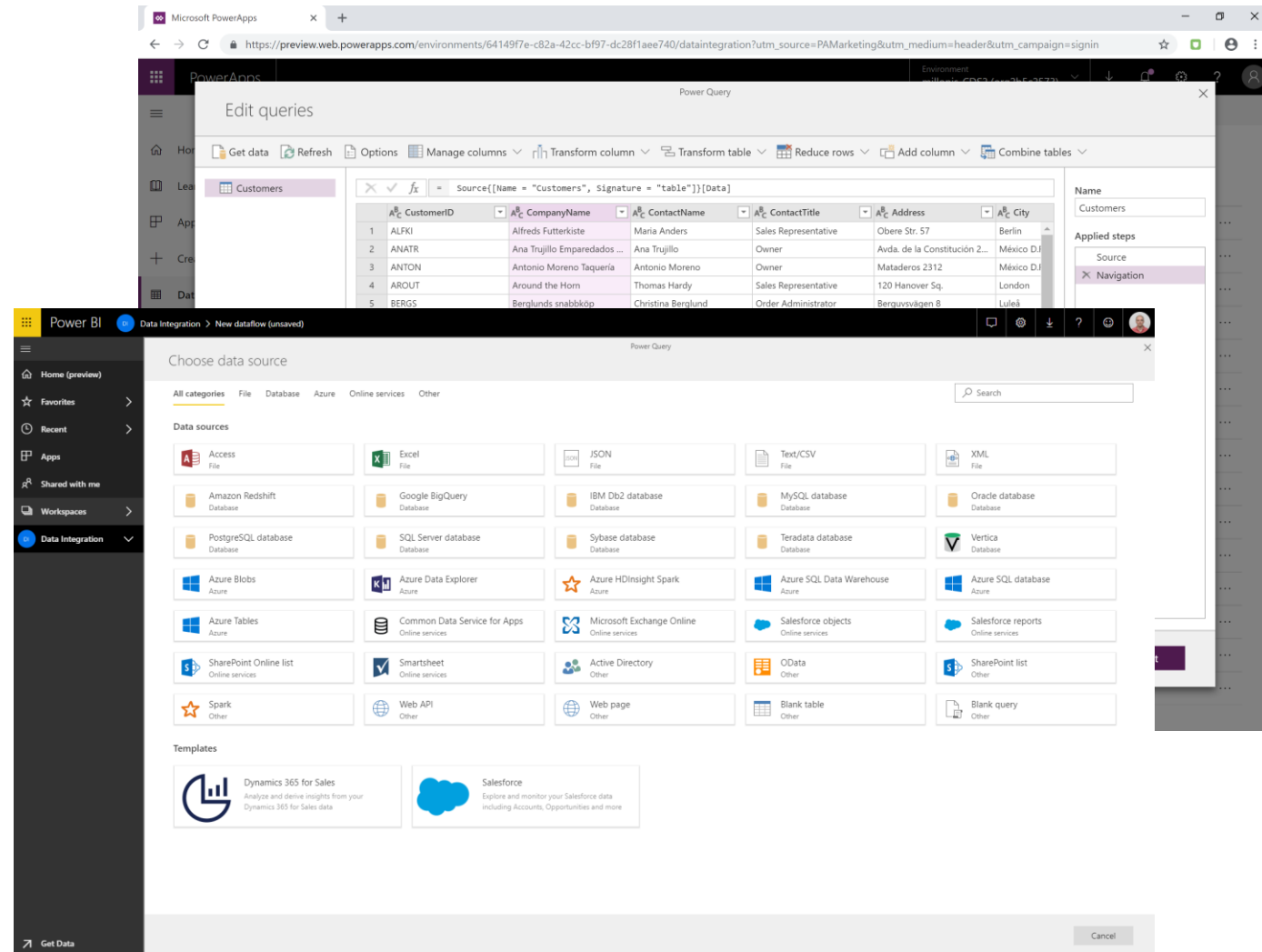


# CDM in Dataflows

Power Apps and Power BI

# Dataflows use Power Query Online

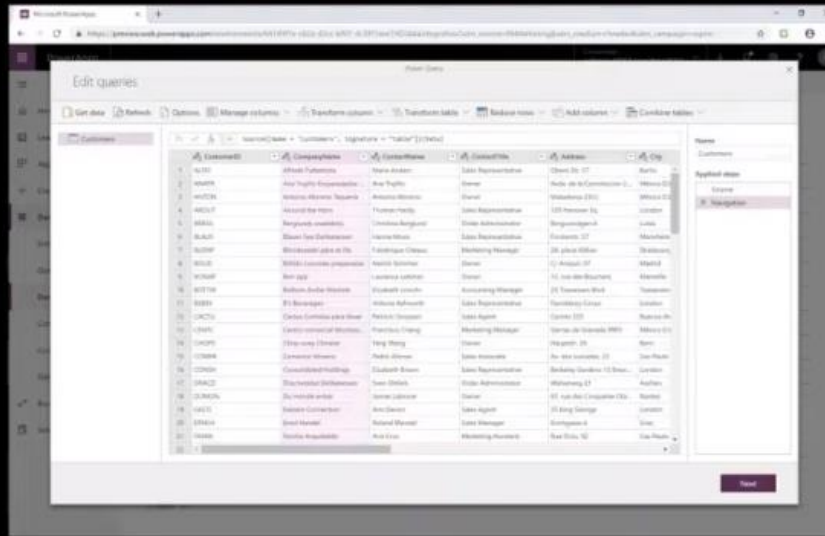
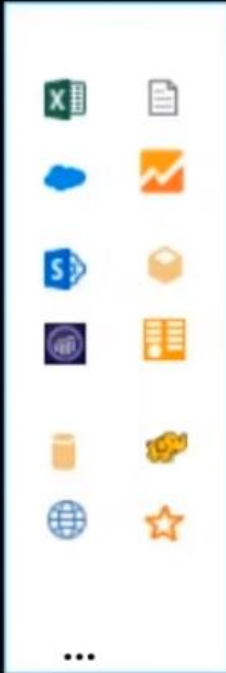
- Power Query available as **web-based self-service data prep experience**
- Supports the same set of **300+ transformations** as desktop Power Query (M Engine parity level)
- Currently **~100 connectors**, including cloud & on-prem data sources via the **On-premises data gateway**



# Authoring a dataflow

## Author in

**Get data** from 100s of Cloud and On-premises data sources, extensible



**Transform**, reshape and mash up data with over 300 different “no-code” data transformations

**Select destination** to store the output of a dataflow’s execution

## Save data to



**Common Data Service**



**Power BI storage**



**Azure Data Lake Gen2**



**Power BI**

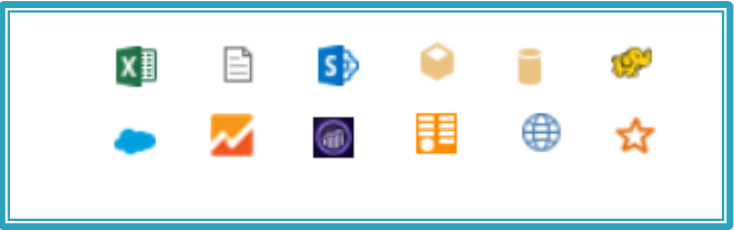


**Power Apps**

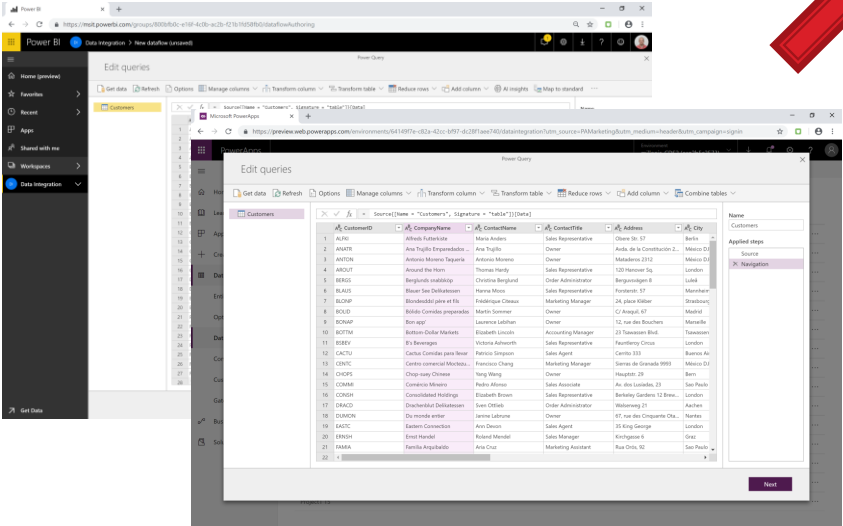


**Customer Insights**

# Dataflows – Overview



100s of Cloud and On-premises  
Enterprise data sources, extensible

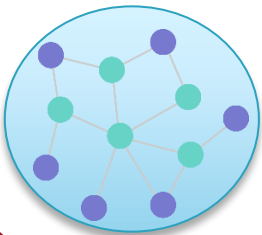


Transform, reshape and mash up data with over  
300 different “no-code” data transformations

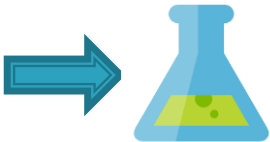


Common Data  
Service

C-ETL



Automatic replication  
(Project Athena)



Enrich data with  
Azure ML  
and Cognitive  
Services in PQ



Azure Data Lake  
Storage (gen 2)

CDM  
Folders

Compute



(in Power BI  
Premium)

## Consumption Scenarios



Power BI



Power Apps

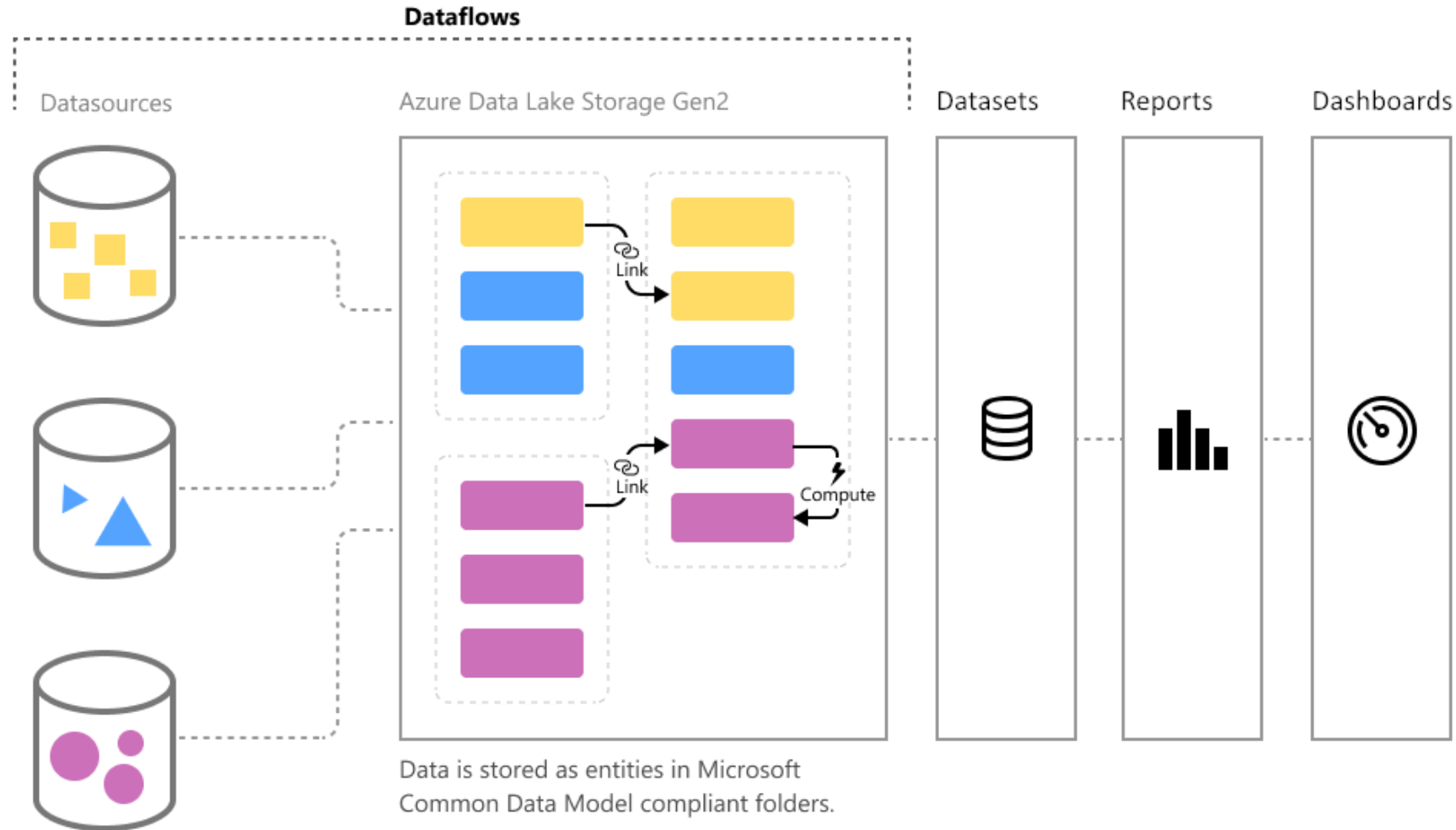


Power Automate



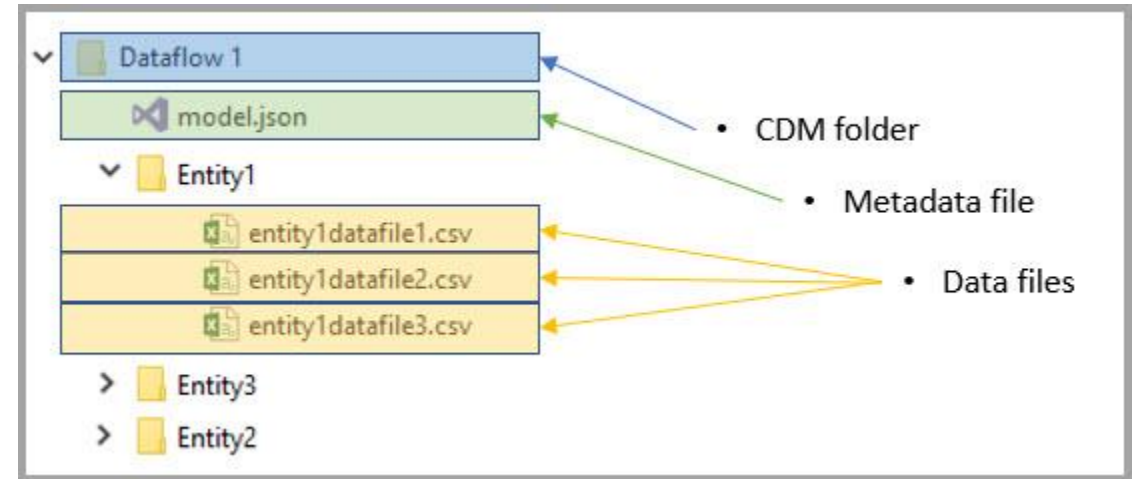
Customer  
Insights

# Dataflows are composable, just like Excel



# CDM folder format

- ▶ Folder
- ▶ Metadata file – model.json
  - Entity records
  - Attributes
  - Links to underlying data files
- ▶ Data files – CSV
  - Well-defined structure and format
  - Entities
  - Partitions



# Common Data Models enable low friction collaboration today

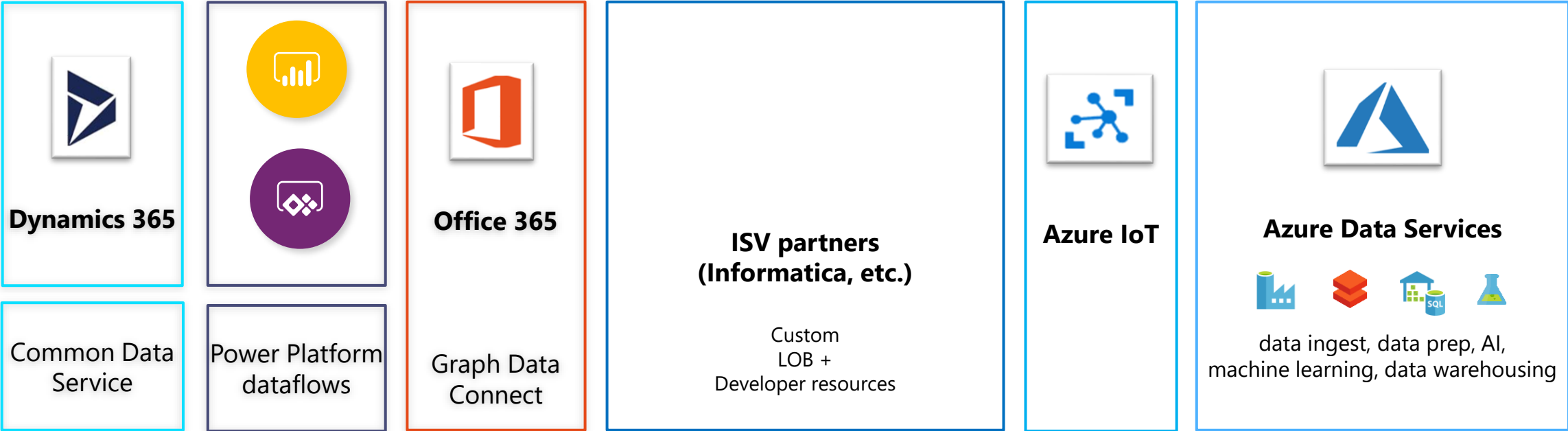
Decision Makers, Business analysts

←----->

Data scientists, Data engineers

No code, low code

Low to high code



CDM folders

Azure Data Lake Storage

Transactional business data



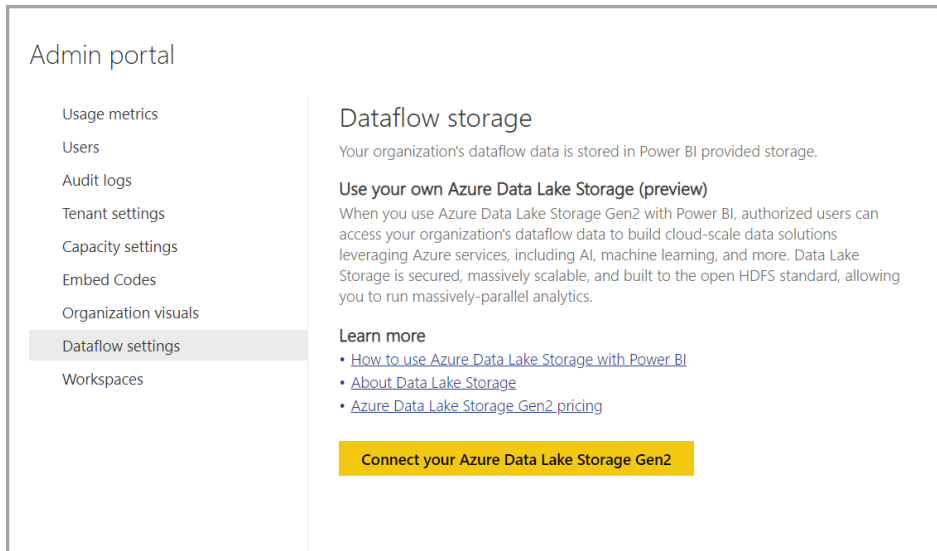
...

Profiles based on observational data



# Azure Data Lake Storage

- ▶ Dataflows: save data to DLS
  - Built in DLS
  - Bring your own DLS
- ▶ Import CDM data from DLS
  - ISV partners – industry accelerators
  - Azure Data Services



Admin portal

- Usage metrics
- Users
- Audit logs
- Tenant settings
- Capacity settings
- Embed Codes
- Organization visuals
- Dataflow settings**
- Workspaces

### Dataflow storage

Your organization's dataflow data is stored in Power BI provided storage.

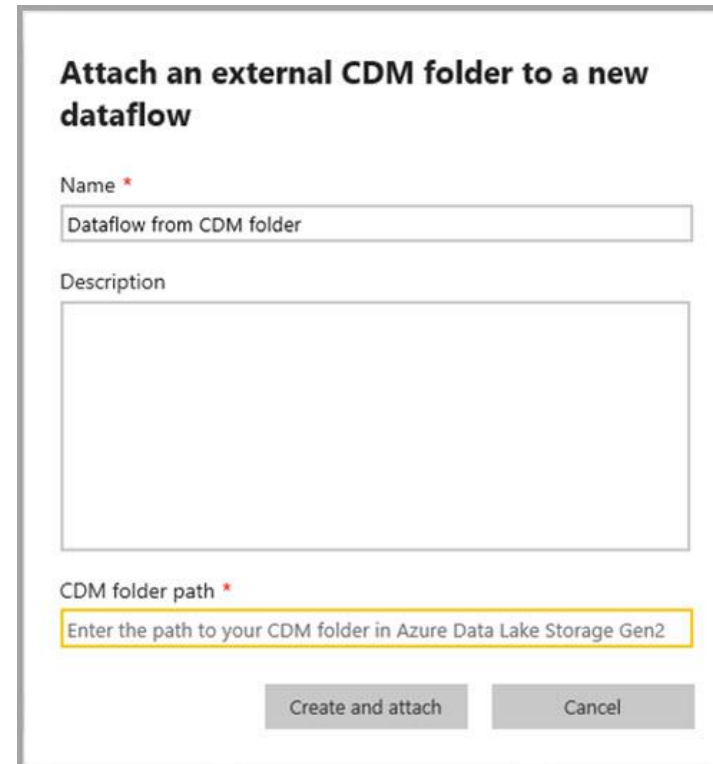
#### Use your own Azure Data Lake Storage (preview)

When you use Azure Data Lake Storage Gen2 with Power BI, authorized users can access your organization's dataflow data to build cloud-scale data solutions leveraging Azure services, including AI, machine learning, and more. Data Lake Storage is secured, massively scalable, and built to the open HDFS standard, allowing you to run massively-parallel analytics.

**Learn more**

- [How to use Azure Data Lake Storage with Power BI](#)
- [About Data Lake Storage](#)
- [Azure Data Lake Storage Gen2 pricing](#)

**Connect your Azure Data Lake Storage Gen2**



### Attach an external CDM folder to a new dataflow

**Name \***

**Description**

**CDM folder path \***

**Create and attach** **Cancel**



# Industry Accelerator Partners

## Automotive

annata  XAPT  
new frontier group

 Adobe  Sikich.  DSA  LOYALTY LOGISTIX  NADA NATIONAL AUTOMOBILE DEALERS ASSOCIATION  
incadea  STAR Standards for Technology in Automotive Retail  
 EY  KPMG  msx INTERNATIONAL Crowe Horwath  Hitachi Solutions

## Education

 Nuventive.  NEUDESIC  Discourse Analytics  
 FREQUENCY FOUNDRY  CAMPUS MANAGEMENT avtex 

## Healthcare

 aspect  NEUDESIC  mäzikglobal  
 Northwell Health  oncore  Intraprise HEALTH  
Hitachi Solutions  KYRUUS  mäzik global  
 agile ANALYTICS  MNP  WORLD4YOU  
avanade  landsFree HEALTH  indegene

## Financial Services

 avanade  KPMG  EY  VERIPARK  
personetics  WEALTH DYNAMIX  fiserv.

## Nonprofit

 threshold world  SOS CHILDREN'S VILLAGES INTERNATIONAL  UKaid  Lifeboats  BILL & MELINDA GATES foundation  Classy  StratusLIVE  ifunds  FLUXX  SPARKROCK  
blackbaud  WIPFLI  TEAM RUBICON  KPMG  OXFAM  ballmer GROUP  UNIT4  m~hance with you all the way  MISSION CRM  REVEL



Build with partners

Launch Partners

# Informatica Intelligent Cloud Services

Lands data as CDM folders in  
Azure Data Lake

Includes mapping to CDM  
standard entities

Attaches CDM folder  
automatically to Power BI  
workspace



[Overview](#) [Customer Stories](#) [Getting Started](#) [Resources](#)

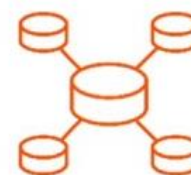
## Realize the Power of Next-Gen Analytics

Modernize analytics with AI-driven data management to deliver business insights based on fast, discoverable, trusted, and harmonized data.



### Accelerate Analytics in Azure Data Lake Storage Gen2

Enable Power BI users to perform ad hoc analytics and data experimentation at scale on Azure using harmonized data delivered by Informatica AI-enhanced cloud data management and Microsoft Common Data Model (CDM).



### Operationalize BI in Azure SQL Data Warehouse

Modernize your enterprise data warehouse with intelligent curation of structured data in Azure SQL Data Warehouse so your Power BI users can deliver operationalized BI, such as executive dashboards and monthly reporting.



### Discover & Understand Data for Analytics

Empower your Power BI users to easily and intuitively find and understand relevant and trusted data in Azure Data Services and Azure SQL Data Warehouse—as well as other data assets across the enterprise—using an AI-driven data catalog.

# CDM in Dataflows

- Dataflows allow customers to bring in data from a variety of disparate sources
- Leveraging **Power Query Online**, same technology in Excel and Power BI, visually transform and combine data sources in a no-code/low-code experience
- **Map** the resulting data **to a standard Common Data Model entity, or create a new entity** that can be related back to the standard
- **Out-of-box templates** to certain sources makes the process even easier, with options to customize if necessary

ORANGEMAN

Choose data source

Power Query

All categories File Database Power BI Azure Online services Other

Data sources

- Access File
- Excel File
- JSON File
- XML File
- Amazon Redshift Database
- IBM Db2 database Database
- PostgreSQL database Database
- SQL Server database Database
- Sybase database Database
- Power BI dataflows Power BI
- Azure Blobs Azure
- Azure Data Explorer (Kusto) Azure
- Azure Tables Azure
- Common Data Online services
- SharePoint Online list Online services
- Smartsheet Online services
- Web API Other
- Web page Other

Templates

- Accounts, leads, opportunities Salesforce Online services
- Lead to cash Dynamics 365 for Finance Online services

Edit queries

Get data Refresh Options Manage columns Transform

Account  
Contact  
Lead  
**Opportunity**  
Opportunity Product  
Opportunity Stage  
Product  
User

	A <sup>B</sup> externalopportunityid	A <sup>B</sup> externalaccountid
1	006F0000000T3mpslAB	001F00000017IsKGIAB
2	006F0000000T3mptlAB	001F000000194XyOIAU
3	006F0000000T3mpulAB	001F000000194XzPIAU
4	006F0000000T3mpvlAB	001F00000017IsKJIAU
5	006F0000000T3mpwlAB	001F00000017IsKMAIU
6	006F0000000T3mpxlAB	001F00000017IsKOIAU
7	006F0000000T3mpylAB	001F00000017IsKPIAU
8	006F0000000T3mpzAB	001F000000194XzWIAU
9	006F0000000T3mq0IAB	001F000000194XzKIAU
10	006F0000000T3mq1IAB	001F000000194XyrlAE
11	006F0000000T3mq2IAB	001F000000194XyGIAU
12	006F0000000T3mq3IAB	001F000000194XytlAE
13	006F0000000T3mq4IAB	001F000000194XyhIAE
14	006F0000000T3mq5IAB	001F000000194XySIAU
15	006F0000000T3mq6IAB	001F000000194XzTIAU
16	006F0000000T3mq7IAB	001F000000194XzdlAE
17	006F0000000T3mq8IAB	001F000000194XyylAE
18	006F0000000T3mq9IAB	001F000000194XzSIAU
19	006F0000000T3mqAIAR	001F000000194XyNIAU
20	006F0000000T3mqBIAR	001F000000194XyPIAU
21	006F0000000T3mqCIAR	001F000000194XzRIAUI
22	006F0000000T3mqDIAR	001F000000194XyQIAU
23	006F0000000T3mqEIAU	001F000000194XyVIAU
24	006F0000000T3mqFIAU	001F000000194XyEIAU
25	006F0000000T3mqGIAU	001F000000194Xz6IAU

# Premium Dataflows features

- ▶ Linked Entities
  - Reference other entities inside or between workspaces
  - Reuse entities
- ▶ Computed Entities
  - Enrichments and transformations on other referenced entities
  - Uses In-storage computations
- ▶ Enhanced compute engine
  - Drastically reduces the refresh time
  - DirectQuery queries over entities
  - Uses SQL DB under the hood
- ▶ Parallel execution
- ▶ Incremental refresh