

# Registering a calling bot

In this topic you will learn how to register a new Calling Bot.

## Register your bot in the Azure Bot Service

Complete the following steps:

1. Register a bot by creating a **Bot Channels Registration** through [Azure Bot Channel Registration](#).
2. Once you complete the registration, take a note of the registered config values (Bot Name, Application Id, and Application Secret). You will need these values later in the code samples.
3. In the resource blade, click **Channels**.
4. Enable the Microsoft Teams channel and enable calling on the Calling tab. Fill in the Webhook (for calling) where you will receive incoming notifications. E.g. `https://{your domain}/api/calls`. Refer to [Connect a bot to channels](#) for more information on how to configure channels.

### Configure MSTeams



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**Messaging** **Calling** **Publish**

### Calling [Learn more](#)

These settings determine whether Calling is enabled for your bot, and if enabled, whether IVR functionality or Real Time Media functionality is to be used.

#### Calling

☒ **Enable calling**

These settings determine whether Calling is enabled for your bot. Note that some Calling features require elevated permissions from an organization's Teams Administrator. To add permissions, go to your bot in the Application Registration Portal, locate the Microsoft Graph Permissions section, and then add the permissions that your app requires.

Webhook (for calling)

https://

## Permissions

# Add Microsoft Graph permissions for calling to your bot

Microsoft Graph exposes granular permissions controlling the access apps have to resources. As a developer, you decide which permissions for Microsoft Graph your app requests. The Microsoft Graph Communications Calling APIs support Application permissions, which are used by apps that run without a signed-in user present; for example, apps that run as background services or bots. Application permissions can only be consented by a tenant administrator. Calling bots and applications have some capabilities that will need tenant administrator consent. Below is a list of those permissions:

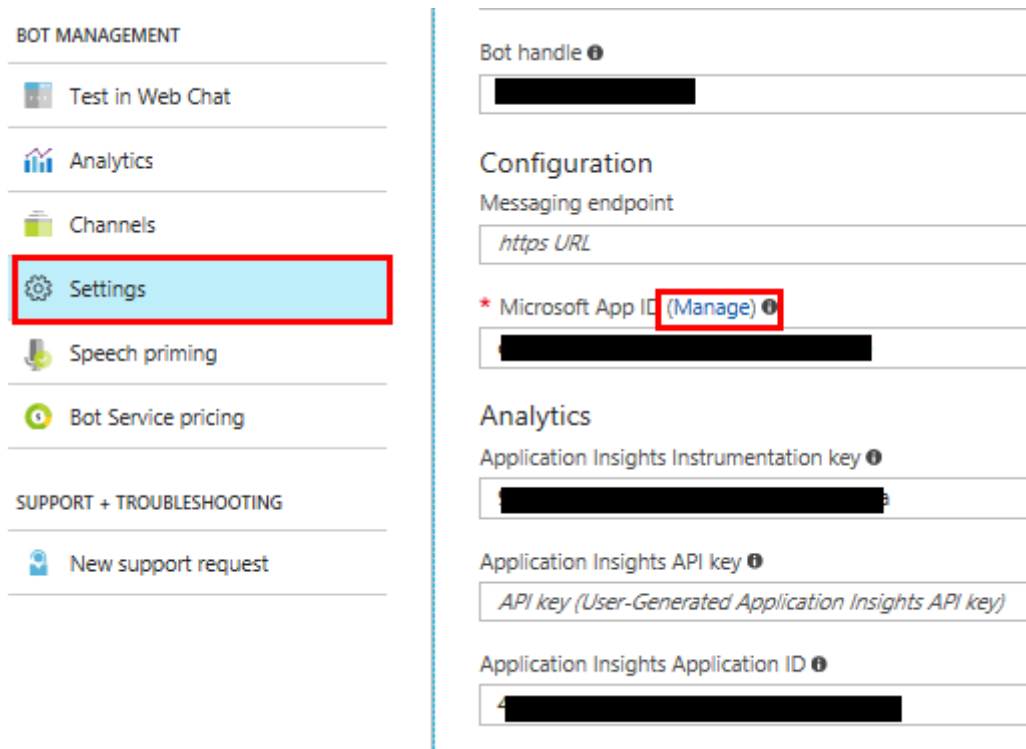
Permission	Display String	Description	Admin Consent Required
Calls.Initiate.All	Initiate outgoing 1:1 calls from the app (preview)	Allows the app to place outbound calls to a single user and transfer calls to users in your organization's directory, without a signed-in user.	Yes
Calls.InitiateGroupCall.All	Initiate outgoing group calls from the app (preview)	Allows the app to place outbound calls to multiple users and add participants to meetings in your organization, without a signed-in user.	Yes
Calls.JoinGroupCall.All	Join Group Calls and Meetings as an app (preview)	Allows the app to join group calls and scheduled meetings in your organization, without a signed-in user. The app will be joined with the privileges of a directory user to meetings in your tenant.	Yes
Calls.JoinGroupCallasGuest.All	Join Group Calls and Meetings as a guest (preview)	Allows the app to anonymously join group calls and scheduled meetings in your organization, without a signed-in user. The app will be joined as a guest to meetings in your tenant.	Yes
Calls.AccessMedia.All *see below*	Access media streams in a call as an app (preview)	Allows the app to get direct access to participant media streams in a call, without a signed-in user.	Yes

**Important:** You may not use the Microsoft.Graph.Calls.Media API to record or otherwise persist media content from calls or meetings that your bot accesses.

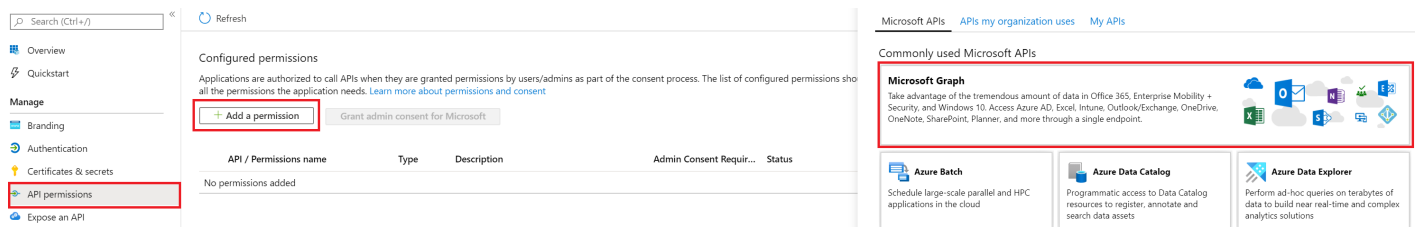
# Assigning permissions

You pre-configure the application permissions your app needs when you register your app. To add permissions from the Azure Bot Registration Portal:

- From the **Settings** blade, click **Manage**. This is the link appearing by the **Microsoft App ID**.



- This link will open a window where you can click on **API permissions** and then click **Add a permission** in the right pane. Select **Microsoft Graph**, choose **Application Permissions** and then select the permissions your app requires in the **Select Permissions** dialog.



## Getting administrator consent

An administrator can either consent to these permissions using the [Azure portal](#) when your app is installed in their organization, or you can provide a sign-up experience in your app through which administrators can consent to the permissions you configured. Once administrator consent is recorded by Azure AD, your app can request tokens without having to request consent again.

You can rely on an administrator to grant the permissions your app needs at the [Azure portal](#), but often a better option is to provide a sign-up experience for administrators by using the Azure AD v2.0 `/adminconsent` endpoint. Please refer to the [instructions on constructing an Admin Consent URL](#) for more detail.

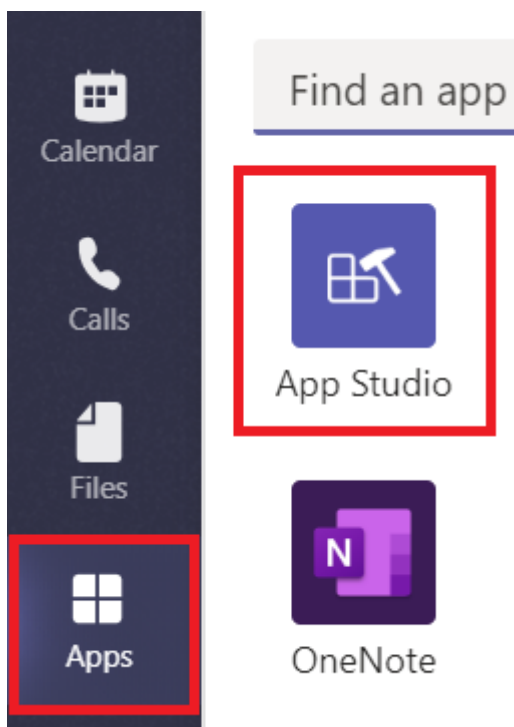
**Note:** Constructing the Tenant Admin Consent URL requires a configured Redirect URI/Reply URL in the [App Registration Portal](#). To add reply URLs for your bot, access your bot registration, choose Advanced Options > Edit Application Manifest. Add your Redirect URI to the field replyURLs.

**Important:** Any time you make a change to the configured permissions, you must also repeat the Admin Consent process. Changes made in the app registration portal will not be reflected until consent has been reapplied by the tenant's administrator.

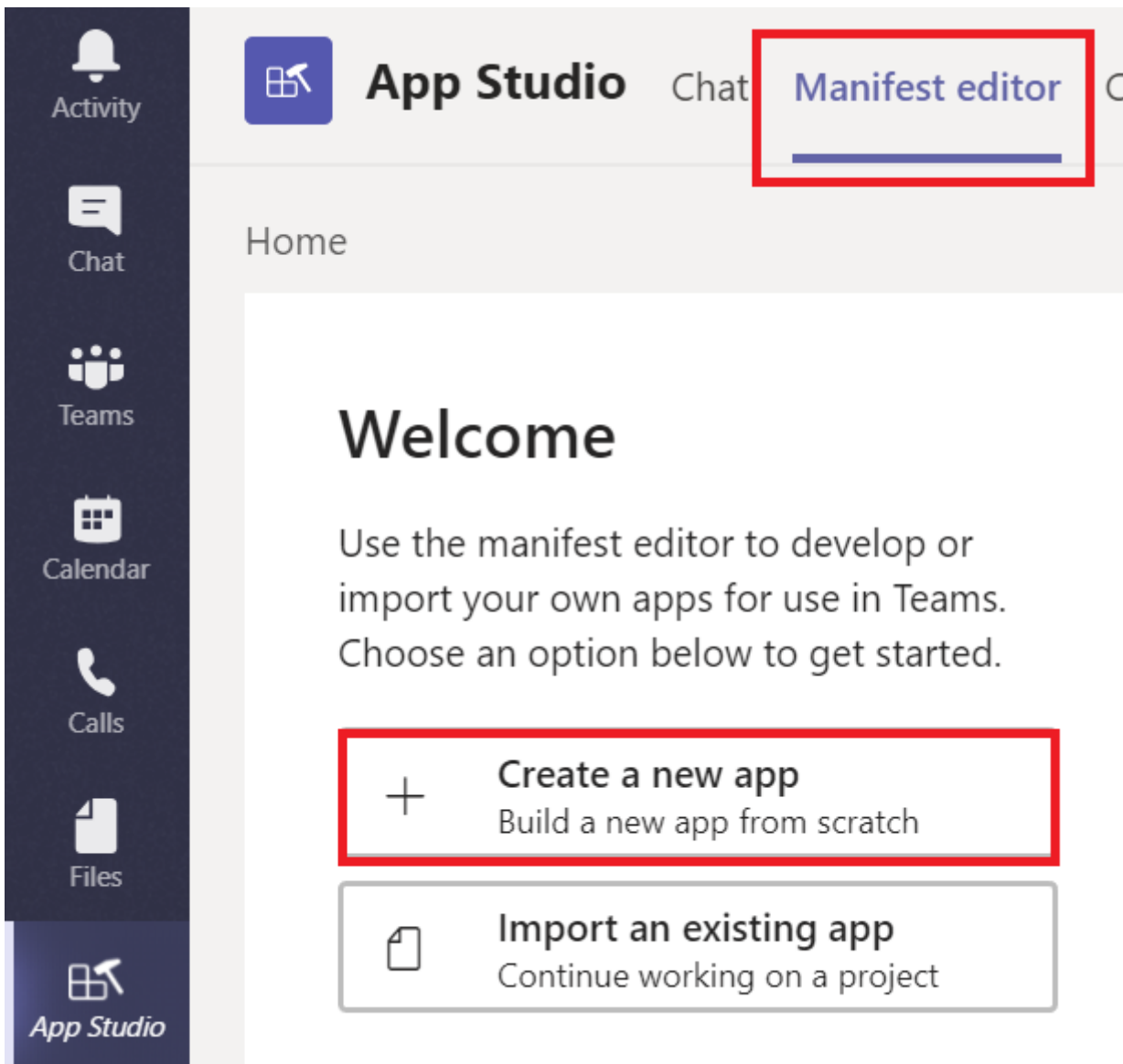
## Register bot in Microsoft Teams

The code samples can be used in combination with a Microsoft Teams App Manifest settings to add the Calling and Video buttons for a 1:1 bot interaction. To develop calling bot, add 'supportsCalling' and 'supportsVideo' boolean properties to the bots section in the app manifest and the bot is all set to receive calls once installed (either to a personal context or a team). App Manifests can be uploaded through the [App Studio](#) in the Microsoft Teams client.

- In the Teams client, select **Apps** from the left pane and then select **App Studio**.



- From the top pane, click **Manifest editor** and then **Create a new app** from the left pane.



- In the **App details** tab, provide the basic information. And make sure to update App Id correctly.

The image displays the 'App details' form within the Microsoft App Studio interface. On the left, a sidebar shows 'New app By Author' and 'Capabilities'. The main section is titled 'App details' and includes a description: 'Provide some basic info about your app to get things going. Learn more about Teams Apps and the Manifest Schema'. Below this, the 'App names' section requires a short name (30 characters or less) and a full name. The 'Identification' section is highlighted, showing the '\*App ID' field, which contains a placeholder GUID 'XXXXXXXX-XXXX-XXXX-XXXXXXXXXXXX' and is highlighted with a red rectangular box. A 'Generate' button is located below the App ID field. At the bottom, there are fields for '\*Package Name' and '\*Version'.

- Navigate to the **Capabilities** section, and select the **Bots** tab. Then select **Set Up** in the right pane.



New app  
By [Author](#)

Capabilities

## Complete these steps

Complete these steps in order to distribute your app.

### 1 Details

App details

### 2 Capabilities

Tabs

Bots

Connectors

Messaging extensions

## Bots

Set up a bot to include it in your app experience. [Learn more](#)

Set up

- Fill in the desired bot name
- Select the **Select from one of my existing bots** option, and find your bot from above in the dropdown.

## Set up a bot



Create a new bot or configure an existing bot.

New bot Existing bot

\*Name

ex: Contoso bot

\*Bot ID

- ☒ Select from one of my existing bots
- ☐ Connect to a different bot id

Choose One



Messaging bot

- ☐ My bot supports uploading and downloading files
- ☐ My bot is a one-way notification only bot

Calling bot

- ☒ My bot supports video call
- ☒ My bot supports audio call

\*Scope

- ☒ Personal
- ☒ Team
- ☒ Group Chat

Save

- If the drop down does not contains the App Id of the Bot (to be installed), Or if the **Select from one of my existing bots** option is disabled, select the **Connect to a different bot id** and paste same App id, provided in *App details* tab earlier

New bot

Existing bot

\*Bot ID

☐ Select from one of my existing bots

☒ Connect to a different bot id

XXXXXXXX-XXXX-XXXX-XXXX-XXXXXXXXXXXX

Messaging bot

- Check all options under **Calling Bot** and **Scope**
- Press **Save**