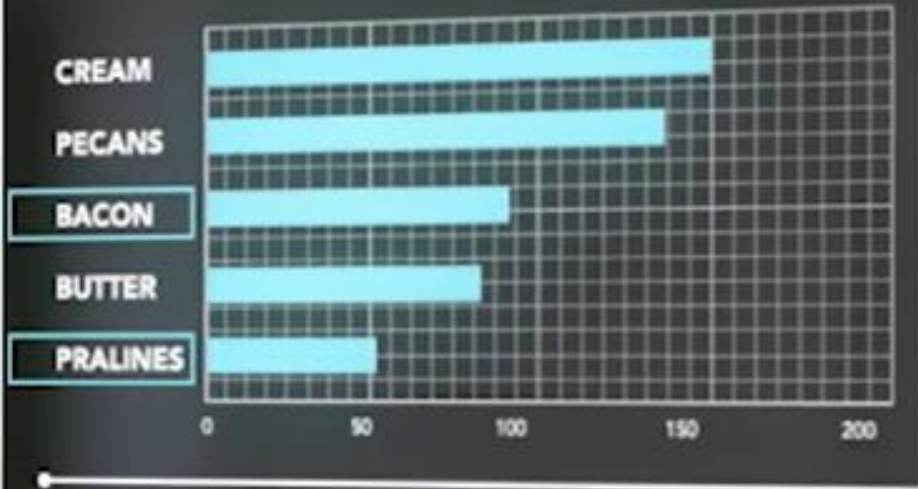


**BEST SELLER:
PECANS & CREAM**

▣ SOCIAL AFFINITY SEARCH



SENTIMENT ANALYSIS: BACON + PRALINES



Cortana Analytics Suite

Transform Data Into Intelligent Action

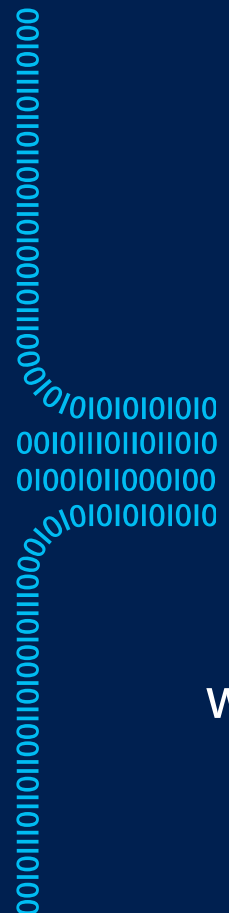
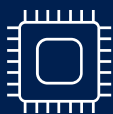
Bianca Furtuna

Technical Evangelist

Microsoft

Accelerating the speed of business





Intelligent action

What happened? Why did it happen? What will happen? Wh

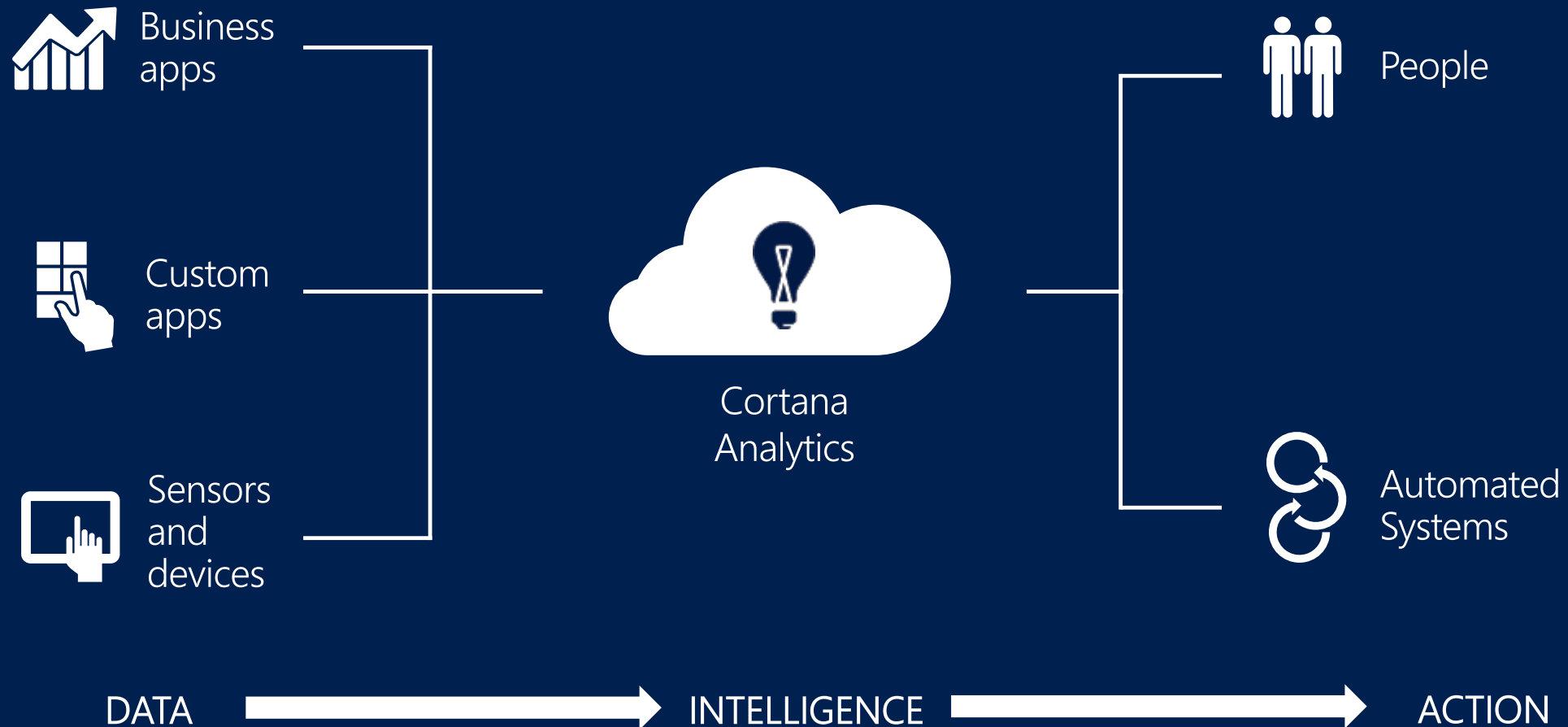
Cortana Analytics Suite

A fully managed Big Data and Advanced Analytics Suite that transforms your data into intelligent action.



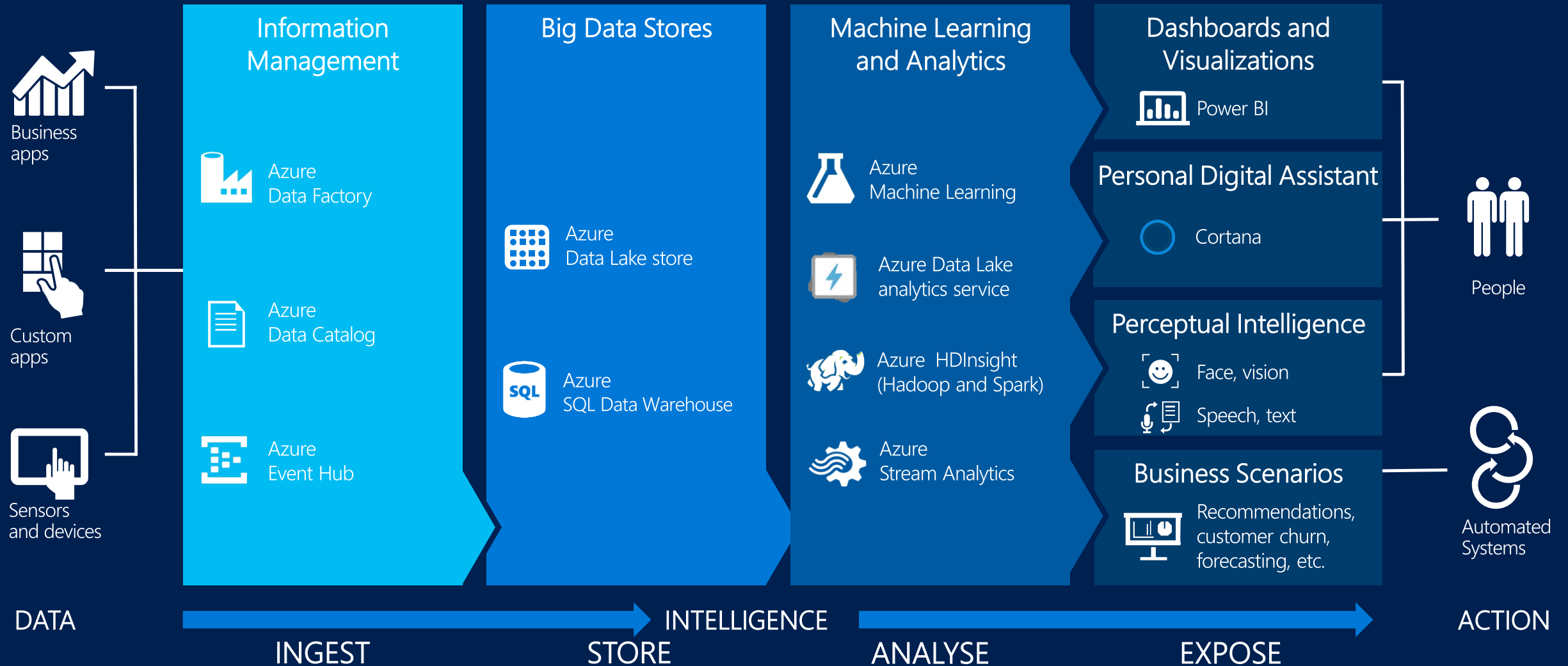
Cortana Analytics Suite

Transform data into intelligent action



Cortana Analytics Suite

Transform data into intelligent action



Cortana Analytics scenarios



EXAMPLE SOLUTIONS



Sales
and marketing



Finance
and risk



Customer
and channel



Operations
and workforce



Customer acquisition



Fraud detection



Lifetime customer value



Pay for performance



Cross-sell and upsell



Credit risk management



Personalized offers



Operational efficiency



Loyalty programs



Product recommendation



Smart buildings



Marketing mix
optimization



Predictive maintenance



Supply chain
management

Big Data Stores



Azure
Data Lake store



Azure
SQL Data Warehouse

Azure
SQL Database
SQL Data Warehouse

SQL Database Service

- A relational **database-as-a-service**, fully managed by Microsoft.
- **Near-zero administration** and **enterprise-grade** capabilities

Elastic scale & performance

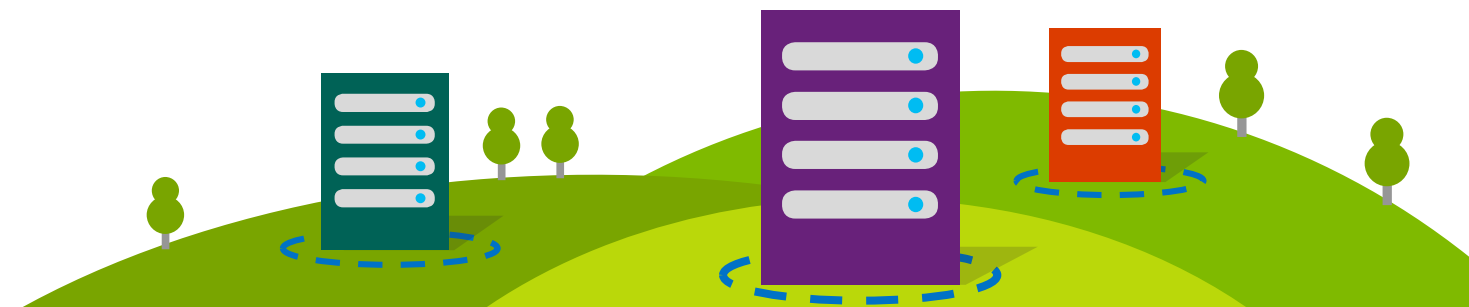
Predictable performance levels
Programmatic scale-out
Dashboard views of DB metrics

Business continuity & data protection

Self-service restore
Disaster recovery
Compliance-enabled

Familiar & self-managed

Familiar & compatible
Programmatic
Self-managed

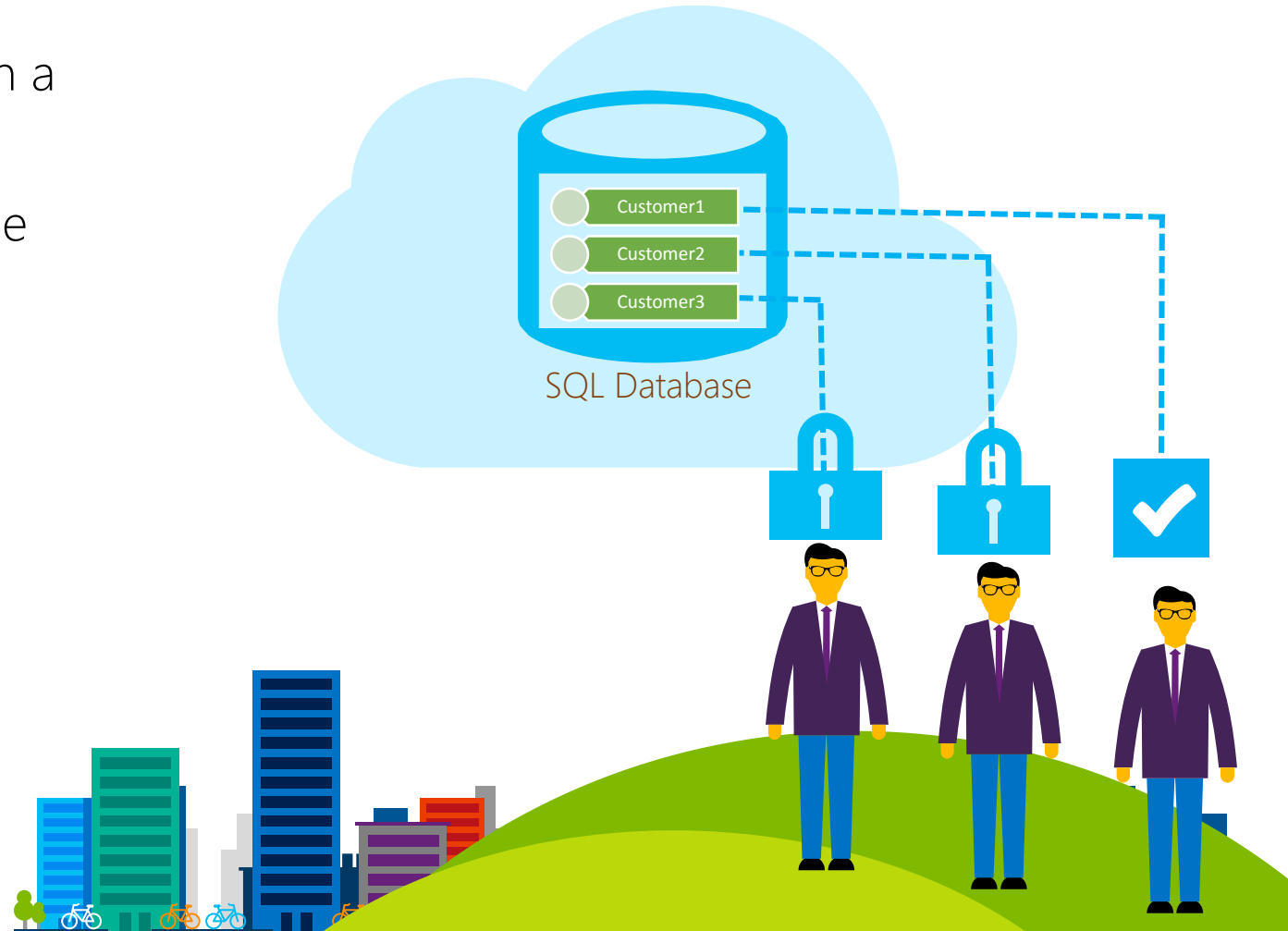


Row-Level Security

Protect data privacy by ensuring the right access across rows

Fine-grained access control over specific rows in a database table

Help prevent unauthorized access when multiple users share the same tables, or to implement connection filtering in multi-tenant applications



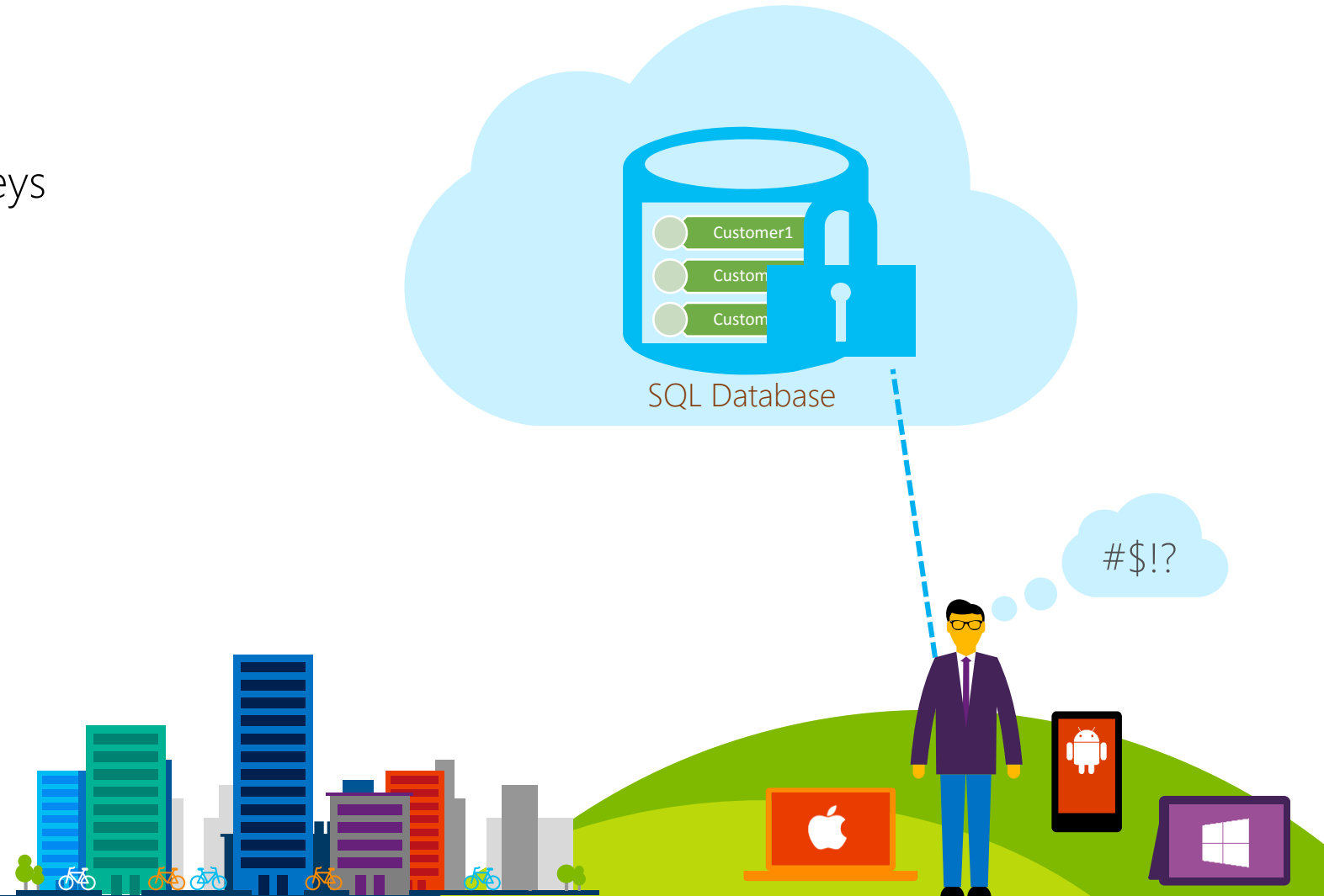
Transparent Data Encryption

Protect sensitive data stored in a SQL database from unauthorized access

Encrypted-at-rest

SQL Database service manages your keys

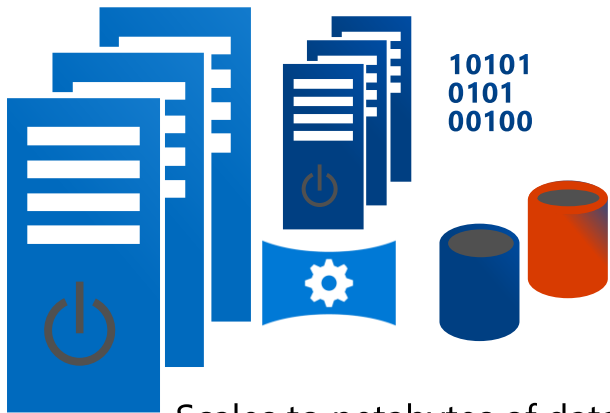
Predictable encryption performance



Introducing Azure SQL DW Service

A relational data warehouse-as-a-service, fully managed by Microsoft.
Industries first **elastic** cloud data warehouse with proven SQL Server capabilities.
Support your **smallest to your largest** data storage needs.

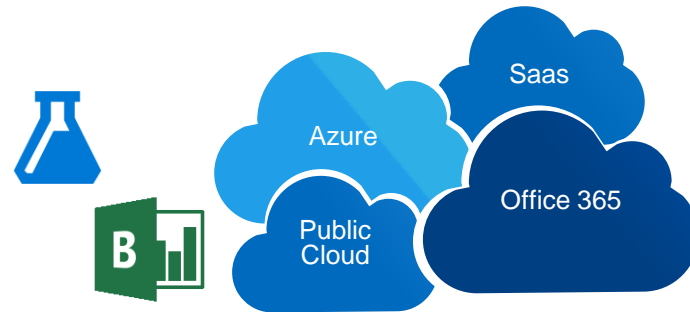
Elastic scale & performance



- Scales to petabytes of data
- Massively Parallel Processing
- Instant-on compute scales in seconds
- Query Relational / Non-Relational

Powered by the Cloud

Get started in minutes
Integrated with Azure ML, PowerBI & ADF



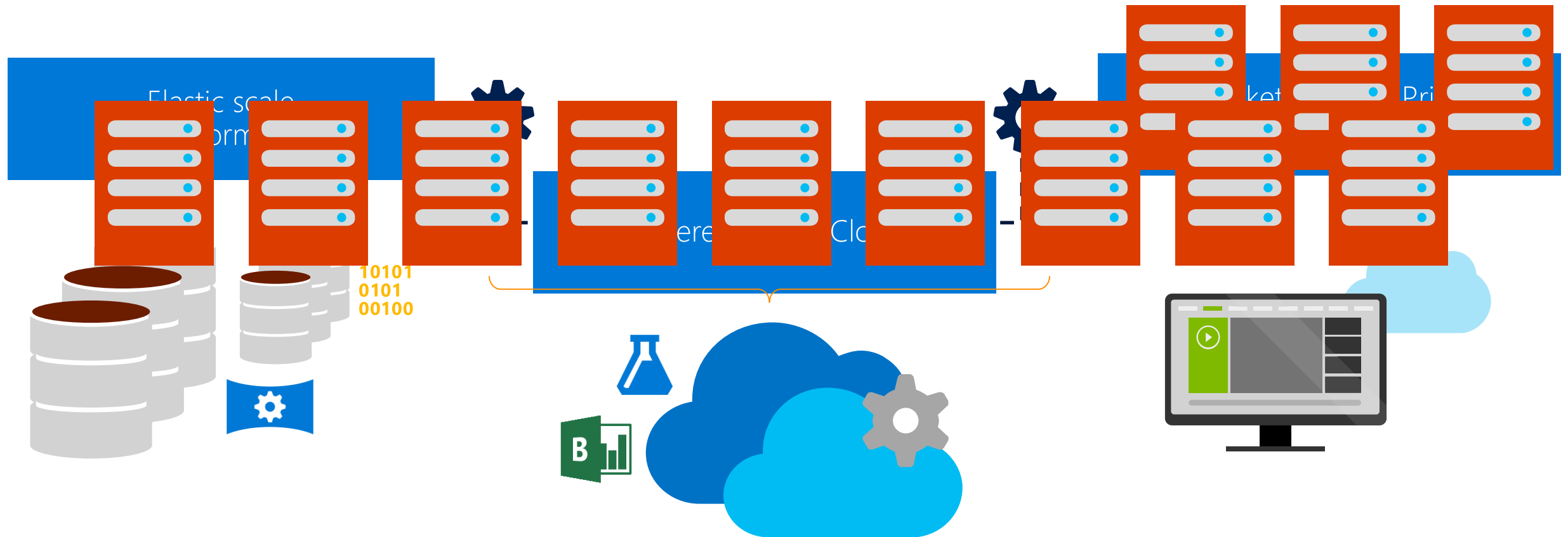
Market Leading Price & Performance



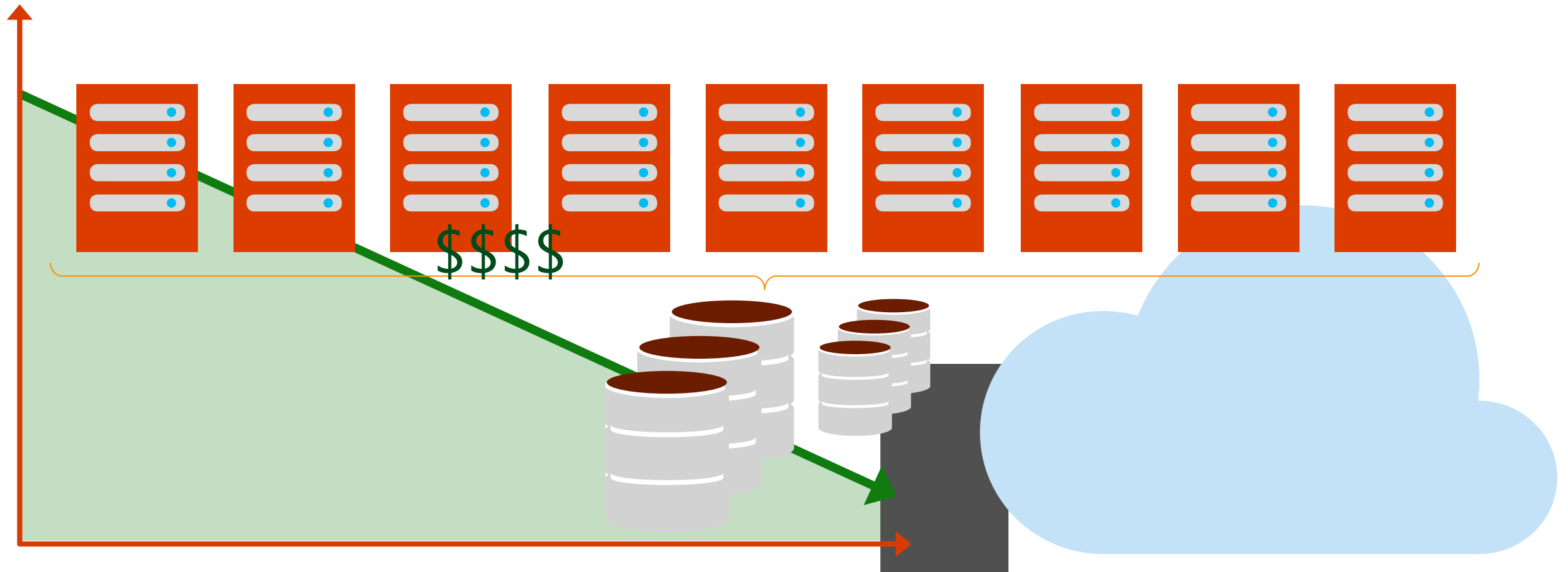
Simple billing compute & storage
Pay for what you need, when you need it
with dynamic pause

Elastic Scale

- Spin up for heavy workloads, cycle down for daily activity
- Buy time to insight based on what you need, when you need it
- Choose the combo of compute and storage that meets your needs

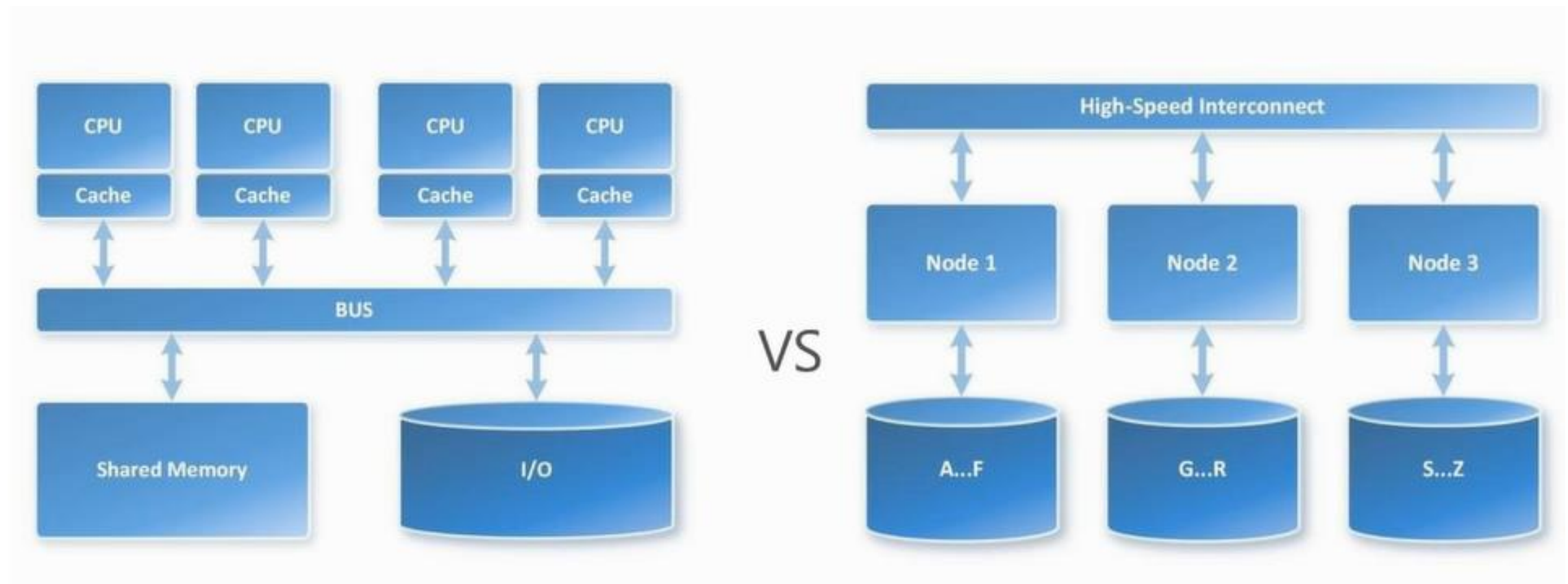


Pause & Restart

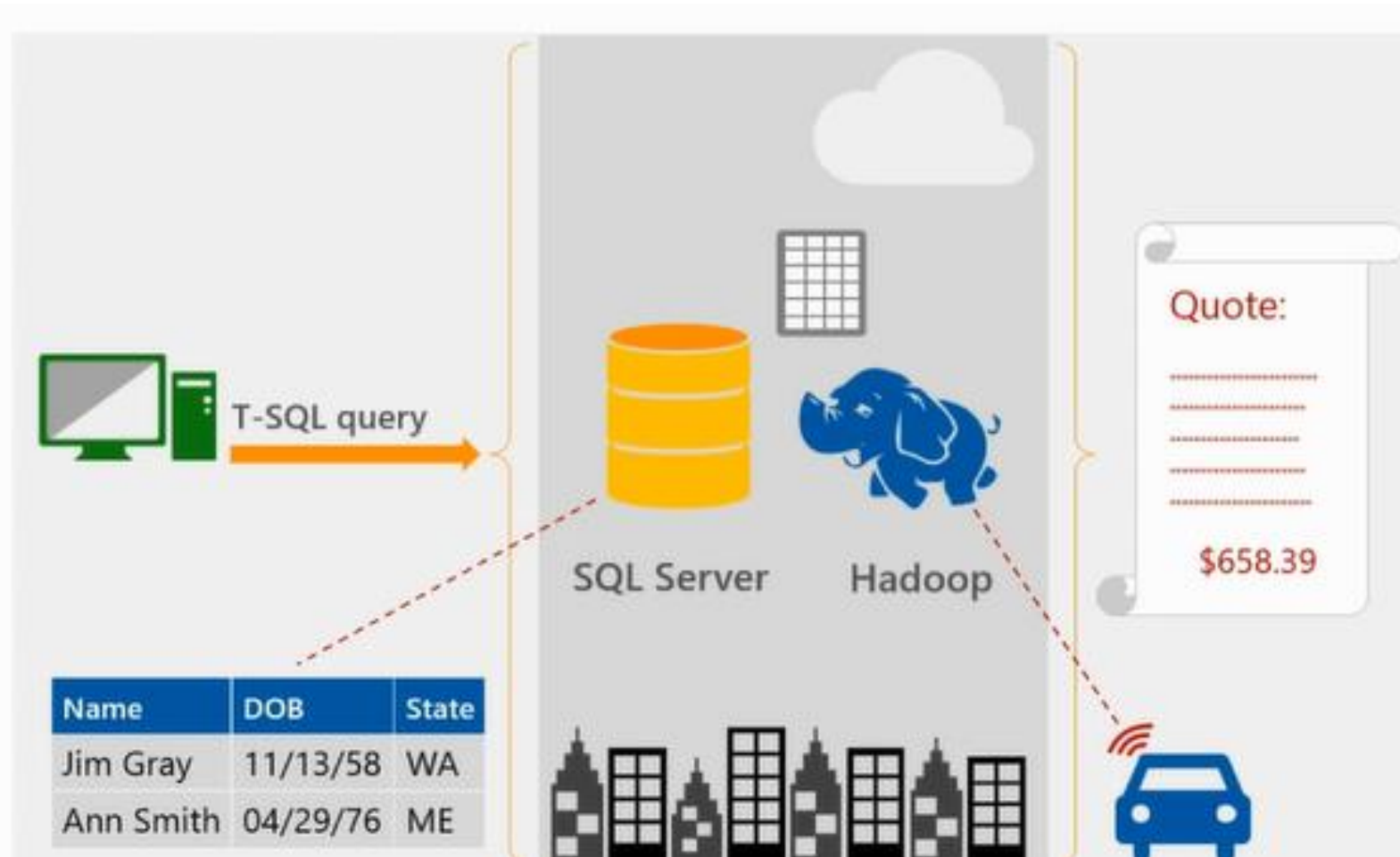


SMP vs MPP

Symmetric Multi-Processing access single shared memory, scale up (classic SQL)
Multi Parallel-Processing, shared nothing (Data warehouse)



Query unstructured data via Polybase/T-SQL



Capability

T-SQL for querying relational and non-relational data across SQL Server and Hadoop

Benefits

- New business insights across your data lake
- Leverage existing skillsets and BI tools
- Faster time to insights and simplified ETL process

Data Warehouse Units (DWUs)

Load rate

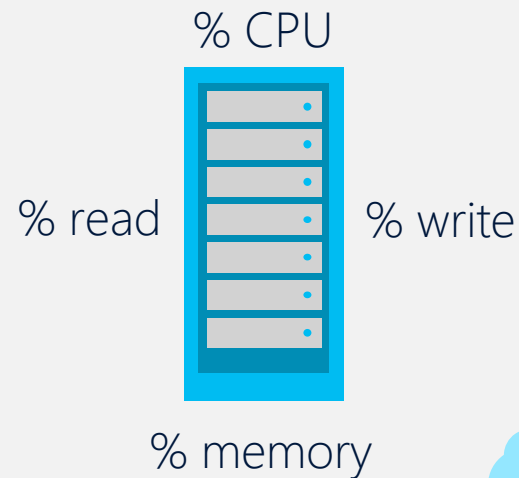


Number of records that can be loaded into the data warehouse per second

Scan rate



Number of records that can be sequentially retrieved from the data warehouse per second



SQL Data Warehouse introduces Data Warehouse Units (DWUs) as an abstraction of computational resources (CPUs, memory, storage I/O) aggregated across a number of nodes



Where does SQL DW fit?

existing services

SQL Server VM (IaaS)

OLTP / DW workloads
Lift and Shift
Customer managed

1-1TB+

Azure SQL Database

OLTP/ DW workloads
Net new development
Fully managed service

1-500 GB

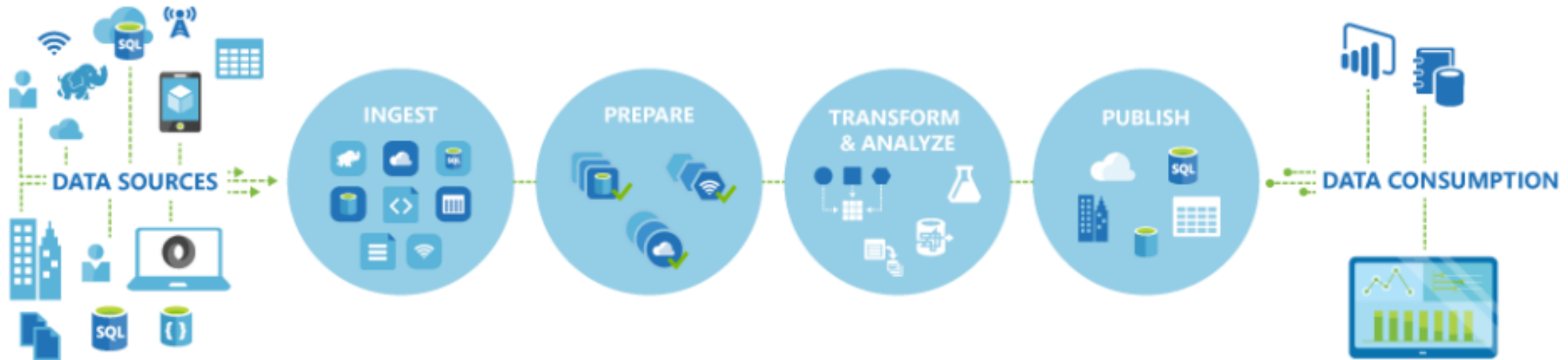
Azure SQL Data Warehouse

DW workloads only
Fully managed
Dynamic compute scaling and pause

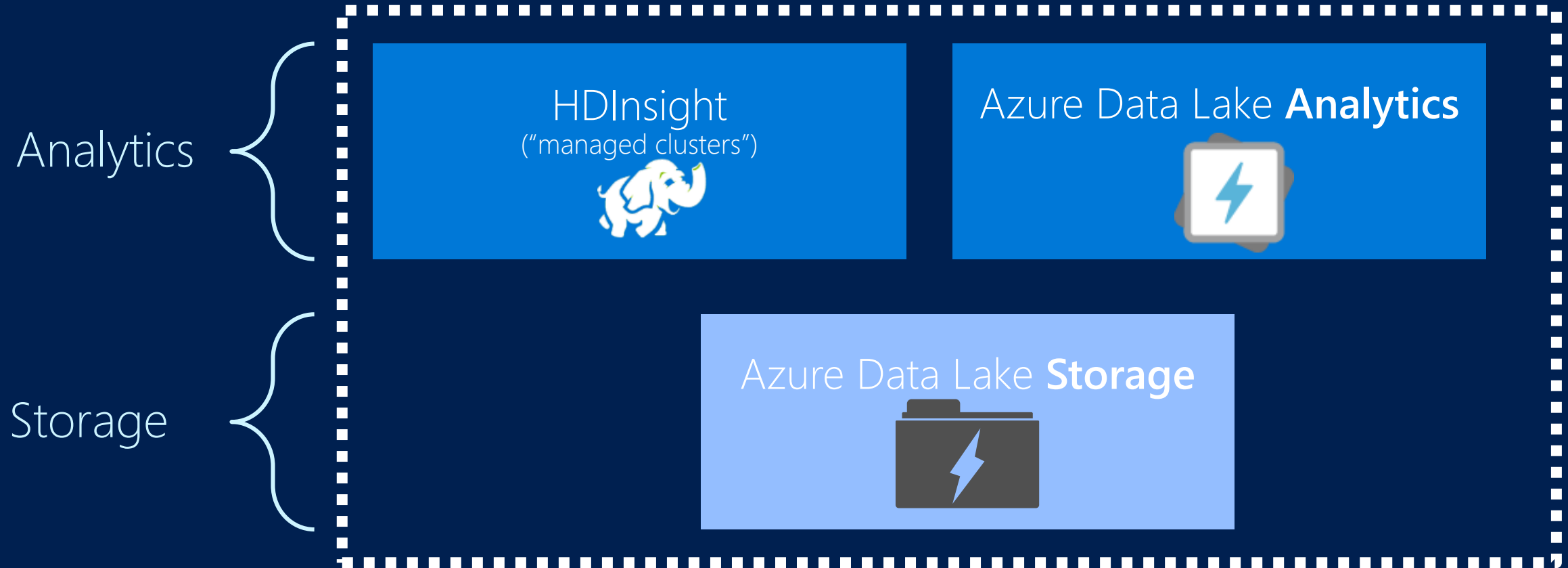
250GB – PB+

Azure Data Factory

A managed cloud service for building and operating data pipelines

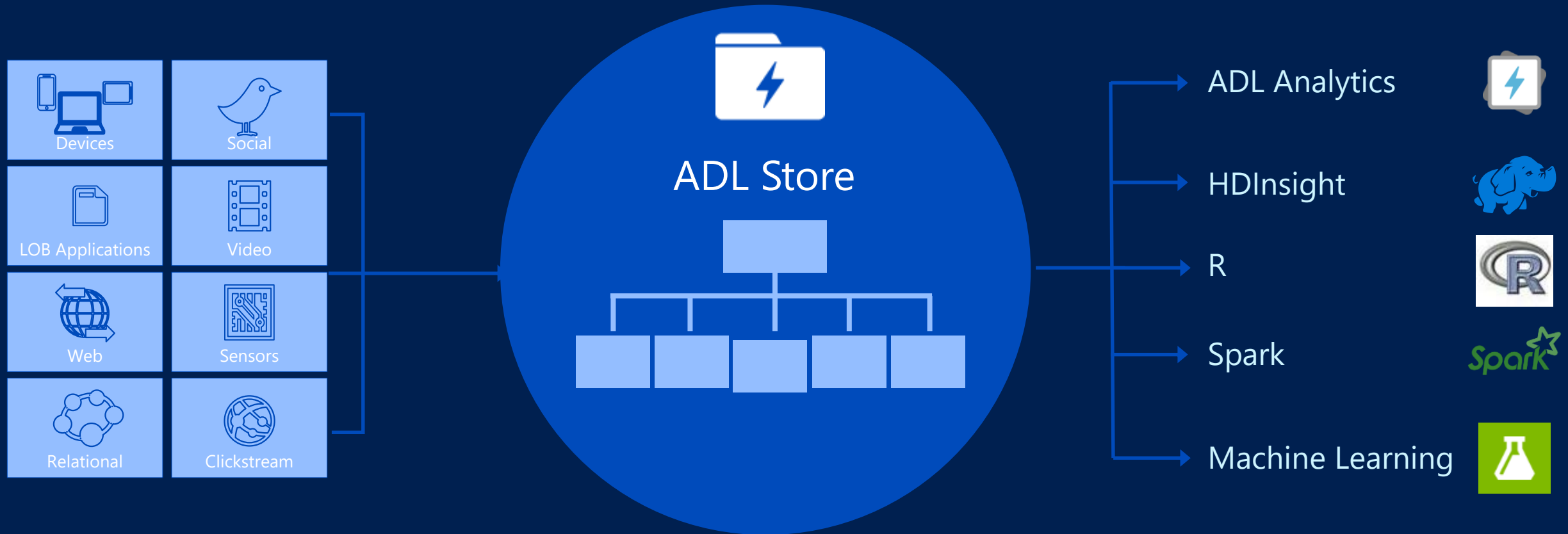


Azure Data Lake



What is Azure Data Lake Store?

A highly scalable, distributed, parallel file system in the cloud specifically designed to work with multiple analytic frameworks



Azure Data Lake Analytics

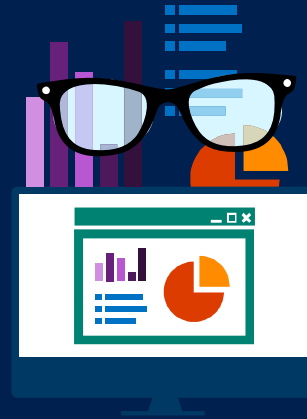
All data



Productivity
from day one



Easy and
powerful data
preparation



Limitless scale



Enterprise-
grade



Work across all cloud data



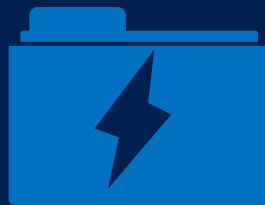
Azure Data Lake Analytics



Azure SQL DW



Azure SQL DB



Azure Data Lake Store



Azure Storage Blobs



SQL DB in an Azure VM

Azure Data Lake Analytics Service

A new distributed
analytics service



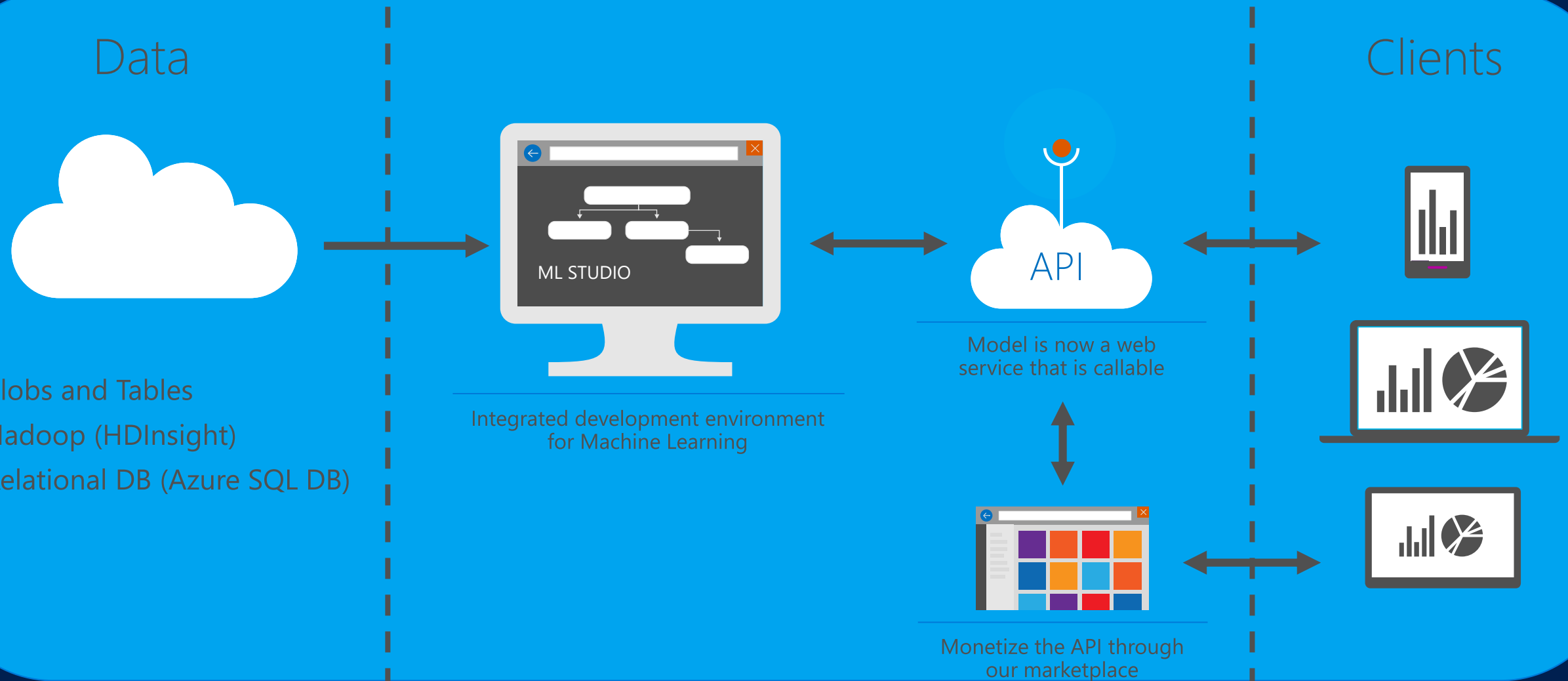
- Built on **Apache YARN**
- **Scales dynamically** with the turn of a dial
- **Pay by the query**
- Supports **Azure AD** for access control, roles, and integration with on-prem identity systems
- Built with **U-SQL** to unify the benefits of SQL with the power of C#
- Processes data **across Azure**

U-Sql example

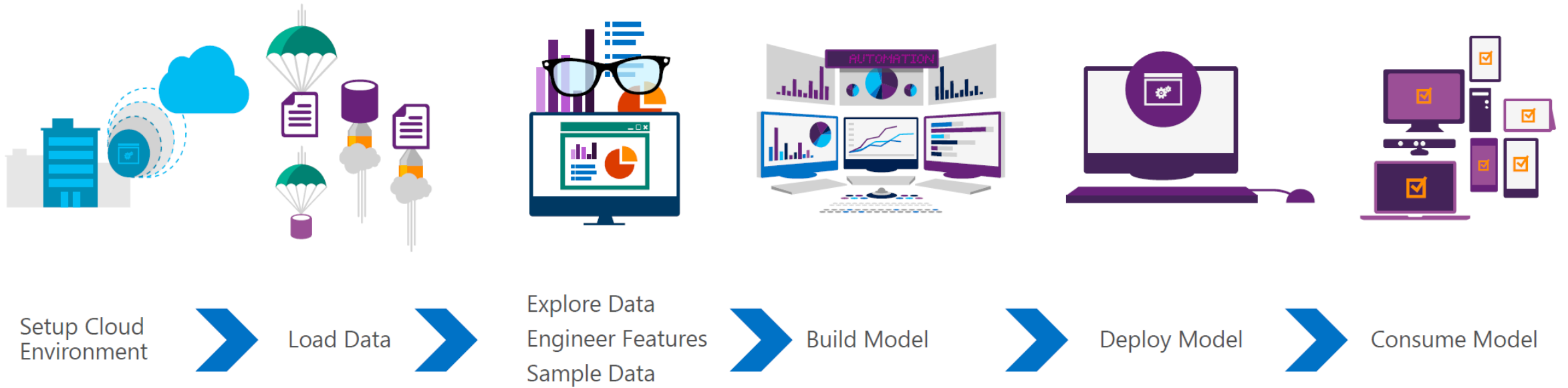


```
@searchlog =  
    EXTRACT UserId      int,  
            Start      DateTime,  
            Region     string,  
            Query       string,  
            Duration    int?,  
            Urls        string,  
            ClickedUrls string  
    FROM "/Samples/Data/SearchLog.tsv"  
    USING Extractors.Tsv();  
  
OUTPUT @searchlog  
    TO "/output/SearchLog-first-u-sql.csv"  
    USING Outputters.Csv();
```

Azure Machine Learning



Cortana Analytics Process



Demo

