



for Microsoft

Upgrade Manual **OnTime® for Microsoft version 6.4.x**

Revision 4

OnTime is a registered community trademark (#004918124). The trademark is registered with the Trade Marks and Designs Registration Office of the European Union.
OnTime is a registered Japanese trademark (#5569584). The trademark is registered with the Japan Patent Office

OnTime® for Microsoft

Upgrade Manual

The main audience for this manual is Microsoft administrators with proper experience in Windows Server and Exchange on-premise or Microsoft 365 administration. We expect that the reader of this manual is no stranger to the Microsoft environment.

Table of Contents

Upgrade OnTime for Microsoft.....	3
SSL considerations	3
ADFS considerations	3
Catering considerations	3
Tomcat server	3
Upgrade process	4
Quick upgrade (Local SQL Server)	5
<i>Verify OnTime After Upgrade (Local SQL Server)</i>	<i>7</i>
Custom Upgrade (External SQL Server)	9
<i>Upgrade OnTime database</i>	<i>11</i>
<i>Pollarity</i>	<i>12</i>
<i>Catering</i>	<i>13</i>
<i>Visitor</i>	<i>13</i>
<i>Verify OnTime After Upgrade (External SQL Server)</i>	<i>15</i>
OnTime Admin Centre	16
Database Setup	16
SSL certificates for the OnTime Auth Service	20
Pick up the new version of OnTime	22
Domain considerations	23
Microsoft 365 configuration, Authentication	23
<i>External Subscription Hub Graph Based / Subscription Hub Topology</i>	<i>28</i>
<i>Register Subscription Hub in “Microsoft Entra ID”</i>	<i>30</i>
<i>Subscription Hub “otSubHub” Installation and Configuration Steps</i>	<i>32</i>
<i>Upgrading Subscription Hub (otSubHub)</i>	<i>35</i>
<i>Configuring the Subscription Hub in OnTime Admin</i>	<i>36</i>
Roll back	38
Final test	39
<i>OnTime Client Web Desktop</i>	<i>39</i>
<i>OnTime Client Web Mobile</i>	<i>39</i>

Upgrade OnTime for Microsoft

SSL considerations

If your current OnTime server is configured for SSL, a certificate is required for your Tomcat server.

Note: Self-signed OnTime server certificates are not supported.

The process of generating certificate files for the Tomcat server is described in the section **SSL certificates for the OnTime Tomcat Server**.

Note: If you have configured a reverse proxy server for external access, review the current version of 'Installation & Configuration Guide OnTime® for Microsoft'.

The authentication method 'HTTP(S) Domain (SSO)' is not supported through a reverse proxy server.

ADFS considerations

If your OnTime Authentication method is ADFS, review the setup in the current version of 'Installation & Configuration Guide OnTime® for Microsoft'.

Catering considerations

If you have 'Catering Manager', check all 'Menu Items' with serving, as serving has been split into rooms and locations.

Flyway database tool

An OnTime tool called 'otdbupdate.cmd' is used to install and update databases. This tool is powered by the 'open source' tool 'Flyway'.

Tomcat server

In the OnTime for Microsoft version 6.4 the Tomcat server is version 10.1.48

Upgrade process

Upgrade of OnTime from earlier versions preserves users and admin settings. The upgrade is possible from the versions OnTime MS 1.1.x and newer.

The main tasks necessary to do to upgrade an OnTime for MS installation from a previous release:

Upgrade the OnTime Windows services and 'Apache Tomcat for OnTime'

Upgrade the OnTime database; this upgrade process is dependent on your installation of the SQL server, quick or custom upgrade.

The 'quick upgrade' is with an SQL Server installed on the same server as the rest of the OnTime application. An additional prerequisite is that the 'Database Name' and 'Username' fields are blank in the 'OnTime Admin Center's Database section'.

The 'custom upgrade' is with more details where the SQL Server is installed differently, or even external to the OnTime server.

Check your current OnTime version – and make a note of it:

In the OnTime client Web Desktop – Settings/About



www.OnTimeSuite.com

Version 6.4.0

Build: 20251026-1612

Copyright © IntraVision

OnTime is a registered community trademark (#004918124). The trademark is registered with the Trade Marks and Designs Registration Office of the European Union.

OnTime is a registered Japanese trademark (#5569584). The trademark is registered with the Japan Patent Office.

Quick upgrade (Local SQL Server)

Prerequisite:

This process requires that the 'MS SQL Server' is installed locally, on the same server as the rest of OnTime and the database name and username fields are blank (integrated Security=true;)

Note: The upgrade process requires at least OnTime ver. 5.0 - if you have an older version of OnTime you must contact OnTime support:
<https://ontimesuite.com/en/ms/support/support>

- On the OnTime server, extract the **OnTimeMS-yy.zip** file to a temporary location, where **yy** represents the new version number.
- Move the extracted **OnTimeMS-yy** folder to the recommended path:
C:\Program Files\IntraVision\

Upgrade Instructions

- In **File Explorer**, navigate to the *current version* of OnTime:
- C:\Program Files\IntraVision\OnTimeMS-xx (see example below)

PC > Windows (C:) > Program Files > IntraVision > OnTimeMS-xx >

Name	Date modified	Type	Size
addin-classic-outlook-poll	19/12/2024 10.18	File folder	
addin-new-outlook-teams-rail	19/12/2024 10.18	File folder	
addin-teams-channel	19/12/2024 10.18	File folder	
admintoken	19/12/2024 10.18	File folder	
catering	19/12/2024 10.18	File folder	
cmd	19/12/2024 10.18	File folder	
jdk	19/12/2024 10.18	File folder	
ontime.ms.acs	19/12/2024 10.18	File folder	
ontime.ms.auth	19/12/2024 10.18	File folder	
otdbupdate	19/12/2024 10.18	File folder	
pollarity	19/12/2024 10.19	File folder	
programdata	19/12/2024 10.19	File folder	
scripts	19/12/2024 10.19	File folder	
sqlserver	19/12/2024 10.19	File folder	
tomcat	19/12/2024 10.19	File folder	
visitor	19/12/2024 10.19	File folder	
command.cmd	19/12/2024 10.18	Windows Comma...	
install.cmd	19/12/2024 10.18	Windows Comma...	
Office365TomcatRestart.zip	19/12/2024 10.18	Compressed (zipp...	
start-catering.cmd	19/12/2024 10.19	Windows Comma...	
start-pollarity.cmd	19/12/2024 10.19	Windows Comma...	
start-visitor.cmd	19/12/2024 10.19	Windows Comma...	
stop-catering.cmd	19/12/2024 10.19	Windows Comma...	
stop-pollarity.cmd	19/12/2024 10.19	Windows Comma...	
stop-visitor.cmd	19/12/2024 10.19	Windows Comma...	
uninstall.cmd	19/12/2024 10.19	Windows Comma...	
upgrade.cmd	19/12/2024 10.19	Windows Comma...	

- Run the command **uninstall.cmd** as an **administrator**.
When prompted with the message “Press any key to continue . . .” several times—press any key each time to proceed.
- After the uninstallation completes, navigate to the *new version* folder:
- C:\Program Files\IntraVision\OnTimeMS-yy (see example below)

PC > Local Disk (C:) > Program Files > IntraVision > OnTimeMS-yy >

Name	Date modified	Type
ontime.ms.auth	11-11-2025 12:57	File folder
otdbupdate	11-11-2025 12:57	File folder
otsubhub	11-11-2025 12:57	File folder
outlook-catering-add-in	11-11-2025 12:57	File folder
pollarity	11-11-2025 12:57	File folder
programdata	11-11-2025 12:57	File folder
scripts	11-11-2025 12:57	File folder
sqlserver	11-11-2025 12:57	File folder
tomcat	11-11-2025 12:57	File folder
visitor	11-11-2025 12:58	File folder
command.cmd	30-09-2025 15:49	Windows Comma...
install.cmd	30-09-2025 15:49	Windows Comma...
Office365TomcatRestart.zip	24-10-2025 15:38	Compressed (zipp...
start-catering.cmd	30-09-2025 15:49	Windows Comma...
start-pollarity.cmd	30-09-2025 15:49	Windows Comma...
start-visitor.cmd	30-09-2025 15:49	Windows Comma...
stop-catering.cmd	30-09-2025 15:49	Windows Comma...
stop-pollarity.cmd	30-09-2025 15:49	Windows Comma...
stop-visitor.cmd	30-09-2025 15:49	Windows Comma...
uninstall.cmd	30-09-2025 15:49	Windows Comma...
upgrade.cmd	30-09-2025 15:49	Windows Comma...

6. Run the command **upgrade.cmd** as an **administrator**.

Running this upgrade command will do the following:

- Ask the question of where to back up your current OnTime database
- Create tables if necessary
- Transfer the data from your current version if necessary
- Enable Integrated Security for the database
- Install OnTime Auth Service and start it
- Make a backup of your current database, press 'y' to accept the backup path
- Install the Tomcat service, and start it
- Upgrade the database if necessary
- Create a database for Pollarity if necessary
- Upgrade the Pollarity database if necessary
- **Note:** Pollarity has an optional licence.
- Create a database for Catering if necessary
- Upgrade the Catering database if necessary
- **Note:** Catering has an optional licence.
- Create a database for Visitor if necessary
- Upgrade the Visitor database if necessary
- **Note:** Visitor has an optional licence.

7. A log file 'upgrade-from-x.x.log' is created from the upgrade under "C:\Program Files\IntraVision\OnTimeMS-yy"

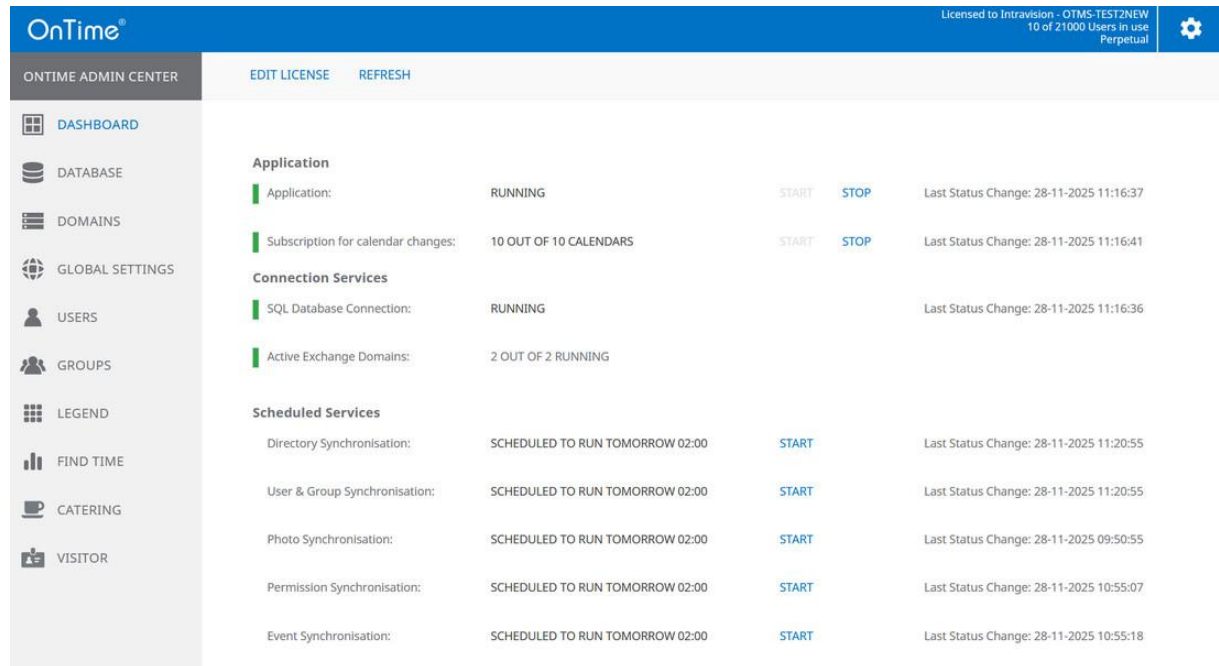
Verify OnTime After Upgrade (Local SQL Server)

In a browser open the 'OnTime Admin Centre'.

<https://ontime.example.com:8443/ontimegcms/admin>

Note: Insert your relevant URL instead of 'ontime.example.com'.

In "OnTime Admin Centre" click "Dashboard" to check the OnTime application is running (see example below) after the upgrade.



The screenshot shows the OnTime Admin Centre Dashboard. The top navigation bar includes 'ONTIME ADMIN CENTER', 'EDIT LICENSE', and 'REFRESH'. The left sidebar lists various modules: DASHBOARD, DATABASE, DOMAINS, GLOBAL SETTINGS, USERS, GROUPS, LEGEND, FIND TIME, CATERING, and VISITOR. The main content area displays the status of various services:

Service Category	Service Name	Status	Action	Last Status Change
Application	Application:	RUNNING	START STOP	Last Status Change: 28-11-2025 11:16:37
	Subscription for calendar changes:	10 OUT OF 10 CALENDARS	START STOP	Last Status Change: 28-11-2025 11:16:41
Connection Services	SQL Database Connection:	RUNNING		Last Status Change: 28-11-2025 11:16:36
	Active Exchange Domains:	2 OUT OF 2 RUNNING		
Scheduled Services	Directory Synchronisation:	SCHEDULED TO RUN TOMORROW 02:00	START	Last Status Change: 28-11-2025 11:20:55
	User & Group Synchronisation:	SCHEDULED TO RUN TOMORROW 02:00	START	Last Status Change: 28-11-2025 11:20:55
	Photo Synchronisation:	SCHEDULED TO RUN TOMORROW 02:00	START	Last Status Change: 28-11-2025 09:50:55
	Permission Synchronisation:	SCHEDULED TO RUN TOMORROW 02:00	START	Last Status Change: 28-11-2025 10:55:07
	Event Synchronisation:	SCHEDULED TO RUN TOMORROW 02:00	START	Last Status Change: 28-11-2025 10:55:18

From **Dashboard** check the new version by clicking on settings icon  and **About**



Version 6.4.0

Admin 31b.0 (20251126-0854)

Copyright ©, IntraVision

OnTime is a registered community trademark (#004918124). The trademark is registered with the Trade Marks and Designs Registration Office of the European Union.

OnTime is a registered Japanese trademark (#5569584). The trademark is registered with the Japan Patent Office.

In case of issue: 'Database is not running'. Review **Database Setup**

You are now ready to test the Client Web Desktop and Client Web Mobile for OnTime. Proceed to the **Final test.**

Custom Upgrade (External SQL Server)

This procedure applies to installations where Microsoft SQL Server is hosted externally or configured differently from the prerequisites described in the *Quick Upgrade* section.

Note: Before proceeding, it is recommended to create a full backup of your OnTime database.

- On the OnTime server, extract the **OnTimeMS-yy.zip** file to a temporary location, where **yy** represents the new version number.
- Move the extracted **OnTimeMS-yy** folder to the recommended path:
C:\Program Files\IntraVision\

Upgrade Instructions

1. In **File Explorer**, navigate to the *current version* of OnTime:
2. C:\Program Files\IntraVision\OnTimeMS-xx (see example below)

PC > Windows (C:) > Program Files > IntraVision > OnTimeMS-xx >

Name	Date modified	Type	Size
addin-classic-outlook-poll	19/12/2024 10.18	File folder	
addin-new-outlook-teams-rail	19/12/2024 10.18	File folder	
addin-teams-channel	19/12/2024 10.18	File folder	
admintoken	19/12/2024 10.18	File folder	
catering	19/12/2024 10.18	File folder	
cmd	19/12/2024 10.18	File folder	
jdk	19/12/2024 10.18	File folder	
ontime.ms.acs	19/12/2024 10.18	File folder	
ontime.ms.auth	19/12/2024 10.18	File folder	
otdbupdate	19/12/2024 10.18	File folder	
pollarity	19/12/2024 10.19	File folder	
programdata	19/12/2024 10.19	File folder	
scripts	19/12/2024 10.19	File folder	
sqlserver	19/12/2024 10.19	File folder	
tomcat	19/12/2024 10.19	File folder	
visitor	19/12/2024 10.19	File folder	
command.cmd	19/12/2024 10.18	Windows Comma...	
install.cmd	19/12/2024 10.18	Windows Comma...	
Office365TomcatRestart.zip	19/12/2024 10.18	Compressed (zipp...	
start-catering.cmd	19/12/2024 10.19	Windows Comma...	
start-pollarity.cmd	19/12/2024 10.19	Windows Comma...	
start-visitor.cmd	19/12/2024 10.19	Windows Comma...	
stop-catering.cmd	19/12/2024 10.19	Windows Comma...	
stop-pollarity.cmd	19/12/2024 10.19	Windows Comma...	
stop-visitor.cmd	19/12/2024 10.19	Windows Comma...	
uninstall.cmd	19/12/2024 10.19	Windows Comma...	
upgrade.cmd	19/12/2024 10.19	Windows Comma...	

3. Run the command **uninstall.cmd** as an **administrator**.
When prompted with the message “Press any key to continue . . .” several times press any key each time to proceed.

4. After the uninstallation completes, navigate to the *new version* folder:
5. "C:\Program Files\IntraVision\OnTimeMS-yy\cmd"
6. Run the command **upgrade-without-database.cmd** as an **administrator**.
(see example below)

PC > Local Disk (C:) > Program Files > IntraVision > OnTimeMS-yy > cmd

Name	Date modified	Type	Siz
apache-tomcat-otd-uninstall.cmd	30-09-2025 15:49	Windows Comma...	
call-flyway-migrate-scripts.cmd	30-09-2025 15:49	Windows Comma...	
call-tomcat-digest-with-env-var.cmd	30-09-2025 15:49	Windows Comma...	
change-tomcat-password.cmd	30-09-2025 15:49	Windows Comma...	
create-shared-properties.cmd	30-09-2025 15:49	Windows Comma...	
db-ontimems-create-default.cmd	30-09-2025 15:49	Windows Comma...	
install-ontime.cmd	30-09-2025 15:49	Windows Comma...	
install-ontime-services-only.cmd	30-09-2025 15:49	Windows Comma...	
install-programdata-files.cmd	30-09-2025 15:49	Windows Comma...	
install-without-database.cmd	30-09-2025 15:49	Windows Comma...	
ontime.ms.auth-install.cmd	30-09-2025 15:49	Windows Comma...	
ontime.ms.auth-uninstall.cmd	30-09-2025 15:49	Windows Comma...	
prompt-for-sql-backup-path.cmd	30-09-2025 15:49	Windows Comma...	
set-admin-group-as-dbo.cmd	30-09-2025 15:49	Windows Comma...	
set-correct-envvars.cmd	30-09-2025 15:49	Windows Comma...	
set-tomcat-memory-envvars.cmd	30-09-2025 15:49	Windows Comma...	
setup-default-tomcat-memory.cmd	30-09-2025 15:49	Windows Comma...	
shared-var.cmd	30-09-2025 15:49	Windows Comma...	
tomcat-users.template	30-09-2025 15:49	TEMPLATE File	
uninstall-ontime.cmd	30-09-2025 15:49	Windows Comma...	
upgrade-without-database.cmd	30-09-2025 15:49	Windows Comma...	

Running this upgrade command will do the following:

- Transfer the data from your current version to new version
- Install OnTime Auth Service and start it
- Install the Tomcat service, and start it

Upgrade OnTime database

Note: The upgrade process requires at least OnTime ver. 5.0 - if you have an older version of OnTime, you must contact OnTime support:

<https://ontimesuite.com/en/ms/support/support>

1. Create a backup of your OnTime database
2. Use the Otdbupdate tool to upgrade the database.
3. Ensure that you have a directory C:\SqlServerBackups for running the 'Otdbupdate' database tool.

From the folder C:\Program Files\IntraVision\OnTimeMS-yy. open a command window as Administrator.

Note: your new version of OnTime location

Otdbupdate.cmd requires an environment variable for JAVA_HOME in your OnTime installation files.

Set the environment variable for JAVA_HOME by running the command:

```
set JAVA_HOME=C:\Program Files\IntraVision\OnTimeMS-yy\jdk
```

Set the environment variable for Path by running the command:

```
set PATH=%JAVA_HOME%\bin;%PATH%
```

Navigate to C:\Program Files\IntraVision\OnTimeMS-yy

Note: OnTime includes an embedded JDK; do not install or configure system-wide Java unless explicitly required."

This avoids confusion for admins with other Java-dependent services.

Run this command, if you are using integrated Security:

```
otdbupdate\otdbupdate.cmd -skipDefaultCallbacks=true  
-url=jdbc:sqlserver://localhost:1433;databaseName=ontimems;  
encrypt=true;trustServerCertificate=true;integratedSecurity=true migrate
```

(Run as a single line command.)

Run this command, if you are using a specific database user:

```
otdbupdate\otdbupdate.cmd -skipDefaultCallbacks=true  
-url=jdbc:sqlserver://localhost:1433;databaseName=ontimems;  
encrypt=true;trustServerCertificate=true;  
-user=OnTimeApp -password=xxxx migrate
```

(Run as a single line command.)

Pollarity

Update the Pollarity database using 'otdbupdate.cmd'

From the folder C:\Program Files\IntraVision\OnTimeMS-yy. open a command prompt as administrator.

Otdbupdate.cmd requires an environment variable for JAVA_HOME in your OnTime installation files.

Set the environment variable for JAVA_HOME by running the command:
set JAVA_HOME=C:\Program Files\IntraVision\OnTimeMS-yy\jdk

Navigate to C:\Program Files\IntraVision\OnTimeMS-yy\pollarity\otdbupdate

Depending on your setup, use 'integratedSecurity' or 'SQL server authentication':.

Run this command if you prefer 'integratedSecurity' in your SQL server:

```
otdbupdate.cmd -skipDefaultCallbacks=true  
-url=jdbc:sqlserver://localhost:1433;databaseName=pollarity;  
encrypt=true;trustServerCertificate=true;  
integratedSecurity=true migrate
```

(Run as a single line command.)**This command, if you prefer 'SQL Server authentication':**

```
otdbupdate.cmd -skipDefaultCallbacks=true  
-url=jdbc:sqlserver://localhost:1433;databaseName=pollarity;  
encrypt=true;trustServerCertificate=true;  
-user=OnTimeApp -password=xxxx migrate
```

(Run as a single line command.)

Catering

Update the Catering database using 'otdbupdate.cmd'

From the folder C:\Program Files\IntraVision\OnTimeMS-yy. open a command window as Administrator.

Otdbupdate.cmd requires an environment variable for JAVA_HOME in your OnTime installation files.

Set the environment variable for JAVA_HOME by running the command:

set JAVA_HOME=C:\Program Files\IntraVision\OnTimeMS-yy\jdk

Set the environment variable for Path by running the command:

set PATH=%JAVA_HOME%\bin;%PATH%

Navigate to C:\Program Files\IntraVision\OnTimeMS-yy\catering\otdbupdate

Depending of your setup, use 'integratedSecurity' or 'SQL server authentication':.

- **Run this command, if you prefer 'integratedSecurity' in your SQL server:**

```
otdbupdate.cmd -skipDefaultCallbacks=true  
-url=jdbc:sqlserver://localhost:1433;databaseName=catering;  
encrypt=true;trustServerCertificate=true;  
integratedSecurity=true migrate
```

(Run as a single line command.)

This command, if you prefer 'SQL Server authentication':

```
otdbupdate.cmd -skipDefaultCallbacks=true  
-url=jdbc:sqlserver://localhost:1433;databaseName=catering;  
encrypt=true;trustServerCertificate=true;  
-user=OnTimeApp -password=xxxx migrate
```

(Run as a single line command.)

Visitor

Update the Visitor database using 'otdbupdate.cmd'

From the folder C:\Program Files\IntraVision\OnTimeMS-yy. open a command window as Administrator.

Otdbupdate.cmd requires an environment variable for JAVA_HOME in your OnTime installation files.

Set the environment variable for JAVA_HOME by running the command:
set JAVA_HOME=C:\Program Files\IntraVision\OnTimeMS-yy\jdk

Set the environment variable for Path by running the command:
set PATH=%JAVA_HOME%\bin;%PATH%

Navigate to C:\Program Files\IntraVision\OnTimeMS-yy\visitor\otdbupdate

Depending of your setup, use 'integratedSecurity' or 'SQL server authentication':.

Run this command, if you prefer 'integratedSecurity' in your SQL server:

```
otdbupdate.cmd -skipDefaultCallbacks=true  
-url=jdbc:sqlserver://localhost:1433;databaseName=visitor;  
encrypt=true;trustServerCertificate=true;  
integratedSecurity=true migrate
```

(Run as a single line command.)

This command, if you prefer 'SQL Server authentication':

```
otdbupdate.cmd -skipDefaultCallbacks=true  
-url=jdbc:sqlserver://localhost:1433;databaseName=visitor;  
encrypt=true;trustServerCertificate=true;  
-user=OnTimeApp -password=xxxx migrate
```

(Run as a single line command.)

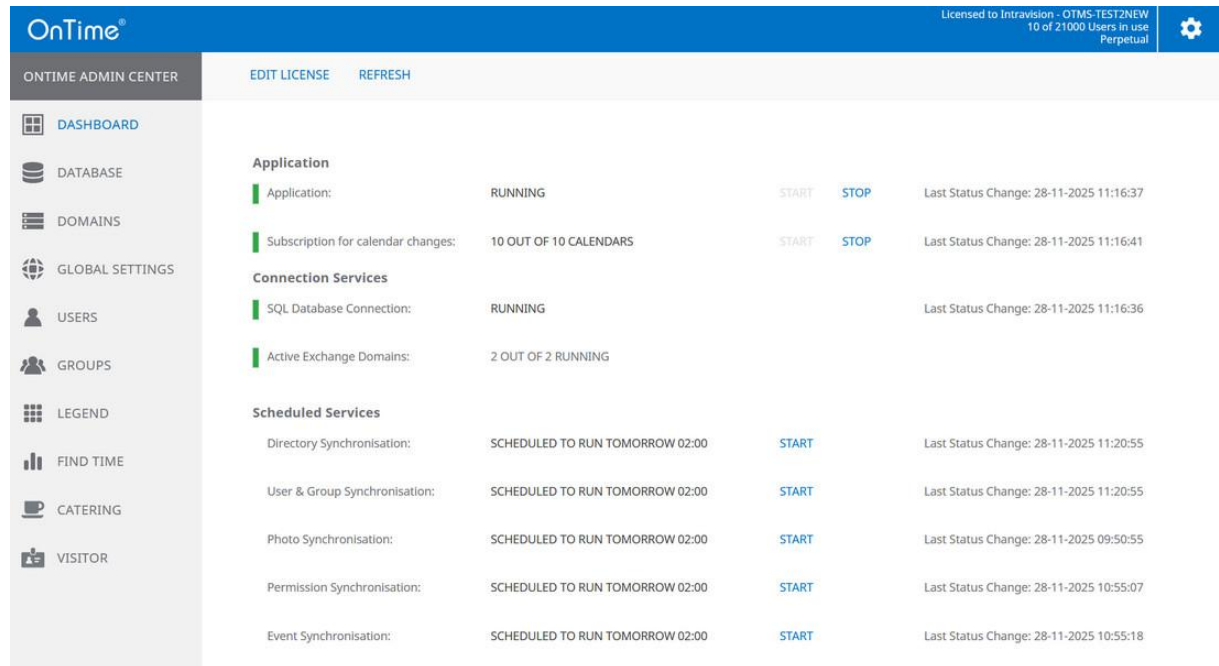
Verify OnTime After Upgrade (External SQL Server)

In a browser open the 'OnTime Admin Centre'.

<https://ontime.example.com:8443/ontimegcms/admin>

Note: Insert your relevant URL instead of 'ontime.example.com'.

In "OnTime Admin Centre" click "Dashboard" to check the OnTime application is running (see example below) after the upgrade.



The screenshot shows the OnTime Admin Centre Dashboard. The top navigation bar includes 'ONTIME ADMIN CENTER', 'EDIT LICENSE', and 'REFRESH'. The left sidebar lists various modules: DASHBOARD, DATABASE, DOMAINS, GLOBAL SETTINGS, USERS, GROUPS, LEGEND, FIND TIME, CATERING, and VISITOR. The main content area displays the status of various services:

Service Category	Service Name	Status	Controls	Last Status Change
Application	Application:	RUNNING	START STOP	28-11-2025 11:16:37
	Subscription for calendar changes:	10 OUT OF 10 CALENDARS	START STOP	28-11-2025 11:16:41
Connection Services	SQL Database Connection:	RUNNING		28-11-2025 11:16:36
	Active Exchange Domains:	2 OUT OF 2 RUNNING		
Scheduled Services	Directory Synchronisation:	SCHEDULED TO RUN TOMORROW 02:00	START	28-11-2025 11:20:55
	User & Group Synchronisation:	SCHEDULED TO RUN TOMORROW 02:00	START	28-11-2025 11:20:55
	Photo Synchronisation:	SCHEDULED TO RUN TOMORROW 02:00	START	28-11-2025 09:50:55
	Permission Synchronisation:	SCHEDULED TO RUN TOMORROW 02:00	START	28-11-2025 10:55:07
	Event Synchronisation:	SCHEDULED TO RUN TOMORROW 02:00	START	28-11-2025 10:55:18

From **Dashboard** check the new version by clicking on settings icon  and **About**



Version 6.4.0 Build: 20251026-1612

Copyright © IntraVision
OnTime is a registered community trademark (#004918124). The trademark is registered with the Trade Marks and Designs Registration Office of the European Union.
OnTime is a registered Japanese trademark (#5569584). The trademark is registered with the Japan Patent Office.

In case of issue: 'Database is not running'. Review **Database Setup**

You are now ready to test the Client Web Desktop and Client Web Mobile for OnTime. Proceed to the **Final test**.

OnTime Admin Centre

Clear your browsers cache, and open the administration URL:

https://ontime.example.com:8443/ontimegcms/admin

Note: Insert your relevant URL instead of 'ontime.example.com'.

Administrator: admin (beware of casing, no capitals)

Password ***** (The password set during the OnTime installation process)

Reset of password, if it is lost:

In the folder C:\Program Files\IntraVision\OnTimeMS-yy\cmd

- you will find the command 'change-tomcat-password.cmd'.

Run it as an administrator to reset the admin password.

Database Setup

Click 'Database'.

If '**Local SQL Server**', enter 'localhost' in the 'Server' field.

Tick 'Integrated Security'.

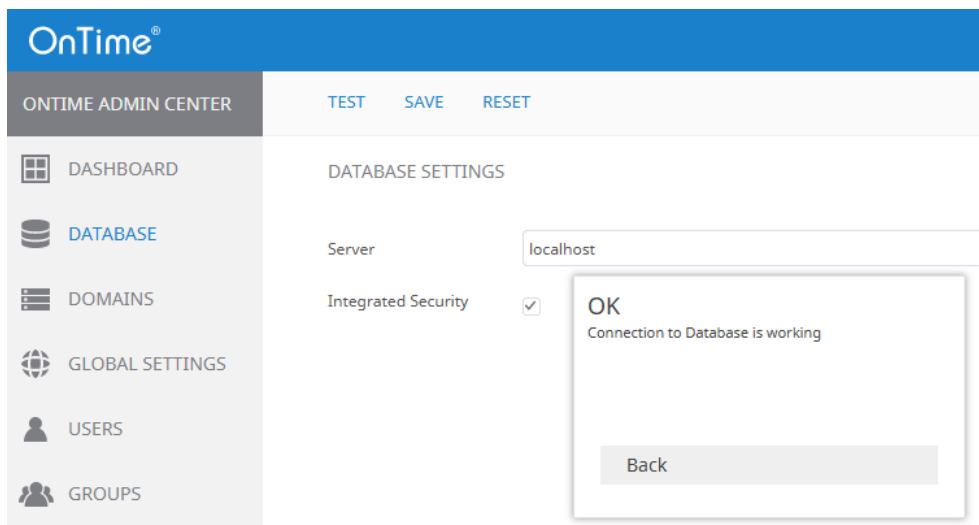
If '**External SQL Server**', enter the hostname of the external SQL server in the 'Server' field.

Tick 'Integrated Security'.

Click "Test" in the upper right corner to test the database connection.

Upon the response "OK Connection to database is working" click "Back".

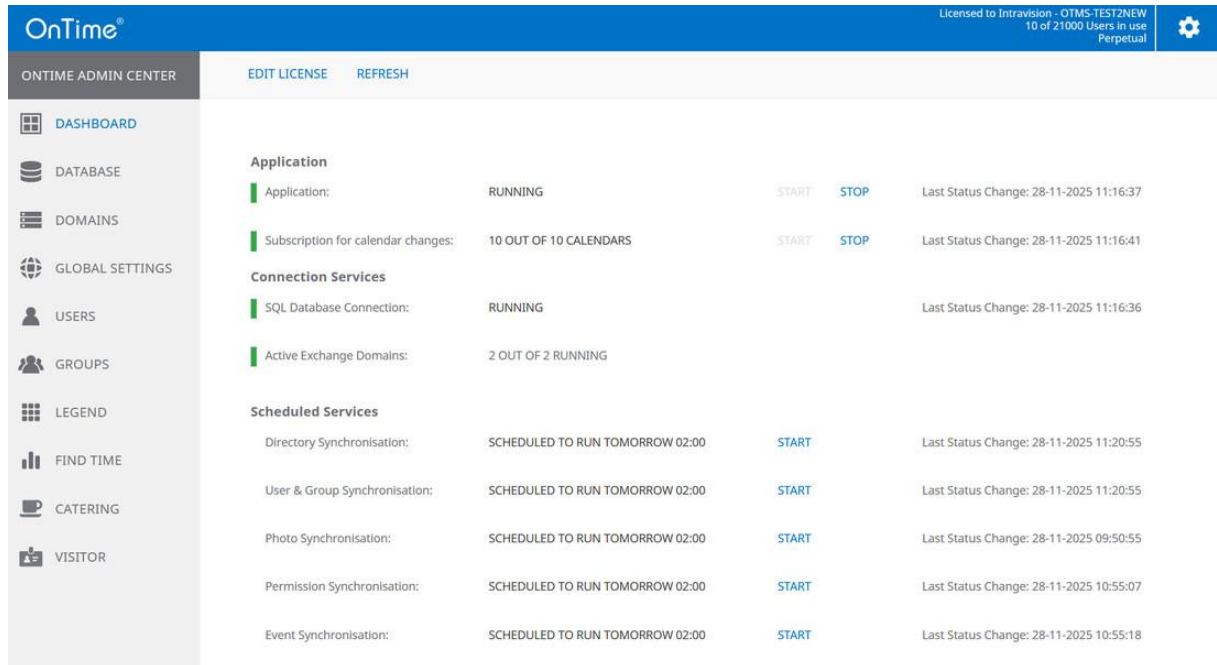
Click Save.



The screenshot shows the OnTime Admin Centre interface. The left sidebar contains navigation links: DASHBOARD, DATABASE (highlighted), DOMAINS, GLOBAL SETTINGS, USERS, and GROUPS. The main content area is titled 'DATABASE SETTINGS' and includes buttons for TEST, SAVE, and RESET. The 'Server' field is set to 'localhost' and the 'Integrated Security' checkbox is checked. An 'OK' dialog box is overlaid on the page, displaying the message 'Connection to Database is working' and a 'Back' button.

In “OnTime Admin Centre”, click “Dashboard”.

Note: When you see the Connection/Database Service “Running” (green), press **F5** to refresh the whole web page from the new database.



The screenshot shows the OnTime Admin Centre Dashboard. The top navigation bar includes 'ONTIME ADMIN CENTER', 'EDIT LICENSE', and 'REFRESH'. The left sidebar lists various modules: DASHBOARD, DATABASE, DOMAINS, GLOBAL SETTINGS, USERS, GROUPS, LEGEND, FIND TIME, CATERING, and VISITOR. The main content area displays the status of various services:

Application	Status	Actions	Last Status Change
Application:	RUNNING	START STOP	28-11-2025 11:16:37
Subscription for calendar changes:	10 OUT OF 10 CALENDARS	START STOP	28-11-2025 11:16:41
Connection Services			
SQL Database Connection:	RUNNING		28-11-2025 11:16:36
Active Exchange Domains:	2 OUT OF 2 RUNNING		
Scheduled Services			
Directory Synchronisation:	SCHEDULED TO RUN TOMORROW 02:00	START	28-11-2025 11:20:55
User & Group Synchronisation:	SCHEDULED TO RUN TOMORROW 02:00	START	28-11-2025 11:20:55
Photo Synchronisation:	SCHEDULED TO RUN TOMORROW 02:00	START	28-11-2025 09:50:55
Permission Synchronisation:	SCHEDULED TO RUN TOMORROW 02:00	START	28-11-2025 10:55:07
Event Synchronisation:	SCHEDULED TO RUN TOMORROW 02:00	START	28-11-2025 10:55:18

SSL certificates for the OnTime Tomcat Server

To support secure communication, **https** with the OnTime clients, three certificate files are needed for the Tomcat server.

1. ontime-rsa-key.pem
2. ontime-rsa-cert.pem
3. ontime-rsa-chain.pem

The three files mentioned are in '.pem' format (base64 encoded). The first file contains the server's private key. The second file contains the servers ssl-certificate. The third file contains the signing chain certificates from the 'Root CA' and the 'Intermediate CA'

In the OnTime installation the three files are mentioned in the server.xml file, placed in: C:\Program Files\IntraVision\OnTime.x.x\tomcat\conf\

Depending on the system where you obtained the SSL certificate you might get the SSL certificate as a .pfx or .p12 (pkcs12 format) file for the OnTime server.

Generate the OnTime .pem files from the certificate file:

Install the OpenSSL 'command line' tool

- may be downloaded from <https://wiki.openssl.org/index.php/Binaries>

In a command prompt ensure that OpenSSL is working with your certificate file:

C:\test>

```
openssl pkcs12 certs.pfx
```

- Enter passwords and you should see a list of certificates on the screen.

Retrieve the private key to a file:

```
openssl pkcs12 -in certs.pfx -out private.pem -nocerts -noenc
```

Enter Import Password: ***** (Enter)

A private password protected .pem file is generated with the private key.

1. Remove the password from the private.pem file and generate the first file for OnTime:

```
openssl rsa -in private.pem -out ontime-rsa-key.pem
```

The OnTime-rsa-key.pem file contains the private key without a password.

Example:

```
-----BEGIN RSA PRIVATE KEY-----
MIIEowIBAAKCAQEAi45lsXhcxMMBuF96S5kS9ZHHLMCECAzkOjTK14o3FnbMWMZ
RlunTVL0VibOxdBraVfyEY2DbiBnwamHtBx6PEXVmk48AtohoMUWRajW6xQXZ/xa
7oGd6zwnkau9ns04AFXPKfLf2YfD/MbevtU6xhbKXWsjq6kAeQSMF6BbrumJ5uTx
6XTZSnS+2nZL/FmFwdjnjAlJrBtFGYSII1094K2pleY3XAz5HUBxQ9SvPmf19I
D/NRM4sdFVYUuxJqXgUj26V9YXRqGids3KcpenQ4R++AJwn5yckIyKp32ern5vN
HDVuvqYnxv0n4hEe9o3267Rhs4NKKOHjds8/wIDAQABAIAH2650Xwj0omvHXH
```

2. Retrieve the server's certificate, generate the second file for OnTime:

```
openssl pkcs12 -in certs.pfx -out ontime-rsa-cert.pem -clcerts -nokeys
```

Option:

Depending on the certificate supplier you may get this file as 'ssl_certificate.crt'. Rename it to 'ontime-rsa-cert.pem'

Example:

```
-----BEGIN CERTIFICATE-----  
MIIGLzCCBRegAwIBAgIQCEypIwG8D7vWyBkyjLso6DANBgkqhkiG9w0BAQsFADBe  
MQswCQYDVQQGEwJVUzEVMBMGA1UEChMMRGlnaUNlcnQgSW5jMRkwFwYDVQQLEwB3  
d3cuZGlnaWNLcnQuYy92tMR0wG9wYDVVQDEeRSYKBPZFNTTCS0E0QE0EmJAxODAE  
fFuXOTAOMDEMDAAMDBAFAwF0yMTAzMzExMjAwMDBABGxzFjAUBGBGNVBAMDSoub2S0  
awllmDEuZGSwqqcEiMaOGCSgcSIb3DOEBAAQUAA1BDWAwwqEKAAIBAACLjnWxeFZe
```

3. **Extract the certificate chain, generate the third file for OnTime:**

```
openssl pkcs12 -in certs.pfx -out ontime-rsa-chain.pem -nokeys
```

An ontime-rsa-chain.pem file is generated with the certificate chain, Root CA and Intermediate CA, base64 encoded.

Option:

If you copy this file into a .crt extension - you may double-click/Open the file to check your 'Certification Path'.

4. The three OnTime .pem files are placed in the folder as referenced in the server.xml file:

```
C:\ProgramData\IntraVision\OnTimeGCMS\keys\
```

5. After the update of the key files, restart the Apache Tomcat service

SSL certificates for the OnTime Auth Service

If SSL (https) communication is required for the OnTimeMS Auth service, you must install a certificate at the Windows server.

Acquire an SSL certificate pfx or p12 (pkcs12 format) file for the OnTime server.

1. Open a command prompt in administrator mode:
Run >certlm
- to open the Microsoft Certificates application for 'Local Computer'.

Right-click 'Personal', choose 'All Tasks\Import'.

Click 'Next'.

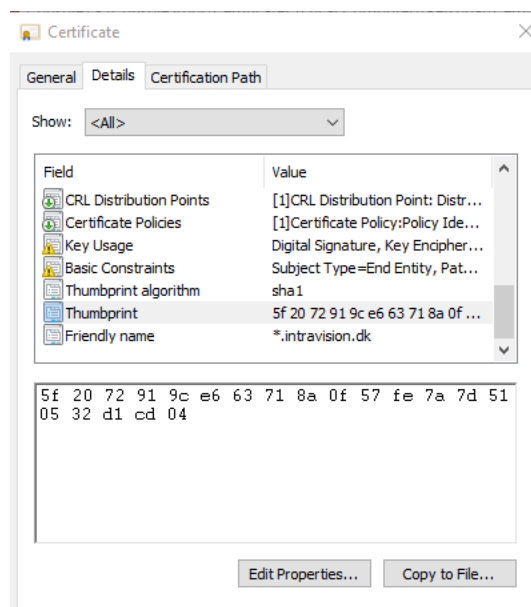
Browse for your SSL certificate file, searching in – Personal Information Exchange (*.pfx, *.p12) files – click 'Open' – click 'Next'.

Enter the password for your SSL certificate file, click 'Next' and click 'Finish'.

When the message 'The import was successful' appears, click **OK**.

Check the imported certificates – click 'Personal/Certificates' in the Certificates application.

2. Acquire the thumbprint of the certificate.
Expand 'Certificates' – 'Personal' – 'Certificates'.
Open the certificate for your server.
Choose details – and thumbprint.



Copy the thumbprint characters into a text editor e.g., Notepad.

Remove the spaces in between the characters.

Copy the characters to the clipboard for use as 'certhash' in the next section.

3. Open a command prompt in administrator mode:

Run 'netsh' with parameters, substitute the value of 'certhash' with your own value. The 'appid' is just a dummy value (needed).

Note: Run the following three lines as one line in the command prompt:

```
netsh http add sslcert ipport=0.0.0.0:443  
certhash=5f2072919ce663718a0f57fe7a7d510532d1cd04  
appid={00112233-4455-6677-8899-AABBCCDDEEFF}
```

and also these three lines as one line in the command prompt::

```
netsh http add sslcert ipport=0.0.0.0:9443  
certhash=5f2072919ce663718a0f57fe7a7d510532d1cd04  
appid={00112233-4455-6677-8899-AABBCCDDEEFF}
```

The response text should show:

```
SSL Certificate successfully added
```

At this stage, you have enabled the SSL communication for all Windows web services that need it.

In case you want to change the certificate, run:

```
netsh http delete sslcert ipport=0.0.0.0:443
```

and

```
netsh http delete sslcert ipport=0.0.0.0:9443
```

- and rerun the 'netsh http add' command above with new parameters.

In case you want to show the certificate(s), run:

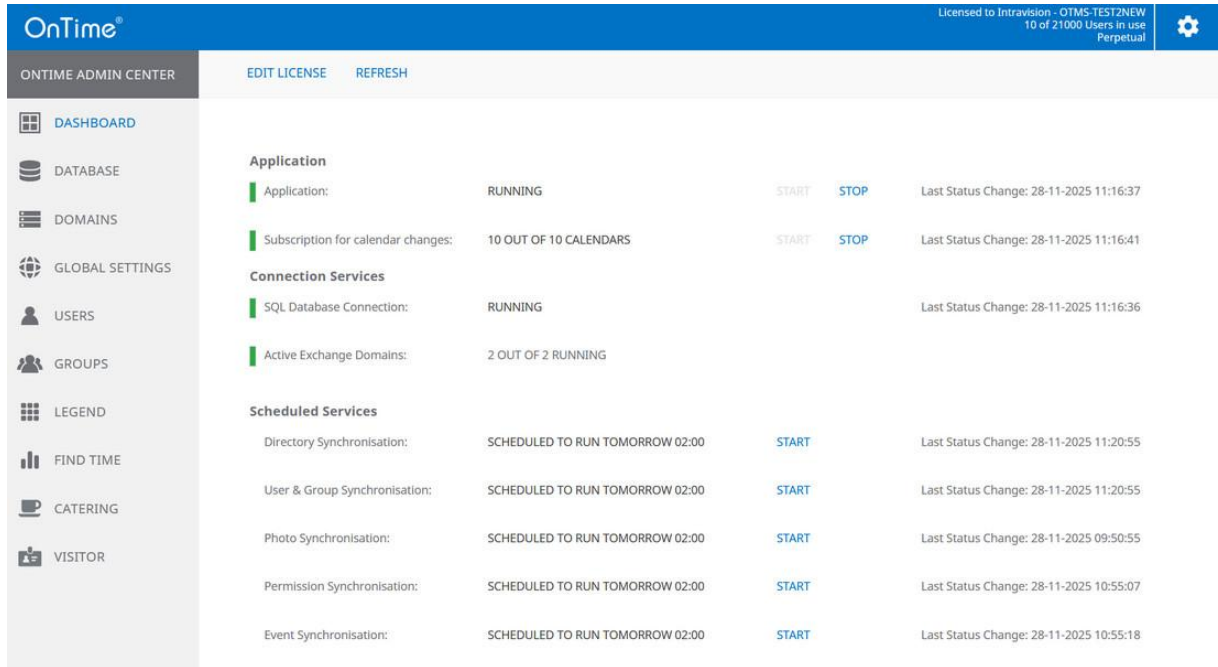
```
netsh http show sslcert ipport=0.0.0.0:443
```

and

```
netsh http show sslcert ipport=0.0.0.0:9443
```

Pick up the new version of OnTime

In “OnTime Admin Centre” click “Dashboard”.



The screenshot shows the OnTime Admin Centre Dashboard. The top navigation bar includes 'OnTime', a license status 'Licensed to Intravision - OTMS-TEST2NEW 10 of 21000 Users in use Perpetual', and a settings gear icon. The left sidebar lists various modules: DASHBOARD, DATABASE, DOMAINS, GLOBAL SETTINGS, USERS, GROUPS, LEGEND, FIND TIME, CATERING, and VISITOR. The main content area displays the status of various services:

Service Category	Service Name	Status	Actions	Last Status Change
Application	Application:	RUNNING	START STOP	28-11-2025 11:16:37
	Subscription for calendar changes:	10 OUT OF 10 CALENDARS	START STOP	28-11-2025 11:16:41
Connection Services	SQL Database Connection:	RUNNING		28-11-2025 11:16:36
	Active Exchange Domains:	2 OUT OF 2 RUNNING		
Scheduled Services	Directory Synchronisation:	SCHEDULED TO RUN TOMORROW 02:00	START	28-11-2025 11:20:55
	User & Group Synchronisation:	SCHEDULED TO RUN TOMORROW 02:00	START	28-11-2025 11:20:55
	Photo Synchronisation:	SCHEDULED TO RUN TOMORROW 02:00	START	28-11-2025 09:50:55
	Permission Synchronisation:	SCHEDULED TO RUN TOMORROW 02:00	START	28-11-2025 10:55:07
	Event Synchronisation:	SCHEDULED TO RUN TOMORROW 02:00	START	28-11-2025 10:55:18

Click ‘Stop’ and then ‘Start’ at ‘Application Status’.

Click 'Global Settings>Backend' and click 'Save'

Click 'Global Settings>Frontend' and click 'Save'

Click 'Global Settings>Default Settings' and click 'Save'

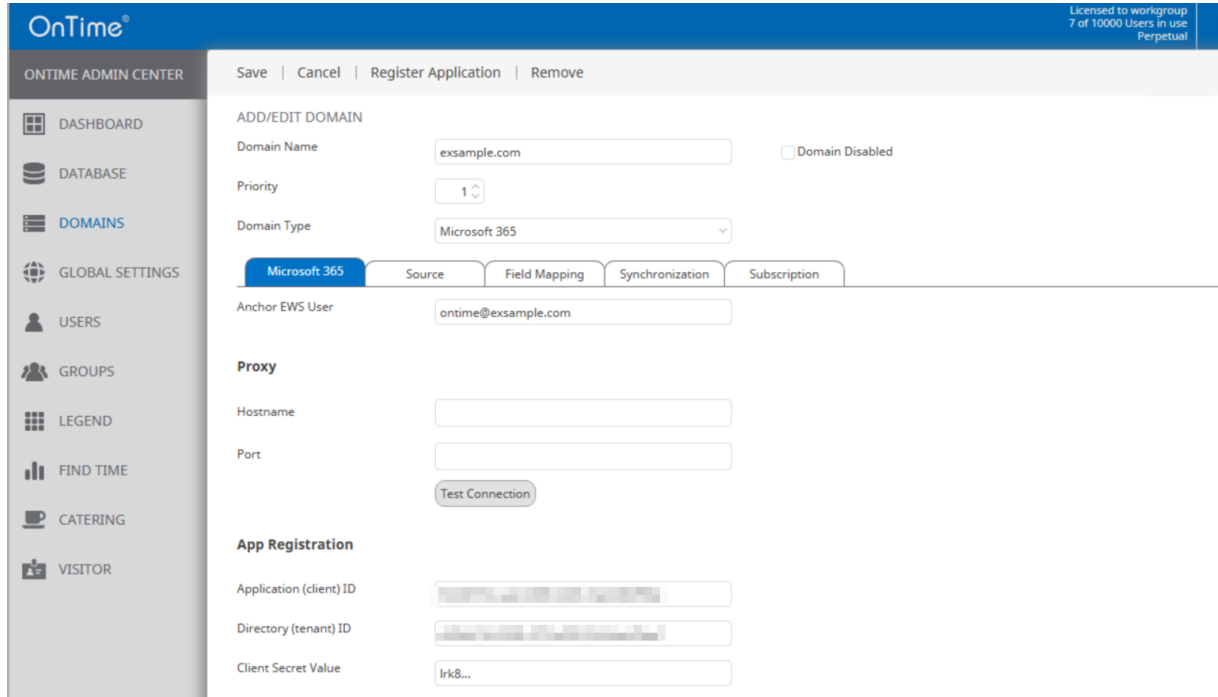
- if you have more versions of 'Users Default Settings' open each one of them and click 'Save'.

Click **Start** at **Directory Sync**; this will, in turn, start **User & Group sync**.

Click **Start** at **Photo Sync**, **Permission Sync** and **Event Sync**.

Domain considerations

From OnTime ver. 6.4, the Domain section has changed.



The screenshot shows the 'OnTime®' Admin Center interface. The left sidebar contains navigation links: DASHBOARD, DATABASE, DOMAINS (highlighted), GLOBAL SETTINGS, USERS, GROUPS, LEGEND, FIND TIME, CATERING, and VISITOR. The main content area is titled 'ADD/EDIT DOMAIN' and includes a 'Save | Cancel | Register Application | Remove' bar. The 'Domain Name' field is set to 'example.com', and the 'Domain Disabled' checkbox is unchecked. The 'Priority' is set to '1' and the 'Domain Type' is 'Microsoft 365'. Below these are tabs for 'Microsoft 365', 'Source', 'Field Mapping', 'Synchronization', and 'Subscription'. The 'Anchor EWS User' field is 'ontime@example.com'. The 'Proxy' section has fields for 'Hostname' and 'Port', with a 'Test Connection' button. The 'App Registration' section has fields for 'Application (client) ID', 'Directory (tenant) ID', and 'Client Secret Value' (partially visible as 'lrk8...'). A license notice in the top right corner states 'Licensed to workgroup 7 of 10000 Users in use Perpetual'.

Microsoft 365 configuration, Authentication

We now have two choices of Oauth authentication.

- Modern Method (Oauth – Impersonation User)
- Modern Method (Oauth – Client Credentials)

OnTime 'Impersonation User' does not support multifactor authentication – as an alternative choose 'Client Credentials' for authentication. For details see the 'OnTime Installation & Configuration' guide.

In case of missing permissions in the configuration, will be listed. If some permissions are missing you should check your configuration in 'Microsoft Entra ID'.

Note: Additional information is available in the *OnTime for MS – Installation & Configuration Guide*.

Introducing the OnTime Subscription

For many years, the notification mechanism in OnTime for Microsoft has relied on streaming subscriptions, a technology that in turn depends on Exchange Web Services (EWS). However, Microsoft has officially announced the deprecation of EWS in Microsoft 365, and with it the end of streaming subscriptions. This change is currently scheduled to take effect on Early, 2027.

Once EWS is removed, the existing subscription-based notifications used by OnTime in Microsoft 365 will no longer function. Exception is that streaming subscriptions will continue to work for OnTime connected to an Exchange on-premises environment. From OnTime version 6.4.x onward, three subscription methods are available: The OnTime Server EWS Based (legacy) method, will be available until Microsoft will stay support it; OnTime Server Graph Based method and the External Subscription Hub Graph Based method, also referred to as the 'Subscription Hub'.

Prerequisites for Graph-Based OnTime Server Configuration

Network & Connectivity Requirements

Graph is a cloud API, so no on-prem server is required—but connectivity matters.

- Firewall rules:

Allow Microsoft 365 endpoints

Firewall roles need to be opened for http (port 80) or https (port 443) between the server running OnTime® Group Calendar and Microsoft 365® Exchange® server(s).

- Inbound HTTPS access:

HTTPS access to the 'Notice URL' (e.g., <https://ontime.example.com:443>)

- Outbound HTTPS access:

<https://graph.microsoft.com>

([Check the ports for Microsoft 365](#))

- DNS resolution must be reliable

Optional but common:

- Reverse Proxy configuration for Incoming (internet → server)
- Private endpoints (advanced scenarios via Microsoft Entra ID)

Configuration of Subscription Methods in OnTime Admin

Navigate to OnTime admin dashboard

OnTime®
Licensed to IntraVision - OTMS-TEST2
1 of 10000 Users in use
Perpetual

ONTIME ADMIN CENTER
EDIT LICENSE
REFRESH

DASHBOARD
DATABASE
DOMAINS
GLOBAL SETTINGS
USERS
GROUPS
LEGEND
FIND TIME
CATERING
VISITOR

DASHBOARD

Application

Application: RUNNING START STOP Last Status Change: 20-05-2026 08:39:14

Subscription for calendar changes: 8 OUT OF 8 CALENDARS START STOP Last Status Change: 20-05-2026 08:39:17

Connection Services

SQL Database Connection: RUNNING Last Status Change: 20-05-2026 08:39:13

Active Exchange Domains: 2 OUT OF 2 RUNNING

Scheduled Services

Directory Synchronisation: SCHEDULED TO RUN TOMORROW 02:00 START Last Status Change: 20-05-2026 08:39:22

User & Group Synchronisation: SCHEDULED TO RUN TOMORROW 02:00 START Last Status Change: 20-05-2026 08:39:23

Photo Synchronisation: SCHEDULED TO RUN TOMORROW 02:00 START Last Status Change: 19-05-2026 11:37:49

Permission Synchronisation: SCHEDULED TO RUN TOMORROW 02:00 START Last Status Change: 19-05-2026 13:08:46

Event Synchronisation: SCHEDULED TO RUN TOMORROW 02:00 START Last Status Change: 20-05-2026 08:39:16

and choose 'Domains'

OnTime®
Licensed to workgroup
7 of 10000 Users in use
Perpetual

ONTIME ADMIN CENTER
CREATE NEW

DASHBOARD
DATABASE
DOMAINS

DOMAINS

1

example.com
RUNNING
B766801E-37C2-49F1-B872-7B30AE821E7C

Modern Method (OAuth - Client Credentials)

Select the 'Subscription' Tab

Save
Cancel
Register Application
Remove

ADD/EDIT DOMAIN

Domain Name
☐ Domain Disabled

Priority

Domain Type
☐ Disable EWS Options (Use Graph Only)

Microsoft 365
Source
Field Mapping
Synchronization
Subscription

Anchor EWS User

Proxy

Hostname

Port

Test Connection

App Registration

Application (client) ID

Directory (tenant) ID

Client Secret Value

Configuring Subscription Methods in OnTime Admin

a) Using EWS Based (Legacy) event subscription

From the drop-down list, 'Choose Subscription Method' select 'OnTime Server EWS Based (Legacy)'.

Click 'Save'. Then, in the OnTime Dashboard, stop and restart the application. (see the example below)

Save
Cancel
Register Application
Remove

ADD/EDIT DOMAIN

Domain Name
☐ Domain Disabled

Priority

Domain Type
☐ Disable EWS Options (Use Graph Only)

Microsoft 365
Source
Field Mapping
Synchronization
Subscription

Choose Subscription Method

b) Using OnTime Server Graph Based event subscription

From the 'Choose Subscription Method' drop-down list, select 'OnTime Server Graph Based'.

Follow the section "[Prerequisites for Graph-Based OnTime Server Configuration](#)"

In the 'Notice URL' field, enter the full HTTPS OnTime server URL including the port number.

Click 'Save'. Then, in the OnTime Dashboard, stop and restart the application.

Save | Cancel | Register Application | Remove

ADD/EDIT DOMAIN

Domain Name
☐ Domain Disabled

Priority

Domain Type
☒ Disable EWS Options (Use Graph Only)

Microsoft 365 | Source | Field Mapping | Synchronization | **Subscription**

Choose Subscription Method
Warning: Please make sure that you have enabled inbound traffic from Microsoft, as described in the Installation Manual.

OnTime Server Graph Based

Notice URL

Subscription Timeout (?)
 Minutes

c) Using External Subscription Hub Graph-Based event subscription

From the drop-down list, 'Choose Subscription Method', select 'External Subscription Hub Graph-Based'. Go to [Subscription Hub Configuration](#)

Full disable using EWS

If you want to disable all connections to EWS, select the "Disable EWS Options (Use Graph Only)" checkbox. Click **"Save."** Then, in the OnTime Dashboard, stop and restart the application.

This will switch all configurations to use only Microsoft Graph, and EWS can then be disabled at the tenant level.

Domain Type
☒ Disable EWS Options (Use Graph Only)

Microsoft 365 | Source | Field Mapping | Synchronization | **Subscription**

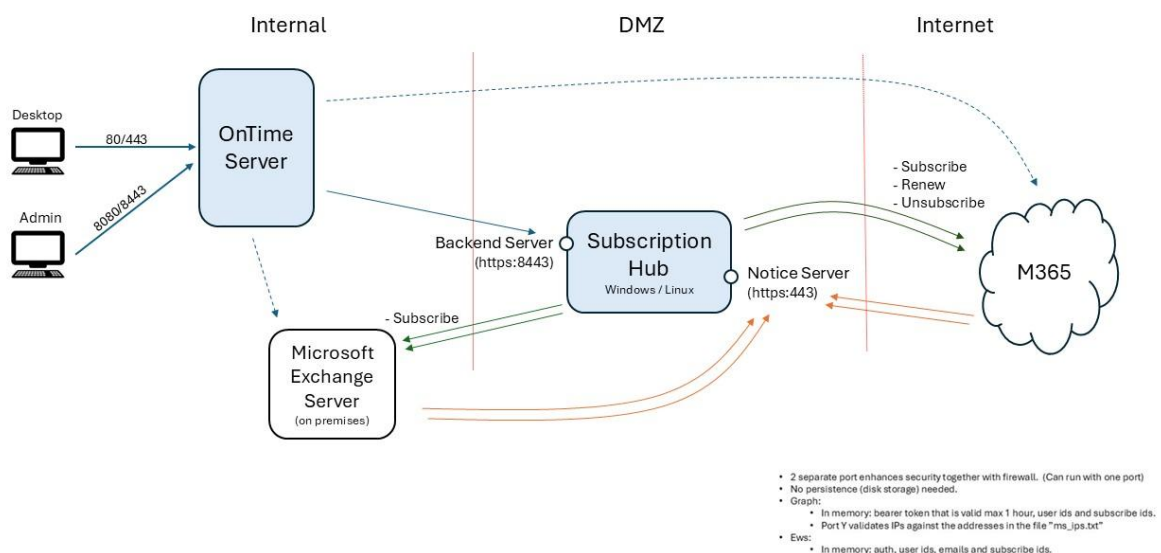
Choose Subscription Method

External Subscription Hub Graph Based / Subscription Hub Topology

For many years, the notification mechanism in OnTime for Microsoft has relied on **streaming subscriptions**, a technology that in turn depends on **Exchange Web Services (EWS)**. However, Microsoft has officially announced the deprecation of EWS in Microsoft 365, and with it the end of streaming subscriptions. This change is currently scheduled to take effect on **October 1, 2026**.

Once EWS is removed, the existing subscription-based notifications used by OnTime in Microsoft 365 will no longer function. Streaming subscriptions will continue to work for OnTime connected to an Exchange on-premises environment.

To address this – and to introduce a more robust, scalable, and future-proof synchronisation model — we have introduced the **OnTime Subscription Hub** in OnTime for Microsoft.



Why the Subscription Hub?

- **Removes dependency on EWS** by moving from streaming subscriptions to Microsoft Graph-based technology
- **Improves scalability and performance** by offloading subscription handling from the main OnTime server
- **Prepares all OnTime environments for the coming Microsoft 365 changes**

By separating the subscription handling into its own dedicated service, the Subscription Hub significantly reduces processing load on the core OnTime server. For that reason, **we in general recommend running the Subscription Hub on a separate system rather than on the main OnTime server.**

Requirements:

Operating System

- **Windows:** Windows Server 2019 or later, or Windows 10 or later
- **Linux:** Kernel 4.18 or later, glibc 2.28 or later

CPU

- The Subscription Hub service requires a single CPU core.
- Additional cores may be beneficial for the operating system but are not required by the application.

Memory

- Operating system requirements **plus 1 GB** for Subscription Hub.
- Actual memory usage depends on the number of subscriptions (users).
- The service consumes **less than 1 KB of RAM per subscription**.

Disk

- Operating system requirements **+ 1 GB** for application files and logs.

Network

- The Subscription Hub requires inbound access from the internal OnTime server on port **80 or 443**.
- It is recommended deploying Subscription Hub in a DMZ, as this avoids the need to open additional firewall ports.

Register Subscription Hub in “Microsoft Entra ID”

The following permissions are required for Subscription Hub functionality to work with Microsoft Entra ID. The following permissions are required.

Permissions for OnTime Subscription Hub			
API Permission	Access	Requirement	Description
Calendars.Read	Read		Allows the app to read events in user calendars
User.Read	Read		Allows users to sign in to the app and allows the app to read the user's profile

- a) Login to <https://portal.azure.com>
- b) Select View ‘Manage Microsoft Entra ID’
- c) Click ‘App Registrations’
- d) Click ‘New registration’
- e) Enter a ‘Name’ for the application.
Choose ‘Accounts in this organizational directory only - Single tenant’.
Populate ‘Redirect URL’, insert <https://example.com:8443/ontimegcms/code.html>
- this field cannot be empty
Select a Platform ‘Web’
Click ‘Register’.
- f) On next page (Overview) Copy the values [Application (client) ID] into a text editor e.g. Notepad.
- g) Click ‘Add a certificate or secret’ for Subscription Hub
- h) Click ‘+ New client secret’ for Subscription Hub
- i) Add a description, such as ‘Subscription Hub for OnTime Client Secret’
- j) Choose expiration. Click Add
- k) Click ‘API permissions’ tab. Click ‘Add a permission’.
- l) Click ‘Microsoft Graph’
- m) Click ‘Application permissions’

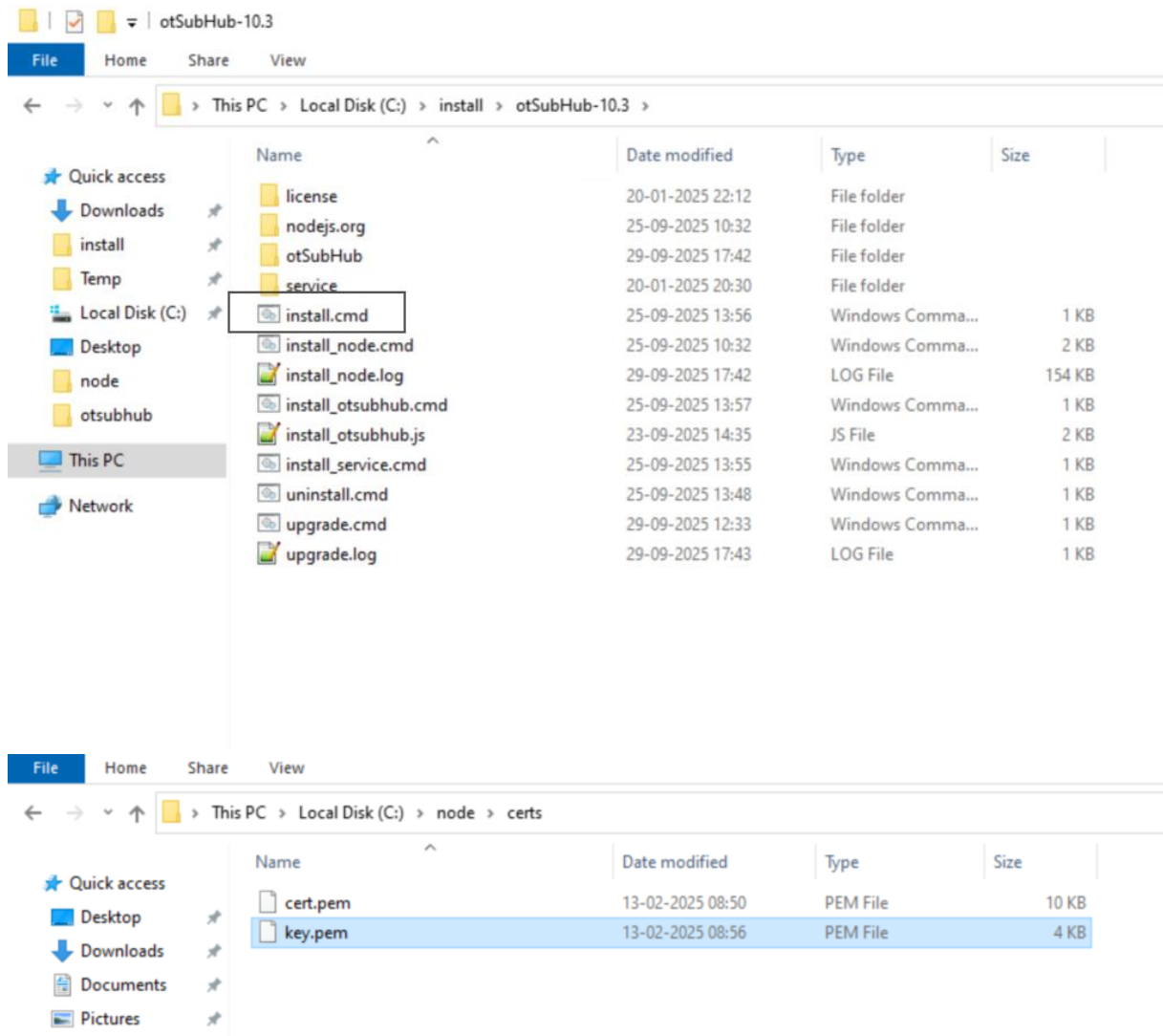
- n) The following 'API permissions must be checked, type a few letters in the Search field and tick the following permissions:
Calendars.Read (application), User.Read (delegated)
- o) Click 'Add a permission'
- p) Click "Grant admin consent for *Your Company*"
Click 'Yes' to answer the question 'Do you want to grant consent ...'

Subscription Hub “otSubHub” Installation and Configuration Steps

1. **Unzip the installation file**
Unzip the file ‘otSubHub-10.x.zip’ from the OnTime server into a temporary folder on the Subscription Hub server. (Required when installing the Subscription Hub on a separate machine). If you are using the same machine for both OnTime and Subscription Hub, You may simply unzip package locally on that machine. (For both options, see example below)
2. **Run the installer**
Go to the folder where you extracted the files and run install.cmd as Administrator. (see example below)
The Subscription Hub service will be installed in the folder ‘c:\node\otsubhub’.
3. **Add SSL certificates**
Create a folder named ‘certs’ (under C:\node) and copy the PEM certificate files used by your domain into the folder ‘c:\node\certs’. (see example page 169)
4. **Edit the configuration file**
Open the configuration file ‘otSubHub.json’ located in ‘C:\node\otsubhub’.
5. **Set the certificate paths**
In the configuration file ‘otSubHub.json’ update the paths for the certificate files ‘key.pem’ and ‘cert.pem’. (see example below)
6. **Set the service URL**
In the ‘URL’ field of the configuration file ‘otSubHub.json’ enter the full HTTPS domain name where the service will run. (see example below)
7. **Save and restart the service**
Save your changes and ‘restart the Subscription Hub service’ on the server. (see example below)

Additional Notes:

- If the protocol for the ‘backendServer’ is set to https, it will automatically use the ‘key’ and ‘cert’ from the ‘noticeServer’, unless you set them differently.
- Both services can also run on the same port if required.
- Log files for the Subscription Hub service are stored in the folder. ‘C:\node\otsubhub’.



Example of the 'otSubHub.json' file is shown below:

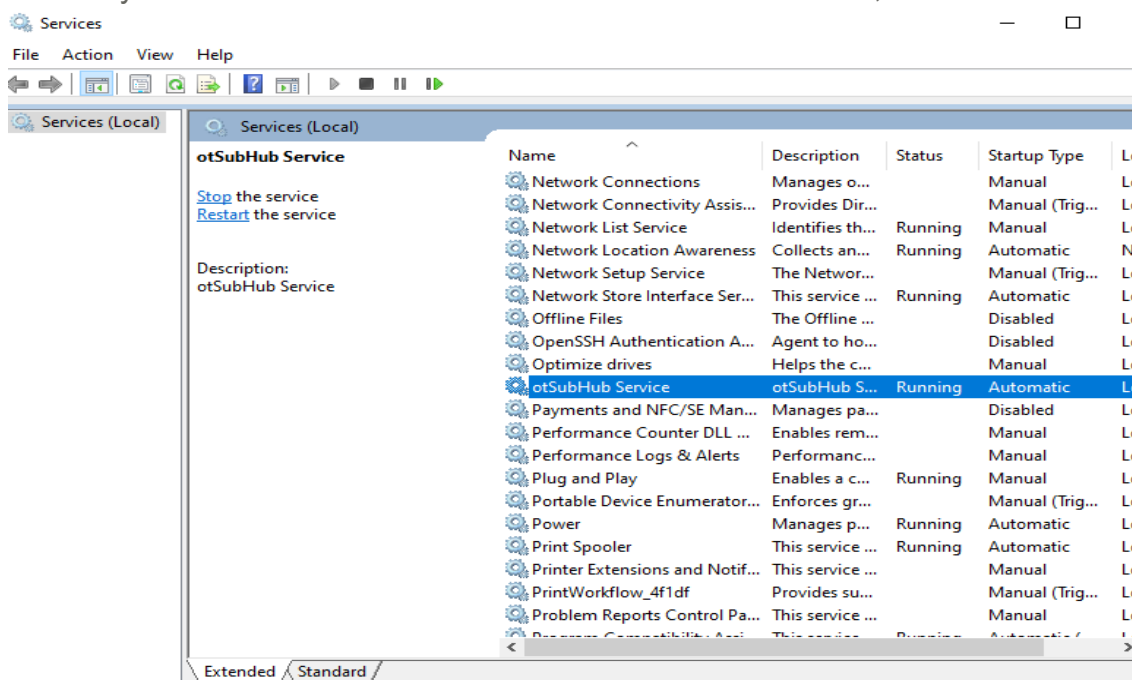
```
{
  "noticeServer": {
    "protocol": "https",
    "port": 443,
    "key": "c:/node/certs/key.pem",
    "cert": "c:/node/certs/cert.pem",
    "payload": {
      "URL": "https://otsubhub.example.com",
      "clientState": " 05vy+WNM2JurnOc/HuEFg+tsVco="
    }
  },
  "backendServer": {
```

```

    "protocol": "http",
    "port": 8443,
    "secretKey": " kH7KoGfl42Wqp5f/flKrCBJnB2l "
  },
  "graph": {
    "expiration_min": 60,
    "subscribe_threads": 3,
    "renew_threads": 3,
    "unsubscribe_threads": 5
  },
  "ews": {
    "subscribe_threads": 5
  }
}

```

You may now find 'otSubHub' listed under Windows Services, as shown below:



Since the Subscription Hub server only requires HTTPS access from the internet, we recommend applying an IP filter in the firewall. See [Microsoft Graph Change Notifications](#) for more details.

<https://learn.microsoft.com/en-us/microsoft-365/enterprise/additional-office365-ip-addresses-and-urls?view=o365-worldwide>

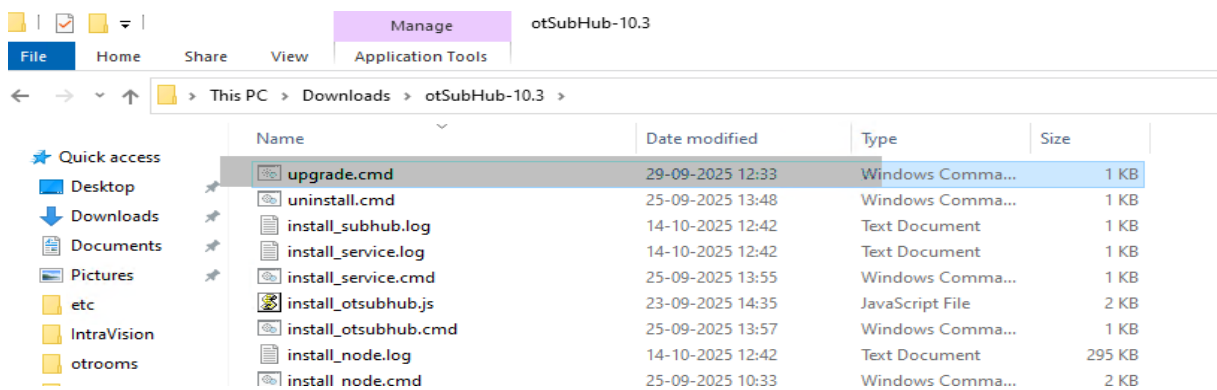
See the section **Microsoft Graph Change Notifications** for more information

Note: 'clientstat' is a unique value defined in the *otSubHub.json* file during installation of the *otSubHub* service. It represents the 'clientState' property included in each change notification (max length: 128 characters) and allows the client to verify the notification's authenticity by matching it with the subscribed 'clientState' value.

Note: The 'secretKey' is a unique value generated in the *otSubHub.json* file during *otSubHub* installation. It is sent from the backend server (OnTime) to the Subscription server, defining the 'secretKey' property exchanged between them.

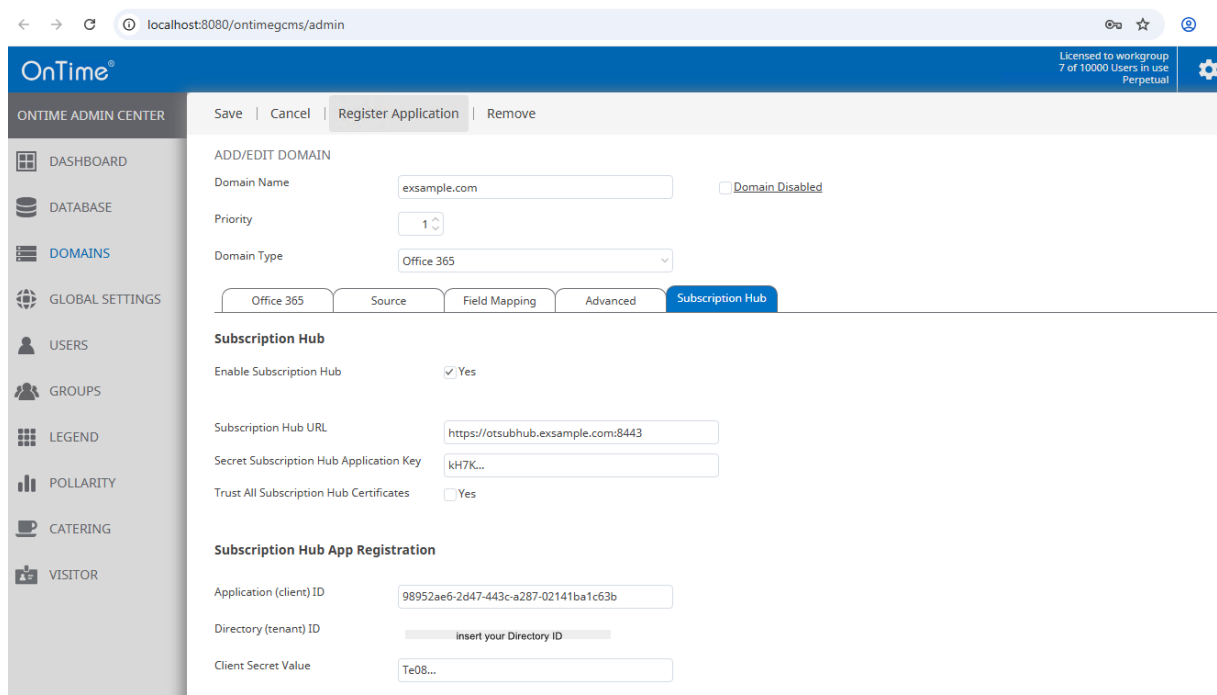
Upgrading Subscription Hub (otSubHub)

1. Unzip the file 'otSubHub-10.x.zip' from the OnTime server into a temporary folder on the Subscription Hub server. (This is needed if you are installing the Subscription Hub on a separate machine). If you are using the same machine for both OnTime and Subscription Hub, You may simply unzip the file locally on that machine.
2. Go to the folder where you extracted the files and run **upgrade.cmd** as an administrator. The Subscription Hub will be upgraded under existing 'C:\node\otsubhub' (see example below)
3. Finally, make sure that 'otSubHub' service listed under Windows Services after the upgrade assignment.



Configuring the Subscription Hub in OnTime Admin

1. **Copy Credentials**
Copy the values of the 'Client Application ID' and 'Client Secret Value' from the registered Subscription Hub application into a text editor, e.g., Notepad
2. **Navigate to the OnTime Admin Centre**
3. **Open 'Domains' Section**
From the left-hand navigation bar, select Domains.
4. **Configure Subscription Hub**
Select the Subscription Hub tab and enter the two values from step 1 under 'Subscription Hub App Registration' (see example below).
5. **Set Subscription Hub URL**
Open the 'otSubHub.json' file located in 'C:\node\otsubhub' in a text editor, copy the Subscription Hub URL (including the port number) values, and paste it into the 'Subscription Hub URL' field (see example below).
6. **Insert Secret Key**
Open the 'otSubHub.json' file located in 'C:\node\otsubhub' in a text editor, copy the 'secretKey' value, and paste it into the 'Secret Subscription Hub Application Key' field (see example below).
7. **Enable Subscription Hub**
Enable the option Enable Subscription Hub and save the changes. (see example below).



The screenshot shows the OnTime Admin Centre interface. The left-hand navigation bar includes links to DASHBOARD, DATABASE, DOMAINS, GLOBAL SETTINGS, USERS, GROUPS, LEGEND, POLLARITY, CATERING, and VISITOR. The main content area is titled 'ADD/EDIT DOMAIN' and includes a 'Subscription Hub' tab. The 'Subscription Hub' section contains the following fields:

- Enable Subscription Hub:** A checkbox labeled 'Yes' is selected.
- Subscription Hub URL:** A text field containing 'https://otsubhub.example.com:8443'.
- Secret Subscription Hub Application Key:** A text field containing 'kH7K...'.
- Trust All Subscription Hub Certificates:** A checkbox labeled 'Yes' is selected.

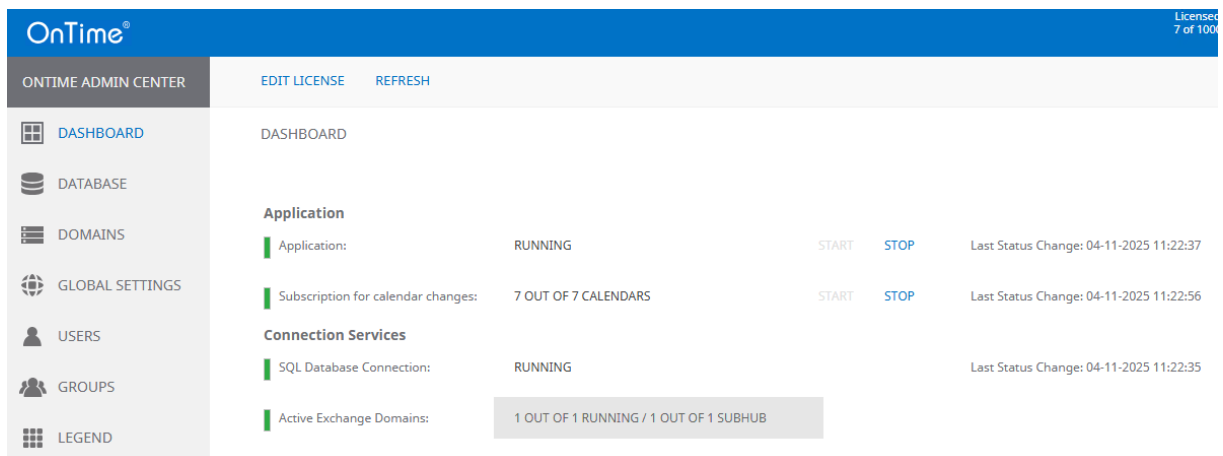
Below the 'Subscription Hub' section is the 'Subscription Hub App Registration' section, which includes the following fields:

- Application (client) ID:** A text field containing '98952ae5-2d47-443c-a287-02141ba1c63b'.
- Directory (tenant) ID:** A text field containing 'insert your Directory ID'.
- Client Secret Value:** A text field containing 'Te08...'.

An example of the 'otSubHub.json' file is shown below.

```
{
  "noticeServer": {
    "protocol": "https",
    "port": 443,
    "key": "c:/node/certs/key.pem",
    "cert": "c:/node/certs/cert.pem",
    "payload": {
      "URL": "https://otsubhub.example.com",
      "clientState": "o5vy+WNM2JurnOc/HuEFg+tsVco="
    }
  },
  "backendServer": {
    "protocol": "http",
    "port": 8443,
    "secretKey": "kH7KoGfl42Wqp5f/flKrCBJnB2l"
  },
  "graph": {
    "expiration_min": 60,
    "subscribe_threads": 3,
    "renew_threads": 3,
    "unsubscribe_threads": 5
  },
  "ews": {
    "subscribe_threads": 5
  }
}
```

8. Now by navigating to the OnTime Admin Dashboard, you may view the status of 'SUBHUB' when it is running (see example below)



The screenshot shows the OnTime Admin Dashboard. The top navigation bar includes 'EDIT LICENSE' and 'REFRESH' buttons. The left sidebar lists various sections: DASHBOARD, DATABASE, DOMAINS, GLOBAL SETTINGS, USERS, GROUPS, and LEGEND. The main content area displays the status of the application and connection services.

Section	Item	Status	Actions	Last Status Change
Application	Application:	RUNNING	START STOP	04-11-2025 11:22:37
	Subscription for calendar changes:	7 OUT OF 7 CALENDARS	START STOP	04-11-2025 11:22:56
Connection Services	SQL Database Connection:	RUNNING		04-11-2025 11:22:35
	Active Exchange Domains:	1 OUT OF 1 RUNNING / 1 OUT OF 1 SUBHUB		

Roll back

In case you want to roll back your OnTime to a previous version, it is possible through a restore of the old database(s) and a reinstallation of OnTime from your old version directory.

Step 1:

Run, as administrator, 'uninstall.cmd' from the new OnTime version directory

Step 2:

When you installed the new version of OnTime, backup database files were made. The files by default are placed in C:\SqlServerBackups. The main OnTime database has a filename, OnTime(Year-Month-Date-Time).Bak. OnTime add-on products are shown as databases for Pollarity, Catering, Visitor.

The restore of the old database(s) may be made with 'SQL Server Management Studio (SSMS)'.

Step 3:

In your old OnTime version directory, change to the directory:
C:\Program Files\IntraVision\OnTimeMS-x.x\cmd:

Run, as administrator, 'install-ontime-services-only.cmd'

Step 4.

For the OnTime add-on products you must run the appropriate 'start'-commands. In your old OnTime version directory, change to the directory:
C:\Program Files\IntraVision\OnTimeMS-x.x

Run, as administrator, 'start-catering.cmd'

Run, as administrator, 'start-pollarity.cmd'

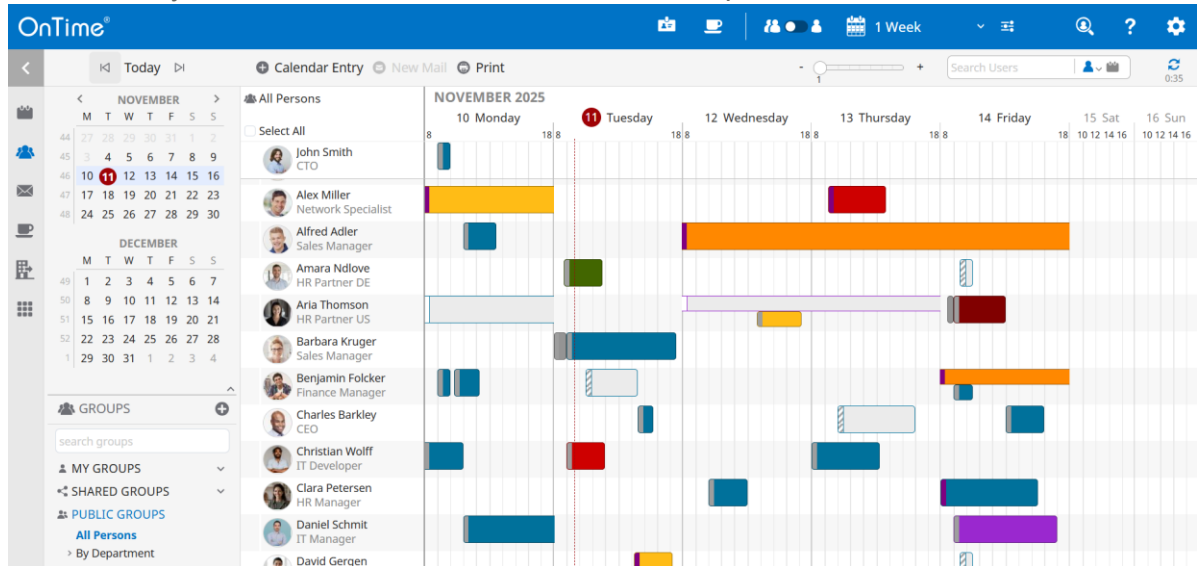
Run, as administrator, 'start-visitor.cmd'

Final test

OnTime Client Web Desktop

<https://ontime.example.com/ontimegcms/desktop>

Note: Insert your relevant URL instead of 'ontime.example.com'.



OnTime Client Web Mobile

<https://ontime.example.com/ontimegcms/mobile>

Note: Insert your relevant URL instead of 'ontime.example.com'.

