

Dynamics data in Synapse Link for Dataverse

- Transitioning from Export to Data Lake to Synapse Link

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This is a series of TechTalks...

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1. Synapse Link for Dataverse overview
 2. **Architecture patterns and virtual data warehousing**
Explore patterns and get started with virtual data warehousing using Synapse Link.
 3. **Explore Cloud Data Warehousing** and ingesting data from lake to cloud MPP warehouse, transforming data using TSQL, and incremental data ingestion.
 4. **Explore Lakehouse architecture**, reading and transforming data using spark notebooks.



Today

Agenda

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1. What is Synapse Link for Dataverse
 2. Dynamics | Dataverse links to Microsoft Fabric
 3. Transition roadmap
 4. Call to Action
 5. Links to Resources & patterns

1

Synapse Link for Dataverse

One experience to integrate all Dynamics 365 data for analytics

Dataverse is a low code data platform for building Apps

Unified SaaS platform that manages data & logic for Dynamics 365 and Power platform



Dynamics 365
Intelligent Business Apps



Power BI
Business analytics



Power Apps
Application development



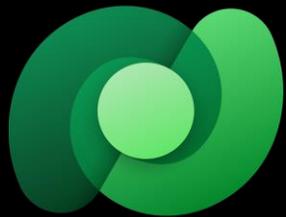
Power Automate
Workflow automation



Power Virtual Agents
Intelligent virtual agents



Power Pages
Webpage development



Dataverse

Business Logic

Jobs Plugins Business Rules Power Fx

Intelligence + Analytics

Synapse Link Reporting Duplicate Detection Business Q&A Rollups

Integration

Business Events M365 Loops Dataflows

App + Data Lifecycle

Retention Policies Azure DevOps GitHub

Data Storage

Files & Blobs Relational Semi Structured Logs Search Indexes Connectors

Security + Governance

Authentication Authorization RBAC Auditing Customer Managed Key Private Link

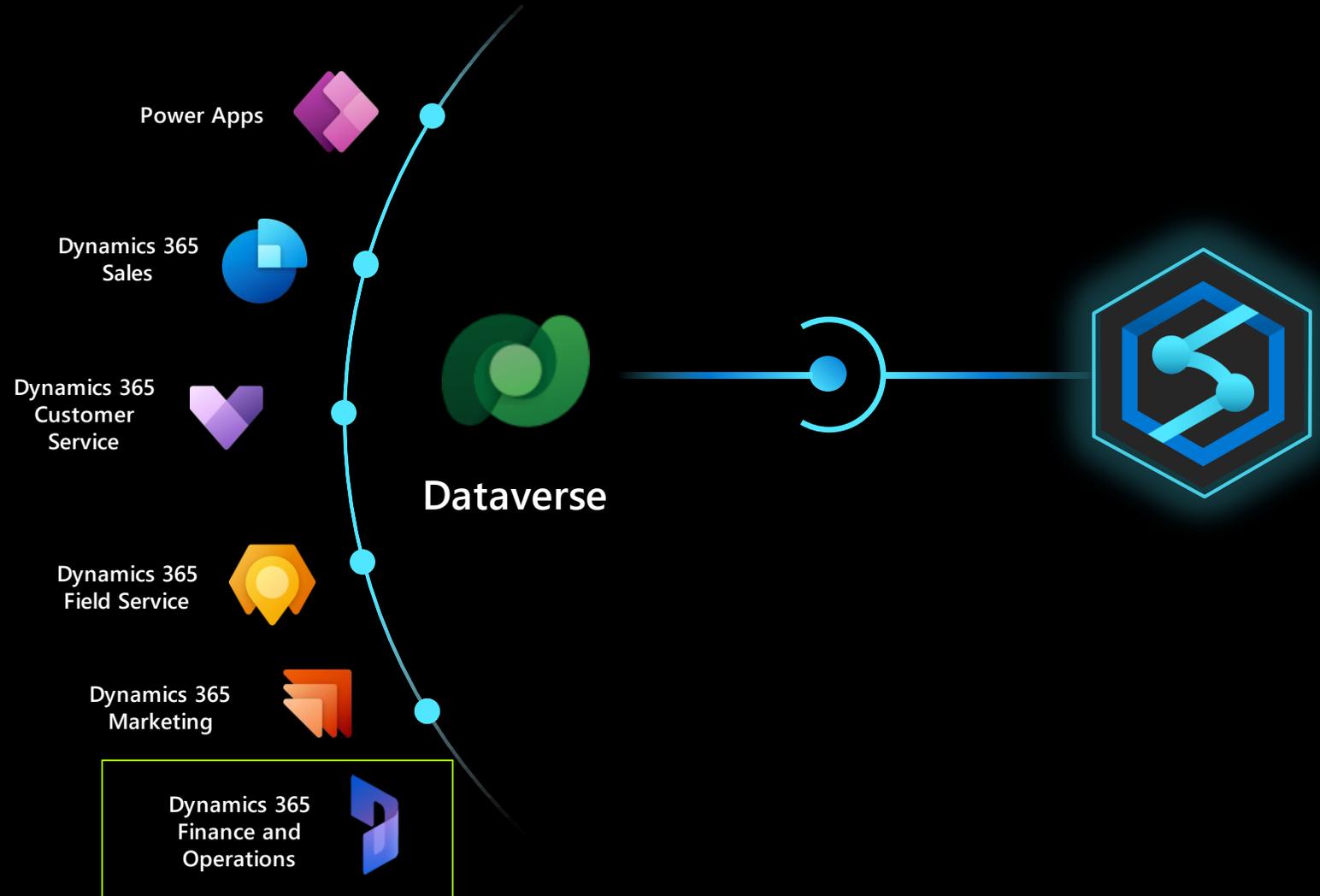
Generally Available

Synapse Link for Dataverse

One-click export of Dataverse data into Synapse for analytics

Continuous replication of standard and custom tables to Azure Synapse Analytics

Now supports F&O Tables & Entities



Demo: FnO data in Synapse Link

2

Dataverse Link to Microsoft Fabric

Two-way integration with Microsoft Fabric brings AI driven insights to business data in Dynamics 365 and Power Apps



Microsoft Fabric

Data analytics for the era of AI



Data
Factory



Synapse Data
Engineering



Synapse Data
Science



Synapse Data
Warehouse



Synapse Real
Time Analytics



Power BI



Data
Activator



OneLake

Dynamics 365, Power Platform & Microsoft Fabric : Better Together

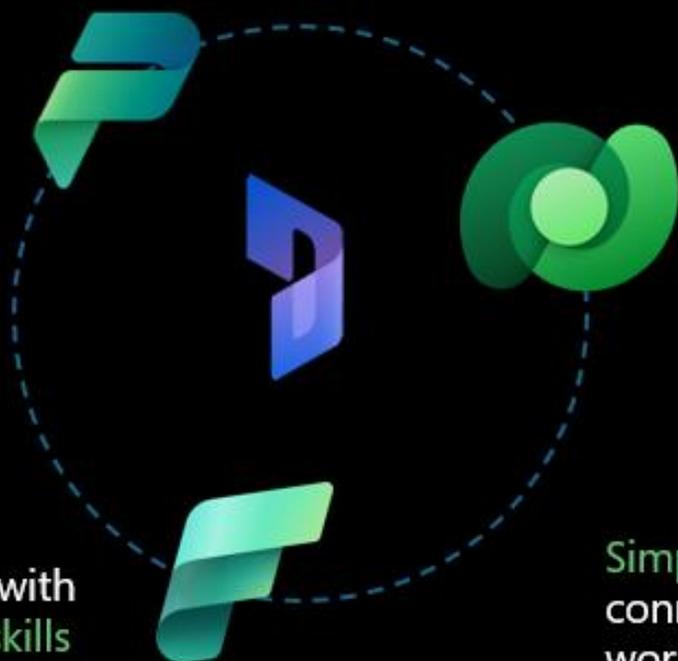
Ask questions, talk to your Apps & data with conversational AI

Empower your people to do more with Low code apps and automations

Repeatable success with enterprise scale and life cycle support for your Low & No code apps

Infuse Low code community with Data analyst, Data wrangler skills

Simplify data integration, securely connect your business data with world's data



3

Transition

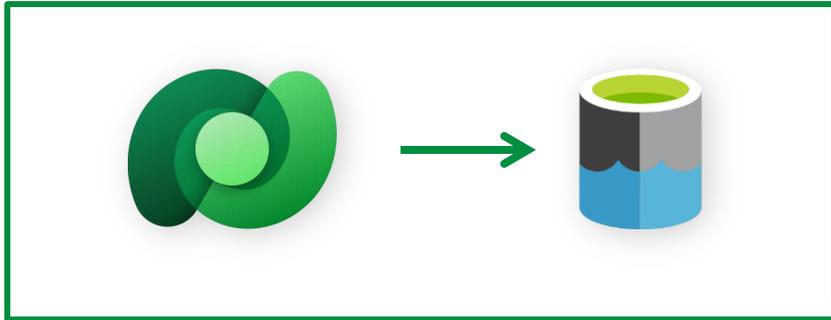
Upgrade to Synapse Link

Business benefits

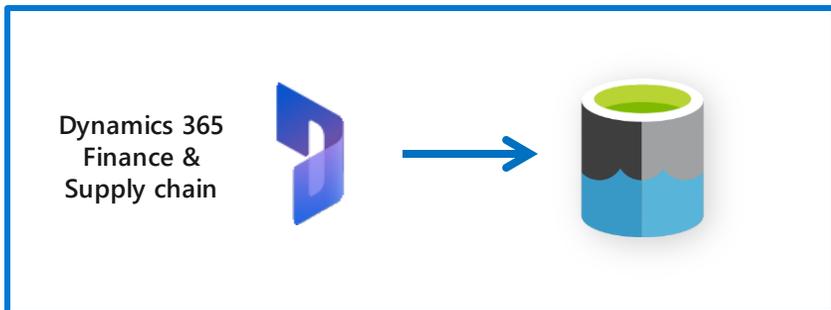
Expected effort and timelines

Previously : Synapse Link & Export to Data Lake

Synapse Link for Dataverse



Export to Data lake



Synapse Analytics helps working with data using SQL and other tools



Power BI for data visualization and story telling

One experience to integrate all Dynamics data for Analytics

Synapse Link for Dataverse



One experience to integrate all your data for Analytics



Synapse Analytics helps working with data using SQL and other tools



Power BI for data visualization and story telling

This is an evolution and unification of our approach across Dynamics products

Unlock AI driven insights and action with Link to Fabric

Dataverse Link to Fabric



One experience to integrate all your data for Analytics



Microsoft Fabric combines Synapse Analytics, Power BI and more into a single, unified experience on the cloud

Upgrading to Synapse Link provides a path to innovations in Microsoft Fabric

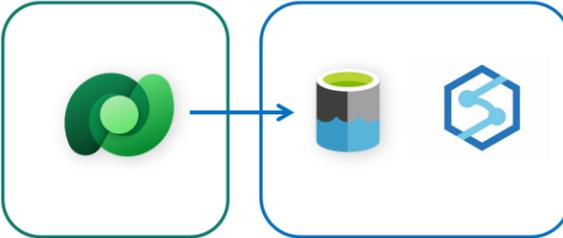
Extend your investments to AI driven insights & action

This is an evolution and unification of our approach across all Dynamics products

Legacy data integration services

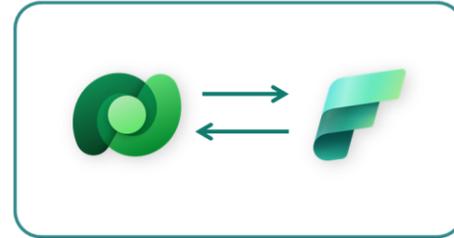
- Data Export Service (DES)
- Bring your own DB (BYOD)
- Export to Data Lake

Synapse Link for Dataverse



Generally available

Link to Microsoft Fabric



In public preview

Upgrade to Synapse Link*

Low code insights & action

Simplify data integration &
Reduce total cost of ownership

Data shapes remain the same –
no need to re-build

No-ETL, no-copy, two-way
integration enables Low code makers

AI driven insights & action with built-
in Copilots

* Existing customers have until 1-Nov-2024 to transition from Export to Data lake to Synapse Link. We advise new customers to use Synapse Link

Extend your investments by upgrading to Synapse Link

This is an evolution and unification of our approach across all Dynamics products

Extend your existing investments

- Same data shapes
- Minimal changes to existing pipelines

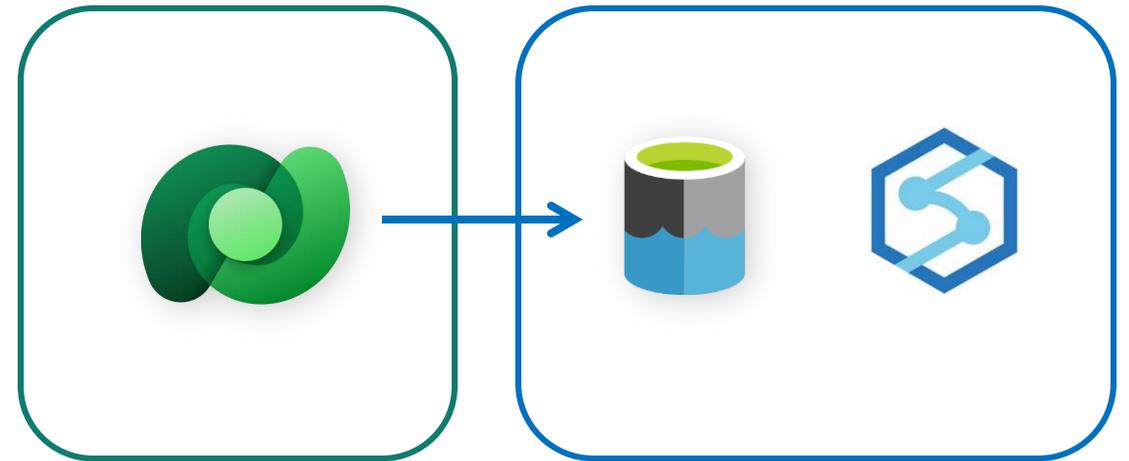
Reduce operational costs

- Easy to configure and manage
- Built-in integration with Synapse and Microsoft Fabric
- No impact to operational workloads

Efficient reporting with Delta/ Parquet

- Near real time operational reporting
- Faster queries & reports, smaller files

Synapse Link for Dataverse



Continuous export to Data lake enables easier integration for IT admins and Data engineers

What are the benefits – deep dive

Area	What is changing	Effort	Value add
Admin and setup experience	LCS to Power platform maker portal for setup and add tables	Admin user training	Data from <u>all Dynamics apps</u> available in a simple experience
Tables available to use	Tables must have row version change tracking enabled Common OOB already enabled	One-time small X++ effort to extend missing OOB or custom tables	# of table limit is not applicable Default support for large memo fields
Change tracking mechanisms	CDC to Row version change tracking	No effort	Lower impact on operational database Full refresh is not needed to recover from failure/Database failovers/ movements
Integration with Synapse and Microsoft Fabric	No need of CDMUtil	Saved effort	Configures & connects Synapse workspace and Microsoft Fabric
Data format	Data format changes from CSV to delta lake BYOL – Customer Synapse Spark for delta conversion	No effort	Faster queries, smaller files, no update conflicts Integrated with Microsoft Fabric data platform for the age of AI
Data transformation/ETL	Adapt to any small audit field changes in ETL and data locations as applicable	Low effort to adapt	
Incremental data Integration	Adapt to Synapse link folder structure and audit fields and incremental logic	Low effort – adjusting the incremental pipelines to new Fasttrack guidance and sample available	Simpler logic to process full and incremental data with single pipeline
BI & Reporting	No change expected		

Empower your people to do more with data

No data copy, no ETL, no third-party tools

- Data stays in Dataverse – secure access in Fabric
- No need to bring storage - uses DV storage

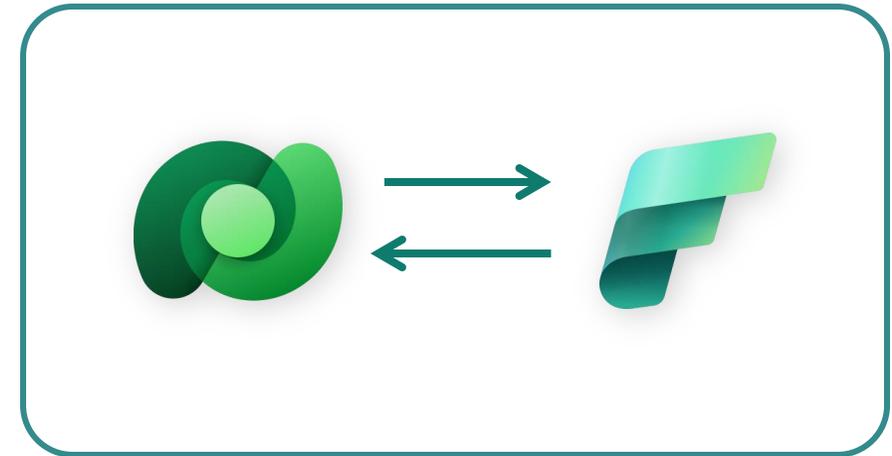
Upskill your Low code users to do more with data

- Easy to configure and manage
- Build PowerApps and act on insights from Fabric
- No impact to operational workloads

Talk to your data, ask questions with conversational AI

- Help from Copilots in Microsoft Fabric to get work done faster
- Bring back insights from Fabric and build PowerApps

Link to Microsoft Fabric



No copy, No ETL, two-way integration enables Low code users to do more with data

Upgrade to Synapse Link: Total cost of ownership

A cost comparison for Operational reporting with near-real time reporting*

	Export to data lake	Synapse Link for Dataverse
Start-up & configuration <ul style="list-style-type: none"> - Additional software licenses - System configuration - Data migration/initialization - Development and validation 		Simpler configuration experience
Operating Costs - Data integration <ul style="list-style-type: none"> - Azure storage staging area - Data pipelines - Data ingestion into SQL or Dwh - Development/ maintenance 	Azure storage Synapse Analytics (SQL query) Data Factory jobs SQL or Data warehouse storage Mts. of data pipelines	Azure storage costs - ~60% less due Synapse analytics (spark) - +\$300-\$3,000 mo*
Operating Costs – Reporting <ul style="list-style-type: none"> - Power BI datasets - Reporting 	Synapse analytics (SQL Query) Power BI capacity	

Operational reporting cost comparison

	Export to data lake (CSV)	Synapse Link for Dataverse (Delta)
Data storage	Total DB – 615 GB Varies by table, ex. INVENTTRANS: 1.3GB	Total: 98 GB (6x compression) INVENTTRANS: 360MB (6x compression)
Operating Costs – data integration	Data Factory jobs SQL or Data warehouse storage Mts. of data pipelines	Synapse analytics (spark) - +\$300-\$3,000 mo*
Operating Costs – Query and reporting	Synapse query - \$10,630 /month (1)	Synapse query - \$ 1,701 /month (2) (6x reduction)

NOTE 1: Synapse Query charges based on total data processed, which in this case was 2,126 TB (@\$5/TB)

NOTE 2: 10x query cost reduction due to

1. 10x data compression
2. Delta/parquet format is more efficient Partition elimination

Demo: Explore cost reductions

4

Call to Action

Plan to transition

Learn more from community and Microsoft Team

Frequently Asked Questions

Call to Action

1. Learning

- a. Learn about the upgrade and improvements (this deck)
- b. Configure a test environment and give it a try
- c. Review patterns and transition guidance <https://aka.ms/TransitionToSynapseLink>
- d. Join the community <https://aka.ms/SynapseLinkforDynamics>

2. Plan transition

- a. If you are using Export to data lake – plan for transition
- b. If you are planning to go live soon – adopt Synapse Link from start

3. Realize benefits of transition

- a. Simplify reporting with Delta
- b. Optimize your architecture with Microsoft Fabric

Resources

Documentation

- Synapse Link
 - [Azure Synapse Link - Power Apps | Microsoft Learn](#)
 - [Create an Azure Synapse Link for Dataverse with your Azure Synapse Workspace - Power Apps | Microsoft Learn](#)
 - [Export Microsoft Dataverse data in Delta Lake format - Power Apps | Microsoft Learn](#)
 - [Choose finance and operations data in Azure Synapse Link for Dataverse - Power Apps | Microsoft Learn](#)
 - [Use managed identities for Azure with your Azure data lake storage - Power Apps | Microsoft Learn](#)
- Microsoft Fabric
 - [Dataverse direct integration with Microsoft Fabric - Power Apps | Microsoft Learn](#)
 - [Microsoft Fabric documentation - Microsoft Fabric | Microsoft Learn](#)
- **Yammer group**
 - [Viva Engage- Synapse Link for Dynamics](#)

Video

- Dataverse
 - [Dynamics 365 Bites - Synapse Link for finance and operations apps - Getting started \(preview\) | August 2023](#)
 - [\(2747\) Build 2023: Dataverse integration for Microsoft Fabric - YouTube](#)
- Microsoft Fabric
 - [\(2747\) Microsoft Fabric: Satya Nadella at Microsoft Build 2023 – YouTube](#)
 - [Microsoft Fabric Launch Digital Event \(Day 1\) – YouTube](#)



Thank you!
See you at the next episode