

# Presence configuration Microsoft Graph API

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# Presence configuration Microsoft Graph API

## Presence configuration Microsoft Graph API

### Description

The Zylinc service uses the Microsoft Azure AD App Registration together with a Teams User to read the Presence of all other Teams Users.

### Requirements

#### Both Zylinc Cloud (Novus) and 6.5

##### *Zylinc License*

- PBX License for each Teams user

##### *Teams Presence subscription user (Delegation User)*

- One Delegation user per 650 Teams user
- Office 365 E1 License (or )

##### *MS Azure AD App registration Permissions*

- Microsoft Graph
  - Presence.Read.All (Delegated Permission)
  - User.Read.All (Delegated Permission)
  - User.Read (Delegated Permission) – Default
  - Optional for federation: Presence.ReadWrite.All (Application Permission)*
  - Client secret*
- Authentication
  - Allow public client flow

#### Only required for Zylinc Cloud (Novus)

- Minimum Version 20210608.1-stable

#### Only required for 6.5

- Minimum release 6.5u5.9 (Zylinc Presence Provider MS Graph 1.0.1.0)
- Minimum .Net versions required: 4.6.2 and .Net Core 3.1 Runtime&Hosting Bundle (Server)
- Zylinc Lync User Proxy service cannot run together with Zylinc Presence Provider MS Graph
- Zylinc Presence Provider MS Graph is installed
- Global application settings are saved (Global appsettings.json)
- Zylinc Gateway is installed and appsettings.json file is configured
- A public DNS (for the Callback URI)
- Certificate corresponding to the public DNS is installed on the server running Zylinc Gateway
- WAN port for Subscription URI (default: 35063) where incoming traffic is forwarded to the server running Zylinc Gateway
- Firewall on WAN port: allow incoming traffic from any public IP Address

# Presence configuration Microsoft Graph API

## Microsoft Azure AD Registration (Zyline Cloud and 6.5)

In the customer tenant Entra ID, a Microsoft Azure App Registration needs to be created and to read presence of all Teams users.

### Create a Microsoft Entra ID App Registration

Home > Zyline work

Zyline work | App registrations

Overview

Preview features

Diagnose and solve problems

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Roles and administrators

Administrative units

Enterprise applications

Devices

**App registrations**

Identity Governance

Application proxy

New registration

Endpoints

Troubleshooting

Refresh

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Preview features

Got feedback?

Try out the new App registrations search preview! Click to enable the preview. →

Starting June 30th, 2020 we will no longer add any new features to Azure Active Directory Authentication Library (ADAL) and Azure AD Graph. We will continue to provide technical support and security updates but we will no longer provide feature updates. Applications will need to be upgraded to Microsoft Authentication Library (MSAL) and Microsoft Graph. [Learn more](#)

All applications Owned applications Deleted applications (Preview)

Start typing a name or Application ID to filter these results

Display name	Application (client) ID	Created on	Certificates & secrets
SF	[REDACTED]	10/30/2020	Current
NO	[REDACTED]	12/11/2020	Current
NO	[REDACTED]	12/11/2020	Current

# Presence configuration Microsoft Graph API

Home > Zylinc work >

## Register an application

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

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

Accounts in this organizational directory only (Zylinc work only - Single tenant)

Accounts in any organizational directory (Any Azure AD directory - Multitenant)

Accounts in any organizational directory (Any Azure AD directory - 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.

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](#)

Home > Zylinc work

### Zylinc work | App registrations

Overview | Preview features | Diagnose and solve problems

Manage: Users, Groups, External Identities, Roles and administrators, Administrative units, Enterprise applications, Devices, **App registrations**, Identity Governance, Application proxy, Licenses

+ New registration | Endpoints | Troubleshooting | Refresh | Download | Preview features | Got feedback?

Try out the new App registrations search preview! Click to enable the preview. →

Starting June 30th, 2020 we will no longer add any new features to Azure Active Directory Authentication Library (ADAL) and Azure AD Graph. We will continue to provide technical support and security updates but we will no longer provide feature updates. Applications will need to be upgraded to Microsoft Authentication Library (MSAL) and Microsoft Graph. [Learn more](#)

All applications | **Owned applications** | Deleted applications (Preview)

Start typing a name or Application ID to filter these results

Display name	Application (client) ID	Created on	Certificates & secrets
SR [redacted]	[redacted]	10/30/2020	Current
NO [redacted]	[redacted]	12/11/2020	Current
NO [redacted]	[redacted]	12/11/2020	Current
GR <b>GraphTeamsPresence</b>	614d5900-db1a-40be-a4da-a6f0a7a66892	7/20/2021	-

# Presence configuration Microsoft Graph API

## Add API Permissions

Home > Zylinc work > GraphTeamsPresence

GraphTeamsPresence | API permissions

Search (Ctrl+/) Refresh Got feedback?

Overview  
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Integration assistant

Manage  
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Authentication  
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Token configuration  
API permissions  
Expose an API  
App roles  
Owners

The "Admin consent required" column shows the default value for an organization. However, user consent can be customized per permission, user, or app. This column may not reflect the value in your app will be used. [Learn more](#)

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 Zylinc work

API / Permissions name	Type	Description	Admin consent requ...	Status
Microsoft Graph (1)				...
User.Read	Delegated	Sign in and read user profile	No	...

To view and manage permissions and user consent, try [Enterprise applications](#).

### Request API permissions

Select an API

Microsoft APIs | APIs my organization uses | My APIs

Commonly used Microsoft APIs

**Microsoft Graph**  
Take advantage of the tremendous amount of data in Office 365, Enterprise Mobility + Security, and Windows 10. Access Azure AD, Excel, Intune, Outlook/Exchange, OneDrive, OneNote, SharePoint, Planner, and more through a single endpoint.

**Azure DevOps**  
Integrate with Azure DevOps and Azure DevOps server

**Azure Rights Management Services**  
Allow validated users to read and write protected content

**Azure Service Management**  
Programmatic access to much of the functionality available through the Azure portal

**Azure Storage**  
Secure, massively scalable object and data lake storage for unstructured and semi-structured data

**Data Export Service for Microsoft Dynamics 365**  
Export data from Microsoft Dynamics CRM organization to an external destination

**Dynamics 365 Business Central**  
Programmatic access to data and functionality in Dynamics 365 Business Central

### Request API permissions

< All APIs

Microsoft Graph  
<https://graph.microsoft.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.

# Presence configuration Microsoft Graph API

## Request API permissions

< All APIs

- > People
- > Place
- > Policy
- > POP

Presence (1)

<input type="checkbox"/>	Presence.Read ⓘ Read user's presence information	No
<input checked="" type="checkbox"/>	Presence.Read.All ⓘ Read presence information of all users in your organization	No

> PrintConnector

> UserTimelineActivity

User (2)

<input type="checkbox"/>	User.Export.All ⓘ Export user's data	Yes
<input type="checkbox"/>	User.Invite.All ⓘ Invite guest users to the organization	Yes
<input type="checkbox"/>	User.ManageIdentities.All ⓘ Manage user identities	Yes
<input checked="" type="checkbox"/>	User.Read ⓘ Sign in and read user profile	No
<input checked="" type="checkbox"/>	User.Read.All ⓘ Read all users' full profiles	Yes
<input type="checkbox"/>	User.ReadBasic.All ⓘ Read all users' basic profiles	No

**Add permissions** Discard

# Presence configuration Microsoft Graph API

## Grant admin consent confirmation.

Do you want to grant consent for the requested permissions for all accounts in Zylinc work ? This will update any existing admin consent records this application already has to match what is listed below.

## Select Authentication method

### Allow public client flows => YES

Home > Zylinc work > GraphTeamsPresence

### GraphTeamsPresence | Authentication

Search (Ctrl+/) Save Discard Got feedback?

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Branding 1

**Authentication**

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Token configuration  
API permissions  
Expose an API  
App roles  
Owners  
Roles and administrators | Preview  
Manifest

Support + Troubleshooting

Troubleshooting  
New support request

#### 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

#### Supported account types

Who can use this application or access this API?

Accounts in this organizational directory only (Zylinc work only - Single tenant)  
 Accounts in any organizational directory (Any Azure AD directory - Multitenant)

[Help me decide...](#)

⚠ Due to temporary differences in supported functionality, we don't recommend enabling personal Microsoft accounts for an existing registration. If you need to enable personal accounts, you can do so using the manifest editor. [Learn more about these restrictions.](#)

#### Advanced settings

**Allow public client flows**

Enable the following mobile and desktop flows:

- App collects plaintext password (Resource Owner Password Credential Flow) [Learn more](#)
- No keyboard (Device Code Flow) [Learn more](#)
- SSO for domain-joined Windows (Windows Integrated Auth Flow) [Learn more](#)

# Presence configuration Microsoft Graph API

Federation (Zyline Cloud Only)

If federation is used the API Permission *Presence.ReadWrite.All* (Application Permission) should be added to the App registration and a Client Secret in “Certificates and secrets”:

## Request API permissions

< All APIs



Microsoft Graph

<https://graph.microsoft.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](#)

Permission	Admin consent required
> OnPremisesPublishingProfiles	
∨ Presence (1)	
<input checked="" type="checkbox"/> Presence.ReadWrite.All ⓘ Read and write presence information for all users	Yes
> UserShiftPreferences	

Add permissions

Discard

Add a Client secret to the App registration:



PresenceSync | Certificates & secrets

Search (Ctrl+/)



Got feedback?

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Branding

Authentication

Certificates & secrets

Token configuration

API permissions

### Add a client secret

Description

MySecret

Expires

In 1 year

In 2 years

Never

Add

Cancel

# Presence configuration Microsoft Graph API

Take a copy of the generated secret value. It is only shown during creation. You need the secret value in the Zylinc Cloud Configuration Manager to configure Federation.

Grant admin consent (both Zylinc Cloud and 6.5)

Search (Ctrl+/) << Refresh | Got feedback?

Overview  
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Certificates & secrets  
Token configuration  
**API permissions**  
Expose an API  
App roles  
Owners  
Roles and administrators  
Manifest

Successfully granted admin consent for the requested permissions.

The "Admin consent required" column shows the default value for an organization. However, user consent can be customized per permission, user, or app. This column may not reflect

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 Zylinc work

API / Permissions name	Type	Description	Admin consent requ...	Status
Microsoft Graph (4)				
Presence.Read.All	Delegated	Read presence information of all users in your organization	No	✔ Granted for Zylinc work
Presence.ReadWrite.All	Application	Read and write presence information for all users	Yes	✔ Granted for Zylinc work
User.Read	Delegated	Sign in and read user profile	No	✔ Granted for Zylinc work
User.Read.All	Delegated	Read all users' full profiles	Yes	✔ Granted for Zylinc work

# Presence configuration Microsoft Graph API

Get App registration configuration information

Save the Application (Client) ID and Directory (tenant) ID. This will be used to configure the Presence in both Novus and 6.5 release.

Home > Zylinc work >

## GraphTeamsPresence

Search (Ctrl+) << Delete Endpoints Preview features

Overview

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Manage

- Branding
- Authentication
- Certificates & secrets
- Token configuration
- API permissions
- Expose an API

Got a second? We would love your feedback on Microsoft identity platform (previously Azure AD for developer). →

### Essentials

Display name	: GraphTeamsPresence	Client credentials	: Add a certificate or secret
Application (client) ID	: 614d5900-db1a-40be-a4da-a6f0a7a66892	Redirect URIs	: Add a Redirect URI
Object ID	: af6aaee-91ee-4536-91fc-3789133bebc9	Application ID URI	: Add an Application ID URI
Directory (tenant) ID	: f4638a3a-26c9-41f0-a68c-01ea0f6cba4e	Managed application in L...	: GraphTeamsPresence

Supported account types : My organization only

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# Presence configuration Microsoft Graph API

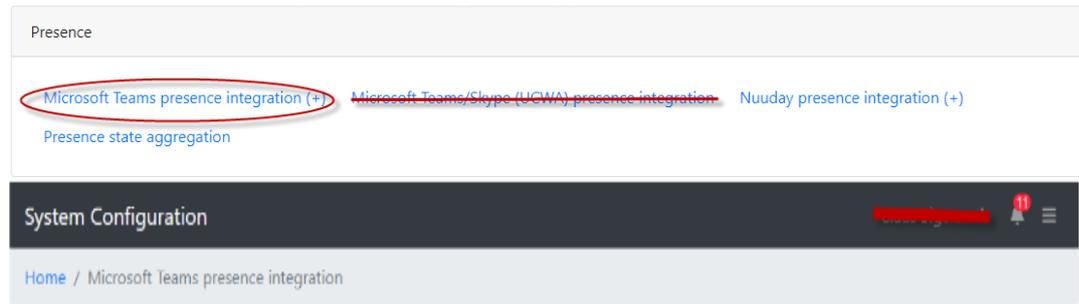
## Setup Zylinc Cloud

Create a Microsoft Teams presence integration (+) in Configuration Manager

If the customer has already configured a 'Microsoft Teams/Skype (UCWA) presence integration' this needs to be deleted or disabled – they cannot run on the same tenant at the same time....

To add a new 'Microsoft Teams presence integration'

Select Microsoft Teams presence integration (+)



For **Presence Only**:

The following six steps configures a Teams Presence provider to the customer Novus system:

- 1) Enter a descriptive name
- 2) Enable the presence provider
- 3) Select 'Presence'
- 4) Copy the saved Directory (tenant) ID to 'Tenant ID' field
- 5) Copy the saved Application (Client) ID to 'Client ID' field
- 6) Copy/Enter the email address of the Teams Presence user
- 7) Copy/Enter the password of the Teams Presence user
- 8) Select Save

Note: 'Filter users on tags' are for later use.

For **Presence With Federation**:

The following six steps configures a Teams Presence provider to the customer Novus system:

- 1) Enter a descriptive name
- 2) Enable the presence provider
- 3) Select 'Presence with federation'
- 4) Copy the saved Directory (tenant) ID to 'Tenant ID' field
- 5) Copy the saved Application (Client) ID to 'Client ID' field
- 6) Copy the saved Client Secret (Value) to 'Client Secret' field
- 7) Copy/Enter the email address of the Teams Presence user
- 8) Copy/Enter the password of the Teams Presence user
- 9) Select Save

Note: 'Filter users on tags' are for later use.

# Presence configuration Microsoft Graph API

**System Configuration** Claus Sigersted 11

[Home](#) / [Microsoft Teams presence integration](#) / [New configuration](#)

Name of new configuration\*

---

**Microsoft Teams presence integration configuration**

**Enable**  
Enable or disable the presence provider.

---

**Filter users on tags**

Collection of tags used to identify users that will have presence subscription. If empty, all users are selected.

Tenant ID\*

Tenant ID in Azure. Example: example.org or d25dc698-e2d3-410f-9b48-b8abaf2cf231

Client ID\*

Azure client ID in GUID format. Example: d25dc698-e2d3-410f-9b48-b8abaf2cf231

---

**Users with Teams presence permissions**

User name\*

User name (in e-mail format) of a user with Teams access permissions. Example: user@example.org.

Password\*

Password of delegate user.

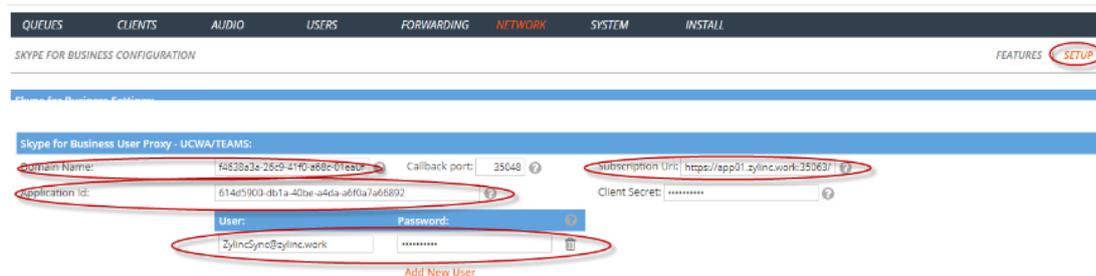
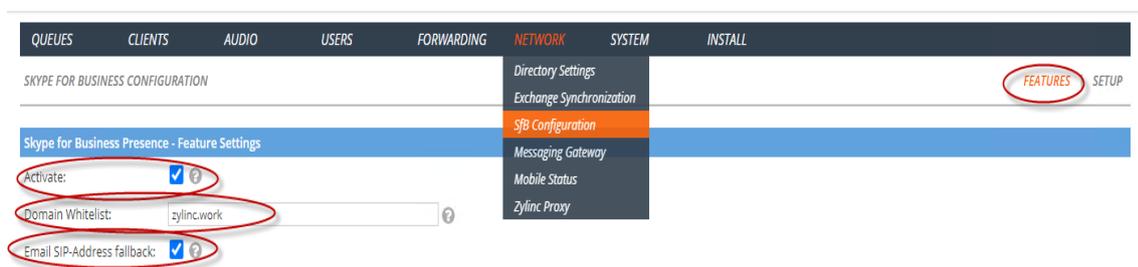
The list of delegate users used for subscribing to presence on Microsoft Graph API. A user can subscribe to max. 650 users per subscription. Adding more delegate users than you need can help you load balance the subscriptions.

# Presence configuration Microsoft Graph API

## Setup release 6.5

### Configure Microsoft Teams presence in 6.5

- 1) Start Deployment Manager
- 2) Verify **ZyDB Configuration** is correct
- 3) Select **Application Administration**
- 4) Select **Save**
- 5) Login on to **Administration Portal**
- 6) Select **NETWORK-> SfB Configuration**
- 7) Select **Feature**
- 8) Enable **Activate**
- 9) **Domain Whitelist:** Enter the customer Teams domain's (if more than one, separate with comma)
- 10) Enable **Email SIP-Address fallback**
- 11) Select **Setup**
- 12) In **Connection Type:** select **UCWA**
- 13) In **Domain Name** Enter: the saved Directory (tenant) ID
- 14) In **Application Id** Enter: the saved Application (Client) ID
- 15) In **Client secret** enter: some dummy text (not used but cannot be left empty)
- 16) In **Subscription Uri** enter: [https://\[DNS\]:\[Port\]/graph/presence/events/](https://[DNS]:[Port]/graph/presence/events/)  
Ex.: <https://appserver.domain.com:35063/graph/presence/events/>  
The port is the Zylinc Gateway Port (Default port number : **35063**)
- 17) **Callback Port** is used by Zylinc Gateway to communicate with Zylinc Presence Provider MS Graph (default port number: **35048**)
- 18) In **User** enter the email address of the Teams Presence user
- 19) In **Password** enter the password of the Teams Presence User
- 20) Select **Save**
- 21) Verify that Zylinc Lync User Proxy service is **STOPPED** and **Disabled** or **Uninstalled**
- 22) Start/Restart Zylinc Gateway and Zylinc Presence Provider MS Graph



# Presence configuration Microsoft Graph API

## Zylinc Gateway

The Zylinc Gateway will handle the presence events received from Microsoft. Every time a Teams user's presence/state is changed an event will be sent. The communication protocol between the Zylinc Gateway and Microsoft is always HTTPS.

When Zylinc Gateway is installed and setup with default settings, you need to add support for the Zylinc Presence Provider MS Graph (PPMSG) module.

Adding support for the Zylinc Presence Provider MS Graph (PPMSG) module is done by adding a ReRoute section to the Zylinc Gateway appsettings.json file.

The section determines how the Zylinc Gateway handles incoming data, forwarding data to relevant module and the type of communication protocol between the module and the Zylinc Gateway.

The **DownstreamPathTemplate** is used to detect the event received from Microsoft, and with **UpstreamPathTemplate** you configure the communication with the PPMSG module.

The **DownstreamScheme** determines which communication protocol the Zylinc Gateway communicates with the module.

The communication protocol between the Zylinc Gateway and the PPMSG module can be either HTTP or HTTPS. If both the Zylinc Gateway and the PPMSG module are installed on the same server Zylinc recommends using HTTP. If HTTPS is used, you will need to use the FQDN address of the App server as host address and a certificate corresponding to that specific FQDN.

## Configure URI in Administration Portal

The URI required in 6.5n release can be configured like the following example:

**https://appserver.domain.com:35063/graph/presence/events/**

Where the URI can be divided into two text strings:

- **BaseURL:** Ex.: https://appserver.domain.com:35063
- **DownstreamPathTemplate:** /graph/presence/{any}

Note: The last part of the URI '/events/' are required in the URI but replaced in the ReRoute settings with '{any}'.

## Add ReRoute in the Zylinc Gateway appsettings.json file

When the URI is configured as the above example the following should be configured in the ReRoute section in the Zylinc Gateway appsettings.json file:

```
{
  "_comment25.1": "Zylinc Presence Provider MS Graph (PPMSG)",
  "DownstreamPathTemplate": "/graph/presence/{any}",
  "UpstreamPathTemplate": "/graph/presence/{any}",
  "DownstreamScheme": "http",
  "DownstreamHostAndPorts": [
    {
      "Host": "<appserver_local_ipaddress >",
      "Port": 35048
    }
  ],
  "DangerousAcceptAnyServerCertificateValidator": true,
  "UpstreamHttpMethod": []
},
....
"GlobalConfiguration": {
  "BaseUrl": "https://appserver.domain.com:35063"
```