

Group Calendar for HCL Connections

Installation ManualOnTime® Group Calendar version 11.1.x

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The main audience for this manual is the HCL Connections administrator or person used to working with IBM Websphere Application Server and HCL Connections. It is expected that the reader of this manual is no stranger to the HCL Connections environment and the IBM Websphere Application Server and knows how to configure that application using the Integration Solutions Console and the HCL Connections configuration files.

Table of Content

About OnTime Group Calendar – For HCL Connections	3
About the installation	3
Prerequisites, OnTime Group Calendar – For HCL Connections	4
Configuration on the Domino OnTime server	5
Installation of OnTime in Connections	6
Modification in the customization directory	6
Configure the Profiles widget	7
Configure the Community widget	8
Save and check-in the widgets-config.xml	8
Widget catalog registration	9
Configure LotusConnections-config.xml	10
OnTime language headers	11
Installing the OnTime Group Resolve application	12
Single-Sign-On between Domino and Websphere	17
Configuring Single-Sign-On	17
Verifying Single-Sign-On is correctly configured	19
OnTime Group Calendar API and SSL	20
Upgrading from OnTime for Connections before version 5.3	21
Troubleshooting	23
SSL issues	23





About OnTime Group Calendar – For HCL Connections

OnTime Group Calendar – For HCL Connections (hereafter "OnTime Connections") consists of two widgets for HCL Connections that can be installed into the HCL Connections Profiles feature (hereafter simply "Profiles") and into the HCL Connections Communities feature (hereafter simply "Communities"). The components are installed into the IBM Websphere Application Server and surfaced through the IBM HTTP Server (IHS).

The Profiles component consists of one widget, and the Communities component consists of one widget. The customer is free to deploy and configure the widgets in any way they please, and the approach described in this manual should be considered inspiration in that regard.

Note: You must have a working OnTime Group Calendar running at least ver. 5.3 to successfully install OnTime for HCL Connections.

Note: Addressing an OnTime 'External Access Server' from Connections is not supported.

About the installation

Installing or upgrading OnTime Group Calendar – Connections consists of installing or updating some files in two servers

- Your Connections server
- Your Domino OnTime server.

If you already have installed a version of OnTime for Connections from before version 5.3 this installation is a major change, so please refer to the section **Upgrading from OnTime for Connections before version** 5.3.

Note of servlets:

Upgrading your OnTime for Domino to a version of 7.1.x (or later) simplifies the installation of OnTime for Connections 7.1.x (or later). Earlier there was an Ontime Domino servlet for Connections. The functions of this Connections servlet are now consolidated into the main OnTime for Domino servlet. When you upgrade OnTime for Domino to version 7.1.x. (or later) the old Connections servlet will be removed.





Prerequisites, OnTime Group Calendar – For HCL Connections

To install OnTime Group Calendar – Connections you must have the following in place before you install:

- A license key is allowing for access to the OnTime Group Calendar Connections components. The applications allowed by the license key are most easily verified using the About Document of the OnTime Group Calendar Config database. For Connections, two different license options are available: Profiles and Community.
- A working OnTime Group Calendar Web database installation. The database must be
 accessible, HTTP(S) from the server(s) hosting your HCL Connections environment.
 Please note: Please perform any upgrade of the OnTime Group Calendar product including
 the Web database before installing or updating OnTime Group Calendar Connections.
- All users must have either
 - the same e-mail address in the LDAP directory used in IBM WebSphere Application Server for HCL Connections as is configured for the user in OnTime Group Calendar Config database

or

- the same used in the LDAP directory used in IBM WebSphere Application Server for HCL Connections as is configured as the short name in the OnTime Group Calendar Config database.
- Single Sign-On using LTPA token between the HCL Domino Server hosting the OnTime Group Calendar Web database and the HCL Connections environment.

For more information, please refer to the link:

Single-Sign-On between Domino and Websphere

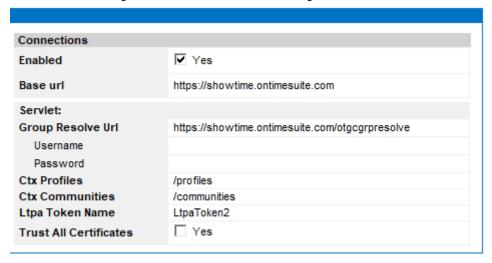
Dataflow: The two OnTime widgets for calendar data in Connections are implemented as i-Frames. Data is drawn from the OnTime web service. When a Connections Community includes a group as a member, the group's members are expanded by sending a request to a group resolver servlet in Connections that returns a list of the members of the group. Single Sign-On (SSO) for the user is required between the Connections server and the OnTime web server.





Configuration on the Domino OnTime server

Connections settings, in the OnTime Server Settings document:



The 'Connections Settings' section determines:

Enabled: This enables the references to the servlet in your Connections server

Base url: The URL of your Connections server

Group Resolve Url: The URL of the OnTime 'otgcgrpresolve' servlet installed in Connections

Username: Normally blank, we recommend authentication for 'otgcgrpresolve' for Everyone

Password: Normally blank, we recommend authentication for 'otgcgrpresolve' for Everyone

Ctx profiles: Default /profiles URL - only change, if you have a non-standard Connections installation

Ctx Communities: Default /communities URL – only change, if you have a non-standard Connections installation

Ltpa Token Name: The name of the LtpaToken utilized in Connections and Domino (SSO).

Trust All Certificates: Tick if any certificate in the communication between Connections and Domino is acceptable.



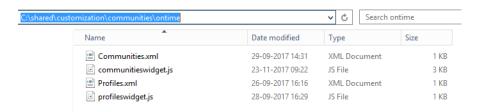


Installation of OnTime in Connections

Modification in the customization directory

Your customization directory is found in the Deployment Managers section 'Environment/WebSphere variables' - referenced as 'CONNECTIONS_CUSTOMIZATION_PATH'.

Create a folder named 'ontime' in the folder \customization\communities\ In the \ontime folder insert the four files from your OnTime Package.



Note: The file names of Communities.xml and Profiles.xml are case sensitive and used in the following configuration of URLs of the widgets.





Configure the Profiles widget

This widget inserts a personal calendar in your Connections Profiles page

- 1. Using the 'wsadmin' check out the widgets-config.xml file. For information on how to do this refer to the HCL Connections product documentation.
- 2. Open the widgets-config.xml file in a text editor.
- 3. Locate the resource-tag with *type="profile"* and insert the following widget definition:

Replace the '<ontimeserver>' reference with the URL of your OnTime server. Check the filename of your OnTime client-database, "client.nsf".

Note: If this is an upgrade from an earlier version of 'OnTime Group Calendar – Connections', please refer to **Upgrading from OnTime for Connections before version** 5.3.

Scroll down to the default profiles layout and add the widget to the layout as shown below. **Please note:** You are free to place the widget at any supported location. The screenshot below is simply an example.

Below the 'ontimeProfiles' widget is added in col3 (the right-hand column of the Connections web page), example:

If you also have the license for Community, you may add the Community widget while you still are editing the file 'widget-config.xml'. In case you are ready to save your settings go to **Save and check-in the widgets-config.xml**





Configure the Community widget

This Community widget definition allows Community owners to add the widget to the Community.

Note: If this configuration is an upgrade from an earlier version of 'OnTime Group Calendar – Connections', please refer to **Upgrading from OnTime for Connections before version** 5.3.

Locate the resource-tag with type="community" and insert the widget definition of the Communities widgets just below it.

Replace the '<ontimeserver>' reference with the URL of your OnTime server. Check the filename of your OnTime client-database, "client.nsf".

The widget 'Group Calendar' is added manually to a Community by the Community owner(s) - 'Community Actions'/'Add Apps'.

If you wish to automatically add the 'Group Calendar' widget to all communities, add a line to the default layout below the 'mandated widgets' as in the example below.

Save and check-in the widgets-config.xml

- 1. Save and close the file.
- 2. Use the wsadmin-command to check the widgets-config.xml file back into Websphere.





Widget catalog registration

The OnTime widget definitions in the widgets-config.xml file must be followed by registration in the Connections widget catalog if your version of HCL Connections is raised to version 6.0 with CR1.

This registration is not necessary for HCL Connections versions before 6.0CR1

Open your 'wsadmin' tool.

Run >execfile("newsAdmin.py")

Profiles widget

Add the OnTime widget for profiles, all in one command line, run:

```
NewsWidgetCatalogService.addWidget(title="OnTime Profiles", text="OnTime Profiles Calendar widget", url="{communitiesSvcRef}/ontime/Profiles.xml", categoryName=WidgetCategories.NONE, isDefaultOpened=TRUE, isGadget=FALSE, appContexts=[WidgetContexts.EMBEDXP], policyFlags=[GadgetPolicyFlags.TRUSTED,GadgetPolicyFlags.SSO], prereqs=["profiles"], proxyPolicy=ProxyPolicy.INTRANET_ACCESS)
```

Register the response – the GUID of the registration, this is your reference to the widget in the widget catalog.

An example: '1fc9e385-7819-4122-8307-7f41e7b1fe8f'.

To **Enable** the widget in the widget catalog, adjust to your own GUID, run:

NewsWidgetCatalogService.enableWidget("1fc9e385-7819-4122-8307-7f41e7b1fe8f")

Communities widget

Add the OnTime widget for communities, all in one command line, run:

```
NewsWidgetCatalogService.addWidget(title="OnTime Community", text="OnTime Community Calendar widget", url="{communitiesSvcRef}/ontime/Communities.xml", categoryName=WidgetCategories.NONE, isGadget=FALSE, appContexts=[WidgetContexts.EMBEDXP], policyFlags=[GadgetPolicyFlags.TRUSTED, GadgetPolicyFlags.SSO], prereqs=["communities"], proxyPolicy=ProxyPolicy.INTRANET ACCESS)
```

Register the response – the GUID of registration; this is your reference to the widget in the widget catalog.

An example: '31916019-b516-4656-810c-88758faee79b'

To **Enable** the widget in the widget catalog, adjust to your own GUID, run:

NewsWidgetCatalogService.enableWidget("31916019-b516-4656-810c-88758faee79b")

Clear the widget catalog Cache, run:

NewsWidgetCatalogService.clearWidgetCaches()





Configure LotusConnections-config.xml

- 1. Use the wsadmin-command to check out the LotusConnections-config.xml file. For information on how to do this refer to the HCL Connections product documentation.
- 2. Open the LotusConnections-config.xml file in a text editor.
- 3. Scroll to the bottom of the file and locate the resources-tag (it may or may not be empty). Add lines for the required resource bundles as shown below. A widgetBundle line should be concatenated into one line.

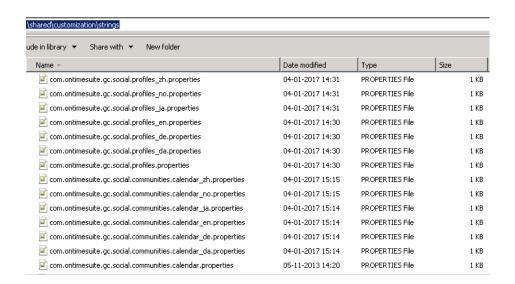
- 4. Update the "versionStamp" at the bottom of the file.
- 5. Save and close the file.
- 6. Use the wsadmin-command to check the LotusConnections-config.xml file back into Websphere.
- 7. Synchronise the nodes.





OnTime language headers

- Navigate to your HCL Connections customization-directory. The directory is located in your HCL Connections shared files on a network share or the local hard disk of the Websphere Application Server depending on your particular installation.
- 2. Open the 'strings' directory and copy the 'com.ontimesuite.gc.social.profiles'-files and 'com.ontimesuite.gc.social.communities.calendar'-files from the installation package into this directory. After copying the files, the directory will look like below (there may be more files).



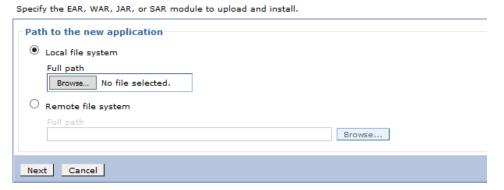




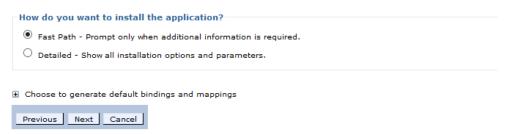
Installing the OnTime Group Resolve application

The installation of this ear-file is for expanding group members used in the member list of Communities.

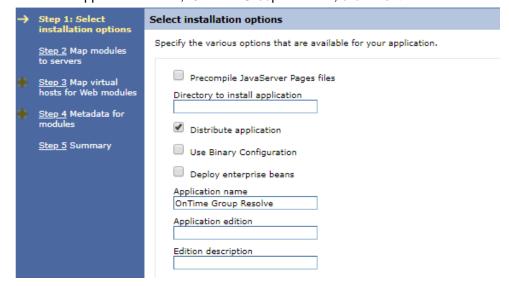
- 1. Open the Integrated Solutions Console (ISC) and log in as WAS administrator.
- 2. From the menu on the left, select "Applications/Application Types/Websphere Enterprise Applications" to navigate to the application list
- 3. Perform the following steps for the ear-file to install
 - a. Click "Install"
 - b. Make sure "Local file system" is selected and click the button to select the file. Browse for the wasgroupresolve-x.x.ear-file from your OnTime distribution files. Once the file has been selected click 'Next'



c. Make sure "Fast path" is selected and click 'Next'



d. Enter the 'Application name', 'OnTime Group Resolve', click 'Next'



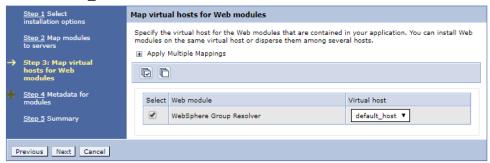




e. On the next screen map the web module to the webserver to use and the WebSphere Application Servers or clusters to use. Use the Ctrl key to select the servers in the list of servers on top, add a checkmark next to the web module and click "Apply". Then click 'Next'.



f. Select 'default host'

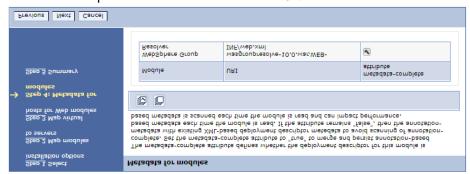


Click 'Next'.

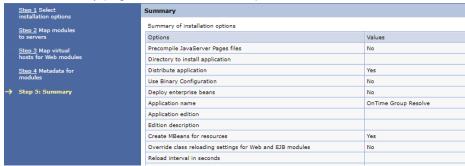




g. In the screen asking about "Metadata for modules". Add a checkmark next to the "metadata-complete attribute" and then click 'Next'.



h. At the Summary page click "Finish" to complete the installation.



- i. The ISC will now install the application onto the selected WebSphere Application Server(s). Once the installation is done click "Save" to save the settings and then return to the application.
- 4. In the list of 'Enterprise Applications', click 'OnTime Group Resolve'.

 Click 'Security role to user/group mapping'. Select 'users' and click 'Map Special Subjects' and then choose 'Everyone'.

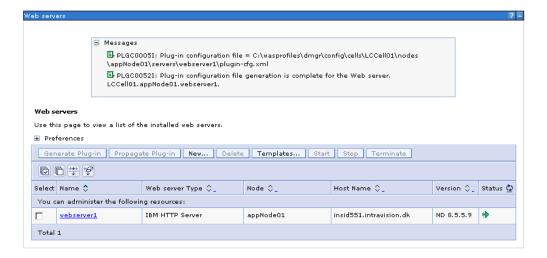
Click 'Ok'.

Click 'Save'.

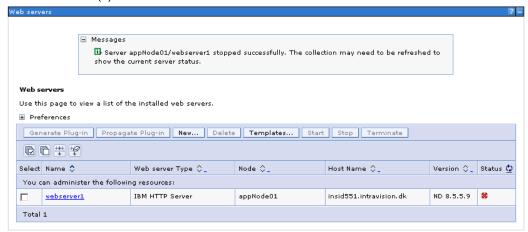
- 5. From the menu on the left select 'Servers'/'Server Types'/'Web servers' to go to the list of configured web servers.
- 6. Select the webserver(s) you selected during the ear-file installation and click "Generate Plugin" to generate the plugin configuration for the selected server(s).







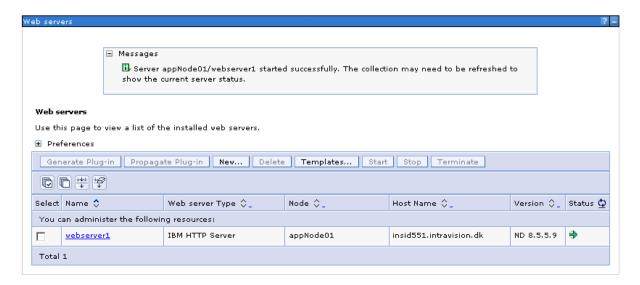
- 7. Select the webserver(s) you selected during the ear-file installation and click "Propagate Plugin" to copy the generated plug-in configuration to the selected server(s).
- 8. Select the webserver(s) you selected during the ear-file installation and click "Stop" to stop the selected server(s).



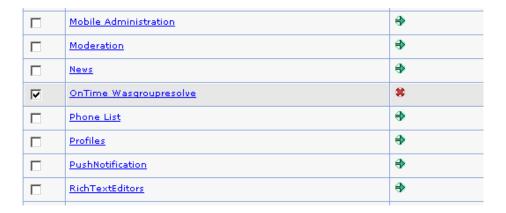
9. Select the webserver(s) you selected during the ear-file installation and click "Start" to start the selected server(s).







10. From the menu on the left, select "Applications/Application Types/Websphere Enterprise Applications" to go to the application list. Select the 'OnTime Group Resolve' application you installed and click "Start" to start the application.



11. Restart Connections to pick up the new configuration.





Single-Sign-On between Domino and Websphere

OnTime relies on Single-Sign-On (SSO) being configured between the Websphere node(s) hosting HCL Connections and the Domino server hosting the OnTime Group Calendar databases. This is accomplished using HTTP cookies and exchanging cryptographic information.

Configuring Single-Sign-On

The final step is to make sure, that the HCL Connection server and HCL Domino Server, on which the OnTime Group Calendar Web database is located, are configured for Single-Sign-On (SSO) so that credentials generated by one server is accepted by the other and the other way around.

If you know that SSO is properly configured, you may skip this section. To verify SSO, please refer to **Verifying Single-Sign-On is correctly configured**.

For detailed information on how to configure SSO in HCL Domino refer to the product help.

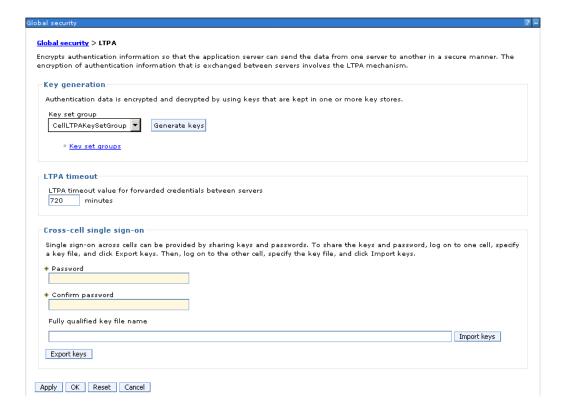
First, log in to the Integrated Solutions Console (ISC) on the WAS Deployment Manager, then expand the "Security" section on the left and click the "Global Security" link:



On the right-hand side of the "Global Security" screen click the "LTPA" link and you will be presented with the following screen:

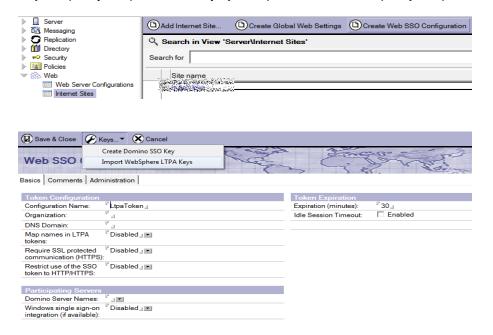






In the "Cross-cell single sign-on" section you have the option to export the keys used for SSO. Specify a filename (example: c:/ltpatoken.txt), a password and then click "Export keys". Please note that any non-fully qualified path is resolved relative to the WAS profile directory.

To import the keys you just exported into HCL Domino, open the Domino Administrator client and switch to the "Internet Sites" view. Here you create a new (or edit an existing) SSO Configuration. On the configuration document expand the "Keys" action menu and select "Import WebSphere LTPA Keys". Specify the path of the keys you exported above and specify the password to unlock the keys.



Remember to include your OnTime server in the 'Participating Servers'/'Domino Server Names'.





Verifying Single-Sign-On is correctly configured

The simplest way to verify that SSO is properly configured between Domino and HCL Connections is to do the following:

- 1. Close all browser windows.
- In the browser enter the URL of a password-protected resource on Domino such as the Domino Directory on the server with the OnTime Group Calendar installation (e.g. http://ontimeserver/names.nsf) and login.
- 3. Now, in the same browser window, in a new tab, enter the URL of your Connections server. If you are **not** prompted for username and password, then SSO is correctly configured going from Domino to HCL Connections.
- 4. Close all browser windows.
- 5. In the browser, enter the URL of your Connections server and log in.
- 6. Now, in the same browser window, in a new tab, enter the URL of a password-protected resource on Domino such as Domino Directory on the server hosting the OnTime Group Calendar installation (e.g. http://ontimeserver/names.nsf). If you are not prompted for a password, then SSO is correctly configured going from HCL Connections to Domino.

Please note that it is important that both servers are in the same DNS domain (in the above example example.com) as the single-sign-on relies on cookies which sent only to servers in the same DNS domain.



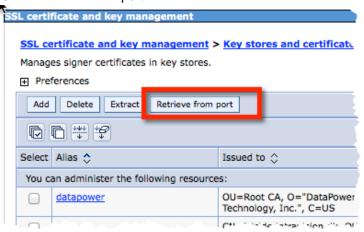


OnTime Group Calendar API and SSL

If you're accessing the OnTime Group Calendar API over SSL, you need to trust the certificate from the Domino Server in the WebSphere ISC. Failure to do so will cause the WebSphere Application Server to be unable to access the API.

To trust the certificate, perform the following steps:

- 1. Log into the WebSphere Application Server Integrated Solutions Console (ISC).
- 2. From the left-hand navigation, select Security/SSL certificate and key management.
- 3. In the list of related items on the right click "Key stores and certificates".
- 4. Click "CellDefaultTrustStore".
- 5. In the list of "Additional properties" on the right click "Signer certificates".
- 6. Click "Retrieve from port".



7. Fill out the form with the hostname of the OnTime Group Calendar API and the port you are using for SSL (usually 443)



- 8. Click the "Retrieve signer information" button to validate the input and retrieve and trust the certificate
- 9. Click OK and then save the changes to the master configuration.





Upgrading from OnTime for Connections before version 5.3

This section describes the process of removing an older installation of OnTime for Connections, from before version 5.3.

 In the old versions, there were three OnTime 'Enterprise Applications'. The old OnTime applications should be uninstalled.

Open the Integrated Solutions Console (ISC) and log in.

From the menu on the left select 'Applications'/'Application Types'/'Websphere Enterprise Applications' to navigate to the application list.

Select the three OnTime applications and click 'Uninstall'.

2. Remove obsolete OnTime language headers

Navigate to your HCL Connections customization-directory. The directory is located in your HCL Connections shared files on a network share or the local hard disk of the Websphere Application Server depending on your particular installation.

Open the 'strings' subdirectory and remove the 'com.ontimesuite.gc.social.communities.availability'-files from this directory. Beware, there may be many other files in this directory.

3. Remove the old OnTime resources from LotusConnections-config.xml. The lines are found between the tags <resources> and </resources> The lines containing the following three prefixes are obsolete:

```
prefix="ontimeProfilesCalendar_res"/>
prefix="ontimeCommunitiesAvailability_res"/>
prefix="ontimeCommunitiesCalendar_res"/>
```

Use the Connections wsadmin tool to handle the LotusConnections-config.xml file including updating of version stamp and synchronising the nodes of Connections.

The old widget definitions are not correct for OnTime – Connections version 5.3.

From the widget-config.xml the following configurations must be removed or commented out. Use the Connections wsadmin tool to handle the widget-config.xml file.

Search for 'ontime'.

Example of the old Profiles widget definition:

Example of the old ui location:

```
<!-- <widgetInstance defIdRef="ontimeProfilesCalendar" uiLocation="col3"/> -->
```





Example of the old two Community widget definitions:

```
<!-- OnTime Group Calendar - Social - Communities for HCL Connections
<widgetDef defId="ontimeCommunitiesAvailability"</pre>
bundleRefId="ontimeCommunitiesAvailability_res" modes="view"
showInPalette="false" themes="wpthemeThin wpthemeNarrow"
uniqueInstance="true"
url="https://connectionsserver/ontime/communities/Availability.xml">
<itemSet>
      <item name="resourceId" value="{resourceId}"/>
</itemSet>
</widgetDef>
<widgetDef defId="ontimeCommunitiesCalendar"</pre>
bundleRefId="ontimeCommunitiesCalendar_res" modes="view fullpage"
showInPalette="true" themes="wpthemeThin wpthemeNarrow"
uniqueInstance="true"
url="https://connectionsserver/ontime/communities/Calendar.xml">
<itemSet>
      <item name="resourceId" value="{resourceId}"/>
</itemSet>
</widgetDef>
-->
```

Example of the old ui location:

<!--<widgetInstance defIdRef="ontimeCommunitiesAvailability" uiLocation="col3"/> -->

The task in the Connections UI:

In the communities where the widget 'ontimeCommunitiesCalendar' has been added, this widget should be removed through the 'Community Actions'.

After having removed the configuration of the old version of OnTime you may proceed to the installation of the new version –

Prerequisites, OnTime Group Calendar - For HCL Connections .





Troubleshooting

SSL issues

Domino

Some customers have reported issues with OnTime for HCL Connections when upgrading Domino 9 to Domino 10. It is not actually the OnTime application that fails, but the underlying secure communication layer (SSL).

The HTTP JVM, Java Virtual Machine has changed from Domino 9 to Domino 10, from IBM JDK to OpenJDK. Errors like 'SSLHandshakeException' has been reported.

The OnTime server is addressing the Connections server when it comes to find members in Communities. When the communication between Domino and Connections is configured for https, a secure connection is established according to the rules for SSL/TLS:

- A trusted root certificate in common
- A protocol specification, 'TLSv.1.2' recommended
- A common set of 'SSL Ciphers' for encrypting the communication

More debugging has been added to OnTime for HCL Connections ver. 6.1.1 in the Domino Console. When you open a community with the widget 'Community Calendar' you might see only one person from a Connections group. Click 'Refresh' in the options for the widget – you will now see messages in the Domino server's console. If no SSL errors, the Domino console will be quiet.

No trusted certificate found.

We have seen an error like 'SSL HandshakeException' 'No trusted certificate found'. This is a message from the Domino HTTP JVM, the OnTime servlet in Domino is requesting a connection, but the underlying secure communication does not trust the root certificate of the Connections server. Some root certificates have been removed from the JVM in Domino 10.

Please refer to HCLs description of 'Importing an SSL Certificate Authority into the JVM'

https://support.hcltechsw.com/csm?id=kb_article&sysparm_article=KB0035853

At the time of writing the above link is correct for Domino 9.0x and 10.0x. In Domino 11.0x now the key tool is 'keytool.exe' from Open JDK.





Debugging of SSL/TLS protocols and SSL_Ciphers

Further debugging, with much more data in the Domino console, may be required.

- 1. Add a notes.ini parameter, in the domino console: set con JavaUserOptionsFile=C:\JVM\jvmOptions.txt
- 2. Create the jvmOptions.txt file in the folder C:\JVM
- 3. In the .txt file add a line:
- -Djavax.net.debug=all

(Save)

4. Restart Task HTTP

Right after the restart HTTP you will see the initialization of the JVM.

Wait a little while, then click refresh in your OnTime Community Calendar widget in Connections.

5. Disable logging by entering a # character in front of the parameter in the jvmOptions.txt file - restart task http

Error in the negotiation of TLS version

A customer has reported an error 'SSLHandshakeException'. Here the Connections server was configured for TLSv.1.2, but the client, the JVM in Domino 10 failed in the negotiation of protocols. Groups in the OnTime Community Calendar were not resolved.

A parameter 'https.protocols=TLSv.1.2' in the 'jvmOptions.txt' file mentioned above solved the problem. The JVM in Domino 10 is then configured for only TLSv1.2. **Note:** The parameter configures TLSv.1.2 for all servlets and java agents in the JVM.

