

Dual Write – Configuration Management

Dynamics 365 FastTrack
Architecture Insights

Vetrivel Chandranath, Senior Solution Architect
Harish Jayaprakash, Solution Architect



Agenda

-
- Overview
 - Key Considerations
 - Configuration Scenarios

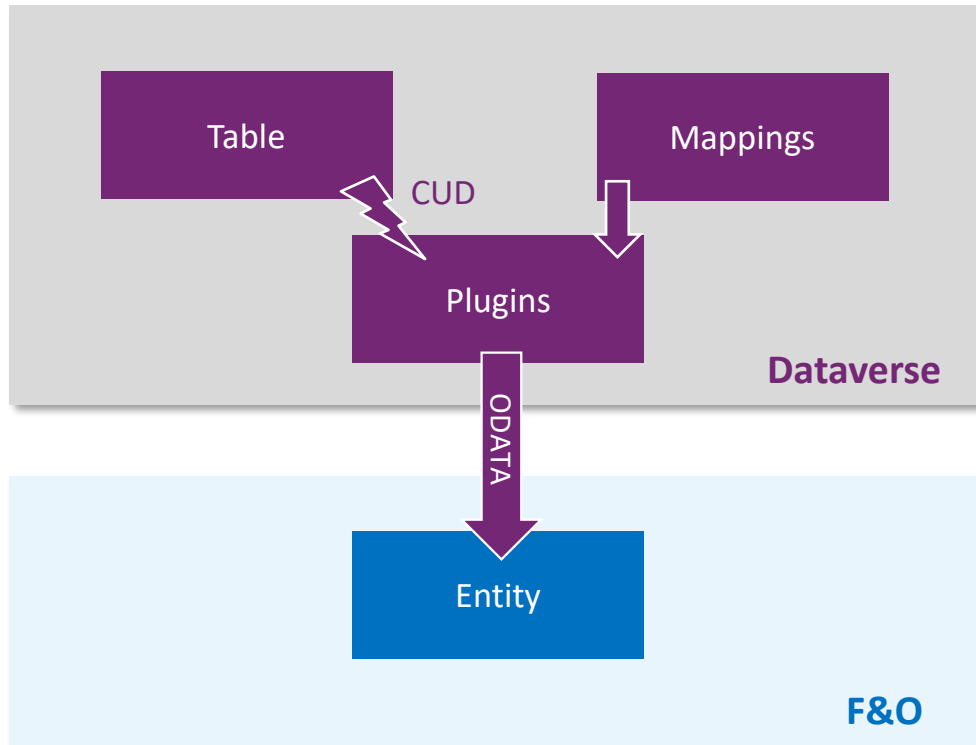
 - Q&A



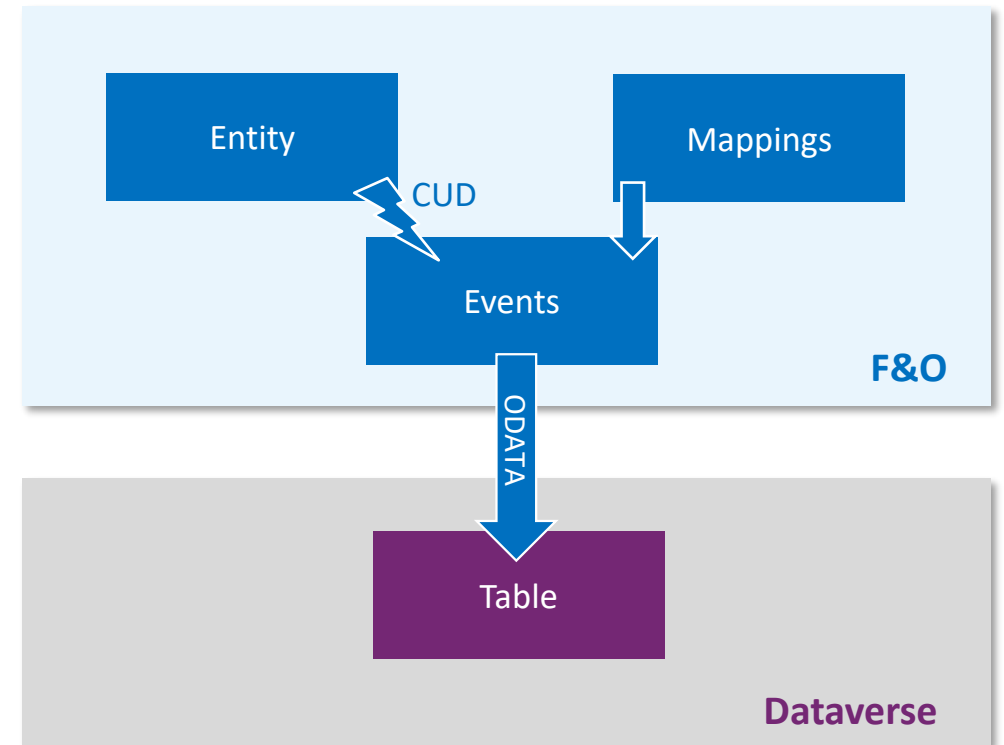
Dual write overview

Architecture

Dataverse → F&O



F&O → Dataverse



Dual Write has 2 aspects – Infrastructure & Application



System requirements and prerequisites

What regions are available?

Currently, we support Dual-write in the following regions:

- Asia
- Australia
- Brazil
- Canada
- Europe
- France
- India
- Japan
- South America
- Switzerland
- United Arab Emirates
- United Kingdom
- United States

Verify requirements and grant access

Before you enable dual-write, follow these steps to make sure that you meet the minimum system requirements and to grant access to the apps that must connect to each other. The dual-write health check validates the prerequisites as you complete the dual-write wizard to link a Finance and Operations app environment to a Dataverse environment.

You must set **Enable Dynamics 365 apps** to **Yes** when you set up the environment, as shown in the following image. Alternatively, you can choose a model-driven app for Dynamics 365 environment that comes with Dataverse and already has **Enable Dynamics 365 apps** set to **Yes**.

← Add database ×

Language *

Default language for user interfaces in this environment

English ▾

URL *

crm.dynamics.com

Currency *

Reports will use this currency

USD (\$) ▾

Enable Dynamics 365 apps

In addition to Power Apps. [Learn more](#)

☒ Yes

Deploy sample apps and data

☐ No



Key considerations

Dual-write linking environments

- **Option 1** - Enable Power Platform integration with a new Dataverse instance from Lifecycle services (LCS)

[[Dual-write setup from Lifecycle Services - Finance & Operations | Dynamics 365 | Microsoft Docs](#)]

- During environment deployment
- After environment deployment

- **Option 2** - Set up Dual-write for an existing Dataverse environment from Lifecycle services [[Documentation](#)]

This option requires a support ticket. It is a mid-term workaround until LCS / Power Platform Admin Console (PPAC) allows this as a self-service

- **Option 3** - Set up dual-write for an existing Dataverse environment from Dual-write wizard [[Documentation](#)]

Note: Option 3 – Linking environments by using the Dual-write wizard will be deprecated in the future, and it will be replaced by using Lifecycle services/Power Platform Admin Console.

Deployment settings

- Visual Studio Customization >
- Supported version >
- Customize SQL Database Configuration >
- Disk space configuration >
- Premium Storage Settings >
- Managed Disk Settings >
- Customize virtual machine names >
- Power Platform Integration >**
- Dynamics 365 for Finance and Operations >
- Customize virtual network >

Configure Power Platform Environment

☒ Yes

Power Platform template

Dynamics 365 stand... ▾

Environment Type

Sandbox ▾

I agree by selecting the template 'Dynamics 365 standard' that this Finance and Operations environment will be connected to a Power Platform environment with Dataverse. Platform solutions for Dual-write and Virtual Entities will also be installed but not enabled. Data will not be written via Dual-write to the Power Platform environment by default, but can be configured to do so as part of a later step.

By selecting any template other than the one mentioned above, data will be synchronized via Dual-write functionality by default.

The available template options vary based on the licenses for the tenant which owns this LCS project.

☒ Agree

Limitations for Consideration

- You can't run dual-write and the [Prospect to cash solution](#) for Data integrator side by side.
- Dual-write setup is not supported on trial instances of Finance and Operations apps.
- Dual-write must be used to integrate a single Finance and Operations app instance and a single customer engagement app instance.
- Dual-write currently has an initial synchronization limit of 40 legal entities and live synchronization limit of 250 legal entities.
- Dual-write does not support [cross-company data sharing](#).
- Dual-write requires that the Finance and Operations app and the customer engagement app must be in the **same** Microsoft Azure Active Directory (**Azure AD**) **tenant** and **Same Data center**.
- Dual-write is not triggered by the **doInsert**, **doUpdate**, and **doDelete** events of Finance and Operations apps. Use the **Insert**, **Update**, and **Delete** events in Finance and Operations apps when you want to trigger dual-write.

Config Scenarios



Supported Config Scenario

- [A new Finance and Operations app instance and a new customer engagement app instance](#)
- [A new Finance and Operations app instance and an existing customer engagement app instance](#)
- [A new Finance and Operations app instance that has data and a new customer engagement app instance](#)
- [A new Finance and Operations app instance that has data and an existing customer engagement app instance](#)
- [An existing Finance and Operations app instance and a new customer engagement app instance](#)
- [An existing Finance and Operations app instance and an existing customer engagement app instance](#)

Scenario 1 : New F&O instance and a new CE

Follow the steps in [Dual-write setup from Lifecycle Services](#). When the connection setup is completed, the following actions automatically occur:

- A new, empty Finance and Operations environment is provisioned.
- A new, empty instance of a customer engagement app is provisioned, where the CE prime solution is installed.
- A dual-write connection is established for DAT company data.
- Table maps are enabled for live synchronization.
- Both environments are then ready for live data synchronization.

Scenario 2 : New F&O instance and an Existing CE

- Follow the steps as mentioned in Scenario 1
- To sync the existing Dataverse data to the Finance and Operations app, follow these steps.
 1. Create a new company in the Finance and Operations app.
 2. Add the company to the dual-write connection setup.
 3. [Bootstrap](#) the Dataverse data by using a three-letter International Organization for Standardization (ISO) company code.
 4. Run the **Initial sync** functionality for the tables that you want to sync data for.

Scenario 3: New F&O instance with data and a new CE

- Follow the steps as mentioned in Scenario 1
- Once the connection setup is complete, if you want to sync the data to the customer engagement app, follow these steps.
 1. Open the Finance and Operations app from the LCS page, sign in, and then go to **Data Management > Dual-write**.
 2. Run the **Initial sync** functionality for the tables that you want to sync data for.

You need to consider the alternative approach of importing data in CE externally (using DM tool) if the data volume for Initial sync is high. Refer [initial-sync-guidance](#) for initial sync considerations

Scenario 4: New F&O instance with Data and an Existing CE

- Follow the steps as mentioned in Scenario 1
- When the connection setup is completed, if you want to sync the data to the customer engagement app, follow these steps.
 1. Open the Finance and Operations app from the LCS page, sign in, and then go to **Data Management > Dual-write**.
 2. Run the **Initial sync** functionality for the tables that you want to sync data for.
- To sync the existing Dataverse data to the Finance and Operations app, follow these steps.
 1. Create a new company in the Finance and Operations app.
 2. Add the company to the dual-write connection setup.
 3. [Bootstrap](#) the Dataverse data by using a three-letter ISO company code.
 4. Run the **Initial sync** functionality for the tables that you want to sync data for.

Scenario 5: Existing F&O instance and New CE

- The setup of a dual-write connection between an existing instance of a Finance and Operations app and a new instance of a customer engagement app occurs in the Finance and Operation environment.
 1. [Set up the connection from the Finance and Operations app.](#)
 2. Run the **Initial sync** functionality for the tables that you want to sync data for

Scenario 6: Existing F&O instance and an Existing CE

- The setup of a dual-write connection between an existing instance of a Finance and Operations app and an existing instance of a customer engagement app occurs in the Finance and Operations environment.
 1. [Set up the connection from the Finance and Operations app.](#)
 2. You need to raise a support ticket to Set up dual-write for an existing Dataverse environment.
<https://docs.microsoft.com/en-us/dynamics365/fin-ops-core/dev-itpro/data-entities/dual-write/lcs-setup#set-up-dual-write-for-an-existing-dataverse-environment>
 3. To sync the existing Dataverse data to the Finance and Operations app, [bootstrap](#) the Dataverse data by using a three-letter ISO company code.
 4. Run the **Initial sync** functionality for the tables that you want to sync data for.

DO's and DON'Ts to choose Dual write

DO's

- ✓ Use Dual write if business scenario requires data to be present in both apps and data is expected by the business process/logic in both apps.
- ✓ Suitable to harmonize the apps concept and execute End2End business processes using both apps.
- ✓ Consider the Dataverse API limits
- ✓ Consider multiplexing and order-line SKU requirements
- ✓ Consider the Dataverse database size and procure add-ons if needed

DON'Ts

- × Use Dual write to duplicate data where business logic is only needed in one of the apps.
- × Use Dual write only to enable Power Platform capabilities and user experience.
- × Use Dual write to replicate volatile or transactional data e.g., retail transactions, on-hand inventory etc.
- × Use Dual write during or for data migration

Dynamics 365 Cross-apps Virtual Workshops

Register [here](#) to watch on recording for below workshops:

1. Cross-apps overview
2. Solution design
3. Implementation guidance
4. Technical

Resources

Dual-write home page

<https://docs.microsoft.com/en-us/dynamics365/fin-ops-core/dev-itpro/data-entities/dual-write/dual-write-home-page>

System requirements and prerequisites

<https://docs.microsoft.com/en-us/dynamics365/fin-ops-core/dev-itpro/data-entities/dual-write/requirements-and-prerequisites>

Application lifecycle management

<https://docs.microsoft.com/en-us/dynamics365/fin-ops-core/dev-itpro/data-entities/dual-write/app-lifecycle-management>

Dual write FAQ

[Dual-write FAQ - Finance & Operations | Dynamics 365 | Microsoft Docs](#)

Thank you

