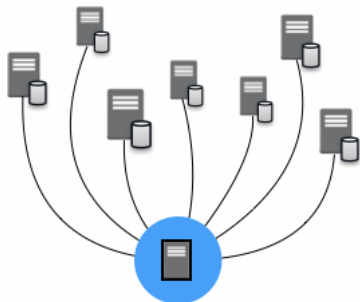


True Customer 360 requires Digital Transformation for Speed, Scale and Integration

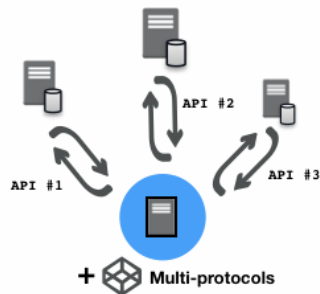
Do you have these challenges?

Many sources



Vast amount of data stored disparately and replicated across many IT systems.

Many APIs



Requesting/Querying systems might need to make multiple queries to different systems and to adapt to various sets of APIs/Protocols to obtain values

Data Availability



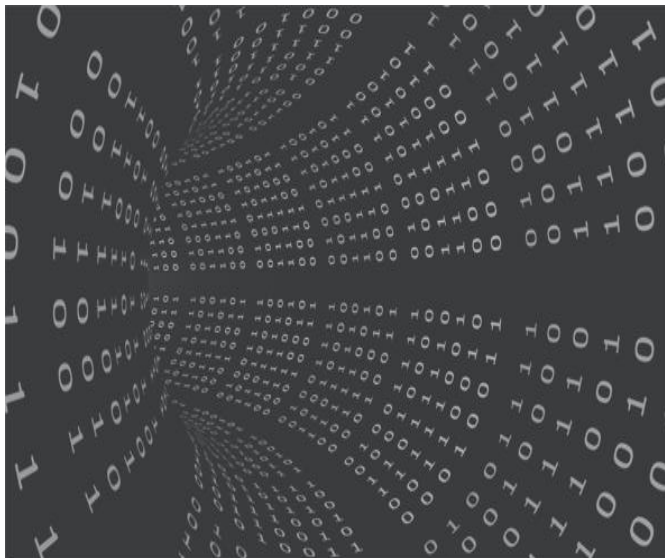
Many applications might just need to obtain certain values but unable to continue when it cannot get the data from the source systems (down/congested)

Increasing Cost



Source systems need to be expanded constantly to cater mainly for the increasing demand of querying traffic

Digital Transformation Requirements



01 Unified Data Point

Enabling a unified data point for southbound queries reduces the complexity of data extraction from northbound applications.

02 API Layer

Querying systems often adapt to multiple APIs for querying across multiple data sources

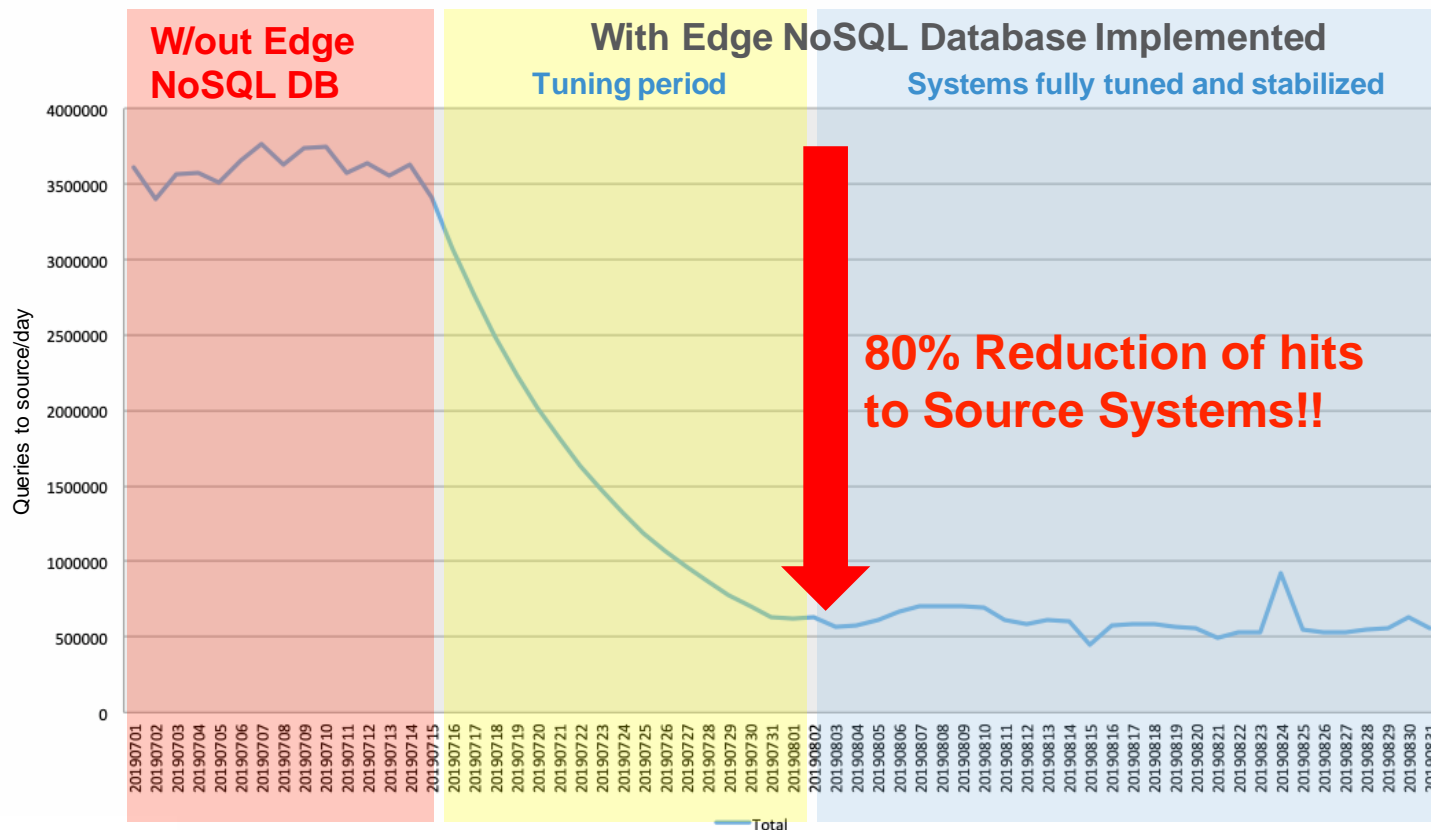
03 Intelligence

Incorporate business logic and lookups to enrich raw data. From translation of values to rules-based logic and arithmetic/analytical formulations.

04 Performance & Security

Enhance data extraction performance by reducing the number of queries to data sources. Increased security with authentication and authorisation control to each data set.

Actual results – Customer Case Study



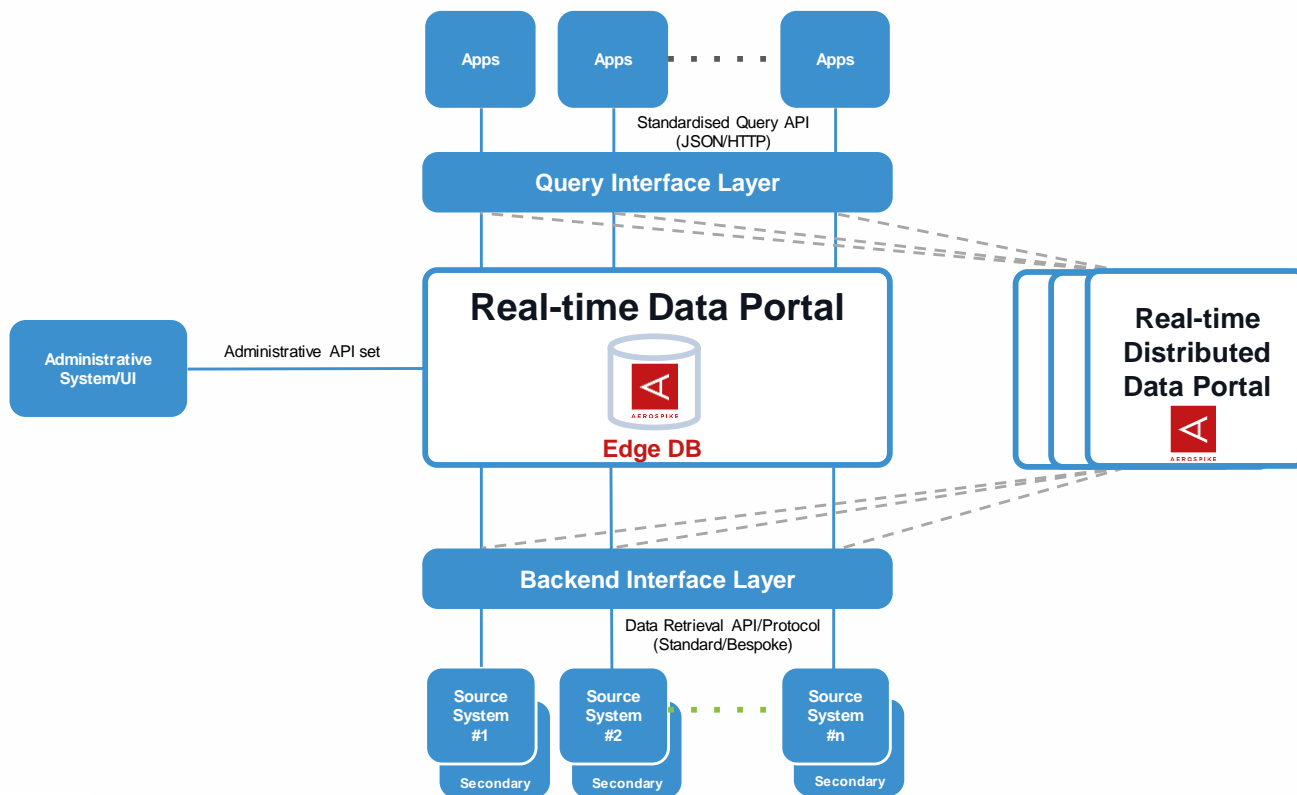
Edge Database Parameter Examples

Mobile Operator Use Case

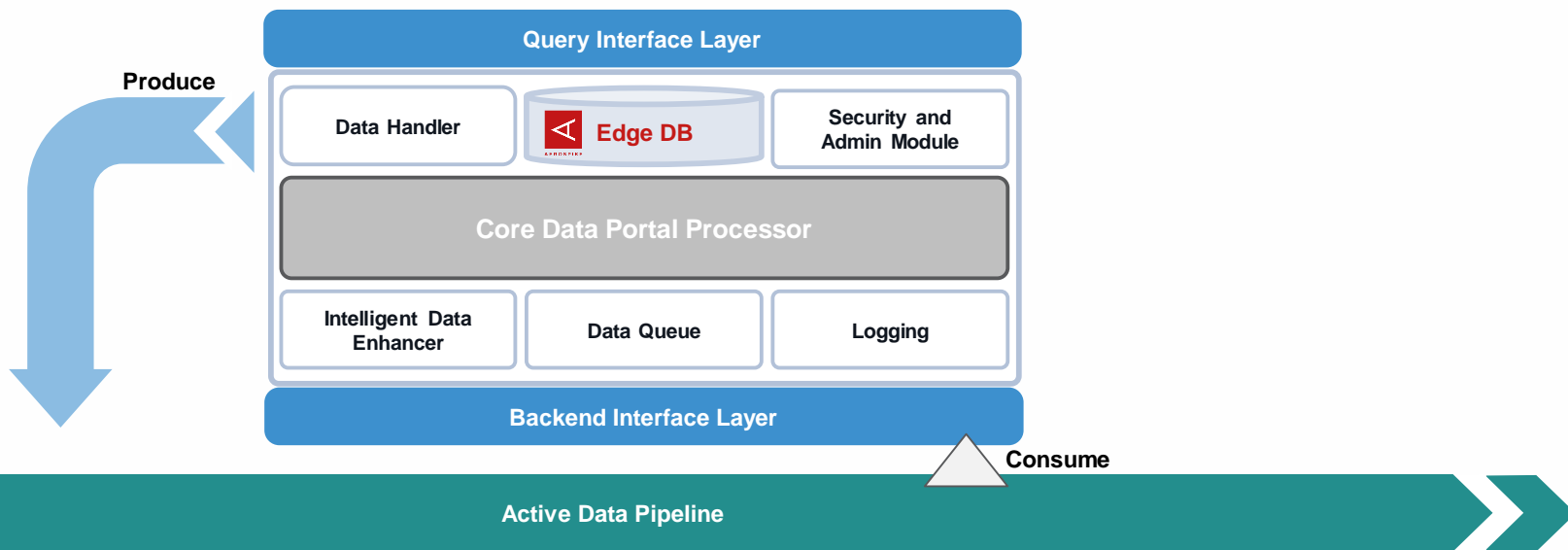
- MSISDN (KEY)
- Sub group – PRE/POST
- Language ID
- Subscription Plan
- Contract ID/Status
- Sub Status – Active, Passive, etc.

Frequently queried but infrequently changed (typical NoSQL use case)

High-level Architecture



Key Functional Blocks + Data Pipeline



enabled through
 **kafka**



Data Producers
Place any data onto your data pipe making it data in motion, ready to be consumed anytime



Transform
Enabling the cleansing, transformation of data any time, as it moves through the Data Pipe



Consume
Data to be consumed however you want, to enrich with new data, enabling aggregated stream of data truths



Onward to Store
Data to be moved into data store for use of data mining, analytics and reporting

Needs of a Data Portal approach for IT Transformation

- Efficient data management
- Easy access to data sources
- Data governance
- Downstream logical data transformation and adaptation for agile implementations
- Managing single point-of-truth for Customer Experience

Data portal acts as a layer to address all the above!

Essential Capabilities

- **Real-time Edge DB**
 - Ability to handle high volume and performance (as per dimensioned)
 - Flexibility to add/edit/remove Parameters & Key Values easily without service interruption
 - Data types agnostics (Integer, Strings, Long, Boolean, etc.)
 - Aerospike Key Value Store with hybrid storage engine support (in-memory & flash)
 - Supports HA/Cluster set up
- **Edge DB Update/Sync Mechanism**
 - Ability to refresh or update each parameter values at any point in time based on different source system independently
 - Primary-secondary source retrieval
 - Retention period
- **Security**
 - APIs with authorisation control
 - Different users access different set of parameters/values

Essential Capabilities, continued

- **Interfaces/APIs**
 - **Query API**
 - Standard industry protocol, JSON, SOAP XML, HTTP, etc...
 - Single API that supports single value retrieval per Key Identifier per query
 - Batch query support (returning the values for many Key Identifier)
 - Option to Bypass Cache retrieval
 - **Data Retrieval-Store API/protocols**
 - Adapted interfaces in accordance to the source system
 - Supports Primary-Secondary data source
 - **Administrative APIs**
 - Management of Key Value/Identifier and stored Params/Values
 - Force refresh/sync

What's Needed for Digital Transformation



Superior Reliability & Uptime

- ✓ Five-9's+ of uptime
- ✓ Dynamic Cluster Management
- ✓ Strong consistency



Predictable Performance at Hyperscale

- ✓ Patented Flash optimized storage layer
- ✓ Supports high data ingestion rates with real-time ML based decisions
- ✓ Scales to petabytes



Reduces TCO & Complexity

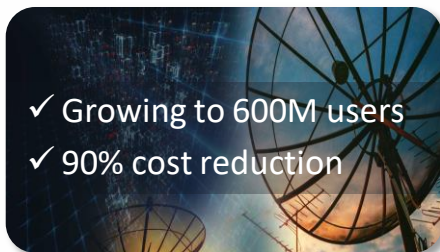
- ✓ Solves server sprawl
- ✓ Lowers cost using Flash, PMEM instead of DRAM
- ✓ Can be deployed anywhere



Proven

- ✓ Adopted by global industry pioneers
- ✓ Replaces first-gen NoSQL & caching solutions
- ✓ 90%+ customer retention

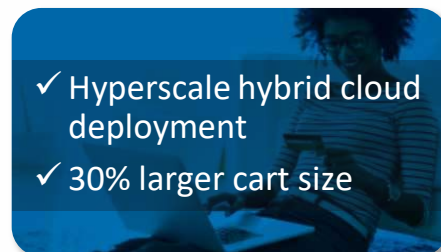
Powering Real-time Enterprise Applications at Hyperscale



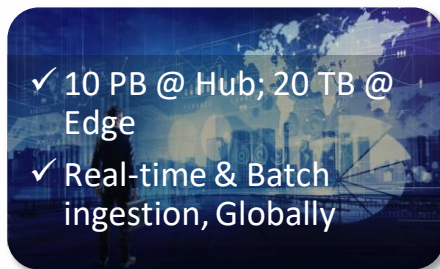
Customer 360



Real-time Bidding



Personalized Recommendations



Customer 360



Payment Fraud Prevention



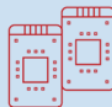
Digital Identity Security

The Aerospike Difference

Aerospike Hybrid Memory Architecture™

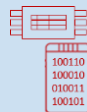


Patented Flash
Optimized Storage
Layer



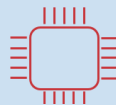
✓ Significantly higher
performance & IOPS

Storage indices in DRAM
Data on optimized SSD's



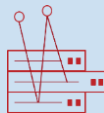
✓ Predictable Performance
regardless of scale

Multi-threaded
Massively Parallel



✓ 'Scale up' and 'Scale out'

Self-healing
clusters



✓ Superior Uptime, Availability and Reliability
✓ Single-hop to data

Thank you

Visit Aerospike Booth S41