**Microsoft**

# TLV **Cloud Workshops**

Boost Yourself Up To The Cloud

**Microsoft**

# Azure Data Explorer

Big Data Interactive Analytics Platform

Public Preview
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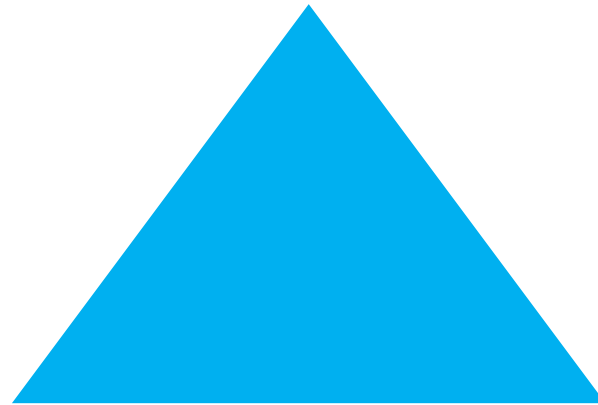Kusto in a sentence
Undersea
Discovery and Adventure,

# Multi-temperature data processing paths

**Hot**
- seconds freshness, days retention
- in-mem aggregated data
- pre-defined standing queries
- split-seconds query performance
- data viewing

→
- in-mem cube
- stream analytics
- ...

**Warm**
- minutes freshness, months retention
- raw data
- ad-hoc queries
- seconds-minutes query perf
- data exploration

→
- column store
- Indexing
- ...

**Cold**
- hours freshness, years retention
- raw data
- programmatic batch processing
- minutes-hours query perf
- data manipulation

→
- distributed file system
- map reduce
- ...

# Azure Data Explorer in a sentence

A **big data** **analytics** **cloud** **platform** **optimized** for **interactive, ad-hoc queries**

Any append-only stream of records

High volume
High velocity
High variance (structured, semi-structured, free-text; sources; unpredicted)

Relational query model:
Filter, aggregate, join, calculated columns, ...

Fully-managed

PaaS, Vanilla, Database

Purposely built

Rapid iterations to explore the data

Demo – Exploring the ocean of data

# Unique value proposition

High volume, throughput & low latency

Structured, semi-structured, free text data

Powerful & simple analytics query language
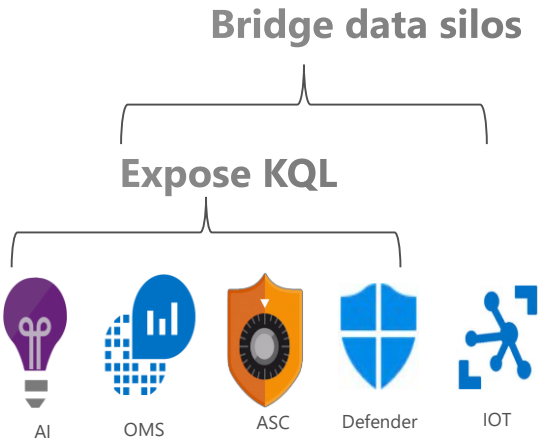
Extreme performance over large data sets

# Our Journey

**Bridge data silos**

**Expose KQL**

**Kusto as a Platform
Azure Data Explorer**

| Foundation | Telemetry Analytics for internal | Analytics Data Platform for products | Interactive Analytics Big Data Platform |
|---|---|---|---|
| ... | 2015 - 2016 | 2017 | 2018 |
| Fulfill the missing parts?<br>Founding team brainstorm ideas, coding<br>Friends & family exposure | Starting with 1st party validation<br>Building modern analytics<br>Vision of analytics platform for MSFT | Analytics engine for 3rd party offers<br>Unified platform across OMS/AI<br>Expanded scenarios for IOT timeseries Bridged across client/server security | Currently on Public preview |

AI   OMS   ASC   Defender   IOT

Ignite 2018:
Announced to the world as Azure Data Explorer

# Not a typical preview...

**46**
Regions in Azure

**3.2 K** +90%
Cluster pairs (Engine + DM)
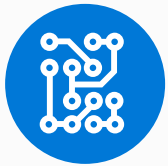
**27.1 K**
Nodes

**370 K**
Cores

**267 PB** +125%
Total data size

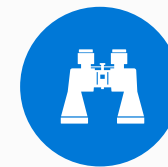**7.2 PB** +120%
Data ingested per day

**265 K** +150%
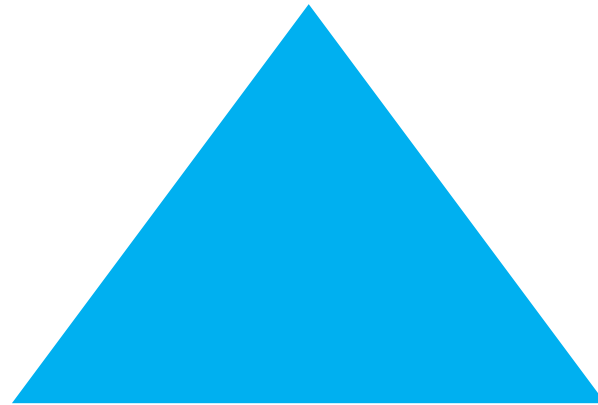Databases

**12.2 B** +420%
Total queries

# Azure data analytics

# The 3's Product Principles

**Powerful Service**

*"Kusto is the single most amazing technology in storage I have seen in the last ~10 years"*

**Addictive Experience**

*"religion of Kusto is getting more believers"*

**Customer focus**

*"Big, huge, enormous kudos to Kusto devs and ops. I think you guys offer the best support to Your customers compared to any team in Microsoft that I've worked with or even heard of"*

# Key usage patterns

## Data platform for digital feedback loop

- **Enable** engineers, data scientists and product managers to get ad hoc insights from their product operation and activity telemetry

## Data platform for interactive analytics products

- **Build** interactive data exploration features based on ADX data platform

# Product links

- Product Page: http://aka.ms/AzureDataExplorer
- Announcement: https://azure.microsoft.com/en-in/blog/introducing-azure-data-explorer/
- Whitepaper: https://azure.microsoft.com/en-us/resources/azure-data-explorer/en-us/
- 101 blog: https://azure.microsoft.com/en-us/blog/azure-data-explorer-technology-101/
- Scott Guthrie's Keynote (ADX Announcement/Demo)
- Rohan Kumar's Keynote (ADX Announcement/Demo)
- Scott Guthrie's in Techorama (Scott's demo)
- Docs: https://docs.microsoft.com/en-us/azure/data-explorer
- Pricing Page: https://azure.microsoft.com/en-us/pricing/details/data-explorer/
- Cost Estimator: http://aka.ms/ADX.CostEstimator
- User voice - http://aka.ms/kustouservoice
- Course – Basics of KQL - Http://aka.ms/KQLPluralsight

Q&A
Just query it!