

## Contents

API Configuration.....	2
Register the application with access to API in the Azure AD tenant using Service-To-Service Authentication.....	2
Register the external application in Business Central.....	4
Using API with Service-To-Service Authentication.....	5
Parameters.....	5
Postman.....	6
Download Postman .....	6
Import examples.....	6
Tips & Tricks .....	9
Query data using the Web API .....	9
Endpoints for the APIs for Dynamics 365 Business Central On-Premises and Online.....	9
Using API with STS OAuth 2.0 in C#.....	9

# API Configuration

## Register the application with access to API in the Azure AD tenant using Service-To-Service Authentication

*Useful links:*

[Register the console application in the Azure AD tenant](#)

### 1. Using the Azure portal, register the console application as a native client application.

Home > Gti Roll Transportation services >

BC365 App - Web Services

[Delete](#) [Endpoints](#) [Preview features](#)

Overview

Quickstart

Integration assistant

Manage

Branding & properties

Authentication

Certificates & secrets

Token configuration

API permissions

Expose an API

App roles

Essentials

Display name : [BC365 App - Web Services](#)

Application (client) ID : 7069043c-2960-4faa-87ea-c1183b227399

Object ID : 9b0d0307-cce0-4d28-9c03-7096a78613a7

Directory (tenant) ID : df49c7eb-cdb2-46c4-9381-7938b75957e5

Supported account types : [Multiple organizations](#)

Client credentials : [0 certificate, 1 secret](#)

Redirect URIs : [1 web, 0 spa, 0 public client](#)

Application ID URI : [Add an Application ID URI](#)

Managed application in L... : [BC365 App - Web Services](#)

Starting June 30th, 2020 we will no longer add any new features to Azure Active Directory Authentication Library (ADAL) and Azure AD Graph. We will continue to provide technical support and security up will need to be upgraded to Microsoft Authentication Library (MSAL) and Microsoft Graph. [Learn more](#)

Starting November 9th, 2020 end users will no longer be able to grant consent to newly registered multitenant apps without verified publishers. [Add MPN ID to verify publisher](#)

[Get Started](#) [Documentation](#)

BC365 App - Web Services | Authentication

[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

Platform configurations

Depending on the platform or device this application is targeting, additional configuration may be required such as redirect URIs, specific authentication settings, or fields specific to the platform.

[Add a platform](#)

Web

Quickstart Docs

Redirect URIs

The URIs we will accept as destinations when returning authentication responses (tokens) after successfully authenticating or signing out users. The redirect URI you send in the request to the login server should match one listed here. Also referred to as reply URLs. [Learn more about Redirect URIs and their restrictions](#)

[https://businesscentral.dynamics.com/OAuthLanding.htm](#)

[Add URI](#)

Front-channel logout URL

This is where we send a request to have the application clear the user's session data. This is required for single sign-out to work correctly.

Implicit grant and hybrid flows

Request a token directly from the authorization endpoint, if the application has a single-page architecture (SPA) and doesn't use the authorization code flow, or if it invokes a web API via JavaScript, select both access tokens and ID tokens. For ASP.NET Core web apps and other web apps that use hybrid authentication, select only ID tokens. [Learn more about tokens](#).

Select the tokens you would like to be issued by the authorization endpoint:

☐ Access tokens (used for implicit flows)

☐ ID tokens (used for implicit and hybrid flows)

## 2. Create new client secret

!!!Attention!!!

\*\*\*\*\*

The secret is valid for two years. After two years, it will be necessary to generate a new secret.

\*\*\*\*\*

The screenshot shows the Azure portal interface. The left sidebar contains navigation links: Overview, Quickstart, Integration assistant, Manage (Branding & properties, Authentication, Certificates & secrets, Token configuration, API permissions, Expose an API, App roles, Owners, Roles and administrators, Manifest), and Support + Troubleshooting (Troubleshooting, New support request). The main content area is titled 'BC365 App - Web Services | Certificates & secrets'. It includes a search bar, a 'Got feedback?' link, and a description: '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.' Below this is a tabbed interface with 'Certificates (0)', 'Client secrets (1)', and 'Federated credentials (0)'. The 'Client secrets' tab is active, showing a table with one secret. The table has columns: Description, Expires, Value, and Secret ID. The secret is named 'default', expires on '2/12/2024', and has a value 'WK9\*\*\*\*\*'. The Secret ID is '077fa26c-a4bb-457f-a860-61448e8b8203'. There is a '+ New client secret' button above the table.

Description	Expires	Value	Secret ID
default	2/12/2024	WK9*****	077fa26c-a4bb-457f-a860-61448e8b8203

## 3. Grant the console application delegated permissions to the Business Central application.

The screenshot shows the Azure portal interface for 'BC365 App - Web Services | API permissions'. The left sidebar is the same as in the previous screenshot. The main content area includes a search bar, 'Refresh' and 'Got feedback?' buttons, and a warning message: 'You are editing permission(s) to your application, users will have to consent even if they've already done so previously.' Below this is another warning: 'Starting November 9th, 2020 end users will no longer be able to grant consent to newly registered multitenant apps without verified publishers. [Add MPN ID to verify publisher](#)'. An information message states: '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 your organization.' The 'Configured permissions' section explains that applications are authorized to call APIs when granted permissions by users/admins. It lists configured permissions for 'Dynamics 365 Business Central (4)' and 'Microsoft Graph (1)'. The table has columns: API / Permissions name, Type, Description, Admin consent required, and Status. The permissions listed are: API.ReadWrite.All (Application, Full access to web services API, Yes, Granted for Gti Roll Tran...), app\_access (Application, Access according to the application's permissions in Dyna..., Yes, Granted for Gti Roll Tran...), Automation.ReadWrite.All (Application, Full access to automation, Yes, Granted for Gti Roll Tran...), user\_impersonation (Delegated, Access as the signed-in user, No, Granted for Gti Roll Tran...), and User.Read (Delegated, Sign in and read user profile, No, Granted for Gti Roll Tran...). At the bottom, there is a link: 'To view and manage permissions and user consent, try [Enterprise applications](#).'

API / Permissions name	Type	Description	Admin consent required	Status
Dynamics 365 Business Central (4)				
API.ReadWrite.All	Application	Full access to web services API	Yes	Granted for Gti Roll Tran...
app_access	Application	Access according to the application's permissions in Dyna...	Yes	Granted for Gti Roll Tran...
Automation.ReadWrite.All	Application	Full access to automation	Yes	Granted for Gti Roll Tran...
user_impersonation	Delegated	Access as the signed-in user	No	Granted for Gti Roll Tran...
Microsoft Graph (1)				
User.Read	Delegated	Sign in and read user profile	No	Granted for Gti Roll Tran...

# Register the external application in Business Central

← Azure Active Directory Application Card

+

BC365 App - Web Services

Grant Consent

General

Client ID

(7069043c-2960-4faa-87ea-c1183b227399)

Extension

Description

BC365 App - Web Services

App ID

{00000000-0000-0000-0000-000000000000}

State

Enabled

App Name

Contact Information

User Groups

Manage

Code T

Name

Company Name T

→

D365 FULL ACCESS

:

Dynamics 365 Full access

User Permission Sets

Manage

Permission Set T

Description

Company T

Extension Name

Permission Scope

→

D365 BASIC

:

Dynamics 365 Basic access

Base Application

System

D365 FULL ACCESS

Dynamics 365 Full access

Base Application

System

LOCAL

Country/region-specific func.

Base Application

System

# Using API with Service-To-Service Authentication

## Parameters

**Azure AD Tenant ID:** df49c7eb-cdb2-46c4-9381-7938b75957e5

**Application (Client) ID:** 7069043c-2960-4faa-87ea-c1183b227399

**Client Secret:** WK97Q~9BdqVPSTJxle1sNVnpHCKtatG..~tDR

**Scope:** <https://api.businesscentral.dynamics.com/default>

**Redirect URL :** <https://businesscentral.dynamics.com/OAuthLanding.htm>



## Generate New Access Token

Client Emplad (GTI)

+ ...

Client Emplad (GTI) [Share](#)

Authorization

Pre-request Script

Tests

Variables

This authorization method will be used for every request in this collection. You can override this by specifying one in the request.

ⓘ Heads up! These parameters hold sensitive data. To keep this data secure while working in a collaborative environment, we recommend using variables. [Learn more about variables](#)

×

Current Token

This access token is only available to you. Sync the token to let collaborators on this request use it.

Access Token

Available Tokens

eyJ0eXAiOiJKV1QiLCJhbGciOi...

🔄

Header Prefix ⓘ

Bearer

Configure New Token

Configuration Options

Advanced Options

Token Name

Client Emplad

Grant Type

Client Credentials

Access Token URL ⓘ

https://login.microsoftonline.com/{{T...

Client ID ⓘ

{{Client\_ID}}

⚠

Client Secret ⓘ

{{Client\_Secret}}

⚠

Scope ⓘ

https://api.businesscentral.dynamics...

Client Authentication

Send client credentials in body

🗑 Clear cookies ⓘ

Get New Access Token

## Get Company ID

Goto to **Companies** and on the tab **Authorization** choose the token you've generated before

GET Companies +

Client Emplad (GTI) / Companies

GET https://api.businesscentral.dynamics.com/v2.0/{{Tenant\_ID}}/{{Environment\_Name}}/api/v2.0/companies

Params Authorization Headers (7) Body Pre-request Script Tests Settings

Type OAuth 2.0

The authorization data will be automatically generated when you send the request. [Learn more about authorization](#)

Add authorization data to Request Headers

Heads up! These parameters hold sensitive data. To keep this data secure while working in a collaborative environment, we recommend using variables. [Learn more about variables](#)

Current Token

This access token is only available to you. Sync the token to let collaborators on this request use it.

Access Token

Header Prefix

Configure New Token

Available Tokens

- Client LMM
- Client Emplad
- Manage Tokens

Response

From the result you can get **company ID** and assign it to variable **Company\_ID**

GET https://api.businesscentral.dynamics.com/v2.0/{{Tenant\_ID}}/{{Environment\_Name}}/api/v2.0/companies Send

Params Authorization Headers (7) Body Pre-request Script Tests Settings Cookies

Type OAuth 2.0

The authorization data will be automatically generated when you send the request. [Learn more about authorization](#)

Add authorization data to Request Headers

Heads up! These parameters hold sensitive data. To keep this data secure while working in a collaborative environment, we recommend using variables. [Learn more about variables](#)

Current Token

This access token is only available to you. Sync the token to let collaborators on this request use it.

Access Token

Available Tokens

- eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1...
- Bearer

Header Prefix

Configure New Token

Status: 200 OK Time: 1537 ms Size: 9.51 KB Save Response

Body Cookies Headers (16) Test Results

Pretty Raw Preview Visualize JSON

```
1 {
2   "$odata.context": "https://api.businesscentral.dynamics.com/v2.0/d49c7eb-cdb2-46c4-9381-7938b76957e5/UnitTests/api/v2.0/$metadata#companies",
3   "value": [
4     {
5       "id": "ee09c5ef-8a34-eb11-bf6b-080d3a045308",
6       "systemVersion": "20.0.37253.39855",
7       "name": "Associated Acquisition Company",
8       "displayName": "Associated Acquisition Company",
9       "businessProfileId": "",
10      "systemCreatedAt": "0001-01-01T08:00:00Z",
11      "systemCreatedBy": "00000000-0000-0000-0000-000000000000",
12      "systemModifiedAt": "0001-01-01T08:00:00Z",
13      "systemModifiedBy": "00000000-0000-0000-0000-000000000000"
14    },
15    {
16      "id": "82376487-cedc-46eb-b0b3-e4ff99610617",
17      "systemVersion": "20.0.37253.39855",
18      "name": "Emplad",
19      "displayName": "Emplad Agency Services Inc",
20      "businessProfileId": "",
21      "systemCreatedAt": "0001-01-01T08:00:00Z",
22      "systemCreatedBy": "00000000-0000-0000-0000-000000000000"
```



# Tips & Tricks

## Query data using the Web API

[Query data using the Web API \(Microsoft Dataverse\) - Power Apps | Microsoft Docs](#)

In this article you can find information how to apply filters, use different clause like \$top, \$count or group by and order by

[Steve Endow - The Blog: Using \\$metadata and \\$expand with Business Central Web APIs](#)

## Endpoints for the APIs for Dynamics 365 Business Central On-Premises and Online

[Endpoints for the APIs for Microsoft Dynamics NAV and Microsoft Dynamics 365 Business Central - Business Central | Microsoft Docs](#)

## Using API with STS OAuth 2.0 in C#

[Create the console application that connects to the OData Web Service using OAuth](#)

[Service to service authentication in Business Central 18.3 – How to use in C#](#)