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Azure Cosmos DB Overview

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Modern apps face new challenges

Managing and syncing data distributed around the globe

Delivering highly-responsive, real-time personalization

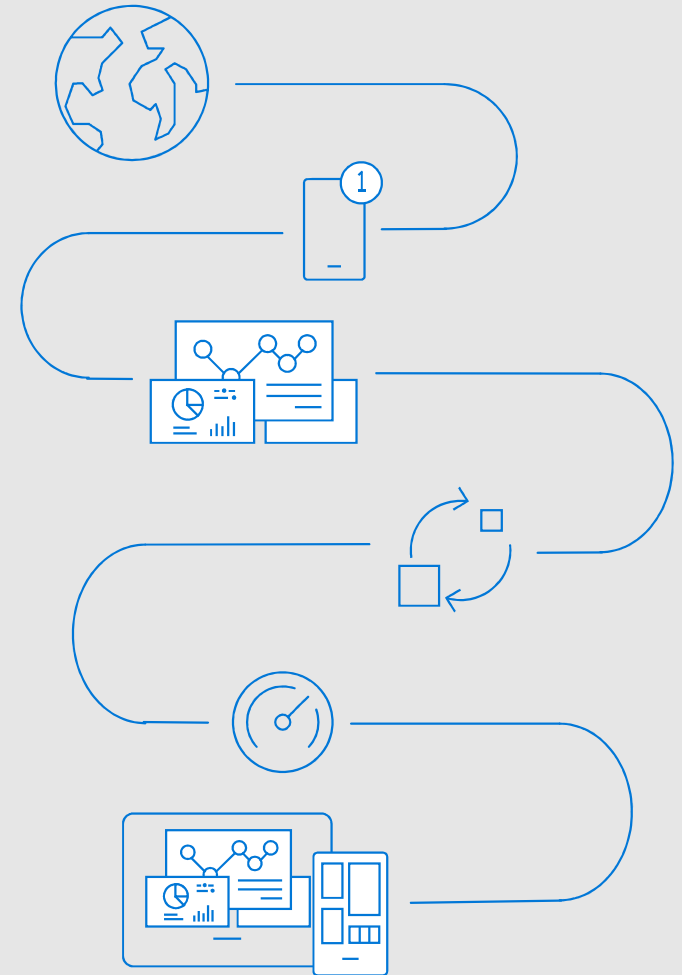
Processing and analyzing large, complex data

Scaling both throughput and storage based on global demand

Offering low-latency to global users

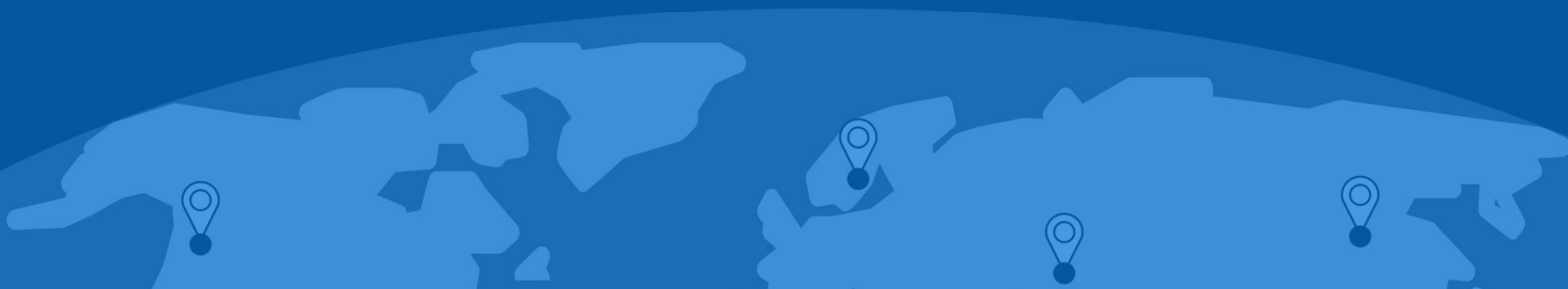
Modernizing existing apps and data –

Personalization, Recommendation, Social, Gamification.



Azure Cosmos db

A FULLY-MANAGED MULTI MODEL, MULTI MASTER, GLOBALLY DISTRIBUTED DATABASE SERVICE BUILT TO GUARANTEE
EXTREMELY LOW LATENCY AND MASSIVE SCALE FOR MODERN APPS





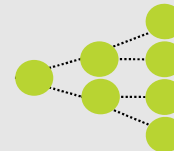
Key-Value



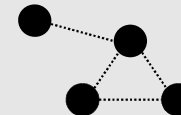
Column-family



Documents



Graph



Global distribution

Elastic scale out

Guaranteed low latency

Five consistency models

Comprehensive SLAs

A globally-distributed, multi-model, database service

Turnkey global distribution

PUT YOUR DATA WHERE YOUR USERS ARE IN MINUTES

Automatically replicate all your data around the world, and across more regions than Amazon and Google combined.

- Available in [all Azure regions](#)
- Manual and automatic failover
- Automatic & synchronous multi-region replication

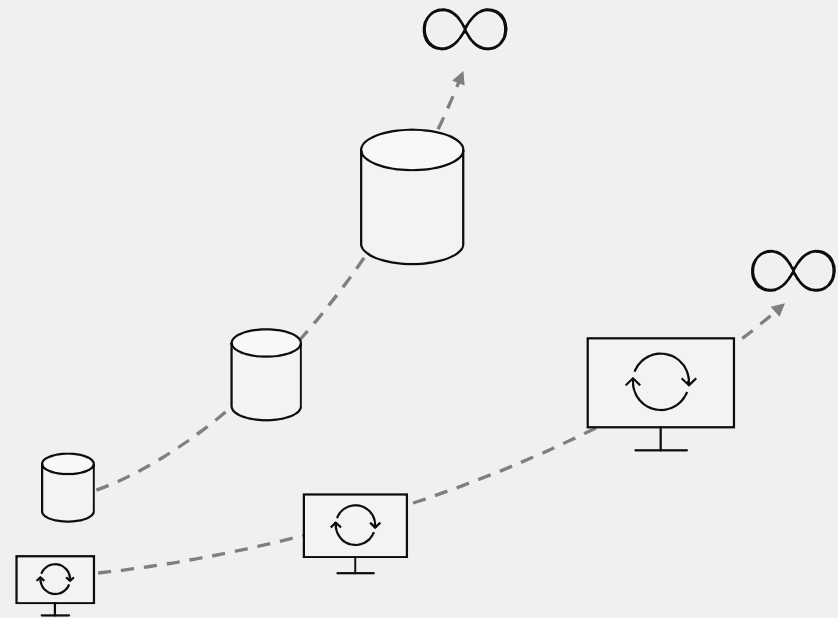


ELASTIC SCALE OUT OF STORAGE AND THROUGHPUT

SCALES AS YOUR APPS' NEEDS CHANGE

Independently and elastically scale storage and throughput across regions – even during unpredictable traffic bursts – with a database that adapts to your app's needs.

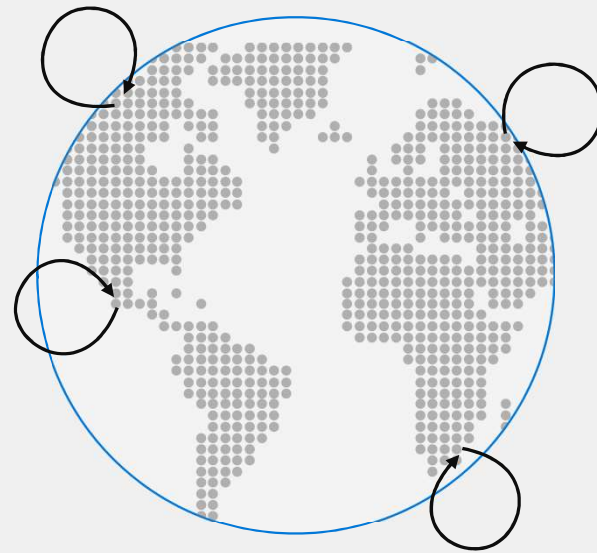
- Elastically scale throughput from 10 to 100s of millions of requests/sec across multiple regions
- Support for requests/sec for different workloads
- Pay only for the throughput and storage you need



GUARANTEED LOW LATENCY

PROVIDE USERS AROUND THE WORLD WITH FAST ACCESS TO DATA

Serve <10 ms read and <15 ms write requests at the 99th percentile from the region nearest to users, while delivering data globally.



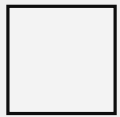
FIVE WELL-DEFINED CONSISTENCY MODELS

CHOOSE THE BEST CONSISTENCY MODEL FOR YOUR APP

Offers five consistency models

Provides control over performance-consistency tradeoffs, backed by comprehensive SLAs.

An intuitive programming model offering low latency and high availability for your planet-scale app.



Strong



Bounded-stateless



Session



Consistent prefix



Eventual



Multiple data models and apis

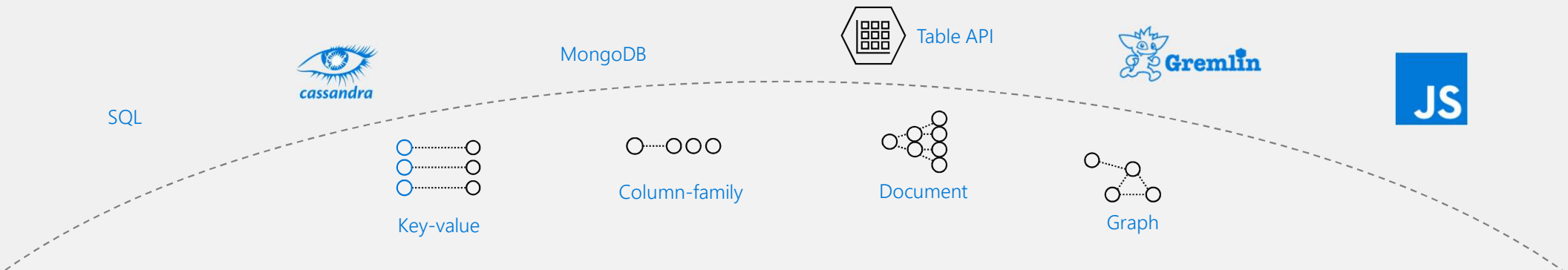
USE THE MODEL THAT FITS YOUR REQUIREMENTS, AND THE APIS, TOOLS, AND FRAMEWORKS YOU PREFER

Cosmos DB offers a multitude of APIs to access and query data including, SQL, various popular OSS APIs, and native support for NoSQL workloads.

Use key-value, tabular, graph, and document data

Data is automatically indexed, with no schema or secondary indexes required

Blazing fast queries with no lag

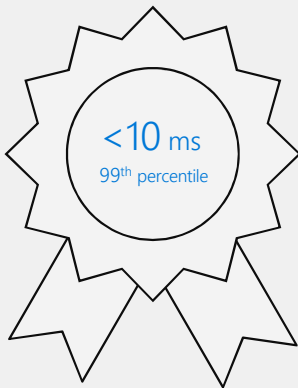


COMPREHENSIVE SLAs

RUN YOUR APP ON WORLD-CLASS INFRASTRUCTURE

Azure Cosmos DB is the only service with financially-backed SLAs for millisecond latency at the 99th percentile, 99.999% HA and guaranteed throughput and consistency

Latency



HA



Throughput



Consistency



Trust your data to industry-leading Security & Compliance

Azure is the world's most trusted cloud, with more certifications than any other cloud provider.

- Enterprise grade security
- Encryption at Rest
- Encryption is enabled automatically by default
- Comprehensive Azure compliance certification



Top 10 reasons why customers use Azure Cosmos DB



The 1st and only database with global distribution turnkey capability



Deliver massive storage/throughput scalability database



Provides guaranteed single digit millisecond latency at 99th percentile worldwide



Natively supports different types of data at massive scale



Boasts 5 well-defined consistency models to pick the right consistency/latency/throughput tradeoff



Enables mission critical intelligent applications



Gives high flexibility to optimize for speed and cost



Tackles big data workloads with high availability and reliability



Provides multi-tenancy and enterprise-grade security



Naturally analytics-ready and perfect for event-driven architectures

Customers powering their Apps with Azure Cosmos DB

- 7000+ Azure Cosmos DB customers
- NoSQL is growing at 35.1% YoY
- 20% of customers have migrated Apps from Mongo DB to Cosmos DB



Cosmos DB wins 2018 Technology of the Year Awards



"Do you need a distributed NoSQL database with a choice of APIs and consistency models? That would be Microsoft's Azure Cosmos DB."—InfoWorld, [Technology of the Year 2018: The best hardware, software, and cloud services](#)

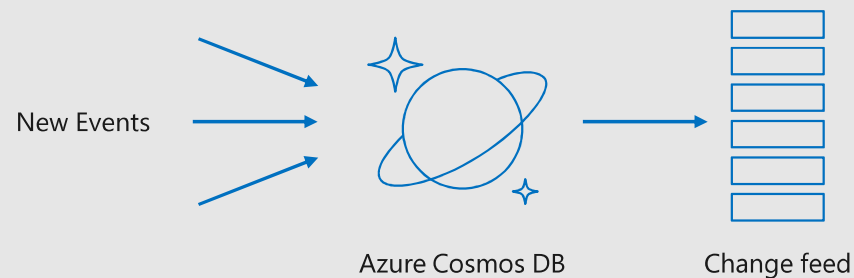
Q & A

Change Feed

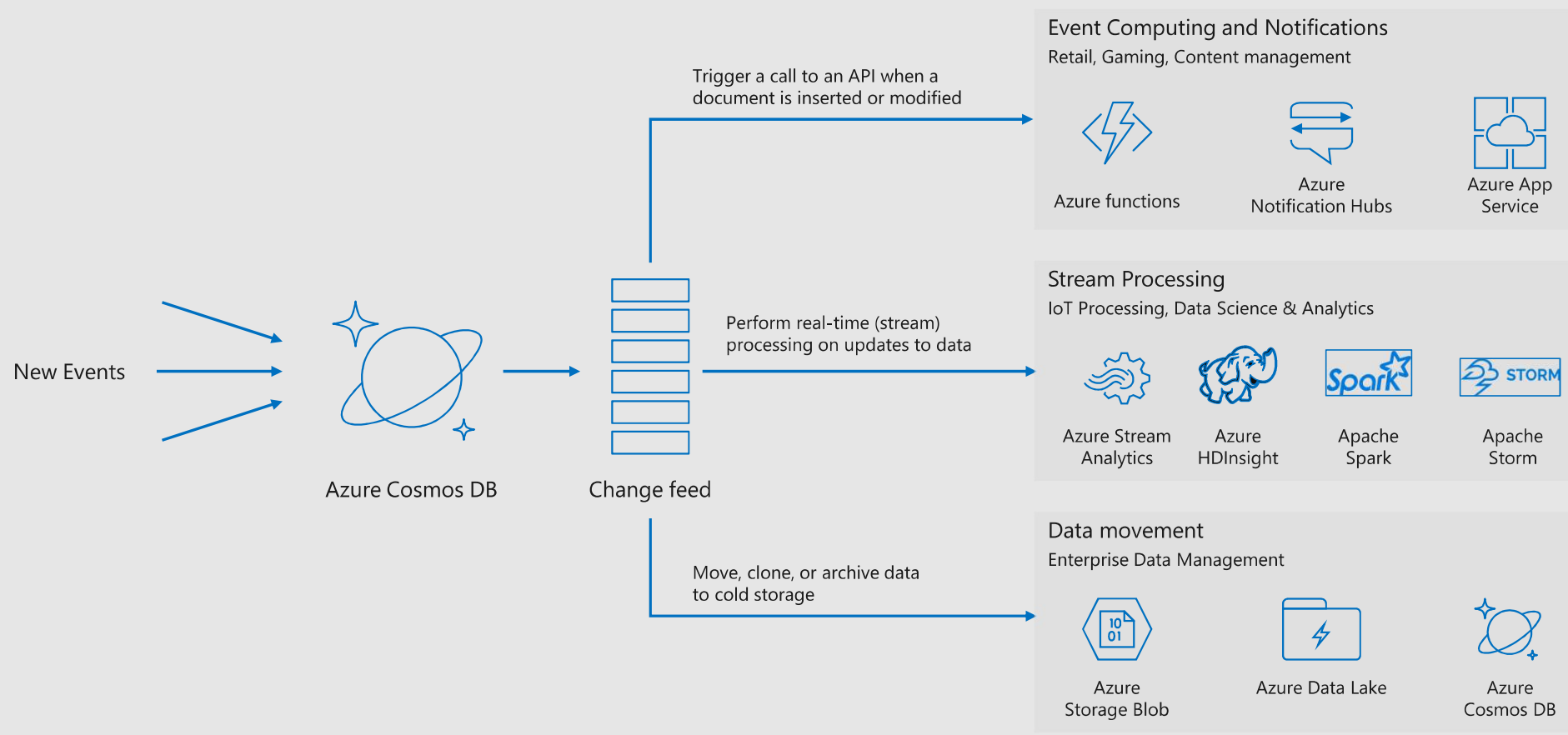
Change Feed

Persistent log of records within an Azure Cosmos DB container.

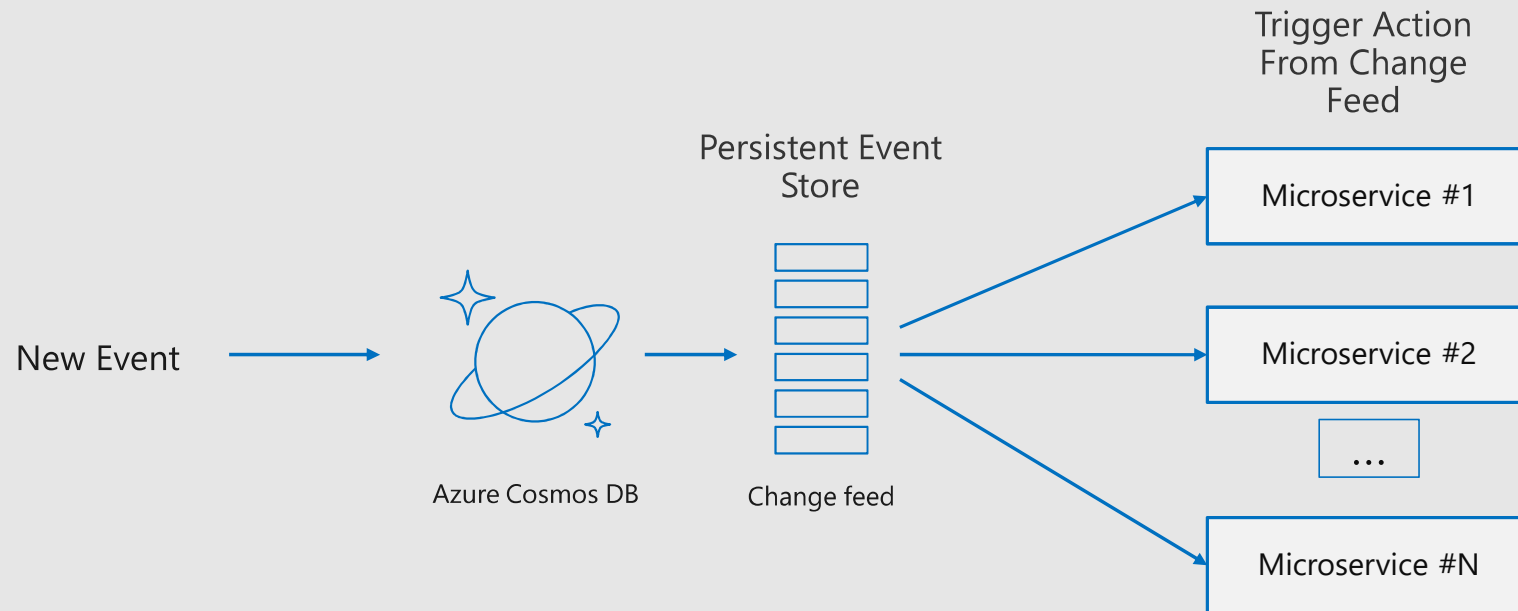
Documents presented in the order in which they were modified



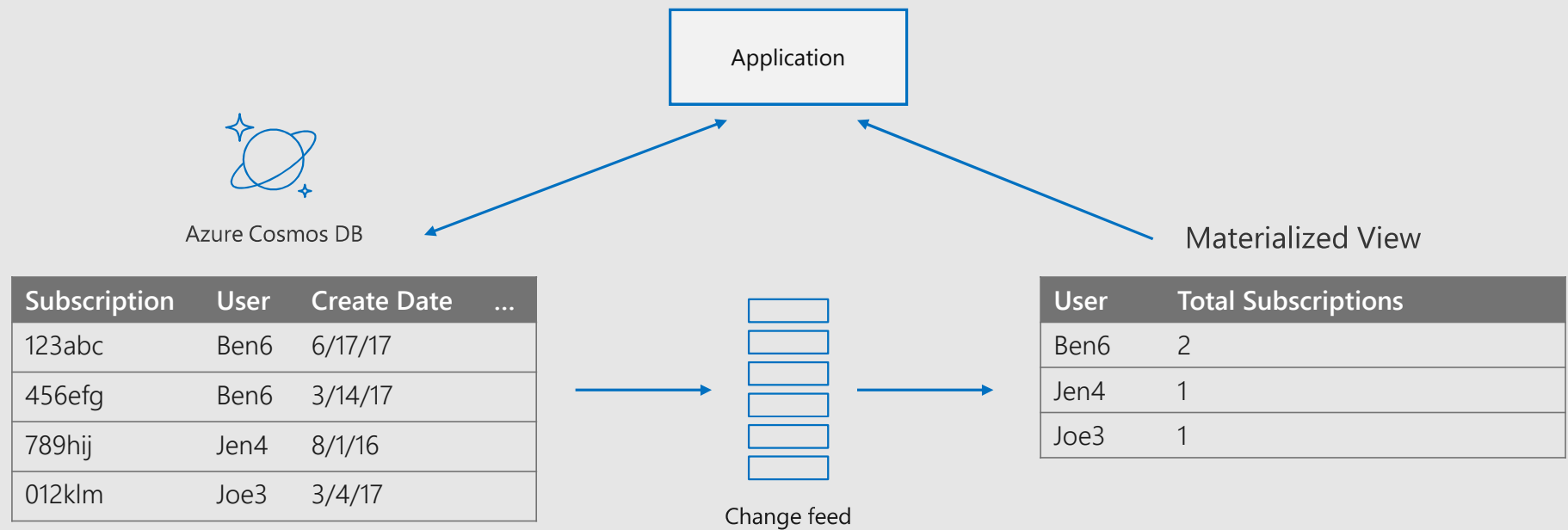
Change Feed Scenarios



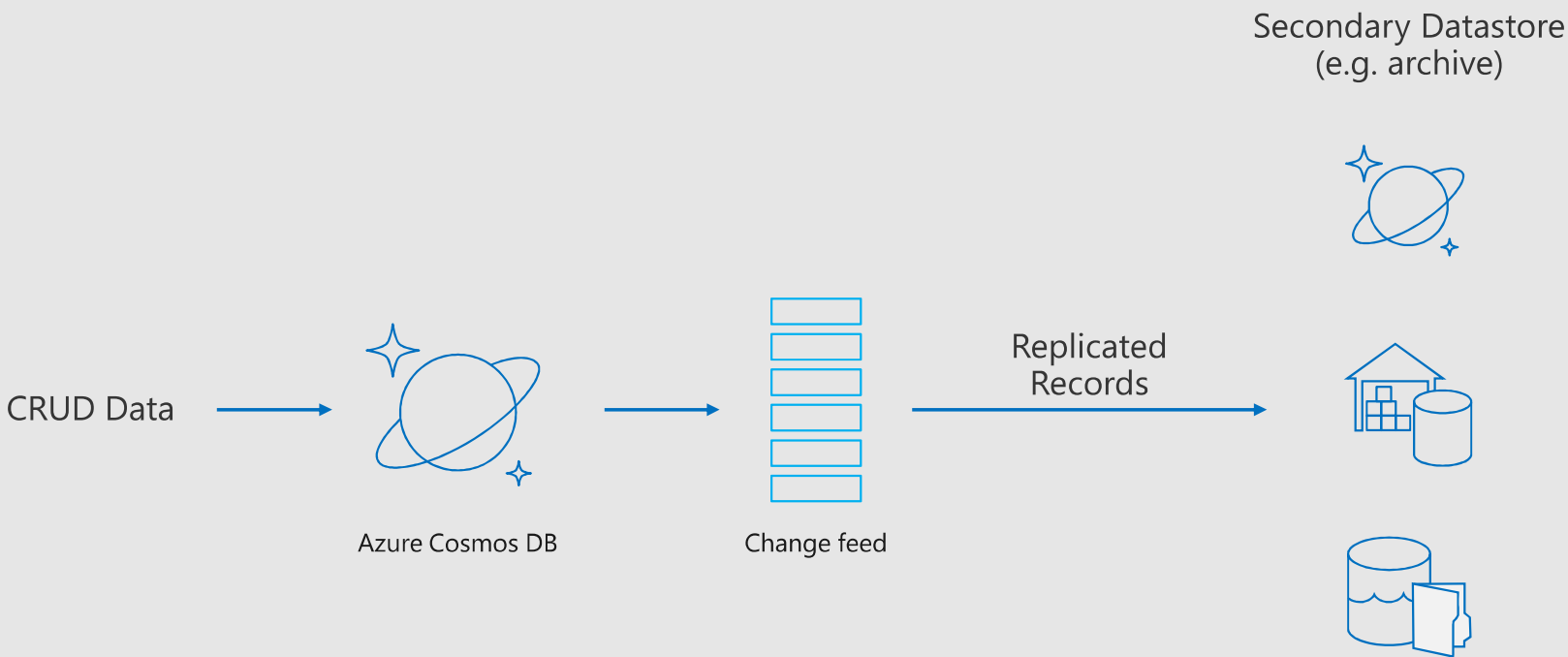
Event Sourcing for Microservices



Materializing Views



Replicating Data



Q & A

