



Business Central Configuration

Enzo Server and DataZen

Last Updated on 5/12/2023

This document provides configuration instructions for Enzo Server and DataZen in order to connect to Business Central using OAuth 2.0 security.

Introduction

In order to configure access to Business Central Online using Enzo Server or DataZen you will need to create an Enterprise Application in your Azure Active Directory environment.

This document does not cover installation and configuration for an on-premise installation of Business Central. To connect to an on-premise version of Business Central, please contact the Enzo support team.

Setup Azure Active Directory

The first step needs to be performed by your IT Administrators with access to your Azure Active Directory (AAD) environment.

Microsoft instructions for creating and configuring access to an AAD Enterprise Application can be found here: <https://learn.microsoft.com/en-us/dynamics365/business-central/dev-itpro/administration/automation-apis-using-s2s-authentication>

At a high level, you will need to:

- Create an Enterprise Application in AAD
- Give your Enterprise Application the necessary rights to access Business Central as documented by Microsoft

The API permissions page will include one of the following entries:

API / Permission name	Type	Description
Dynamics 365 Business Central / Automation.ReadWrite.All	Application	Full access to automation
Dynamics 365 Business Central / API.ReadWrite.All	Application	Access to APIs and webservice

- Once the Enterprise Application has been created, save the Application ID of the application
- You will also obtain an application secret; save this information (needed further below)

Setup Business Central

Once your Enterprise Application has been created, you will need to add it and enable its access in the Business Central Applications management screen.

- Open Business Central on your browser and login
- Search for Azure Applications and click on the **Azure Active Directory Applications** link



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azure application

Go to Pages and Tasks

> Azure Active Directory Applications Administration

- Click on New to register the Enterprise Application previously created in AAD
- Paste the Application ID previously created into the **Client ID** field and add a **Description** (this will become the **User Name** of the application in Business Central)

Client ID {cd782ff5-21bc-4f...

Description EnzoUnified

State Enabled

- Add the necessary permissions (optionally, select a Company to limit access)

User Permission Sets | [New Line](#) | [Delete Line](#) | [Permissions](#)

Permission Set 1	Description	Company 1
→ CUST PAGE PERMISSION	Custom Page Permissions	CRONUS USA, Inc.
D365 AUTOMATION	Dynamics 365 Automation	CRONUS USA, Inc.
D365 FULL ACCESS	Dynamics 365 Full access	CRONUS USA, Inc.
EXTEN. MGT. - ADMIN	Extension Management - Admin	CRONUS USA, Inc.
SUPER (DATA)	Superuser of data	CRONUS USA, Inc.

- Click on the Admin Consent Grant link (if not already granted in Azure AD)
- Set the **State to Enabled** (a new Business Central User will be created automatically)

Configure Enzo Server

In order to access Business Central using SQL commands using Enzo Server you will need to take the following actions:

- Download the Business Central adapter from the Enzo Marketplace
- Create a Configuration Setting in Enzo that will provide the necessary connection information

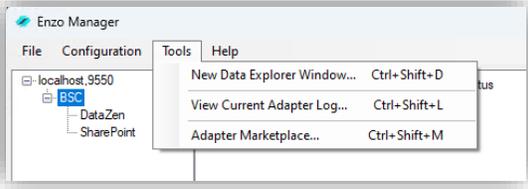
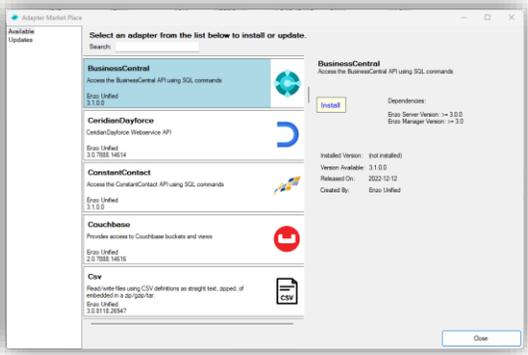
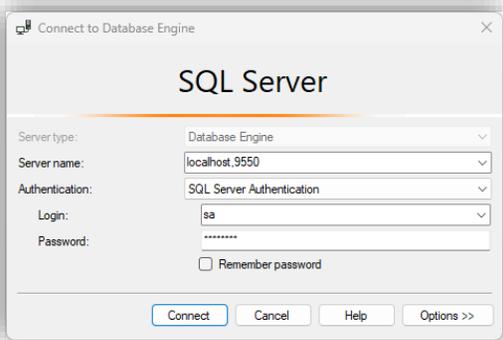
Once the configuration settings are created, the Bearer Token will automatically be created and refreshed as needed by the Business Central adapter. These bearer tokens are stored encrypted in Enzo's internal database.



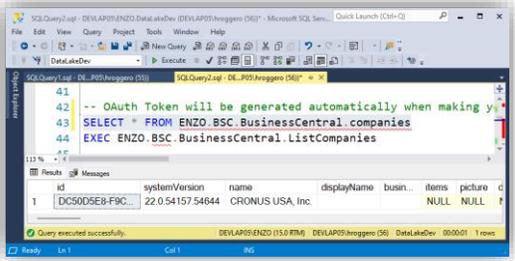
Download & Configure the Business Central Adapter

This step assumes that you have an Enzo Server configured and running on a Virtual Machine. If you have not yet setup an Enzo Server, please use one of the pre-configured images from the Azure or AWS Marketplace before proceeding.

For more information on how to obtain an pre-configured Enzo Server VM in Azure or AWS, please visit <https://www.enzounified.com/home/download>

	<p>Start Enzo Manager, select the Enzo Server instance on the left, and select Tools -> Adapter Marketplace.</p>
	<p>Choose Business Central from the list of adapters, click Install, and follow the prompts to finalize the installation of the adapter.</p> <p>You can create a free 30-day license to try the Business Central adapter.</p> <p>WARNING:</p> <p>Once downloaded and installed, Enzo Server will be restarted.</p>
	<p>Open SQL Server Management Studio (SSMS) and connect SSMS to Enzo Server directly (by default Enzo Server listens on localhost:9550)</p> <p>If this is the first time you connect to Enzo, note that Enzo emulates the SQL Server protocol, and as such SSMS can connect to it directly.</p> <p>The default password for the Enzo 'sa' account is password. This password can be modified using Enzo Manager.</p>
<p>Once connected to Enzo Server, run the _configCreate SQL command to create a new configuration for Business Central. See the section below for a sample command that creates a connection to the CRONUS company.</p>	



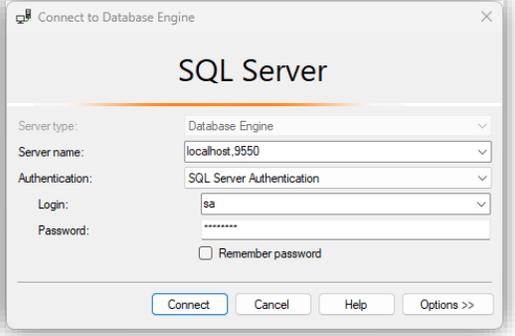
 <pre>41 42 -- OAuth Token will be generated automatically when making y 43 SELECT * FROM ENZO_BSC.BusinessCentral.companies 44 EXEC ENZO_BSC.BusinessCentral.ListCompanies</pre> <table border="1"><thead><tr><th>id</th><th>systemVersion</th><th>name</th><th>displayName</th><th>busin...</th><th>items</th><th>picture</th></tr></thead><tbody><tr><td>1</td><td>DC50D5E8-F9C...</td><td>22.0.54157.54844</td><td>CRONUS USA, Inc.</td><td></td><td>NULL</td><td>NULL</td></tr></tbody></table>	id	systemVersion	name	displayName	busin...	items	picture	1	DC50D5E8-F9C...	22.0.54157.54844	CRONUS USA, Inc.		NULL	NULL	<p>Test the Business Central adapter by running this command:</p> <pre>SELECT * FROM BSC.BusinessCentral.companies</pre> <p>The Bearer token will automatically be created using the information provided in the configuration settings.</p>
id	systemVersion	name	displayName	busin...	items	picture									
1	DC50D5E8-F9C...	22.0.54157.54844	CRONUS USA, Inc.		NULL	NULL									

Configure the Enzo Business Central Adapter

Now that you have downloaded the Business Central adapter, you will need to configure it.

If you haven't used Enzo Server yet, know that Enzo is a built-in SQL Server Emulator that allows it to understand native SQL commands. As a result, you can connect to Enzo Server directly using SQL Server Management Studio (SSMS). All you need is the port on which Enzo is listening to, which is 9550 by default. In other words, SQL Server normally listens on port 1433, and Enzo normally listens on port 9550.

Start SSMS as if you wanted to connect to the local SQL Server instance, then follow these steps:

 <p>Connect to Database Engine</p> <p>SQL Server</p> <p>Server type: Database Engine</p> <p>Server name: localhost,9550</p> <p>Authentication: SQL Server Authentication</p> <p>Login: sa</p> <p>Password: *****</p> <p><input type="checkbox"/> Remember password</p> <p>Connect Cancel Help Options >></p>	<p>On the Login screen, connect to Enzo Server directly by specifying localhost,9550 as the Server Name.</p> <p>Use SQL Server Authentication as the Authentication mode (when connected to Active Directory, it is possible to connect to Enzo using an AD Login).</p> <p>The default password for the Enzo 'sa' account is password. This password can be modified using Enzo Manager.</p>
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Create or Update the BC Configuration Setting

The following command requires a few variables to be replaced:

- AAD_APP_ID: your Enterprise Application ID
- AAD_APP_SECRET: your Enterprise Application secret
- AAD_TENANT_ID: your Azure Tenant ID
- CRONUS_COMPANY_ID: the ID of the CRONUS business in Business Central (this value can be retrieved from your Business Central Administration screen online)



```
EXEC BSC.BusinessCentral._configCreate
'cronus', -- name of the configuration
1, -- make it the default setting
'AAD_APP_ID', -- AppId of AAD Enterprise Application
null,
'AAD_APP_SECRET', -- App Secret of AAD Enterprise Application
-- Business Central API base URL (replace AAD_TENANT_ID with your Azure Tenant ID, which is a GUID value):
'https://api.businesscentral.dynamics.com/v2.0/AAD_TENANT_ID/Production/api/v2.0',
'bearer', -- Indicates Bearer Token Auth is used
0, -- no encoding
0, -- no encoding
-- OAuth Configuration Settings:
'{
    "tokenUrl": "https://login.microsoftonline.com/AAD_TENANT_ID/oauth2/v2.0/token",
    "callTokenForRefresh": true,
    "supportsTokenRefresh": false,
    "redirect_uri": "https://localhost",
    "scopes": "https://api.businesscentral.dynamics.com/.default",
    "token_behavior": {
        "authorization": "none",
        "method": "POST",
        "query_encode": false,
        "payload_encode": false,
        "query": "",
        "grant_type": "client_credentials",
        "payload":
"grant_type={grant_type}&client_id={client_id}&client_secret={client_secret}&scope=https://api.businesscentral.d
ynamics.com/.default"
    },
    "refreshToken_behavior": null
}',
AAD_TENANT_ID, -- Azure Directory Tenant ID
'CRONUS_COMPANY_ID', -- CRONUS Company ID
'CRONUS USA, Inc.' -- CORNUS Company name
```

NOTE: To “update” an existing configuration, use the `_configUpdate` command instead.

Test Your Enzo Server Connection

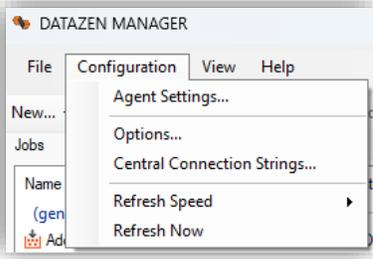
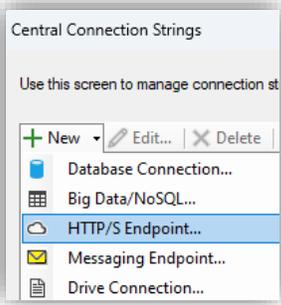
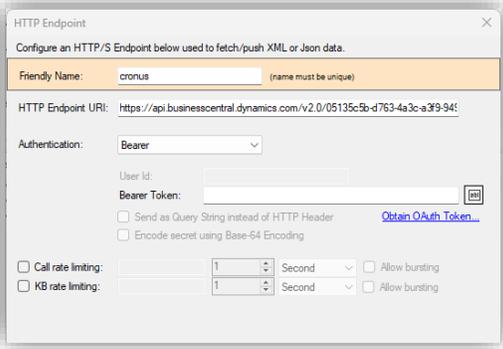
Now that you have created the default connection setting in Enzo, you can run an SQL command. The Bearer token will be automatically created and refreshed as needed.

	<p>Test the Business Central adapter by running this command:</p> <pre>SELECT * FROM BSC.BusinessCentral.companies</pre> <p>The Bearer token will automatically be created using the information provided in the configuration settings.</p>
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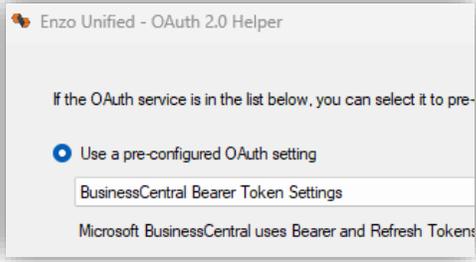
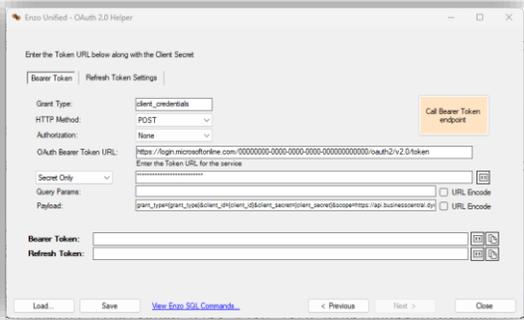
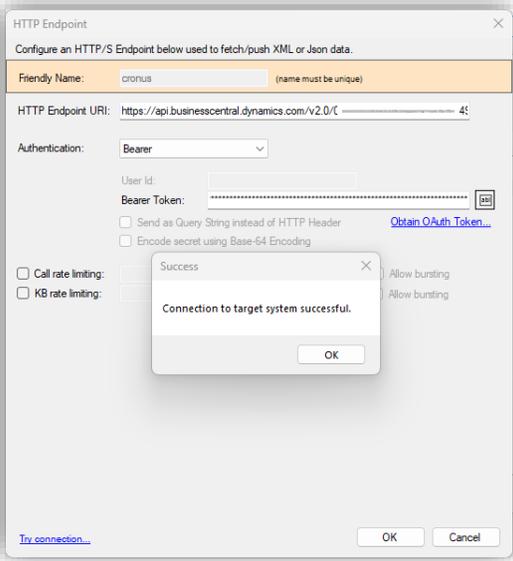


Configure DataZen

To configure DataZen to access Business Central, start by creating a new HTTP Connection, then follow the OAuth Wizard to access Business Central. These steps assume you have a DataZen VM setup with a DataZen agent. The Enzo Server VM provided in the Azure and AWS Marketplace contains a link that allows you to also setup a DataZen server.

	<p>Start the DataZen Manager application.</p> <p><i>If a warning shows up with an option to upgrade to the latest release, proceed with the proposed upgrade.</i></p> <p>Choose the desired DataZen agent on the left and select Configuration -> Central Connection Strings.</p>
	<p>From the Central Connection Strings screen, select New -> HTTP/S Endpoint. This will open another configuration screen to configure access to your Business Central endpoint.</p>
	<p>Enter your Business Central HTTP/S Endpoint URI.</p> <p>When using the API endpoint, the URI should look like this (*):</p> <p>https://api.businesscentral.dynamics.com/v2.0/id/Production/api/v2.0</p> <p>Replace id with your Company unique identifier GUID value.</p> <p>Choose the Bearer Authentication endpoint and click on the Obtain OAuth Token link.</p>



	<p>From the OAuth Wizard, select Microsoft Business Central Bearer Token Settings from the dropdown box.</p> <p>Click Next.</p> <p>Paste the previous Application ID for the client_id value field and click Next.</p>
	<p>Paste your Application Secret previously created in the secret field</p> <p>Replace <Tenant ID> from the OAuth Bearer Token URL with your Azure Tenant ID</p> <p>Click on Call Bearer Token Endpoint.</p> <p>Once you have obtained the Bearer Token, click Close.</p>
	<p>To test your connection, click on the Try Connection link.</p> <p>Click OK to save the HTTP Connection settings.</p>

(*) To use an OData endpoint instead, your URI should look like this, where **tenantId** is your Azure Tenant ID: [https://api.businesscentral.dynamics.com/v2.0/<tenantId>/Production/ODataV4/Company\('CRONUS USA, Inc.'\)](https://api.businesscentral.dynamics.com/v2.0/<tenantId>/Production/ODataV4/Company('CRONUS USA, Inc.'))