

Dynamics 365 connection with ROGER365.io



Written by Erwin Wiegman

Version 1.3

Index

High-level overview of the steps	3
Entra ID application registration	4
Create Dynamics 365 application user	12
Give Dynamics 365 right to the application user	16
Getting the contact URL from Dynamics	17
Retrieve Azure Tenant ID	18
Creating the ROGER365 Dynamic replicator	19



High-level overview of the steps

- 1) Make an application registration in the tenant in which Dynamics 365 lives
- 2) Make an application user with the information from step 1
- 3) Give the application user the correct access in Dynamics

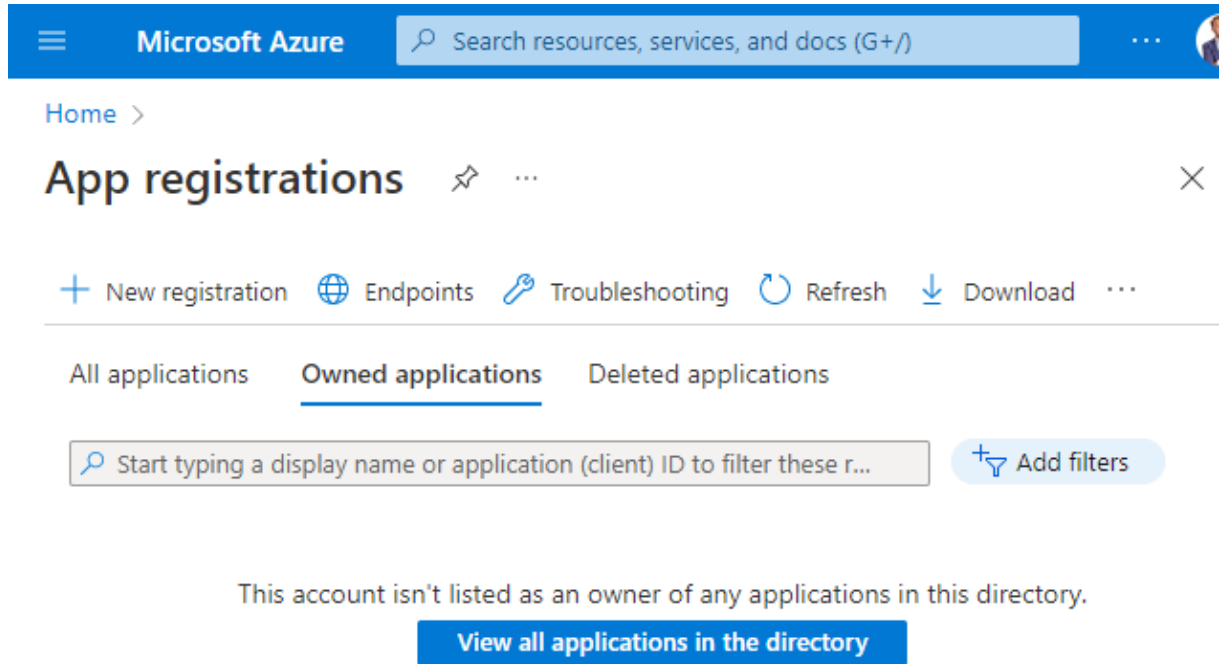
Needed for the connection with ROGER365.IO

- 1) Azure application App registration ID
- 2) Azure application App registration secret
- 3) URL of Dynamics365 tenant (example <https://example.crm4.dynamics.com/>)
- 4) TenantID where Dynamics365 lives

At the time of writing, there is no need to buy a license for an application user in Dynamics365.

Entra ID application registration

Login into the right Azure tenant with global admin rights



Microsoft Azure Search resources, services, and docs (G+)

Home >

App registrations

+ New registration Endpoints Troubleshooting Refresh Download ...

All applications Owned applications Deleted applications

Start typing a display name or application (client) ID to filter these r... Add filters

This account isn't listed as an owner of any applications in this directory.

[View all applications in the directory](#)

Search for App Registrations and choose New registration.



Home > App registrations >

Register an application ...



* Name

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

D365ApiAccessRIO



Supported account types

Who can use this application or access this API?

- ☒ Accounts in this organizational directory only (ROGER365.io 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.

Select a platform



e.g. https://example.com/auth

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](#)

Register

Create a new registration with the name D365ApiAccessRIO with the settings above. Confirm with the Register button.



Microsoft Azure

Home > App registrations > D365ApiAccessRIO

D365ApiAccessRIO | Certificates & secrets ...

<< Got feedback?

Overview

Quickstart

Integration assistant

Manage

Branding & properties

Authentication

Certificates & secrets

Token configuration

API permissions

Expose an API

App roles

Owners

Roles and administrators

Manifest

Support + Troubleshooting

Troubleshooting

New support request

Credentials enable confidential applications to identify themselves to the authentication service when receiving tokens at a web addressable location (using an HTTPS scheme). For a higher level of assurance, we recommend using a certificate (instead of a client secret) as a credential.

Application registration certificates, secrets and federated credentials can be found in the tabs below.

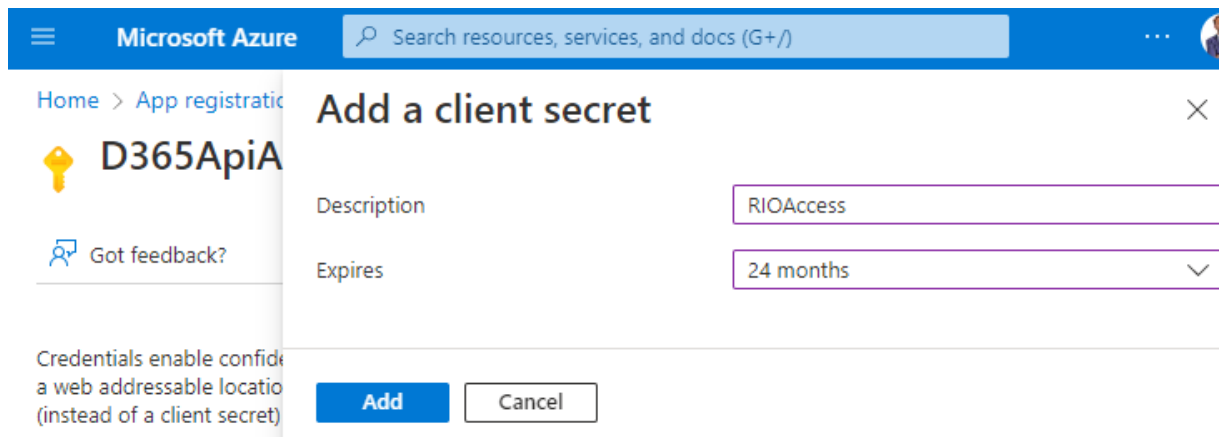
Certificates (0) Client secrets (0) Federated credentials (0)

A secret string that the application uses to prove its identity when requesting a token. Also can be referred to as application password.

New client secret

Description	New client secret	Value
No client secrets have been created for this application.		

Then select the option Certificates & secrets and select New client secret



Microsoft Azure Search resources, services, and docs (G+/)

Home > App registrations

Add a client secret

 D365ApiA

 Got feedback?

Credentials enable confidential client applications to access a web addressable location (instead of a client secret)

Description RIOAccess

Expires 24 months

Add Cancel

Create a new secret and select expiration date (make sure you schedule this, to avoid issues in the future when the secret expires). Click Add

The created secret that will be displayed, must be copied and stored safely, because the secret is only visible one time. If the secret is lost, a new secret can be made with this procedure.



Microsoft Azure

Home > D365ApiAccessRIO

D365ApiAccessRIO | API permissions

<< Refresh | Got feedback?

Overview

Quickstart

Integration assistant

Manage

Branding & properties

Authentication

Certificates & secrets

Token configuration

API permissions

Expose an API

App roles

Owners

Roles and administrators

Manifest

Support + Troubleshooting

Troubleshooting

New support request

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 ROGER365.io

API / Permissions n...	Add a permission	Description
▼ Microsoft Graph (1)		
User.Read	Delegated	Sign in and read user profile

To view and manage consented permissions for individual apps, as well as your tenant's consent settings, try [Enterprise applications](#).

After the creation of the client secret, rights must be given to the app registration so it can access the Dynamics 365 tenant. This is done via the option Authentication of the app registration

Choose Add a permission and choose Dynamics CRM.

Refresh

Configured permissions

Applications are authorized to call APIs when they are granted permission all the permissions the application needs. [Learn more about permissions](#)

+ Add a permission
Grant admin consent for Ask Roger!

API / Permissions name	Type	Description
Microsoft Graph (1)		
User.Read	Delegated	Sign in as

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 Batch
Schedule large-scale parallel and HPC applications in the cloud



Azure Data Catalog
Programmatic access to Data Catalog resources to register, annotate and search data assets



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



Dynamics CRM
Access the capabilities of CRM business software and ERP systems

Choose delegated permissions and select user impersonation. Confirm this with the add permission button.

Request API permissions

[← All APIs](#)



Dynamics CRM

<https://admin.services.crm.dynamics.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 needs to access the API as an application user.

Select permissions

Type to search

Permission



user_impersonation

Access Common Data Service as organization users 

Add permissions

Discard

If done correctly the screen should now show the settings as below

Refresh

Permissions have been changed, but there is a delay between permissions being configured and when they appear on the consent prompt. Please wait a few minutes before granting adm

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
Preparing for consent

API / Permissions name	Type	Description	Admin Consent Requir...	Status
▼ Dynamics CRM (1)				...
user_impersonation	Delegated	Access Common Data Service as organizatio...	-	...
▼ Microsoft Graph (1)				...
User.Read	Delegated	Sign in and read user profile	-	...

Save the Appid, this is needed for creating the Dynamics 365 application user.

Home >



D365ApiAccessR365 | Overview

Enterprise Application

Overview
Deployment Plan
Diagnose and solve problems
Manage
Properties
Owners

Properties

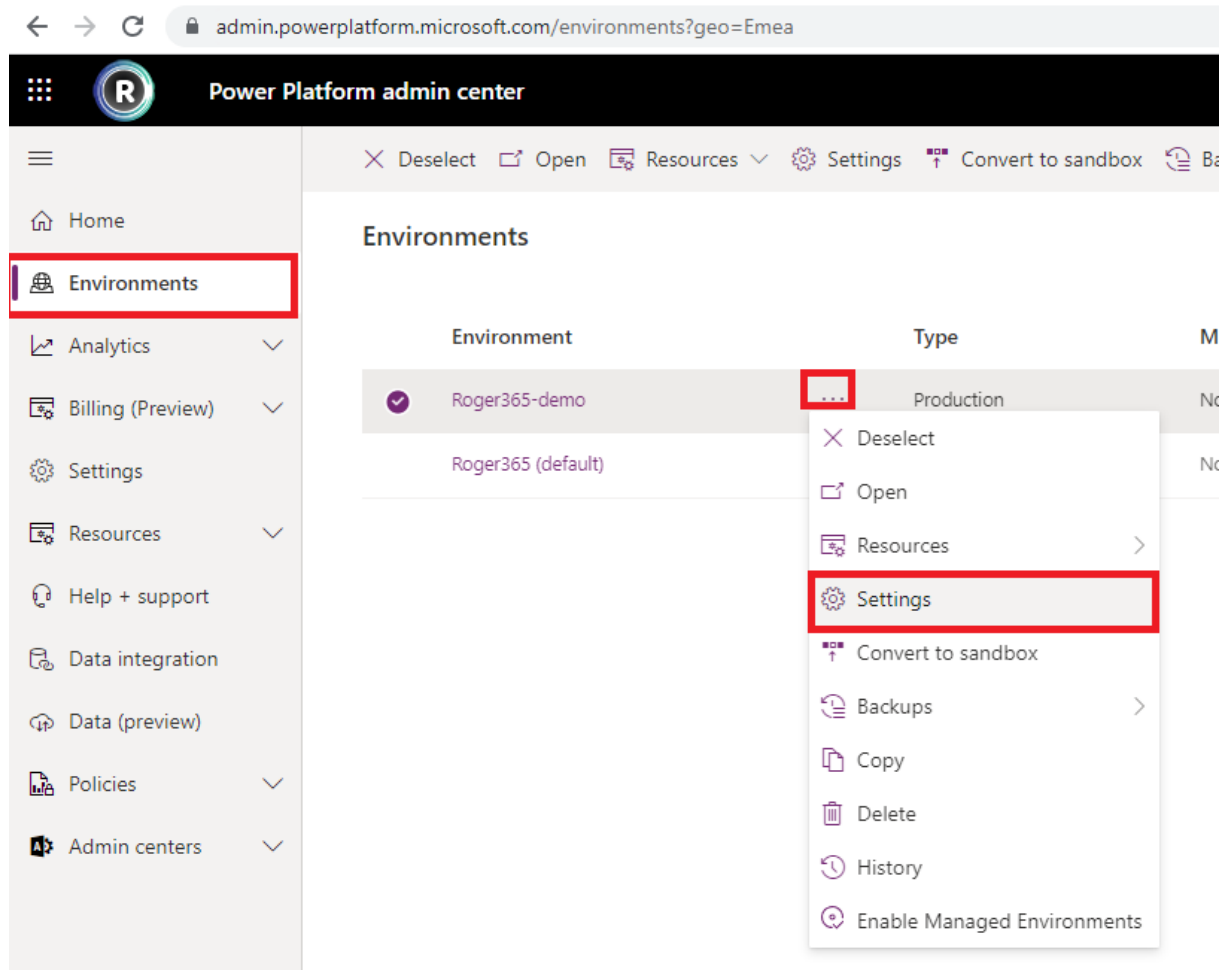
D
Name
D365ApiAccessR365

Application ID
6e4b9cc6-beb1-4199-8ac4-...

Object ID
3d4e7494-2fd4-4642-a1fc-b...

Create Dynamics 365 application user

Go to <https://admin.powerplatform.microsoft.com/tenantsetting> for creating the application user, needed to access the CRM data.



The screenshot shows the Power Platform admin center interface. The left sidebar contains a navigation menu with the following items: Home, Environments (highlighted with a red box), Analytics, Billing (Preview), Settings, Resources, Help + support, Data integration, Data (preview), Policies, and Admin centers. The main content area displays a table of environments. The table has columns for Environment, Type, and a third column partially visible. The environments listed are Roger365-demo (Type: Production) and Roger365 (default) (Type: Production). The 'Roger365-demo' row is selected, and its context menu is open, showing options: Deselect, Open, Resources, Settings (highlighted with a red box), Convert to sandbox, Backups, Copy, Delete, History, and Enable Managed Environments. The top of the interface shows the URL 'admin.powerplatform.microsoft.com/environments?geo=Emea' and the 'Power Platform admin center' header.

Environment	Type	
Roger365-demo	Production	
Roger365 (default)		

← → ↻ admin.powerplatform.microsoft.com/environments/bc7a9997-cd64-ed11-94ef-000d3

 **Power Platform admin center**

☰

🏠 Home

🌐 Environments

📊 Analytics ▾

📄 Billing (Preview) ▾

⚙️ Settings

📁 Resources ▾

🗣️ Help + support

🔗 Data integration

📁 Data (preview)

Environments > Roger365-demo > **Settings**

Search for a setting

⌵ ⚙️ **Product**
Behavior, Features, Languages, Privacy + Security

⌵ 🏢 **Business**
Business closures, Calendar, Connection roles, Currencies

⌴ 👤 **Users + permissions**

Application users

Business units 📁

Column security profiles

Create a new app user

Create a new app user

✕

App *

+ Add an app

Business unit *

Select ▾

Security roles(0)

✎

Add the azure app registration, created earlier

 **Add an app from Azure Active Directory** 

 Search by App Name or App ID

There could be multiple reasons why your app may not show up in the list. [Learn more](#)

	Name ↑	App ID
	D365ApiAccessR365	6e4b9cc6-beb1-...



Connect your organization

Create a new app user



App *

D365ApiAccessR365

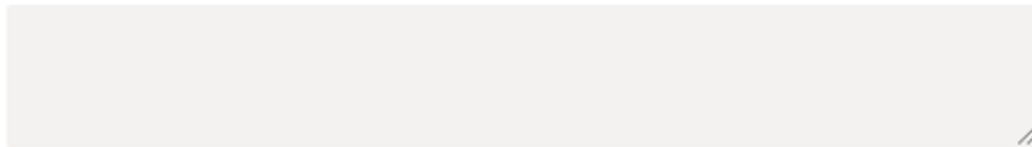


Business unit *

org1bc73ee6

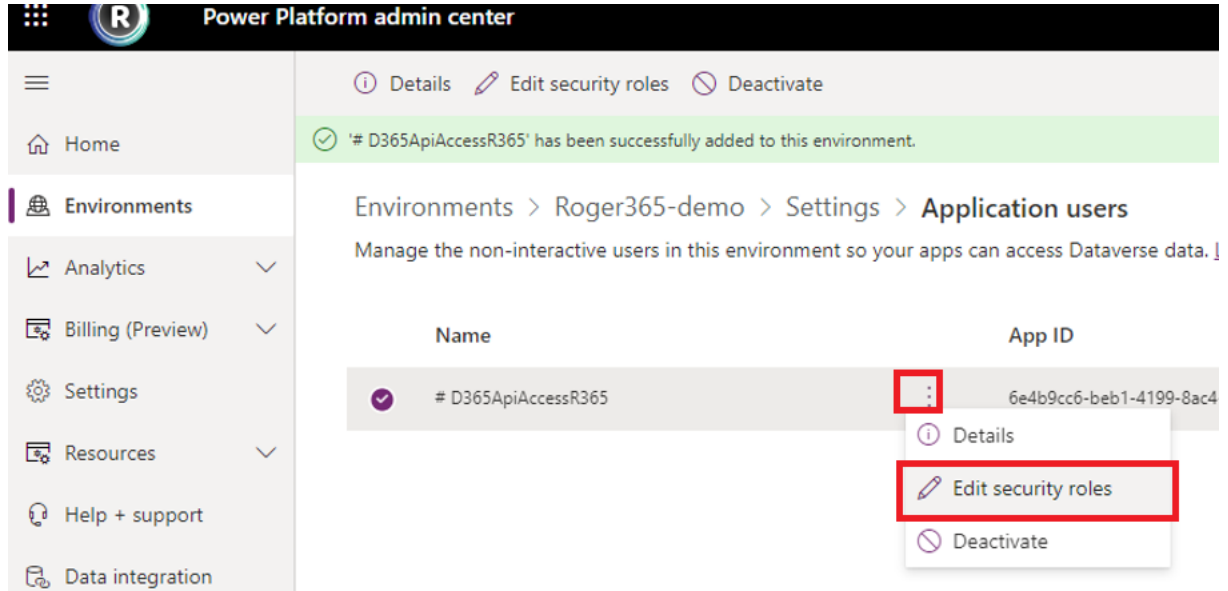


Security roles(0)



Give Dynamics 365 right to the application user

The application user must be allowed to retrieve the data, this is also done in the power platform admin center.



Power Platform admin center

Details Edit security roles Deactivate

✓ '# D365ApiAccessR365' has been successfully added to this environment.

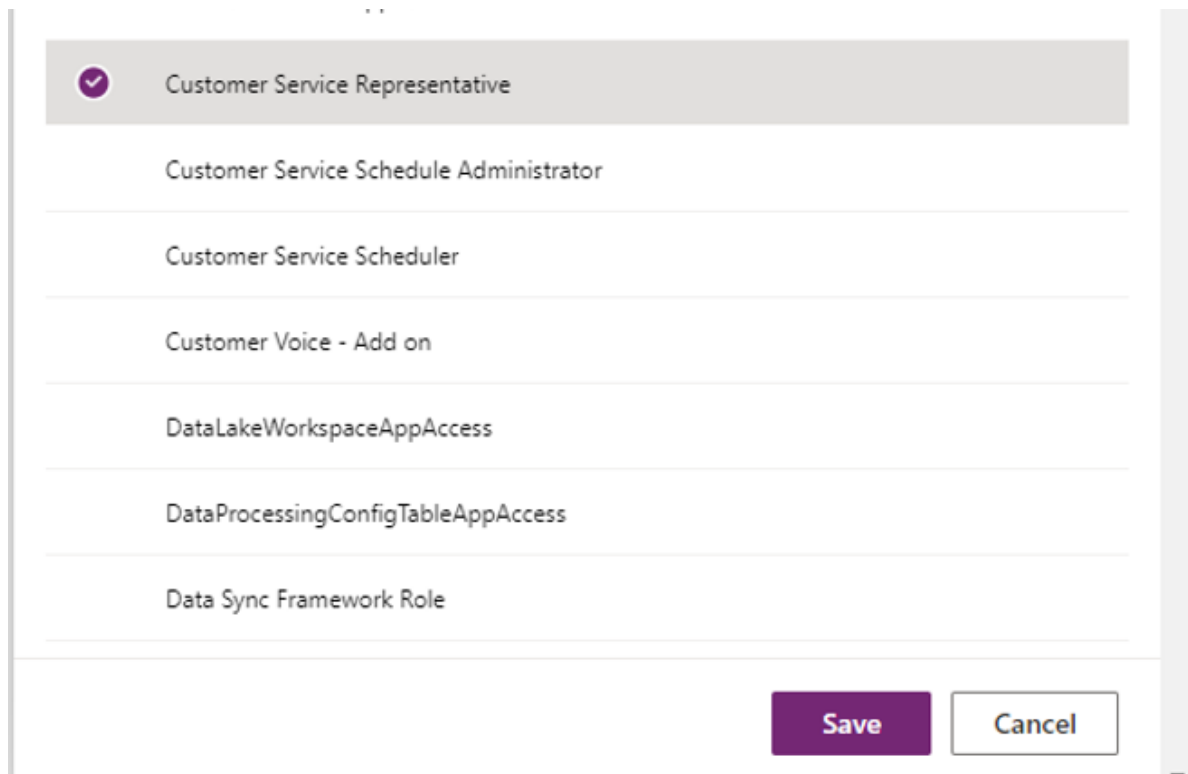
Environments > Roger365-demo > Settings > Application users

Manage the non-interactive users in this environment so your apps can access Dataverse data.]

Name	App ID
✓ # D365ApiAccessR365	6e4b9cc6-beb1-4199-8ac4

Details Edit security roles Deactivate

Choose the customer service representative out of the list of security roles and save.



Customer Service Representative

Customer Service Schedule Administrator

Customer Service Scheduler

Customer Voice - Add on

DataLakeWorkspaceAppAccess

DataProcessingConfigTableAppAccess

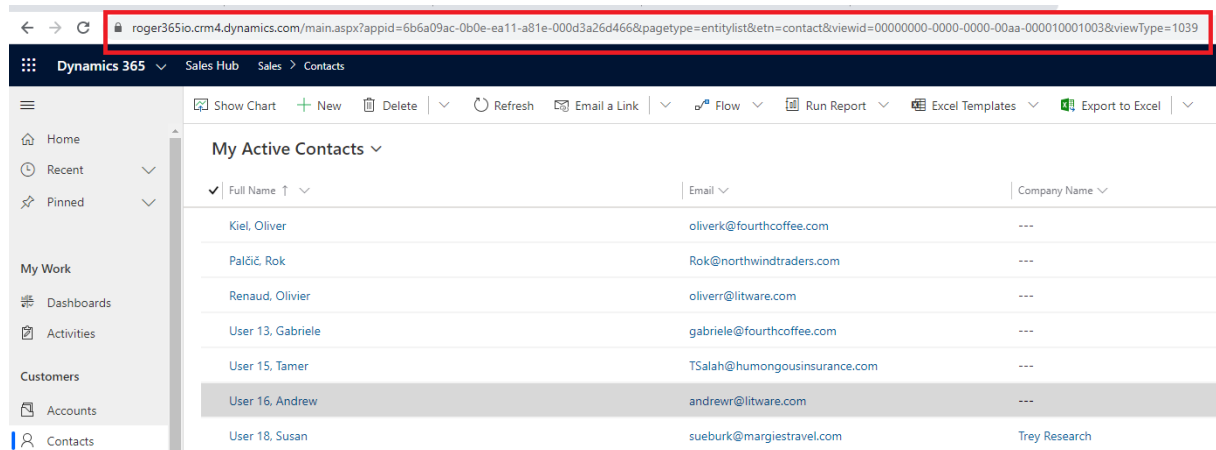
Data Sync Framework Role

Save Cancel

Getting the contact URL from Dynamics

The contact URL is used to open Dynamics from Teams. This URL is used in the adaptive cards which ROGER365.IO creates in teams. In this way the CRM application can be opened quickly to store data.

In Dynamics365 go to accounts and choose this option. You see the URL changing in the browser. This is the deep link to this contact. And this is what we will replicate to ROGER365.IO. The platform will create this link dynamically with the contact found.



Full Name	Email	Company Name
Kiel, Oliver	oliverk@fourthcoffee.com	---
Palčić, Rok	Rok@northwindtraders.com	---
Renaud, Olivier	oliverr@litware.com	---
User 13, Gabriele	gabriele@fourthcoffee.com	---
User 15, Tamer	TSalah@humongousinsurance.com	---
User 16, Andrew	andrewr@litware.com	---
User 18, Susan	sueburk@margiestravel.com	Trey Research

In the example above the URL is as shown below. From this URL we need the red appid. This is needed in creating the replicator in ROGER365.IO.

<https://roger365io.crm4.dynamics.com/main.aspx?appid=6b6a09ac-0b0e-ea11-a81e-000d3a26d466&pagetype=entitylist&etn=contact&viewid=00000000-0000-0000-00aa-000010001003&viewType=1039>

Retrieve Azure Tenant ID

Go to portal.azure.com and choose Microsoft Entra ID. Get the tenant Id from the overview. This should be done in the tenant where Dynamics365 is located.

Home > **ROGER365.io | Overview** ...

+ Add Manage tenants What's new Preview features Got feedback?

Overview

Preview features
Diagnose and solve problems
Manage
Users
Groups
External Identities
Roles and administrators
Administrative units
Delegated admin partners
Enterprise applications
Devices
App registrations
Identity Governance
Application proxy

Basic information

Name	ROGER365.io	Users	312
Tenant ID	0494!19e	Groups	50
Primary domain	roger365.com	Applications	18
License	Microsoft Entra ID P1	Devices	25

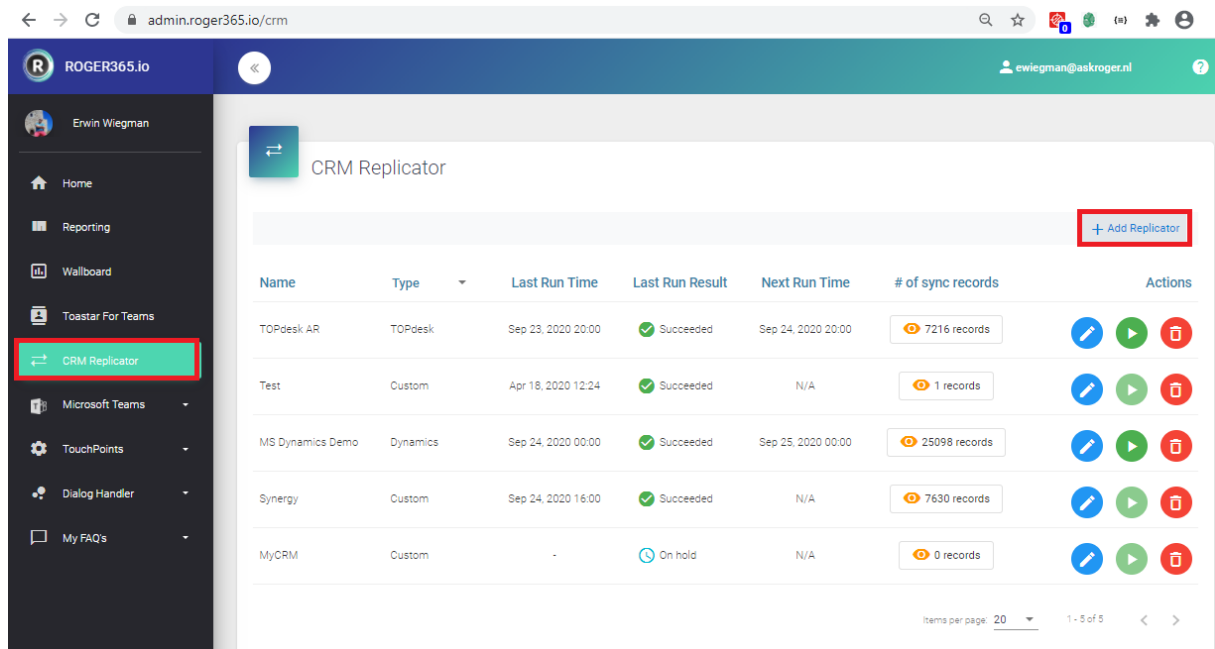
Alerts

Azure AD is now Microsoft Entra ID
Microsoft Entra ID is the new name for Azure Active Directory. No action is required from you.
[Learn more](#)

Upcoming MFA Server deprecation
Please migrate from MFA Server to Microsoft Entra Multi-Factor Authentication by September 2024 to avoid any service impact.
[Learn more](#)

Creating the ROGER365 Dynamic replicator

In the ROGER365.IO portal choose the CRM replicator option and choose the + add replicator



The screenshot shows the ROGER365.io CRM Replicator interface. The left sidebar contains a navigation menu with the following items: Home, Reporting, Wallboard, Toaster For Teams, CRM Replicator (highlighted with a red box), Microsoft Teams, TouchPoints, Dialog Handler, and My FAQs. The main content area is titled "CRM Replicator" and features a table of existing replicators. A red box highlights the "+ Add Replicator" button in the top right corner of the table. The table has columns for Name, Type, Last Run Time, Last Run Result, Next Run Time, # of sync records, and Actions. The data rows are as follows:

Name	Type	Last Run Time	Last Run Result	Next Run Time	# of sync records	Actions
TOPdesk AR	TOPdesk	Sep 23, 2020 20:00	✓ Succeeded	Sep 24, 2020 20:00	7216 records	[Edit] [Run] [Delete]
Test	Custom	Apr 18, 2020 12:24	✓ Succeeded	N/A	1 records	[Edit] [Run] [Delete]
MS Dynamics Demo	Dynamics	Sep 24, 2020 00:00	✓ Succeeded	Sep 25, 2020 00:00	25098 records	[Edit] [Run] [Delete]
Synergy	Custom	Sep 24, 2020 16:00	✓ Succeeded	N/A	7630 records	[Edit] [Run] [Delete]
MyCRM	Custom	-	⌚ On hold	N/A	0 records	[Edit] [Run] [Delete]

At the bottom right of the table, there is a pagination control showing "Items per page: 20" and "1 - 5 of 5".

Give the replicator a Name and choose the type Dynamics from the pull-down menu. If done correctly the screen changes to the screen below



Create a new Replicator

Name *

D365 Demo replicator

Description

Connection configuration

Type *

Dynamics

Resource *

Authority *

ClientId *

ClientSecret *

Replication configuration

Start Time *

Frequency *

Day

Interval *

10

Contact Url *

Country Code *

Netherlands (+31)

CANCEL

SAVE

In this screen all the configuration from the previous steps will be used.

Setting	Value
Resource	URL to the D365 tenant for example: https://roger365io.crm4.dynamics.com
Authority	This is the URL where the login will take place. Syntax = https://login.microsoftonline.com/tenant-id/oauth2/token
ClientID	Client Id of the Azure AD app registration made earlier



Client Secret	Client secret of the Azure AD app registration made earlier
Contact URL	<code>https://roger365io.crm4.dynamics.com/main.aspx?appid=<<app id found in the URL from D365>> &pagetype=entityrecord&etn=contact&id={contactid}</code> For example: <code>https://roger365io.crm4.dynamics.com/main.aspx?appid=6b6a09ac-0b0e-ea11-a81e-000d3a26d466&pagetype=entityrecord&etn=contact&id={contactid}</code>
Country Code	All phone numbers must be in E164 format. This setting gives the default country if local phone numbers are used. For more information see ask.roger365.io