug"
    logLevelDebug="Debug"
    writerName="fileLogWriter2"
    formatterName="webLogFormatter2"
  />

  <Writer filePath="log\performance.log"
    name="fileLogWriter2"
    maxSizeKB="8192"
    closeOnIdleTimeout="5"
    type="update.Lib.Logging.Writers.FileLogWriter,update.Lib" />

  <Formatter name="webLogFormatter2"
    logDate="true"
    logTicks="false"
    logFacility="false"
    logLevelFormat="None"
    logException="false"
    logMemory="false"
    type="update.Lib.Logging.Formatters.WebLogFormatter,update.Lib" />

  ...
</Logging>
```

Tips, tricks, and advanced customization

In this topic, you will find tips, tricks and advanced customization for CRM.connector.

Synchronize only appointments of CRM users

Use Case: You want to synchronize all appointments where at least one CRM user (i.e. a user in Aurea CRM win or web) is on the attendee list. You could think of adding non-CRM users to the rep list as well. For further details, see [Creating user settings in Aurea CRM](#) on page 20 and add the CRM users to a group e.g. CRM-User.

Define a new conditional access right for the MA table with the condition `Rep Group ID = CRM-User`.

A contact can then only be stored in Aurea CRM if at least one user is part of this group.

Client Attribute in XML Request

Connector sends its client identification to Aurea CRM http server with every request. This mechanism would allow for additional transformations of the "incoming" request.

```
<request ... client="update.connector.domino"> ...</request>
```

Marking contact (MA) records in Aurea CRM

Use case for marking a contact records in Aurea CRM.

Use Case: A user receives an e-Mail from a customer and the sender cannot be found in the Aurea CRM DB. The mail is synchronized and linked to the person associated with the user. Consequently, the mail is not added to the customer's contact history.

If you add the section below to your `forms.xml` file, such appointments are "marked" and can easily be identified by a (start page) query. Based on this information, the user can take further action (adding the customer to the CRM data base and linking this appointment to the customer etc.)

```
<root>
[...]
<options>
  <vevent>
    <missing_attendees>
      <Contact>
        <FreeC1>Sender unbekannt</FreeC1>
        <FreeL1>true</FreeL1>
        <FreeN1>69</FreeN1>
      </Contact>
    </missing_attendees>
  </vevent>
</options>
[...]
</root>
```

Missing attendees (participants)

It is possible to trigger the information about missing/not found participants in a user-friendly representation into a certain field. This feature can be turned on/off and fine-tuned via `forms.xml`.

```
<header lang='de'>--- Unassigned Participants: ---</header>
<required lang='de'>REQUIRED: </required>
<optional lang='de'>OPTIONAL: </optional>
<informational lang='de'>INFORMATIONAL: </informational>
<unknown lang='de'>UNKNOWN: </unknown>
<email_separator>, </email_separator>
```

The definition above would create an entry like:

```
--- Unassigned Participants: ---
REQUIRED: both@test.com, rep@test.com
OPTIONAL: contact@test.com
```

Without an `<email_separator>` the generated field value would look like this:

```
--- Unassigned Participants: ---
REQUIRED:
both@test.com
rep@test.com
OPTIONAL:
contact@test.com
```

Note: The section UNKNOWN should not be filled at any time as the roles of all participants should be defined, but it was inserted by Aurea CRM to be 100% sure.

Marking appointments as deleted in Aurea CRM

If meetings (appointments) are deleted in Lotus Notes, the deletion is published to Aurea CRM as well.

However, these appointments are not physically deleted but only marked as deleted (since the information that a meeting has not taken place might be important for the customer contact history in the CRM system). Out of the box, the `FreeC1` field of the Activity info area is used (value is set to "gelöscht"). If you want to change this behavior, you have to modify each of the following `SyncHandler` elements in the `forms.xml` accordingly.

- `<SyncHandler type='Default'>`
- `<SyncHandler type="DeleteSync">`
- `<SyncHandler type="ExchangeConnector_VeventFilter">`

Note: Be careful when changing this mechanism in a running system. For example, if you want to use a boolean field instead of `FreeC1` it might be wise to stop synchronization and run a maintenance job setting the value of the new field based on the value of `FreeC1`.

Marking appointments as published in Aurea CRM

Published appointments are always linked to the person associated with the owner of the mailbox.

Therefore, ensure that such "published" appointments are not synchronized back from Aurea CRM to Exchange to avoid duplicates.

Out of the box "published" appointments are

- mapped to the Activity Type, "Info" and
- the value of `FreeC2` is set to "published"

Appointments, which have the value `FreeC2` = "published" are excluded from synchronizing back to Exchange Server.

If you want to change this behavior you have to modify the `SyncHandler`:

`<SyncHandler type="ExchangeConnector_VeventFilter">` in `forms.xml` and the section

`<xsl:when test='@x-mmPublish="true"'>` in `SyncML_gw2mm.xslt` accordingly.

Note: Be careful when changing this mechanism in a running system. For example, if you want to use a boolean field instead of `FreeC2` it might be wise to stop synchronization and run a maintenance job to set the value of the new field based on the value of `FreeC2`.

<ServerData> element in SYNCML response

The ServerData element, which is included into the element `SyncHdr` might be helpful for figuring out which rights have been considered by CRM.interface.

In the sample below the station right `SR Global` and the group right `GR International` are active for user `MUser`.

```
<SyncHdr>
  <ServerData>
    <session id="2" flags="1d0">
      <user nr="100344" gr="100286" rgr="100286" name="MUser" />
      <rights sta="SR Global" grp="GR International" />
    </session>
  </ServerData>
  <!-- ... -->
</SyncHdr>
```

Synchronization of additional Lotus Notes fields

CRM.connector supports the synchronization of additional fields from Domino Server to Aurea CRM and vice versa.

The following rules apply to the different business objects:

- **Appointments:** connector is dependent on almost all standard fields, thus only fields which are not part of the business logic of the connector can be freely used.

Therefore the customization possibilities are limited to the Lotus Notes standard field "Location" and to user defined fields. Manipulations (mappings) on fields used by the connector (e.g. Start Date or End Date) are ignored to avoid malfunctions.

- **Contact Persons:** Out-of-the-box, the fields listed in table [Contact Persons - synchronized Fields](#) are synchronized. These fields may be overridden by customization as well. In other words: in case of synchronizing contact persons, you can either additionally map standard Lotus Notes fields or user defined fields, and even change the mapping of the out-of-the-box fields.

The synchronization mechanism consists of the following steps:

1. Add the desired field to `forms.xml` to ensure that the field is exchanged between connector and CRM.interface.
2. Add the field to `SyncML_gw2mm.xslt` to define the rules applying when sending information from Lotus Notes to Aurea CRM (in case of contact persons, this step is not necessary since contact persons are solely synchronized from Aurea CRM to Lotus Notes).
3. Add the field to `SyncML_mm2gw.xslt` to define the rules applying when sending information from Aurea CRM to Lotus Notes.
4. Add the mapping information to `FieldMapping.xml` to define the mapping to Lotus Notes fields. For further details, see [FieldMapping.xml](#) on page 62.
5. Restart the CRM.interface application pool and the connector services.

FieldMapping.xml

An example of `FieldMapping.xml` (`FieldMapping_Sample.xml`) is deployed to the installation directory by the setup routine. In order to modify the out-of-the-box field mapping, you have to copy `FieldMapping_Sample.xml` to `FieldMapping.xml`.

Note: The file `FieldMapping_Sample.xml` is provided as is, without any warranty of any kind.

Field mapping is supported for the following Lotus Notes data types:

- single value data types:

```
TEXT DateTime 1 Number
```

- multi-value data types:

```
Textlist
```

Example|Synchronizing additional appointment fields

This is an example to show how to synchronize additional text information from Aurea CRM to a user defined field in Lotus Notes appointments and vice versa.

Assumption: You have created a generic field `Text_New` for the MA table in Aurea CRM and added a text field "**Additional Information**" for meetings in Lotus Notes.

The realization consists on the following steps:

1. Adding the additional field to `forms.xml`. You have to add the field Aurea CRM `Text_New` to ensure that this field is Dominod during synchronization.

Add `<field fieldname='Text_New' />` to the `<form type="vevent"><table tablename="Contact">` section.

```
<form type='vevent'>
  <table tablename='Contact'>
    <field fieldname='StatNo' />
    <field fieldname='SeqNo' />
    ...
    <field fieldname='Text_New' />
  </table>
</form>
```

2. Adding the additional field to the style sheet `SyncML_gw2mm.xslt`.

```
1 SYNCML data time format (20101031T030000).
```

Add the nodes listed below to the `<xsl:template name='Convertvevent'>` `<!-- other fields-->` section:

```
<xsl:template name='Convertvevent'>
...
<!--other fields-->
<xsl:if test='syncml:Text_New'>
  <xsl:element name='field'>
    <xsl:attribute name='name'>Text_New</xsl:attribute>
    <xsl:attribute name='tablename'>Contact</xsl:attribute>
    <xsl:attribute name='fieldname'>Text_New</xsl:attribute>
    <xsl:value-of select='syncml:Text_New'/'>
  </xsl:element>
</xsl:if>
```

3. Adding the additional field to the style sheet SyncML_mm2gw.xslt.

Add the nodes listed below to the `<xsl:template name='ConvertContact'>` section:

```
<xsl:template name='ConvertContact'>
<!--Reminder-->
...
<!--Reminder end -->
<xsl:if test='syncml:Text_New'>
  <xsl:element name='Text_New' namespace='SYNCML:SYNCML1.1'>
    <xsl:value-of select='syncml:Text_New'/'>
  </xsl:element>
</xsl:if>
...
```

Note: In case of and DateTime Field you would have to add one text line to the mapping which is needed for the correct DateTime conversion. Example for the Field FreeD1:

```
<xsl:if test='syncml:FreeD1'>
  <xsl:element name='FreeD1' namespace='SYNCML:SYNCML1.1'>
    <xsl:value-of select='syncml:FreeD1'/'>
    <xsl:text>T000000</xsl:text>
  </xsl:element>
</xsl:if>
```

4. Adding the additional field to the mapping table FieldMapping.xml.

Add the field to the "mappable fields" list:

```
<xsl:template name='ConvertContact'>
<!--Reminder-->
...
<!--Reminder end -->
<xsl:if test='syncml:Text_New'>
  <xsl:element name='Text_New' namespace='SYNCML:SYNCML1.1'>
    <xsl:value-of select='syncml:Text_New'/'>
  </xsl:element>
</xsl:if>
...
```

5. Restart CRM.interface application pool and connector service.

Setting the default contact type for items created in Lotus Notes

In case it is not possible (for whatever reasons) to set a default contact type for appointments that have been created in Lotus Notes via Aurea CRM using a trigger, you could implement this via `SyncML_gw2mm.xslt` as sketched below.

```
<xsl:when test='not ../../syncml:Target'>
  <xsl:element name='field'>
    <xsl:attribute name='name'>x-mmContactType</xsl:attribute>
    <xsl:attribute name='tablename'>Contact</xsl:attribute>
    <xsl:attribute name='fieldname'>Contact</xsl:attribute>#17
  </xsl:element>
</xsl:when>
```

The general idea is to check if the element already has an mmKey value - if not, the element has not yet been synchronized. In this example the contact type is set to #17, change this accordingly depending on your requirements. However, if the feature "publish appointments" is used too, you have to consider that in your stylesheet as well.

More than one instance of connector service

It is possible to have more than one instance of the service on a single machine. With this feature it is for example possible to have e.g. a "Test" and "Development" environment on the same machine.

Basically you have to:

1. install connector (once)
2. copy the installation to a separate folder
3. (e.g. "c:\program files\Aurea CRM\CRM.connector 1")
4. register this additional service with a different name

```
update.sever.exe -i --name=servicename
```

5. configure the instance via the console application

Note: To unregister the service, run the following command: `update.sever.exe -u --name=servicename.`

Setting the catalog language

CRM.Connector for Domino uses English as the default language for catalog values.

Thus, only the catalog values in English are synchronized from Aurea CRM to Domino. To synchronize catalog values defined in languages other than English, specify the required catalog language on the CRM.Interface server.

To change the catalog language, extend the server-side style sheet `SyncML_mm2gw.xslt` as shown in the sample below.

Note: Ensure that the DLL for the required language is available on the CRM.Interface server.

```
<xsl:variable name='vAutoAttendee'>false</xsl:variable>
<xsl:variable name='vIndependentPeriods'>false</xsl:variable>

<!-- Begin changes (1) -->
<!-- definition of vLang to change catalog language. -->
<!-- de ... German|en ... English. -->
<xsl:variable name='var:vLang'>de</xsl:variable>
<!-- End changes (1) -->

<xsl:template match='@*|node()'><xsl:copy><xsl:apply-templates
select='@*|node()' /></xsl:copy></xsl:template>
<xsl:template match='/'><xsl:apply-templates select='*' /></xsl:template>

<!-- Begin changes (2) -->
<xsl:template match="syncml:SyncML">
  <xsl:copy>
    <xsl:attribute name='xml:lang'><xsl:value-of select='$var:vLang' /></xsl:attribute>

    <xsl:apply-templates select='*' />
  </xsl:copy>
</xsl:template>
<!-- End changes (2) -->
```

Flagging incoming/outgoing mails

Connector synchronizes e-mails moved to the defined folders.

It might be useful to be able to distinguish in the Aurea CRM system, if an incoming or outgoing E-Mail was synchronized. In order to achieve such functionality add the below sketched transformation to the `SyncML_gw2mm.xslt` style sheet at the very end of the `<xsl:template name='Convertvevent'>` section.

```
<xsl:template name='Convertvevent'>
<!--contact type-->
<!-- use if a specific contact type is needed

[...]
<!-- flagging sent/received emails -->
<xsl:element name='field'>
  <xsl:attribute name='name'>x-mmIncomingEmail</xsl:attribute>
  <xsl:attribute name='tablename'>Contact</xsl:attribute>
  <xsl:attribute name='fieldname'>FreeL1</xsl:attribute>
  <xsl:variable name='var:incoming_email'
select='msxsl:string-compare(/syncml:SyncML/syncml:SyncHdr/syncml:Principal,syncml:attende

    <xsl:value-of select='boolean($var:incoming_email)' />
  </xsl:element>
</xsl:template>
```

In this sample the field `FreeL1` is set to `"true"`, if the synchronized is an incoming E-Mail, means that the owner of the mailbox was the recipient of this mail.

Flagging internal appointments

Internal appointments created in Lotus Notes are specially flagged in order to be able hooking in special business logic on CRM.interface side.

Internal appointments are appointments which do not have any external participants - with other words: internal appointments are appointments where all participants belong to internal mail spaces.

Note: The flag is set to true only if the mail addresses of all of uninvited/invited recipients belong to defined mail spaces. If there are any ambiguities – e.g. if there is an attendee without an e-mail address the flag is set to false

In this case the attribute `x-internal="true"` is sent to the server. `x-internal` is a new attribute of the `<vevent>` Tag.

Using this flag attribute you could think about establishing special rights on "internal" (or "external" appointments). The following sample illustrates how to trigger this information into Field `FreeL1` of the contact info area. In order to activate this functionality you need to un-comment the following blocks in the style-sheet.

1. process this flag in `SyncML_gw2mm.xslt`:

```
<xsl:if test="@x-internal='true'">
  <xsl:element name='field'>
    <xsl:attribute name='name'> x-mmContactType</xsl:attribute>
    <xsl:attribute name='tablename'>Contact</xsl:attribute>
    <xsl:attribute name='fieldname'>FreeL1</xsl:attribute>true
  </xsl:element>
</xsl:if>
```

2. Add `FreeL1` to `forms.xml`.

```
<form type="vevent">
  <table tablename="Contact">
    <field fieldname="FreeL1"/>
  </table>
</form>
```

Mapping of appointment show as

The show as status of appointments is mapped during synchronization from Domino Server to Aurea CRM and vice versa as described below.

This mapping is implemented in the CRM.interface style sheets `SyncML_gw2mm.xslt` and `SyncML_mm2gw.xslt`).

Aurea CRM to Domino		Domino (Lotus Notes) to Aurea CRM	
Aurea CRM	Domino (Lotus Notes)	Domino (Lotus Notes)	Aurea CRM
Free	marked as available	marked as available	Free
Working elsewhere	"marked as available" flag is not set	"marked as available" not set	Busy
Tentative			
Busy			
Out of Office			

Mapping of task status

The status of tasks is mapped during synchronization from Domino Server to Aurea CRM and vice versa as described below.

This mapping is implemented in the CRM.interface style sheets `SyncML_gw2mm.xslt` and `SyncML_mm2gw.xslt`).

Aurea CRM to Domino		Domino (Lotus Notes) to Aurea CRM	
Aurea CRM	Domino (Lotus Notes)	Domino (Lotus Notes)	Aurea CRM
Open	Not started	Not started	Open
In Progress	In Progress	In Progress	In Progress
Completed	Completed	Completed	Completed
Missed	Overdue	Overdue	Missed

Note: By default the status shown in Domino is calculated by Domino business logic using Start and Due date. The Lotus Notes agent can be deactivated via Lotus Notes client settings.

Custom attribute <Folder>

Connector sends the path of the respective mail folder to CRM.interface server the synchronization of e-mails.

Assuming the folder name contains the key of the relevant CRM object (e.g. Opportunity) you could consider linking the e-mails to this opportunity by adopting the stylesheets.

For example, if you have named your folder "alice_has_a_cat Y1-100-1" connector would send the following information to the CRM.interface

```
<vevent x-mmContactType="#5">
...
<Custom>
  <Folder>Inbox/CRM Folder/alice_has_a_cat Y1-100-1</Folder>
</Custom>
</vevent>
```

Therefore you could link each e-mail from this folder to the opportunity with the key Y1-100-1 via the below sketched extensions to SyncML_gw2mm.xslt (you could at the lines below to the end of the `<xsl:template name='Convertvevent'>` section of the file).

```
<xsl:if test='syncml:Custom/syncml:Folder and contains(syncml:Custom/syncml:Folder,
" Y1-")'>
  <xsl:element name='field'>
    <xsl:attribute name='name'>x-mmLink</xsl:attribute>
    <xsl:attribute name='tablename'>Contact</xsl:attribute>
    <xsl:attribute name='fieldname'>OpportunityStatNo</xsl:attribute>
    <xsl:value-of
select='user:find_2way_key(string(syncml:Custom/syncml:Folder),"Y1",1)'/>
  </xsl:element>
  <xsl:element name='field'>
    <xsl:attribute name='name'>x-mmLink</xsl:attribute>
    <xsl:attribute name='tablename'>Contact</xsl:attribute>
    <xsl:attribute name='fieldname'>OpportunitySeqNo</xsl:attribute>
    <xsl:value-of
select='user:find_2way_key(string(syncml:Custom/syncml:Folder),"Y1",2)'/>
  </xsl:element>
</xsl:if>
```

Note: The parsing mechanism in `find_2way_key` expects the folder name in the following format:

```
[folder_name][space][Y1-station_nr-opportunity_nr]
```

This mechanism is by nature only helpful in scenarios where the number of folders is limited and therefore it's feasible, to name the folders manually. Since these folders are user specific the "linking" to CRM objects cannot be delegated to the administration program of CRM.connector for Domino, but would require an additional client plug-in. In the concrete scenario, for which this extension has been designed, the installation of client side components was unwanted.

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Adding auto_sync to forms.xml

In scenarios where CRM data is exchanged between different Aurea CRM stations via the Aurea CRM win Communication module – e.g. between main office and branch offices (or "offline" notebooks) - you need to add the entry below to the `forms.xml` file to ensure that appointments (MA records) created offline are also synchronized.

In purely centralized environments (where data is only added centrally), we recommend that you do not add this entry since it causes a slight performance penalty.

Adding auto_sync flag (required for communication scenarios)

```
<settings>
[...]
<auto_sync>
  <key name='include_com_dt' value='true' />
</auto_sync>
[...]
</settings>
```

Deactivating reminder in forms.xml

By default connector sets a reminder for appointments, which are synchronized from Aurea CRM to Domino Server.

If the reminder field in the MA record is not set, the connector sets the reminder to the Exchange default value. In order to deactivate the reminder mechanism you have to comment the reminder fields `<field fieldname='ReminderDur' />`, `<field fieldname='ReminderUnit' />` in the `<form type='vevent'>` section of `forms.xml`.

Time zones

If the CRM.interface and Domino server/connector are located in different time zones, differing contact times are stored in Aurea CRM and Lotus Notes.

Therefore connector sends time-zone information with in the SYNCML header.

In order to correct this behavior, the following must be added to the `Sym-cML_gw2mm.xslt` style sheet:

A variable (`vTimeOffset`) which can be used to specify the time difference in hours (note: not the difference to UTC, but the difference between the two time zones):

e.g. `<xsl:variable name='vTimeOffset'>9</xsl:variable>`

Add the following section below the `<xsl:template match="syncml:Meta">` template:

```
<!-- Changes used to convert the synchronization time period -->
<xsl:template match="metinf:AnchorUpdate/metinf:Last">
  <xsl:element name="Last" namespace="syncml:metinf" >
<xsl:value-of select="user2:computeTimestamp(string(.),number($vTimeOffset))"/>
  </xsl:element>
</xsl:template>
<xsl:template match="metinf:AnchorUpdate/metinf:Next">
  <xsl:element name="Next" namespace="syncml:metinf" >
<xsl:value-of select="user2:computeTimestamp(string(.),number($vTimeOffset))"/>
  </xsl:element>
</xsl:template>
```

```
</xsl:element>
</xsl:template>
```

Add the conversion function `computeTimestamp` to the `<msxsl:script language='JScript' implements-prefix='user2'>` section:

```
function computeTimestamp(strTimestamp, offset)
{
    var tmp, n, tz;
    if (strTimestamp.charAt(8) == 'T')
        strTimestamp = strTimestamp.substr(0,8) +
strTimestamp.substr(9);

    d1 = new Date(
        parseInt(strTimestamp.substr(0,4),10),
        parseInt(strTimestamp.substr(4,2),10),
        parseInt(strTimestamp.substr(6,2),10),
        parseInt(strTimestamp.substr(8,2),10) +
parseInt(offset),
        parseInt(strTimestamp.substr(10,2),10),
        parseInt(strTimestamp.substr(12,2),10)
    );
    tmp=d1.getFullYear().toString()
    n=d1.getMonth();

    if (n<10)
        tmp+="0";
    tmp+=d1.getMonth().toString();
    n=d1.getDate();
    if (n<10)
        tmp+="0";
    tmp+=d1.getDate().toString()+"T";
    n=d1.getHours();
    if (n<10)
        tmp+="0";
    tmp+=d1.getHours().toString();
    n=d1.getMinutes();
    if (n<10)
        tmp+="0";
    tmp+=d1.getMinutes().toString();
    n=d1.getSeconds()
    if (n<10)
        tmp+="0";
    tmp+=d1.getSeconds().toString();

    //strTimestampCorrected=tmp.substr(0,8) + "T" + tmp.substr(9);

    return tmp;
}
```

Repairing an installation

Learn how to repair an installation.

"Repairing" an installation (e.g. via the Add or Remove Programs Dialog) resets the installation to the original setup version – all hotfixes have to be applied again.

Updating existing versions

Learn how to upgrade existing CRM versions.

Aurea CRM provides (silent) patches to upgrade existing installations.

Special user settings in Aurea CRM

It is possible to override some global settings of connector on user level.

To implement such a mechanism you need to create an additional field `UserSettings` (type=Text, length=2048) in the Aurea CRM rep table (ID table). Using an XML-based description you can define the following special settings for specific users.

Note: Changes of `UserSettings` require a restart of the connector service in order to be applied.

Handling attachments

It is possible to overrule the general setting how connector handles the synchronization of attachments for specific users (mailboxes).

See sample below (Special user settings for handling attachments).

```
<SyncSettings>
  <EmailSync SyncAttach="save_whole_msg" AttachSizeLimit="5000" />
  <AppointSync_Ex2Up SyncAttach="true" AttachSizeLimit="2000" />
  <AppointSync_Up2Ex />
</SyncSettings>
```

Supported values for `EmailSync SyncAttach` are `save_whole_msg`, `true` and `false`, supported values for `AppointSync_Ex2Up SyncAttach` are `true` and `false`.

`AttachSizeLimit` is always a number ≥ 0 (if 0 there is no limitation for attachment size). There is also no limit if `EmailSync SyncAttach` is set to `save_whole_msg`. `AttachSizeLimit` is the size in KB.

Handling private appointments

It is possible to override the global settings how connector handles the synchronization of private appointments on user level. You can turn on the synchronization of private appointments via `<AppointSync_Ex2Up SyncPrivate="true"/>` or turn it off using the following XML syntax `<AppointSync_Ex2Up SyncPrivate="false"/>`.

Categorization of contact persons

It is possible to override the global settings regarding categorization of contact persons on user level, e.g. via the `<ContactSync Category="My Category"/>` element.

The following logic applies:

Global setting	User setting	[Resulting] Category
"CRM"	<code>Category=""</code>	<i>Category not set</i>
"CRM"	<code>Category="My Category"</code>	"My Category"
	<code>Category="My Category"</code>	"My Category"

Global setting	User setting	[Resulting] Category
"CRM"	<i>Category not set</i>	"CRM"
	<i>Category not set</i>	<i>Category not set</i>

Further features

Find more additional features for CRM.connector.

CollectedMailboxes.xml

By default, connector gets the list of users whose mailboxes are supposed to be synchronized from Aurea CRM.

Furthermore, connector supports additional filtering of the user list via an XML file (`CollectedMailboxes.xml`). If such a file exists in the installation directory the list of users (mailboxes) is restricted to the users, which are both activated in Aurea CRM via their ID table settings and their e-mail addresses are included in the file.

This feature, on the one hand, allows for faster initialization of the service since building the synchronization list is quite an expensive operation for connector and on the other hand might help to analyze purposes since with this feature you can quickly reduce the number of synchronized users to one by editing the XML file.

To create this XML file start `update.Server.exe` with the parameter "- collectMailboxes". The service creates the XML file and will end itself afterward.

While generating a new `CollectedMailboxes.xml` file an empty section is added to the file. All the mailboxes that aren't supposed to be synchronized should be copied into this section, so that connector can retrieve the short names from this section. This is necessary, since connector cannot retrieve the short names from Domino Server in case of the usage of `CollectedMailboxes.xml` file as input source

Assume the following situation:

somebody sends an e-mail to two recipients using the short name address and only one of the recipients is supposed to be synchronized (and therefore listed in the `CollectedMailboxes.xml` file). In such a situation connector cannot recognize that the address of the second recipient is a short name and therefore cannot resolve this address into the SMTP address. With the second recipient added to the `<Non-SyncDataSources>` section, connector can convert the short name address into the SMTP address and CRM.interface can assign the e-mail to the user in Aurea CRM.

Example configuration of `CollectedMailboxes.xml`

```
<Logging>
<!-- logLevel - possible values are: NoLogging, Emergency, Alert, Critical, Error,
Warning, Notice, Info, Debug -->
  <Channel logLevel="Warning"
    writerName="ConnectorfileLogWriter"
    formatterName="Default"/>
<!-- rollingMode - possible values are: Date (when date changes), Size (when
exceeding defined size), Startup (on every startup). Values can be combined, e.g.
"Size,Startup" means when exceeding the size and on every restart of connector
-->
  <Writer filePath="log\connector.log"
    name="ConnectorfileLogWriter"
    maxSizeKB="50000"
    rollingMode="Size,Startup"
    compressBackup="true"
    maxBackups="50"
    includeDateInBackupFileName="true"
    closeOnIdleTimeout="5"
    type="update.Lib.Logging.Writers.FileLogWriter,update.Lib"/>
  <Formatter name="Default"
    logDate="true"
    logTicks="true"
    logFacility="true"
    logLevelFormat="Name"
    logException="true"
    (on every startup). Values can be combined, e.g. "Size,Startup" means when exceeding
the size and on every restart of connector -->
    <Writer filePath="log\connector.log"
      name="ConnectorfileLogWriter"
      maxSizeKB="50000"
      rollingMode="Size,Startup"
      compressBackup="true"
      maxBackups="50"
      includeDateInBackupFileName="true"
      closeOnIdleTimeout="5"
      type="update.Lib.Logging.Writers.FileLogWriter,update.Lib"/>
    <Formatter name="Default"
      logDate="true"
      logTicks="true"
      logFacility="true"
      logLevelFormat="Name"
      logException="true"
      logMemory="True" logCpu="True"
      type="update.Lib.Logging.Formatter.DefaultLogFormatter,update.Lib"
    />
  />
</Logging>
```

Sending warning and error messages to users

CRM.connector stores the reason of the last failure on the message or appointment level (`mmSyncStatus` property) respectively, so that only one message per item is sent unless the reason for an error changes.

In other words, in case that the reason for a failure matches the one stored in the `mmSyncStatus` property, no additional message is sent to the user. Restarting the connector does not change this behavior.

There is one exception from the above rule: if connector fails while reading/decoding a message, this usually means that the connection with Domino Server was lost/failed. In this case it is not possible to save any changes to the message (cannot store the reason on `mmSyncStatus`) and it can happen that connector sends multiple error messages to the user, but connector will hold this information in memory and not send the error message as long the item stays unchanged and connector is not restarted.

These options are intended to give feedback to the users in case that during the synchronization of items either not the full information could be synchronized (e.g. if an attachment exceeded the configured size limit) or an error occurred (e.g. that due to fact, that the message could not be assigned properly in the CRM system).

Although connector typically – see details above - doesn't send multiple error / warning messages for the same item, in case of a systematic problem enabling this option could result in lots of messages to the dedicated users.

For example, if the e-mail address of the synchronizing user is not unique in the CRM system, such an error message would be sent over and over (for every new item), unless this problem is corrected.

Additional technical details

Connector uses Lotus Notes API to access Domino Server.

Therefore it is required, that a Lotus Notes client is installed on the connector Server. We recommend using Lotus Notes 8.5.3. FP3

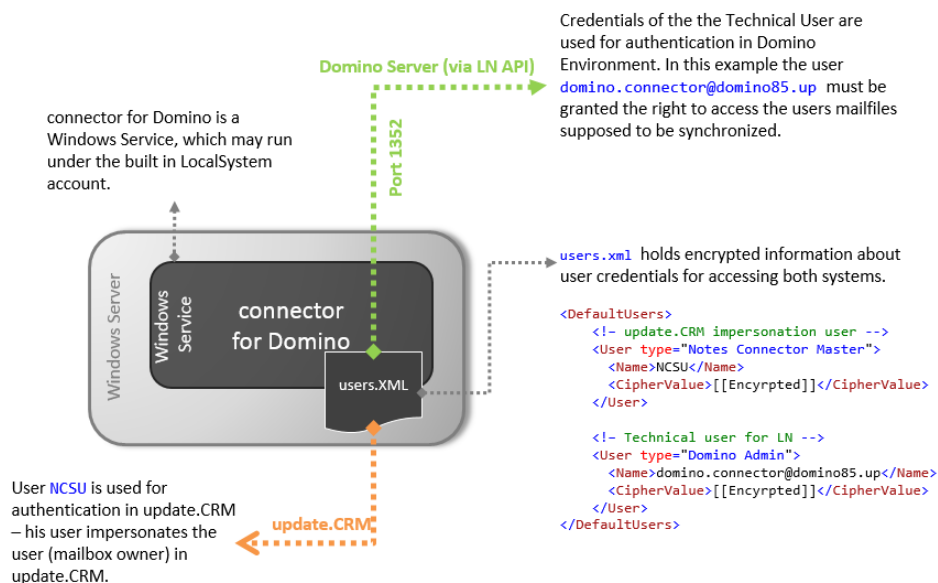
Alternatively, you can use Lotus Notes 8.5.1. FP 5. The use of Lotus Notes 8.5.2 is not supported. This recommendation solely concerns the version on the connector server and doesn't influence the end users version of Lotus Notes in any way.

As Lotus Notes doesn't provide a native 64Bit version of the API, connector is a 32Bit application and hence runs in the WoW64 mode. Nevertheless the application by default is installed into the `C:\Program Files` folder to be in line with the other Aurea server products.

To access the CRM system an impersonation mechanism is used by connector, which means connector acts in the rights contexts of the particular user.

The credentials of the above mentioned administrative accounts - (domain) username and password) - are stored in an encrypted XML file (`users.xml`).

Figure 3: How connector accesses Domino and Aurea CRM



The password of the impersonation users are encrypted using a key stored in the key container specified in the `update.Users.exe` program. The `EncryptedXml` class from the .NET framework is used for encryption of the resulting `users.xml` file. The file contains machine-dependent keys and therefore needs to be created on the machine where the connector is installed.

3

Troubleshooting

This section is helpful when you encounter problems in CRM.connector.

Appointments are not synchronized: If appointments which are created in Aurea CRM are not synchronized to Domino Server:

Try the following:

- Check if `<auto_sync>` is added to `forms.xml`.
- Check for correct definition of the master user. For further details, see [Configuration of users](#) on page 18 further details.

Only appointments of NCSU user are synchronized: If impersonation fails only appointments of NCSU user are synchronized. This might be caused by the missing or falsely authentication tag in the `forms.xml`. For further details, see also [Configuration of users](#) on page 18).

If impersonation is properly defined you should find similar entries in the log file as listed below.

```
2009-09-11 11:19:54,820|Inf|interface0|WWW|General|yncML::ProcessCredentials|Login  
user=NCSU uri=Lotus Notes
```

```
2009-09-11 11:19:54,820|Inf|interface0|WWW|General|yncML::ProcessCredentials|Login  
user=NCSU master=1
```

No invitations are sent for company-related appointments: In case of company related appointments no invitations or cancellations are sent even if the company (mail address) belongs to a mail space which is supposed to be synchronized. This is by design.

Encrypted texts: It is not possible to synchronize Text from appointments which are encrypted by Lotus Notes. This is not a Bug, connector for Domino is technically not able to decrypt these texts, and is not meant to.

Automatic line breaks: Some users might notice that texts which are sent from Lotus Notes to Aurea CRM have an automatic line break after each 80 characters. This is no Bug but a feature of the Domino Lotus Notes API which cannot be turned off.

Invitation handling: Connector creates notification messages (invitations), when synchronizing appointments from Aurea CRM to Lotus Notes. But, are such appointments modified in Lotus Notes these notifications or invitations respectively are sent by Lotus Notes itself – in other words: connector has no control, which attendees are notified. Nevertheless connector provides means to ensure, that external attendees don't get any notification. For further details, see [Handling external attendee settings](#) on page 44.

All day events: In Lotus Notes it is not possible to create "normal" appointments which last longer than 24 hours and on the other hand Lotus Notes "All Day Events" cannot have attendees. Yet this is possible for every type of appointment in Aurea CRM.

Therefore, the following restrictions apply:

- if an appointment is created in Aurea CRM which has a duration of more than 24 hours and without additional attendees it will be synchronized as "All Day Event" type to Lotus Notes.
- if an appointment is created in Aurea CRM which has a duration of more than 24 and additional attendees will be created in Lotus Notes as a regular meeting. Although such meetings do have the correct duration they are displayed in the Lotus Notes calendar only on the first day. These appointments cannot be edited in Lotus Notes.
- if an appointment is created as a "All Day Event" by connector and afterwards the duration is changed in Aurea CRM to less than 24 hours such an appointment after resynchronization is still displayed as a "All Day Event" in Lotus Notes although the duration has been set correctly by connector. As far as we could figure out this is a technical restriction by of Lotus Notes.

Connection fails: When using impersonation to connect to a mailbox and the connection fails with the error: `No mailbox with such GUID`, try to create a mailbox in the Domino Server for the account used for impersonation.