

# **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 readhere.

## 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".

≡	Microsoft Azure	P Microsoft Entra ID	× 5 6 0 0	@ &
Azure ser		All Services (56) Marketplace (3) Docu Microsoft Entra ID (0)	mentation (99+) Resources (0) Resource Groups (0)	
	Create a	Services		See all
	resource	Icrosoft Entra ID	🏡 Microsoft Entra ID risky users	
		🚣 Microsoft Entra ID Protection	🚴 Microsoft Entra ID roles and administrators	
	Resources	A Microsoft Entra ID risk detections	Microsoft Entra ID Security	
	Recent F	nicrosoft Entra ID risky sign-ins	hicrosoft Entra ID risky workload identities 🖍	

## Step 2:

Choose App registrations



Development Puzze     Microsoft Entra ID	el   Overview …			
*	🕂 Add \vee 🔅 Manage t	enants 🗇 What's new 🛛 🗟 Preview features 🛛 🔗 Go	t feedback? 🗸	
Overview	0			
Preview features	<ul> <li>Azure Active Directory i</li> </ul>	is now Microsoft Entra ID. Learn more		
X Diagnose and solve problems	Overview Monitoring	Properties Recommendations Tutorials		
Manage	🔎 Search your tenant			
🚨 Users				
A Groups	Basic information			
External Identities	Name	Development Puzzel	Users	250
& Roles and administrators	Tenant ID	En la companya de la	Groups	17
Administrative units				
🚸 Delegated admin partners	Primary domain	ingen bei in	Applications	60
Enterprise applications	License	Microsoft Entra ID Free	Devices	3
Devices	Alerts			
👪 App registrations 🔶				

## Step 3:

#### Click on the New registration option

🔢 Development Puzze	I App registrations 👒 🐇	
Microsoft Entra ID		
**	🕂 New registration 🐥 💷 Troubleshooting 🕐 Refresh 🚽 Download 🗔 Preview features 🕴 👰 Got feedbar	ck?
<ol> <li>Overview</li> </ol>		
Preview features		
X Diagnose and solve problems	(f) Starting June 30th, 2020 we will no longer add any new features to Azure Active Directory Authentication Library (ADAL) and Azure Active Dire provide technical support and security updates but we will no longer provide feature updates. Applications will need to be upgraded to Microi (MSAL) and Microsoft Graph. Learn more	
Manage		
🚨 Users	All applications Owned applications Deleted applications	
A Groups	P Start typing a display name or application (client) ID to filter these r     type Add filters	
External Identities	P Start typing a display name or application (client) ID to filter these r     T Add filters     Add filters	
& Roles and administrators	8 applications found	
Administrative units	Display name 👈 Application (client) ID Created or	n ↑↓
🚸 Delegated admin partners		
Enterprise applications		
Devices		
App registrations	N Terra and a second se	

### 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?
<ul> <li>Accounts in this organizational directory only (Development Puzzel only - Single tenant)</li> </ul>
<ul> <li>Accounts in any organizational directory (Any Microsoft Entra ID tenant - Multitenant)</li> </ul>
<ul> <li>Accounts in any organizational directory (Any Microsoft Entra ID tenant - Multitenant) and personal Microsoft accounts (e.g. Skype, Xbox)</li> </ul>
O 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) V https://app.puzzel.com/agent/ V
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 🗗
Reaister

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

Ruzzel S4B Conn	ector 🖈 …	
₽ Search	« 📋 Delete 🕀 Endpoints 💀 Preview features	
Overview		
🗳 Quickstart	∧ Essentials	
💉 Integration assistant	Display name <u>Puzzel S48 Connector</u>	Client credentials Add a certificate or secret
Manage	Application (client) ID	Redirect URIs <u>0 web, 1 spa, 0 public client</u>
Branding & properties	Object ID	Application ID URI Add an Application ID URI
Authentication	Directory (tenant) ID	Managed application in local directory
📍 Certificates & secrets		Puzzel S4B Connector
Token configuration	Supported account types My organization only	

## Step 5:

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



Microsoft Azure	P Search resources, services, and docs (G+/)		🛛 🖸 🖓 🖉	A 2 A A A A A A A A A A A A A A A A A A
All services > Development Puzzel - Ap	p registrations > Puzzel S48 Connector - API permissions	Request API permissions		
- Puzzel S4B Connector -	API permissions	Select an API		
	O Refresh	Microsoft APIs APIs my organization u	ses My APIs	
Cverview Gruidstart Manage Branding	Configured permissions Applications are authorized to call APs when they are granted permissions by users/admins as part of the consent process. The list c indude at the permissions the application needs, Learn more about permissions and consent. Add a permission Grant admin consent for Development Puzzel	Commonly used Microsoft APIs Microsoft Graph Tike adventage of the tremen Access Asure AD, Excel, Intum single endpoint.	dous amount of data in Office 365, Enterprin , Outlook/Ecchange, OneDrive, OneNote, St	e Mobility + Security, and Windows 10. harePoint, Planner, and more through a
Authentication     Certificates & secrets     Token configuration (preview)	API / Permissions name Type Description · · · · · · · · · · · · · · · · · · ·	Azure Data Catalog Programmatic access to Data Catalog	C Azure DevOps	Azure Rights Management Services Allow validated users to read and write
API permissions     Expose an API     Covners		resources to register, annotate and search data assets Azure Service Management	DevOps server	protected content
<ul> <li>Roles and administrators (Previ</li> <li>Manifest</li> </ul>		Programmatic access to much of the functionality available through the Azure portal	<ul> <li>Programmatic access to data and functionality in Dynamics 365 Business Central</li> </ul>	Embed flow templates and manage flows
Support + Troubleshooting  Troubleshooting  New support request		Frogrammatic access to Intune data	Office 365 Management APIs Retrieve information about user, admin, system, and policy actions and events from Office 365 and Azure AD activity	Create and manage notes, lists, pictures, fries, and more in OneNote notebooks
		Proyer BI Service Programmatic access to Dashbadir desource such as Datasets, Tables, and Rows in Power BI	SharePoint Interact remotely with SharePoint data	Skype for Bunness Integrate real-time presence, secure messaging, calling, and conference capabilities
		You mer Access resources in the Yommer web interface (e.g. messages, users, groups etc.)		٥

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

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

eques	API permissions	
	pe for Business s://api.skypeforbusiness.com/ Docs 📑	
/hat type	of permissions does your application require?	
	d permissions lication 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.
elect per	missions	expand a
Type to se	earch	
Permissio	n	Admin Consent Required
~Conta	ts (1)	
V	Contacts.ReadWrite Read/write Skype user contacts and groups ①	
~Conve	rsations (2)	
V	Conversations.Initiate Initiate conversations and join meetings ①	
1	Conversations.Receive Receive conversation invites (preview) ①	
> Meetin	gs	
∨User (1	1)	
V	User.ReadWrite Read/write Skype user information (preview) ①	
(	0	
Add ne	rmissions Discard	

## 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.

equest API permissions	
All APIs	
Azure Active Directory Graph	
https://graph.windows.net/ Docs B <sup>n</sup>	
Azure Active Directory Graph APIs are available via the Microsoft	oft Graph API. You may want to consider using Microsoft Graph instead.
hat type of permissions does your application require?	
Delegated permissions	Application permissions
Your application needs to access the API as the signed-in user.	Your application runs as a background service or daemon without a signed-in user.
elect permissions	espa
Type to search	
Permission	Admin Consent Required
> Directory	
> Group	
> Member	
> Policy	
∨User (1)	
Sign in and read user profile ③	
User.Read.All Read all users' full profiles ①	Yes
User:ReadBasic.All Read all users' basic profiles ③	
-	
<b>(</b> )	

#### 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	
C All APIs	
Exchange https://outlook.office365.com/ Docs C	
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	
Permission	Admin Consent Required
∼Calendars (1)	
Calendars.Read Read user calendars ③	
Calendars.Read.All Read user and shared calendars ③	
Calendars.Read.Shared Read user and shared calendars ③	
Calendars.ReadWrite Read and write user calendars ③	
Calendars.ReadWrite.All Read and write user and shared calendars ③	
Calendars.ReadWrite.Shared Read and write user and shared calendars ①	
> Contacts	
> EAS	
> EWS	
> Exchange	
Add permissions Discard	

## Step 8:

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

You are adding permission(s) to your a	pplication, users will I	have to consent even if they've already done so previo	ously.	
le all the permissions the application	on needs. Learn mo	red permissions by users/admins as part of the or about permissions and consent r Development Puzzel	consent process. The list of configured permissions sl	rould
API / Permissions name	Туре	Description	Admin Consent Requir 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)		

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



Constant and a design of the second design of the s					
Successfully granted admin consent fo	or the requested permi	331003.			
onfigured permissions					
		ed permissions by users/admins as part of the	consent process. The list of a	configured permissions shoul	d
lude all the permissions the application	on needs. Learn mor	re about permissions and consent			
+ Add a permission Gran	t admin consent for	r Development Puzzel			
API / Permissions name	Type	Description	Admin Consent Requir	Status	
✓ Azure Active Directory Graph (1)					
User.Read	Delegated	Sign in and read user profile	-	🥑 Granted for Developme	
←Exchange (1)					••
Calendars.Read.All	Delegated	Read user and shared calendars	-	🥑 Granted for Developme	
∽Microsoft Graph (1)					••
User.Read	Delegated	Sign in and read user profile	-	🤣 Granted for Developme	••
✓ Skype for Business (4)					••
Contacts.ReadWrite	Delegated	Read/write Skype user contacts and groups	-	🥑 Granted for Developme,	••
Conversations.Initiate	Delegated	Initiate conversations and join meetings	-	🥑 Granted for Developme	••
Conversations. Receive	Delegated	Receive conversation invites (preview)		🥑 Granted for Developme	

### 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 Connect	or   Authentication 🛷 …	$\times$
₽ Search «	R Got feedback?	
R Overview	Platform configurations	
🗳 Quickstart	5	
🚀 Integration assistant	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.	
Manage	+ Add a platform	
Branding & properties		
Authentication	Single-page application Quickstart Docs 🗗 🧻	
Certificates & secrets	Redirect URIs	
Token configuration	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.	
-> API permissions	Learn more about Redirect URIs and their restrictions 🖓	
Expose an API	https://app.puzzel.com/agent/	
App roles	https://agent.puzzel.com	
A Owners	Add URI	
& Roles and administrators	Grant types	
Manifest	Your Redirect URI is eligible for the Authorization Code Flow with PKCE.	
Support + Troubleshooting		
Troubleshooting		
New support request	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)	
	D tokens (used for implicit and hybrid flows)	
-	Save Discard	



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.

-			
Got a second to give us some feedback? →			
latform configurations			
epending on the platform or device this application is targeting, additional configuration may be required such as direct URIs, specific authentication settings, or fields specific to the platform.			
+ Add a platform			
∧ Web	Quickstart	Docs	Û
Redirect URIs			
The URIs we will accept as destinations when returning authentication responses (tokens) after successfully authenticating users. Also re Learn more about Redirect URIs and their restrictions 🖓	ferred to as r	reply URLs.	
cean more about realised only and their resolutions			
▲ This app has implicit grant settings enabled. If you are using any of these URIs in a SPA with MSAL is 2.0, you should migrate URIs. →			×
			×
⚠ 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. →			
▲ 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			
▲ 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			

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

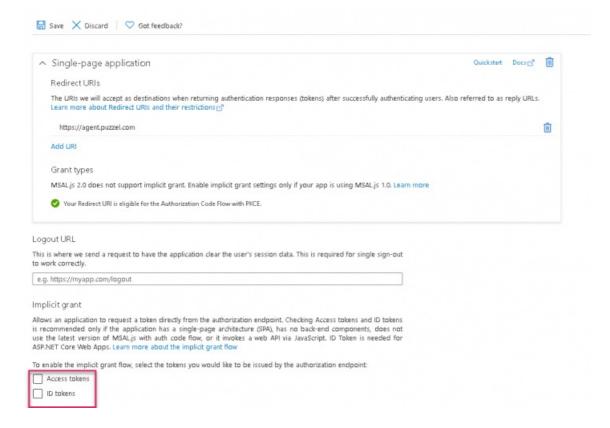
\$	Migrate URIs ×
🗟 Save 🗙 Discard   🗢 Got feedback?	The latest version of MSALjs uses the authorization code flow with PKCE and CORS. Learn more
⑥ Got a second to give us some feedback? →	Select URIs to migrate to the single-page application (SPA) platform configuration.
Platform configurations	Migrated URIs will have auth code flow enabled. Implicit grant is also still enabled so long as the settings are checked.
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.	Redirect URIs $\uparrow_{\downarrow}$
+ Add a platform	https://agent.puzzel.com
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	

3. Select the URI and click on Configure



Migrate URIs	×
The latest version of MSAL.js uses the authorization code flow with PKCE and CORS. Learn r	nore
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 l as the settings are checked.	long
Redirect URIs $\uparrow_{\downarrow}$	
Https://agent.puzzel.com	
0	
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.



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:

					azure 🗙 Expand a
					atore X
Agent Application					
Quick find users/user groups Product Demo		User Group Select User Group	~	User Select User ✓	
	Inherit	Value	Inherit	Value	Inherit Value
Azure AD Application Id	0 [				
Azure AD Login at startup		On 🖲 🔿 Off			
Azure AD Tenant	0	our company.com			
Azure AD Use agent e-mail as login hint	•	On 🔿 🖲 Off			
Azure AD Use Microsoft identity platform (v2.8) [A]		on 🔿 🖲 off			

- 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.

Products 💿				
				azure 🗙 Expan
Agent Application				
Quick find users/user groups	Company Product Demo	User Group Select User Group	~	User Select User ✓
	Inherit Value	Inherit	Value	Inherit Value
Azure AD Application Id				
zure AD Login at startup	n O off			
zure AD Tenant	your company.com			
zure AD Use agent e-mail as login hint	on O 🖲 Off			
Azure AD Use Microsoft identity platform (v2.0) [A]	🗆 on 🖲 O off			

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

- 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
--------------------------

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

Quick find users/user groups	Company			
	Inherit	Value		
Allowed	V	On 🖲 🔿 Off		
Client ID	V			
Display authentication prompt	Ø	On 🖲 🔿 Off		
Domain				
module		services/search/skype		
Unique Source Name		SkypeContactSource		

- 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	۹ 📞			
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.