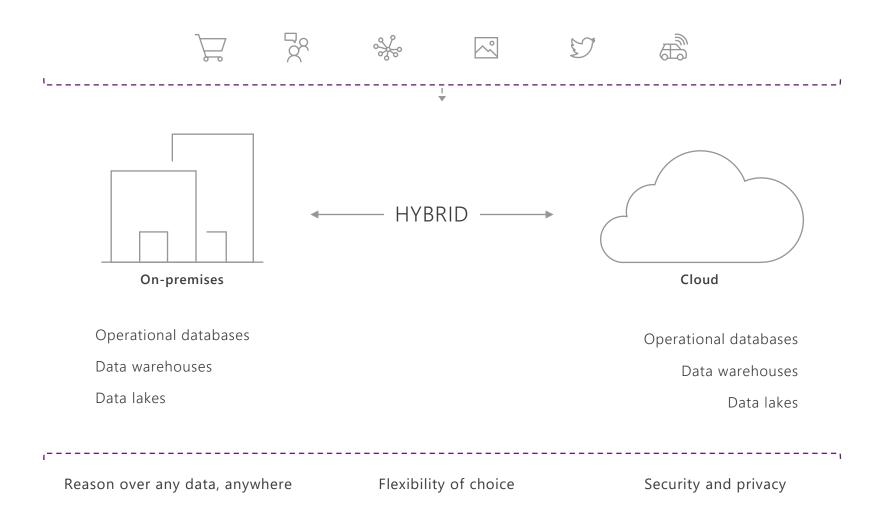
# Modern Data Management on Azure "Simple ETL"



#### The modern data estate

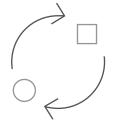


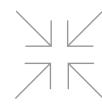


## Azure Data Factory

Fully-managed data integration service in the cloud







**Flexible**Data integration

**Hybrid**Data orchestration

Data movement
As-a-service

## HYBRID DATA INTEGRATION AT SCALE

#### **Relational data**











#### **Non-relational data**





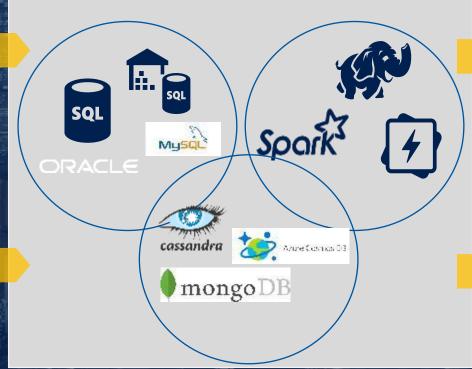








#### **Data Processing & Movement**



#### **Any BI tool**



Dashboards | Reporting Mobile BI | Cubes

#### **Advanced Analytics**

Machine Learning Stream analytics Cognitive | Al

#### **Any language**

.NET | Java | R | Python Ruby | PHP | Scala

**CLOUD** 







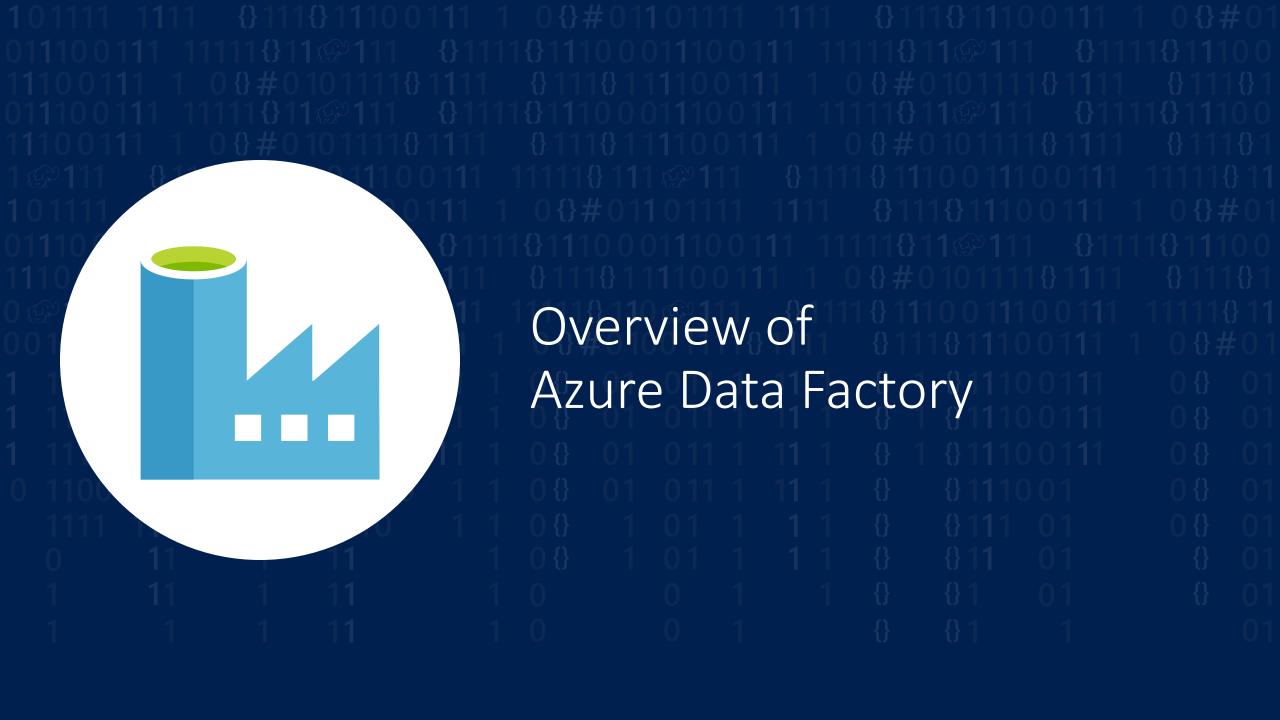
**ON-PREMISE** 



# Access all your data

Hybrid connectivity using self-hosted IR: on-prem & VNet

Azure	Database		File Storage	NoSQL	Services and Apps		Generic
Azure Blob Storage	Amazon Redshift	SQL Server	Amazon S3	Couchbase	Dynamics 365	Salesforce	HTTP
Azure Data Lake Store	Oracle	MySQL	File System	Cassandra	Dynamics CRM	Salesforce Service Cloud	OData
Azure SQL DB	Netezza	PostgreSQL	FTP	MongoDB	SAP C4C	ServiceNow	ODBC
Azure SQL DW	SAP BW	SAP HANA	SFTP		Oracle CRM	Hubspot	
Azure Cosmos DB	Google BigQuery	Informix	HDFS		Oracle Service Cloud	Marketo	
Azure DB for MySQL	Sybase	DB2			SAP ECC	Oracle Responsys	
Azure DB for PostgreSQL	Greenplum	MariaDB			Zendesk	Oracle Eloqua	
Azure Search	Microsoft Access	Drill			Zoho CRM	Salesforce ExactTarget	
Azure Table Storage	Hive	Phoenix			Amazon Marketplace	Atlassian Jira	
Azure File Storage	Hbase	Presto			Megento	Concur	
	Impala	Spark			PayPal	QuickBooks Online	
	Vertica				Shopify	Xero	
					GE Historian	Square	
* Supported file formats: CSV, AVRO, ORC, Parquet, JSON					Web table		



# Azure Data Factory Concepts







**Linked Services** 



**Datasets** 





**Triggers** 



**Integration Runtime** 



## Azure Data Factory



**Visual UI** 

Drag and Drop

**Control Flow** 

Loop, Branch, If

**Code Support** 

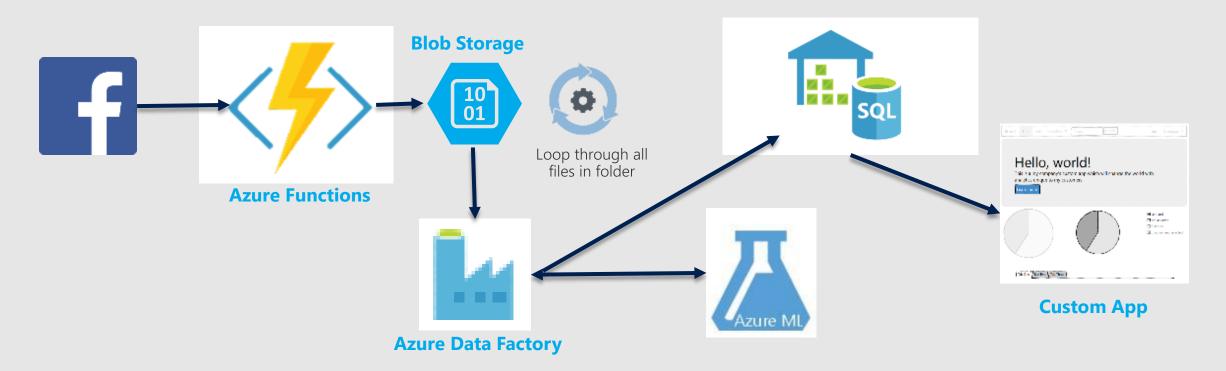
Python, .NET, ARM

**SSIS Execution** 

Lift and Shift

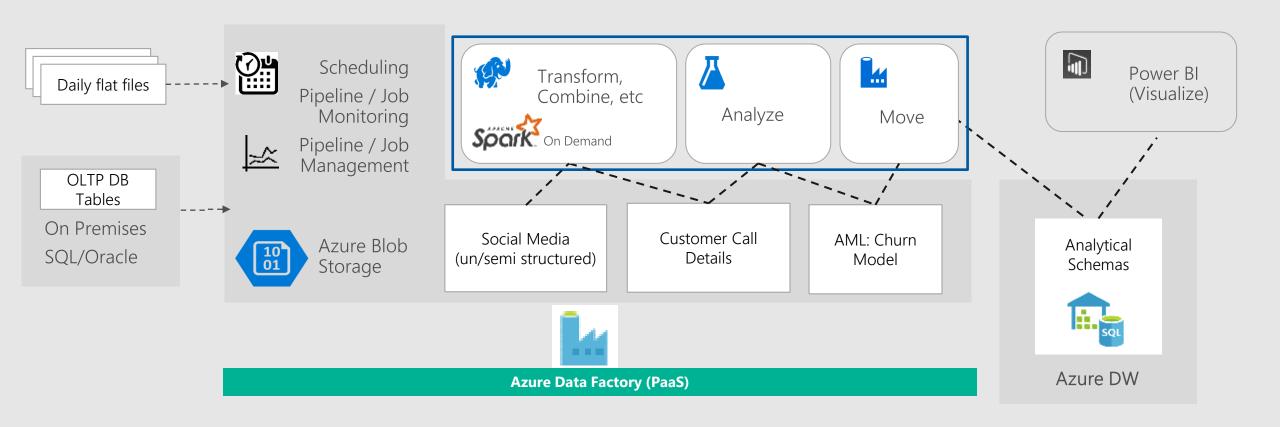
## Hybrid Data Integration Pattern 1:

Data-Driven SaaS App: Sentiment Analysis w/Machine Learning



## Hybrid Data Integration Pattern 2:

Modern Data Warehouse



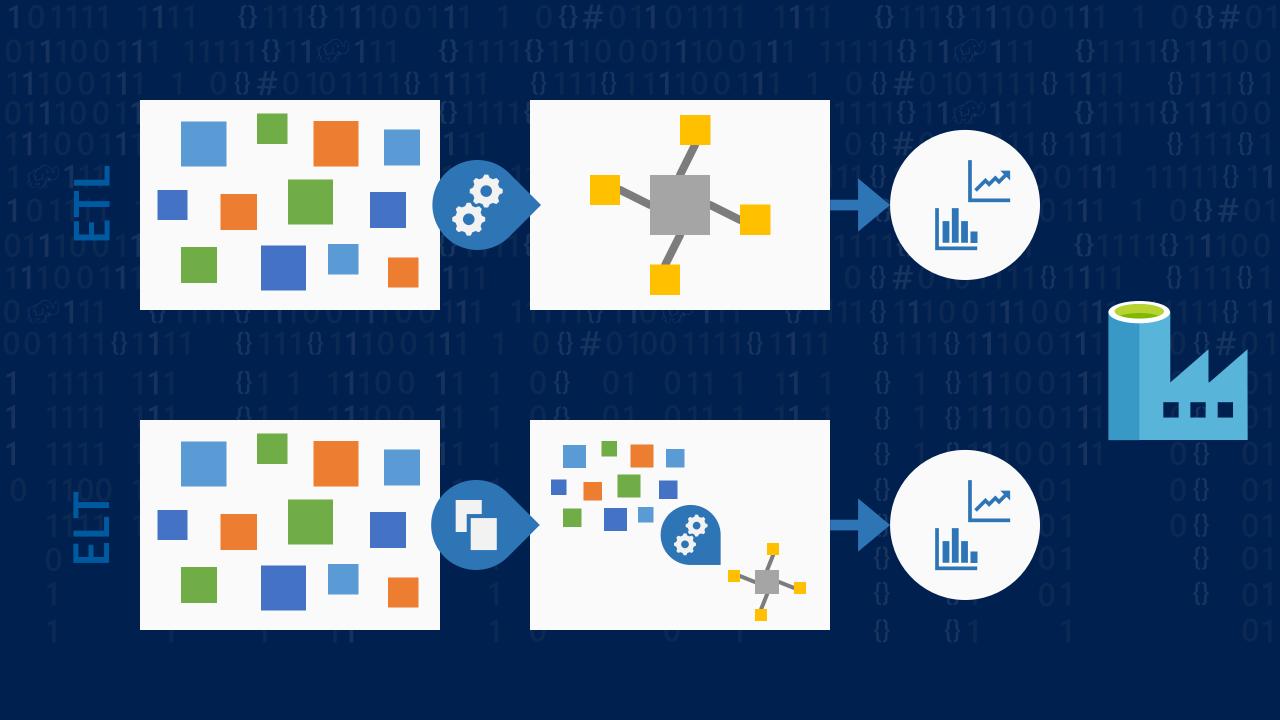
# ETL vs ELT...

**ELT** should be considered in these cases:

- There are large data volumes.
- The source database and the target database are the same.
- The database engine is well adapted for this kind of processing, such as <u>Azure SQL DW</u>, which is great at loading massive amounts of data very quickly.

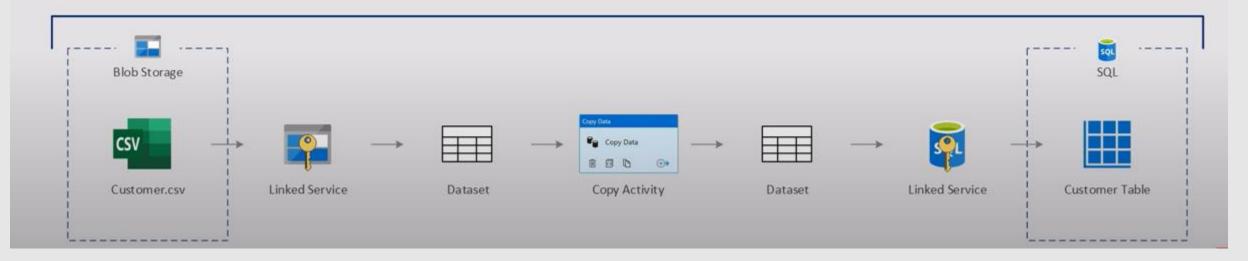
**ETL** = Transformations are processed by ETL tools. Data movement is usually required.

**ELT** = Transformations are processed by the target data source.

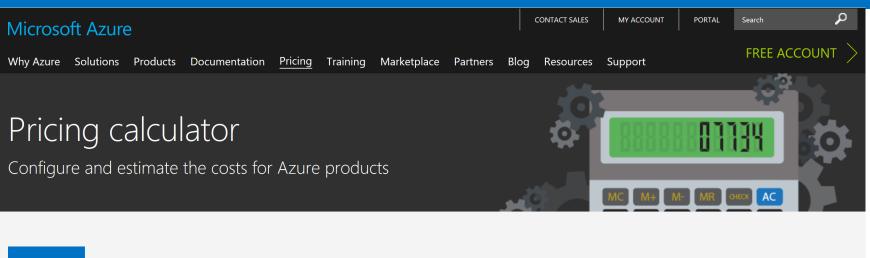


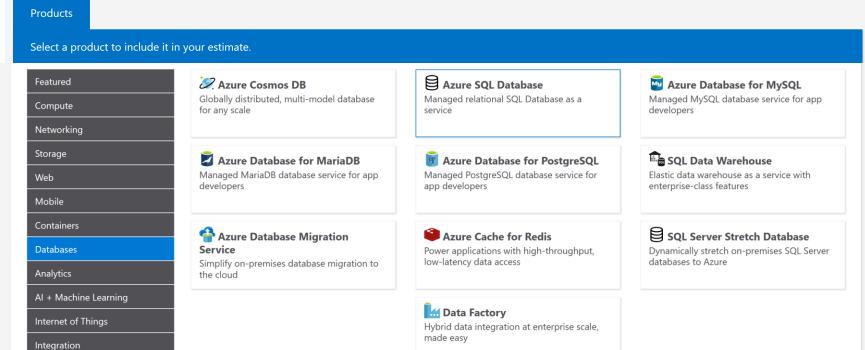






#### Azure Calculator









#### Links

### **Azure Data Factory**

https://azure.microsoft.com/de-de/services/data-factory/

## Quickstart Tutorials for Data Factory

https://docs.microsoft.com/en-us/azure/data-factory/quickstart-create-data-factory-portal

## Migration Guide

http://datamigration.microsoft.com/

## **Azure Pricing Calculator**

https://azure.microsoft.com/en-us/pricing/calculator/

