



Multi Entity Management for Microsoft Dynamics Business Central

How-to setup Cross Environment replication



Table of Contents

1.1	SETUP GUIDE FOR CROSS ENVIRONMENT REPLICATION.....	2
1.2	PREPARING THE SUBSCRIBER ENVIRONMENT.....	2
1.2.1	INITIAL SETUP.....	2
1.2.2	MULTI-ENVIRONMENT SETUP	3
1.2.3	SETUP WEB SERVICES	3
1.3	PREPARING THE PUBLISHER ENVIRONMENT AND ENTITY	5
1.3.1	INITIAL SETUP.....	5
1.3.2	PUBLISHING ENTITY SETUP.....	5
1.3.3	MULTI-ENVIRONMENT SETUP	6
1.3.4	REPOSITORY LIST	7
1.3.5	PUBLISH TO ENTITIES IN OTHER ENVIRONMENTS	7
1.3.6	REPLICATION SETUP.....	9
1.4	AUTHENTICATION METHODS.....	11
1.4.1	BASIC OR SERVICE-TO-SERVICE AUTHENTICATION.	11
1.4.2	BASIC AUTHENTICATION – INITIAL SETUP.....	11
1.4.3	SERVICE-TO-SERVICE AUTHENTICATION – INITIAL SETUP	13
1.5	NOTES ON CROSS DATABASE REPLICATION.....	20
1.6	TROUBLESHOOTING.....	20
1.6.1	PUBLISHER IS “C/SIDE” BASED AND THE SUBSCRIBER IS AL BASED.	20
1.6.2	BOTH PUBLISHER AND SUBSCRIBER ARE ONPREM DATABASES.	20
1.6.3	THE SUBSCRIBER DATABASE IS SETUP WITH “WINDOWS AUTHENTICATION”.	20
1.6.4	SOAP EXCEPTION BUSINESS CENTRAL 16	21
1.6.5	SOAP URL CONTAINING “DEFAULT” MORE THAN ONCE.....	21

1.1 Setup Guide for Cross Environment replication.

This Guide describe how to setup Multi Entity Management to publish data to Entities (Companies) located in separate environments/databases.

The term “Environment” is used to describe one or more Business Central environment(s) stored in at Business Central tenant.

The term "database" is used to describe an on-premises Business Central database.

The term “entity” is used to describe one or more companies in an environment/database.

This Guide will use the term “Environment” covering both environments (cloud) and databases (on-prem).

1.2 Preparing the Subscriber Environment.

In the subscriber environment start the setup with the subscribing entity. After the preparation of the subscribing environment, all the publishing setups will be managed in the publisher environment with the Master data from the publisher entity.

The best practice is to create a Local Publisher entity in the subscribing environment. The Local Publisher in the Subscriber Environment will publish all data received from the Publishing Environment to the Subscribing Entities in the Subscriber Environment.

1.2.1 Initial Setup

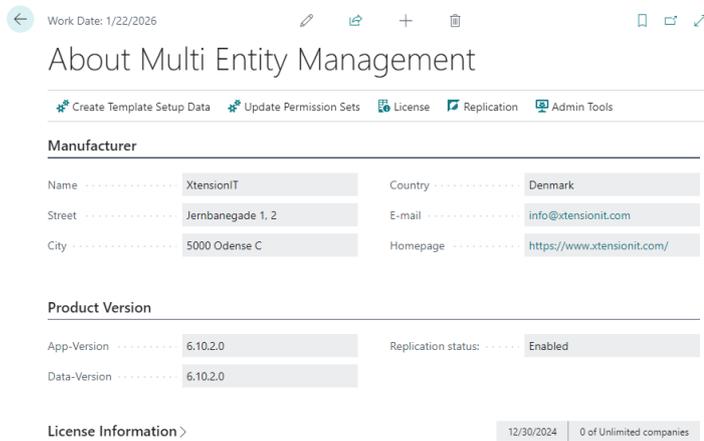
- Start Business Central with the Role “Master Data Manager”.



My Settings - LRN

Role	Master Data Manager	...
Company	LOCAL Publisher	...

- Go to “About Multi Entity Management” page.



Work Date: 1/22/2026

About Multi Entity Management

[Create Template Setup Data](#)
[Update Permission Sets](#)
[License](#)
[Replication](#)
[Admin Tools](#)

Manufacturer

Name	XtensionIT	Country	Denmark
Street	Jernbanegade 1, 2	E-mail	info@xtensionit.com
City	5000 Odense C	Homepage	https://www.xtensionit.com/

Product Version

App-Version	6.10.2.0	Replication status	Enabled
Data-Version	6.10.2.0		

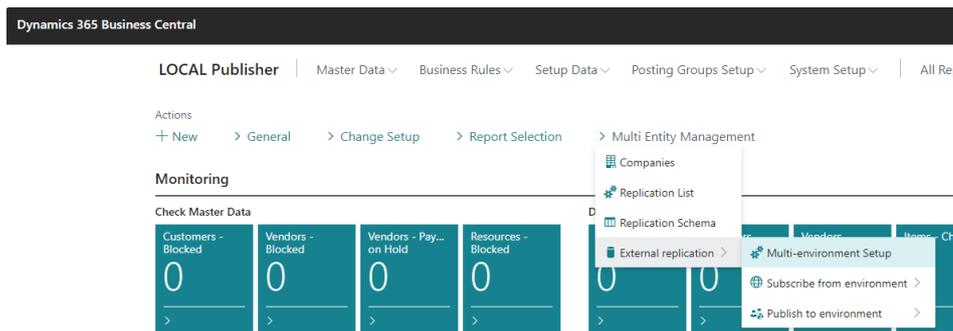
License Information >

12/30/2024	0 of Unlimited companies
------------	--------------------------

- Activate the function: “Create Template Setup Data”
- For Microsoft Dynamics 365 Business Central, version 17 and below.
 - Activate the function: “Update Permissions Sets”.

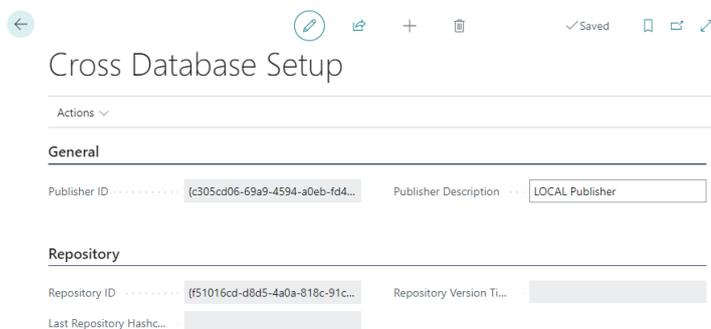
1.2.2 Multi-environment Setup

- Go to the page “Multi-environment Setup”.



- When the page “Multi-environment Setup” is opened, Multi Entity Management performs an automatic setup.

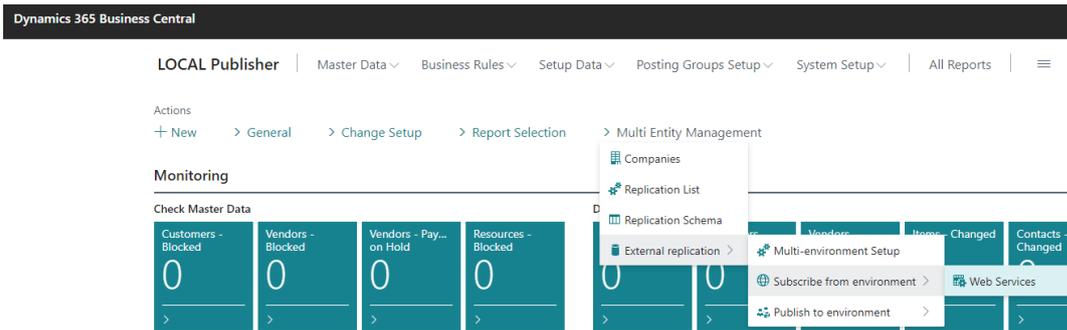
Please note that the “General” section, is only used, if the Subscriber Company, also acts as a Cross Database Publisher.



- After the page is shown on the screen, the initial setup has been done and the page can safely be closed again.

1.2.3 Setup Web services

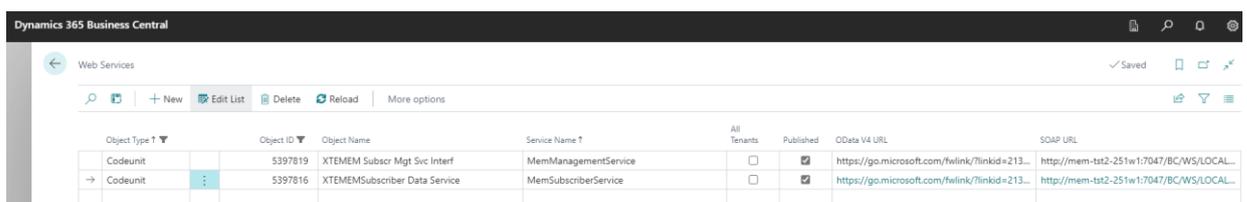
- From “Subscribe from environment” open the page “Web Services”.



- Add Codeunit 5397816 “XTEMEMSubscriber Data Service” to the list.
- In the field “Service Name”, name the service. (Example: MemSubscriberService)
- Remove the checkmark in the “All tenants” field.
- Set a checkmark in the field “Published”.

- Add Codeunit 5397819 “XTEMEM Subscr Mgt Svc Interf” to the list.
- In the field “Service Name”, name the service. (Example: MemMangementService)
- Remove the checkmark in the “All tenants” field.
- Set a checkmark in the field “Published”.

When publishing the two webservices, an URL is created in field “SOAP URL” for each webservice.



Object Type 1	Object ID	Object Name	Service Name	All Tenants	Published	odata v4 URL	SOAP URL
Codeunit	5397819	XTEMEM Subscr Mgt Svc Interf	MemManagementService	<input type="checkbox"/>	<input checked="" type="checkbox"/>	https://go.microsoft.com/fwlink/?linkid=213...	http://mem-tst2-251w1:7047/BC/WS/LOCAL...
Codeunit	5397816	XTEMEMSubscriber Data Service	MemSubscriberService	<input type="checkbox"/>	<input checked="" type="checkbox"/>	https://go.microsoft.com/fwlink/?linkid=213...	http://mem-tst2-251w1:7047/BC/WS/LOCAL...

- Activate both webservice URL to check that they are working.

1.3 Preparing the publisher environment and entity

The next step is preparing the publisher environment with the publishing entities to replicate data to the subscribing environment and entity. After the preparation the Master Data is ready for replication.

1.3.1 Initial Setup

- Start Business Central with the Role “Master Data Manager”.

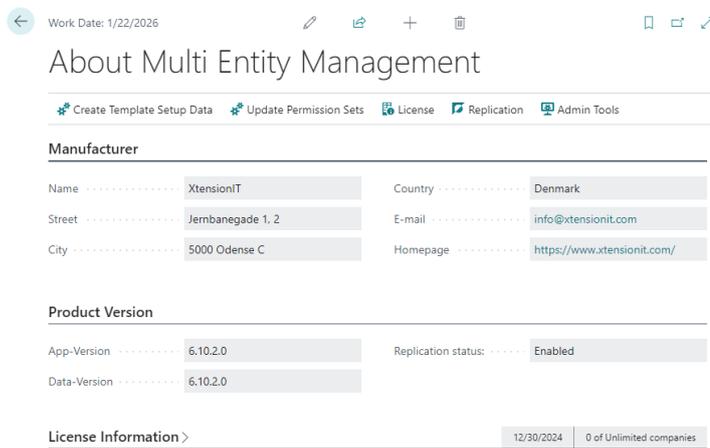


My Settings - LRN

Role Master Data Manager

Company GLOBAL Publisher

Go to “About Multi Entity Management” page.



Work Date: 1/22/2026

About Multi Entity Management

[Create Template Setup Data](#)
[Update Permission Sets](#)
[License](#)
[Replication](#)
[Admin Tools](#)

Manufacturer

Name XtensionIT Country Denmark

Street Jernbanegade 1, 2 E-mail info@xtensionit.com

City 5000 Odense C Homepage https://www.xtensionit.com/

Product Version

App-Version 6.10.2.0 Replication status: Enabled

Data-Version 6.10.2.0

License Information > 12/30/2024 0 of Unlimited companies

- Activate the function: “Create Template Setup Data”
- For Microsoft Dynamics 365 Business Central, version 17 and below.
 - Activate the function: “Update Permissions Sets”.

1.3.2 Publishing entity setup

- Go to the “Replication Card” and do the “Publish” setup for the Publishing entity, so the entity is marked as “Publisher” in the Replication List page.

Work Date: 1/22/2026

Replication Card

Copy Replication Setup

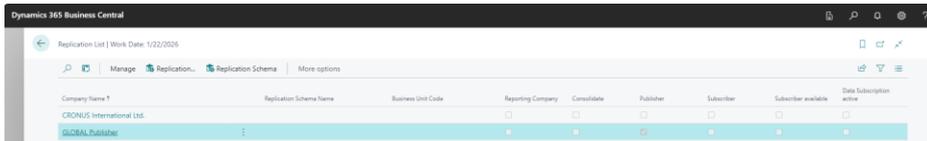
General >

Publish | New Line | Delete Line | Fields | Associated Tables | Subscriber Companies

Table No. ↑	Table Name	No. of Subscribers	No. of Associated Tables	Added as Associa... Table
→ 15	G/L Account	0	0	<input type="checkbox"/>

Subscribe >

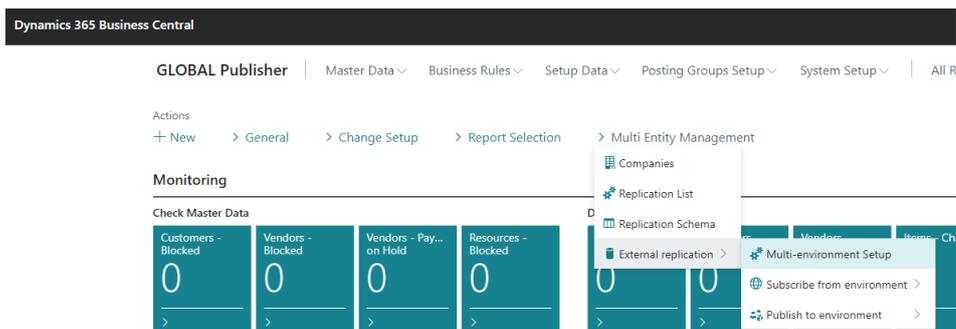
Consolidate >



Company Name ↑	Replication Schema Name	Business Unit Code	Reporting Company	Consolidate	Publisher	Subscriber	Subscriber available	Data Subscription active
CRONUS International Ltd.	GLOBAL Publisher		<input type="checkbox"/>					

1.3.3 Multi-environment Setup

- Go to the page “Multi-environment Setup”.



Dynamics 365 Business Central

GLOBAL Publisher | Master Data | Business Rules | Setup Data | Posting Groups Setup | System Setup | All R

Actions: + New > General > Change Setup > Report Selection > Multi Entity Management

Monitoring

Check Master Data

Customers - Blocked: 0

Vendors - Blocked: 0

Vendors - Pay... on Hold: 0

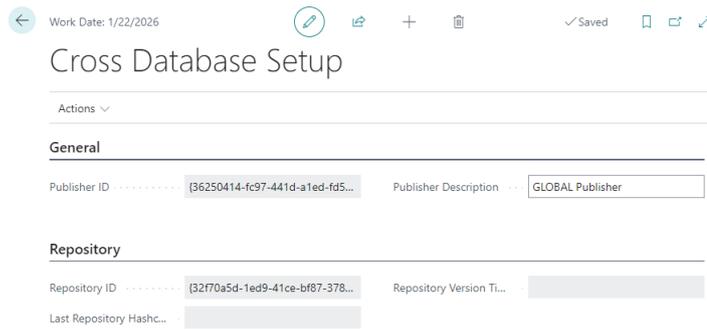
Resources - Blocked: 0

External replication > Multi-environment Setup

Subscribe from environment >

Publish to environment >

- When the page “Multi-environment Setup” is opened, Multi Entity Management performs an automatic setup.



Work Date: 1/22/2026

Cross Database Setup

Actions ▾

General

Publisher ID {36250414-fc97-441d-a1ed-fd5...} Publisher Description ... GLOBAL Publisher

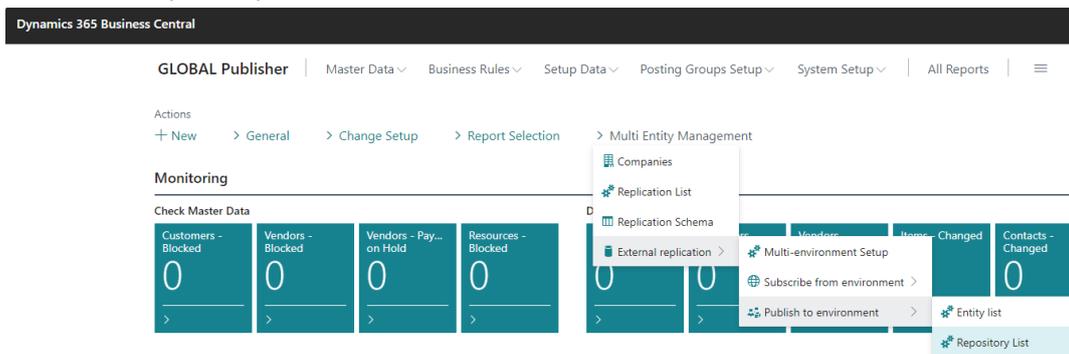
Repository

Repository ID {32f70a5d-1ed9-41ce-bf87-378...} Repository Version Tl...
 Last Repository Hashc...

- After the page is shown on the screen, the initial setup has been done and the page can safely be closed again.

1.3.4 Repository List

- Go to the “Repository List”



Dynamics 365 Business Central

GLOBAL Publisher | Master Data ▾ | Business Rules ▾ | Setup Data ▾ | Posting Groups Setup ▾ | System Setup ▾ | All Reports | ☰

Actions
 + New > General > Change Setup > Report Selection > Multi Entity Management

Monitoring

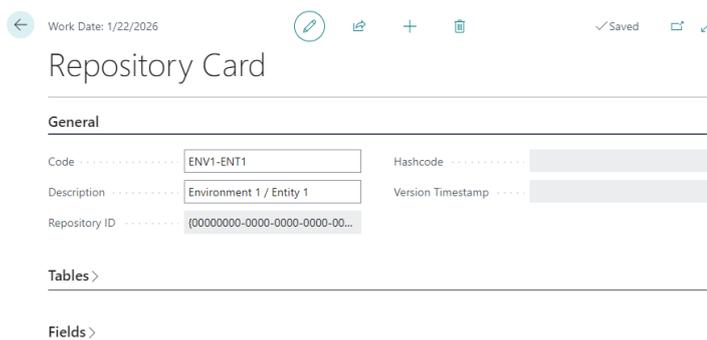
Check Master Data

Customers - Blocked 0	Vendors - Blocked 0	Vendors - Pay... on Hold 0	Resources - Blocked 0
--------------------------	------------------------	-------------------------------	--------------------------

External replication >

- Multi-environment Setup
- Subscribe from environment >
- Publish to environment >
 - Entity list
 - Repository List

- Create a CODE and Description for the Repository that contains information about the tables and fields from the subscribing environment.



Work Date: 1/22/2026

Repository Card

Actions

General

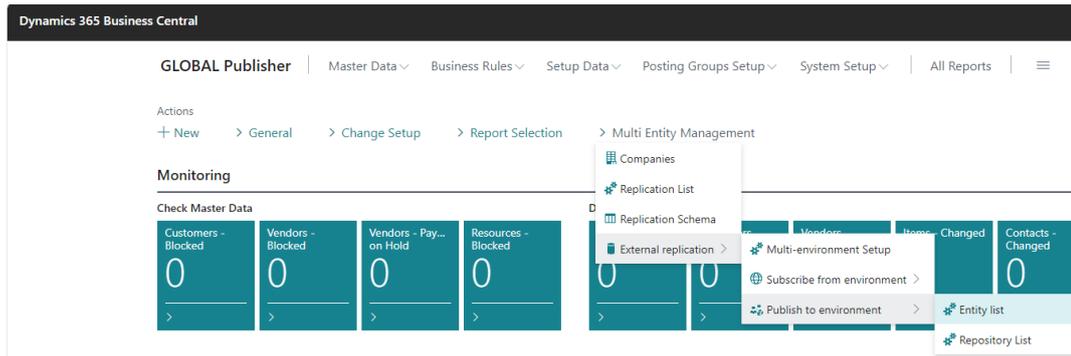
Code ENV1-ENT1 Hashcode
 Description Environment 1 / Entity 1 Version Timestamp
 Repository ID {00000000-0000-0000-0000-00...}

Tables >

Fields >

1.3.5 Publish to entities in other environments

- Go to the “Entity List”

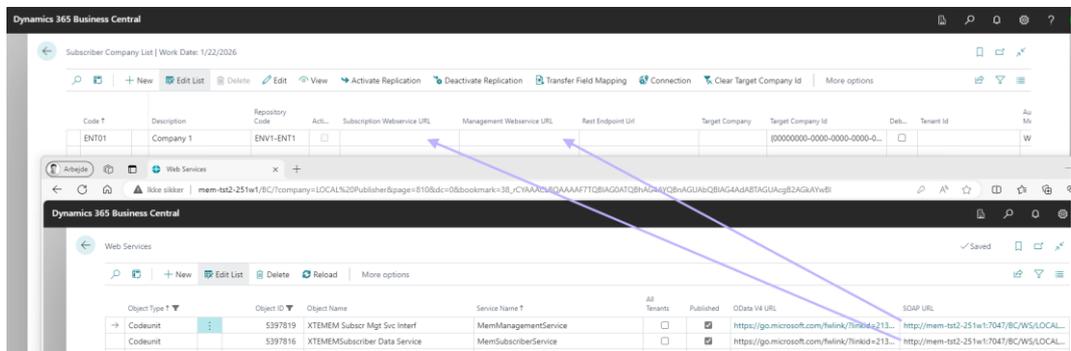


- Insert “Code”, “Description” to identify the Subscribing Entity and Environment
- Insert the “Repository Code” for the Environment where the Entity belong

Subscriber Company List | Work Date: 1/22/2026

Code	Description	Repository Code	Act...	Subscription Webservice URL	Management Webservice
ENT01	Company 1	ENV1-ENT1	<input type="checkbox"/>		

- Go to the Subscribing Environment and Entity and find the SOAP URL’s for “Subscriptions” and “Management”



Copy the values to the “Subscriber Company Line”

Subscriber Company List | Work Date: 1/22/2026

Code	Description	Repository Code	Act...	Subscription Webservice URL	Management Webservice URL
→ ENT01	Company 1	ENV1-ENT1	<input type="checkbox"/>	http://mem-tst2-251w1:7047/...	http://mem-tst2-251w1:7047/...

- Choose the Authentication Methods

- Basic Authentication/Web Access Key: Insert **User/Id** and **Password/Key**. The field “Tenant Id” is left empty, without any value. (See section 1.4 about how to setup authentication)
- Service-to-Service (Client Credentials): Insert **Tenant Id**, **User/Id** and **Password/Key**. (See section 1.4 about how to setup authentication)

Subscriber Company List | Work Date: 1/22/2026

✓ Saved

[+ New](#)
[Edit List](#)
[Delete](#)
[Edit](#)
[View](#)
[Activate Replication](#)
[Deactivate Replication](#)
[Transfer Field Mapping](#)
[Connection](#)
[Clear Target Company Id](#)
[Actions](#)
[Related](#)

[Bind-to Subscriber](#)
[Release-from Subscriber](#)
[Get Repository](#)
[Reset Token](#)

Code ↑	Management Webservice URL	Rest Endpoint Url	Target Company	Target Company Id	Deb...	Tenant Id	Auth. Method	User/Id	Password/Key	Timeout (ms)
→ ENT01	http://mem-tst2-251w1:7047/...			{00000000-0000-0000-0000-0...	<input type="checkbox"/>		Web Acces...	LRN	*****	100000

- Run the function “Bind-to Subscriber” and get the confirmation box.



- Run the function “Get Repository” and get the confirmation box.



1.3.6 Replication Setup

- It is now time to do the Cross Environment Replication setup
- Go to the “Subscriber Companies List” and open the Page Card.
- Do the Replication Setup in the “Dependent on” section and set Checkmark in the “Subscribe” field.

Subscriber Replication Setup | Work Date: 1/22/2026

ENT01

[Activate Replication](#)
[Deactivate Replication](#)
[Transfer Field Mapping](#)
[Connection](#)

General

Code: ENT01 Published Mapping Version: 0

Description: Company 1 Actual Mapping Version: 1

Active:

[Dependent on](#)
[New Line](#)
[Delete Line](#)
[Initial Sending](#)
[Full Table Sync](#)
[Filtered Table Sync](#)
[Update Field List](#)

Table No. ↑	Table Name	Template Company Name ↑	Subscribe	Custom Records	Mapping incomplete
15	G/L Account	GLOBAL Publisher	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Field Mapping

From Field No. ↑	From Field Name	To Field No.	To Field Name	No Mapping	Use Default Value	Adjust Value	Default Value	Field Mapping
1	No.	1	No.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		0
2	Name	2	Name	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		0
3	Search Name	3	Search Name	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		0
4	Account Type	4	Account Type	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		0
6	Global Dimension 1 Code	6	Global Dimension 1 Code	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		0
7	Global Dimension 2 Code	7	Global Dimension 2 Code	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		0

- Use the function “Transfer Field Mapping”, to transfer the records to the “Subscriber Company”

...CATION SETUP | WORK DATE: 1/27/2022

SUBCOMP01

[Get Repository](#)
[Transfer Field Mapping](#)
[Bind to Publisher](#)
[Activate Subscription](#)

General

Code: SUBCOMP01 Published Mapping V...: 0

Description: Subscriber Company 01 Actual Mapping Versi...: 1

Active:

Depend on

Dependent on ↓

Table No. ↑	Table Name	Template Company Name ↑	Subscribe	Custom Records	Mappi... incom...
15	G/L Account	GLOBAL Publisher	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

i The field mapping is successfully transmitted to the subscriber company.

OK

- Use the function “Activate Subscription” to automate the replication

TEMPLATE SETUP LIST

[Search](#)
[Manage](#)
[Edit Template Setup...](#)
[Edit Replication Setup...](#)
[Open in Excel](#)
[More options](#)

Company Name	Replication Schema Name	Business Unit Code	Reporting Company	Consolid...	Template Company	Dependi... Company	Subscriber available	Data Subscrip... active
CRONUS International Ltd.	:		<input type="checkbox"/>					
CRONUS Subscriber Company	:		<input type="checkbox"/>					

1.4 Authentication methods.

There is different requirement to the authentication's methods used, when replicating data across different version of Business Central Environments/Databases and NAV Databases.

1.4.1 Basic or Service-to-Service Authentication.

When Master Data is replicated between different Environments or Databases there is a requirement for either Basic or Service-2-Service Authentication to validate the communication.

When a Business Central Environment is part of the replication, Service-2-Service Authentication is required. See the table below.

Publisher	Subscriber	Authentication
Business Central (SaaS)	Business Central (SaaS)	Service-to-Service
Business Central (SaaS)	Business Central (On premises) From BC version 18 or later. *)	Service-to-Service
Business Central (SaaS)	Business Central (On premises) Up to BC version 17. *)	Basic
Business Central (SaaS)	Microsoft Dynamics NAV	Basic
BC On-premises (BC 18.0 or later) *)	Business Central (SaaS)	Service-to-Service
BC On-premises (up to BC 17.0)	Business Central (SaaS)	Not possible
BC On-premises	Business Central (On premises)	Basic
BC On-premises	Microsoft Dynamics NAV	Basic
Microsoft Dynamics NAV	Business Central (SaaS)	Not possible
Microsoft Dynamics NAV	Business Central (On premises)	Basic
Microsoft Dynamics NAV	Microsoft Dynamics NAV	Basic

*) For running the Service-2-Service Authentication on Business Central on-premises versions 18 and 19, these versions must be updated to BC 18.11 and BC 19.5 or newer.

More details can be found with the Microsoft Learn link:

<https://learn.microsoft.com/en-us/dynamics365/business-central/dev-itpro/administration/automation-apis-using-s2s-authentication>

1.4.2 Basic Authentication – Initial setup

To enable the Basic Authentication methods, create a User assigned both the “Business Central Password Authentication” and a “Web Service Access Key” in the subscriber environment/database.

User Card

ACS Setup | Change Password | Effective Permissions | Send Email | More options

General Show more

User Name	LRN	Microsoft 365	
Full Name		Authentication Email	
License Type	Full User	Application ID	
Status	Enabled	Authentication Status	Disabled
Expiry Date		Web Service	
Contact Email		Web Service Access Key	7Mqxuk/o6NmxRZT/xbweZVDNnU7Z...

Windows Authentication >

Access Control Service Authentication Disabled

Business Central Password Authentication

Password User must change password a...

User Group Memberships >

User Permission Sets >

Note: If the Business Central subscriber environment/database is setup with Windows Authentication, there must be created an extra Service Tier, to handle the Webservice access with Business Central Password Authentication.

1.4.3 Service-to-Service Authentication – Initial Setup

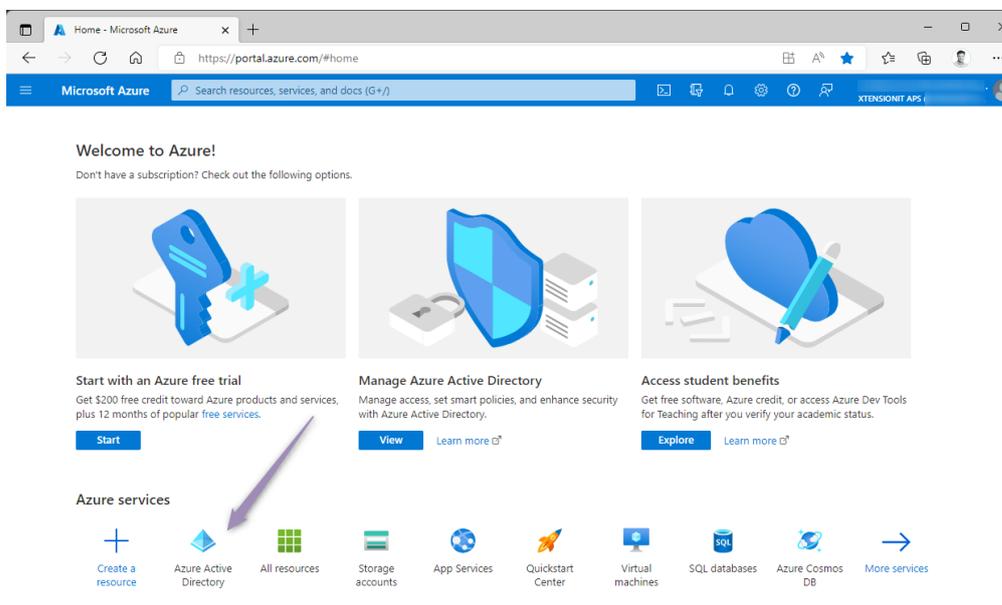
If the replication setup requires the service-to-service authentication, there are two steps to do.

- 1) Register an application in your Azure Active Directory tenant for authenticating API call against Business Central
- 2) Grant access for that application in Business Central

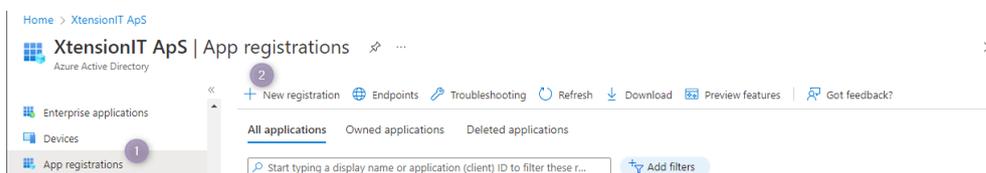
1.4.3.1 Register application in Azure Active Directory (ADD)

To register an application in Azure Active Directory, do the following steps

- Open the Azure Portal, <https://portal.azure.com>



- Go to Azure Active Directory
- Select App registrations and + New registration.



When creating the **App registration** select the following options

Home > XtensionIT ApS | App registrations >

Register an application

Name

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

MEM Cross Database Replication

Supported account types

Who can use this application or access this API?

- Accounts in this organizational directory only (XtensionIT ApS 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.

Web

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

- Name: A suitable name
- Supported account type: Accounts in any organizational directory (Any Azure AD directory - Multitenant)
- Redirect URI (optional): Web + <https://businesscentral.dynamics.com/OAuthLanding.htm>
- Register with the **Register** button

The App registration is now created but requires permissions setup.

- Go to API permissions

Home > XtensionIT ApS | App registrations > MEM Cross Database Replication

MEM Cross Database Replication | API permissions

Search Refresh Got feedback?

- Overview
- Quickstart
- Integration assistant
- Manage
 - Branding & properties
 - Authentication
 - Certificates & secrets
 - Token configuration
 - API permissions**
 - Expose an API

Configured permissions

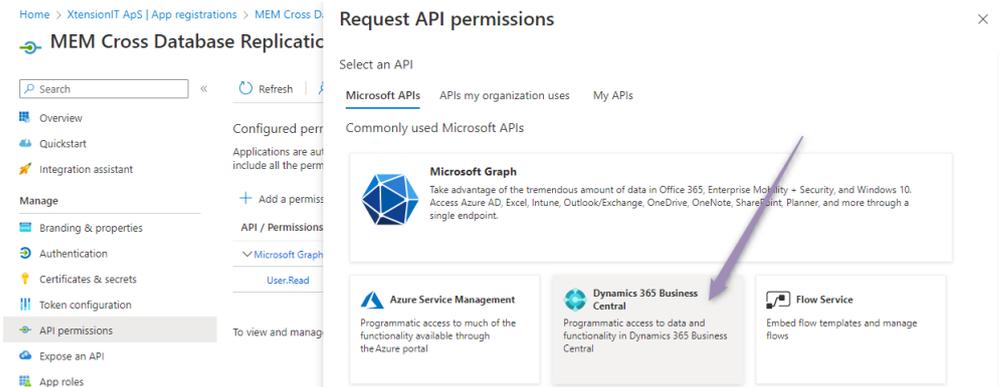
Applications are authorized to call APIs when they are granted permissions by users/admins as part of the consent process. The list of configured permissions should include all the permissions the application needs. [Learn more about permissions and consent](#)

+ Add a permission Grant admin consent for XtensionIT ApS

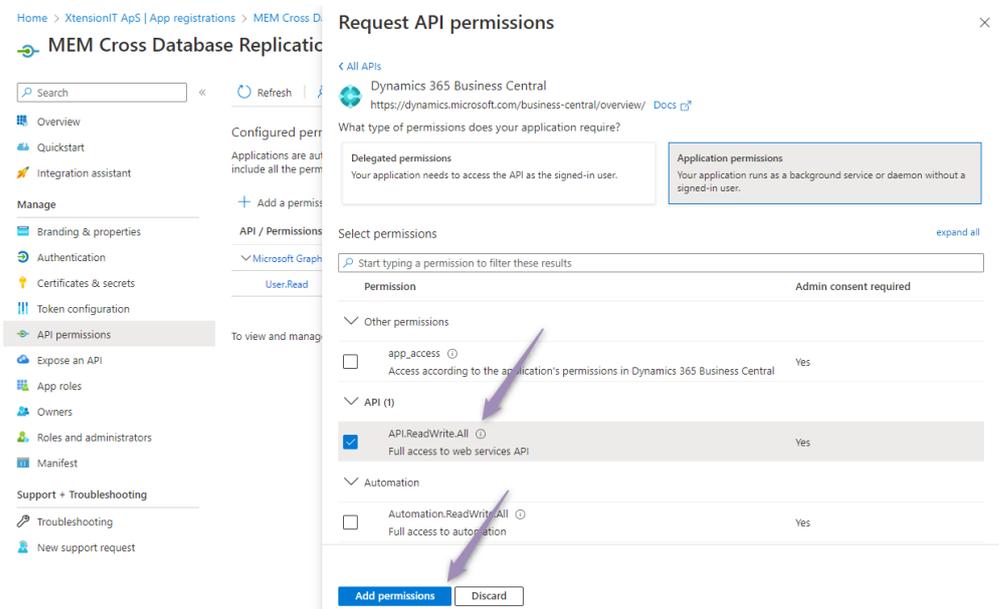
API / Permissions name	Type	Description	Admin consent req...	Status
Microsoft Graph (1)				
User.Read	Delegated	Sign in and read user profile	No	...

To view and manage permissions and user consent, try [Enterprise applications](#).

- Select **+ Add a permission** to open the Request API permissions page



- Select Dynamics 365 Business Central



- Select Application permissions
- Select API.ReadWrite.All
- Register with the **Add permissions** button
- Then Grant admin consent for your organization

Home > XtensionIT ApS | App registrations > MEM Cross Database Replication

MEM Cross Database Replication | API permissions

Search << 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

⚠️ You are editing permission(s) to your application, users will have to consent even if they've already done so previously.

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 XtensionIT ApS

API / Permissions name	Type	Description	Admin consent req...	Status
▼ Dynamics 365 Business Central				
API.ReadWrite.All	Application	Full access to web services API	Yes	⚠️ Not granted for Xtensio...
▼ Microsoft Graph (1)				
User.Read	Delegated	Sign in and read user profile	No	...

To view and manage permissions and user consent, try [Enterprise applications](#).

- When the Consent is granted, the Status must be marked with a Green Check

Integration assistant

Manage

- Branding & properties
- Authentication
- Certificates & secrets
- Token configuration
- API permissions

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 XtensionIT ApS

API / Permissions name	Type	Description	Admin consent req...	Status
▼ Dynamics 365 Business Central				
API.ReadWrite.All	Application	Full access to web services API	Yes	✅ Granted for XtensionIT ...

After the permissions setup we must create the “Client secret”.

- Go to Certificates & secrets

Home > XtensionIT ApS | App registrations > MEM Cross Database Replication

MEM Cross Database Replication | Certificates & secrets

Search << Got feedback?

Overview
Quickstart
Integration assistant

Manage

- Branding & properties
- Authentication
- Certificates & secrets
- Token configuration
- API permissions
- Expose an API

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.

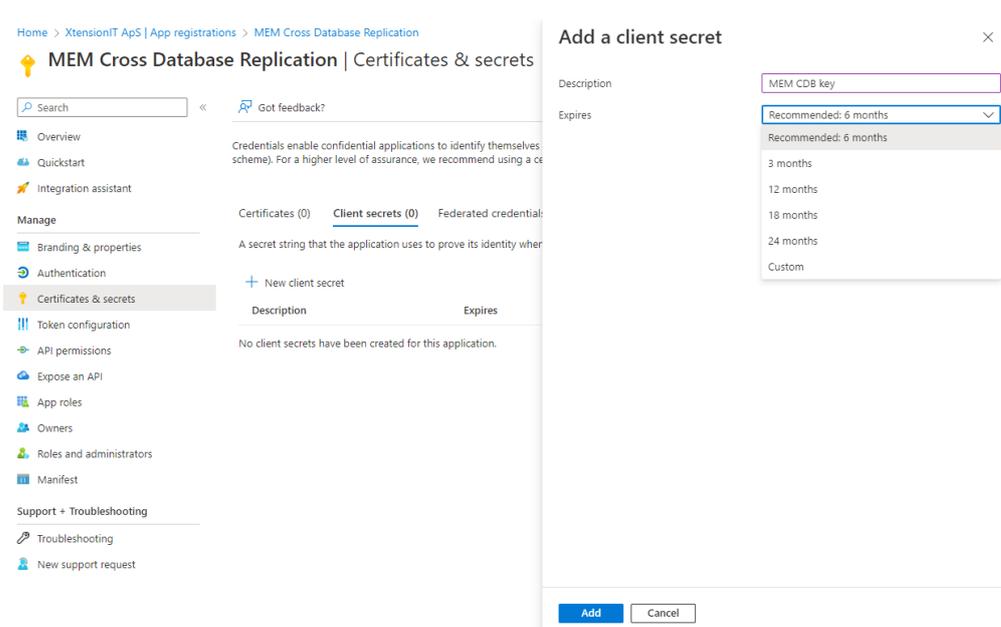
Certificates (0) **Client secrets (0)** Federated credentials (0)

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	Expires	Value	Secret ID
No client secrets have been created for this application.			

- Select + New client secret to open the Add a client secret page



Home > XtensionIT ApS | App registrations > MEM Cross Database Replication

MEM Cross Database Replication | Certificates & secrets

Search << 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.

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 an application password.

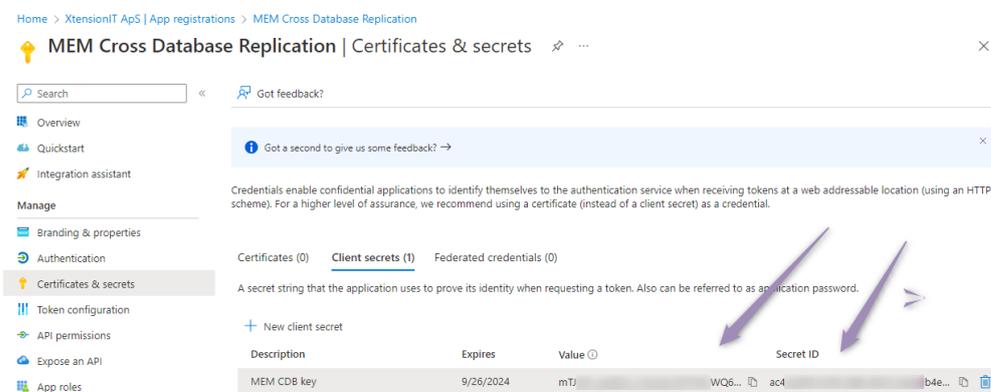
+ New client secret

Description	Expires
No client secrets have been created for this application.	

Add Cancel

- Give the Client Secret Key a proper description
- Select the lifetime of the Client Secret Key
- Register with the **Add** button

- Store the Value and Secret ID of the “Client secret” a safe place. It is not possible to restore the value again.



Home > XtensionIT ApS | App registrations > MEM Cross Database Replication

MEM Cross Database Replication | Certificates & secrets

Search << Got feedback?

Overview
Quickstart
Integration assistant

Manage

Branding & properties
Authentication
Certificates & secrets
Token configuration
API permissions
Expose an API
App roles

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.

Certificates (0) **Client secrets (1)** Federated credentials (0)

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

+ New client secret

Description	Expires	Value	Secret ID
MEM CDB key	9/26/2024	mTJ	WQ6... ac4 b4e...

1.4.3.2 Grant access in Business Central

The Business Central Environment that receives/subscribe data from a publisher Environment / Database must be setup to receive data and grant access.

- Go to Multi Entity Management > Cross Database > Cross Database Setup

Home > XtensionIT ApS | App registrations >

MEM Cross Database Replication

Search << Delete Endpoints Preview features

Overview

Quickstart

Integration assistant

Manage

- Branding & properties
- Authentication
- Certificates & secrets
- Token configuration

Got a second? We would love your feedback on Microsoft identity platform (previ

Essentials

Display name : MEM Cross Database Replication

Application (client) ID : bcae9335-3040-4a2b-a4ee-fb303

Object ID : 8582cd4f-20f1-45e2-87e6-28ebe

Directory (tenant) ID : dd71932c-e885-4b61-aa3b-8c392

Supported account types : Multiple organizations

Cross Database Setup

Create AAD App.

General >

Repository >

API

API Client Id : [bcae9335-3040-4a2b-a4ee-fb303] API User : [redacted]

API Application : [redacted]

- Insert the **Application (client) ID** into the **API Client Id** field in the API section at the Cross Database Setup page.
- Go to the Azure Active Directory Applications page and create a new application with **+New**

Azure Active Directory Applications

Search + New Manage

Client ID	Description	State
[af30e371-ad4a-4097-88c1-5555e7ada96f]	Dynamics 365 Business Central for Virtual Tab...	Disabled

Dynamics 365 Business Central MEM_CrossDatabase_Subscriber

Azure Active Directory Application Card

MEM CDB Replication

Grant Consent

General

Client ID : [bcae9335-3040-4a2b-a4ee-fb303d9d0721]

Description : MEM CDB Replication

State : Disabled

Contact Information : [redacted]

Extension

App ID : [00000000-0000-0000-0000-000000000000]

App Name : [redacted]

User information

User ID : [b0d6434a-01a9-4257-85fb-0d72e6af0ca6]

User Name : MEM CDB REPLICATION

User Groups >

User Permission Sets >

- Insert the **Application (client) ID** into the **Client ID** at the Azure Active Directory Application Card

Dynamics 365 Business Central | MEM_CrossDatabase_Subscriber

Azure Active Directory Application Card | MEM CDB Replication

Grant Consent

General >

User Groups | Manage

Code ↑	Name	Company Name ↑
D365 ADMINISTRATOR	Create and set up companies	CRONUS UK Ltd.
D365 AUTOMATION	Dynamics 365 Automation	CRONUS UK Ltd.
D365 BASIC ISV	D365 Basic ISV Access	CRONUS UK Ltd.
D365 BUS PREMIUM	D365 Premium Business Access	CRONUS UK Ltd.
D365 EXTENSION MGT	Dynamics 365 Extension management	CRONUS UK Ltd.
D365 FULL ACCESS	Dynamics 365 Full access	CRONUS UK Ltd.

User Permission Sets | Manage

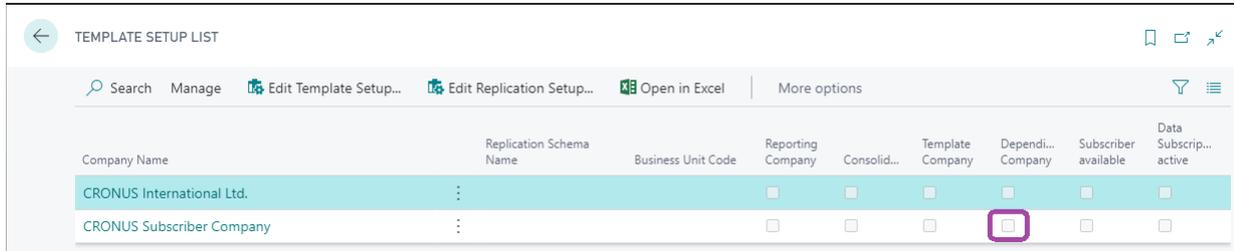
Permission Set ↑	Description	Company ↑	Extension Name	Permission Scope
XTEMEM BASE	MEM User		Multi Entity Management by XtensionIT	System
XTEMEM BASIC	MEM Basic		Multi Entity Management by XtensionIT	System
XTEMEM MDSETUP	MEM Data Manager		Multi Entity Management by XtensionIT	System

- Insert the **User Groups** and **User Permissions Sets**

User Groups	User Permissions Sets
D365 ADMINISTRATOR	XTEMEM BASE
D365 AUTOMATION	XTEMEM BASIC
D365 BASIC ISV	XTEMEM MDSETUP
D365 BUS PREMIUM	
D365 EXTENSION MGT	
D365 FULL ACCESS	

1.5 Notes on Cross Database replication

Please be aware, when using Cross Environment replication between environments through SOAP Web Services, The Subscriber Database will not be able to show which Entities that are Dependent Companies.



Company Name	Replication Schema Name	Business Unit Code	Reporting Company	Consolid...	Template Company	Depend... Company	Subscriber available	Data Subscrip... active
CRONUS International Ltd.	:		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CRONUS Subscriber Company	:		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

On the other hand, the Publisher Database, will show which if Cross Database replication is available

1.6 Troubleshooting

1.6.1 Publisher is “C/SIDE” based and the Subscriber is AL based.

- IF the Publisher Database is “C/SIDE” based and the Subscriber Database is AL based. The “Content Encoding” must be removed from Codeunit “Subscription Web Request Mgt.”

Disable the line:

```
// HttpWebRequest.Headers.Add('Content-Encoding','gzip, deflate');
```

1.6.2 Both Publisher and Subscriber are OnPrem databases.

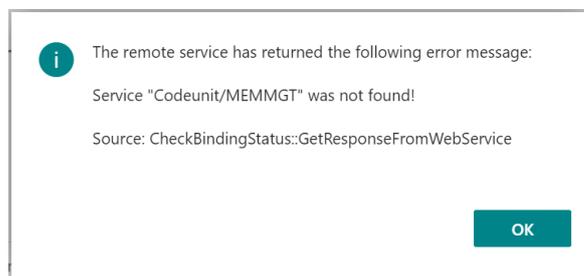
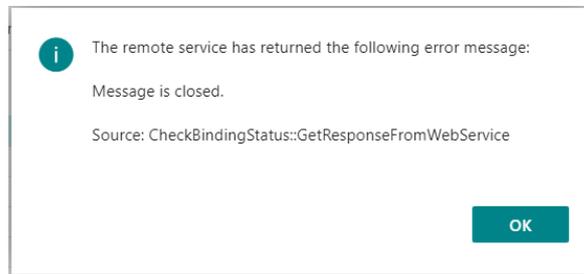
- OnPrem Databases both Publisher and Subscriber, must have the following added to “Service Tier Configuration”.
 - Set Checkmark in “Use NTLM Authentication”
 - Set the field “Max Message Size” to minimum 5120

1.6.3 The Subscriber Database is setup with “Windows Authentication”.

- Setup one Service Tier to handle all users with Windows Authentication.
- Setup another Service Tier to handle the Webservice access with NavUserPassword.

1.6.4 SOAP Exception Business Central 16

- The Cross Database Replication suddenly stop working.
 - 2 example of error messages



- Solution: Restart of the instance.

1.6.5 SOAP URL containing “default” more than once.

- The automatic created SOAP URL contains “default” more than once
 - Example of incorrect url

`http://<environment_name>-default:7047/BC/WS/DE Subscriber
Master/Codeunit/MemSubDataService?tenant=<environment_name>-default`

- Solution change the above url to

`http://<environment_name>:7047/BC/WS/DE Subscriber
Master/Codeunit/MemSubDataService?tenant=default`