



Voice for Dynamics 365 Configuration Guide

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1 Microsoft Dynamics 365 tenant level configuration

The guide applies to Voice for Dynamics 365 version 1.0 onwards.

Voice for D365 is suitable for three different scenarios from the viewpoint of how Dynamics is configured, depending on what capabilities of Dynamics 365 the customer wants to use.

These are:

- Used in a classic model driven app (CIF1)
- Used in a multisession app (CIF2)
- Used in a multisession app with Omnichannel (CIF2)

The way how Dynamics must be configured and what components need to be installed or provisioned are different.

The following table visualizes the steps that need to be carried out.

	CIF1	CIF2	CIF2 + Omnichannel
Configure Azure App Registration	X	X	X
Provision Omnichannel			X
Install Channel Integration Framework from AppSource	X	X	
Install Voice for D365 package	X	X	X
Configure Application User in D365	X	X	X
Configure Channel Provider in App Profile Manager		X	X
Assign users to Application Profile		X	X
Update Enreach Cloud User ID	X	X	X
Click-to-Dial configuration	X	X	X

1.1 Installation Prerequisites

- A functioning Microsoft Dynamics 365 tenant with the needed Dynamics 365 target instances (environments) for installation.
- Microsoft Dynamics 365 Unified Interface (Online version).
- Required suitable Microsoft Dynamics 365 licenses for single-session Customer service Apps (CIF 1.0) or multi-session e.g. Omnichannel for Customer Service and Customer Service Workspace App use (CIF 2.0).
<https://dynamics.microsoft.com/en-us/pricing/customer-service/#plans>
- Install Channel Integration Framework in your target environment, or
- Provision Omnichannel

Note: Please send your Microsoft Dynamics 365 environment URL-information to your Enreach contact before installation.

1.1.1 Setting up Channel Integration Framework

- This setup is used for customers who are using
 - a single-session Dynamics 365 model-driven apps, such as:
 - Dynamics 365 Customer Service*
 - Dynamics 365 Sales*
 - Dynamics 365 Project Service*
 - Dynamics 365 Field Service*, **or**
 - have Dynamics 365 Enterprise license and want to use *Customer Service Workspace* multi-session app **without Omnichannel capabilities**

Install Channel Integration Framework in your target environment. The following documentation from Microsoft describes the steps which need to be carried out, in addition a few screenshots help to guide the installation.

<https://docs.microsoft.com/en-us/dynamics365/customer-service/channel-integration-framework/get-channel-integration-framework>

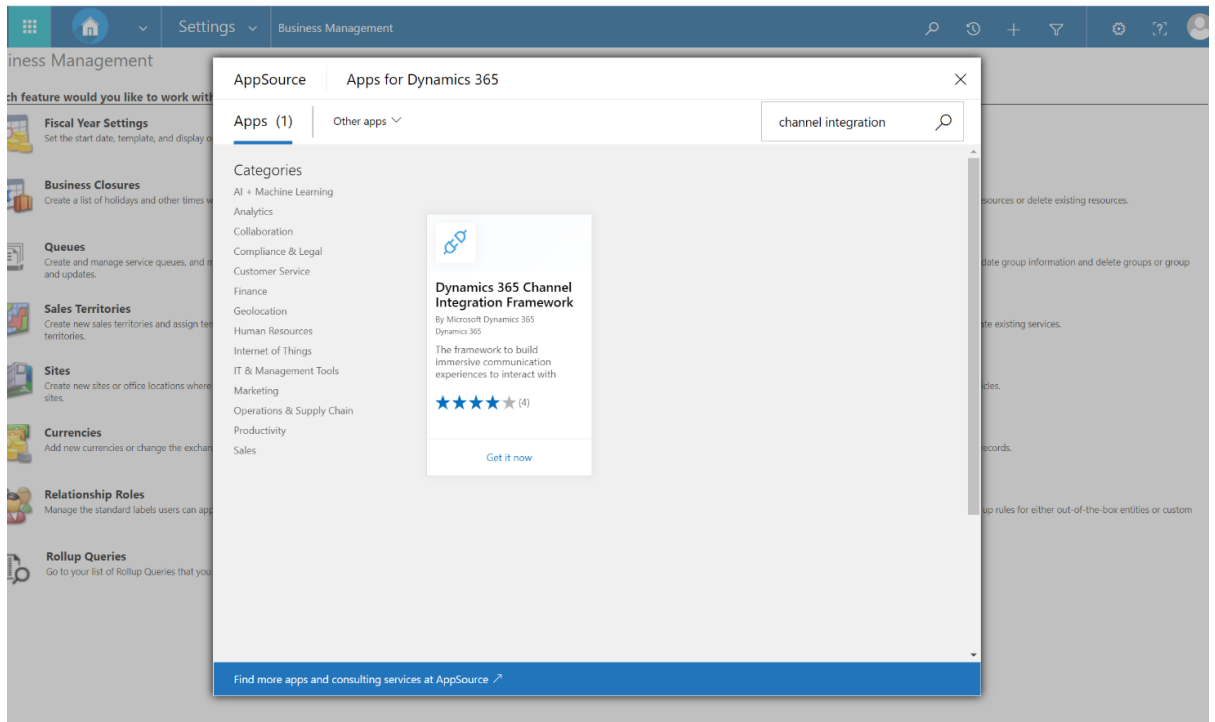
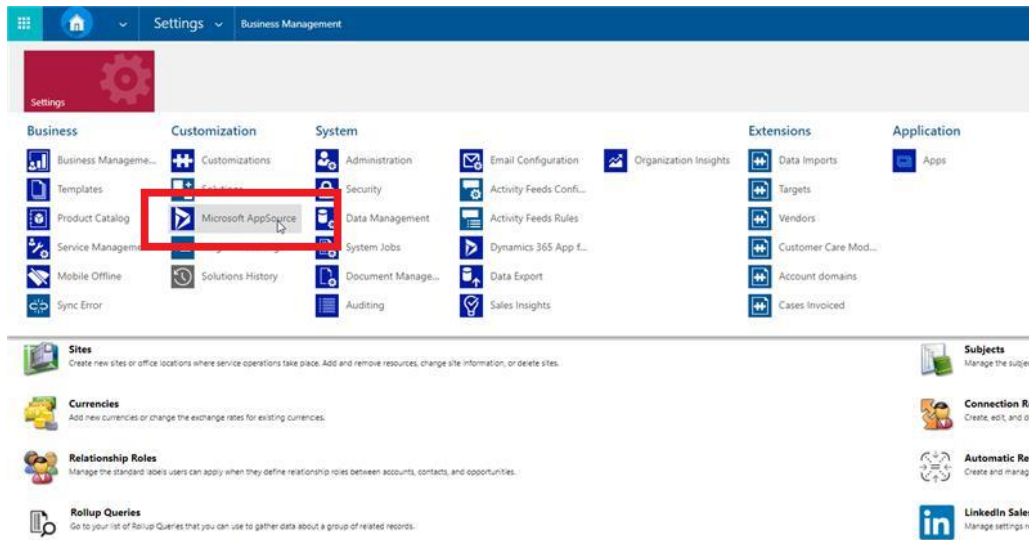


Figure 1 AppSource Dynamics 365 Channel Integration Framework

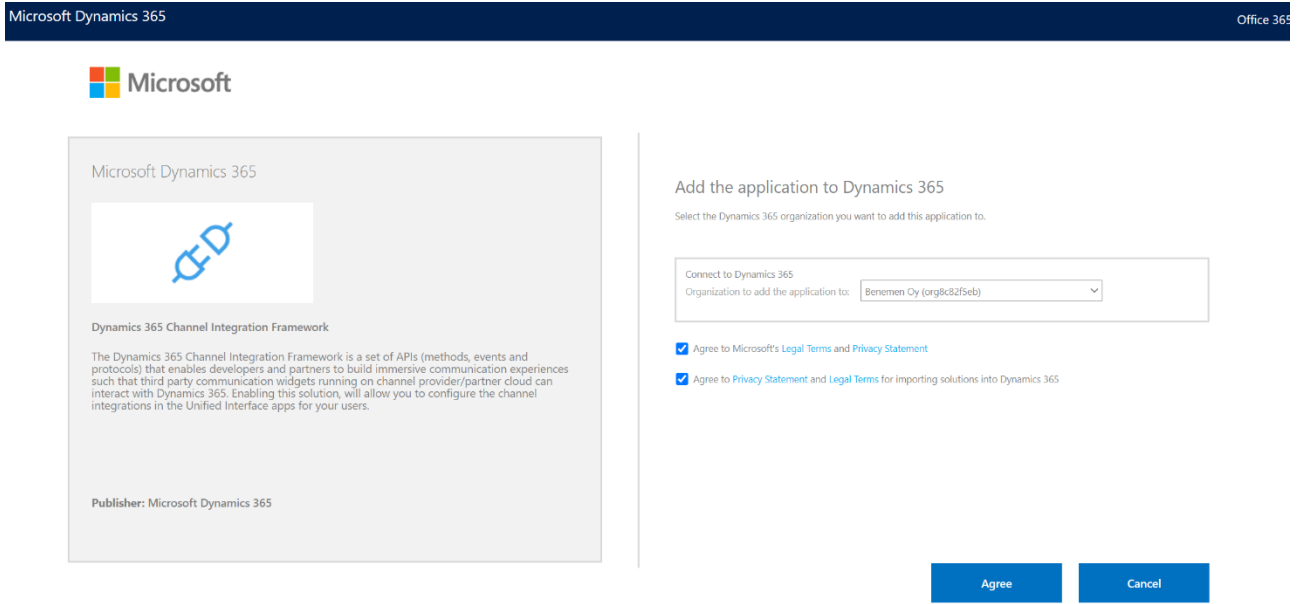


Figure 2 Agree to Terms

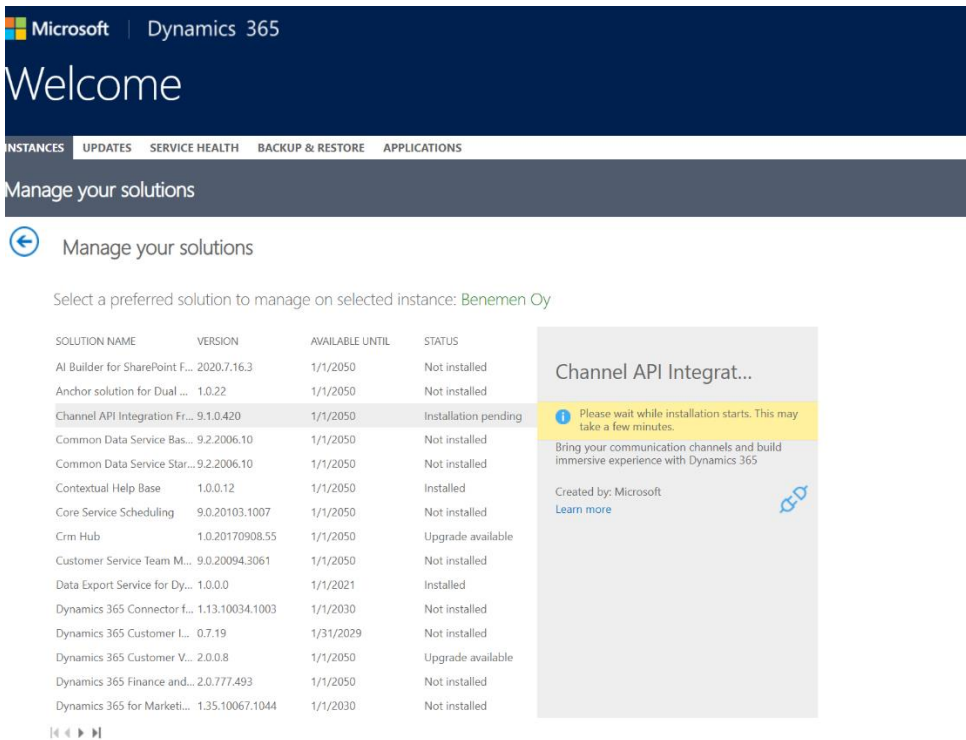


Figure 3 Install Channel Integration API

1.1.2 Provision Omnichannel

This section applies to customers that use Omnichannel capabilities in Dynamics 365, have *Digital Messaging or Chat* licenses and want to use Voice for D365 in a multi-session app, like:

- Omnichannel for Customer Service
- Customer Service Workspace

To provision Omnichannel please follow the material provided by Microsoft:

<https://docs.microsoft.com/en-us/dynamics365/omnichannel/administrator/omnichannel-provision-license>

1.2 Configure Azure app registration

For Voice for Dynamics 365 to work, an Azure App registration is needed for authentication purposes. Giving access to your D365 through an Azure App registration does not consume D365 licenses.

Configuring Azure App registrations is done by the following steps:

- Sign in to Azure portal (<https://portal.azure.com>)
- From the navigation menu, choose Azure Active Directory and Application registration
- Choose New Registration from top of the page

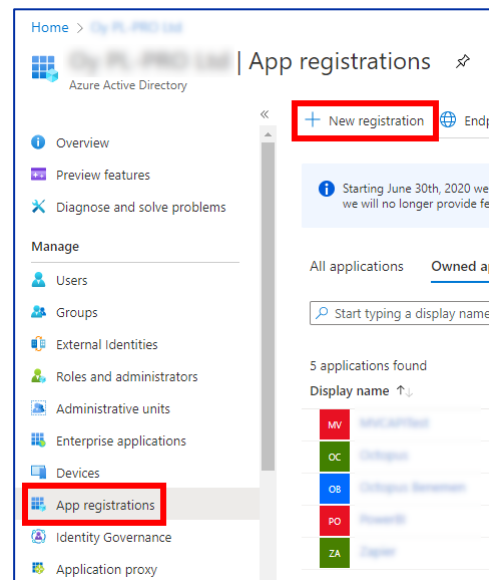


Figure 4 Create App Registration

- Fill in a name, for example *Voice for Dynamics 365* for the app registration.
- All the other settings can be left as default. Choose Register.

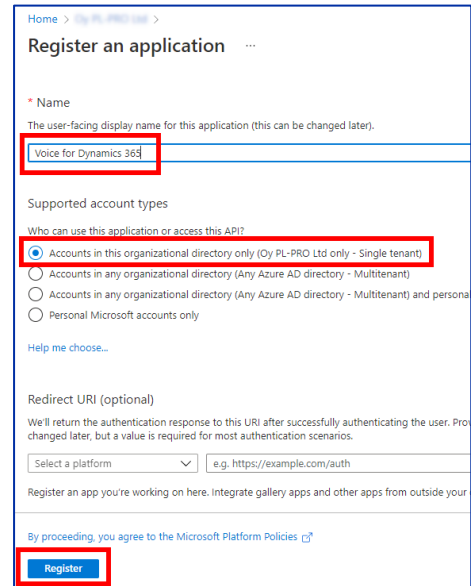


Figure 5 Register an Application

- Once deployment is done, you should see a similar window than below:

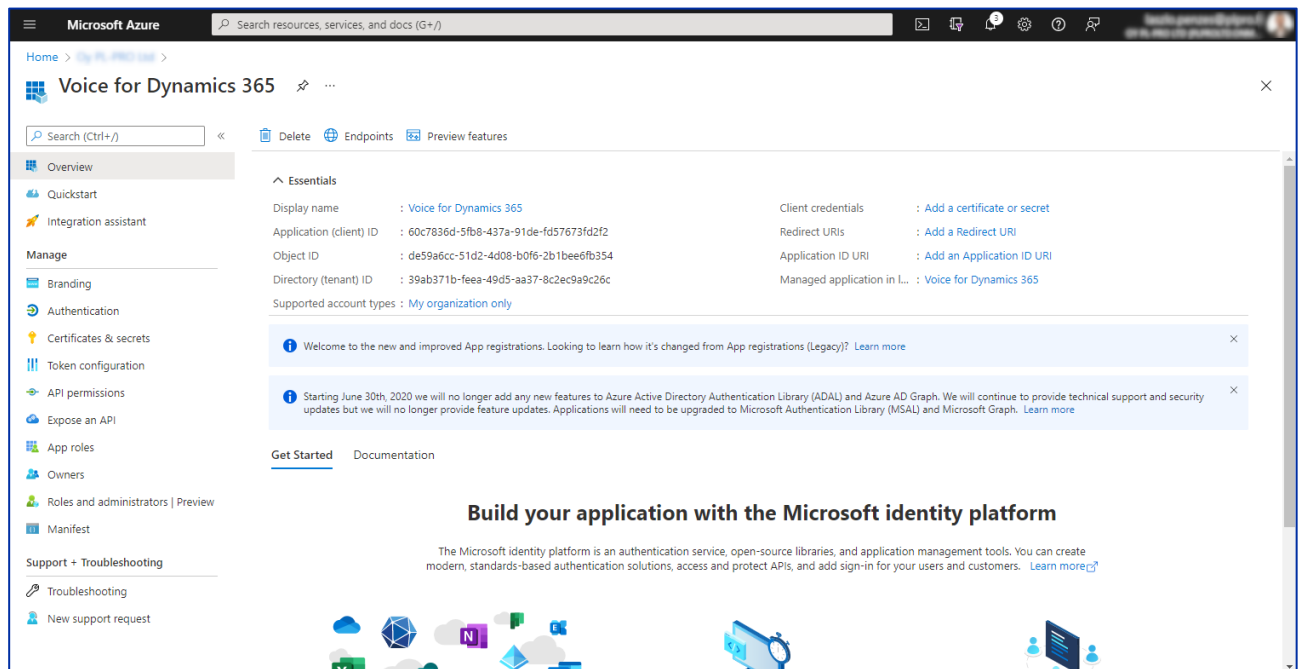


Figure 6 Registration done

- App registration needs API permissions to be able to authenticate to your Dynamics 365 environment.

Choose API permissions from the navigation panel

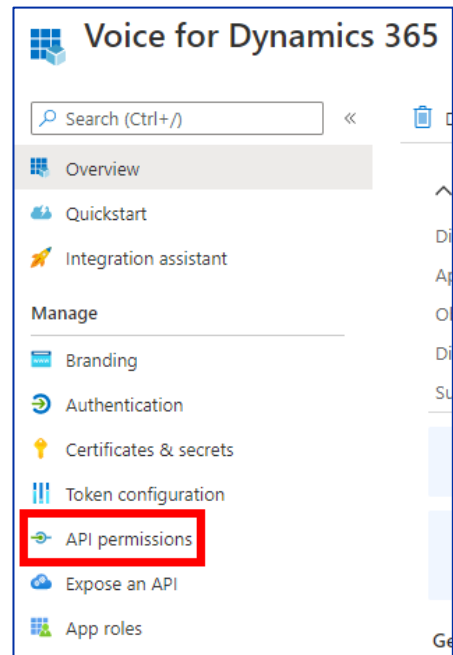


Figure 7 Select API Permissions

- Choose *Add a permission*
- Select Dynamics CRM from the pop-up window

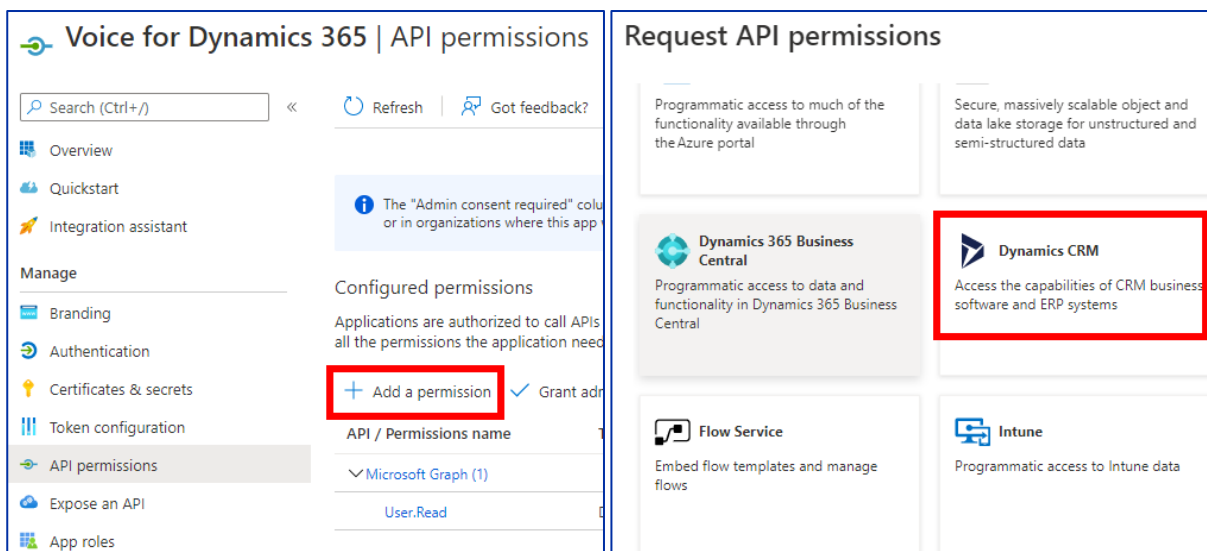


Figure 8 API permissions

- Tick *user_impersonation* selection and choose *Add permissions*

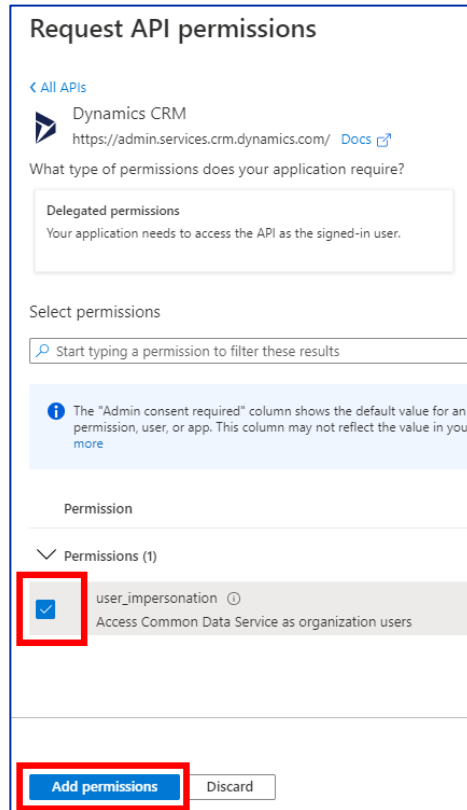


Figure 9 Add permissions

For authentication purposes, a client secret is needed.

Since Microsoft limits the expiration of secret keys created in the user interface to 2 years, the client secret must be added using a script.

- Navigate to main properties of App Registration by clicking Overview on the left
- Copy the value of *Object ID* attribute to clipboard

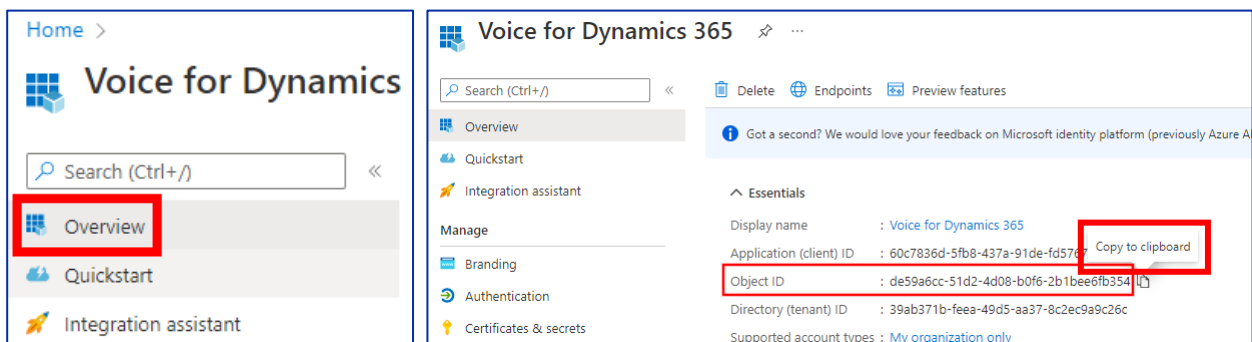


Figure 10 Copy Object ID

- Replace OBJECT_ID in the following script with the copied value

```
Connect-AzureAD

$startDate = Get-Date

$endDate = $startDate.AddYears(100)

$aadAppsecret01 = New-AzureADApplicationPasswordCredential -ObjectId OBJECT_ID -CustomKeyIdentifier
'Voice' -StartDate $startDate -EndDate $endDate

Write-Output $aadAppsecret01
```

- Open Cloud Shell by clicking the icon on top menu bar

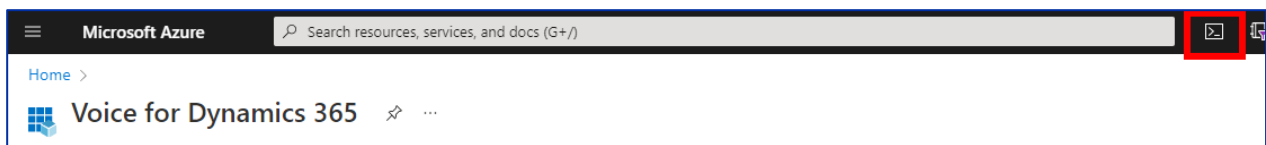


Figure 11 Open Cloud Shell

- Paste the script and hit *Enter*. A client secret is created with 100 years expiration.
- **Save the secret key value into a secure place as it is not visible afterwards.**

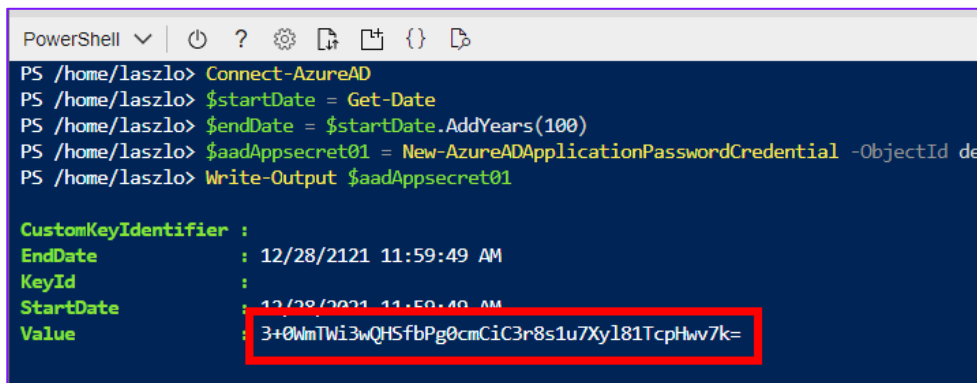


Figure 12 Run Script

Once secret key is created, send the following details to Enreach:

- secret key value
- application id
- directory id (from overview page)

Enreach will then deploy back-end components for integrations to work.

After the Azure App registration is completed, next step is to Install Voice for Dynamics 365 package and set up an application user in Dynamics 365.

1.3 Install Voice for Dynamics 365 package to Dynamics 365 Instance

Install Voice for D365 managed package provided by Enreach and login to appropriate Microsoft Dynamics 365 organization with System Administrator credentials.

VoiceForD365Package contains the following:

- The package contains solutions with base entities, configuration data and settings, links for the Azure apps/functions.
- Voice channel provider *Note: for the Channel Integration Framework v1.0 only*
- Multisession configuration data (session, notification templates) are to be installed within the solution package automatically. *Note: for the Channel Integration Framework v2.0 only*

1.3.1 The installation process for the customer's administrator

- Incoming zip package should be unpacked
- Right-click on DeploymentPackage.dll and verify that the file is not blocked. If it is, unblock and then apply. Otherwise, might an error message might occur during the deployment (no solution found).

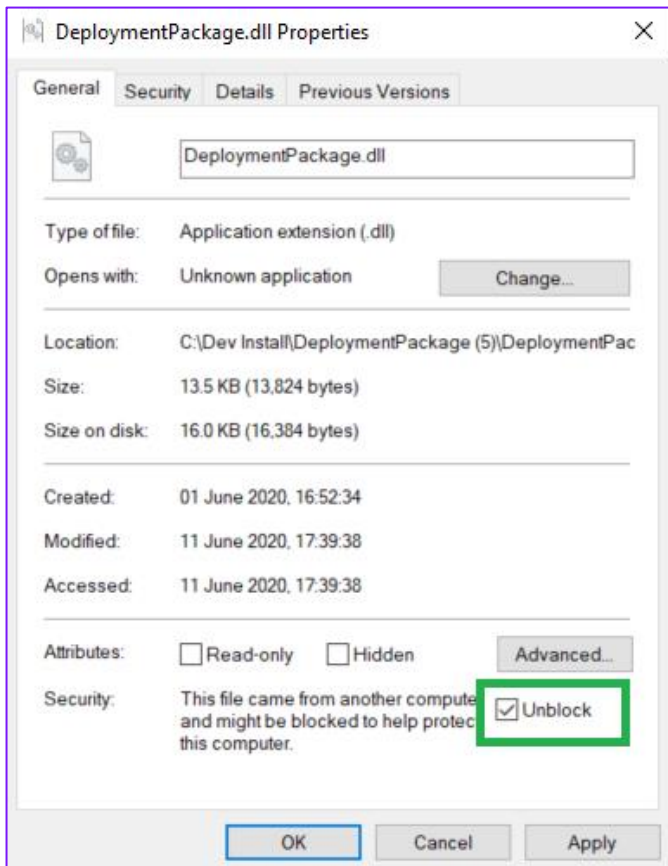


Figure 12 Deployment Package properties

- Then run PackageDeployer.exe and go through the standard wizard.
- Wizard will guide the user through all the needed steps for installation.

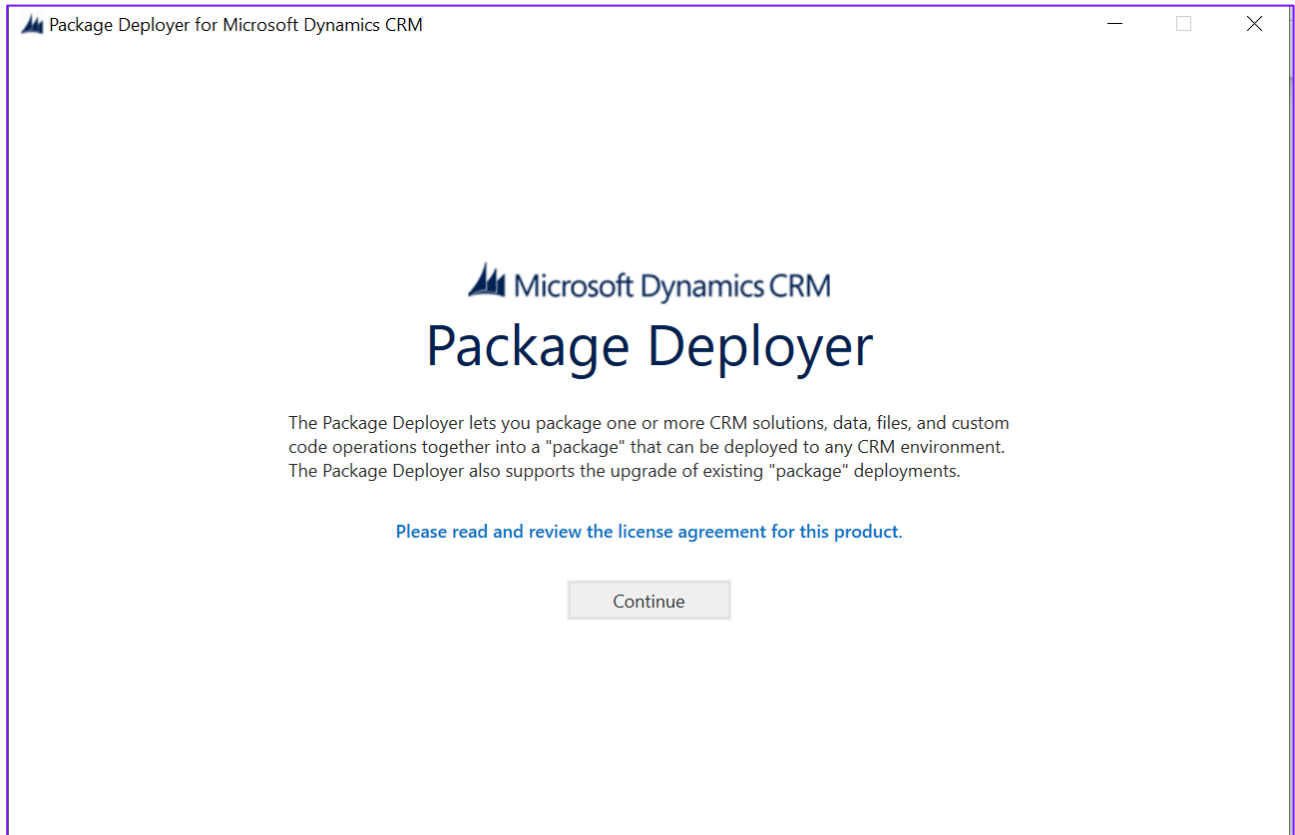


Figure 13 Package Deployer Wizard

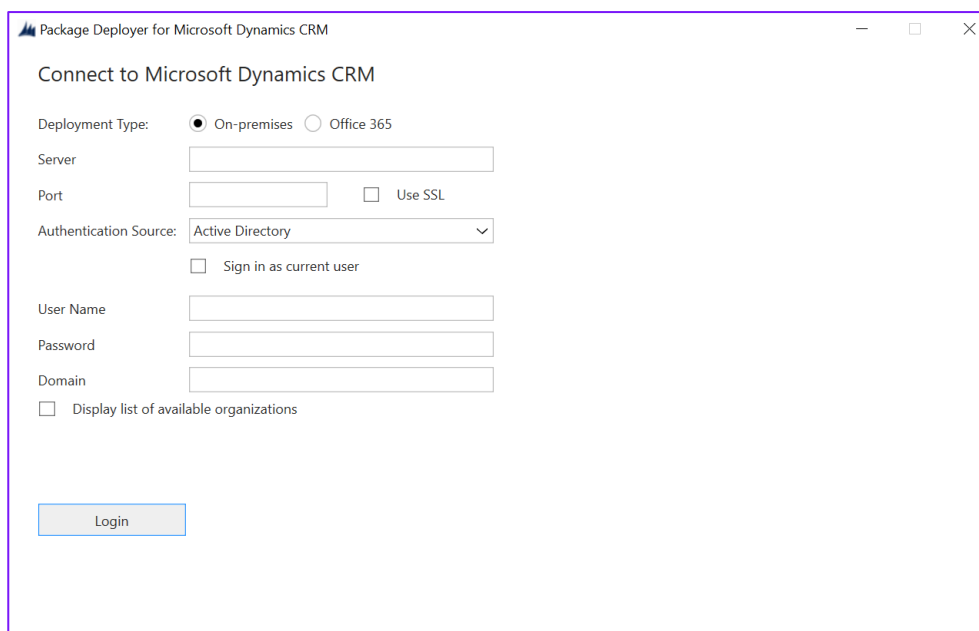


Figure 14 Insert your company information

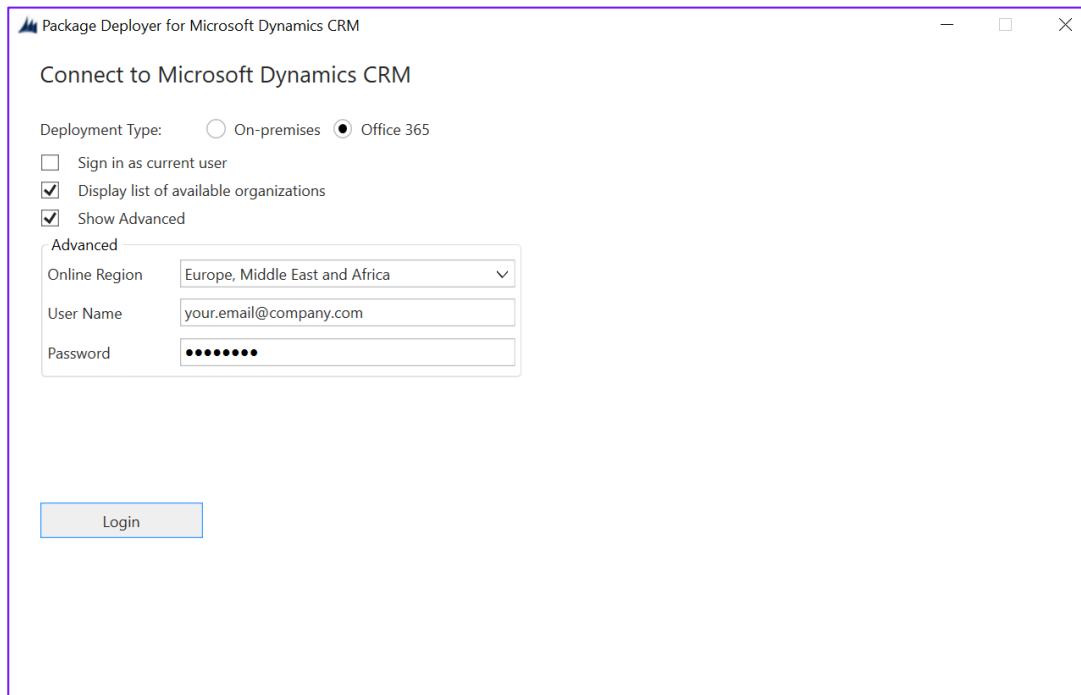


Figure 15 Company information example

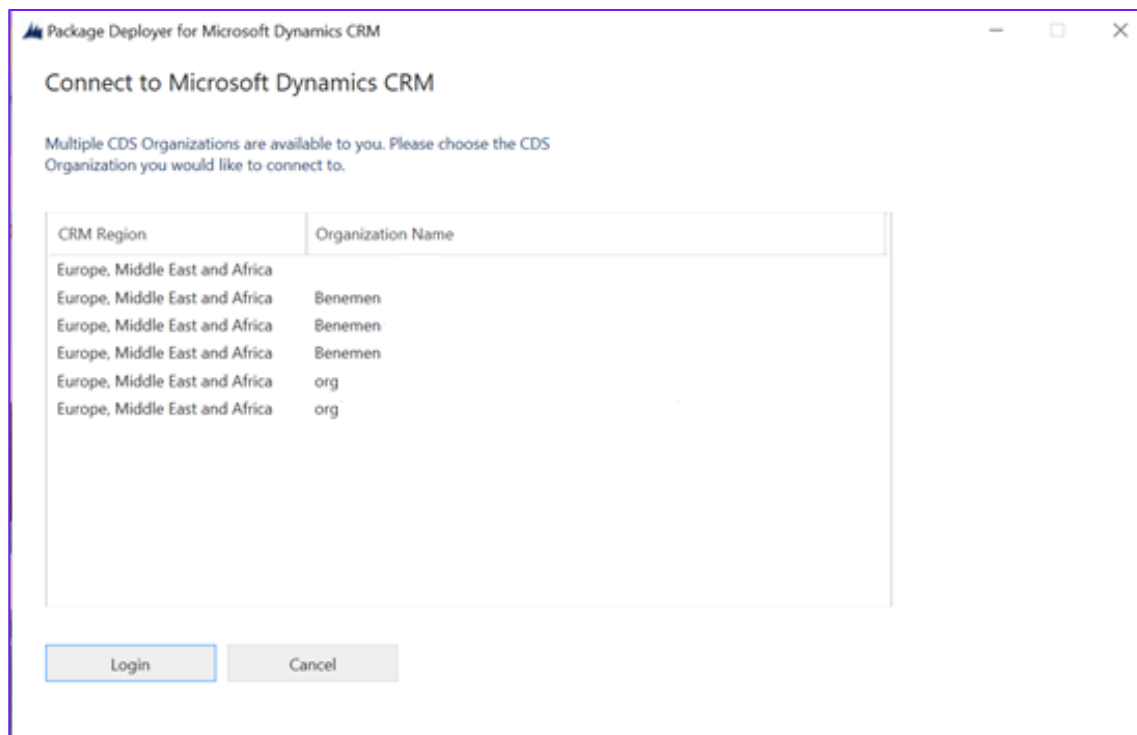


Figure 16 Connect to Microsoft Dynamics CRM

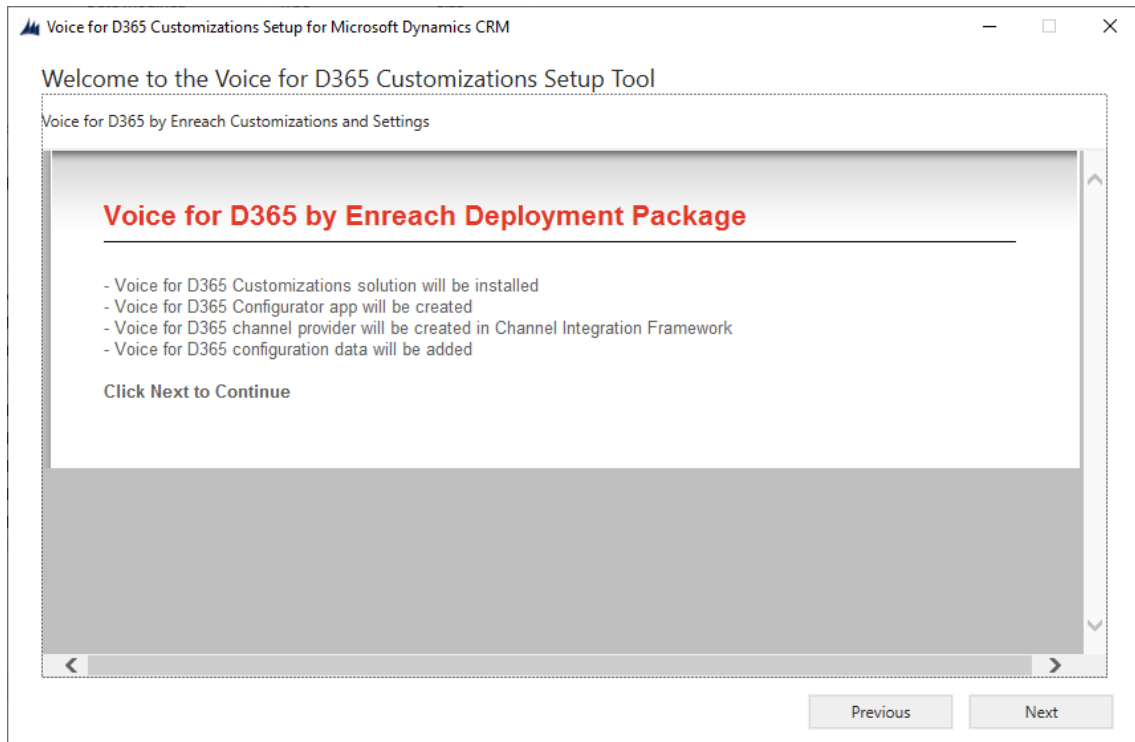


Figure 17 Voice for D365 Package

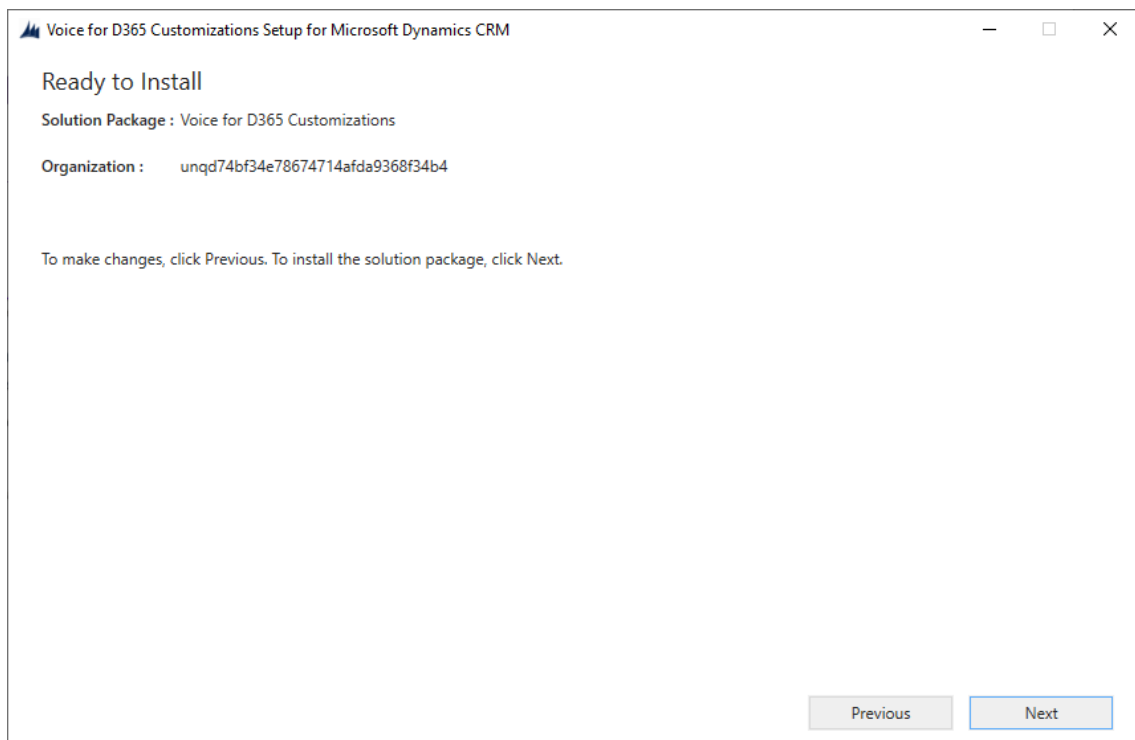


Figure 18 Ready to Install

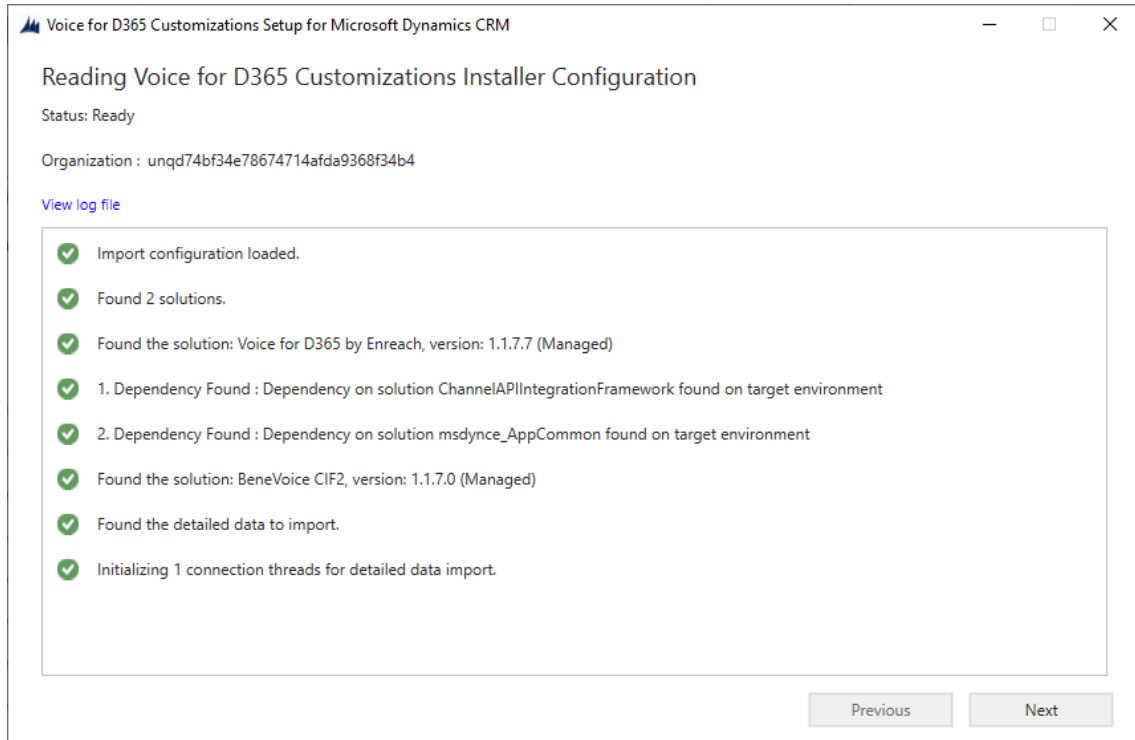


Figure 19 Installer Configuration

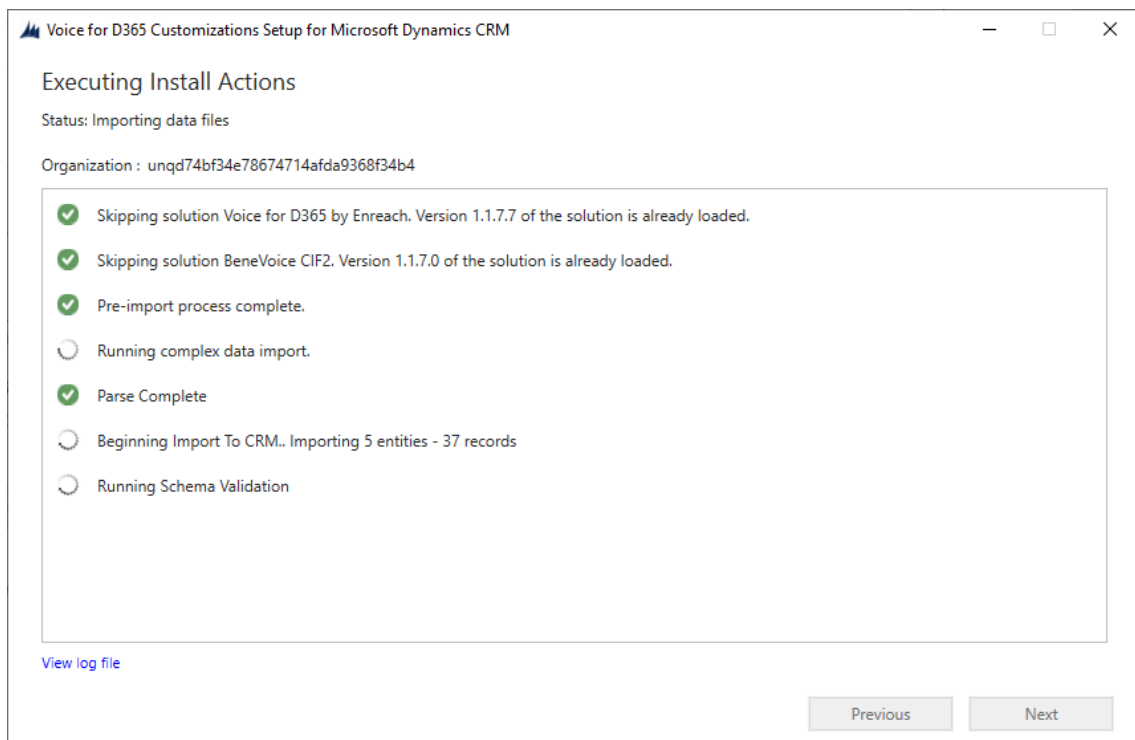


Figure 20 Executing Install Actions

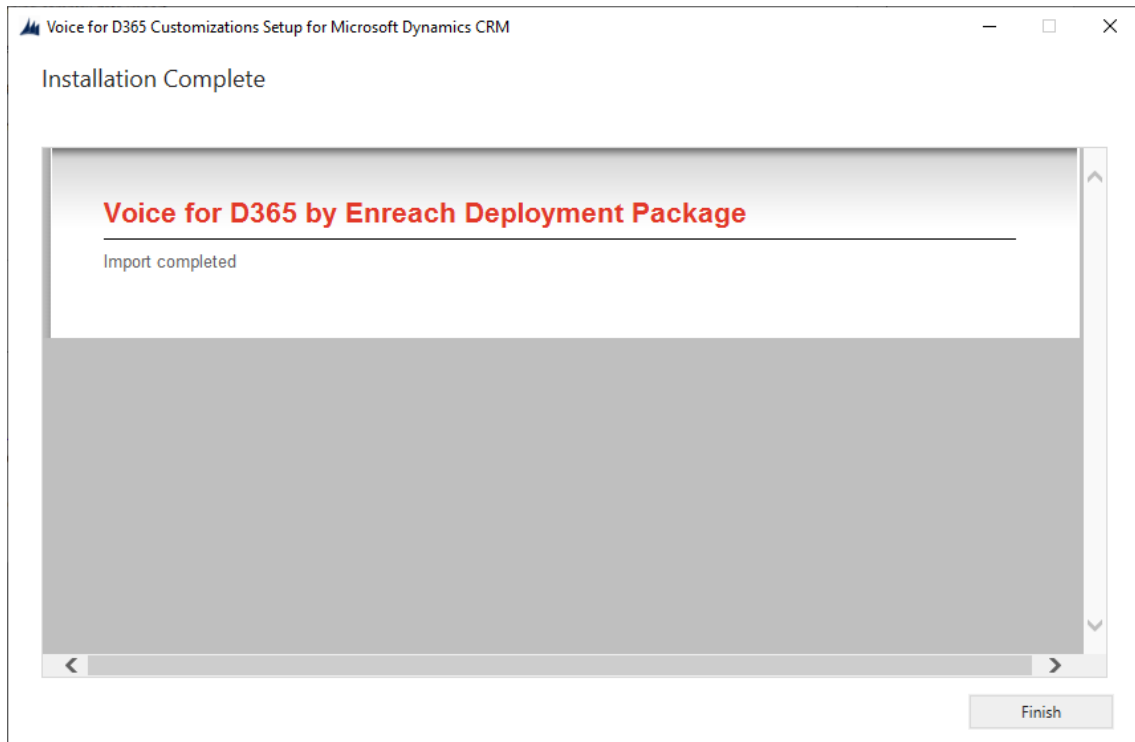


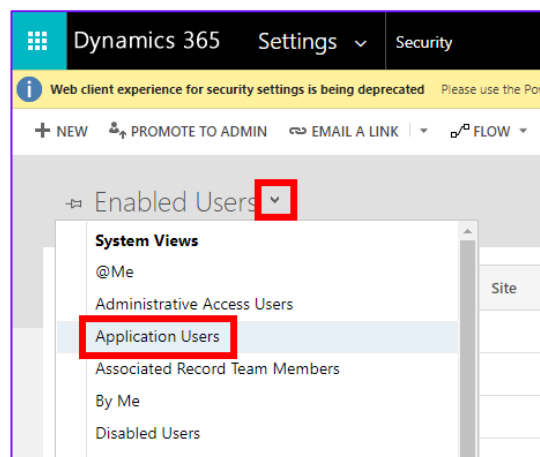
Figure 21 Installation Complete

PLEASE NOTE: All future updates after the first installation are also done with the Package Deployer / Wizard!

1.4 Configure application user in D365

Please complete Azure App registration before proceeding to configuring the application user in Dynamics 365.

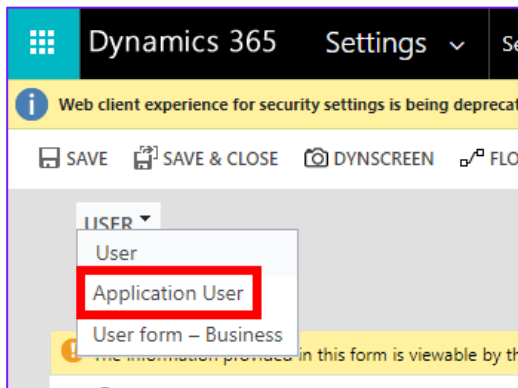
- Navigate to Dynamics 365 Settings and User management.
- **PLEASE NOTE:** Change the list view to Application users and choose: **New (upper left in the ribbon)**



Full Name ↑	Application I...	Azure AD Obj...	Application I...
Business Application Platform Service account	475226c6-02...	1df4108e-4f4...	https://servic...
Microsoft Forms Pro	19dd5b37-d1...	2ac20c21-e1...	19dd5b37-d1...
Power Apps Checker Application	c9299480-c1...	cec46591-78...	https://test.a...
RI AppUser	dc431514-d1...	e661af1b-789...	https://crmri...
Super Cards	e61d067b-25...	c19a0717-70...	e61d067b-25...
VOC Push Service	19c49fe8-933...	6aca5b3c-a9...	https://crms2...

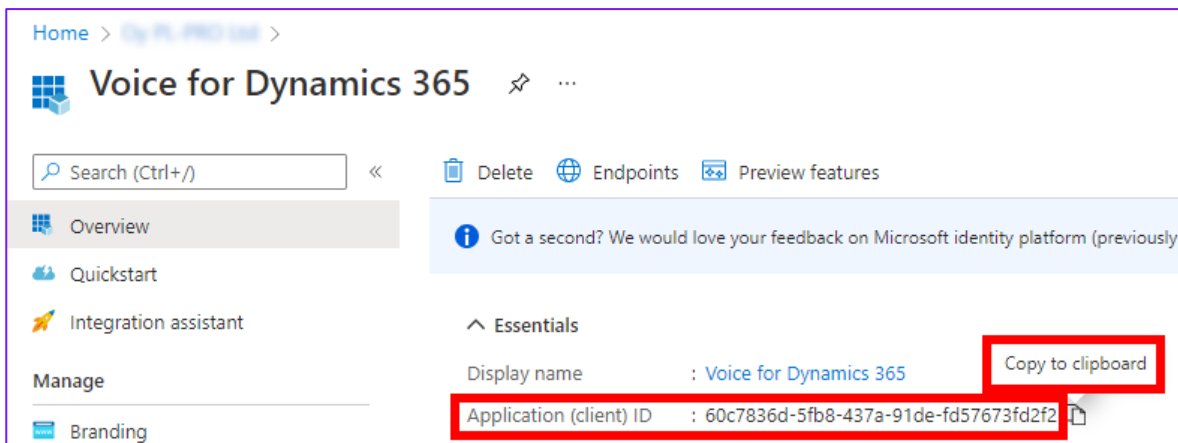
Figure 22 Application users

- When a new user form appears, change first the form to USER: APPLICATION USER to be able to enter the application user details.



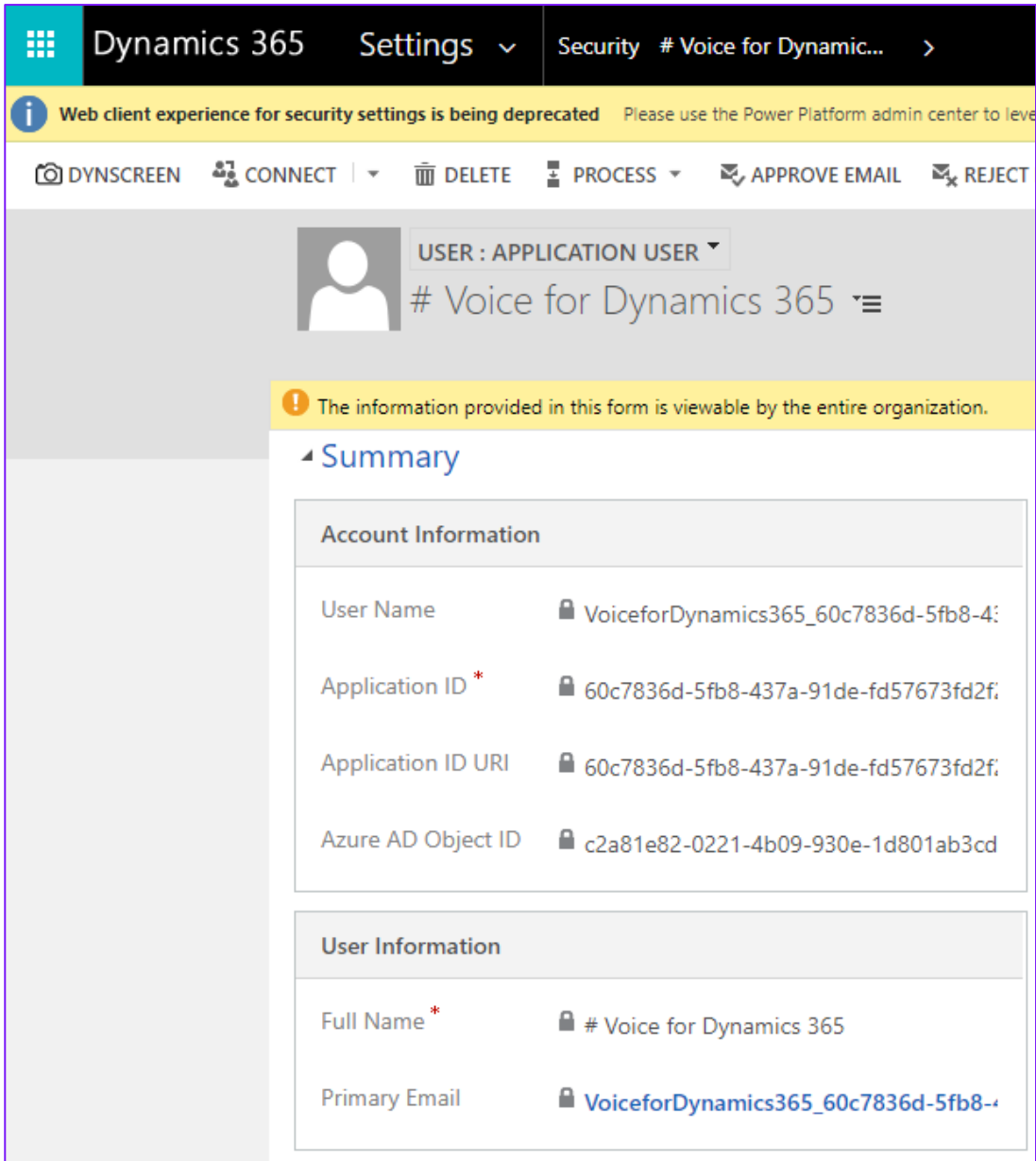
- Add the same application id to the Application ID field that was created in Azure App registration. Fill in fields in User information section and click save.

A screenshot of the 'Account Information' section of a Dynamics 365 form. The 'Application ID' field is highlighted with a red box and contains the value: 60c7836d-5fb8-437a-91de-fd57673fd2f2.



If application user setup is done correctly, values should appear to Application ID URI and Azure AD Object ID fields.

Figure 23 New application user



The screenshot shows the Dynamics 365 Settings interface for a new application user. The user is named "USER : APPLICATION USER" and is associated with the organization "# Voice for Dynamics 365". A warning message states: "The information provided in this form is viewable by the entire organization." The user details are organized into two sections: "Account Information" and "User Information".

Account Information	
User Name	VoiceforDynamics365_60c7836d-5fb8-4:
Application ID *	60c7836d-5fb8-437a-91de-fd57673fd2f:
Application ID URI	60c7836d-5fb8-437a-91de-fd57673fd2f:
Azure AD Object ID	c2a81e82-0221-4b09-930e-1d801ab3cd

User Information	
Full Name *	# Voice for Dynamics 365
Primary Email	VoiceforDynamics365_60c7836d-5fb8-4

Figure 24 Application user saved

- Finally, give the application user a security role **Voice ApiUser**.

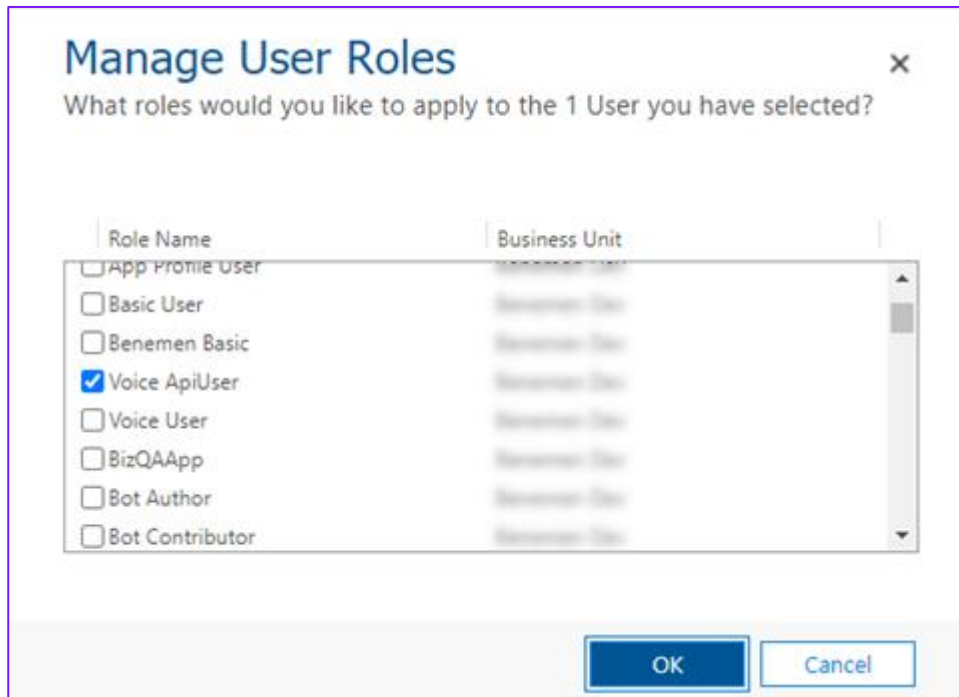


Figure 25 Add a security role

1.5 Voice for D365 Configuration

Configuration settings are divided on the following parts

1.5.1 Channel Provider Configuration

1.5.1.1 Configuration for Channel Integration Framework 1.0

Open Dynamics and open Channel Integration Framework App:

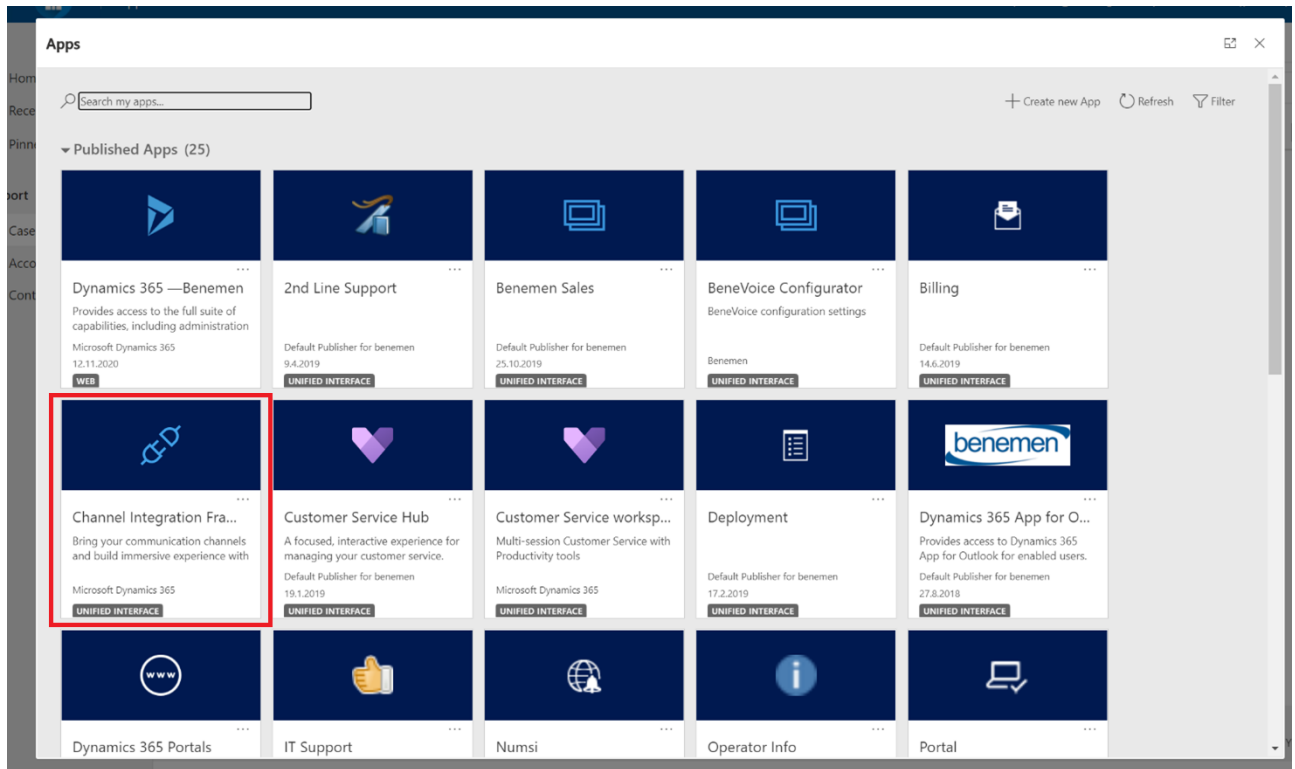


Figure 26 Channel Integration Framework App

This configuration is used for customers not using the multisession capabilities and do not use Omnichannel licensing in their Dynamics 365 environment.

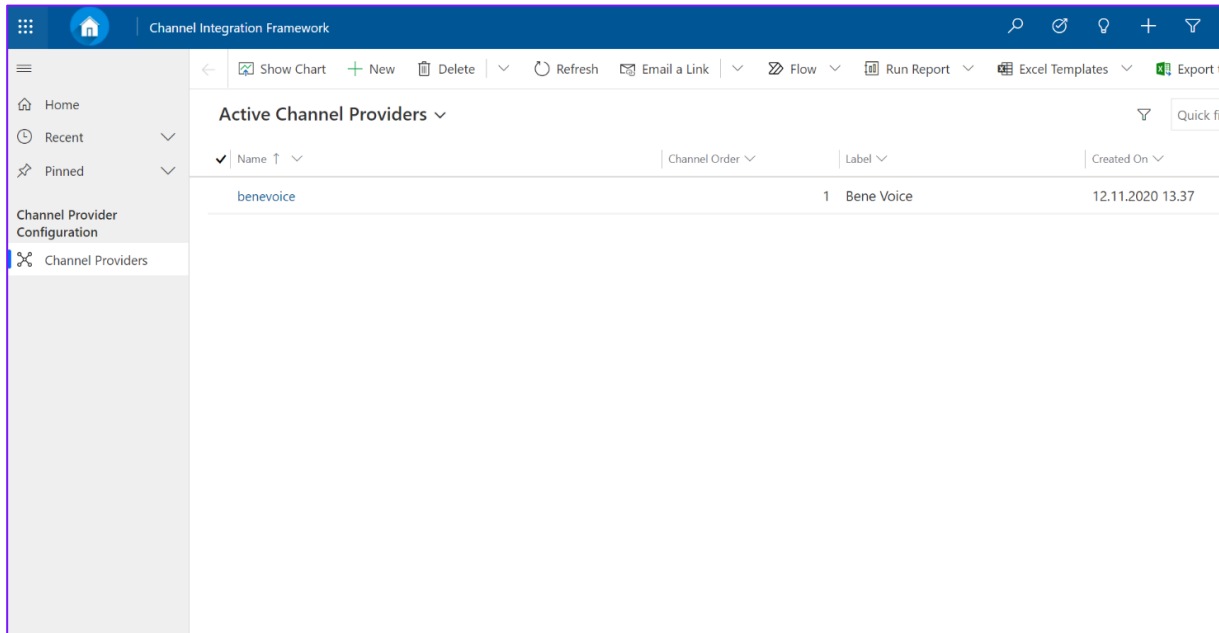


Figure 27 Active Channel Providers

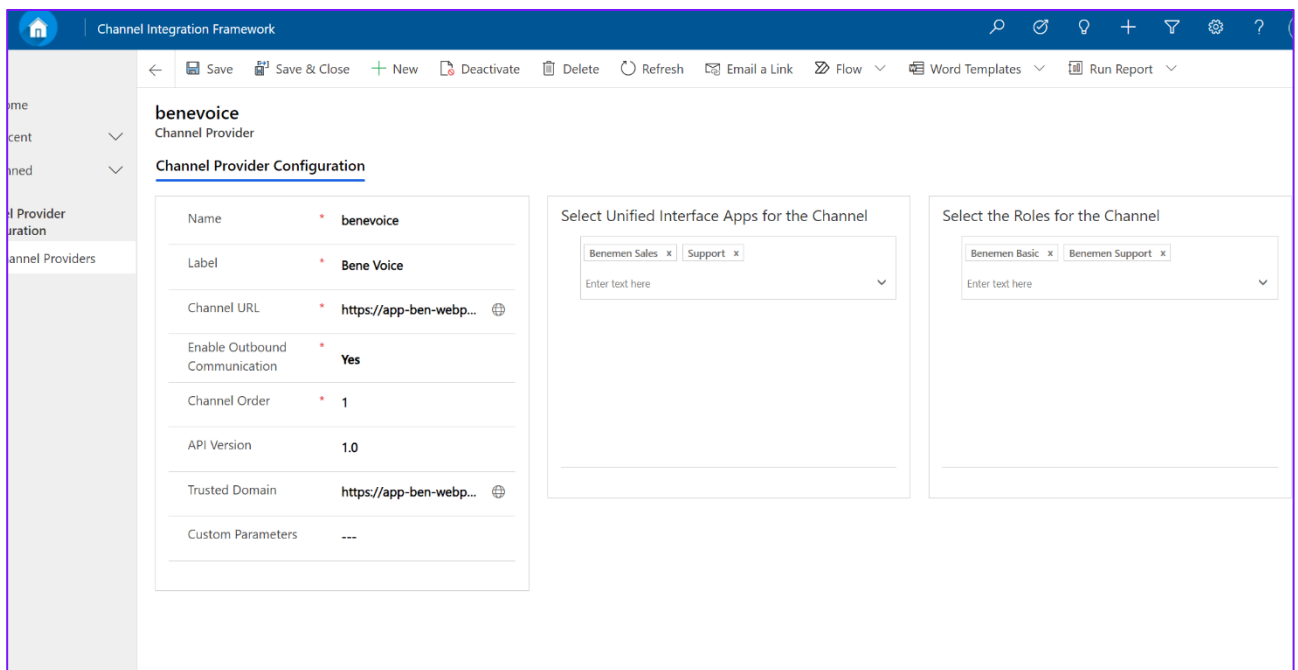


Figure 28 Voice Channel Provider Configuration

Channel integration configuration record with settings is to be created with deployment package during the installation but needs to fill in access-based settings:

- Select which Apps and User Roles will have access to the channel provider.

See more about Channel Integration Framework configuration:

<https://docs.microsoft.com/en-us/dynamics365/customer-service/channel-integration-framework/configure-channel-provider-channel-integration-framework>

1.5.1.2 Configuration for Channel Integration Framework 2.0

Configuration of Voice Channel Provider

To create channel provider for CIF2, follow the guide

<https://docs.microsoft.com/en-us/dynamics365/customer-service/channel-integration-framework/v2/configure-channel-provider-app-profile-manager>.

Fill in the values for the channel provider as it is shown below. Channel URL and Trusted domain attributes will be provided by Enreach deployment team.

voice	
Channel Provider	
General	Related
Name	* voice
Unique Name	* ben_voicechannel
Label	* Voice for Dynamics 365
Channel URL	* <to be provided by Benemen deployment team>
Enable Out Bound	* Yes
Channel Order	* 1
Api Version	* 2
Trusted Domain	<to be provided by Benemen deployment team>
Custom Parameters	---
Enable Analytics	No

Figure 4 Channel provider configuration

1.5.2 Users

1.5.2.1 Update enreach Cloud User ID

Open Voice Configurator App

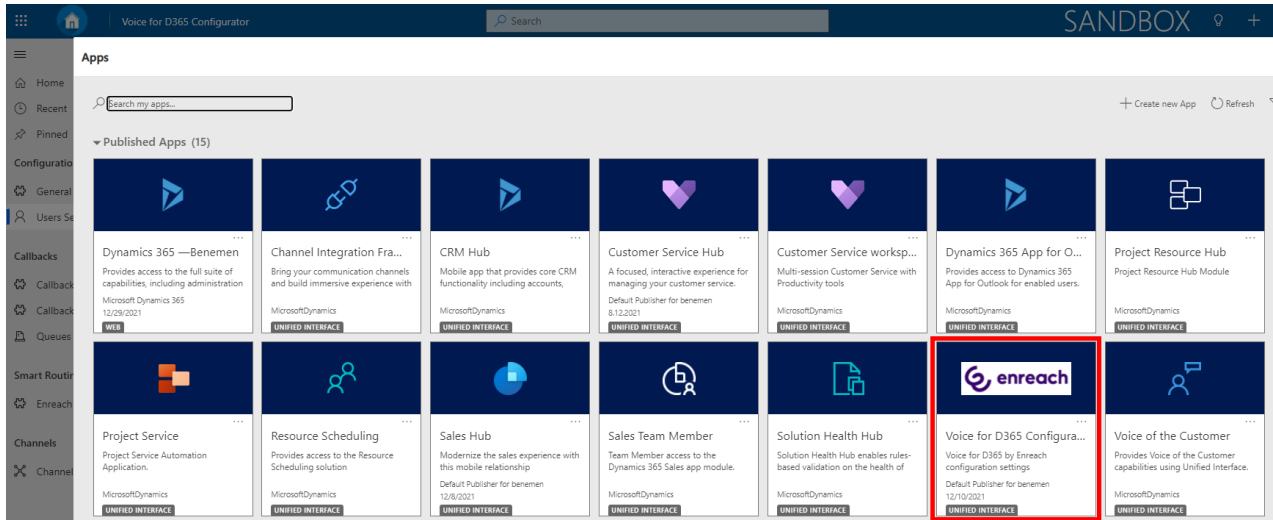


Figure 29 Voice Configurator App

- Navigate to Users Settings and choose Update Enreach User Ids –button (at the top of the page)

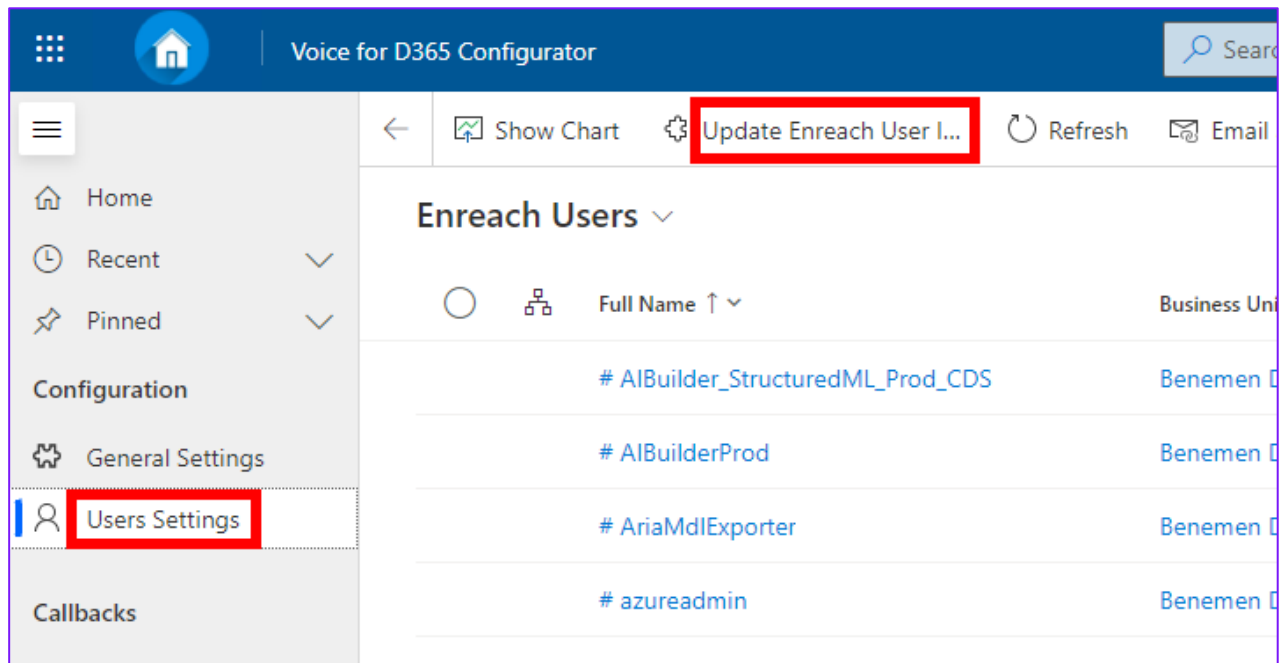


Figure 30 Update Enreach User Ids

- Wait couple of seconds and Enreach User Ids should appear on the user list for the users that have same email address than in Enreach Cloud.

Full Name	Business Unit	Title	Main Phone	Enreach Cloud User Id	Enreach Cloud User Email
BeneVoice ApiUser	Benemen Dev			fbcd23f5-74f9-e911-80e0-00505689...	
Patrik Vaskivuori	Benemen Dev	QA Specialist		a0c957dc-0051-e711-80c9-0050568...	abigail.dickens@domain.com
Olli Kojonen	Benemen Dev			724fe824-034f-e911-80d4-0050568...	webtrc.user1@domain.com
Igor Shevchenko	Benemen Dev			2a3b5779-15ef-e911-80de-0050568...	

Figure 31 Enreach Cloud User Id

- After updating the ids, if some user is missing the Enreach User id, then you need to manually update the correct Enreach Cloud Email to *Enreach User Email* field on the user record:
 - **Enreach User Id** – unique identifier of the user in Enreach Cloud
 - **Enreach User Email** (optional) - should be filled in if email user in D365 differ from Enreach Cloud

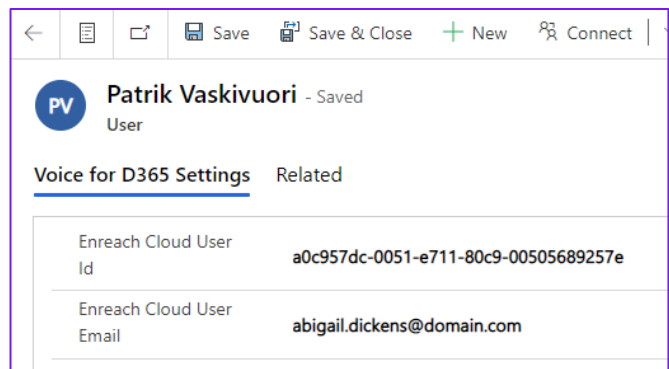


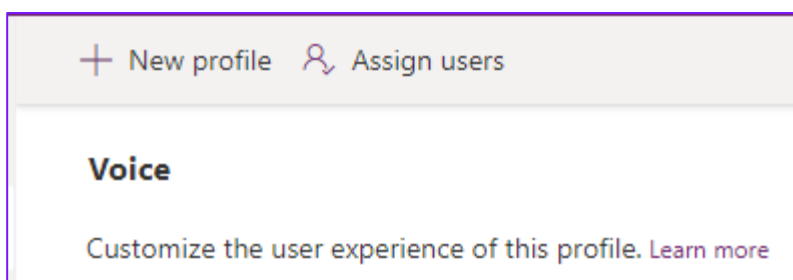
Figure 6 User record Voice for Dynamics 365 settings

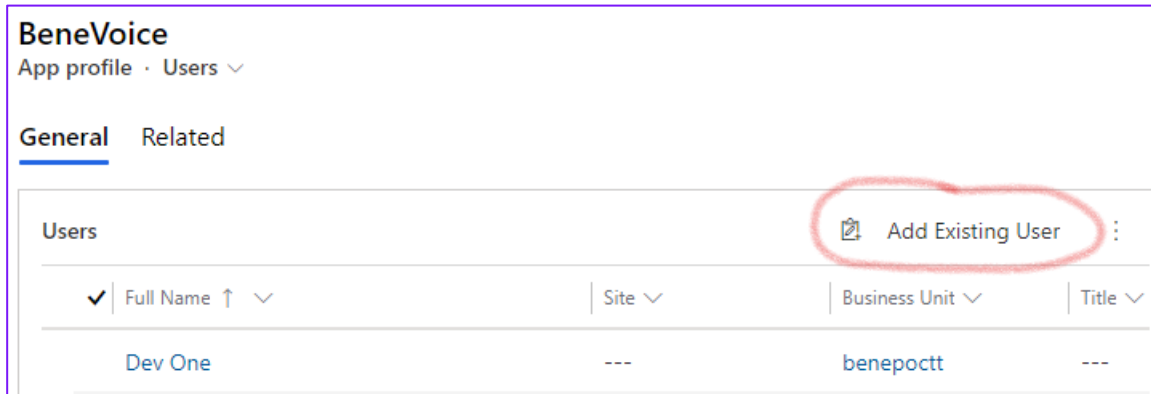
1.5.2.2 Assign users to Application Profile (CIF2)

After creating the *Application Profile* and *Channel Provider* in *PowerApps Portal* according to Microsoft's instructions (see chapter 1.5.1.2 *Configuration for Channel Integration Framework 2.0*), users who will be authorized to use the phone widget need to be assigned to the newly created *Application Profile*.

To do this, click *Assign Users* on the top menu on *Application Profile* editor.

A view will open in Dynamics Unified Interface. Click *Add Existing User* and select the user(s) to be added





1.5.3 Phonecall sync settings

Phone Call Synchronization settings are in *General Settings* -> *Phone Call sync settings* view:

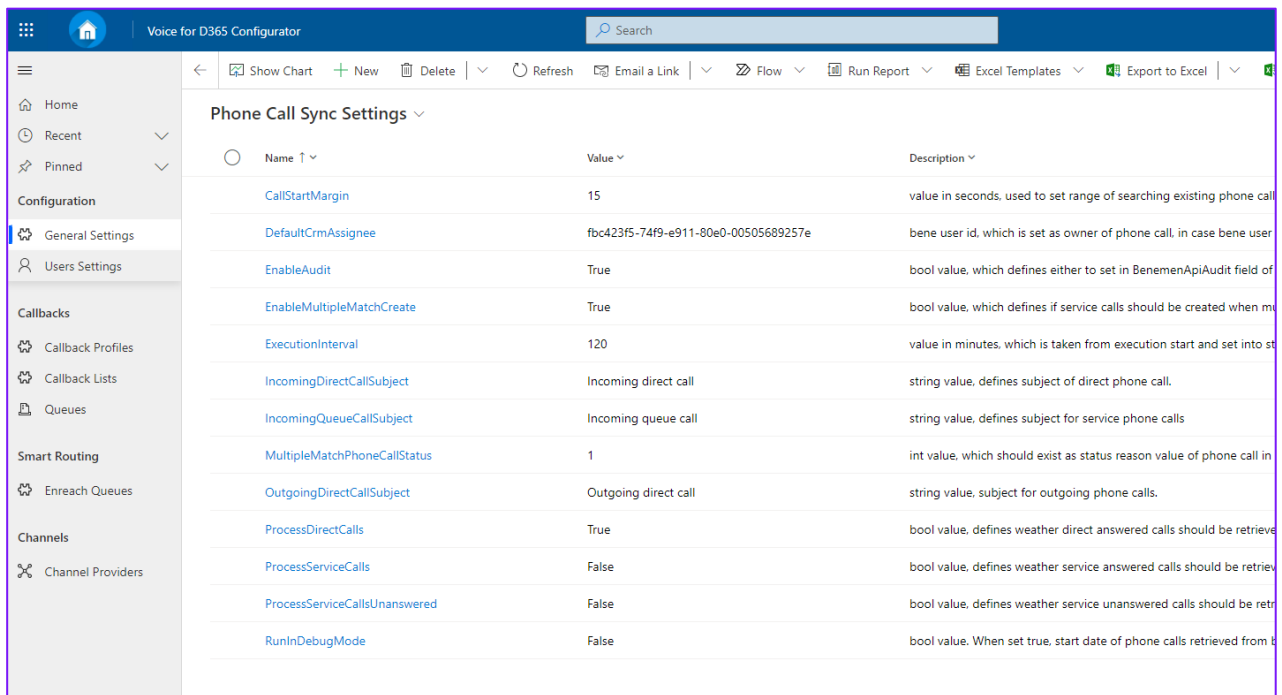


Figure 33 Phonecall Sync Settings

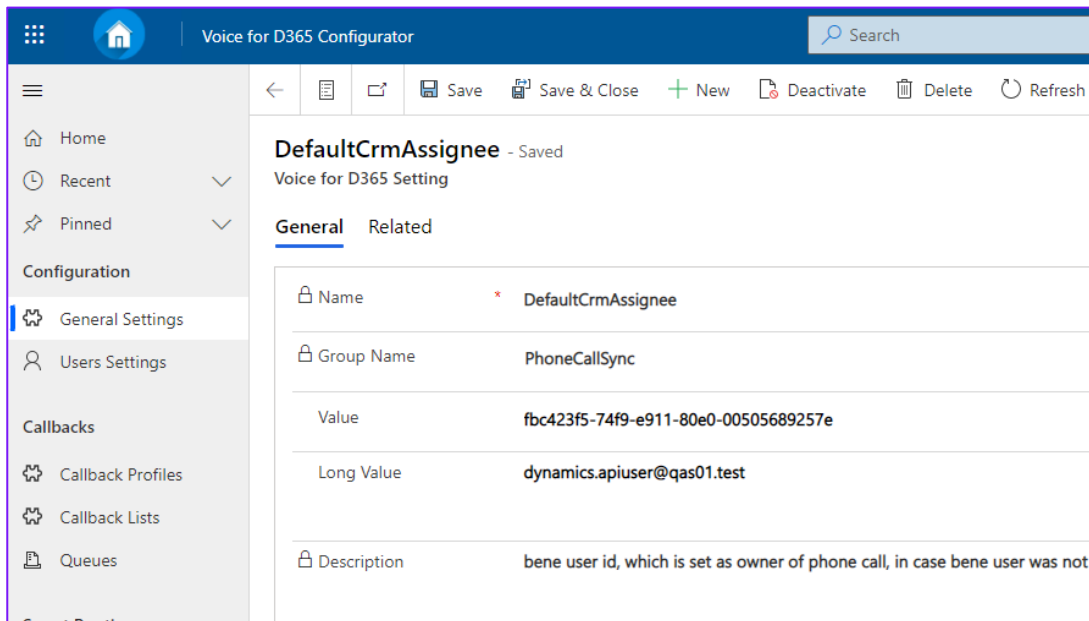


Figure 34 DefaultCRMAssignee

- **CallStartMargin** - value in seconds, used to set a range of searching existing phone calls, to avoid creating duplicates.
- **DefaultCrmAssignee** - Enreach user id, which is set as the owner of a phone call, in case user Enreach user was not found in D365. Current value e.g. fbc423f5-74f9-e911-80e0-...
The value can be any Enreach user id chosen by the customer organization.
- **EnableAudit** - boolean value, which defines to set in Enreach Api Audit field of a phone call in D365. In case it is false, the field will be set as CallId is {Enreach call id}, in other cases, all the values retrieved from the Enreach regarding this phone call will be set.
- **EnableMultipleMatchCreate** - boolean value, which defines if service calls should be created when multiple contacts/accounts/leads found.
- **ExecutionInterval** - value in minutes, which is taken from execution start and set into start date for phone calls retrieval from Enreach API.
- **IncomingDirectCallSubject** - string value, defines the subject of a direct phone call.
- **IncomingQueueCallSubject** - string value, defines the subject for service phone calls.
- **MultipleMatchPhoneCallStatus** - int value, which should exist as status reason value of phone call in D365. Set when multiple contacts/leads/accounts found and EnableMultipleMatchCreate is true.
- **NumbersToCut** - int value, defines the number of characters to be cut off from the start of the phone number, before searching in D365.
- **OutgoingDirectCallSubject** - string value, subject for outgoing phone calls.

- **ProcessDirectCalls** - boolean value, defines whether direct answered calls should be retrieved and processed.
- **ProcessServiceCalls** - boolean value, defines weather service answered calls should be retrieved and processed.
- **ProcessServiceCallsUnanswered** - boolean value, defines weather service unanswered calls should be retrieved and processed.
- **RunInDebugMode**- boolean value. When set true, the start date of phone calls retrieved from Enreach API is execution date - 45 days and the end date is now.

Phone call synchronization Azure WebJob runs continuously. After executing the business logic, it sleeps for 60 seconds. It means that in practice synchronization runs nearly every minute.

At night, between 10:00PM and 11:30PM UTC a so-called retroactive call synchronization is carried out. The exact time of execution is picked randomly to avoid overloading the back-end infrastructure by executing simultaneously for multiple environments.

Retroactive sync retrieves all calls from Enreach API wich were made in the past 24 hours. Then tries to create the calls in CRM. As a result, if a user adds a contact or account with identical phone number to CRM after the call was made but before retroactive sync kicks in, such calls will be synced at night.

1.5.4 Callbacks

Callbacks can be configured only after you get a confirmation from Enreach.

Callbacks are synchronized from Enreach API into Dynamics 365 by an Azure WebJob, hosted in Enreach's Microsoft Azure tenant, maintained by Enreach. Application retrieves callback requests from Enreach API, transforms data into corresponding D365 format, maps to D365 contact/account/lead, and creates corresponding phone call records in D365.

Callback synchronization Azure WebJob runs continuously, similarly to call synchrononization. After executing the business logic, it sleeps for 60 seconds. It means that in practice synchronization runs nearly every minute.

Callback functionality can be configured for organizations that receive callback requests e.g. for Sales or Customer Service purposes to reconnect with the customer at a more suitable time.

To configure callbacks in Dynamics 365, at least one callback profile needs to be added with the following (example) settings:

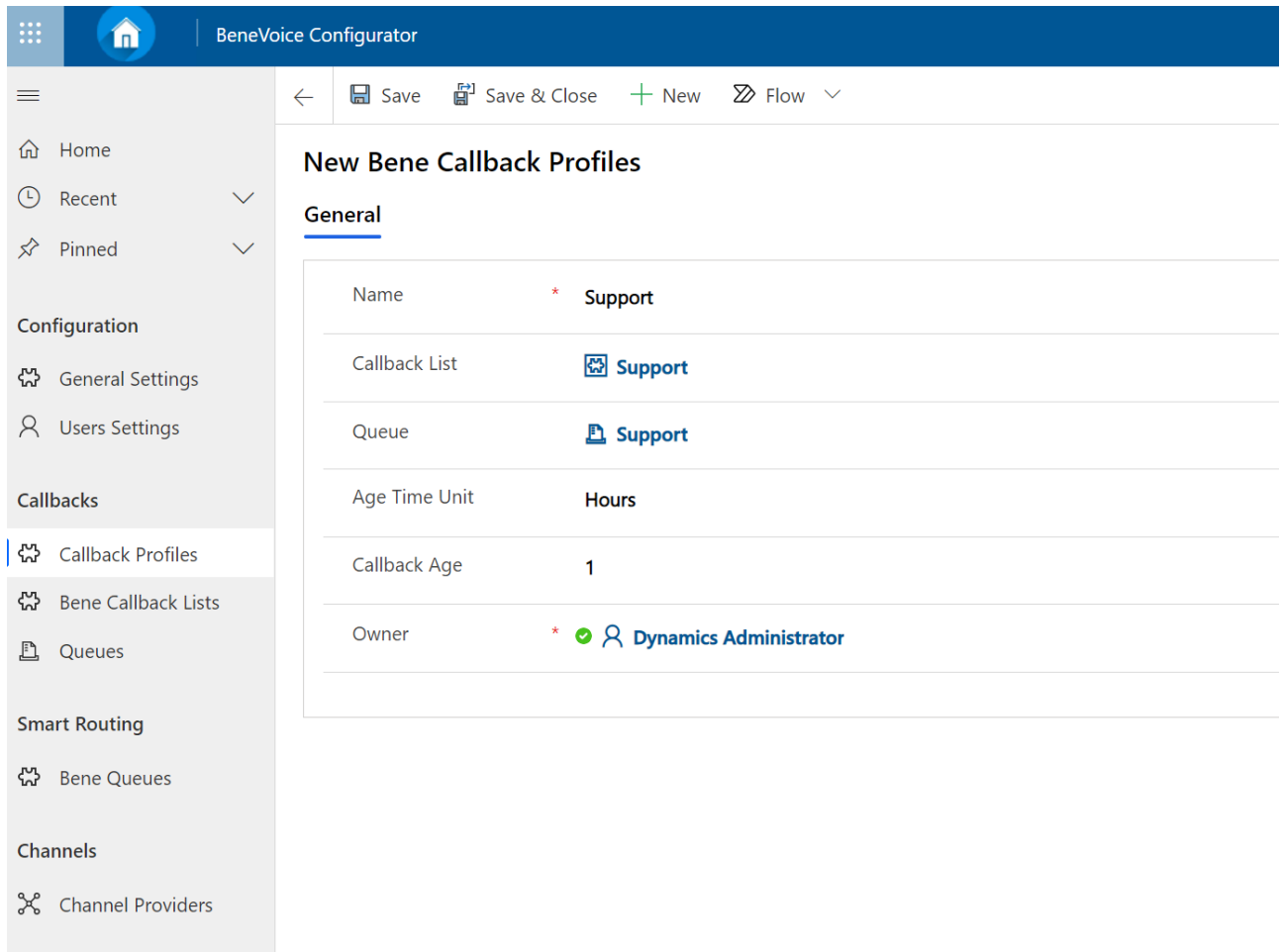


Figure 35 Callback Profile Example Settings

- **Callback List:** lookup to a virtual entity, which is retrieved from Enreach API.
- **Queue:** lookup to OOB D365 entity Queue. Defines to which queue callbacks should be assigned to.
- **Age Time Unit:** a unit of the time-period, can be Days, Hours, Minutes. Controls the size of time window when querying callbacks from Enreach API.
- **Callback Age:** number value of defined periods in the previous field.

The value of *Age Time Unit* and *Callback Age* have an influence on performance; the wider the time window, the more data the component will have to handle on each execution. Therefore, in a production environment (where it is likely to have more calls) the value should not be set to more than one hour. In QA and DEV environments it may be longer, several hours or even days.

All active callback profiles will be proceeded during execution of the callback synchronization job.

1.5.5 Dynamics 365 apply Phone call form

Voice for D365 – Phone Call form should be chosen as the main form for the Phone Call entity. Please consider if your organization has done customizations to the phone call forms.

- Navigate to customize the Unified Interface App (one or many) that your organization uses in your Dynamics 365 environment.
- Open in App Designer (click the three dots on the rightside corner of the App)

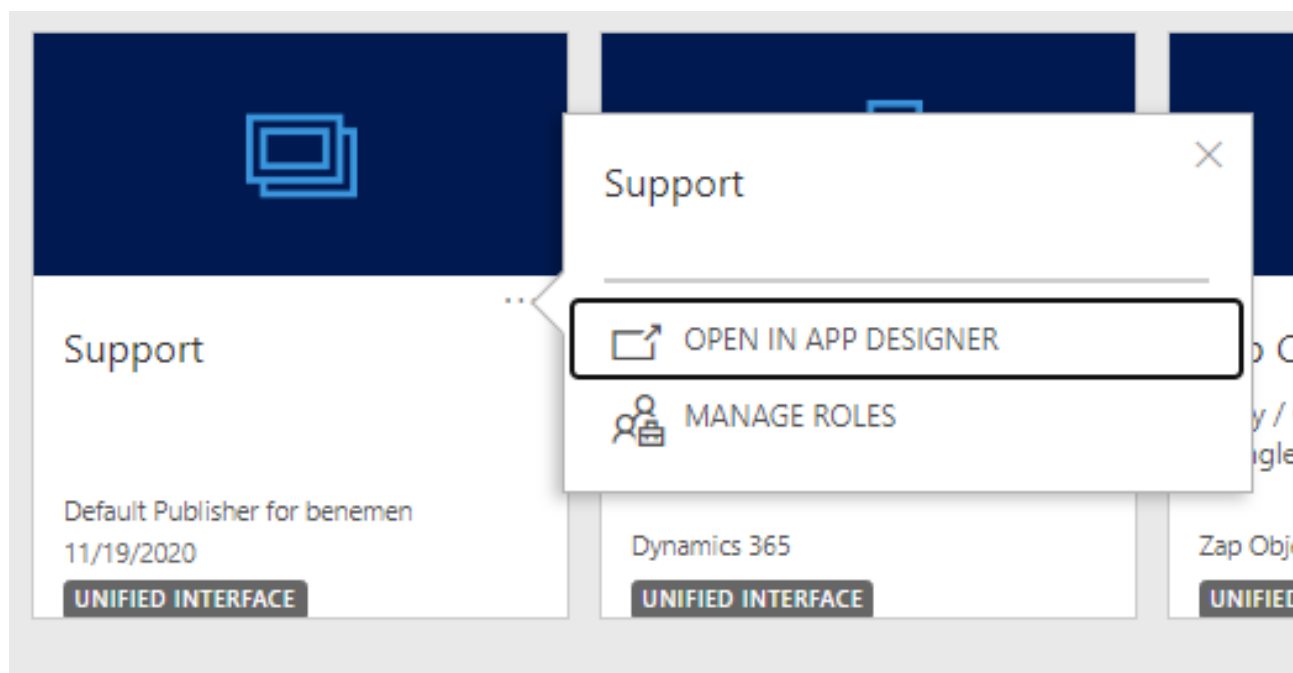


Figure 36 Open in App Designer

- Add Phone Call entity to the list of entities, if it is not already included
- Change the Main form to Voice for D365 – Phone Call
- Include Quick View and Quick Create Forms to the app solution.

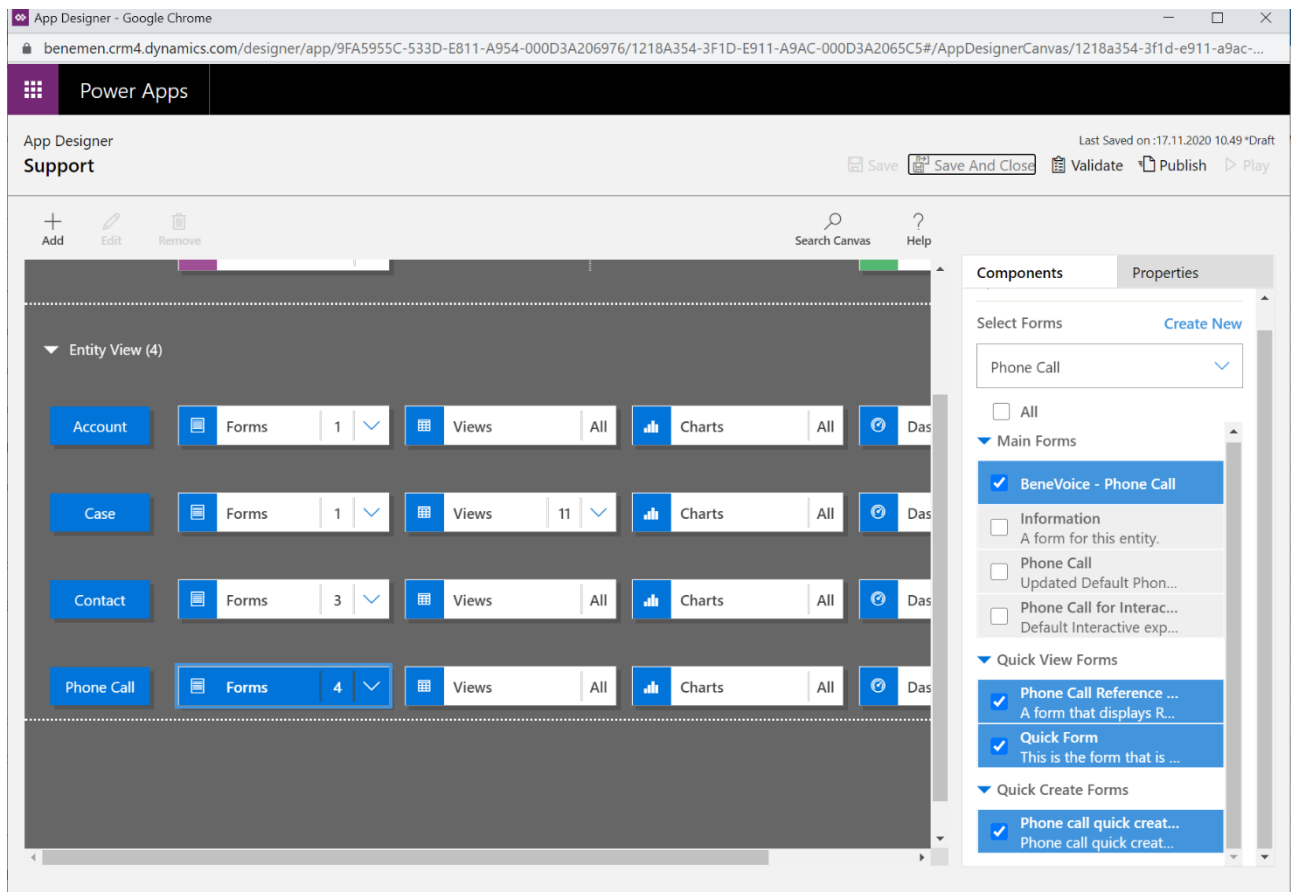


Figure 37 Change the forms to Voice - Phone Call

- Save and Publish

1.5.6 Dynamics 365 Click-to-Dial configuration

Click-to-Dial gives the possibility to make a phone call directly by clicking a button in Dynamics 365 Phone number /mobile number field.

Customize the forms where you want to enable the Click2Dial functionality for the phone number fields:

- Go to form customizations, then target form
- Select the field properties for the field.
- Choose Controls tab and add a new control, choose Channel Communication Control.
- Select the radio buttons to Channel Communication Control

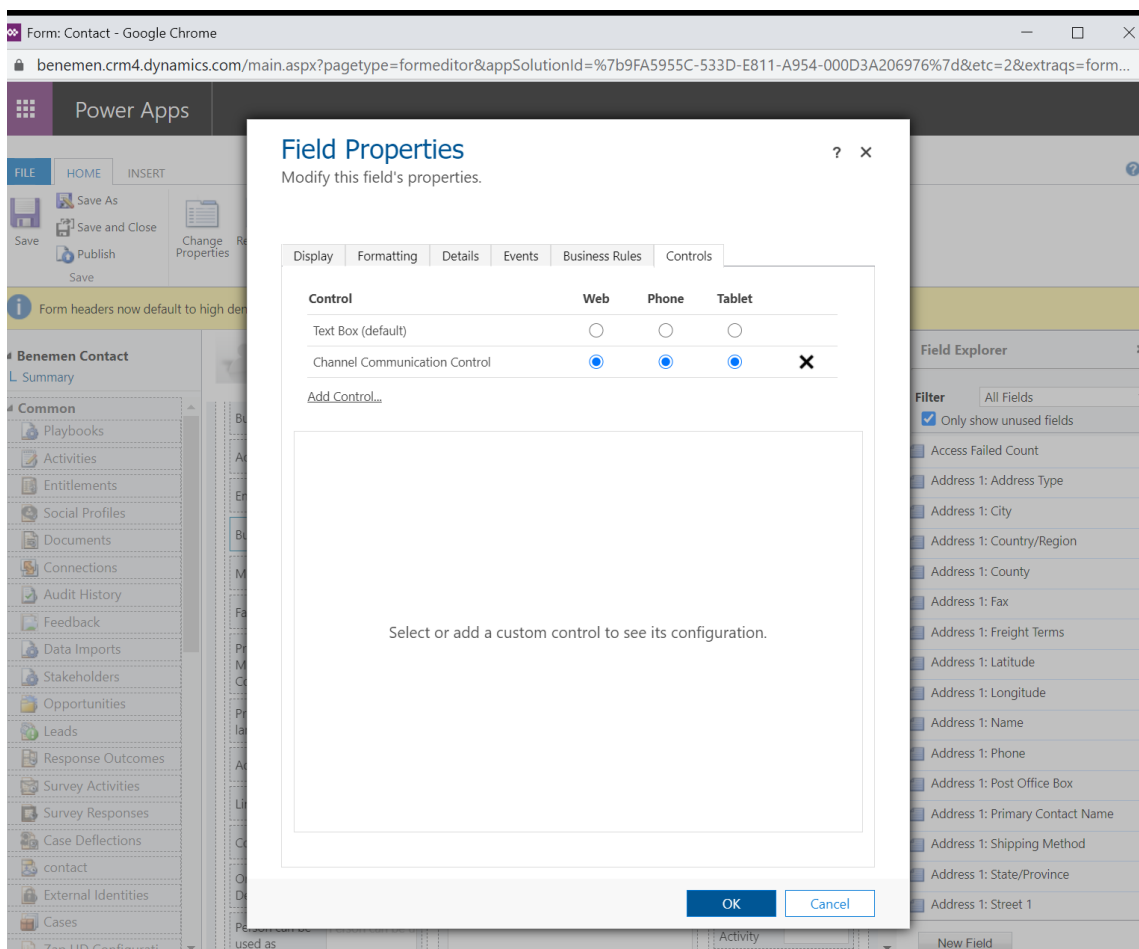


Figure 38 Channel Communication Control

- Do the same steps for all the phone fields you want to enable.

1.6. Test the functionality

If everything was set up correctly, you should see incoming calls open the Voice for Dynamics 365 sidebar in the configured applications.

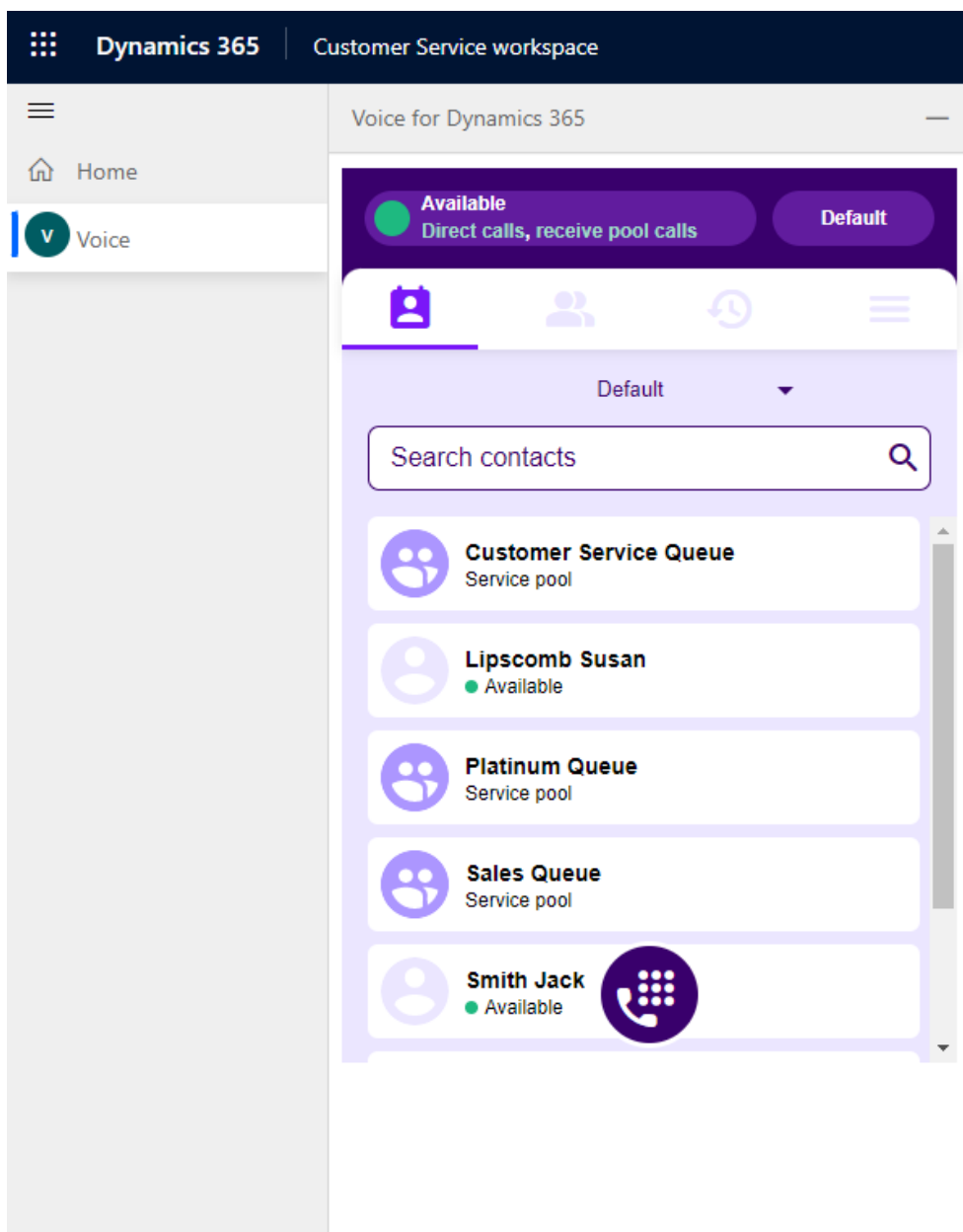


Figure 39 Voice for Dynamics 365, Customer Service Workspace (CIF2) (On the left side of Dynamics 365 UI)

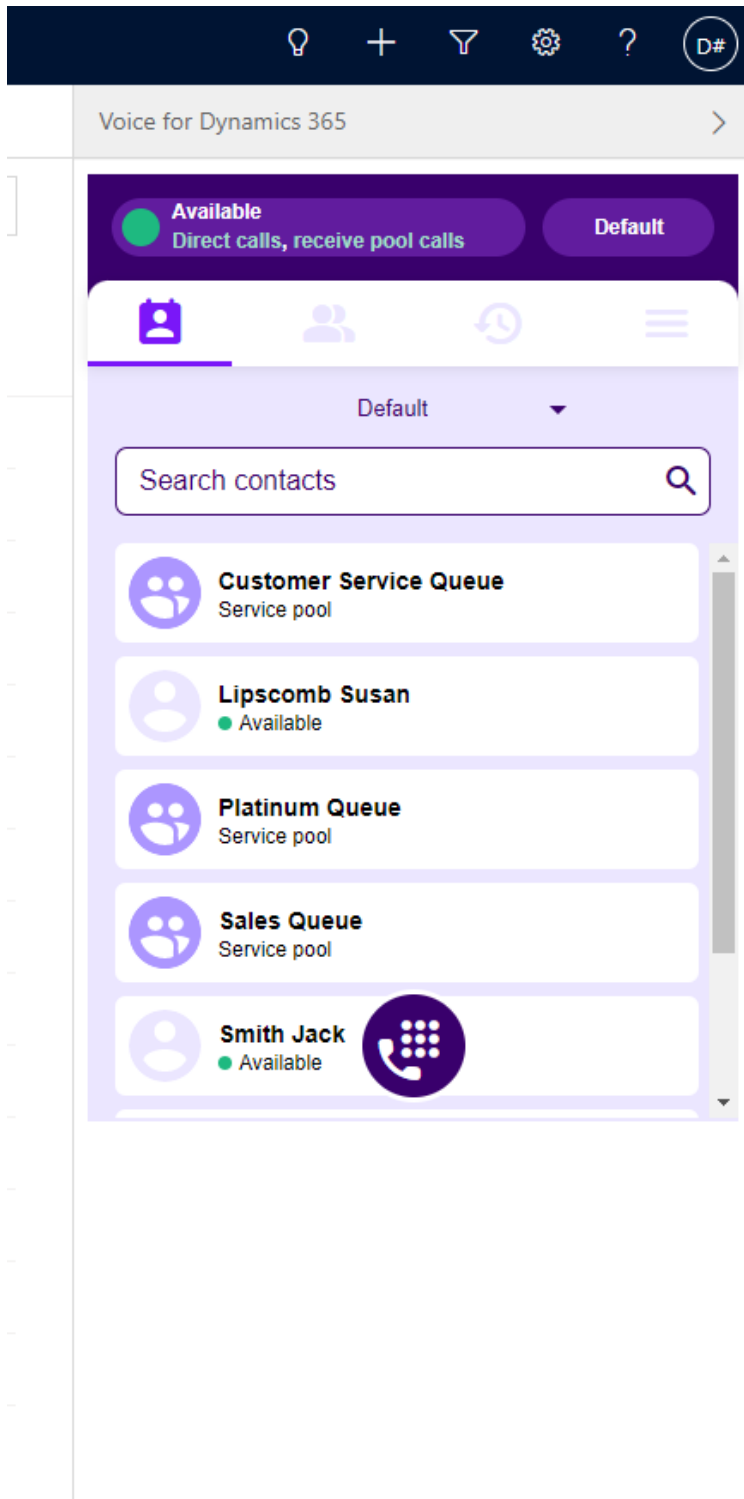


Figure 40 Voice for Dynamics 365 Model Driven App (CIF1) (on the right side of Dynamics 365 UI)