

Multi Entity Management for Microsoft Dynamics Business Central

How-to Setup Cross Database replication



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Table of Contents

1.1	Set	UP GUIDE FOR CROSS DATABASE REPLICATION
1.2	SUE	SCRIBER DATABASE, REPLICATION SETUP.
	1.2.1	INITIAL SETUP2
	1.2.2	CROSS DATABASE SETUP
	1.2.3	SETUP WEB SERVICES
1.3	Set	TING UP PUBLISHER DATABASE
	1.3.1	INITIAL SETUP
	1.3.2	TEMPLATE COMPANY SETUP5
	1.3.3	CROSS DATABASE SETUP
	1.3.4	REPOSITORY LIST
	1.3.5	SUBSCRIBER COMPANIES
	1.3.6	REPLICATION SETUP9
1.4	Aut	HENTICATION METHODS
	1.4.1	BASIC OR SERVICE-TO-SERVICE AUTHENTICATION
	1.4.2	BASIC AUTHENTICATION – INITIAL SETUP
	1.4.3	SERVICE-TO-SERVICE AUTHENTICATION – INITIAL SETUP
1.5	Not	TES ON CROSS DATABASE REPLICATION
1.6	TRC	DUBLESHOOTING
	1.6.1 BASED.	PUBLISHER DATABASE IS "C/SIDE" BASED AND THE SUBSCRIBER DATABASE IS AL 20
	1.6.2	ONPREM DATABASES BOTH PUBLISHER AND SUBSCRIBER
	1.6.3 20	THE SUBSCRIBER DATABASE IS SETUP WITH "WINDOWS AUTHENTICATION".
	1.6.4	SOAP EXCEPTION BUSINESS CENTRAL 1620
	1.6.5	SOAP URL CONTAINING "DEFAULT" MORE THAN ONCE



1.1 Setup Guide for Cross Database replication.

This Guide describe how to setup Multi Entity Management to perform data replication between Companies located in separate Environments or Databases.

1.2 Subscriber Database, replication setup.

Start the setup with the dependent company in the subscriber environment/database. After the preparation, all the replication setups will be managed in the Publisher Database with the Template Company holding the Master Data.

1.2.1 Initial Setup

Start Business Central with the Role "Master Data Manager"

Edit - My Settings - LRN		2	×
Role	Master Data Manager		
Company	CRONUS Subscriber Company		

Go to "About Multi Entity Management" Page

* Create Template Setup	Data 💅 Update Permission Sets	🗒 Update License Key 🛛 🎄	Change Warning Period	
Create Template Setup	Data opdate Permission Sets	🔛 Opdate License Key 🧠	Change warning Period	
Manufacturer				
Name	XtensionIT	Country	Denmark	
Street	Jernbanegade 1, 2	E-mail	info@xtensionit.com	
City	5000 Odense C	Home Page	https://www.xtensionit.com/	
Product Version				
App-Version	5.0.1.2100	Replication status:	Enabled	
Data-Version	5.0.1.2100			

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

1.2.2 Cross Database Setup

Go to the "Cross Database Setup"



Dynamics 365 Busin	ness Central					
	CRONUS Subs	scriber Compa	ny Master	Data V Business	Rules∨ Setup Data∨ I	Posting Groups Setup \vee
	Actions + New > Ge Monitoring Check Master Data	eneral > Cha	nge Setup >	Report Selection	> Multi Entity Manageme Companies * Template Company Setup	
	Customers - Blocked	Vendors - Blocked) >	Vendors - Pay on Hold >	Resources - Blocked 	Cross Database	 ♣[®] Cross Database Setup ⊕ For Subscribers > a[*]₂, For Publishers >

• When the Page "Cross Database 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.

Create AAD App.			
General			
Publisher ID	2698a-82db-40c5-936a-a6	Publisher Description · · · · CDE	3 Subscriber Company
Repository			
Repository	1-1766 7466 4026 07da a40	Dependenci Version Ti	
Repository ID	a17b6-7ff6-423b-97de-a40	Repository Version Ti	
	a17b6-7ff6-423b-97de-a40	Repository Version Ti	
Repository ID	a17b6-7ff6-423b-97de-a40	Repository Version Ti	

• After the Page have been shown on the screen, close it again.

1.2.3 Setup Web services

• Go to the page "Web Services"

Dynamics 365 Bus	iness Central						
	CRONUS Sub	scriber Comp	any Master	Data∨ Business	Rules \lor Setup Data \lor	Posting Groups Setup \vee	System Setup \vee \mid \equiv
	Actions + New > G Monitoring	ieneral > Chi	ange Setup >	Report Selection	 Multi Entity Manageme Companies Template Company Setup 		
	Check Master Data	US Subscriber Company Master Data → Bu → General → Change Setup → Report Selec bring aster Data ters - Vendors - Pay Resources - Blocked			III Replication Schema		
	Customers - Blocked			Resources - Blocked	Cross Database	 ♣[®] Cross Database Setup ⊕ For Subscribers > 	🛱 Web Services
	>	>	>	>		For Publishers	



- At the page "Web Services" choose "Edit List".
- Add Codeunit 5397816 "XTEMEMSubscriber Data Service" to the list.
- Give the service a prober name in the field "Service Name".
- Set a Checkmark in the field "Publish"
- Add Codeunit 5397819 "XTEMEM Subscr Mgt Svc Interf" to the list and insert a prober name I the field "Service Name".
- Give the service a prober name in the field "Service Name".
- Set a Checkmark in the field "Publish"

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

mics 365 B	usiness Central								Sandbox Q	¢	¢
← Web	o Services								√ Saved		3
	Search + New		Edit List 🗎 De	elete 😂 Reload 🛛 More opti	ons					ß ·	7 1
	Object Type †		Object ID 🔻	Object Name	Service Name 1	All Tenants	Publis	OData V4 URL	SOAP URL		
\rightarrow	Codeunit	1	5397816	XTEMEMSubscriber Data Service	MemSubscriberDataService			https://go.microsoft.com/fwlink/?linkid	http://DEV-SMS-W1-193-	default:	047,
	Contracto		5307810	XTEMEM Subscr Mat Svc Interf	MemSubscriberManagement			https://go.microsoft.com/fwlink/?linkid	http://DEV_SMS_W1_193	default	047

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



1.3 Setting up Publisher Database

The next step is preparing the Publisher Database with the Template Companies to transferring Data. After the preparation the Master Data is ready for replication.

1.3.1 Initial Setup

• Start Business Central with the Role "Master Data Manager"

Edit - My Settings - LRN		2	\times
Role	Master Data Manager		
Company	CRONUS Publisher Company		

• Go to "About Multi Entity Management" Page

	, ,	agement	
Create Template Setup	Data 😽 Update Permission Sets	📕 Choose License Company	
Manufacturer			
Name	XtensionIT	Country	Denmark
Street	Jernbanegade 1, 2	E-mail	info@xtensionit.com
City · · · · · · · · · · · · · · · · · · ·	5000 Odense C	Home Page	https://www.xtensionit.com/
Product Version			
App-Version	4.0.1.1900	Data-Version	4.0.1.1900

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

1.3.2 Template Company Setup

• Go to the "Template Company Setup" and do the "Template Setup" for your Publishing Company, so it is marked as a "Template Company"



i e i i i	plate S									
Copy Ten	plate Setup									
General >										
Template F	_	anage							¢ Ø	
📑 New Lin	ne 🗦 Delete	e Line 🔤 Fields	🖧 Associated Ta	ables 🔝	Subscriber Co	mpanie	s		50	
	Table No. 1	Table Name			No. of Repl Allo	ication cations	No. of Assoc T	iated ables	Added as Associa Table	
	15	G/L Account				0		0		
\rightarrow	0					0		0		
Depender Template Set	up List] - 2	
	up List	6 Edit Template Setu	p ቤ Edit Rej	plication Setu		lore opt	ions	[3 7 ∎	
Template Set	up List Manage D	Edit Template Setu Replication Schema Name	p Do Edit Rey Business Unit Code	plication Setu Repor Comp	T	lore opt	Depen		Data	

1.3.3 Cross Database Setup

Go to the "Cross Database Setup"

mics 365 Business Central		
CRONUS Publisher Company Master Data V Business Rules V	Setup Data \lor Posting Gro	ups Setup 🗸 🦷 Syst
АСТІОNS + New > General > Change Setup > Report Selection > N	/ulti Entity Management	
Activities	Companies	
Activities	💻 📌 Template Company Setup 🔄	
Monitoring CHECK MASTER DATA	III Replication Schema	
CUSTOMERS - VENDORS - VENDORS - PA., RESOURCES -	🛢 Cross Database > 💰	Cross Database Setup
BLOCKED BLOCKED ON HOLD BLOCKED	4	For Publishers
← ⊘ + ®	✓ SAVED 🗍 🖬	2
Cross Database Setup		
General		_
Publisher ID	CRONUS Publisher Company	

• The field "Publisher Description" is filled with a proper name.



1.3.4 Repository List

• Go to the "Repository List"

cs 365 Business Cent	ral								۵
CRONUS Pub	lisher Compa	ny Master Da	ata 🗸 🛛 Business Rule:	s∨ Setup Data∨ Pos	ting (Groups Setup∨ Syster	n Setup∨	[=	=
ACTIONS									
+ New > G	eneral > Ch	ange Setup >	Report Selection	> Multi Entity Managemen	t				
Activities									
Monitoring				♣ [#] Template Company	Setup				_
CHECK MASTER DAT	TA			III Replication Schema					
CUSTOMERS -	VENDORS -	VENDORS - PA	RESOURCES -	Cross Database	>	📌 Cross Database Setup			
	BLOCKED					Ser Publishers	🗚 Subscr	iber Compa	anies
								tory List	

• Create a new CODE and Description

COSITORY CARD I WORK DATE: 1/27/202 REPLICATO1	2	+ û	√ SAVED	с /
General				
Code REPLICAT01		Hashcode · · · · ·		
Description MasterData	CrossDatabase 01	Version Timestamp		
Repository ID (0000000-	0000-0000-0000-00			

1.3.5 Subscriber Companies

• Go to the "Subscriber Companies"

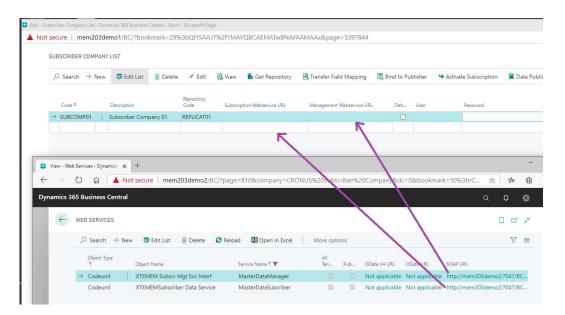
								Q	Q
CRONUS Pub	lisher Company	Master Dat	a 🗸 🛛 Business Rules 🗸	Setup Data - Po	osting (Groups Setup∨ Syste	em Setup \vee	1	=
ACTIONS									
+ New > G	eneral > Char	nge Setup > R	eport Selection >	Multi Entity Manageme	nt				
Activities				Companies					
Activities				👝 🦨 Template Compan	y Setup				
Monitoring	TA			III Replication Schem	а				
CHECK MASTER DA				Cross Database	>	* Cross Database Setup			
CHECK MASTER DA	VENDORS -	VENDORS - PA							
	VENDORS - BLOCKED	VENDORS - PA ON HOLD	RESOURCES - BLOCKED			Sor Publishers	> 📌 Subsci	iber Com	ipanie

Insert "Code", "Description" and "Repository Code"

R	Search +	New	🐯 Edit List	📋 Delete	🖍 Edit	C View	🕏 Get Repository	🖹 Transfer Field Ma
	Code î		Description		Repository Code	Subscrip	tion Webservice URL	Management Webs
\rightarrow	SUBCOMP01	:	Subscriber Com	pany 01	REPLICAT01			

 Open the Subscriber Company and find the SOAP URL's for "Subscriptions" and "Management"





Copy the values to the "Subscriber Company Line"

♀ Search +	New	🐯 Edit List	📋 Delete	🖊 Edit	🗟 View	🕏 Get Repository	🛃 Transfer Field Mapping	🖪 Bind to Pu	ublishe
Code 1		Description		Repository Code	Subscrip	tion Webservice URL	Management Webservice URL	Deb	User
SUBCOMP01	:	Subscriber Com	nany 01	REPLICAT01	http://r	nem203demo2/BC/?ru	ni http://mem203demo2/BC/	?runi	

- 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											
✓ Search	+ New	🐯 Edit List	📋 Delete	🖍 Edit	🗟 View	🕏 Get Repository	😫 Transfer Field Mapping	🔣 Bir	nd to Put	olisher	Sectivate Subscription	Data Publishing Log	6
Code 1		Description		Repository Code	Subscrip	tion Webservice URL	Management Webservice URL		Deb	User	Password		neout (ms)
SUBCOM	P01	Subscriber Com	bany 01	REPLICAT01	http://n	nem203demo2/BC/?runi	http://mem203demo2/BC/	?runi		LRN	•••••	100	0000

Run the function "Bind to Publisher"



🕏 Get Repository	🖹 Transfer Field Mapping 🛛 🔣 Bind 1	to Publisher 😏 Activate Subscriptio	n
General			
Code	SUBCOMP01	Published Mapping V	0
Description	Subscriber Company 01	Actual Mapping Versi	0
Active			
Dependend on	-		

• Run the function "Get Repository"

CATION SETUP WORK DA	ATE: 1/27/2022		+ 🗊		√ SAVED	
SUBCOMP	P01	0				
🐻 Get Repository 🛛 🖹 T	ransfer Field Mapping	Bind to Pu	blisher 🏻 🍤 Ac	tivate Subscript	ion …	
General						
Code	SUBCOMP01		Published Map	oping V		0
Description	Subscriber Company 01		Actual Mappin	g Versi		0
Active						
Dependend on					-	
Dependend on ~	i The Repository of	of the Subsci	iber Company su	ccessfully loade	ed.	
Table No. †					Custo Recor	
→ 0				0		

1.3.6 Replication Setup

- It is now time to do the Cross Database 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.



🕏 Get Repository 🛛 🗟 Transfer Field Mappin				sfer Field Mapp	ping 🛛 🔣 Bind	I to Publisher	> Activate S	ubscripti	on …		
Ge	neral										
Cod	le		SU	IBCOMP01		Publi	shed Mapping V				0
Des	cription ······		Su	bscriber Comp	bany 01	Actua	I Mapping Versi				1
Ant	ve		6								
Acti	ve										
De	pendend on										
Dep	endend on \vee										
							Template Compan	u Nama		Custom	Mappi
	Table No	t.		Table Name			1 template Compan	iy ivame	Subsc	Records	incom
\rightarrow		15	:	G/L Account			CRONUS Publis	ner Co			
Fie	ld Mapping										
-	Id Mapping										
							No	Use Def			
	d Mapping		From	Field Name	To Field No.	To Field Name			Default Va	slue	
	d Mapping From Field No.		From No.	Field Name	To Field No.	To Field Name		Def	Default Va	lue	
Field	d Mapping From Field No.						Ma	Def Value	Default Va	slue	
ielo	d Mapping From Field No. 1		No. Nam		1	No.	Ma	Def Value	Default Va	lue	

• Use the function "Transfer Field Mapping", to transfer the records to the "Subscriber Company"

SUBCOMP01 Get Repository Caracter Field Mapping Caracter Field Ma	ublisher 🤄 🌣 Activate Subscription	ŋ ····	
	ublisher 🏾 🏵 Activate Subscription	n ····	
General			
Code SUBCOMP01	Published Mapping V		0
Description Subscriber Company 01	Actual Mapping Versi		1
Active			
Dependend on			
Dependend on V The field mapping is succes company.	sfully transmitted to the subscriber		
Table No. 1		Custom Records	Mappi
lable NO. 1		INCCOLORS	incom

• Use the function "Activate Subscription" to automate the replication

TEMPLATE SETUP LIST									
🔎 Search Manage	🚯 Edit Template Setup	🚯 Edit Replication Setup	Open in Excel	More op	tions				7
Company Name		Replication Schema Name	Business Unit Code	Reporting Company	Consolid	Template Company	Dependi Company	Subscriber available	Data Subscrip. active
CRONUS International Ltd		:							
CRONUS Subscriber Comp	any								



1.4 Authentication methods.

There is different requirement to the authentication's methods used, when replicating data between 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)	Service-to-Service
	From BC version 18 or later. *)	
Business Central (SaaS)	Business Central (On premises)	Basic
	Up to BC version 17. *)	
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/devitpro/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	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/xbweZVDNnU72
Windows Authenticat.on>	
Access Control Service Autiontication >	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

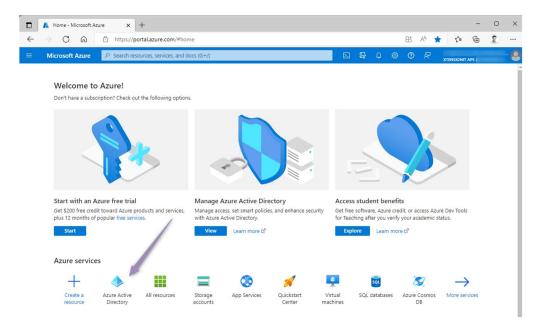
If the replication setup requires the service-to-service authentication, there are two steps to do.

- 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

Home > XtensionIT ApS XtensionIT ApS App Azure Active Directory	pregistrations 🖈 ····	×
« A Enterprise applications	+ New registration 🔀 Endpoints 🖉 Troubleshooting 🕐 Refresh 🛓 Download 🖬 Preview features 🕂 Got feedback?	
Devices App registrations	All applications Owned applications Deleted applications The provide the provided application of the pr	

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)	
O Accounts in any organizational directory (Any Azure AD directory - Multitenant) and personal Microsoft accounts (e.g. Skype, Xbox)	
O 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 (3) V https://businesscentral.dynamics.com/OAuthLanding.htm (4) V	
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, your gree to the Microsoft Platform Policies 27	
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 registr.	ations > MEM Cross Database Rep ase Replication AP		sions 🖈 …		×
₽ Search «	🕐 Refresh 🛛 🖗 Got feed	back?			
 Overview Quickstart Integration assistant Manage 		pplication need	ds. Learn more about permissions an	s/admins as part of the consent process. The list of consent	of configured permissions should
Branding & properties	API / Permissions name	Туре	Description	Admin consent req S	tatus
Authentication	∽ Microsoft Graph (1)				
📍 Certificates & secrets	User.Read	Delegated	Sign in and read user profile	No	
Token configuration API permissions	To view and manage permission	s and user cons	sent, try Enterprise applications.		
Expose an API					

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



Home > XtensionIT ApS App registrations > MEM Cross D MEM Cross Database Replication	Request AFT permissio	ns		×
Search	Select an API Microsoft APIs Commonly used Microsoft APIs Microsoft Graph Take advantage of the tre	in uses My APIs mendous amount of data in Office 365, Enterprist tune, Outlook/Exchange, OneDrive, OneNote, Sh		
Authentication Microsoft Graph	Take advantage of the Access Azure AD, Exce		/	
↑ Certificates & secrets User.Read		Dynamics 365 Business	_	
Token configuration	Azure Service Management	Central	Flow Service	
API permissions To view and manage	Programmatic access to much of the functionality available through	Programmatic access to data and functionality in Dynamics 365 Business	Embed flow templates and manage flows	
👄 Expose an API	the Azure portal	Central		
App roles				

• Select Dynamics 365 Business Central

♥ Search « Overview	🕐 Refresh 🛛 🏅	CAll APIs Dynamics 365 Business Central https://dynamics.microsoft.com/business-central/overview	w∕ Docs ⊡ ^a			
Quickstart Integration assistant	Configured perr Applications are aut include all the perm + Add a permiss	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 runs as a background service or daemon without a signed-in user.			
Branding & properties	API / Permissions	Select permissions	expand a			
Authentication Certificates & secrets	✓ Microsoft Graph User.Read	P Start typing a permission to filter these results Permission Admin consent required				
Token configuration API permissions	To view and manage	✓ Other permissions				
Expose an API App roles Owners		Access according to the application's permissions in D	Ves Ves			
Roles and administrators		API.ReadWrite.All ① Full access to web services API	Yes			
upport + Troubleshooting		V Automation				
P Troubleshooting		Automation.ReadWrite All ③ Full access to automation	Yes			

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



issions shoul
issions should
issions should
Xtensio •••

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

💉 Integration assistant	Configured permissions					
Manage			ey are granted permissions by users/adm s. Learn more about permissions and con		ist of configured permissions s	hould
Branding & properties	+ Add a permission 🗸 🤇	Trant admin cons	ant for VtoncionIT And			
Authentication						
📍 Certificates & secrets	API / Permissions name	Туре	Description	Admin consent req	Status	
Token configuration	✓ Dynamics 365 Business Cent	ral				
API permissions	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

Quickstart sche	dentials enable confidential app eme). For a higher level of assu			vice when receiving tokens at a web addressable location (using an HTTP nt secret) as a credential.
	e tificates (0) Client secre	ets (0) Federated credent	tials (0)	
Branding & properties As		on uses to prove its identity wh	hen requesting a token. Also	o can be referred to as application password.
Certificates & secrets 2	New client secret Description	Expires	Value ①	Secret ID

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



		Description	MEM CDB key
Search «	R Got feedback?	Expires	Recommended: 6 months
Overview	Credentials enable confidential applications to identify themselves		Recommended: 6 months
Quickstart	scheme). For a higher level of assurance, we recommend using a ce		3 months
Integration assistant			12 months
anage	Certificates (0) Client secrets (0) Federated credential:		18 months
Branding & properties	A secret string that the application uses to prove its identity when		24 months
Authentication	+ New client secret		Custom
Certificates & secrets			
Token configuration	Description Expires		
API permissions	No client secrets have been created for this application.		
Expose an API			
App roles			
Owners			
Roles and administrators			
Manifest			
pport + Troubleshooting			
Troubleshooting			
New support request			

- o Give the Client Secret Key a proper description
- o 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 registratio	ons > MEM Cross Database Replication				
💡 MEM Cross Databas	e Replication Certificate	s & secrets	\$		×
	🔗 Got feedback?				
Uverview					
🗳 Quickstart	Got a second to give us some feedback?	\rightarrow			×
🚀 Integration assistant					
Manage	Credentials enable confidential applications to scheme). For a higher level of assurance, we r			ice when receiving tokens at a web addressable location (u: it secret) as a credential.	ing an HTTPS
Branding & properties					
Authentication	Certificates (0) Client secrets (1) F	ederated credentials	5 (0)		
📍 Certificates & secrets	A secret string that the application uses to p	rove its identity wher	requesting a token. Also	can be referred to as application password.	
Token configuration	1				
API permissions	+ New client secret				
🙆 Expose an API	Description	Expires	Value 🛈	Secret ID	
App roles	MEM CDB key	9/26/2024	mTJ	WQ6 🗅 ac4 b	4e 🗈 🣋

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



₽ Search	« 📋 Delete 🜐 Endpoints 💀 Preview features
R Overview	Got a second? We would love your feedback on Microsoft identity platform (pre
Quickstart	
🚀 Integration assistant	
Manage	Display name : <u>MEM Cross Database Replication</u>
Branding & properties	Application (client) ID : bcae9335-3040-4a2b-a4ee-fb303
Authentication	Object ID : 8582cd4f-20f1-45e2-87e6-28ebe
Certificates & secrets	Directory (tenant) ID : dd71932c-e885-4b61-aa3b-8c392 Supported account types : <u>Multiple organizations</u>
Token configuration	supported account types - <u>montiple organizations</u>
←	
← Cross Databa	
Cross Databa	
Cross Databa	
Cross Databa @ Create AAD App. General > Repository > API	

- 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



\leftarrow	Azure Active Directory Application Card		0	B	+ 🖻	✓ Saved	z
	MEM CDB Replication						
	🖋 Grant Consent		/	1			
	General						_
	Client ID	(bcae9335-3040-4a2b-a4ee-fb303d9d0721)	-		Extension		
	Description	MEM CDB Replication			App ID	{00000000-0000-0000-0000000000000000000	 •
	State	Disabled	`	-	App Name		
	Contact Information			7	User information		
				_	User ID	{b0d6434a-01a9-4257-85fb-0d72e6af0ca6}	
					User Name	MEM CDB REPLICATION	
	User Groups >						

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



ME	M CDB Replica	ation							
	ant Consent								
Gene	eral >								_
User	Groups Manage							Ê	E2
	Code 1		Name			Com	pany Name↑		
-	D365 ADMINISTRATOR	L	Create and set up co	mpanies		CRO	NUS UK Ltd.		
	D365 AUTOMATION		Dynamics 365 Autor	nation		CRO	NUS UK Ltd.		
	D365 BASIC ISV		D365 Basic ISV Acce	is		CRO	NUS UK Ltd.		
	D365 BUS PREMIUM		D365 Premium Busin	ess Access		CRO	NUS UK Ltd.		
	D365 EXTENSION MGT		Dynamics 365 Exten	ion management		CRO	NUS UK Ltd.		
	D365 FULL ACCESS		Dynamics 365 Full ad	cess		CRO	NUS UK Ltd.		
									_
User	Permission Sets Ma	nage						Ê	2
	Permission Set 1	Description	Company 1	Exter	ision Name		Permission Scope		_
	XTEMEM BASE	MEM User		Mul	ti Entity Management by Xt	ensionIT	System		
	XTEMEM BASIC	MEM Basic		Mul	ti Entity Management by Xt	ensionIT	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 Database replication between Databases through SOAP Web Services, The Subscriber Database will not be able to show which Companies that are Dependent Companies.

TEMPLATE SETUP LIST								
🔎 Search Manage 🕏 Edit Template Setu	p 🚯 Edit Replication Setup	Open in Excel	More op	otions				Y
Company Name	Replication Schema Name	Business Unit Code	Reporting Company	Consolid	Template Company	Dependi Company	Subscriber available	Data Subscrip active
CRONUS International Ltd.	:							
CRONUS Subscriber Company	2							



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

1.6 Troubleshooting

1.6.1 Publisher Database is "C/SIDE" based and the Subscriber Database 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 OnPrem Databases both Publisher and Subscriber.

- OnPrem Databases both Publisher and Subscriber, must have the following added to "Service Tier Configuration".
 - o 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



1

I	The remote service has returned the following error message: Message is closed.
	Source: CheckBindingStatus::GetResponseFromWebService
	ОК
	The remote service has returned the following error message:
U	The remote service has returned the following error message: Service "Codeunit/MEMMGT" was not found!
U	
J	Service "Codeunit/MEMMGT" was not found!

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

• Solution change the above url to

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