Presence configuration Microsoft Graph API

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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

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Microsoft Azure AD Registration (Zylinc 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

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Add API Permissions

GraphTeamsPresence | API permissions

Search (Ctrl+/) «

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🔄 Refresh | 💗 Got feedback?

ℹ 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 you 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.

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Request API permissions   ✕

‹ All APIs

> People

> Place

> Policy

> POP

∨ **Presence (1)**

	Presence.Read ⓘ Read user's presence information	No
☑	Presence.Read.All ⓘ Read presence information of all users in your organization	No

> PrintConnector

⌐ UserTimelineActivity

∨ **User (2)**

	User.Export.All ⓘ Export user's data	Yes
	User.Invite.All ⓘ Invite guest users to the organization	Yes
	User.ManageIdentities.All ⓘ Manage user identities	Yes
☑	User.Read ⓘ Sign in and read user profile	No
☑	User.Read.All ⓘ Read all users' full profiles	Yes
	User.ReadBasic.All ⓘ Read all users' basic profiles	No

Add permissions   Discard

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Select Authentication method

Allow public client flows => YES

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Federation (Zylinc 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":

Add a Client secret to the App registration:

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Take a copy of the generated secret <u>value</u>. 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)

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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.

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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 (+)
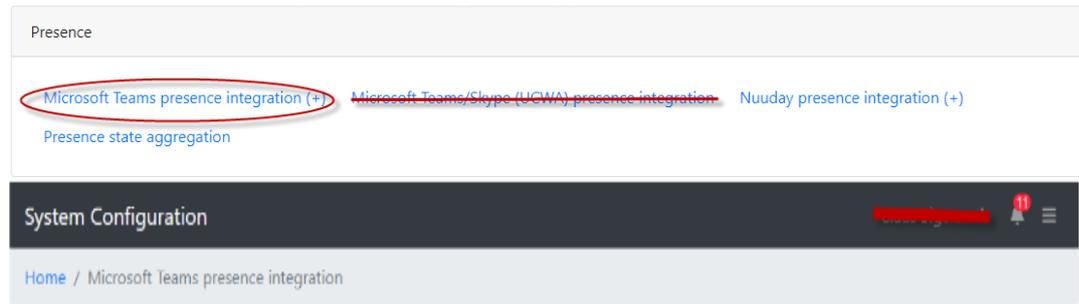
For **Presence Only**:

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.

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Home / Microsoft Teams presence integration / New configuration

Name of new configuration*

> Enter a name for your new value

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.

[Save] [Cancel]

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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/
    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
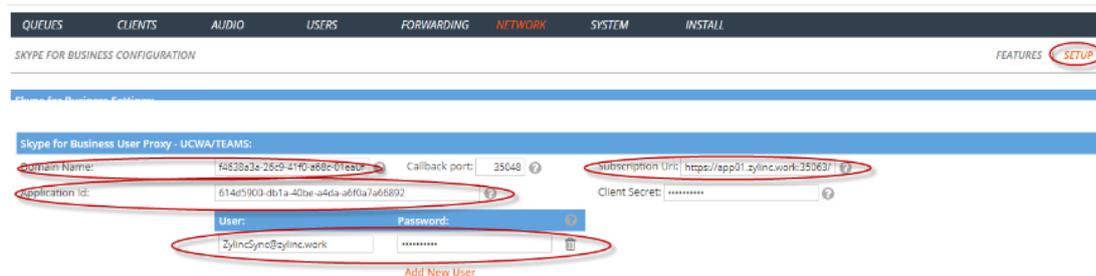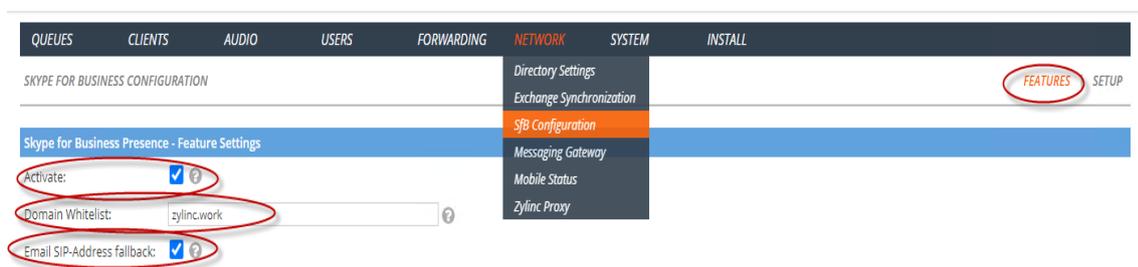
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Zylinc Gateway

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 user 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 recommend 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"
```