

## Azure AD Skype for Business Authentication Setup

Some features in Puzzel's contact centre agent application requires users (agents) to authenticate themselves in Microsoft Entra ID (Azure AD). The authentication is amongst others used to enable search for contacts in Skype for Business but can also be used for authentication towards custom/external widgets.

This document shows a step by step description on how to configure Microsoft Entra ID (Azure AD) to get the required App ID URI required by the agent application in order to authenticate the user (agent) towards Skype for Business.

## Configuring Skype for Business App

Follow the below steps for enabling Microsoft Entra ID (Azure AD) authentication used by Puzzel. After setting up the app in Azure, you must enable S4B in the admin portal described in a separate chapter

### Note

The screenshots and descriptions below are based on the Azure AD service release “1904” tenant, and the user is a “Global Administrator” with sufficient access.

### Note

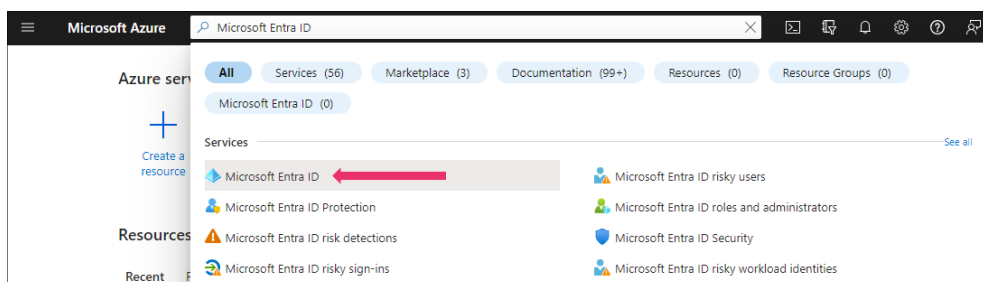
Puzzel has made changes to the Application registration process from the first version to be in line with Microsoft recommendation for registering an app. We have support for user authentication with Authorisation Code Flow with PKCE according to Microsoft guidance. If you have registered with the old method we advise you to migrate to latest method as soon as possible as described below.

For more details on MSAL update from Microsoft read [here](#).

## Setup for Skype for Business App in Azure

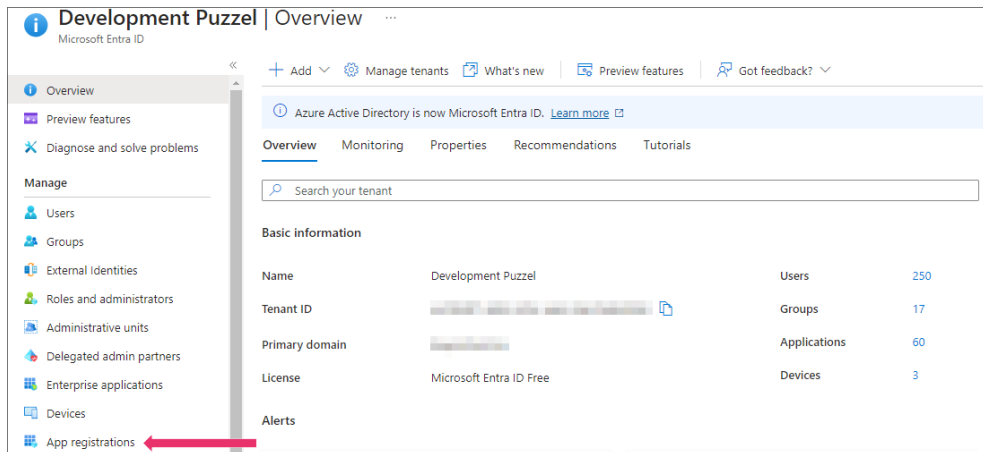
### Step 1:

Go to <https://portal.azure.com> and login with the Global Admin for your domain. Select “Microsoft Entra ID”.



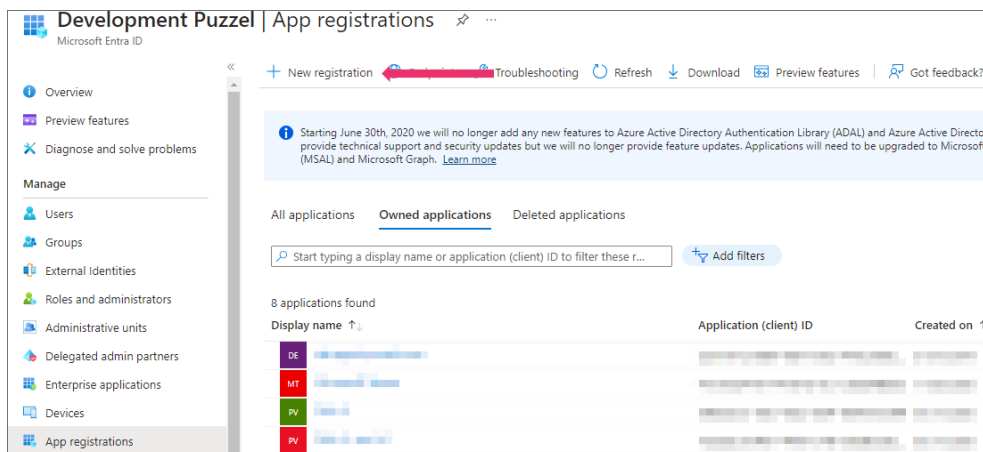
### Step 2:

Choose **App registrations**



### Step 3:

Click on the **New registration** option



### Step 4:

Fill in the following 3 sections:

- **Name** - Choose a name for the application (e.g. "Puzzel S4B Connector")
- **Supported account types** – Choose the option that is relevant for you. The recommended option is "Accounts in this organisational directory only (<directory name>)"
- **Redirect URI (optional)** – Choose "Single-page application" and "https://app.puzzel.com/agent/" OR "https://uk.puzzel.com/agentapp/" for UK

## Register an application ...

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

Puzzel S4B Connector ✓

**Supported account types**  
Who can use this application or access this API?

☒ Accounts in this organizational directory only (Development Puzzel only - Single tenant)  
☐ Accounts in any organizational directory (Any Microsoft Entra ID tenant - Multitenant)  
☐ Accounts in any organizational directory (Any Microsoft Entra ID tenant - Multitenant) and personal Microsoft accounts (e.g. Skype, Xbox)  
☐ Personal Microsoft accounts only

[Help me choose...](#)

**Redirect URI (optional)**  
We'll return the authentication response to this URI after successfully authenticating the user. Providing this now is optional and it can be changed later, but a value is required for most authentication scenarios.

Single-page application (SPA) ▼ https://app.puzzel.com/agent/ ✓

Register an app you're working on here. Integrate gallery apps and other apps from outside your organization by adding from [Enterprise applications](#).

By proceeding, you agree to the [Microsoft Platform Policies](#) ↗

**Register**

Click on the **Register** button and you should be able to see the given Application (client) ID you need for the admin portal later.

Puzzel S4B Connector

Search

«

Delete

Endpoints

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Display name

Puzzel S4B Connector

Application (client) ID

Object ID

Directory (tenant) ID

Supported account types

My organization only

Client credentials

[Add a certificate or secret](#)

Redirect URIs

[0 web, 1 spa, 0 public client](#)

Application ID URI

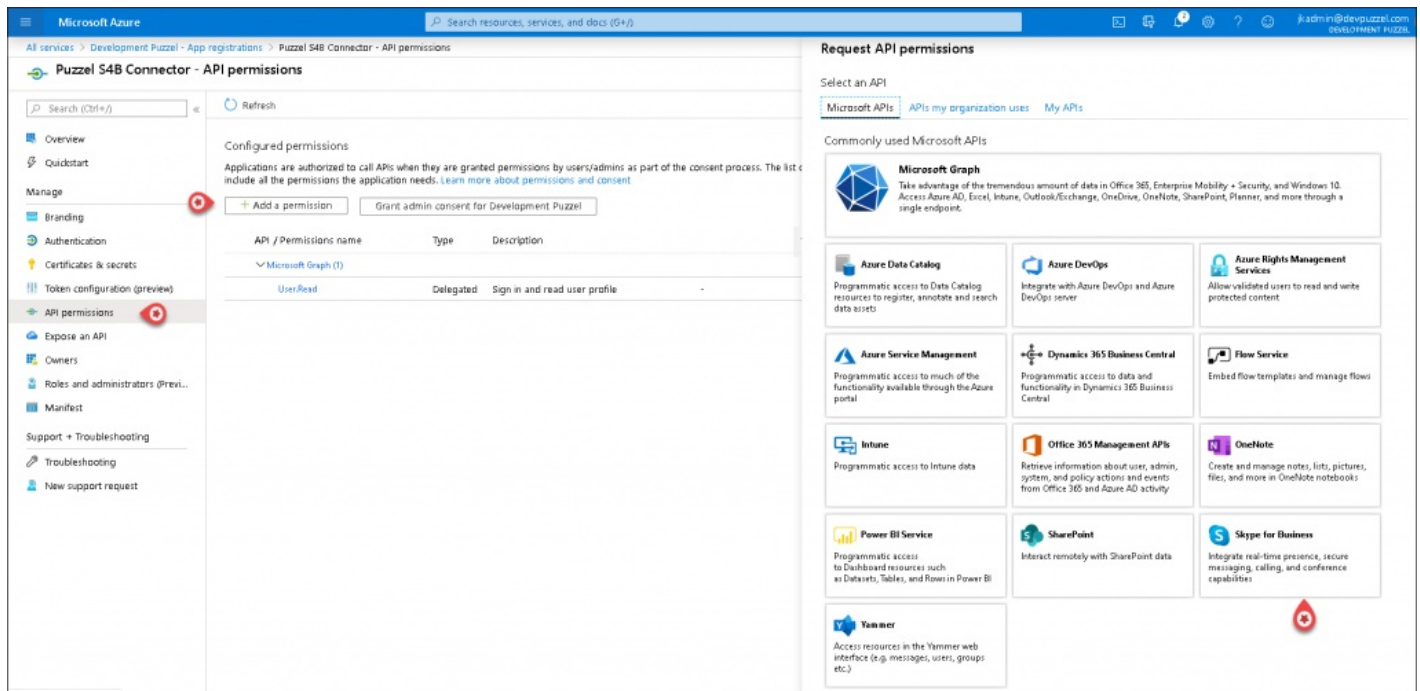
[Add an Application ID URI](#)

Managed application in local directory

[Puzzel S4B Connector](#)

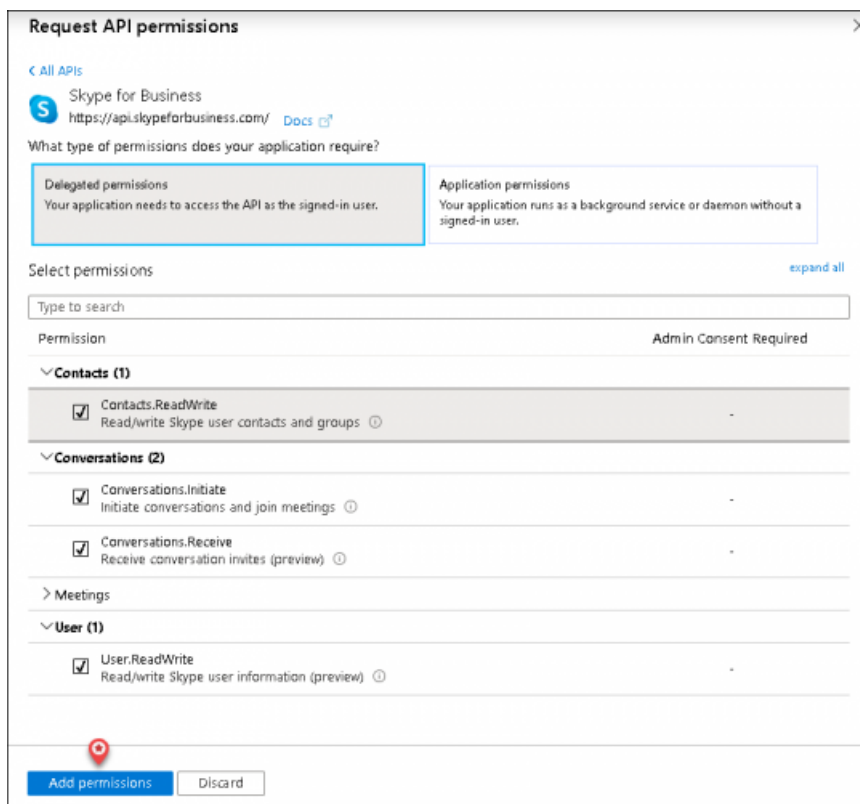
## Step 5:

Choose "API permissions, click on the «Add a permission» button and choose «Skype for Business» in the rightmost pane.



Choose «Delegated permissions» and tick the following check boxes and click on the **Add permissions** button

- Contacts.ReadWrite
- Conversations.Receive
- Conversations.Initiate
- User.ReadWrite



**Step 6:**

Choose **API permissions**, click on the **Add a permission** button and choose **Azure Active Directory Graph** in the right pane.

Choose **Delegated permissions** and tick the **User.Read** check box and click on the **Add permissions** button.

### Request API permissions

< All APIs

Azure Active Directory Graph  
https://graph.windows.net/ Docs

Azure Active Directory Graph APIs are available via the Microsoft Graph API. You may want to consider using Microsoft Graph instead.

What type of permissions does your application require?

**Delegated permissions**  
Your application needs to access the API as the signed-in user.

**Application permissions**  
Your application runs as a background service or daemon without a signed-in user.

Select permissions expand all

Permission	Admin Consent Required
> Directory	
> Group	
> Member	
> Policy	
▼ <b>User (1)</b>	
<input checked="" type="checkbox"/> <b>User.Read</b> Sign in and read user profile	-
<input type="checkbox"/> <b>User.Read.All</b> Read all users' full profiles	Yes
<input type="checkbox"/> <b>User.ReadBasic.All</b> Read all users' basic profiles	-

Add permissions
Discard

## Step 7:

Choose **API permissions**, click on the **Add a permission** button and choose **Exchange** in the right pane.

Choose **Delegated permissions** and tick the **Calendars.Read.All** check box and click on the **Add permissions** button.

Request API permissions

< All APIs

Exchange

https://outlook.office365.com/ Docs

What type of permissions does your application require?

Delegated permissions  
Your application needs to access the API as the signed-in user.

Application permissions  
Your application runs as a background service or daemon without a signed-in user.

Select permissions

expand all

Type to search

PermissionAdmin Consent Required

Calendars (1)

☐ Calendars.Read  
Read user calendars -

☒ Calendars.Read.All  
Read user and shared calendars -

☐ Calendars.Read.Shared  
Read user and shared calendars -

☐ Calendars.ReadWrite  
Read and write user calendars -

☐ Calendars.ReadWrite.All  
Read and write user and shared calendars -

☐ Calendars.ReadWrite.Shared  
Read and write user and shared calendars -

> Contacts

> EAS

> EWS

> Exchange

> Groups

Add permissions

Discard

Step 8:

Click on the Grant admin consent for <directory name> and click**Yes** to confirm

Refresh

You are adding permission(s) to your application, users will have to consent even if they've already done so previously.

Configured permissions

Applications are authorized to call APIs when they are granted permissions by users/admins as part of the consent process. The list of configured permissions should include all the permissions the application needs. [Learn more about permissions and consent](#)

+ Add a permission

Grant admin consent for Development Puzzel

API / Permissions name	Type	Description	Admin Consent Required	Status
Azure Active Directory Graph (1)				
User.Read	Delegated	Sign in and read user profile	-	...
Exchange (1)				
Calendars.Read.All	Delegated	Read user and shared calendars	-	...
Microsoft Graph (1)				
User.Read	Delegated	Sign in and read user profile	-	...
Skype for Business (4)				
Contacts.ReadWrite	Delegated	Read/write Skype user contacts and groups	-	...
Conversations.Initiate	Delegated	Initiate conversations and join meetings	-	...
Conversations.Receive	Delegated	Receive conversation invites (preview)	-	...
User.ReadWrite	Delegated	Read/write Skype user information (preview)	-	...

You should see a “Successfully granted admin consent for the requested permissions” confirmation at the top of the screen.

Refresh

*Successfully granted admin consent for the requested permissions.*

Configured permissions

Applications are authorized to call APIs when they are granted permissions by users/admins as part of the consent process. The list of configured permissions should include all the permissions the application needs. [Learn more about permissions and consent](#)

+ Add a permission

Grant admin consent for Development Puzzel

API / Permissions name	Type	Description	Admin Consent Requir...	Status
<div> <div>▼ Azure Active Directory Graph (1)</div> <div> <div>User.Read</div> <div>Delegated</div> <div>Sign in and read user profile</div> <div>-</div> <div> <div>✔</div> <div>Granted for Developme...</div> </div> </div> </div>				...
<div> <div>▼ Exchange (1)</div> <div> <div>Calendars.Read.All</div> <div>Delegated</div> <div>Read user and shared calendars</div> <div>-</div> <div> <div>✔</div> <div>Granted for Developme...</div> </div> </div> </div>				...
<div> <div>▼ Microsoft Graph (1)</div> <div> <div>User.Read</div> <div>Delegated</div> <div>Sign in and read user profile</div> <div>-</div> <div> <div>✔</div> <div>Granted for Developme...</div> </div> </div> </div>				...
<div> <div>▼ Skype for Business (4)</div> <div> <div>Contacts.ReadWrite</div> <div>Delegated</div> <div>Read/write Skype user contacts and groups</div> <div>-</div> <div> <div>✔</div> <div>Granted for Developme...</div> </div> </div> </div>				...
<div> <div>Conversations.Initiate</div> <div>Delegated</div> <div>Initiate conversations and join meetings</div> <div>-</div> <div> <div>✔</div> <div>Granted for Developme...</div> </div> </div>				...
<div> <div>Conversations.Receive</div> <div>Delegated</div> <div>Receive conversation invites (preview)</div> <div>-</div> <div> <div>✔</div> <div>Granted for Developme...</div> </div> </div>				...
<div> <div>User.ReadWrite</div> <div>Delegated</div> <div>Read/write Skype user information (preview)</div> <div>-</div> <div> <div>✔</div> <div>Granted for Developme...</div> </div> </div>				...

## Step 9:

The last thing to do is to choose “Authentication” in the menu and add a Redirect URI if you are not yet using the agent application with Puzzel ID. Add "https://agent.puzzel.com" OR "https://uk.puzzel.com/agent/" for UK.

Puzzel S4B Connector | Authentication

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Troubleshooting

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Platform configurations

Depending on the platform or device this application is targeting, additional configuration may be required such as redirect URIs, specific authentication settings, or fields specific to the platform.

+ Add a platform

Single-page application

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Redirect URIs

The URIs we will accept as destinations when returning authentication responses (tokens) after successfully authenticating or signing out users. The redirect URI you send in the request to the login server should match one listed here. Also referred to as reply URLs. [Learn more about Redirect URIs and their restrictions](#)

https://app.puzzel.com/agent/

https://agent.puzzel.com

Add URI

Grant types

✔ Your Redirect URI is eligible for the Authorization Code Flow with PKCE.

Front-channel logout URL

This is where we send a request to have the application clear the user's session data. This is required for single sign-out to work correctly.

e.g. https://example.com/logout

Implicit grant and hybrid flows

Request a token directly from the authorization endpoint. If the application has a single-page architecture (SPA) and doesn't use the authorization code flow, or if it invokes a web API via JavaScript, select both access tokens and ID tokens. For ASP.NET Core web apps and other web apps that use hybrid authentication, select only ID tokens. [Learn more about tokens](#).

Select the tokens you would like to be issued by the authorization endpoint:

☐ Access tokens (used for implicit flows)

☐ ID tokens (used for implicit and hybrid flows)

Save

Discard

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Click on **Save** on the bottom.

## Migration from old method to latest method authentication:

As mentioned above we highly recommend our customers to migrate to latest authentication process. It can be done fairly easily by following the 4 steps listed below:

1. Go to **Authentication** page and you will see the following warning as shown in the picture.

Save Discard Got feedback?

Got a second to give us some feedback? →

### Platform configurations

Depending on the platform or device this application is targeting, additional configuration may be required such as redirect URIs, specific authentication settings, or fields specific to the platform.

+ Add a platform

Web

Quickstart Docs

Redirect URIs

The URIs we will accept as destinations when returning authentication responses (tokens) after successfully authenticating users. Also referred to as reply URLs. [Learn more about Redirect URIs and their restrictions](#)

This app has implicit grant settings enabled. If you are using any of these URIs in a SPA with MSAL.js 2.0, you should migrate URIs. →

https://agent.puzzel.com

Add URI

### Logout URL

This is where we send a request to have the application clear the user's session data. This is required for single sign-out to work correctly.

e.g. https://myapp.com/logout ✓

2. Click on the warning to open the Migrate URIs window

Save Discard Got feedback?

Got a second to give us some feedback? →

### Platform configurations

Depending on the platform or device this application is targeting, additional configuration may be required such as redirect URIs, specific authentication settings, or fields specific to the platform.

+ Add a platform

Web

Quickstart Docs

Redirect URIs

The URIs we will accept as destinations when returning authentication responses (tokens) after successfully authenticating users. Also referred to as reply URLs. [Learn more about Redirect URIs and their restrictions](#)

This app has implicit grant settings enabled. If you are using any of these URIs in a SPA with MSAL.js 2.0, you should migrate URIs. →

https://agent.puzzel.com

Add URI

Migrate URIs

The latest version of MSAL.js uses the authorization code flow with PKCE and CORS. [Learn more](#)

Select URIs to migrate to the single-page application (SPA) platform configuration. Migrated URIs will have auth code flow enabled. Implicit grant is also still enabled so long as the settings are checked.

Redirect URIs ↑

☐ https://agent.puzzel.com

3. Select the URI and click on **Configure**



## Migrate URIs



**i** The latest version of MSAL.js uses the authorization code flow with PKCE and CORS. [Learn more](#)

Select URIs to migrate to the single-page application (SPA) platform configuration. Migrated URIs will have auth code flow enabled. Implicit grant is also still enabled so long as the settings are checked.

Redirect URIs

☒ <https://agent.puzzel.com>



Configure

Cancel

4. Add Redirect URI "https://app.puzzel.com/agent/" OR "https://uk.puzzel.com/agentapp/" for UK as described in step 9 above.
5. Untick the **Access tokens** and **ID tokens** under Implicit grant and save the changes.

Save Discard Got feedback?

### Single-page application

[Quickstart](#) [Docs](#)

#### Redirect URIs

The URIs we will accept as destinations when returning authentication responses (tokens) after successfully authenticating users. Also referred to as reply URLs. [Learn more about Redirect URIs and their restrictions](#)

<https://agent.puzzel.com>

[Add URI](#)

#### Grant types

MSAL.js 2.0 does not support implicit grant. Enable implicit grant settings only if your app is using MSAL.js 1.0. [Learn more](#)

Your Redirect URI is eligible for the Authorization Code Flow with PKCE.

#### Logout URL

This is where we send a request to have the application clear the user's session data. This is required for single sign-out to work correctly.

e.g. <https://myapp.com/logout>

#### Implicit grant

Allows an application to request a token directly from the authorization endpoint. Checking Access tokens and ID tokens is recommended only if the application has a single-page architecture (SPA), has no back-end components, does not use the latest version of MSAL.js with auth code flow, or it invokes a web API via JavaScript. ID Token is needed for ASP.NET Core Web Apps. [Learn more about the implicit grant flow](#)

To enable the implicit grant flow, select the tokens you would like to be issued by the authorization endpoint:

- ☐ Access tokens  
☐ ID tokens

## Setup for Skype for Business integration in the Puzzel's admin portal

In the admin portal, you need to add your Azure app details in order to have the Skype for Business functionality work properly.

1. Add the general agent application authentication properties for your Skype for Business integration. This is done in the admin portal under “Users -> Products -> Agent Application”. The relevant 5 properties are easily found if you enter “Azure” in the top right filter field. If you have registered the app using old method in step 4, the configuration would be as shown below:

Home » Users » Products

Products ?

azure X Expand all

▼ Agent Application ?

Quick find users/user groups

	Company Product Demo	User Group Select User Group	User Select User
	Inherit	Value	Inherit
Azure AD Application Id	<input type="checkbox"/>		
Azure AD Login at startup	<input type="checkbox"/>	On <input checked="" type="radio"/> Off <input type="radio"/>	
Azure AD Tenant	<input type="checkbox"/>	your company.com	
Azure AD Use agent e-mail as login hint	<input checked="" type="checkbox"/>	On <input type="radio"/> Off <input type="radio"/>	
Azure AD Use Microsoft identity platform [v2.0] [A]	<input checked="" type="checkbox"/>	On <input checked="" type="radio"/> Off <input type="radio"/>	

Save Changes Undo changes

- **Azure AD Application ID** – Add the Azure App ID fetched from the Azure App setup
- **Azure AD Login at startup** – Enables to log on to Skype for Business upon signing into the agent application, if authenticated.
- **Azure AD Tenant** – Add your tenant/domain (without https://) for the directory used for fetching contact information.
- **Azure AD Use agent e-mail as login hint** – Upon authentication, the user’s e-mail address registered in his or her Puzzel account is suggested.
- **Azure AD use Microsoft identity platform[V2.0][A]** - By default this property is turned off to enable the customers using the old method to continue without disruption to their services.

If you have registered the app using latest method in step 4, do the following:

Home » Users » Products

Products ?

azure X Expand all

▼ Agent Application ?

Quick find users/user groups

	Company Product Demo	User Group Select User Group	User Select User
	Inherit	Value	Inherit
Azure AD Application Id	<input type="checkbox"/>		
Azure AD Login at startup	<input type="checkbox"/>	On <input checked="" type="radio"/> Off <input type="radio"/>	
Azure AD Tenant	<input type="checkbox"/>	your company.com	
Azure AD Use agent e-mail as login hint	<input checked="" type="checkbox"/>	On <input type="radio"/> Off <input type="radio"/>	
Azure AD Use Microsoft identity platform [v2.0] [A]	<input type="checkbox"/>	On <input checked="" type="radio"/> Off <input type="radio"/>	

Save Changes Undo changes

- **Azure AD Application ID** – Add the Azure App ID fetched from the Azure App setup
- **Azure AD Login at startup** – Enables to log on to Skype for Business upon signing into the agent application, if authenticated.

- **Azure AD Tenant** –Add your tenant/domain (without https://) for the directory used for fetching contact information.
- **Azure AD Use agent e-mail as login hint** –Upon authentication, the user's e-mail address registered in his or her Puzzel account is suggested.
- **Azure AD use Microsoft identity platform[V2.0][A]**- Turn this on for Microsoft recommended way of authentication using MSAL.

2. Remember to save your settings

3. Activate the Skype for Business widget on your solution, if you already haven't. This is done under Widget -> Widget Administration. Find the Skype for Business widget (Owner 10000) and tick the rightmost belonging to check box

Skype For Business	10000	<input checked="" type="checkbox"/>
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4. The Skype for Business widget should now be available under Widget -> Widget Configuration -> Skype For Business. Unless you want to disable Skype for Business for some agents, you should use the default settings

▼ Skype For Business

Quick find users/user groups

	Company	
	Inherit	Value
Allowed	<input checked="" type="checkbox"/>	On <input checked="" type="radio"/> Off <input type="radio"/>
Client ID	<input checked="" type="checkbox"/>	
Display authentication prompt	<input checked="" type="checkbox"/>	On <input checked="" type="radio"/> Off <input type="radio"/>
Domain	<input checked="" type="checkbox"/>	
module	<input checked="" type="checkbox"/>	services/search/skype
Unique Source Name	<input checked="" type="checkbox"/>	SkypeContactSource

Save changes

↶ Undo changes

- **Allowed** – Enable or disable "Skype for Business" features for users.
- **Client ID** – Not in use. Leave blank.
- **Display authentication prompt** – Prompt user for authentication towards Skype for Business, if not already authenticated.
- **Domain** – Not in use. Leave blank.
- **Module** – System property. Do not change.
- **Unique Source name** – System property. Do not change.


Remember to **save** your settings


Your users should now have access to search for your company's Skype for Business contacts.

Outbound call

Skype for ... ▼

James Bond





Calling from 03050 • [Change](#)

If not already authenticated, users are prompted to do so when signing in or searching for a contact in the “Skype for Business” search source. They should then sign in with their corporate e-mail address.