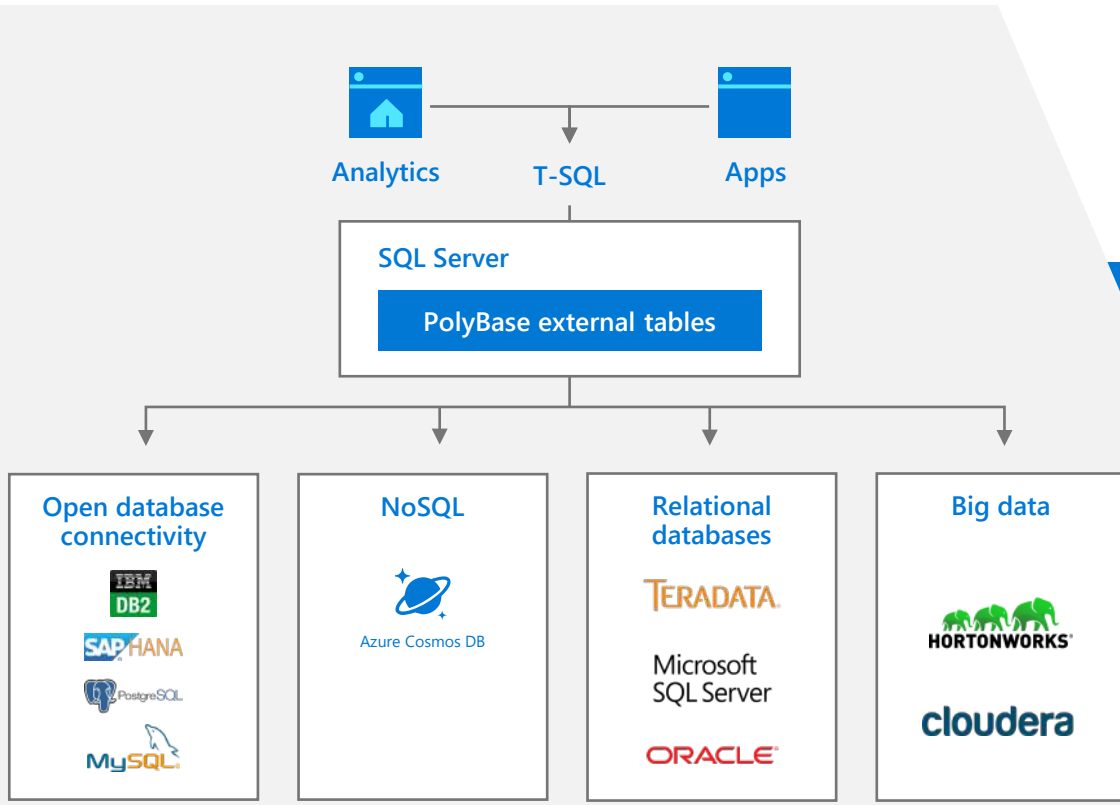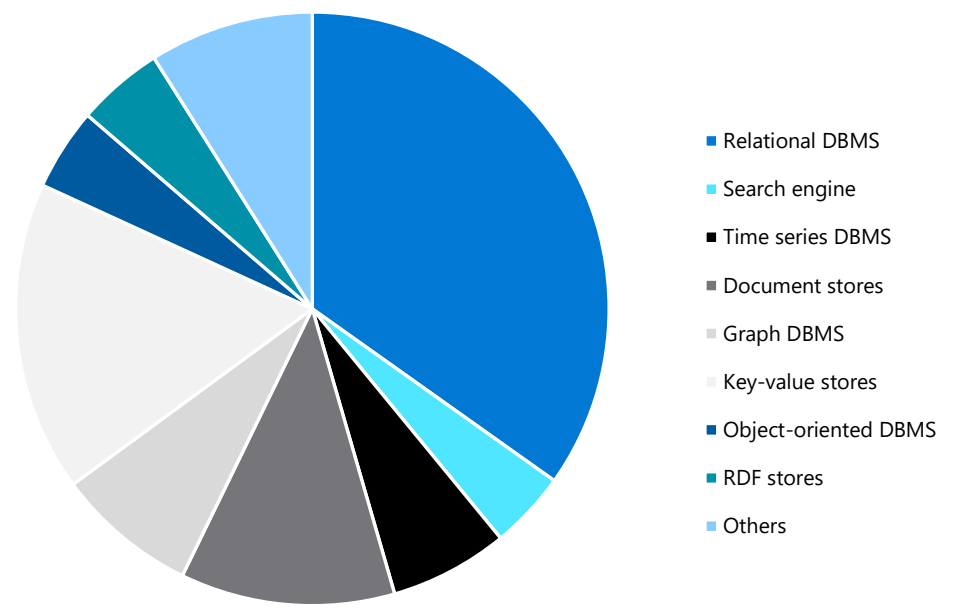Microsoft

Data is more complex than ever.
Transform data into insights with SQL Server 2019.
Improved data integration, management, and AI.

Integrating data is harder than ever

There are more than **340 types of databases** in use today and moving data across them presents challenges.[1]

Pie chart legend:
- Relational DBMS
- Search engine
- Time series DBMS
- Document stores
- Graph DBMS
- Key-value stores
- Object-oriented DBMS
- RDF stores
- Others

Analytics — T-SQL — Apps

SQL Server
PolyBase external tables

Open database connectivity	NoSQL	Relational databases	Big data
IBM DB2	Azure Cosmos DB	TERADATA	HORTONWORKS
SAP HANA		Microsoft SQL Server	
PostgreSQL		ORACLE	cloudera
MySQL			

SQL Server 2019 integrates data from many sources without movement or replication

Query across relational and non-relational data stores
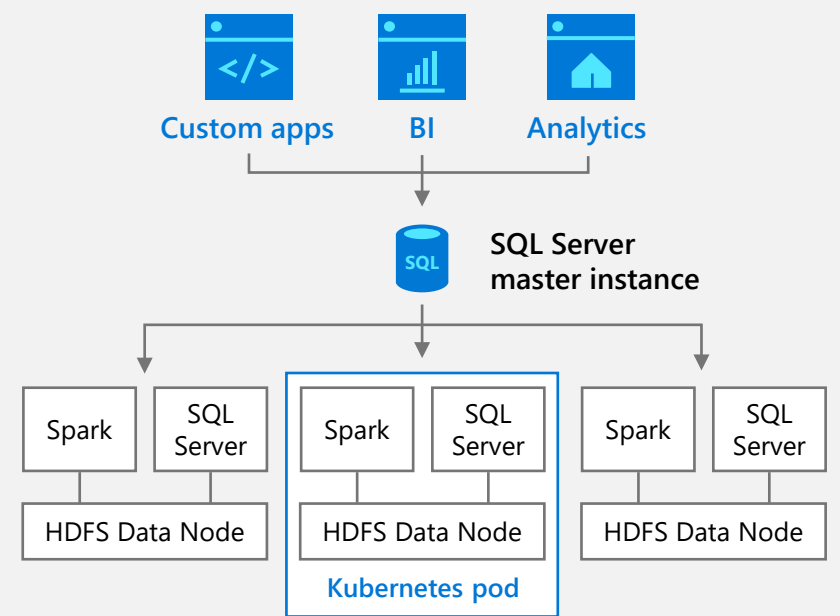
Data volumes are exploding

2,500,000,000,000,000,000 bytes of data are created every day.
That's 2.5 quintillion or 2.5×10^{18}!

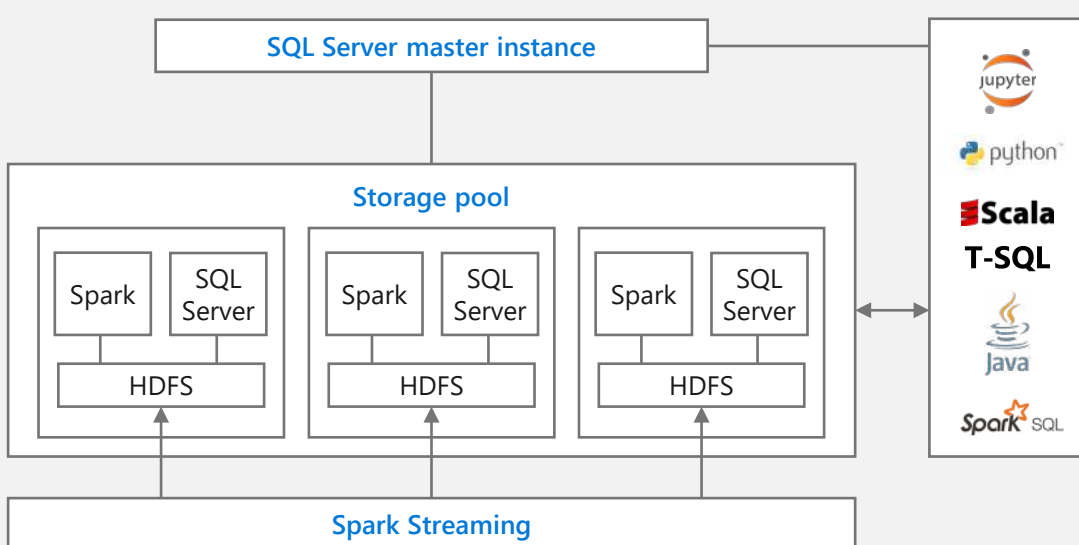**90 percent of all data** was generated in the last two years.[2]

SQL Server 2019 meets the explosion of big data with hyper scale

- Read and write directly in HDFS using SQL Server or Spark
- Elastically scale compute and storage on demand using Kubernetes architecture
- Combine and cache data from relational and non-relational data sources with scale-out data marts

Custom apps — BI — Analytics

SQL Server master instance

Spark	SQL Server	Spark	SQL Server	Spark	SQL Server
HDFS Data Node		HDFS Data Node		HDFS Data Node	

Kubernetes pod

Users struggle to uncover insights from data

79 percent of analytics users encounter data questions they can't solve each month.[3]

SQL Server 2019 enables users to leverage AI and build intelligent apps from all their data

SQL Server master instance

Storage pool

Spark	SQL Server	Spark	SQL Server	Spark	SQL Server
HDFS		HDFS		HDFS	

Spark Streaming

Jupyter
python
Scala
T-SQL
Java
Spark SQL

- Query your data using your preferred programming language in SQL Server or Spark
- Use SQL Server Machine Learning Services or Spark ML to train data models
- Store and operationalize your models all in one system

Gain intelligence across all your data.
Try SQL Server 2019 now!

https://www.microsoft.com/sqlserver

[1] "DBMS popularity broken down by database model" 2018, DB-Engines Ranking, DB-Engines.com

[2] "How Much Data Do We Create Every Day? The Mind-Blowing Stats Everyone Should Read," 2018, Forbes.com

[3] "State of Data Insights," 2017, Interana