

Calendar Connection Configuration Guide

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INTRODUCTION

Mitel CMG is a collaboration and presence management suite enabling business users to manage their day-to-day communication.

The **CMG Package** includes the CMG Web component, enabling users to manage their activities. With the CMG Web site, users can work with “smart-search” directory services, use click-to-dial, set activity timeline and manage call-routing preferences based on the calendar/activities.

The integration with the BluStar Server enables users to see, in real-time, their colleagues’ rich presence information, including BluStar user presence status, calendar activity and line state from all available sources provided by the BluStar Server.

Calendar Connection is a part of the CMG installation and is used to synchronize user calendars with their CMG activities. The synchronization is a one-way synchronization from a groupware system into the CMG database.

This document describes the configuration of **Calendar Connection**. For installation information, refer to the following documents:

- CMG Installation Guide [1] - describes how to install CMG from the classic package browser, to install the components one by one.
- CMG Quick Installation Guide [2] - describes how to install CMG on a single server using the Mitel Installer wizard.

For configuration of the rest of the CMG System, refer to CMG Configuration Guide [3].

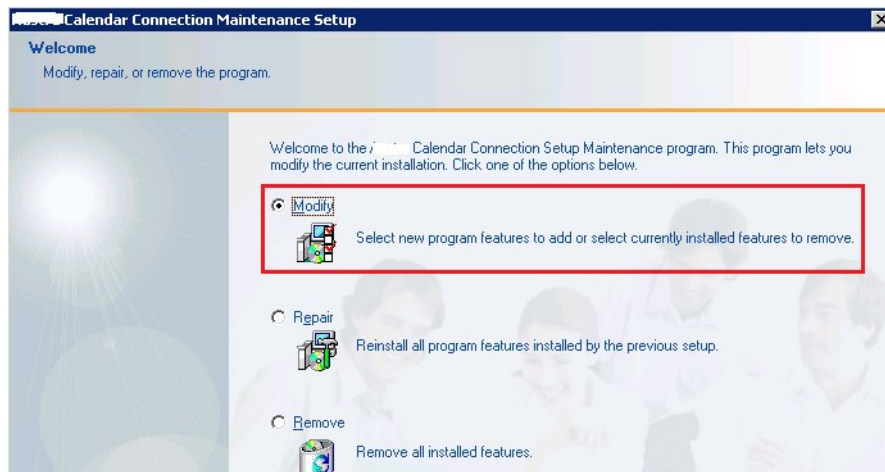
CALENDAR CONNECTION INSTANCES

In a multi-customer installation, each customer has its own Calendar Connection instance. The instances are completely independent from each other, with their own Windows services, local files, database, and so on. This chapter describes how to create a new instance and how to remove an existing one.

ADD A NEW INSTANCE

To add a new Calendar Connection instance, do the following:

1. Click the **Install Calendar Connection** link in the CMG Package browser.
2. If the **Installer** window appears, click **Yes** to continue.
3. If the **Open File - Security Warning** window appears, click **Run**. In the **Welcome** dialog select **Modify** and then click **Next**.



4. The **Setup Type** dialog is displayed:
Select the choice to add a new instance and then click **Next**.
5. The **Calendar Connection Instance Name** dialog is displayed: Enter the name of the new instance (this name must differ from any existing instance) and then click **Next**.
6. The **Setup Type** dialog is displayed. A new database for the new instance should be created. Select the choice **Create the database in the SQL server** and then click **Next**.
7. The **SQL Server Login** dialog is displayed. Enter the SQL server login details:
 - Select an SQL server from the **SQL Server** list or by using the **Browse...** button.
 - Enter **Login ID** and **Password**.

The user must have rights to create the database “TsConfigCMGx” (x is the number of the instance, beginning with number 1). For more information, see chapter 11.

NOTE: Characters such as ‘<’, ‘>’, ‘”’, ... are not supported in the password string. See <http://www.m86security.com/KB/KnowledgebaseArticle14179.aspx>

8. Click **Next** when finished.

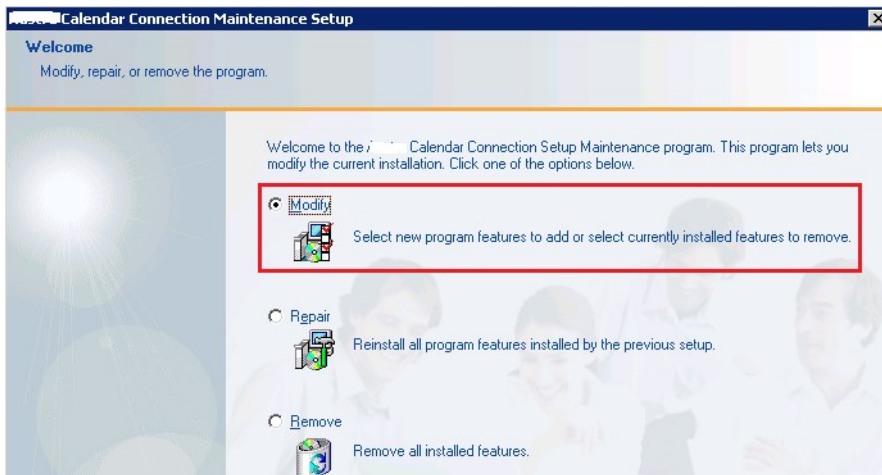
9. The **Maintenance Complete** dialog is now displayed.

In this dialog, click **Finish**.

REMOVE AN INSTANCE

To remove an instance, do the following:

1. Click the **Install Calendar Connection** link in the CMG Package browser.
2. If the **Installer** window appears, click **Yes** to continue.
3. If the **Open File - Security Warning** window appears, click **Run**. In the **Welcome** dialog select **Modify** and then click **Next**.



4. The **Setup Type** dialog is displayed. Select **Remove instance from Calendar Connection** and then click **Next**.
5. A pop-up window shows the installed instances:



Keep in mind the number of the instance that should be removed (you will need this number in the next dialog). Then click **OK**.

6. The **Remove Calendar Connection Instance** dialog is displayed: Enter the number of the instance to remove in the **Number** field and then click **Next** to remove the instance.
7. The **Maintenance Complete** dialog is now displayed. Click **Finish** to close the dialog.

NOTE: The database `TsConfigCMGx` that is exclusively used by Calendar Connection must be removed from the database manually.

CONFIGURING CALENDAR CONNECTION

All properties that apply to Calendar Connection have to be configured using the **Calendar Connection Config Client**:

The screenshot shows the 'Calendar Connection Config Client' window. It has a title bar with standard Windows controls. The main area is divided into several sections:

- Calendar Connection Configuration** (top right): Contains 'Load', 'Save', and 'Close' buttons.
- Database Access Configuration**: Includes fields for 'Server' (databaseserver), 'Instance' (SQLEXPRESS), 'Port' (1433), 'Database' (TsConfigCMG1), 'Username' (sa), and 'Password' (masked). A 'Write Property' button is on the right.
- Calendar Connection Configuration**: Includes fields for 'Instance' (Customer A), 'Server' (calendarserver), and 'Port' (5051).
- Trace Configuration**: Includes 'Number of log files' (10), 'Max. file size (MB)' (5), 'Trace Level' (radio buttons: NONE, ERROR, INFO, DEBUG with DEBUG selected), and 'Filename' (C:\Program Files\Astra\Calendar Connection\Customer A\logs\CalendarServer.log).
- CMG Server Configuration**: Includes fields for 'Server', 'HTTP Interface Password', 'Virtual Path' (CMGOffice), 'Message System' (1), 'Application' (exchange), and 'InConference (CMG 7.5 and higher)' (checkbox). Buttons for 'Check' and 'CMG Codes' are on the right.
- Calendar Connection Datasources**: Includes a list of 'Exchange', 'Lotus Notes', and 'Groupwise' on the left, a large empty text area in the center, and 'Config' and 'Delete' buttons on the right.

BASE FUNCTIONS

The following main buttons are available.

- **Load**: To generate an existing configuration of the named database. The **Database Access Configuration** must be valid to load a configuration from the database.
- **Save**: To persist your changes in the database.
- **Close**: To exit the Calendar Connection Config Client (without saving).

Important! After updating the configuration, the Calendar Connection service must be restarted for changes to take effect.

DATABASE ACCESS CONFIGURATION

The database access information will be read from the file `CalendarServer.properties` located in the folder

`<program dir>\Mitel\Calendar Connection\[INSTANCE_NAME]\lib\resources` To alter the database connection settings, click **Write Property** to save them permanently.

NOTE: If updating from Calendar Connection 7.1 you should also click Write Property, because in this version of Calendar Connection, the password is used in encrypted mode.

The following configuration items are:

- **Server:** Name of the database server.
- **Instance:** Instance name of the SQL Server on which the database was installed.
- **Port:** If the database was installed on a default SQL Server instance (not a named instance) the port number of the SQL Server (default: 1433) has to be used.
- **Database:** Name of the database to be used for this Calendar Connection instance (not editable, only for information).
- **Username:** Name of the database user. This database user should have the rights to select, insert, update and delete rows in the tables of the database `TsConfigCMG`.
- **Password:** Password of the database user.

Warning! When user account “sa” has been disabled from domain policy you have to use another database user with necessary rights. See section 11.


CALENDAR CONNECTION CONFIGURATION

Each Calendar Connection has its own configuration in the database. Therefore a configuration in the Calendar Connection Config Client always refers to one Calendar Connection Configuration and the key is the Calendar Connection Server name.

- **Instance:** Name of the instance (not editable, only for information).
- **Server:** Server name of the Calendar Connection (key).
- **Port:** TCP/IP port of the Calendar Connection (default port is: 5051).

TRACE CONFIGURATION

Traces are written to log files.

- **Number of log files:** The number of log files that will be created
- **Max. file size (MB):** The size of a log file ? Trace Level:
- **Filename:** With the  button you can select directory and folder.

CMG SERVER CONFIGURATION

Calendar Connection uses the “CMG Calendar HTTP interface”.

- HTTP interface password **Server**: Name of the CMG Server.
- : Default value is password.
- **Virtual Path**: Default value is CMG Office.
- **Message System**: Id of the Message System. You can add several message systems from the same CMG separated by a comma, such as 1, 3, and 4.
- **Application**: Application name, used to select transactions from CMG System (e.g. exchange). The application name can be verified and changed in CMG CM/CMG Calendar Connection.
- **InConference**: Select this to use the InConference feature.
- To validate the settings for connecting to CMG, click the **Check** button.
- If aliases for CMG codes are used, click the **CMG Codes** button. See section 3.5.3 for more information.

Important! If CMG Server is using Microsoft 64-bit OS, make sure that CMG Office in IIS Manager is set to use the 32-bit enabled Application Pool called 'CMG 32 Classic'. Otherwise an error occurs when 'Check' is clicked.

See CMG Configuration Guide [3] on how to do change this.

PROXY SERVER

If the **CMG Calendar HTTP interface** can only be accessed using a Proxy Server, this must be configured in the Proxy Server in `CalendarServer.properties`.

See section 7 for configuration information.

HTTPS

If the **CMG Calendar HTTP interface** can only be accessed using **https**, this must be configured in `CalendarServer.properties`.

See section 7 for configuration information.

CMG CODES - ALIASES

If aliases for CMG codes are used, click **CMG Codes**:

CMG Server Configuration

Server	<input type="text"/>	HTTP Interface Password	<input type="text"/>	Check
Virtual Path	<input type="text" value="CMGOffice"/>	Message System	<input type="text" value="1"/>	
Application	<input type="text" value="exchange"/>	InConference (CMG 7.5 and higher)	<input type="checkbox"/>	CMG Codes

To access this dialog:

Calendar Connection Config Client

CMG Codes Save Back

Restriction

☐ Synchronize only appointments to CMG that match defined CMG Codes. **Default CMG Code will not be used!**

Fields

☐ Reason ☐ Category ☒ Subject

Languages

☐ ENG ☐ SVE ☐ DAN ☐ NOR ☐ FIN ☐ DEU ☐ FRA ☐ DUT ☐ ITA ☐ POR ☐ SPA ☐ BRA

Additional CMG Codes

CMG Codes: 0: Refresh

Aliases Delete

Add Update

☐ Use only these aliases for identify this CMG Code.

Restriction

If the **Synchronize only appointments** check box is selected and there is no match between Category/Subject and the CMG codes, no activity is sent to CMG.

Fields

These fields are used to identify the CMG code.

- The first field is a freely selectable field. This is only available for Lotus Notes integrations, when customers use self-made templates for mail files. In this case, the field contains the name chosen by the customer where the value of the CMG code is stored.
- Category
- Subject

The highest priority is the freely selectable field, then the Category and at lowest priority is the Subject field.

At least one of the check boxes **Category** or **Subject** has to be selected.

Languages

The selected languages are used to find the CMG code, irrespective of the user's configured language in CMG Web.

1. For all selected languages you can retrieve the description for the available CMG codes.
2. If no language is selected, the language configured in CMG Web is used.

Additional CMG Codes

You can define language-independent aliases for the available CMG codes.

All available CMG codes are visible in the **CMG Codes** drop-down field. To retrieve the available descriptions for the selected languages, click **Refresh**.

- To add an alias for a CMG code, select the CMG code in drop-down field, enter the alias in the **Aliases** field and then click **Add**.
- To update an alias, select the alias in the **Aliases** list, overwrite the value in the field and then click **Update**.
- To delete an alias, select the alias in the **Aliases** list and then click **Delete**.

You can also specify that only the configured aliases will be used to identify the CMG Code. In this case, the description of the CMG Code, which is configured in CMG Configuration Manager, will not be used to identify the CMG Code.

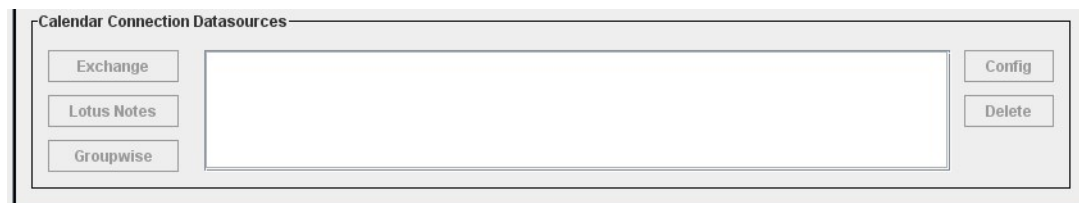
Any changes to the CMG codes take effect only after a restart of the Calendar Connection services.

CALENDAR CONNECTION DATA SOURCES

This section describes how to configure the data sources for the mail systems. Each data source depends on one or more mail domains (i.e., the part of an email address after the “@”).

For example, the mail domain of the email address fred.steiner@company.com is “company.com”.

Each mail/calendar system (Microsoft Exchange, Lotus Notes or Novell GroupWise) has its own supported interface and therefore in each mail/calendar system there is a specific “connection profile”.



To create a new “connection profile”, click one of the following buttons:

- **Exchange**— see chapter 4 for more information.
- **Lotus Notes**— see chapter 5 for more information.
- **Groupwise**— see chapter 6 for more information.

To change an existing “connection profile”, select it in the list and then click **Config**.

To remove a “connection profile”, select it in the list and click **Delete**.

See the following sections for more detailed information on how to configure the profiles.

MICROSOFT EXCHANGE

Calendar Connection supports the following versions:

- Microsoft Exchange 2013 SP1
- Microsoft Exchange 2016
- Microsoft Exchange 2019
- Microsoft Exchange Online, part of Office 365 suite

Before you can use Microsoft Exchange, some configurations on the Exchange Server are necessary. These configuration settings are described in the following sections.

RIGHTS - IMPERSONATE OR DELEGATE

A user or account that has been granted impersonation rights will have the same rights as the user whom they are impersonating. Typically, service accounts are given the ability to impersonate the mailbox owner. In that case, the impersonating account has full mailbox rights, just as the mailbox owner does.

With delegate access, the delegate can be granted more granular rights, up to and including full mailbox access. Delegate access can also be configured per folder, or per mailbox. For example, a user can grant the delegate read-only access to the Inbox, read-write access to a calendar folder, and so on.

NOTE: It is recommended to use Delegate access over Impersonate.

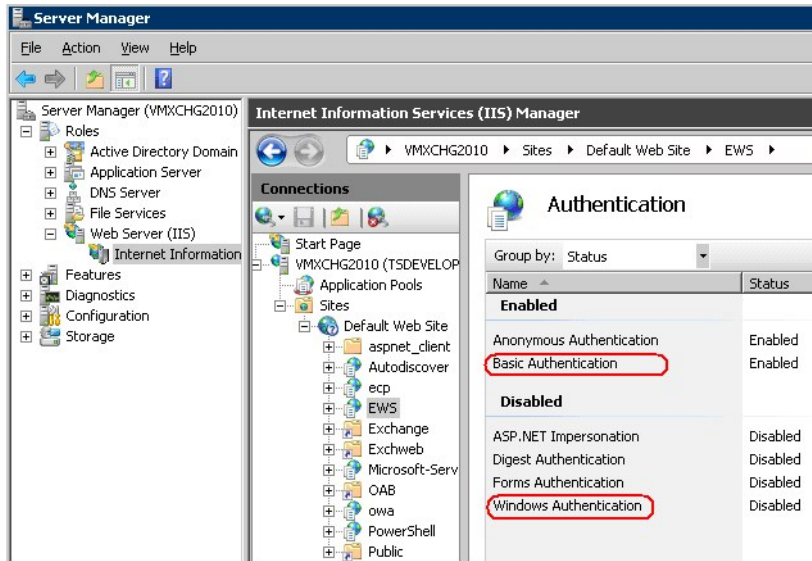
CREATE USER IN ACTIVE DIRECTORY

To use WebService, a user that connects to the mailboxes must be available.

It is recommended that you create a new user (e.g. CMGSynchronization) for this in Active Directory and then create a mailbox for this user.

AUTHENTICATION ON WINDOWS SERVER

When using Windows Server, one of the following “Basic Authentication” or “Windows Authentication” configuration has to be added in **Server Manager**:



EXCHANGE ONLINE (OFFICE 365 SUITE)

Microsoft Exchange Online is a hosted enterprise messaging solution, included in the Microsoft Office 365 suite.

NOTE: The Microsoft certified personnel will complete the Exchange administration.

NOTE: With Microsoft Exchange Online, create a user with administrator permissions.

Create a new user (e.g. CMGSynchronization) with the Administration Center in **Microsoft Online Services Administration**:

EXCHANGE ONLINE (OFFICE 365 SUITE) - DELEGATE

To use the Delegate feature with Office 365, do the following:

- As described create a normal new user (e.g. CMGSynchronization) in Active Directory and create a mailbox for this user.
- Assign the necessary permissions to this user.
Open the Exchange Management Shell and execute the following command (one line).
Repeat the line for each user to get access to:

```
Add-MailboxFolderPermission -Identity user1@domain.com:\Calendar -User CMGSyn-
chronization@domain.com -AccessRights Reviewer
```

user1 - user ID of the mailbox/calendar to get access to

CMGSynchronization - user ID of the service account used in BluStar Server

Calendar Connection need the following access right level for DELEGATE mode: <Reviewer (Read permission: Full Details)>

NOTE:

- It is the customer IS/IT personal responsibility to create a script which sets the "Delegate authentication"-feature for all users (mailbox) and the appropriate rights.

- Eventually “Calendar” has to be localized, depending on the installation language of your Exchange server.

BluStar Server configuration

Change the Radio Button in WebAdmin (Blustar Server).

Then we use the configured user (domain has to be empty for Office 365) to connect to Office 365, this user needs access to the mail boxes we want to subscribe.

EXCHANGE SERVER 2013, 2016 and 2019 - IMPERSONATE

To use this interface and communicate with Exchange Server 2013, do the following:

- As described in [Create User in Active Directory](#), create a normal new user (e.g. CMGSynchronization) in Active Directory and create a mailbox for this user.
- Assign the necessary permissions to this user.

Open the Exchange Management Shell and execute the following command (one line):

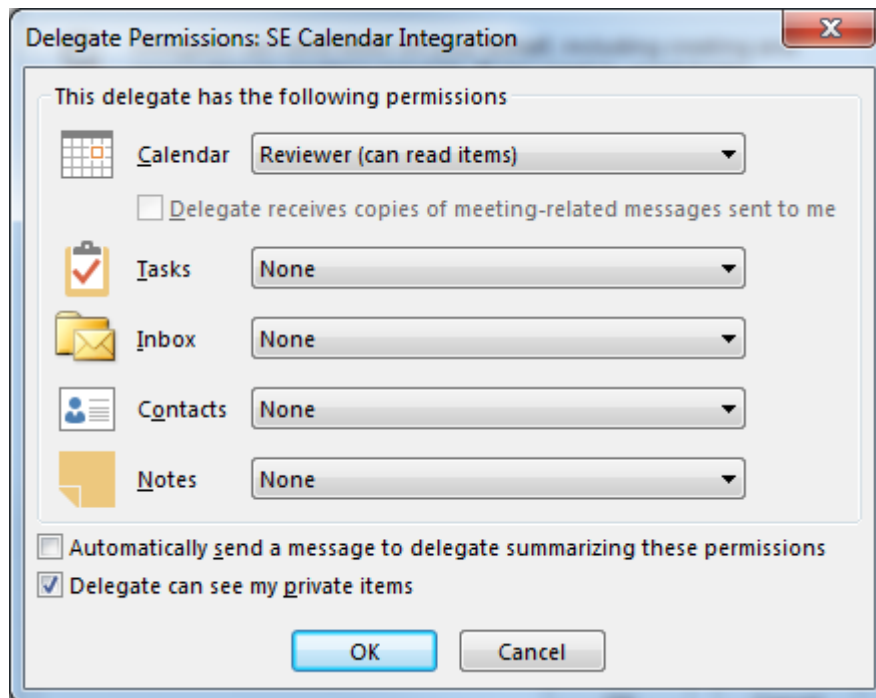
```
New-ManagementRoleAssignment -Name: CMGAssignmentName  
-Role: ApplicationImpersonation -User: CMGSynchronization
```

NOTE: Please follow the similar procedure as mentioned above if you have configured Exchange Server 2016.

SETTINGS - TRANSFERRING PRIVATE APPOINTMENTS

To transfer the private appointments from Exchange Server to CMG Server in the Outlook client, do the following:

- Go to **File**.
- Select **Account settings / Delegate Access**.
- Add the **Calendar** details (Ex: “SE Calendar Integration”) ? Assign “Reviewer (can read items)” on Calendar Section.
- Select the check box **Delegate can see my private items**. The display screen is as shown below.



MITEL CALENDAR CONNECTION CONFIG CLIENT TOOL

To create a new configuration for Microsoft Exchange, click the **Exchange** button:



The **Exchange Configuration** window is displayed:

The screenshot shows the 'Astra Calendar Connection Config Client' window with the 'Exchange Configuration' tab selected. The window has a title bar with standard Windows controls. The main area is divided into several sections:

- Exchange Configuration:** Contains 'Alias Name' and 'Mail Address' text boxes, and a 'Check' button.
- Exchange Server:** Contains 'Server' and 'Mail Domain' text boxes.
- WebService:** Contains a radio button for 'WebService (2007, 2010, 2013)', an 'Access Protocol' dropdown set to 'https', checkboxes for 'Using Autodiscover Service' and 'Using Notification Service', 'Authentication' radio buttons for 'Impersonate' (selected) and 'Delegate', and text boxes for 'Notification Request URL' and 'Notification Event URL'.
- WebDAV:** Contains a radio button for 'WebDAV (2000, 2003)', a 'Remote Directories' section with checkboxes for various calendar types, an 'Access Protocol' dropdown set to 'http', a 'Retrieving by' dropdown set to 'UserName', and a 'Virtual Path' text box.
- Exchange Login Parameter:** Contains 'Username', 'Password', and 'Domain' text boxes.
- Restricted Fields:** Divided into 'Private appointments' and 'Public appointments'. Each has an 'Enable' checkbox and text boxes for 'Subject', 'Location', and 'Body'.
- Other Parameter:** Contains 'Update Interval (minutes)' and 'Calendar View (days)' dropdowns.

Buttons for 'Save' and 'Back' are located at the top right of the configuration area.

Each database must be assigned to an alias name that is unique in the Calendar Connection configuration.

When all settings are done, you can validate the access with a valid e-mail address in the **Mail Address** field and click **Check**. If the access is successful, the system displays a confirmation dialog.



See the following sections for a more detailed description of the **Exchange Configuration** window.

EXCHANGE SERVER

The following configuration items are available in the **Exchange Server section** of Exchange Configuration (in Calendar Connection Config Client tool).

- **Server:** The hostname or the IP address of the Exchange Server.
- **Mail Domain:** This is the postfix (the string after the @) of the email addresses. This value identifies the profile used to access the calendar.
- **WebService** (for Exchange Server 2007 and higher versions)
 - **Access Protocol:** When using WebService the access protocol can be configured. The default is “https”. If “SSL” is not configured by the Exchange Server administrator “http” has to be used.
 - **Using Autodiscover Service:** When using Microsoft® Exchange Online, select this check box and make sure that the service is started.
 - **Authentication:** Normally “Impersonation” is used.
When using Microsoft® Exchange Online, “Delegate” must be used.
 - **Using Notification Service:** When using “Calendar Connection Notification”, select the check-box and make sure that the service is started.

Important! When using Notification Service, the service should be accessible from the Exchange Server. Open a browser on the Exchange Server and request a URL

(e.g., http://CALENDAR_CONNECTION_HOST:8080/axis2/services/ExchangeNotificationServiceRequest?wsdl)

http://CALENDAR_CONNECTION_HOST:8080/axis2/services/ExchangeNotificationServiceEvent?wsdl)

You can find the URL here:



Add a new entry to the host file of the Exchange Server.

Warning! The default password for axis2 web application must be changed by the administrator.

Do the following to update the default password:

1. Click the installation path of the Calendar Connection.
2. Go to Notification>webapps>axis2>WEB-INF>configuration>axis2.xml.
3. Search for the string “password”.
4. The system displays default password to “Mitel123”.

5. Set the new password.

EXCHANGE LOGIN PARAMETER

Fill in the data for the Exchange user which according to the configuration to access the Microsoft Exchange Calendars.

- **Username:** Name of the user that will have access to all calendars of this configuration.
NOTE: In some environments, it is necessary to add the domain as a prefix of the user name (.e.g., DOMAIN\USERNAME).
When using Microsoft Exchange Online, the email address must be used as username
- **Password:** Password of the user.
- **Domain:** Domain of the user.

NOTE: When using Microsoft Exchange Online, the domain is empty.

RESTRICTED FIELDS

To “overwrite” fields of private or public appointments, **Private appointments** must be enabled and the values that to be shown instead of the original ones must be inserted. If no data is inserted, the value of the appointment is used. To effectively overwrite a field, you must explicitly insert a value.

OTHER PARAMETERS

These parameters impact the update interval (how fast new or changed appointments are visible) but also on the traffic and the load on the mail system.

- **Update interval:** Rate of visibility of new or changed appointments.
- **Calendar View:** Monitored period.

For very large mail systems, ensure the value of the “Update interval” parameter is not too small and the value of the “Calendar View” parameter is not too large. These parameters also depend on the mail system hardware and performance. It is recommended to monitor the mail system on occasion to ensure values for these parameters are appropriate.

TROUBLESHOOTING

Check List

- Is the exchange user available?
-> Try to request the WebService description with a browser, for example
`https://OUR_EXCHANGE_SERVER/EWS/exchange.asmx` and use the login data for this user. If you get an error such as “Error: Server not found” or “Error: Service not available” then you have not connected to the right host or the host does not contain the “Client-Access-Role”.
- Getting error “401” with ConfigClient log file:
Have you updated the base installation with a newer SP?

Is “Basic Authentication” or “Windows Authentication” enabled at the virtual path “EWS”? Does the user have the necessary permissions?

For Exchange Server 2007/2010: were the two required commands executed in the Exchange Management Shell?

LOTUS DOMINO

Calendar Connection supports Lotus Domino Version 6.5.1 and higher.

CONNECTION HANDLING

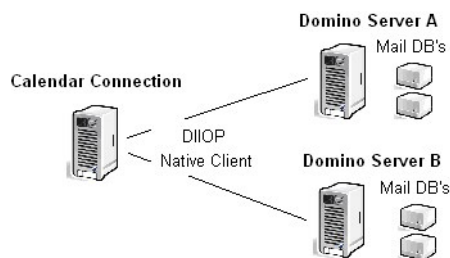
Generally, there are two ways to access to Lotus Notes mail files:

- DIIOP
- Local Native Lotus Notes Client

Calendar Connection supports multiple ways to synchronize appointments from Lotus Notes mail files.

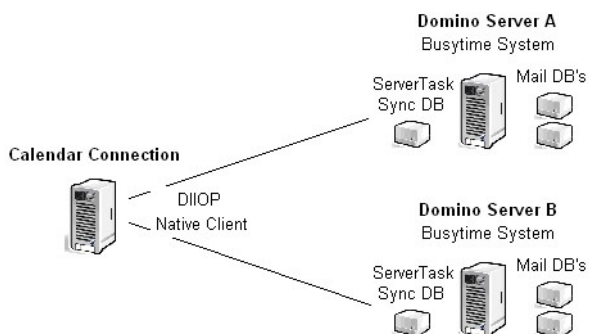
STANDARD CONNECTION HANDLING

Calendar Connection connects directly to the user's mail files of the Domino Servers:



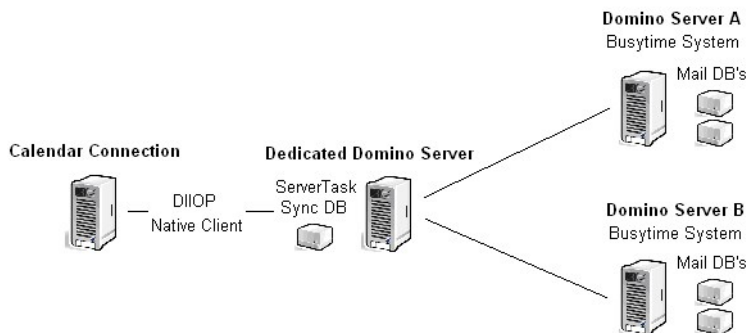
SERVERTASK CONNECTION HANDLING

In this case, Calendar Connection does not connect directly to the mail files; this is done from the Server-Task. The Calendar Connection only uses a synchronization database for retrieving the appointments. The ServerTask is responsible for transferring the appointment from the local user's mail files to the synchronization database. The ServerTask uses the local Lotus Notes/Domino busytime system.



SERVERTASK CONNECTION HANDLING WITH DEDICATED DOMINO SERVER

In this case, there is one dedicated Domino Server where the ServerTask is installed. This ServerTask is responsible for transferring the appointments from all users' mail files into the local synchronization database. Therefore the ServerTask connects to the mail files on other Domino Servers and also uses their Lotus Notes/Domino busytime system. The Dedicated Domino Server works as a "Trusted Server" to the other Domino Servers.



REQUIREMENTS

Before you can use a Lotus Notes database, you must complete some configuration tasks on the Lotus Notes Server. These settings are described in the next sections:

- Create a Lotus Notes user with a mailbox. It is recommended to create a separate user for Calendar Connection.
- Configure DIIOP (if using DIIOP) or
- Install a local Lotus Notes Client

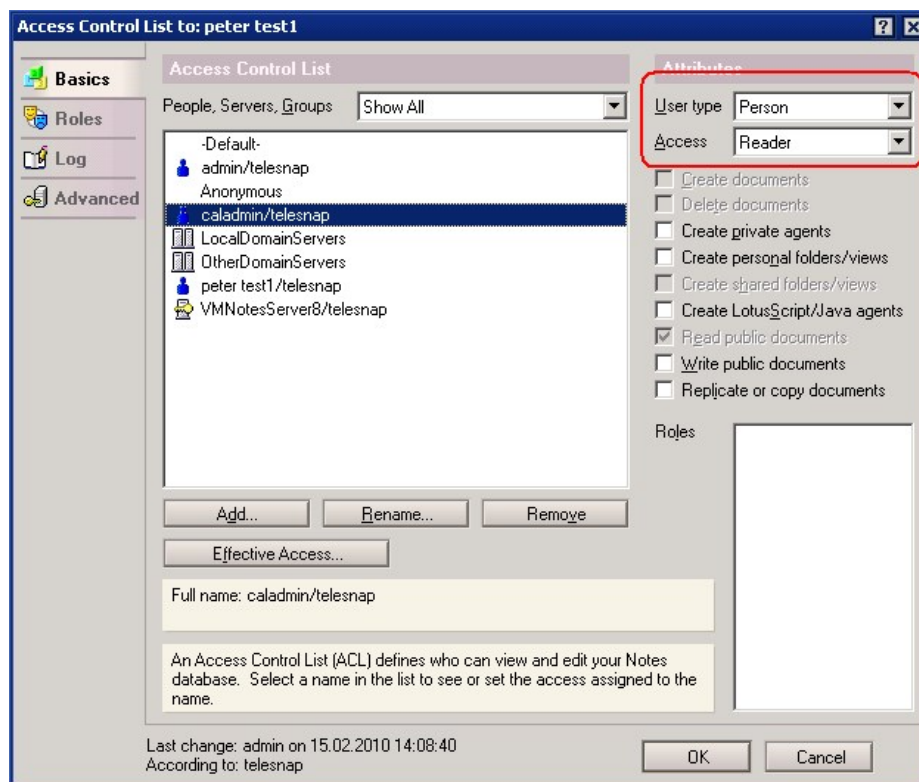
NOTE: For larger installations, it is recommended to use a locally installed Lotus Notes Client to access to Lotus Domino Server instead of using DIIOP. DIIOP generates more load on the Lotus Domino Server than access via Lotus Notes Client.

Important! When using a local Lotus Notes Client, it is recommended to use this client exclusively for the Calendar Connection. No other Lotus Notes Client or Lotus Domino Server should be installed on the machine.

LOTUS NOTES USER

To connect to the remote Lotus Notes Databases, it is recommended that you create a new user and add this user to the ACL of used mail databases.

This user should have the required authorization on the mail databases that depend on the appropriate use:



Username and password (when using Lotus Notes Client) or Internet password (when using DIIOP) must be set in the configuration. This user should also have reader rights access to the global names.nsf.

DIIOP

Calendar Connection is able to use DIIOP (Domino Internet Inter-ORB Protocol) for remote calls to the mail databases on Lotus Domino Server (minimum version 6.5.1). Therefore, the settings for HTTP and DIIOP must be configured using Domino Administrator.

Enable the port for DIIOP in the server document at the tabs “Ports” and “DIIOP”:

Web Directory Mail DIIOP Remote Debug Manager	
Remote Java/Domino IIOP	
TCP/IP port number:	63148
TCP/IP port status:	Enabled
Enforce server access settings:	Yes
Authentication options:	
Name & password:	Yes
Anonymous:	Yes
SSL port number:	63149
SSL port status:	Disabled
Authentication options:	
Client certificate:	N/A
Name & password:	Yes
Anonymous:	Yes

Enter the Host name in the server document - tab “Internet Protocols” and “DIIOP”:

HTTP	Domino Web Engine	DIIOP	LDAP
Basics			
<u>External HTML directory:</u>			
Idle session timeout:	60 minutes		
Host name/Address:	VMNotesServer65		
Note: The following setting is obsolete in Notes 6. It is used for compatibility with prior versions.			
Number of threads:	10		

After task configuration, “DIIOP” should be started and “HTTP” restarted. These tasks should be added to the notes.ini variable “ServerTasks”.

LOTUS NOTES CLIENT

For larger installations, it is recommended that you use a locally installed Lotus Notes Client to access to Lotus Domino Server instead of using DIIOP. DIIOP generates more loads on the Lotus Domino Server than access via Lotus Notes Client.

Do the following:

1. Install a Lotus Notes Client on the local system where Calendar Connection is running.
2. Make sure the data folder is configured as a subfolder of the installation folder (e.g. C:\Program Files\lotus\notes\data).
3. Copy the userID of the configured Lotus Notes User into the data folder.
4. Start the local Lotus Notes Client with the userID and open a mailbox of a different user to check if it is possible to open the mailbox.
5. Update the PATH variable:

Update the environment variable PATH of the local system and add the installation folder for the Lotus Notes Client. (E.g. C:\Program Files\lotus\notes). It may be necessary to reboot the system afterwards.



6. Update wrapper.conf: Open the file wrapper.conf in

```
<ProgramDir>\Mitel\Calendar Connection\[INSTANCE_NAME]\service\conf
and update and comment out (remove the token "#") the entry: wrapper.java.li-
brary.path.2=c:/Program Files/lotus/notes
```

Warning! Do not open the Lotus Notes Client after it with a different userID as Calendar Connection uses the userID saved in notes.ini.

Important! When using Lotus Notes Client 8.5.2 (and higher), replace the Notes API library

Notes.jar file from the locally installed Lotus Notes Client to the lib folders at the ConfigClient and Calendar Connection.

The `Notes.jar` file is located in the Lotus Notes installation folder under

```
[LOTUS_NOTES_INSTALL_FOLDER]\jvm\lib\ext.
```

Replace the files at

```
[PROGRAM_FOLDER]\Mitel\Calendar Connection\[INSTANCE_NAME]\config\lib and  
[PROGRAM_FOLDER]\Mitel\Calendar Connection\[INSTANCE_NAME]\lib
```

Important! When using more than one instance with Lotus Notes Client, make copies of the Lotus Notes installation folder to a subfolder of the Calendar Connection instances, to avoid ID Lock errors.

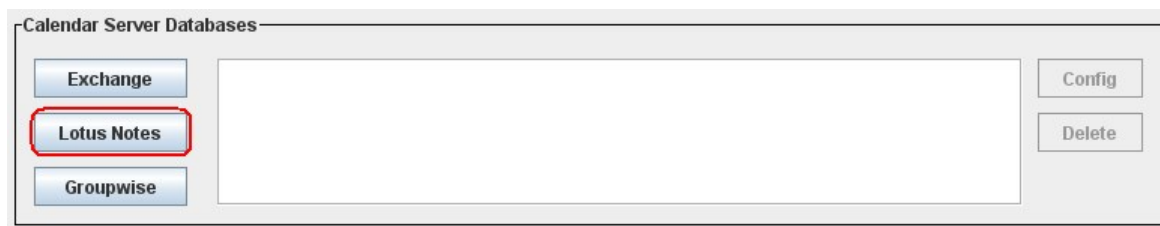
Modify the `wrapper.conf` for every instance in the way of these two lines:

```
Wrapper.java.library.path.2=<program dir>/Mitel/Calendar  
Connection/<INSTANCE>/notes
```

```
set.PATH=<program dir>/Mitel/Calendar Connection/<INSTANCE>/notes;%PATH%
```

CALENDAR CONNECTION CONFIG CLIENT TOOL

To create a new configuration for Microsoft Exchange, click the Lotus Notes button:



The Notes Configuration window is displayed:

The screenshot shows the 'Aastra Calendar Connection Config Client' window with the 'Notes Configuration' tab selected. The window has a title bar with standard Windows controls. Inside, there are several sections for configuring the Notes server connection.

Notes Configuration

At the top right of the configuration area are 'Save' and 'Back' buttons. Below them are input fields for 'Alias Name' and 'Mail Address', followed by a 'Check' button.

Notes Server

This section contains the following fields:

- Server: [Empty text box]
- Mail Domain: [Empty text box]
- DIOP Port: 63148
- Global Address Book: names.nsf
- Time Zone: Europe/Berlin (dropdown menu)
- Suppress Forward Group(s): [Empty text box]

Notes ServerTask(s)

This section contains the following fields and options:

- ☐ Using Notes ServerTask(s)
- Busytime Database: busytime.nsf
- Synchronisation Database: tsync/TsSyncDB.nsf
- ☐ Using Dedicated Domino Server For ServerTask
- Dedicated Domino Server: [Empty text box]

Notes Login Parameter

This section contains the following fields:

- Username: [Empty text box]
- Password: [Empty text box]

Restricted Fields

This section is divided into two panels: 'Private appointments' and 'Public appointments'.

Private appointments

- ☒ Enable
- Subject: Private Data
- Location: Private Data
- Body: Private Data

Public appointments

- ☐ Enable
- Subject: [Empty text box]
- Location: [Empty text box]
- Body: [Empty text box]

Other Parameter

This section contains the following fields:

- Update Interval (minutes): 7 (dropdown menu)
- Calendar View (days): 1 (dropdown menu) (Back) 2 (dropdown menu) (Future)

Each database must be assigned to an alias name that is unique in the Calendar Connection configuration.

When all settings are configured, you can validate the access with a valid e-mail address in the **Mail Address** field and click **Check**. If the access is successful, the system displays a confirmation dialog.

See the following sections for a more detailed description of the **Notes Configuration** window.

NOTES SERVER

Define the data required to access the Lotus Notes Server.

- **Server:**
DIOP: Hostname or the IP address of the Lotus Notes Server.

Lotus Notes Client: Hostname or the hierarchical servername such as "Server01/Mitel/DE". Do not use an IP address when using locally Lotus Notes Client!

- **Mail Domain:**
Postfix (the string after the @) of the email addresses. This value identifies the profile used to access to the calendar.
- **DIIOP Port:**
The communication between Calendar Connection and the Lotus Domino Server can be handled in two ways:
 - DIIOP: Configure the DIIOP port. Therefore the Lotus Notes Server tasks "HTTP" and "DIIOP" should be configured and running. The default value for this port is 63148.
 - Lotus Notes Client: Remove the value from this field. If no DIIOP Port is configured, Calendar Connection connects to Lotus Domino Server via locally installed Lotus Notes Client.
- **Global Address Book:**
Name of the Lotus Notes database of the Lotus Notes Server which contains the users. The default value is "names.nsf".
- **Time zone:**
Time zone where the Lotus Notes Server is installed.
- **Suppress Forward Group(s):**
List of Notes User Groups for whom no forwarding is set to all activities. When specifying more than one group, use a comma as delimiter between the group names.
Once a day, the members of these Notes User Group(s) are updated. Users in usergroups, where that usergroup is a member of that usergroup entered in "Suppress Forward Group" field, also have forwarding suppressed.

NOTES SERVER TASK(S)

When using "Notes Server Task(s)" select the **Using Notes Server Task(s)** checkbox and make sure that the Server Tasks are installed at every active Lotus Domino Server. If you are using a dedicated Domino Server, the Server Task must be installed on that Lotus Domino Server only.

- **Busytime Database:**
Lotus Notes/Domino Busytime system is used to identify updated calendars.
In a single Domino server environment the busy time database has the name "busytime.nsf". In a multi Domino server environment the busy time database has the name "clubusy.nsf".
Additionally, read access to the busy time database(s) is required for the Lotus Notes user, such as:



- **Synchronization Database:**
This is the database where the users and the user's appointments are collected. The user will be added and deleted from Calendar Connection and the appointments are added and deleted from the Notes Server Task.
- Using Detected Domino Server for ServerTask:

When you have a dedicated Domino Server for the Server Task, enable this checkbox and enter the server name in the Dedicated Domino Server field. This dedicated Server needs read access to the busytime database(s) and the mail files.

NOTES LOGIN PARAMETER

Add the data for the Lotus Notes user as configured for accessing the Lotus Notes Calendars.

- **Username:** Lotus Notes user, which will be used to access all calendars of this configuration.
- **Password:** Password of the Lotus Notes user.

NOTE: When using Lotus Notes Client you must use the “normal” password. When using DIIOP you must use the internet password.

RESTRICTED FIELDS

To **overwrite** fields of private or public appointments, the **Private appointments** parameter must be enabled and the values that to be shown instead of the original values must be specified.

If you insert no data, the value of the appointment is used. To effectively overwrite a field, you must explicitly specify a replacement value.

OTHER PARAMETERS

The parameters below impact the update interval (how fast new or changed appointments are visible) but also on the traffic and the load on the mail system.

- **Update interval:** This value is used to define the pause between requesting the mailboxes. The exact value is calculated:
Pause = Update Interval * 500ms //default
The default (500ms) can be changed by the parameter such as:
CalendarServer.notes.appointment.subscribe.sleepPerRequest=1000 //1000ms
- **Calendar View:** Monitored period
For very large mail systems, ensure that the value of the “Update interval” parameter is not too small and the value of the “Calendar View” parameter is not too large.
These parameters also depend on the mail system’s hardware and performance. You should monitor the mail system periodically to ensure the parameters are set appropriately.

MAPPING THE FIELD “SUBJECT” TO ANOTHER FIELD

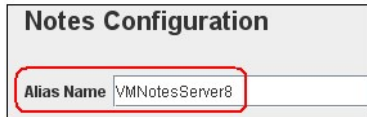
The “Subject” field is used to assign the CMG reasoncode.

If you want another field to be used instead (with the same logic and interpretation), you must create a special entry in the CalendarServer.properties file.

This entry has the following structure:

```
CalendarServer.[alias of the profile].Subject=[field name of the other field]
```

For example, you have the following profile:



Notes Configuration

Alias Name VMNotesServer8

if you want to map the field **Subject** to (for example) the **Notice** field from the Notes document, the entry should look such as:

```
CalendarServer.VMNotesServer8.Subject=Notice
```

NOTE: The entry is case-sensitive.

INSTALLING THE SYNCHRONIZATION SERVER TASK

The advantage of using the Synchronization Server Task is that Calendar

Connection does not need to read all mail boxes periodically to identify new, updated and deleted appointments.

The Synchronization Server Task is installed as a ServerTask on the Lotus Domino Server and performs synchronization faster and more efficiently, with fewer loads. It transfers the new, updated and changed appointments of the mail boxes that should be synchroized to one database (tssync.nsf). Calendar Connection has only to check this database for synchronization to CMG.

The file `SynchronizationServerTask.zip` includes the following files:

`log4j-1.2.15.jar`: This is a library needed for the logging mechanism.

`TsSyncServerTask.jar`: This file “implements” the synchronization mechanism.

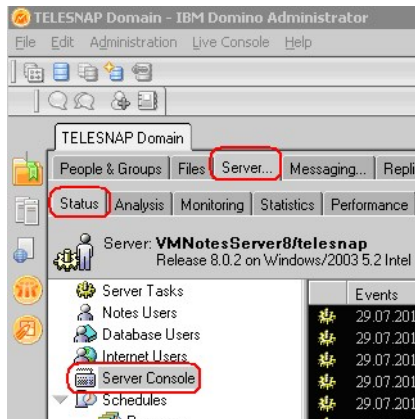
`TsSyncServerTask.properties`: A configuration file.

`TsSyncDB.nsf`: This is the database that the ServerTask will use for synchronization.

Important! The Synchronization Server Task uses the Domino Busy Time system to monitor calendars.

1. Create a subfolder “tssync” in the data-folder at your Domino Server and copy the file `TsSyncDB.nsf` into the created folder tssync.
2. Copy the files `log4j-1.2.15.jar`, `TsSyncServerTask.jar` and `TsSyncServerTask.properties` to the folder `jvm\lib\ext` of your Domino server installation path.
3. Modify the `notes.ini` of the Lotus Domino Server and add the following entries: `JavaMaxHeapSize=512MB`
4. Append also this value `RunJava TsSyncServerTask` to the parameter `ServerTasks` in `notes.ini`, otherwise the Synchronization Server Task will not be started automatically when you reboot the system or restart the Lotus Domino Server.

You can now start the Synchronization Server Task. Open “Domino Admin” and navigate to open a **Server Console**:



You can start and stop the Synchronization Server Task with the following commands:

Start: Load Run Java TsSyncServerTask

Stop: Tell RunJava Unload TsSyncServerTask

If you have several Lotus Domino Servers you have to do the previous steps on every Lotus Domino Server.

Important! When you update from a prior version and you want to start using the Synchronization Server Task, you must clear the entries in the SQL table

“calendarserverdata” for the TSConfigCMG<x> database using the sql statement: use TsConfigCMG<x> “delete from calendarserverdata”.

This is necessary because a parameter in this database must be set in a different way.

TROUBLESHOOTING

DOMINO INTERNET INTER-ORB PROTOCOL (DIIOP)

When using DIIOP for communication to the Lotus Notes Server, check that the DIIOP task on the Lotus Notes Server runs successfully, with a web browser by calling the following:

`http://OUR_LOTUS_NOTES_SERVER:63148/diiop_ior.txt`

If the response string is `IOR:01013e002900000049444c3a6c6f7475732f6...` the DIIOP task runs successfully.

If you get the following message `Could not get IOR from Domino Server: http:// OUR_LOTUS_NOTES_SERVER:63148/diiop_ior.txt` the DIIOP task is not running. DIIOP is an Internet protocol and the “Internet Password” must be used as password for the Lotus Notes User.

LOTUS NOTES CLIENT

- Open the Lotus Notes Client on the Calendar Connection Server and select the appropriate userID and password. Try to open the names.nsf on the Lotus Notes Server and one of an existing mail files.
- Verify that the `notes.ini` file is located at the Lotus Notes installation folder.
- Check if the Notes userID file is located in data folder in Lotus Notes installation folder.

- When using native Lotus Notes Client the “normal” password has to be used as password for the Lotus Notes User.
- Verify that the DIOP field in the configuration client is cleared /emptied.

NOTE: When using Lotus Notes Client 8.5.2 (and higher), copy the Notes API library `Notes.jar` file from the locally installed Lotus Notes Client, to the lib folders in the ConfigClient and Calendar Connection folder.

The `Notes.jar` file is located in the Lotus Notes installation folder under

`[LOTUS_NOTES_INSTALL_FOLDER]\jvm\lib\ext`

Replace the file located at

`[PROGRAM_FOLDER]\Mitel\Calendar Connection\[INSTANCE_NAME]\config\lib` and
`[PROGRAM_FOLDER]\Mitel\Calendar Connection\[INSTANCE_NAME]\lib`

SYNCHRONIZATION SERVER TASK

- When using the Synchronization Server Task, verify that the Server Task is running by opening a Server Console in the Domino Admin and invoke the following command:
`Tell RunJava Show Tasks`
The output should list the “TsSyncServerTask”.
- Check the log files at
`C:\Program Files\IBM\Lotus\Domino\data\tssync\logs.`

NOVELL GROUPWISE

Calendar Connection supports Novell GroupWise 7 SP1 (Windows) and higher.

REQUIREMENTS

Before you can use a GroupWise database, you must configure the following two parts on the GroupWise Server:

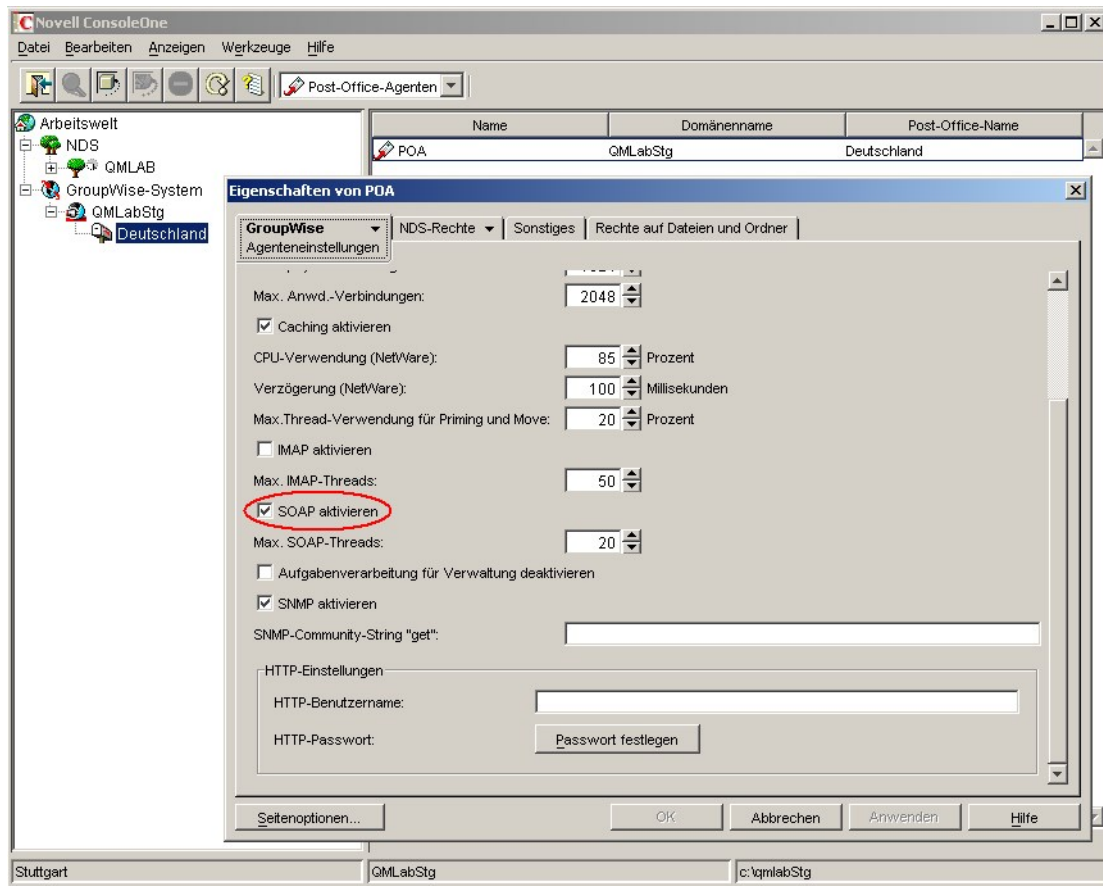
- SOAP
- Trusted Application

SOAP

Calendar Connection uses the WebServices (SOAP protocol) for remote calls to Novell GroupWise Calendars (POA).

Basically, GroupWise uses a defined port for SOAP communication. This port should also be defined in the configuration.

To use WebServices to access the desired POA object, the SOAP protocol must be enabled. This can be done with the ConsoleOne-application:



TRUSTED APPLICATION

To connect to the remote Novell GroupWise calendars, it is recommended that you create a special authorization called “Trusted Application” by Novell.

A third-party application such as a trusted application is granted access to all accounts on a GroupWise system without having knowledge of user passwords.

To use the trusted application authentication by an application, GroupWise administrators must create a trusted application name and key. The GroupWise administrator only has control over the trusted application and decides which applications can login to the GroupWise system using the trusted application name and key.

The name and the key of the trusted application must be set in the configuration.

CALENDAR CONNECTION CONFIG CLIENT TOOL

To create a new configuration for GroupWise, click on the **GroupWise** button:



The **Groupwise Configuration** window is displayed:

Each database must be assigned to an alias name that is unique in the Calendar Connection configuration.

When all settings are complete, you can validate access by entering a valid e-mail address in the **Mail Address** field and clicking **Check**. If the access is successful, the system displays a confirmation dialog.



GROUPWISE SERVER

The following configuration items are available in the Groupwise Server section of Exchange Configuration.

- **Server:**
The hostname or IP address of the GroupWise Server.
- **Mail Domain:**
This is the postfix (the string after the @) of the email addresses. This value identifies the profile used to access to the calendar.
- **Soap Remote Directory:**
The soap directory. Default value is “soap”.
- **Soap Port:**
The port for the soap communication. The default value is 7191.

GROUPWISE LOGIN PARAMETERS (TRUSTED APPLICATION)

Here you add the data for the Trusted Application user which you have configured for accessing the GroupWise Calendars.

- **Trusted Application:**
This is the name of the Trusted Application, which is configured on the GroupWise Server.
- **Trusted Key:**
This is the Trusted Key for the Trusted Application.
- **Username:**
This is the username that will be used to access the GroupWise System Address Book.

RESTRICTED FIELDS

To “overwrite” fields of private or public appointments, the **Private appointments** parameter must be enabled and the values to be shown instead of the original ones must be added.

If you do not enter any data, the value of the appointment is used. To effectively overwrite a field, you must provide a new value.

OTHER PARAMETERS

The following parameters impact the update interval (how fast new or changed appointments will be visible) and the traffic and the load of the mail system:

- **Update interval:** Rate of visibility of new or changed appointments.
- **Calendar View:** Monitored period

For very large mail systems, ensure that the value of the “Update interval” parameter is not too small and the value of the “Calendar View” parameter is not too large. These parameters also depend on the mail system’s hardware and performance. It is recommended that you monitor the mail system periodically to ensure parameter values are appropriate.

TROUBLESHOOTING

There is a difference between authentication problems and issues in finding the post office box. This is described in the following sections.

AUTHENTICATION PROBLEMS

The following messages in the Config Client indicate an authentication problem:

- “Trusted Application not valid - Authorization failed!” – indicates that the Trusted Application may not be installed on the Groupwise system.
- “Trusted Key not valid - Authorization failed!” – indicates that the Trusted Key does not match the Trusted Application.
- “Groupwise User not valid - Authorization failed!” – indicates that the Groupwise User does not exist or that the userID of the Groupwise User is incorrect.

Check if SOAP is configured on the Groupwise system and is using the correct SOAP port.

PROBLEMS FINDING THE POST OFFICE BOX

When the authorization is valid but the system cannot not find the post office box for user, check the following:

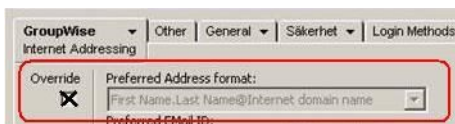
- Is the mail address correct and verified in the Groupwise system?
- Is the user available at this post office box that you have configured (Groupwise server and SOAP port)?
- Does the user have multiple mail addresses? See the next section for more information.

A user has multiple e-mail addresses

In Groupwise, a single user can have multiple e-mail addresses. It is important that one of the e-mail addresses is defined as a “master” address, in order to find the user’s post office box.

If Calendar Synchronization does not work for a user, make sure to override a preferred e-mail address format in Groupwise, to get a unique e-mail address for the user.

1. In ConsoleOne, right-click a user (Object ID), then click **Properties**....
2. Select the tab **GroupWise** and then **Internet Addressing**.
3. Click the **Override** checkbox for the **Preferred Address format**, which should be the format of the e-mail address configured in CMG. Normally, it is First Name.Last Name@Internet domain name.



CALENDAR INTEGRATION

This feature enables the CMG administrator to configure either a Google Server, Office 365, or an Exchange Server from which the CMG clients can fetch calendar availability information and update their Dynamic Statuses. Exchange Integration supports Exchange 2013, Exchange 2016, and Exchange 2019.

From the Calendar Type drop-down menu, select **Google**, **Office 365** or **MS Exchange**.

Some of the user permissions that are mandatory are as follows:

NOTE: These permissions are required when Calendar Integration is done with Office 365 using OAuth 2.0.

- API Permissions - The Office 365 administrator has to grant **full_access_as_app** application permissions for Office 365 Exchange Online API.
- URL Access required - Client's firewall should allow the URL's mentioned below:
 - **outlook.office365.com** - Access for URL *outlook.office365.com* is also required when Calendar Integration is done with Office 365 using Basic authentication
 - **login.microsoftonline.com**

If you want to **enable calendar integration**, click the checkbox.

If MS Exchange or Office 365 is selected:

NOTE: If Google is selected, go to step 4.

1. Enter the URL of your Exchange Server. The URL corresponds to Exchange Web Services (EWS). The exact URL depends on how your exchange server is configured but is usually in the format *https://<hostname>/EWS/exchange.asmx*. For Office 365, refer to *https://outlook.office365.com/ews/exchange.asmx*.
2. The version of the Exchange Server is entered automatically when you successfully test the connection. **NOTE:** *When connecting to a 2010 SP3 Exchange Server, the version may still be shown as SP2 on the CMG server-manager.*
3. Enter the username and password that you use to log into the Exchange Server. This user does not necessarily have to have administrative privileges on the Exchange Server. Any user who can view other users' calendar availability information will suffice. If you are unsure what to enter here, contact your Exchange Server administrator.
 - a. If you want to use Impersonation, select the appropriate radio button. If Impersonation is enabled, then CMG client users will not have to provide their exchange password to use Calendar Integration. However, they still have to provide their Exchange username and primary e-mail address.
 - b. Enabling Impersonation can have security implications and requires administrative privileges on the Exchange Server.
 - c. If you want to use Delegation, select the appropriate radio button.
4. Enter the username and password that you use to log into the Exchange Server. This user does not necessarily have to have administrative privileges on the Exchange Server. Any user who can view other users' calendar availability information will suffice. If you are unsure what to enter here, contact your Exchange Server administrator.

Refer to the following Microsoft websites for more details on Microsoft Exchange version details:

NOTE: Exchange 2019: <https://docs.microsoft.com/en-us/Exchange/new-features/new-features?view=exchserver-2019>

Settings required on Exchange Server for CMG Meeting Center

- Exchange Subscription Type selected as Impersonation or Delegation.
- For Impersonation, users need to have ApplicationImpersonation as Management Role and Access Rights as LimitedDetails.
- For Delegation, users need to have Access Rights as LimitedDetails.

Use following command to change Management Role on Exchange Management Shell, where service-Account is username: `New-ManagementRoleAssignment -Name:impersonationAssignmentName -Role:ApplicationImpersonation -User:serviceAccount`

Use following command to change Access Rights on Exchange Management Shell: `Add-MailboxFolderPermission -Identity user1@mitel.com:\Calendar -User user2@mitel.com -AccessRights LimitedDetails` where,

- user1: user ID of the mailbox or calendar you want to get access to.
- user2: user ID of the service account you use or configure on Admin portal.

NOTE: *Only Basic Authentication is supported on CMG while communicating with the Exchange Server.*

1. You can access the Advanced Calendar Integration Settings. The default values for these settings works appropriately under most circumstances so normally, these do not need to be adjusted. Change them only if you have very particular needs, such as high network latency. Be aware that changing these values affects calendar integration across ALL enterprises.
2. Test your connection to ensure that CMG Client can connect to either the Google Server or Exchange Server and communicate with it properly. If after clicking on the **Test Connection** button you receive an error stating "**Invalid calendar server credentials**", you need to troubleshoot the issue.
3. Click **Apply** to save the changes or **Reset** to clear the changes.


GOOGLE CALENDAR

Before you use Google Calendar, some configurations in the G-Suite account are necessary. These configuration settings are described in the following sections.

DOWNLOADING KEY FILES

Login to the site console.developers.google.com with G-Suite administrator credentials and perform the following steps:

1. Go to, **Credential > Create Project**.
2. Select **Library > Google Calendar API** and click **Enable**.
3. Go to **Credentials > Create credentials > OAuth client ID**.
 - a. Enter the product name in the **Consent Screen** as **Mitel Calendar Connection** and click **Save**.
 - b. Select Application type as **Other** and enter name as **Calendar Connection Client** and click **Create**.
 - c. OAuth 2.0 client ID will be generated for the given client name.
 - d. Download the file to your system and make sure to store it safely.
 - e. After Downloading, rename the file to **client_secret.json**.
4. Go to **Credentials > Create credentials > Service account key**.
 - a. Select new service account and enter a name. This name will be used in **Calendar Configuration GUI Client**.
 - b. Choose any format (JSON/P12) you need and create.
 - c. Service account keys will be generated for the created service account.
 - d. A private key file will be downloaded. It will be the only copy of the file, make sure to store it safely.

NOTE: After downloading the files mentioned in Step 3 and Step 4, copy them to the below path, where Calendar Connection Application is installed. ~\Calendar Connection\Default\lib\resources.
5. Go to **Credentials > Manage service accounts**
 - a. Click on the  button at the end of service account keys and edit the service account.
 - b. Enable domain wide delegation and save.
 - c. OAuth 2.0 client ID will be generated for the corresponding service account.

API CLIENT ACCESS

Login to the site admin.google.com with G-Suite administrator credentials and perform the following steps:

1. Go to, **Security > Advanced settings > Manage API client access**.

Authorized API clients The following API client domains are registered with Google and authorized to access data for your users.

Client Name Example: www.example.com	One or More API Scopes Example: http://www.google.com/calendar/feeds/ (comma-delimited)	Authorize	Learn more about registering new API clients
---	--	-----------	--

- a. Copy the client ID generated in Section 7.1 > 5.c and paste in Client Name field.
 - b. In the scopes field, type <https://www.googleapis.com/auth/calendar.readonly>
2. Click **Authorize**.

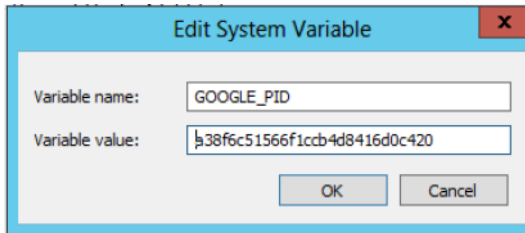
ENVIRONMENT VARIABLE CONFIGURATION

Create two **System Variables** with key **GOOGLE_PK** and **GOOGLE_PID**.

If you have JSON format private key, then value for the key **GOOGLE_PK** would be the file name. (For e.g. if the name of the private key file is **CMG2Google-a38f6c51566f** then type the file name with extension in the value field as shown below.)

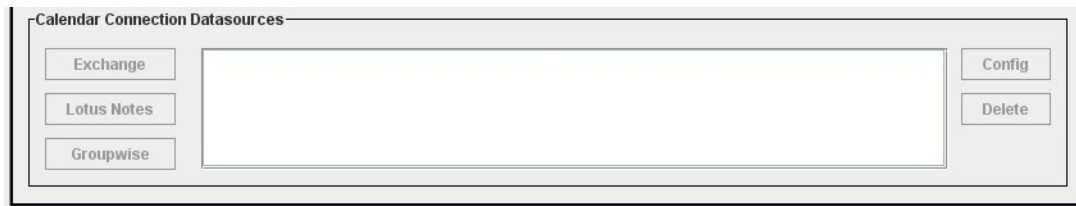
If you have P12 format private key, then value for the key **GOOGLE_PK** would be the file path. (For e.g. if the name of the private key file is **CMG2Google-a38f6c51566f** then copy the complete file path including the file name with extension in the value field as shown below.)

For the key **GOOGLE_PID**, copy the ID which is displayed under **Service account keys** to the value field as shown below.

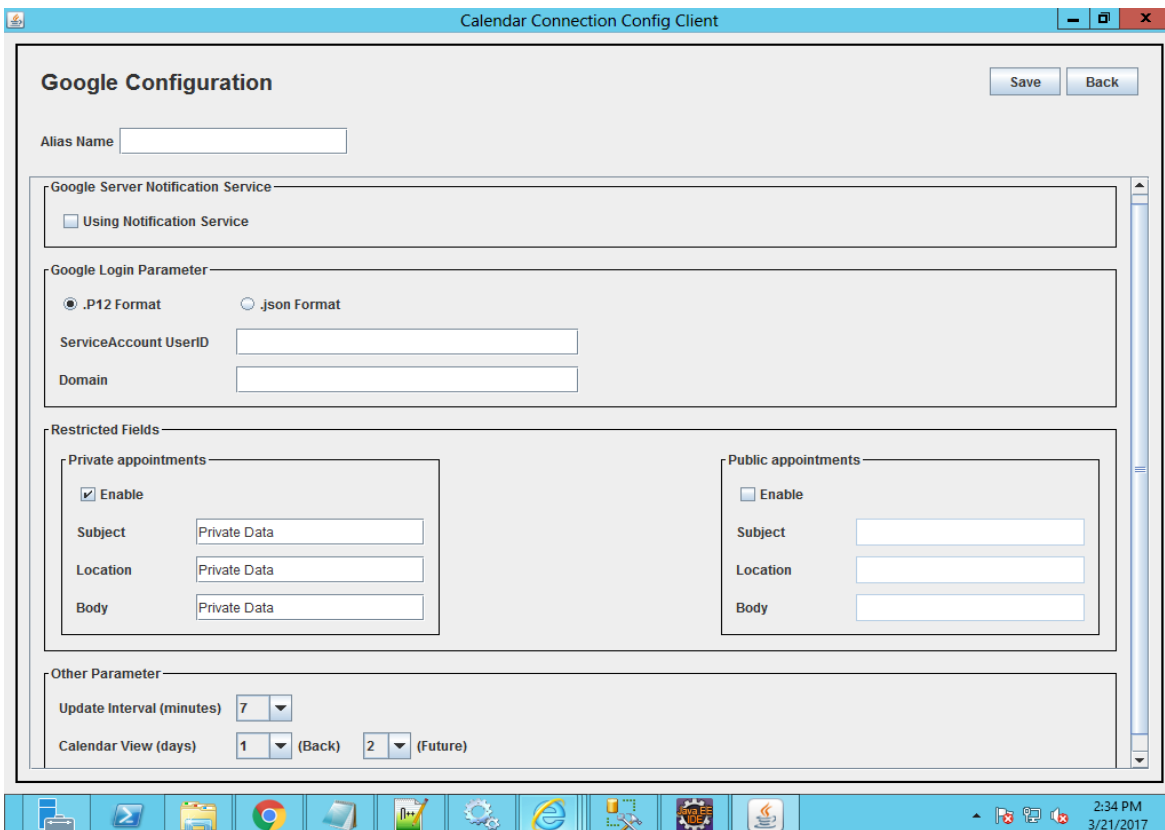


MITEL CALENDAR CONNECTION CONFIG CLIENT TOOL

To create a new configuration for Google Calendar, click the **Google** button.



The **Google Configuration** window will be displayed.



Each database must be assigned to an alias name that is unique in the Calendar Connection configuration.

See the following sections for more detailed description of the **Exchange Configuration** window.

GOOGLE SERVER NOTIFICATION SERVICE

The following configuration items are available in the **Google Server Notification section** of Google Configuration (in Calendar Connection Config Client tool).

- Using Notification Service: Select this check-box, when using “Calendar Connection Notification”.

Important! Notification service is not yet supported in CMG 8.4.

GOOGLE LOGIN PARAMETER

Enter the following parameters for Google user, according to the Google Calendars access configurations.

- **Private key file format:**
Enter the type of private key you have configured in Environment variable.
- **Service Account ID:**
Enter the name of the service account user that will have access to all calendars of this configuration.
- **Domain:**
Enter the domain of the user and the name of the service account user that will have access to all calendars of this configuration.

RESTRICTED FIELDS

To **overwrite** fields of private or public appointments, **Private appointments** must be enabled and the values that must be shown instead of the original ones must be entered. If data is not entered, the value of the appointment is used. To effectively overwrite a field, you must explicitly insert a value.

OTHER PARAMETERS

These parameters impact the update interval (based on how quickly the new or changed appointments are visible) also on the traffic and the load on the mail system.

- **Update interval:** Rate of visibility of new or changed appointments.
- **Calendar View:** Monitored period.

For very large mail systems, ensure the value of the “Update interval” parameter is not too small and the value of the “Calendar View” parameter is not too large. These parameters also depend on the mail system hardware and performance. It is recommended to monitor the mail system on occasion to ensure values for these parameters are appropriate.

ADDITIONAL CALENDAR CONNECTION CONFIGURATION

For additional Calendar Connection configuration, there is a configuration file, `CalendarServer.properties`, which is located at `<program dir> \Mitel\Calendar Connection\[INSTANCE_NAME]\lib\resources`.

NOTE: After updating the configuration, Calendar Connection must be restarted before changes can take effect.

This file also contains the database connection data used by the Config Client and Calendar Connection. The following table describes the configuration parameters you can set.

PARAMETER	DESCRIPTION
<code>CMG.maxBoxes</code>	Maximum number of mailboxes/calendars that the CalendarServer handles. Depends on hardware configuration. Default = 1000.
<code>CMG.getCalendarSettingTranDelay</code>	Time in minutes before Calendar Connection sends the first request for modified calendar settings to the CMG – CMG Web system after start. Default = 60
<code>CMG.getCalendarSettingTranPeriod</code>	Interval in minutes between Calendar Connection requests to the CMG – CMG Web system. Default = 30
<code>CalendarServer.waitOnStartup</code>	Time, in seconds, for startup until the server is accessible. This is useful when rebooting the system. Calendar Connection start requires an available database. Default = 20
<code>CalendarServer.subscribe.off.start</code> <code>CalendarServer.subscribe.off.end</code>	Subscribe Off period. During this period, Calendar Connection does not send any requests to the mail system. Format for both parameters is hh:mm.
<code>CMG.mailAddress</code>	For testing with single users, uncomment this line in the configuration file and add the mail addresses for testing, separated by a semi-colon (;). Example: <code>CMG.mailAddress=ptest1@vmxchg2013.com;ptest2@vmxchg2013.com</code> By default, this parameter is commented out.

<code>CMG.forward.prefix</code>	When a user has disabled “forwarding” in CMG Web generally, but wants to enable forwarding for a specific activity, the specified prefix (e.g. “*”) must be added to the subject of the appointment (e.g., “*Meeting with Tom”). Default = *
<code>CMG.notforward.prefix</code>	When the user has enabled “forwarding” in CMG Web generally, but does not want forwarding enabled for a specific activity, the specified prefix (e.g. “#”) must be added to the subject of the appointment (e.g., “#Meeting with Sandra”). Default = #
<code>CMG.proxy.host</code>	IP address of the Proxy Server for the CMG Calendar HTTP interface. Format is x.x.x.x.
<code>CMG.proxy.port</code>	Port of the Proxy Server for the CMG Calendar HTTP interface. Default = 80
<code>CMG.proxy.domain</code>	Domain for authenticating Proxy connection (if necessary).
<code>CMG.proxy.user</code>	User name for authenticating Proxy connection (if necessary).
<code>CMG.proxy.password</code>	Password for authenticating Proxy connection (if necessary).
<code>CMG.protocol</code>	Set to “https” when CMG Calendar HTTP interface can only be accessed through HTTPS.
<code>CMG.modifyEndDateAtAlldayEvent</code>	Adds one minute to the end time of an all-day activity, so that the activity ends at 00:00 on the following day (by default, an all-day event starts at 00:00 and ends at 23:59). For customers with CMG Voice CMG Voice reads a message that the user is returning the next day if the stop time of an all-day activity is 00:00. Default = TRUE
<code>CMG.category.CATEGORY_VALUE</code>	Allows you to create additional CMG codes for a category, independent of the CMG code definition. Format is CMG_CODE.

<code>CMG.notesCategory.forward.prefix</code>	<p>Allows you to define a prefix for the Category field of an appointment in Lotus Notes. The prefix can be used to forward an activity to a specified telephone number.</p> <p>When using this feature, you must select the “Category” field under “CMG Codes” in the Calendar Connection Config Client.</p> <p>For example, when the category of an appointment has the value “Telephone forward to: 12346789”, the activity is forwarded to the telephone number “12346789”.</p>
<code>CMG.notesCategory.notforward.prefix</code>	<p>Allows you to define a prefix for the Category field of an appointment in Lotus Notes. The prefix can be used to ensure that the activity is not forwarded.</p> <p>When using this feature, you must select the “Category” field under “CMG Codes” in the Calendar Connection Config Client.</p>
<code>CalendarServer.notes.query.appendRoomToLocation</code>	<p>Appends the “Room” field to the “Location” field in Lotus Notes, so that both values are shown.</p> <p>Default = TRUE</p>
<code>CMG.sign</code>	<p>Allows you to overwrite the system sign (default is “Calendar”) with a customized value.</p>
<code>CMG.EXCLUDE_FILE.mailAddress</code>	<p>Specifies the name and location of a file that contains one or more email addresses that should NOT be synchronized independently of CMG configuration. Each line in the file should contain one email address.</p> <p>Format is:<path>/<file.txt></p>
<code>CalendarConnection.appointment.allDay.startDate.append</code>	<p>Allows you to specify an offset (in hours) to apply to the default start time of all-day appointments. By default, an all-day event starts at 00:00 and ends at 23:59.</p> <p>For example, for an all-day event created for 24 April 2014, Calendar Connection sets the start time to 2014-04-24 00:00 and the end time to 2014-04-24 23:59 by default. If you want to move the start time to 08:00, set the value of this parameter to 8.</p>

MIGRATION TO ANOTHER MAIL SYSTEM

There can be multiple Calendar Server Databases or "connection profiles" configured for a mail domain. Calendar Connection decides which profile of those configured for the mail domain to use to connect to the e-mail system. It takes the first of the configured profiles that allows Calendar Connection to connect successfully.

If a mailbox is already subscribed to, but is no longer reachable, Calendar

Connection automatically unsubscribes the mailbox, deletes its entry in the database table 'Calendar-ServerData' and tries to subscribe again using the configured profiles for that mail domain.

On successful connection, a new entry is created in the 'CalendarServerData' table.

FROM LOTUS NOTES TO ANOTHER MAIL SYSTEM

An additional connection profile must be configured for the new mail system (e.g. Exchange).

If the Lotus Notes databases should continue to be used, delete the Lotus Notes user in the ACL of the users already migrated. The mailbox is no longer reachable by the Calendar server and is thus unsubscribed. After that the calendar server tries to subscribe to the mailbox again using the newly configured connection profile.

MULTIPLE CALENDAR CONNECTION INSTANCES

Normally, on a multi-customer installation, every customer has one Calendar Connection instance connected to one database, so there is one database for each instance.

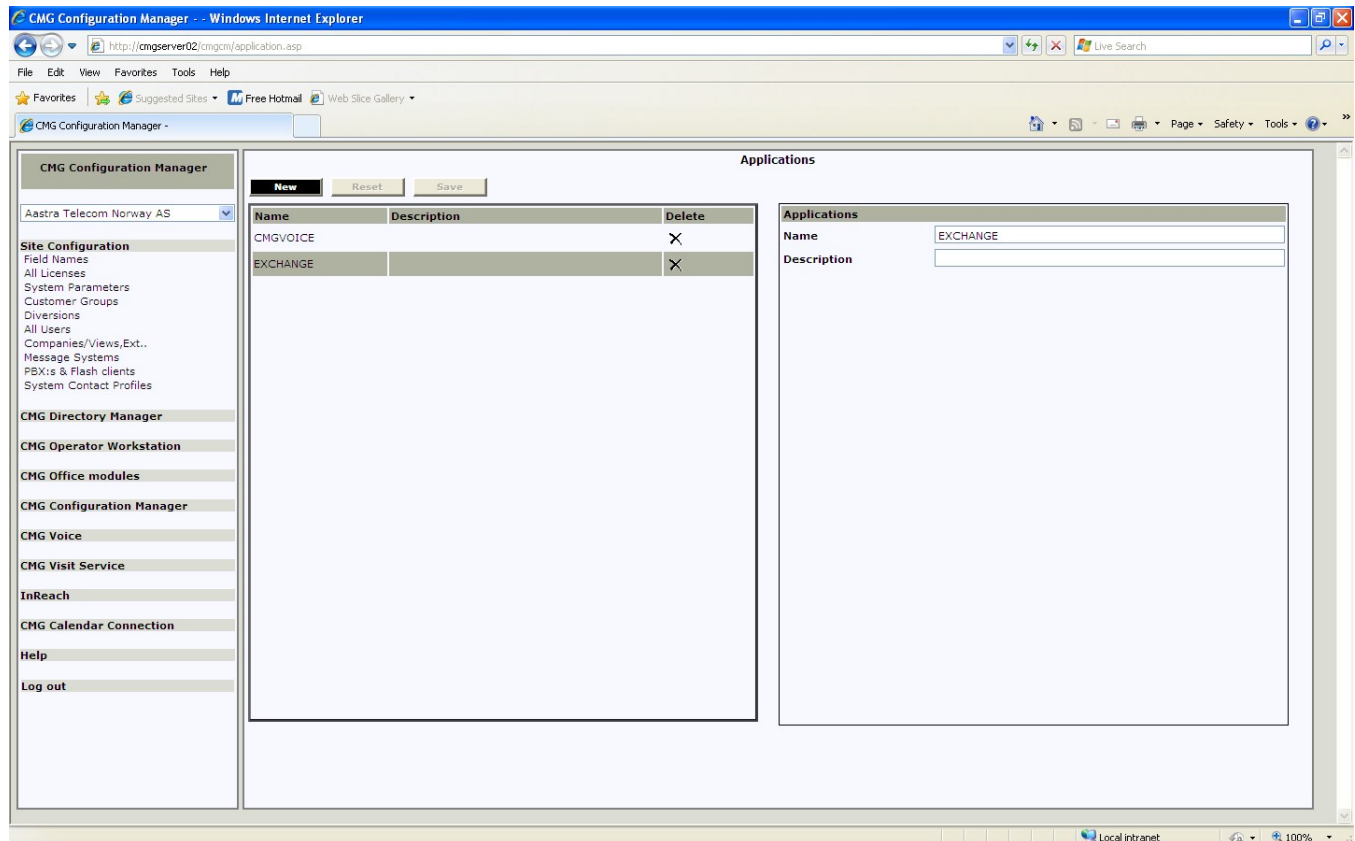
For load distribution, however, a customer might want to distribute the number of synchronized users to different instances, on different hardware. To make this work, all Calendar Connection instances must have the same virtual directory and the same database.

To use more than one Calendar Connection instance for load distribution, do the following:

1. Install the first Calendar Connection **with** the database and the other Calendar Connection **without** database.
2. All Calendar Connections must use the same database. This must be configured in the ConfigClient.
3. Each Calendar Connection must be configured on its own.
4. When sharing the load of the Calendar Connections, adapt the parameter `CMG.maxBoxes=2000`, the required value must be set in `CalendarServer.properties` for each Calendar Connection and the combined value must be the total number of users.

Also update the CMG System to add more application/ destinations in to the database. Add new “dest” into the “maindest” table in the nice database. Use the following syntax in an SQL Query: `use nice`
`INSERT maindest VALUES ('YOURDESTNAME', '', '0')`

For CMG Web, this is done in the Calendar Connection part of CMG Configuration Manager.



By default, one dest is created when you install CMG-Server (EXCHANGE). You can rename that dest in the table maindest. This is done in CMG CM.

The name in the “maindest” table “dest” column is used by Calendar Connection. It is set in the “Applica-”
 tion” field in the CMG Server Configuration section of the Calendar Connection Configuration. Each
 Calendar Connection installation needs a destination in the CMG Server.

CONFIGURING CMG SERVER

The calendar settings and default settings are set in the Calendar Connection part in **CMG Configuration Manager**:

Parameter	Value	Description
CalDefReason	3	Default reason code used for activities generated by the external calendar system connector
CalLang	English	For new users: Defines the default language for calendar sync.
CalSyncEnabled	DISABLED	Defines whether or not calendar synchronization is enabled/disabled for new users
CalForward	ENABLED	For new users: If set to enabled the forwarding occurs according to the profile. If set to disabled, calendar appointment will never close phone
CalAdminBlocked	DISABLED	If set to enabled new users can't modify their calendar settings
CalInclSubj	ENABLED	For new users: If set to enabled also the subject field of the calendar booking will be transferred to the CMG
CalInclLocation	DISABLED	For new users: If set to enabled also the location field of the calendar booking will be transferred to the CMG.
CalInclMessage	DISABLED	For new users: If set to enabled also the body field of the calendar booking will be transferred to the CMG.
CalInclFree	DISABLED	For new users: If set to enabled also calendar booking marked as "Free" will be transferred to the CMG.
CalInclPrivate	DISABLED	For new users: If set to enabled also calendar booking marked as "Private" will be transferred to the CMG.
CalInclTentative	DISABLED	For new users: If set to enabled also calendar booking marked as "Tentative" will be transferred to the CMG.

It is also possible to enable or disable calendar sync under the **Settings** tab for a user in **CMG Directory Manager**:

Calendar synchronization	
enabled	<input checked="" type="checkbox"/>
blocked	<input type="checkbox"/>

Each user can manage their personal calendar settings from **Preferences - Calendar** tab in **CMG Web**:

☐ Activate

Default code:

Language:

☒ No forwarding

Choose the fields to be included in the message text

☒ Subject

☐ Location

☐ Body

☐ Show appointments marked as "Free"

☐ Show appointments marked as "Private"

☐ Show appointments marked as "Tentative"

SQL DATABASE USER

To install the Calendar Connection database TsConfigCMG with another user than **sa**, the following steps are necessary.

In the example, a new user **Mitel** with the password **secret** is created.

The steps can be performed in Enterprise Manager/Management Studio or by executing appropriate T-SQL statements via osql/sqlcmd.

1. Prior to the database installation, create a SQL server login for the new user:

```
CREATE LOGIN Mitel WITH PASSWORD = 'secret'
```

2. Give the new user dbcreator rights:

```
EXEC sp_addsrvrolemember 'Mitel', 'dbcreator'
```

The database can now be installed with the user Mitel. After installation of the database, the new user must get appropriate permissions for the databases. TsConfig should be made the default database for the new user.

3. Execute the following commands as 'sa' user:

```
USE master
```

```
ALTER AUTHORIZATION ON DATABASE::TsConfigCMG<x> TO Mitel
```

LOGGING

In addition to the log file specified in the “Config Client”, these log files are created:

`InvalidMailAddresses.log`

`MultiMailAddresses.log`.

These two files contain a list of users whose sync has failed for some reason.

NOTE: When running anti virus software on the machine, define an exception for the Calendar Connection log files, so that they are not scanned.

This is due to performance issue.

INVALIDMAILADDRESSES

This log file contains a list of users whose e-mail address was not accepted in the mail server. As long as a user is on the InvalidMailAddresses list, the user is removed from active sync.

The reason for the rejection can be found in the main log file or by testing the user with the Calendar Connection Config Client.

When testing with the Calendar Connection Config Client, select the relevant Calendar Server Database, add the failed e-mail address to the test file and perform the test. The reply from the mail server is included in the result of the test.

When the reason for the rejection is found and the necessary correction has been made to the user's e-mail/sync status in CMG/CM, this correction is transferred to Calendar Connection on the next scheduled user update (normally executed every 30 minutes). A new attempt to add this user to the list of active sync users is made and - if successful - the user starts syncing. If unsuccessful, the user is added to the InvalidMailAddresses.log again.

MULTIMAILADDRESSES

This log file contains a list of users whose e-mail address exists for more than one user in CMG. Users on this list are not removed from the active sync.

You can use the Advanced Search functions in CMG DM to find the users with the same e-mail address in CMG.

After the necessary correction has been made in CMG DM, the user is synced correctly at the next synchronization interval.

TECHNICAL ASSISTANCE

Mitel provides www.mitel.com as a starting point for technical assistance regarding all products, including CMG – CMG Web. From here, partners can obtain online documentation, FAQs, latest software updates and request further technical assistance.

REFERENCES

CMG Installation Guide

CMG Quick Installation Guide

CMG Configuration Guide

CMG System Overview

