

# Data Migration and Dual-write - Dynamics 365 Apps

Vince Angeloni  
Andreea Bunduc  
Ajay Jaiswal



# Agenda

- Data migration strategy – introduction
- Approaches for data migration
- Considerations for the different approaches
- Patterns and anti-patterns
- Scenarios
- Q&A

# Data Migration Strategy



## Data preparation

What, Who, When, How



## Roles and responsibilities

Defined for all elements of data migration



## Approach

Who, what is the source, what data, acceptance criteria?



## Defect triage, fix and re-execute

Define the defect identification, fixing and the iterative execution of data migration



## Data management tools

Data management framework, LCS, ADF, Dual-write initial sync, ...



## Validation


Visual inspection, record count, comparison of reports between source & target, functional testing of critical scenarios etc.

# Approaches for Data Migration

- Initial synchronization.
- Data migration in parallel, separated data migration flows for F&O and CE.
- Data migration with dual-write enabled, load data in one app and with DW synch data in the other app.
- Hybrid (most common), combination of the above ones.

# Considerations

# Considerations For Initial Synchronization

- It is not a replacement for a thorough data migration exercise 
- Data must be loaded in one app (F&O or CE) first.
- Initial synch is leveraged to bring that data into the other app
- The correct sequence needs to be defined and applied to the Initial synch strategy
- Intended mostly for configuration data or low volume master data (see guidance matrix [Considerations for initial synchronization - Finance & Operations | Dynamics 365 | Microsoft Learn](#))
- It can only happen after the data has been loaded in one app, which means longer duration in total (it cannot be parallel)
- Initial synch only copies data which is applicable to both apps (fields/ columns included in the table maps); data specific to only one app must be initialized with a dedicated data flow
- Limitation legal entities number, 40 is limit (It will be removed in the upcoming releases)

# Considerations For Data migration In Parallel

- Recommended for high volumes of data
- Requires data migration in both apps, as such data migration tasks are applicable to both (separate tools, data migration optimizations specific to each app, etc.)
- Pay attention to the sequence of data, consider dependencies
- The team needs to ensure the data alignment
  - Tip: Evaluate the standard DW maps and ensure that all the tables & entities leveraged there are covered by the data migration exercise
- Initial synch needs to be skipped

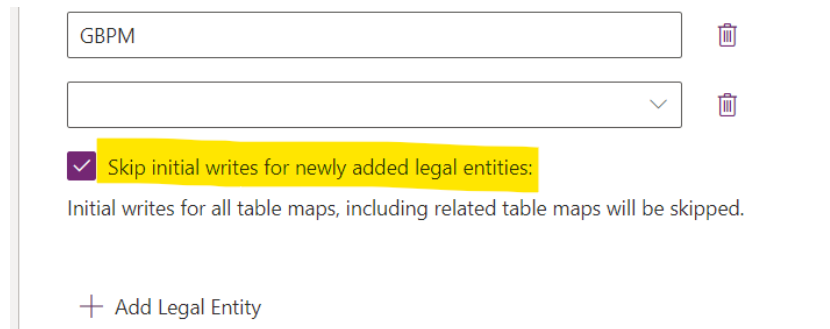
# Considerations For Data migration with dual-write maps Enabled

- Similar considerations as Initial synch (applicability, starting app, etc)
- Has performance implications
- Roadmap: Async processing mode included in the upcoming releases





# Considerations For Adding New Legal Entities Post Go-Live

- Recommendation: Try to add **all** legal entities already at go-live
- When a new legal entity is added, if initial synch is not skipped, all running maps will be considered
- The point above can lead into performance issues. *Skip initial writes for newly added legal entities* should be considered



The screenshot shows a user interface for managing legal entities. It features a list of entities, each with a text input field and a trash icon to its right. The first entity is labeled 'GBPM'. The second entity's name is obscured by a yellow highlight. Below the list, there is a checkbox labeled 'Skip initial writes for newly added legal entities:' which is checked. A descriptive text below the checkbox states: 'Initial writes for all table maps, including related table maps will be skipped.' At the bottom of the interface is a button labeled '+ Add Legal Entity'.

GBPM	
<div> </div>	

☒ Skip initial writes for newly added legal entities:  
Initial writes for all table maps, including related table maps will be skipped.

[+ Add Legal Entity](#)

- Consider the 40 legal entity limit (It will be removed in the upcoming releases)

# Patterns & anti-patterns

# Patterns

- All the approaches can be used together, for example:
  - load configuration data and leverage initial sync
  - load high-volume data in the individual apps
- Before deciding for one pattern or the other, ensure enough information is available to take an informed decision (volumes, type of data, optimization paths, etc.)
- Consider the design of the standard framework and that some entities must be populated through dual-write (they are blocked from direct input). One example is mdm\_company.
- Keep up with the roadmap, as significant changes are coming to the dual-write space. Join this Yammer group: [\(346\) Yammer : Dynamics 365 and Power Platform Preview Programs : Dual-Write : New Conversations](#)

# Anti-patterns

- Do not consider initial synch as the default mechanism to meet your data migration needs. It is a tool which must be evaluated, similar to other tools available for data migration.
- Thinks about your Dynamics 365 apps as one solution. Your data migration strategy needs to reflect that.
- Do not implement complex customizations to replace dual-write or to do data migration without evaluating the out of the box capabilities and the roadmap.



Scenarios

# Customers

- Scenario: The project team needs to upload 2 milion customer records in a new Dynamics 365 SCM instance connected with a new Dynamics 365 Sales. One single legal entity is in scope.
  - Suggested approach\*:
    - Ensure that the Power Platform Integration is configured with the correct legal entity enabled
    - Import configuration data in Dynamics 365 SCM, **as necessary, based on dependencies**. Some examples: Customer groups, Sales tax groups, Terms of payment, etc.
    - Enable the dual-write maps with initial synch, **if volumes within reasonable limits**, for the configuration data to flow to Dynamics 365 Sales
    - Import customer account records in Dynamics 365 SCM and account records in Dynamics 365 Sales in paralel, by leveraging the tools available (DMF, Data import wizard, etc.). Look for performance optimization in your data migration process.
    - Enable the Customers V3 (accounts) map, without running the initial synch.
- \*Can vary between projects

# Products

- Scenario: The project team needs to migrate around 10000 released product records and related records in all their 3 legal entities. Refer to [Unified product experience - Finance & Operations | Dynamics 365 | Microsoft Learn](#) to review the Products and related mappings
  - Based on the [Guidance matrix](#) the suggested approach is initial-synch\*:
    - Migrate all the products and related data in D365 SCM first, by leveraging the tools available (DMF, Data import Wizard, etc.). Look for performance optimization in your data migration process.
    - Activate Dual-write table maps selecting show related table maps with set the initial synchronization and selecting D365 Finance & Operation app as Master
- \*Can vary between projects

Q&A





Thank you!