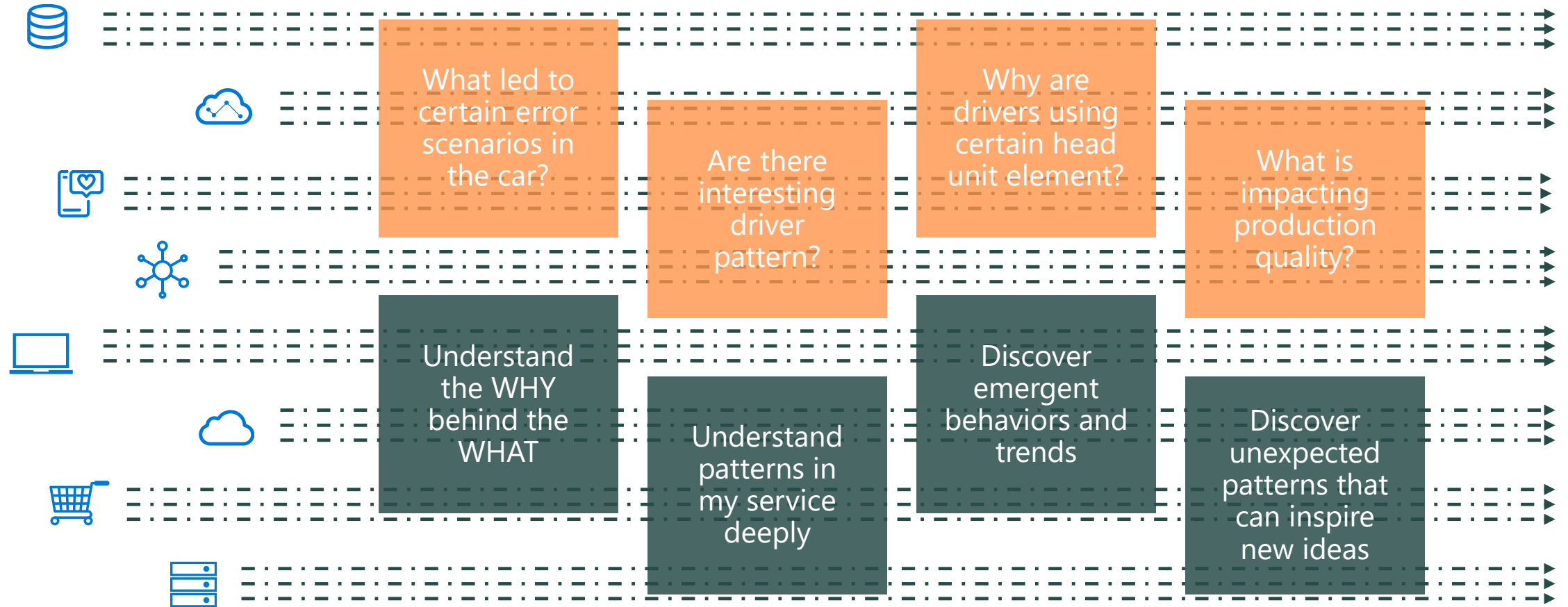




BMW ADX intro

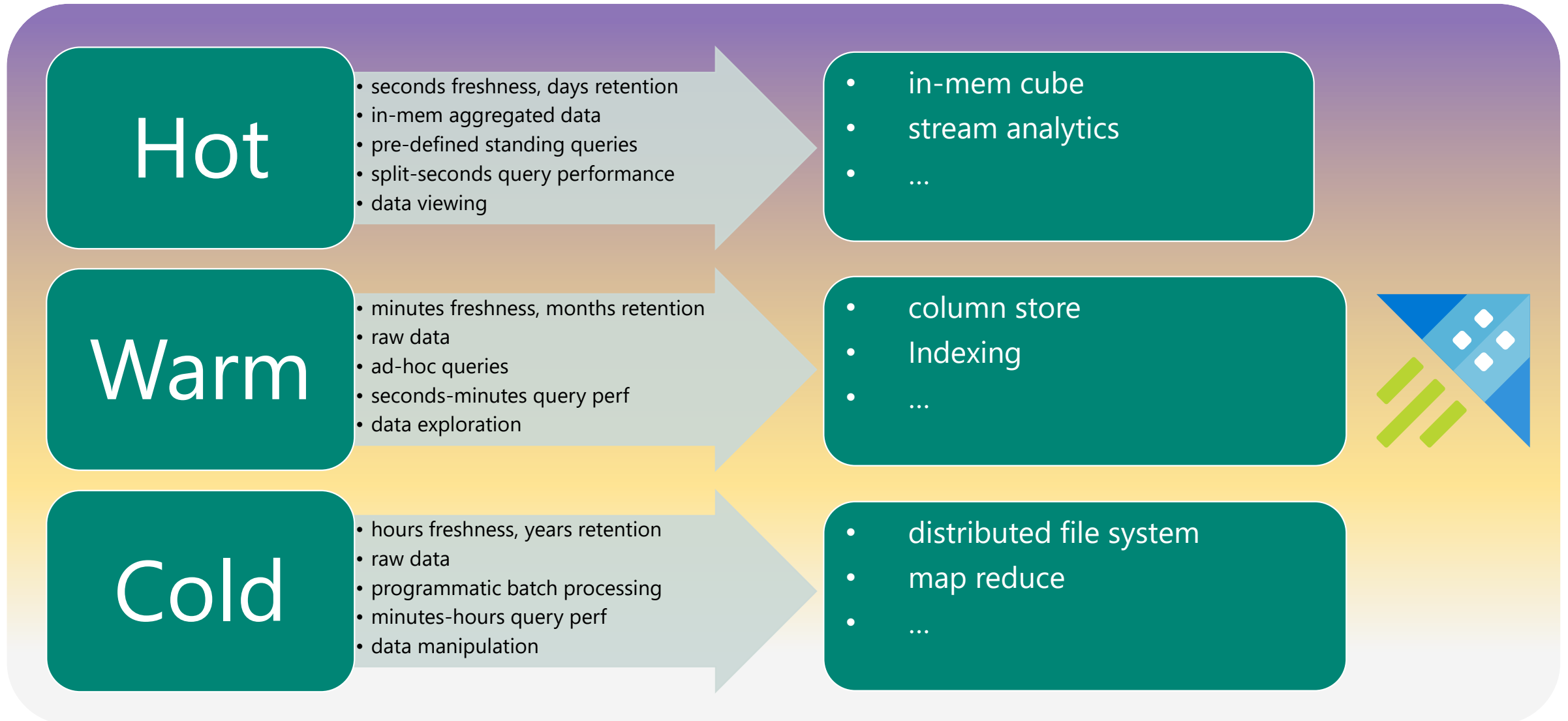
Henning Rauch

Take action on details that differentiate your business



New insight develops when you explore your data freely, unconstrained.

Multi-temperature data processing paths



Azure Data Explorer

Fast and fully managed data analytics platform



Fully managed for efficiency

Focus on insights, not the infrastructure for fast time to value

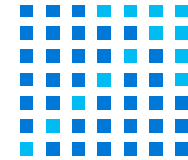
No infrastructure to manage; provision the service, choose the SKU for your workload, and create database.



Optimized for streaming data

Get near-instant insights from fast-flowing data

Scale linearly up to **200 MB per second per node** with highly performant, low latency ingestion.



Designed for data exploration

Run ad-hoc queries using the intuitive query language

Returns results from **1 Billion records < 1 second** without modifying the data or metadata

Azure Data Explorer overview

1. Capability for many data types, formats, and sources

Structured (numbers), semi-structured (JSON/XML), and free text

2. Batch or streaming ingestion

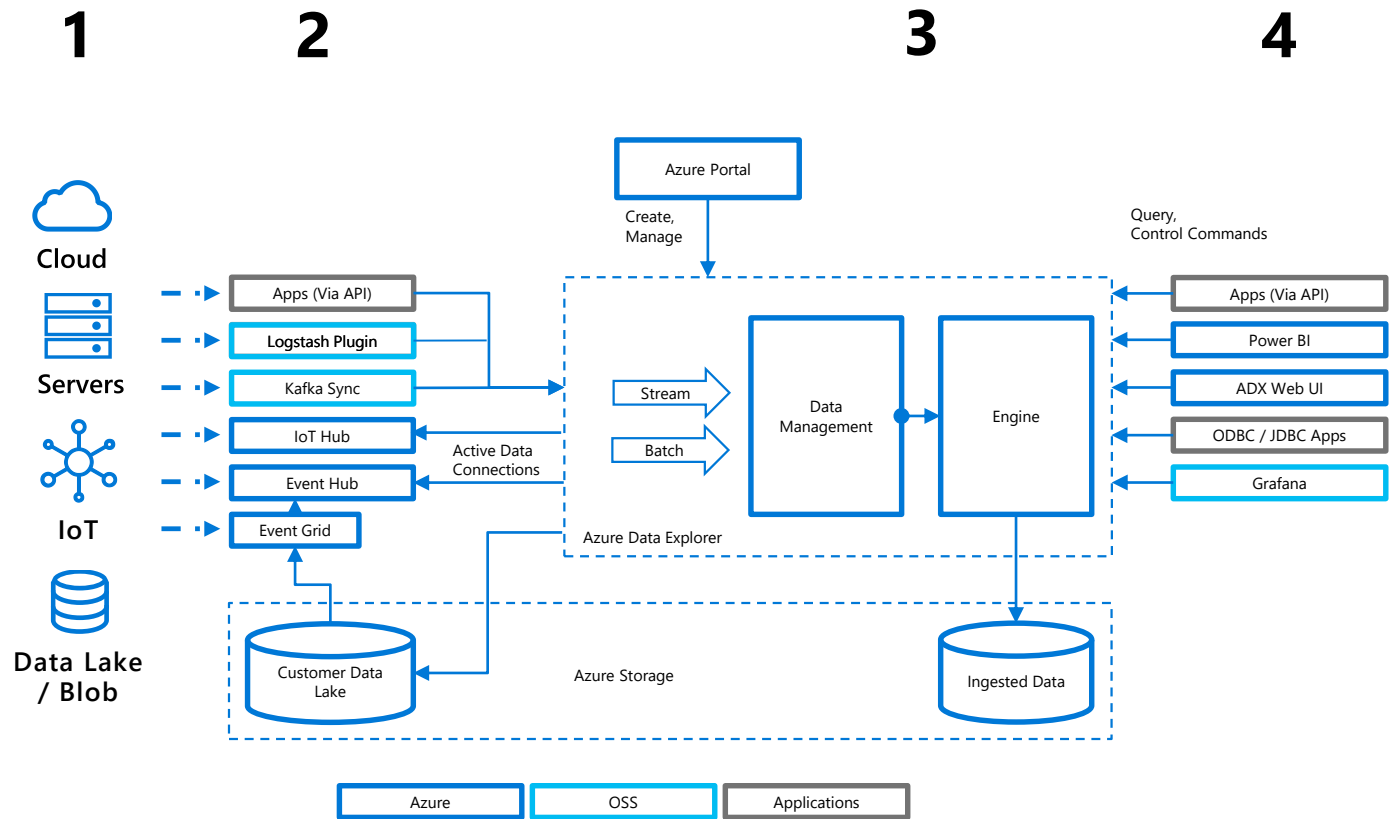
Use managed ingestion pipeline or queue a request for pull ingestion

3. Compute and storage isolation

- Independent scale out / scale in
- Persistent data in Azure Blob Storage
- Caching for low-latency on compute

4. Multiple options to support data consumption

Use out-of-the box tools and connectors or use APIs/SDKs for custom solution



Simple provisioning

Easy provisioning

- No infrastructure to manage: Azure PaaS
- Use Azure Portal, APIs, or PowerShell to provision
- Storage Optimize/Compute Optimize SKUs
- Flexible data caching and retention options at database and table level

Rapid elasticity

- Buy only what you need
- Scale out/in manually or use autoscale
- Dedicated resources

Maintenance-free

- All columns are compressed and indexed during ingestion
- No index maintenance required

Fully managed for efficiency



Create an Azure Data Explorer Cluster

Basics | Review + create

PROJECT DETAILS
Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

* Subscription: PM_POC
* Resource group: customers_poc
[Create new](#)

CLUSTER DETAILS
* Cluster name: mynewadx
* Location: East US 2
* Compute specifications (View full pricing details):

Recommended
D14_v2 (16 vCPUs, 614 GB Cache, 112 GB Ram)
L16 (16 vCPUs, 2.7 TB Cache, 128 GB Ram)

All Available Pricing
D13_v2 (8 vCPUs, 307 GB Cache, 56 GB Ram)
D14_v2 (16 vCPUs, 614 GB Cache, 112 GB Ram)
L8 (8 vCPUs, 1.3 TB Cache, 64 GB Ram)
L16 (16 vCPUs, 2.7 TB Cache, 128 GB Ram)

Select compute specifications
Available plans - PREVIEW

The price is an estimate of the cluster's virtual machines and Azure Data Explorer service costs. Other costs are not included. Please see Azure calculator page for an estimate and the Azure Data Explorer pricing page for full pricing information.

D13_V2		D14_V2	
8 vCPUs	16 vCPUs	8 vCPUs	16 vCPUs
307 GB Cache	614 GB Cache	1.3 TB Cache	2.7 TB Cache
56 GB Ram	112 GB Ram	64 GB Ram	128 GB Ram
Compute \$0.759/h	Compute \$1.518/h	Compute \$0.759/h	Compute \$1.518/h
Azure Data Explorer \$0.44/h	Azure Data Explorer \$0.88/h	Azure Data Explorer \$0.44/h	Azure Data Explorer \$0.88/h
1.20 USD/H (ESTIMATED)		2.40 USD/H (ESTIMATED)	

L8		L16	
8 vCPUs	16 vCPUs	8 vCPUs	16 vCPUs
1.3 TB Cache	2.7 TB Cache	1.3 TB Cache	2.7 TB Cache
64 GB Ram	128 GB Ram	64 GB Ram	128 GB Ram
Compute \$0.759/h	Compute \$1.518/h	Compute \$0.759/h	Compute \$1.518/h
Azure Data Explorer \$0.44/h	Azure Data Explorer \$0.88/h	Azure Data Explorer \$0.44/h	Azure Data Explorer \$0.88/h
1.18 USD/H (ESTIMATED)		2.37 USD/H (ESTIMATED)	

[Review - create](#) [Next: Review + create >](#)

[Select](#)

Fast ingestion

Easy input from multiple data sources

Multiple data sources

- Managed ingestion (e.g. Event Hub, IoT Hub) or programmatic ingestion (e.g. connectors, SDKs)

Multiple formats

- Tabular formats: CSV, TSV, PSV, SCSV
- JSON (line-separated, multiline), Avro
- ZIP and GZIP compression (for Batch)

Versatile ingestion

- Use batch or streaming ingestion

Easy input from multiple formats

- Tabular formats: CSV, TSV, PSV, SCSV
- JSON (line-separated, multiline), Avro
- ZIP and GZIP compression (for Batch)

Instant integration with simple transforms

- Reshape the data with update policies (Database Ingest Triggers)

Optimized for streaming data



Managed services



Azure Event Grid



Azure Event Hub



Azure IoT Hub



Azure Blob



Azure Data Lake

Connectors/Plugins



logstash



kafka

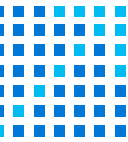
SDKs and APIs



REST API

Intuitive querying

Designed for data exploration




Simple and powerful

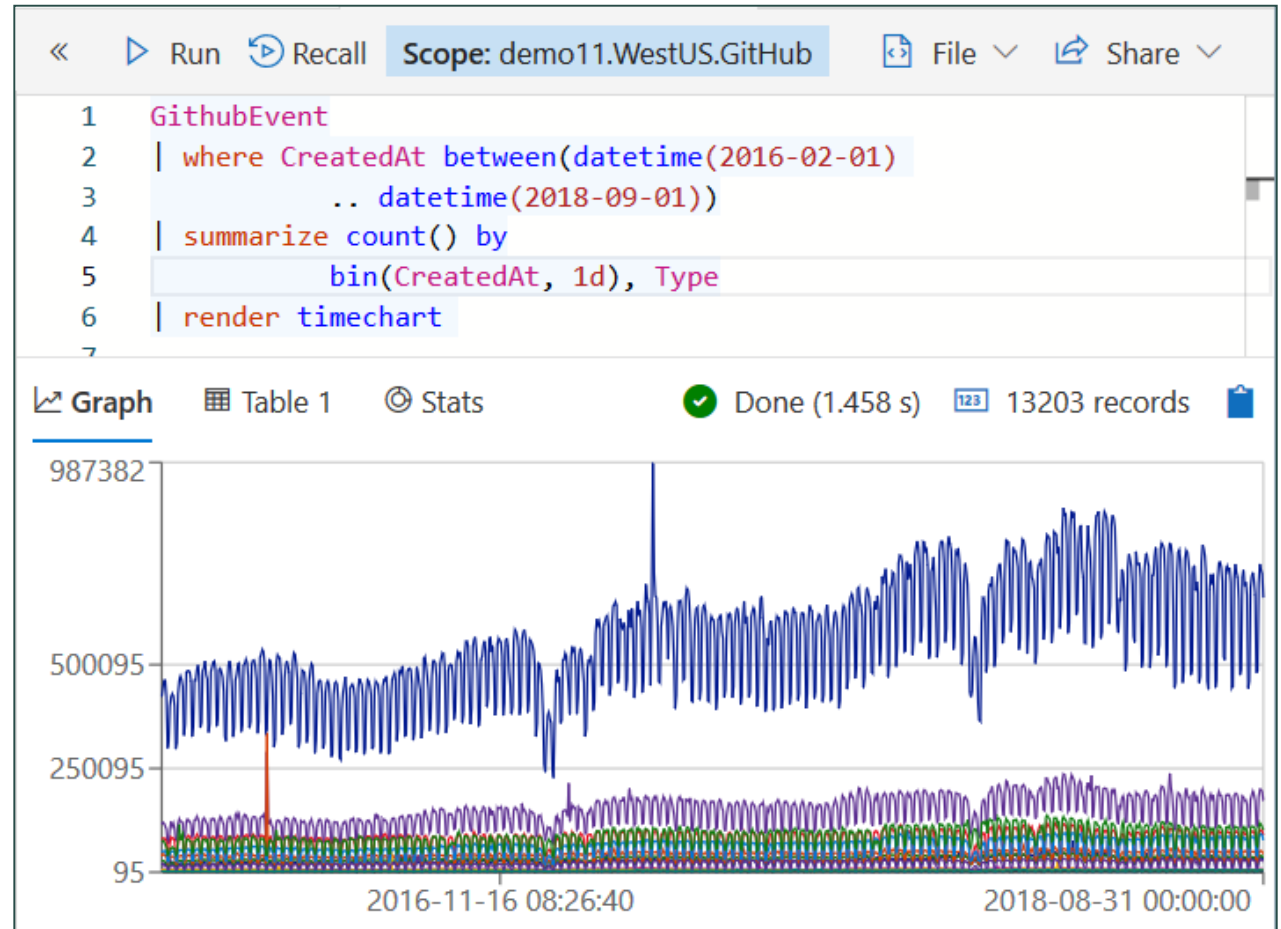
- Rich relational query language (filter, aggregate, join, calculated columns, and more)
- Built-in full-text search, time series, user analytics, and machine learning operators
- Out-of-the box visualization (render)
- Easy-to-use syntax + Microsoft IntelliSense
- Highly recognizable hierarchical schema entities

Comprehensive

- Built for querying over structured, semi-structured and unstructured data simultaneously

Extensible

- In-line Python 
- SQL



Typical scenarios

Log Analytics Platform

Fast, fresh, cost efficient, indexed access to all activity records, events and time series data
Platform for internal applications and services



Multitenant Analytics Solutions as a Service

Customer facing analytical solution in a variety of domains
Complementing the main product or the product itself



Advanced Analytics

Power data science and machine learning workloads
Boost data science team productivity



The platform for analytical Solutions(aaS)

Azure Monitor

- Log Analytics
- Application Insights



Security Products

- Windows Defender
- Azure Security Center
- Azure Sentinel



IoT

- Time Series Insights
- Azure IoT Central
- Microsoft Connected Vehicle Platform



Gaming

- PlayFab



The data lake at your fingertips



Cached, indexed access to the data lake

- Ad hoc query over raw data with full indexing
- Automatic ingestion from selected lake repositories
- Sensing new data as it enters the lake
- ADLS G2 and Azure Blob storage

Continuous export to the data lake

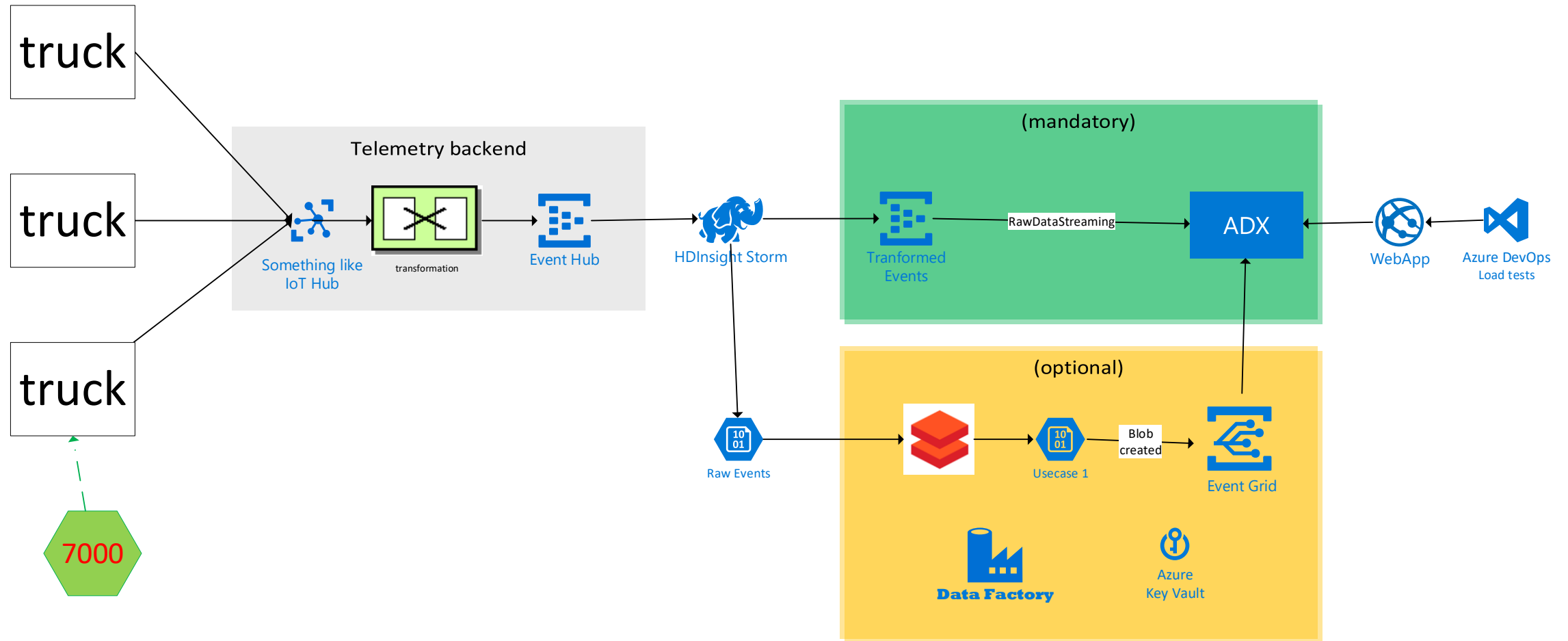
- Data ingested via other channels
- Automatically saved to a data lake folder
- Parquet, CSV

Ad hoc query over raw data (New)

- Ad hoc query data in its natural format in the lake
- Leverage data partitioning to optimize query time
- Join across indexed and natural lake data

Truck telemetry analytics

Truck telemetry analytics - architecture



Truck telemetry analytics – bigger scope

