

Office 365 Integration



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Introduction

3CX Phone System provides out of the box integration with Office 365 accounts for syncing:

- Office 365 users to 3CX extensions.
- Users' personal contacts from Office 365 to 3CX phone books.
- 3CX users' status based on their Office 365 calendar.

To launch outbound calls from the Office 365 interface, you can use the [3CX Click to Call](#) browser extension for [Chrome](#) and [Firefox](#) or the 3CX app for Windows **"Hot Keys"** feature.

System Requirements

- **3CX v16 PRO or higher.**
- An Office 365 plan and user login credentials with **"Global Administrator"** privileges.
- These plans have limited or no integration capability with 3CX:
 - Office 365 Plans that do not have user management, i.e. home plans.
 - Plans that do not include Exchange cannot be used for Contact and Calendar Sync, i.e. Office 365 Business and Office 365 Pro Plus.
- Connectivity of 3CX host with the Office 365 service is required, for Office 365 changes to be broadcasted in near real-time to 3CX.
- When connectivity is not ensured, 3CX still performs an off-hours daily synchronization.
- The sync mechanism is one-way, from your Office 365 account to 3CX.
- Office 365 users need to have the **"UserType"** attribute set as **"Member"** in AD (Active Directory) to be synced.
- Deleted or updated Office 365 synced users via the 3CX Management Console, revert to the prior

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Home > App registrations (Preview) > Register an application

Register an application

PREVIEW

*** Name**

The user-facing display name for this application (this can be changed later).

3CX PBX Office 365 Sync App ✓

The first step to configure the [Office 365 integration](#) in 3CX v16, involves creating a unique app under your account to provide access to 3CX for syncing:

1. Login to your 3CX Management Console and go to **“Settings” > “Office 365” > “Configure”** tab > **“Step 3.”** section and copy the **“Redirect URL”**.
2. Go to the [Microsoft Azure App Registrations page](#) using your Office 365 Global Administrator account.
3. Click on the **“New registration”** button and:
 - a. Enter a name for your application in **“Name”**, e.g. **“3CX PBX Office 365 Sync App”**.
 - b. Leave the default option **“Accounts in this organizational directory only”** in the **“Supported account types”** section.
 - c. In the **“Redirect URI”** section, set the type as **“Web”** and paste the **“Redirect URL”** from **“Settings” > “Office 365 Integration” > “Configure”** tab > **“Step 3.”** section, e.g. **https://my-pbx.kom:5001/oauth2office2**
 - d. Click **“Register”** to create your app.

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3CX PBX Office 365 Sync App

PREVIEW

Overview Quickstart Manage

Delete Endpoints

Display name	3CX PBX Office 365 Sync App	Supported account types	My organization only
Application (client) ID	6f5481880163912f84848f0c30a6a3de3c1530f36	Redirect URIs	1 web, 0 public client

4. In the app **“Overview”** page, copy the **“Application (client) ID”**, switch to your 3CX Management Console and paste into the corresponding field in **“Settings” > “Office 365 Integration” > “Configure”** tab.

Step 2. Generate Key Pair

Step 2. Generate Key Pair

1. Click on the following button to generate a New Key pair.

a [Generate New Key Pair](#)

2. Upload the generated file "public_key.pem" to section "Application Secrets" by pressing "Upload Public Key".

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3CX PBX Office 365 Sync App - Certificates & secrets

PREVIEW

Overview

Quickstart

Manage

Branding

Authentication

Certificates & secrets

Upload certificate

Upload a certificate (public key) with one of the following file types: .cer, .pem, .crt

c "public_key.pem"

d [Add](#) [Cancel](#)

Now, you need to establish a public key trust relationship between your 3CX v16 install and the app you created, for 3CX to securely access your Office 365 account:

- On **"Settings"** > **"Office 365 Integration"** > **"Configure"** tab, click on the **"Generate New Key Pair"** button and save the new **public_key.pem** file on your PC.
- Switch to your app's **"Overview"** page and go to the **"Certificates & secrets"** page.
- Click on **"Upload certificate"**, browse to select and upload the generated file **public_key.pem**.
- Click to **"Add"** the uploaded certificate.

Step 3. App Permissions

Successfully granted admin consent for the requested permissions.

API permissions

Applications are authorized to use APIs by requesting permissions. These permissions show up during the consent process where users are given the opportunity to grant/deny access.

[+ Add a permission](#)

API / PERMISSIONS NAME	TYPE	DESCRIPTION	ADMIN CONSENT REQUIRED
▼ Microsoft Graph (3)			
Calendars.Read	Application	Read calendars in all mailboxes	Yes Granted for 3CX

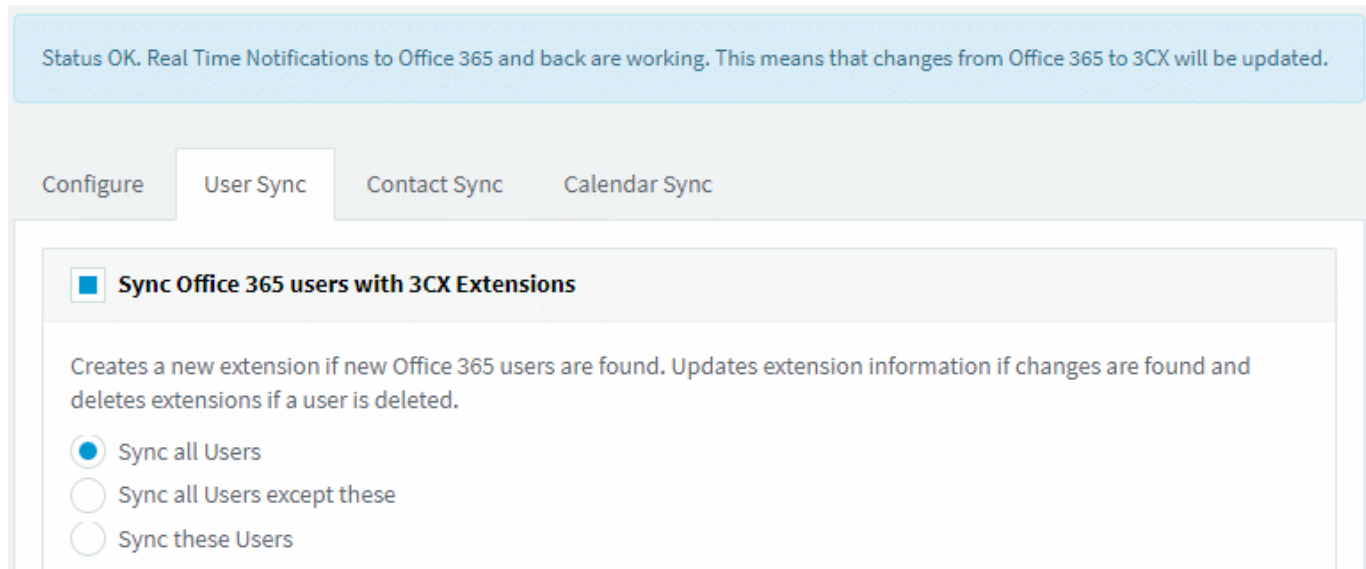
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In the final step, you need to set the app's permissions on the **"API permissions"** page, for 3CX to access your Office 365 account data:

1. Click on **"Add a permission"** > **"Microsoft Graph"** > **"Application permissions"**.
2. In the list of permissions in the "Application Permissions" section, click to expand and select these permissions:
 - a. **"Calendars"** > **"Calendars.Read"**
 - b. **"Contacts"** > **"Contacts.Read"**
 - c. **"Directory"** > **"Directory.Read.All"**
3. Click on **"Add permissions"** to set the app permissions.
4. In the **"Grant consent"** section, click on **"Grant admin consent"** and select **"Yes"** to confirm the app's permissions.
5. Wait for ~10 minutes for the app and Office 365 changes to become available.
6. Switch to your 3CX Management Console and click on the **"Sign in to Office 365"** button and accept the requested permissions for the app you created to connect your 3CX Phone System to your Office 365 account.

Built-in Functionality



The sync functions of the Office 365 integration module are controlled through the **"Settings"** > **"Office 365 Integration"** tabs:

- **"User Sync"** - Office 365 users are synced to 3CX extensions, grouped as **"Azure AD"** in the 3CX Management Console **"Groups"** function.
- **"Contact Sync"** - Office 365 users' personal contacts are synced to their 3CX phonebook. Users can use the **"Contacts"** view on any of the 3CX apps to browse their synced contacts.
- **"Calendar Sync"** - automatically update 3CX users' status based on the "Show As" status in their Office 365 calendar entries:

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- **“Business Trip”** status in 3CX overrides the synced status.
- Users can override their synced status by setting a new status in their 3CX app.
- At the specified end time for your Office 365 calendar entry, 3CX switches your profile back to the previous status.

All of the module’s sync functions can apply to all Office 365 users, all except for specific users, or only specific users.

Launching Calls from Office 365

You can launch outbound calls directly from Office 365 using:

- The **“Hot Keys”** feature in [3CX app for Windows](#). Once the hotkey dialing has been configured, you can just select the phone number, press the hotkey to transfer the number in your 3CX app for Windows dialpad screen and click **“Call”** to launch the call.
- The [3CX Click to Call](#) browser extension for [Chrome](#) and [Firefox](#), to enable you to dial phone numbers directly from your browser with a simple click of the mouse. Numbers are automatically transferred to the 3CX Web Client to make the call, eliminating the need for copy and paste.