



WHITE PAPER

# **OAuth AUTHENTICATION IN CONNECTION SETUP**

This document contains information about the OAuth authentication functionality in TRIMIT 22.1 for Microsoft Dynamics 365 Business Central 2022, Wave 1 (W1).

Version: 22.1  
Date: 25-08-2022

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## INTRODUCTION

Using OAuth 2.0 (Service-to-Service) for communicating with TRIMIT for Business Central from our TRIMIT Portals or with the remote **Replication** functionality.

This new Authentication Type is demanded when working in Cloud environments, and can be used, but is not demanded in On-premises environments, where no changes to authentication methods are necessary at this time.

Service-to-Service means that the login occurs silently without any user intervention (no pop-ups), only using the **Client ID** and the **Client Secret**.

The functionality described is the functionality as of **TRIMIT 22.1 for Business Central W1 BC20**.

The pictures in this White Paper are based on the database for **TRIMIT 22.1**, which is based on Microsoft Dynamics 365 Business Central 2022 Release Wave 1 on Azure, in the demo company **CRONUS TRIMIT W1 Ltd.** (based on CRONUS International Ltd. of Microsoft Dynamics 365 Business Central).

# SETUP

TRIMIT Modelyn supports authentication with OAuth which is a standard BC connection method from April 2022. This user guide describes the method of connection TRIMIT Portals to TRIMIT for Business Central which is configured for Azure Active Directory authentication.

## USING OAUTH WHEN COMMUNICATION WITH TRIMIT

In this white paper we will assume that you have already created the application in your tenants active directory.

Information on how to do as per standard Business Central documentation can be found here:

[Using Service to Service Authentication - Business Central | Microsoft Docs](#)

And here are a few blogs, which also contain guidelines for that process:

[Service to service authentication in Business Central 18.3 – How to set up – Kauffmann @ Dynamics 365 Business Central](#)

or

[Using OAuth to connect Business Central APIs and Web Service in Postman | Dynamics 365 Lab \(yzhums.com\)](#)

The first step in TRIMIT is to register an application in BCs **Azure Active Directory Application** List which can be found via **Tell me** and click **+ New**.

### NOTE

This is a standard Business Central functionality, but we want to mention it regarding the **Permission Sets** you need.

| Azure Active Directory Applications: All ▾   Search <span style="border: 1px solid red; padding: 2px;">+ New</span> Delete |                                                  |  | <div> <div></div> <div></div> <div></div> <div></div> <div></div> </div> |  |  |          |  |
|----------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|--|--------------------------------------------------------------------------|--|--|----------|--|
| Client ID                                                                                                                  | Description                                      |  |                                                                          |  |  | State    |  |
| {af30e371-ad4a-4097-88c1-5555e7ada96f}                                                                                     | Dynamics 365 Business Central for Virtual Tables |  |                                                                          |  |  | Disabled |  |
|                                                                                                                            | ⋮ OAuth for TRIMIT Portals                       |  |                                                                          |  |  | Enabled  |  |

Create a Card for your application that needs to login to BC using OAuth 2.0 (S2S).

In the **Client ID** field, enter the **Application (Client) ID** for the registered application in Azure AD. You can choose if you want to add **User Groups** – with their applicable Permission Sets, which might have to be updated/extended - or **User Permission Sets** that are needed to run the application and be aware that the *SUPER* Permission Set is not allowed.

We recommend however, to use the **User Permission Sets**, because you don't want to give the **User Groups** the Basic ISV and Full Access Permissions, but they are needed for the connection to our Portals by using OAuth 2.0.

Based on the Release of TRIMIT that you installed, besides the **Permission Sets** *D365 BASIC ISV* and *D365 FULL ACCESS*, it should include the following Permission Sets:  
*TRIMIT-BASIC*, *TRIMIT-POR-BASIC*, *TRIMIT-POR-PORTALS* and *TRIMIT-POR-ADMIN*

Or

As of TRIMIT 22.2 (based on Microsoft Dynamics 365 2022, wave 2 – BC21): *TRM-POR-BASIC* and *TRM-POR-ADMIN*

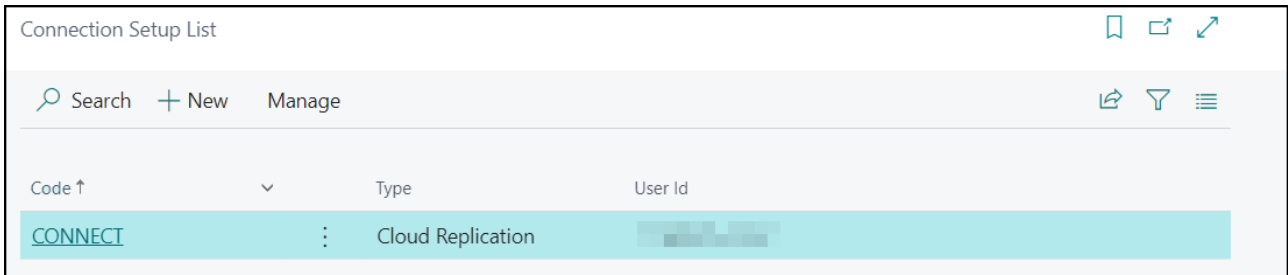
Finally click **Grant Consent**, which will show a webpage with permission information, which you will need to allow the application to be used. This is a onetime process.

Keep in mind that you also need to fill the necessary settings in Modelyn itself.  
See **White Paper – TRIMIT Portals OAuth Connection** which will be published shortly.

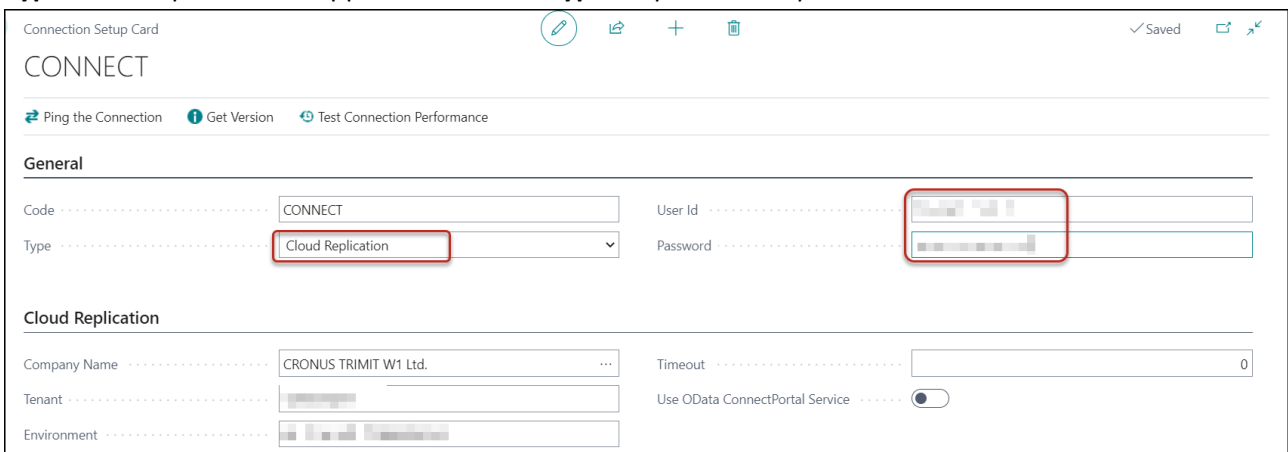
## OAUTH 2.0 S2S WITH REMOTE REPLICATION

We added specific functionality regarding our Replication functionality; especially if you want to replicate data from one database to another database.

In the **Connection Setup** List (via **Tell me**), click **+ New** to create a new Connection with the appropriate settings.



For use with the remote Replication, you will also need to fill the **Connection Setup** Card, with the new **Type Cloud Replication** as opposed to the old **Type On-premises Replication**.



Fill the **Connection Setup** with the correct information of the other tenant, which participates in the remote replication.

You need to enter your new **Client Id** and **Client Secret** in the fields **User Id** and **Password**.

This Connection will then use an **Azure Active Directory Application** registration to login on the other tenant (see above on how to create this on the other tenant).

This **Connection Setup** can now be used in a **Replication Subscriber** for external exchange of data. I.e.:

| Connection Type | Related Company ↑        | Connection Code ↑ | Replication Publisher Code ↑ | Replication | Last Replicated Log Entry | Last Replicated  | Duration                           |
|-----------------|--------------------------|-------------------|------------------------------|-------------|---------------------------|------------------|------------------------------------|
| External        | CRONUS TRIMITBC13 MASTER | CONNECT           | CRONUS                       | Automatic   | 415162                    | 3/2/2020 8:47 PM | 23 minutes 22 seconds 438 milli... |

If you have any question or need help: ask [partnersupport@trimit.com](mailto:partnersupport@trimit.com) (previously known as [service@trimit.com](mailto:service@trimit.com) )

## BC CONNECTION SETUP IN MODELYN ADMIN

This chapter contains information about filling out the BC connection section in Modelyn admin when OAuth authentication type should be used. Available from portals version **TRIMIT BC Portals-JAN22-004-2022-06-22** and Modelyn version **7.1.335** and TRIMIT 21.2.

### CONNECTION SETUP

Example of the OAuth BC connection in Modelyn:

| External Data                               |                                                             |
|---------------------------------------------|-------------------------------------------------------------|
| Interface<br>Dynamics NAV: Web Service      | Server Name<br>api.businesscentral.dynamics.com             |
| Security Method<br>Azure AD                 | Instance Name<br>SandboxPortal                              |
| Server Port<br>443                          | Tenant Id<br>57bc045c-94e4-4942-b850-                       |
| User/Client Id<br>da8bd13b-5daf-4b70-9381-5 | User Password / Client Secret<br>CHr7Q~.qCdSg04JgaH1CY~tW1r |
| Company Name<br>CRONUS TRIMIT Portal Test   | Timeout<br>30                                               |
| GET COMPANIES                               |                                                             |

### DESCRIPTION OF THE FIELDS

#### Interface

Dynamics NAV: Web service

#### Server Name

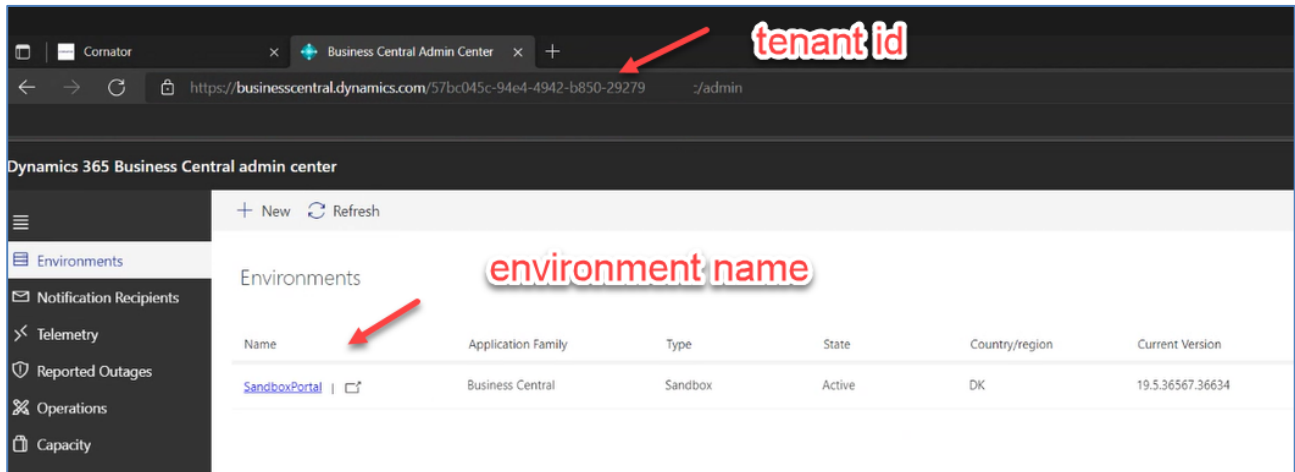
Always the same value, i.e. "api.businesscentral.dynamics.com"

#### Security Method

Use value "Azure AD" for OAuth authentication type

#### Instance Name

Also known as "environment name", can be seen inside Dynamics 365 Business Central admin center, under Environments



## Server Port

443 for OAuth (7047 for webservice key, will be deprecated)

## Tenant ID

Is a GUID value. Can be seen in e.g. admin center URL, ss above

## User/Client ID

Follow the setup in the link in section Further reading, source 2

## User Pw/Client Secret

Follow the setup in the link in section Further reading, source 2

## Company Name

Company name in BC

## IMPORTANT NOTE

Regional setting (language, culture) should be the same on the user and on the service. Though there can be differences in setup of the Business Central On-Premises and in Cloud.

## FURTHER READING

1. Microsoft documentation:  
<https://docs.microsoft.com/en-us/dynamics365/business-central/dev-itpro/webservices/authenticate-web-services-using-oauth>
2. Here are a guide on how to do OAuth setup in AAD and BC from a third party blog:  
[Service to service authentication in Business Central 18.3 – How to set up – Kauffmann @ Dynamics 365 Business Central](#)