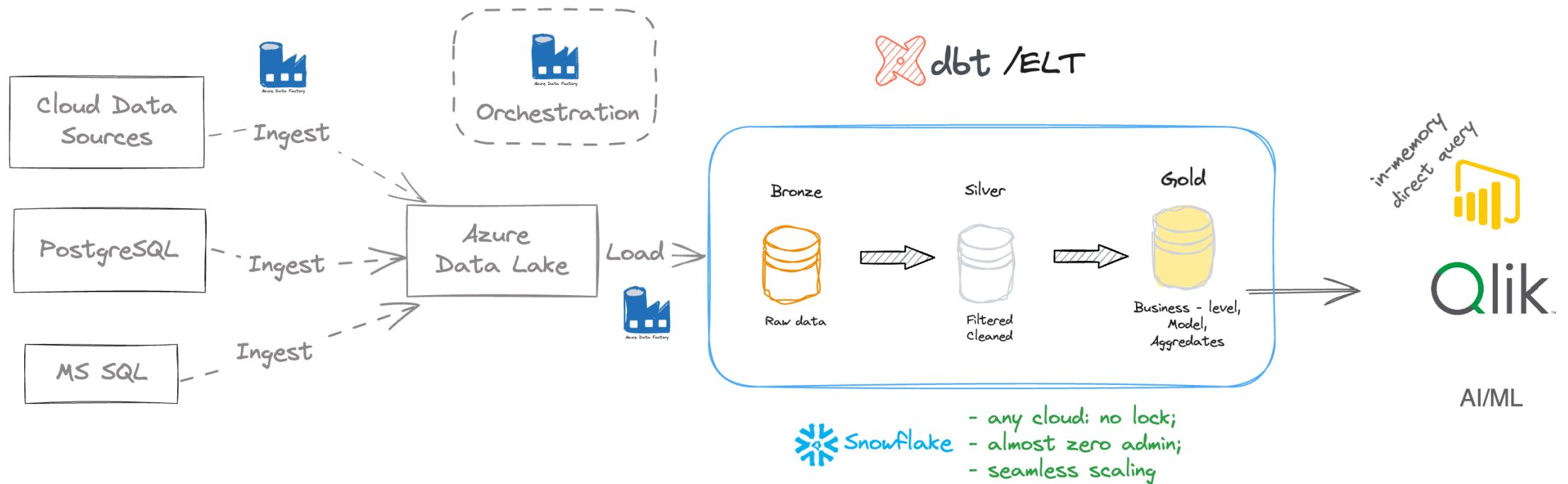


Data Ingestion into Snowflake – ADF

Simas Baranauskas
System Architect
Infotrust

REFERENCE ARCHITECTURE



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Benefits:

- Monitoring
- Complex (cycling) data loads
- Out of the box connectors
- Integration runtime for on-premise data
- Easy to use and scale (re-use pipelines)

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Monitoring

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Runs

Rerun Cancel Refresh Update pipeline List Gantt

Pipeline runs Trigger runs Change Data Capture (previ...)

Runtimes & sessions

Integration runtimes

Data flow debug

Notifications

Alerts & metrics

Activity runs

Pipeline run ID 3ecd7c4-b7ba-4e48-8827-2bb1aaf17513

All status ▾

Showing 1 - 9 items

Activity name ↑↓	Activity status ↑↓	Activity type ↑↓	Run start ↑↓	Duration ↑↓
Facts_paskutinis	Succeeded	Copy data	6/25/2024, 7:25:14 AM	1m 15s
RollingPlanFacts	Succeeded	Copy data	6/25/2024, 7:24:55 AM	18s
GyvPlanasFacts	Succeeded	Copy data	6/25/2024, 7:24:41 AM	14s
BendrasPlanasFacts	Succeeded	Copy data	6/25/2024, 7:24:21 AM	19s
Kreditas2	Succeeded	Copy data	6/25/2024, 7:23:38 AM	43s
Item chargai	Succeeded	Copy data	6/25/2024, 7:22:32 AM	1m 5s
Kreditas	Succeeded	Copy data	6/25/2024, 7:21:40 AM	51s
Facts1	Succeeded	Copy data	6/25/2024, 7:16:42 AM	4m 57s

Details Refresh

Performance tuning tips:
The copy activity run spent 265 seconds waiting for source query to return data. To achieve better performance, you are suggested to check and optimize the query document.

Learn more on copy performance details from [here](#).

Activity run id: 5a8e1e67-750c-479d-ac28-9d3c3afba0c2

Azure Synapse Analytics → Azure Data Lake Storage Gen2

Succeeded

Azure Synapse Analytics Region: Germany West Central → Azure Data Lake Storage Gen2 Region: West Europe

Data read: 284.885 MB Data written: 245.412 MB

Rows read: 484,827 Files written: 1

Peak connections: 1 Rows written: 484,827

Peak connections: 1

Copy duration 0:04:55

Throughput: 12.949 MB/s

Start time 6/25/2024, 7:16:43 AM

Used DIUs: 4

Used parallel copies: 1

Duration 0:04:55

Details Working duration Total duration

Queue 0:00:06

Transfer Time to first byte 0:04:25
Reading from source 0:00:08
Writing to sink 0:00:03 0:04:47

Data consistency verification Not verified

How satisfied or dissatisfied are you with the performance of this copy activity? ★★★★★

The screenshot displays the Microsoft Power BI Monitoring interface. On the left, a sidebar lists navigation options like Pipeline runs, Runtimes & sessions, and Notifications. The main area shows a pipeline run with a series of four 'Copy data' activities. Each activity is shown as a green box with a checkmark, indicating success. The first activity moves data from 'Sales order' to 'Facts1'. Subsequent activities move data from 'Facts1' to 'Kreditas', then from 'Kreditas' to 'Item chargai', and finally from 'Item chargai' to 'Kreditas'. To the right of the pipeline, a detailed view of the last activity (from 'Item chargai' to 'Kreditas') is provided. This view includes performance tuning tips, activity run ID, and a summary of data transferred. It also shows the source (Azure Synapse Analytics) and target (Azure Data Lake Storage Gen2) with their respective regions. Below this, specific metrics like copy duration, throughput, and resource usage are listed. At the bottom, there's a satisfaction survey and a star rating.

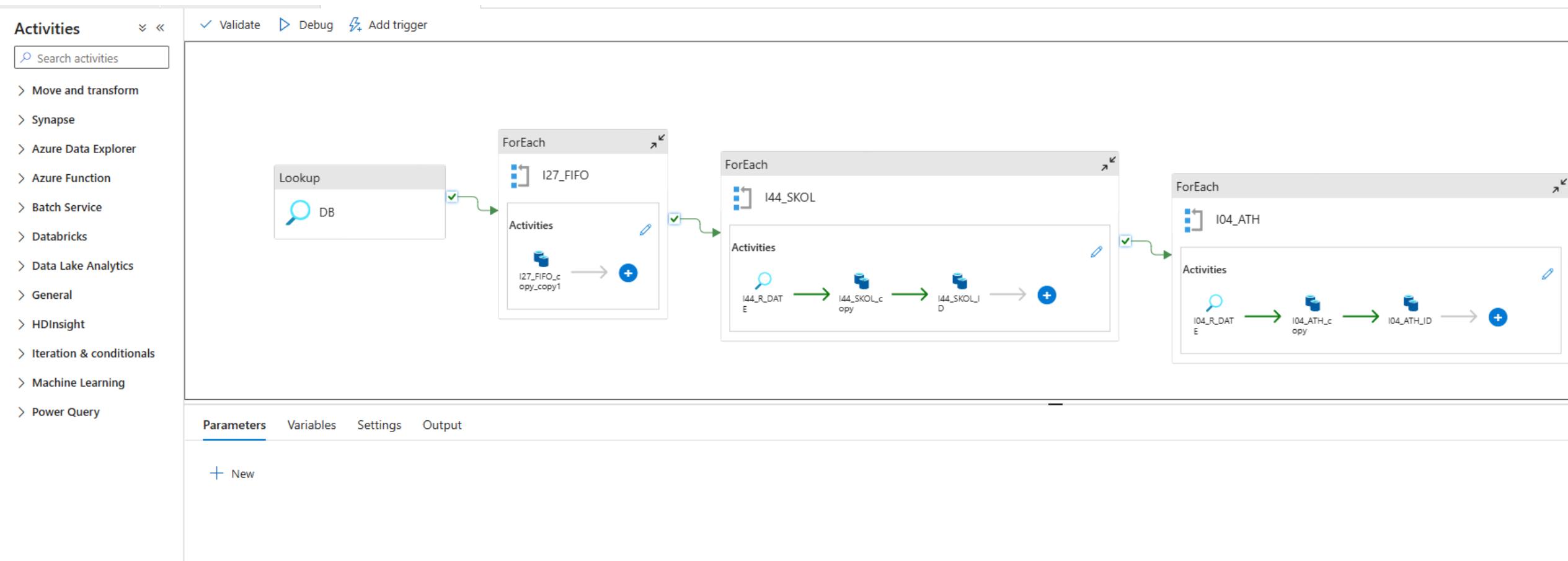
Data Factory

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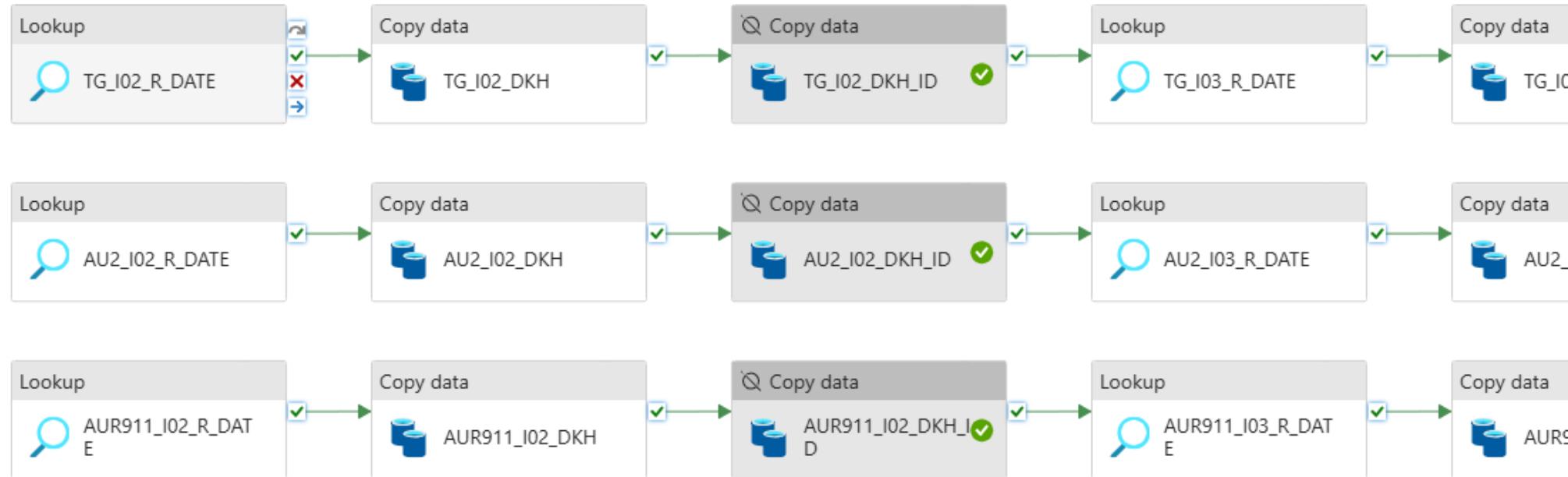
Complex (cycling) data loads



Activities

 Validate Debug Add trigger

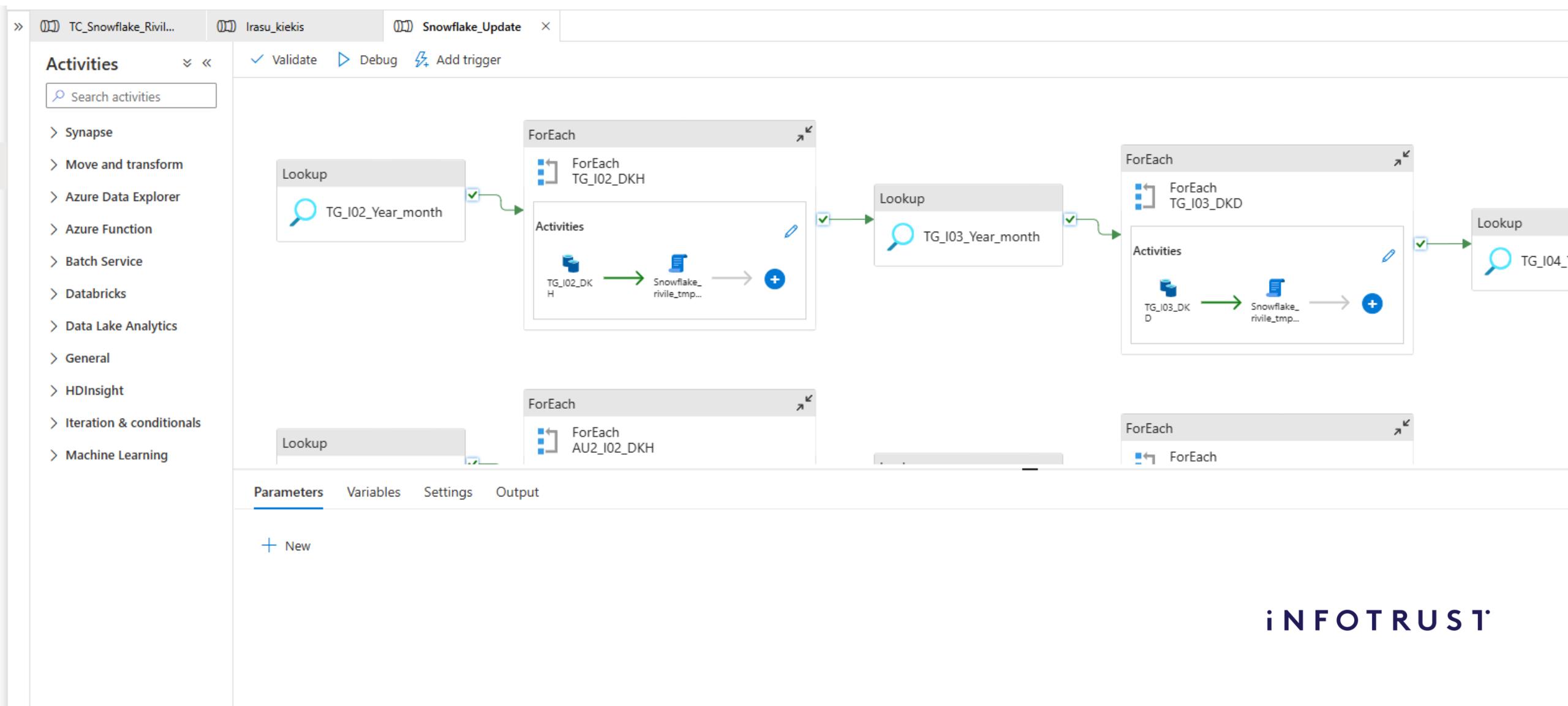
- Search activities
- > Synapse
- > Move and transform
- > Azure Data Explorer
- > Azure Function
- > Batch Service
- > Databricks
- > Data Lake Analytics
- > General
- > HDInsight
- > Iteration & conditionals
- > Machine Learning



- Parameters
- Variables
- Settings
- Output

[+ New](#)

Complex (cycling) data loads



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Connectors

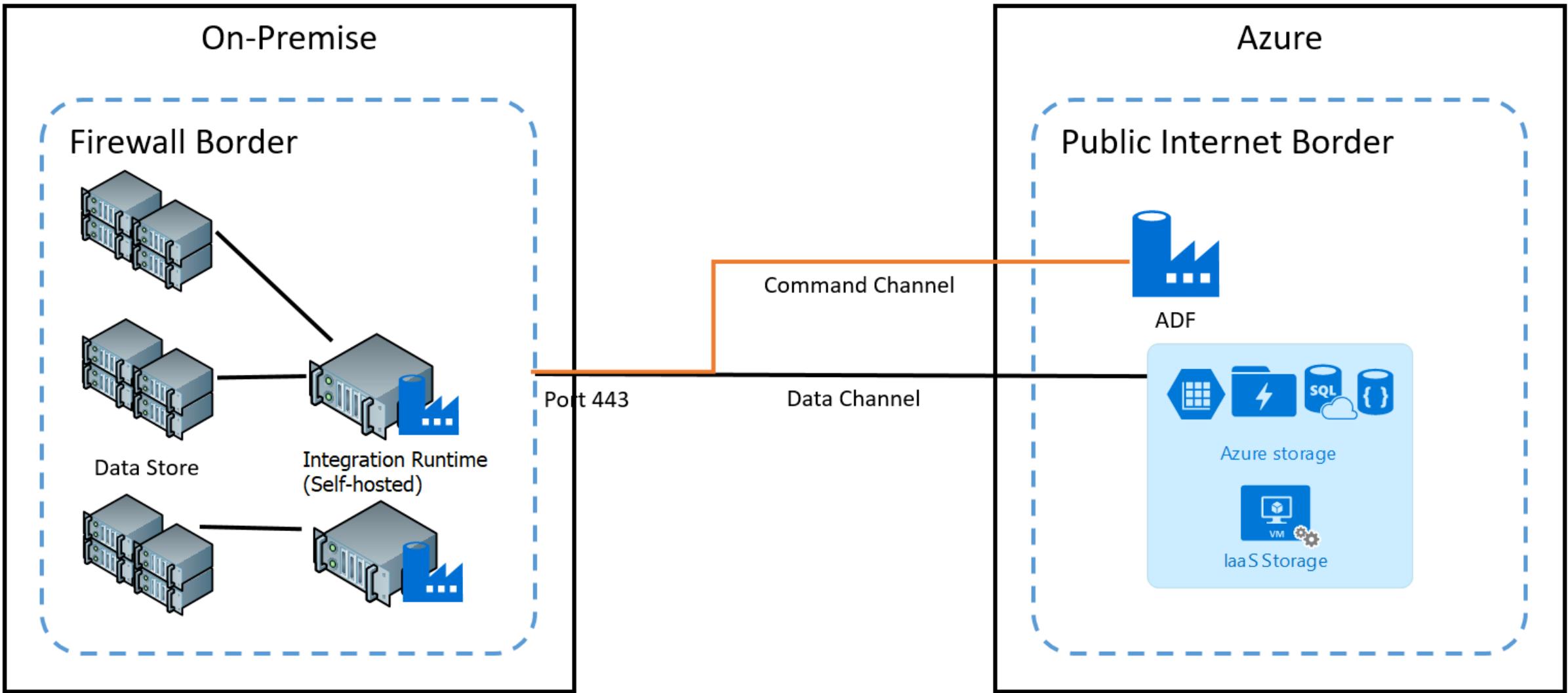
All	Azure	Database	File	Generic protocol	NoSQL	Services and apps
						
Azure Database for MariaDB	Azure Database for MySQL	Azure Database for PostgreSQL				
						
Azure Databricks Delta Lake	Azure File Storage	Azure Key Vault				
						
Azure SQL Database	Azure SQL Database Managed Instance	Azure Synapse Analytics				
						
Azure Table Storage	Cassandra	Concur (Preview)				
						
Couchbase (Preview)	DB2	Dataverse (Common Data Service for Apps)				

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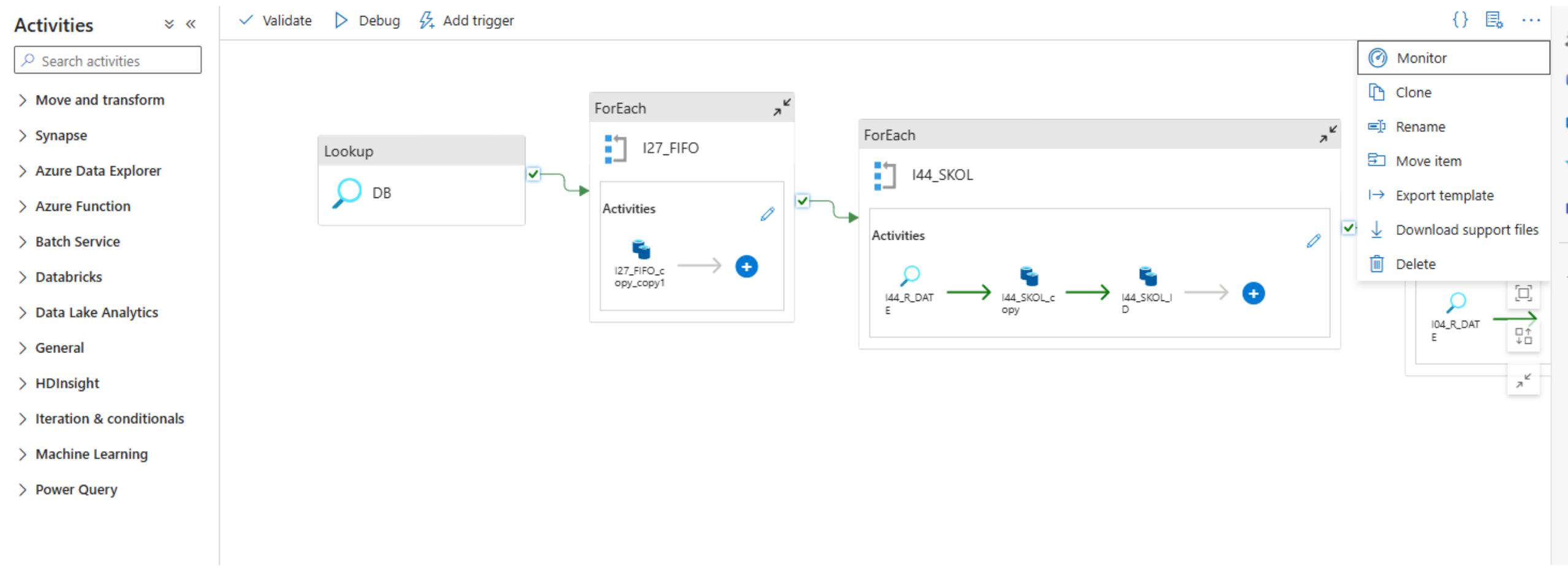
ORCHESTRATION

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Export as template to use in another Data Factory



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Thank You

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