Microsoft

Azure Cosmos DB

NoSQL Strikes Back
An introduction to the dark side of your data

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Data Platform

MODERN APPS FACE NEW CHALLENGES

Managing and syncing data distributed around the globe

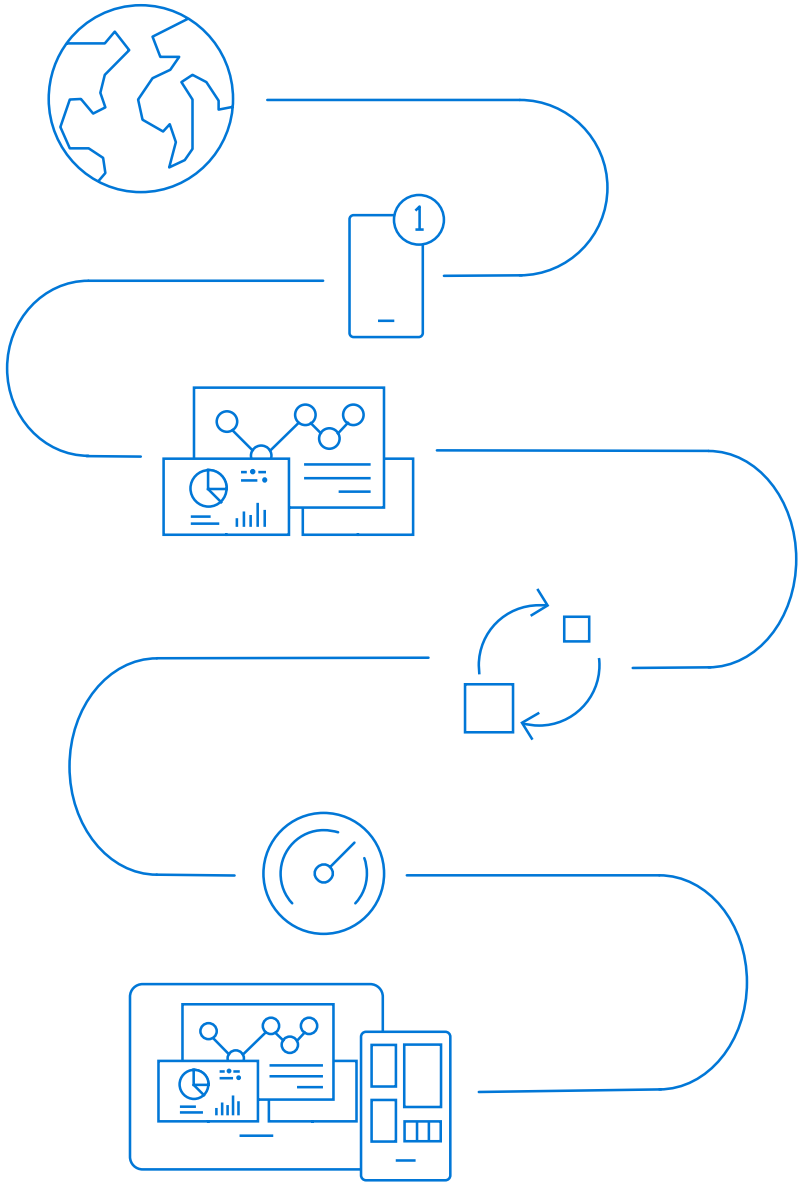
Delivering highly-responsive, real-time personalization

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



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Andre advises customers in topics all around the Microsoft Data Platform. Since version 7.0, Andre gathering experience with the SQL Server product family. Today Andre concentrates on working with data in the cloud, like Modern Data Warehouse architectures, Artificial Intelligence and new scalable database systems like Azure Cosmos DB.

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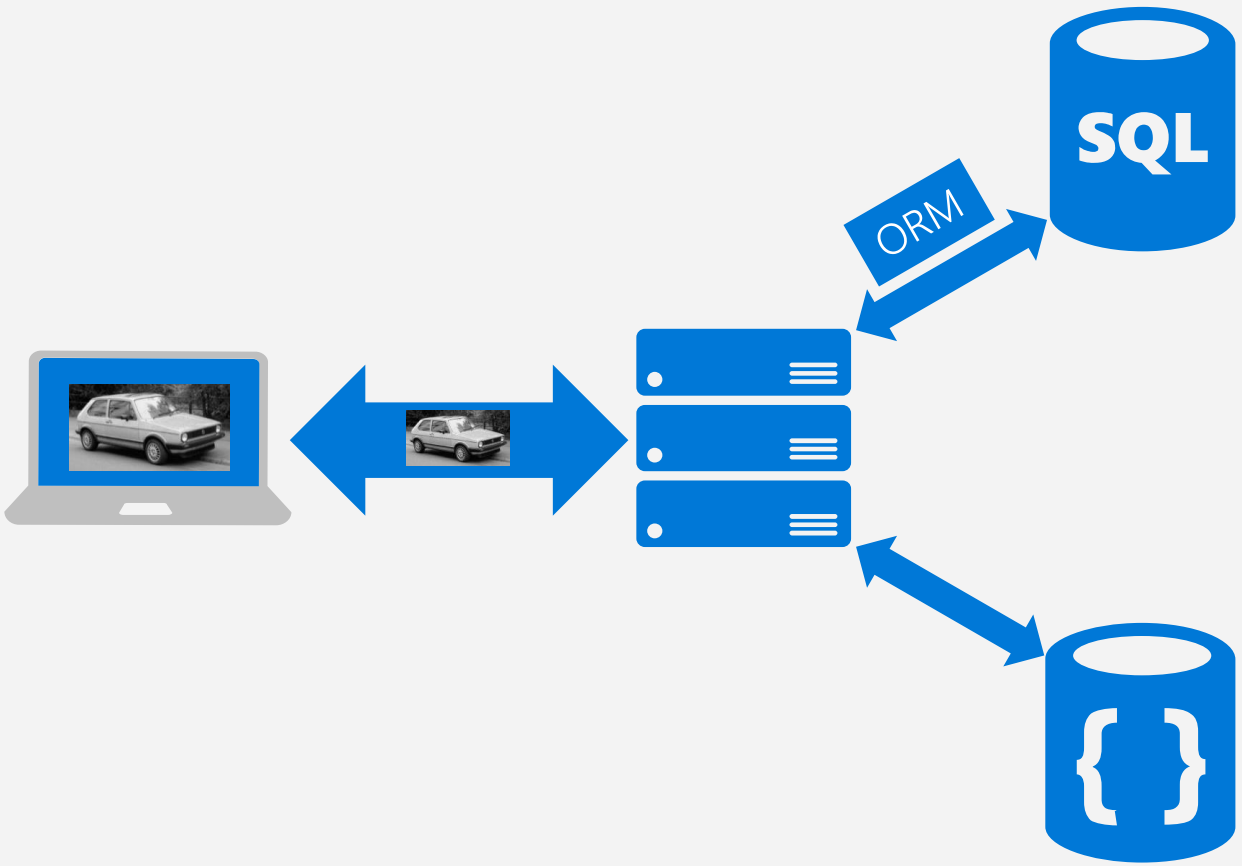
DIFFERENT WAYS OF STORING DATA WITH YOUR MODERN APP



Data normalization

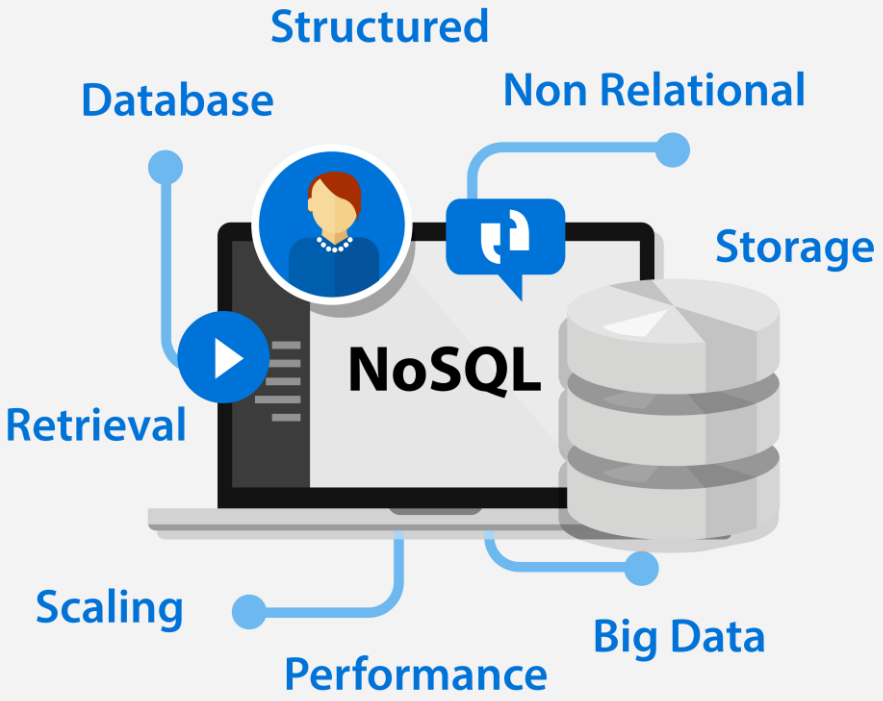
Come as you are

WHAT IS NOSQL

NOSQL, BUILT FOR SIMPLE AND FAST APPLICATION DEVELOPMENT

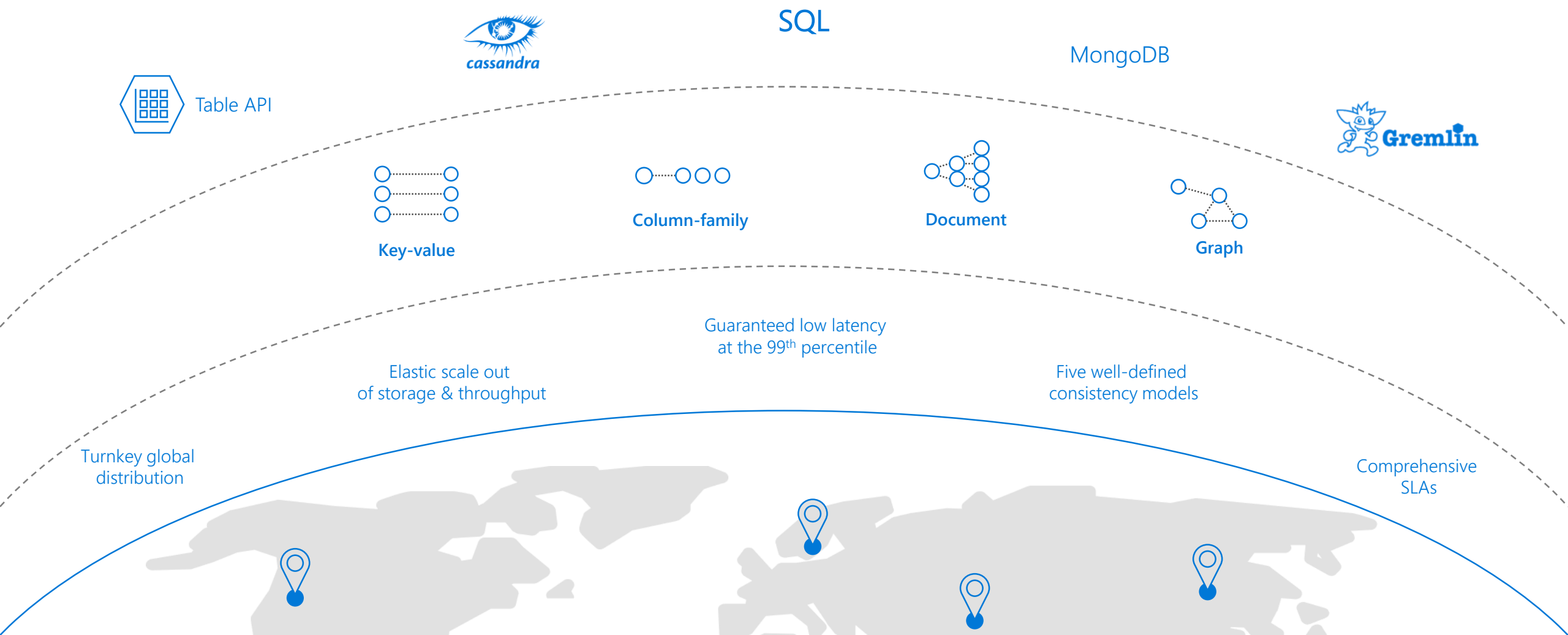
NoSQL, referring most times to “Non-SQL”, “Not Only SQL” or also “non-relational” is a kind of database where the data is modeled differently to relational systems.

- Different kinds available
  - Document
  - Key/Value
  - Columnar
  - Graph
  - etc.
- Non-Relational
- Schema agnostic
- Built for scale and performance
- Different consistency model



AZURE COSMOS DB

A globally distributed, massively scalable, multi-model database service

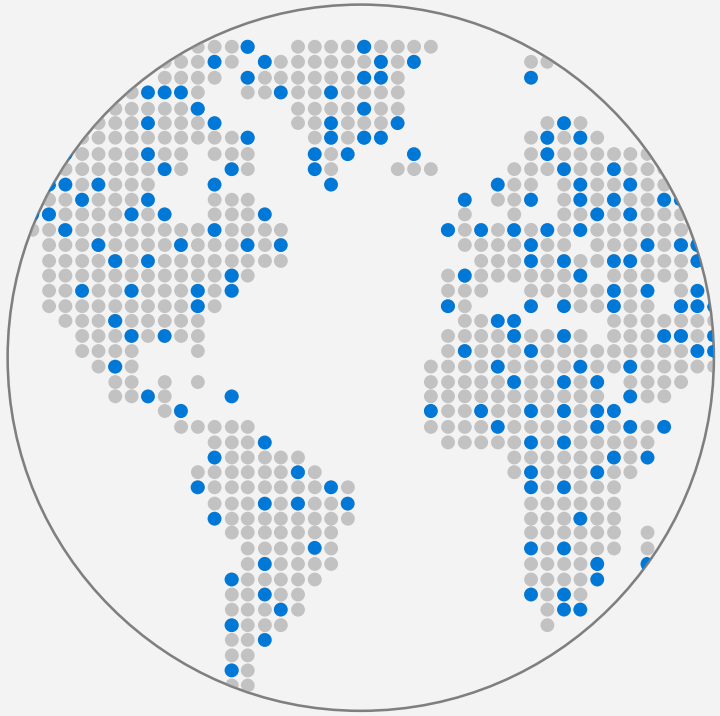


TURNKEY GLOBAL DISTRIBUTION

PUT YOUR DATA WHERE YOUR USERS ARE

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

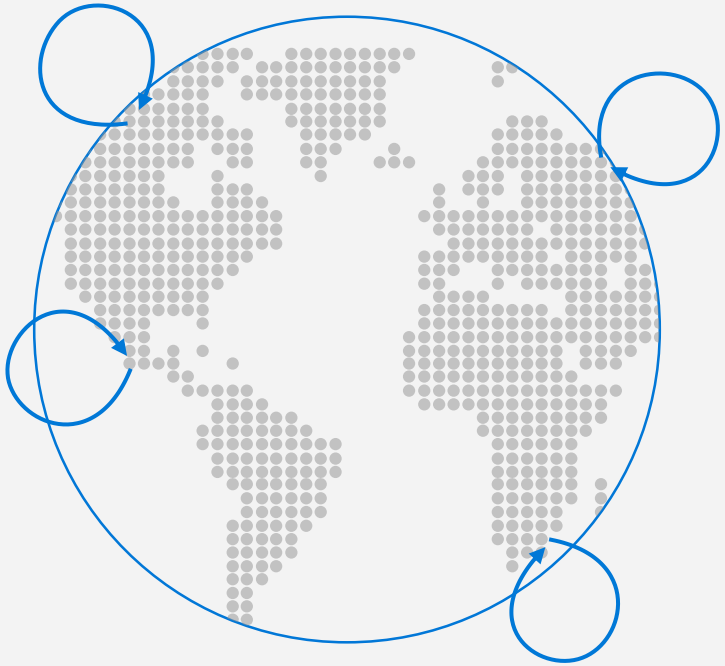
- Available in all Azure regions
- Manual and automatic failover
- Automatic & synchronous multi-region replication



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.



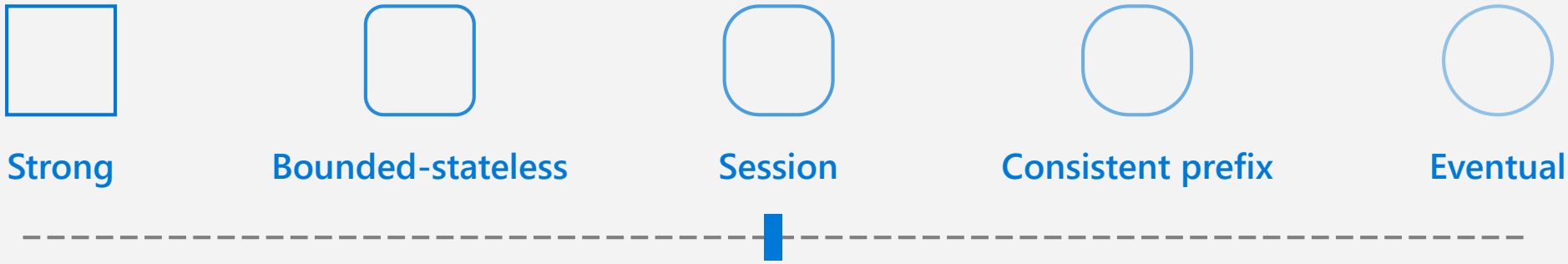
FIVE WELL-DEFINED CONSISTENCY MODELS

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.



MULTIPLE DATA MODELS AND APIs

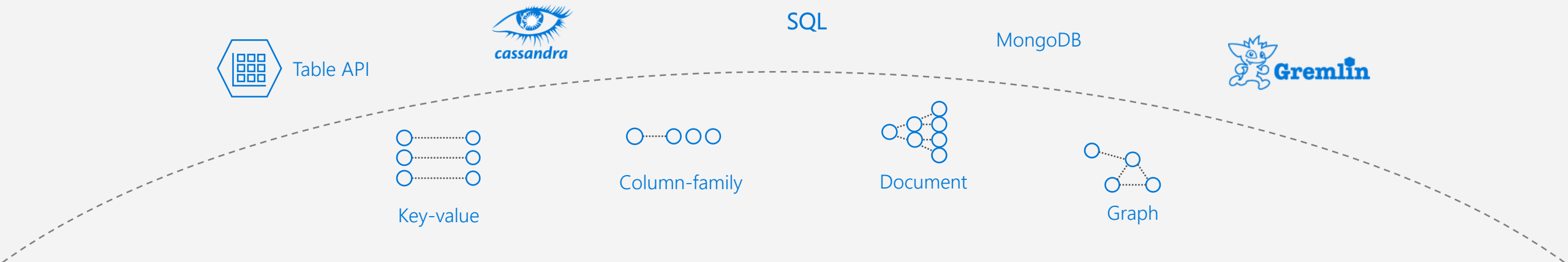
USE THE MODEL THAT FITS YOUR REQUIREMENTS, AND THE APIS, TOOLS, AND FRAMEWORKS YOU PREFER

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

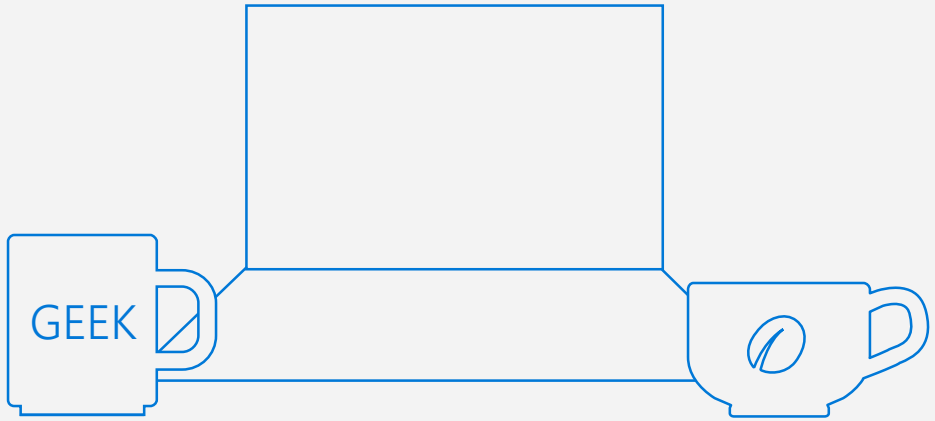
Blazing fast queries with no lag



HANDLE ANY DATA WITH NO SCHEMA OR INDEXING REQUIRED

Azure Cosmos DB's schema-less service automatically indexes all your data, regardless of the data model, to delivery blazing fast queries.

- Automatic index management
- Synchronous auto-indexing
- No schemas or secondary indices needed
- Works across every data model



Item	Color	Microwave safe	Liquid capacity	CPU	Memory	Storage
Geek mug	Graphite	Yes	16ox	???	???	???
Coffee Bean mug	Tan	No	12oz	???	???	???
Surface book	Gray	???	???	3.4 GHz Intel Skylake Core i7-6600U	16GB	1 TB SSD

TRUST YOUR DATA TO INDUSTRY-LEADING SECURITY & COMPLIANCE

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

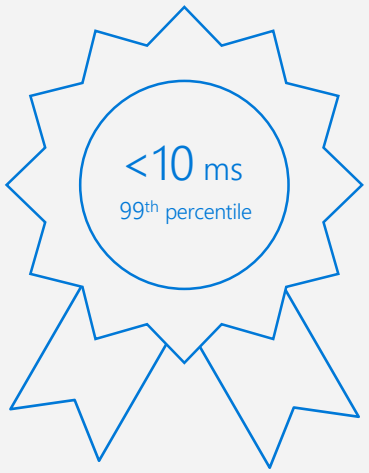
- Enterprise grade security
- Encryption at Rest
- Encryption is enabled automatically by default
- Comprehensive Azure compliance certification

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

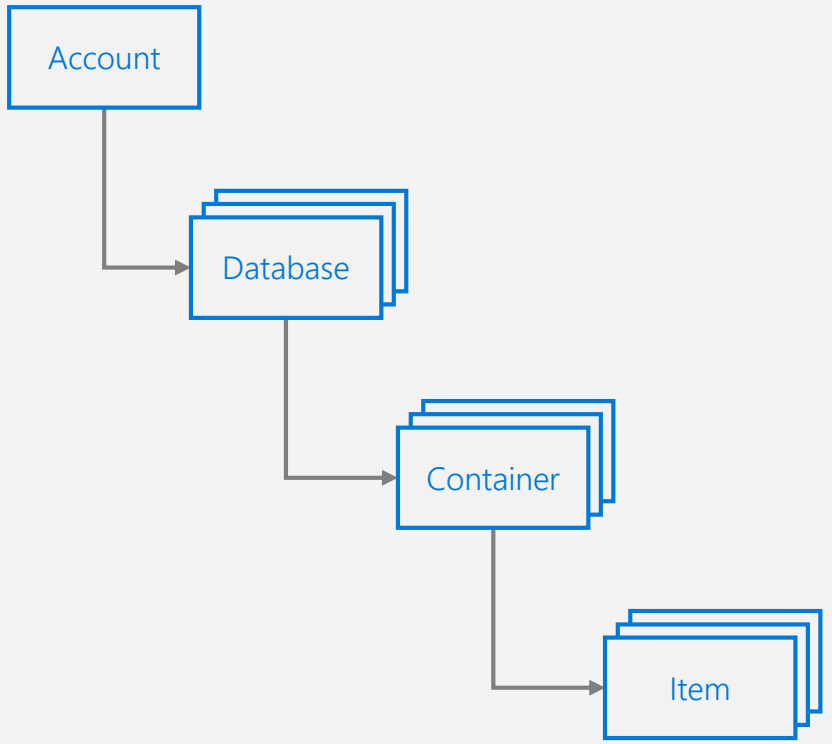
Throughput

Consistency

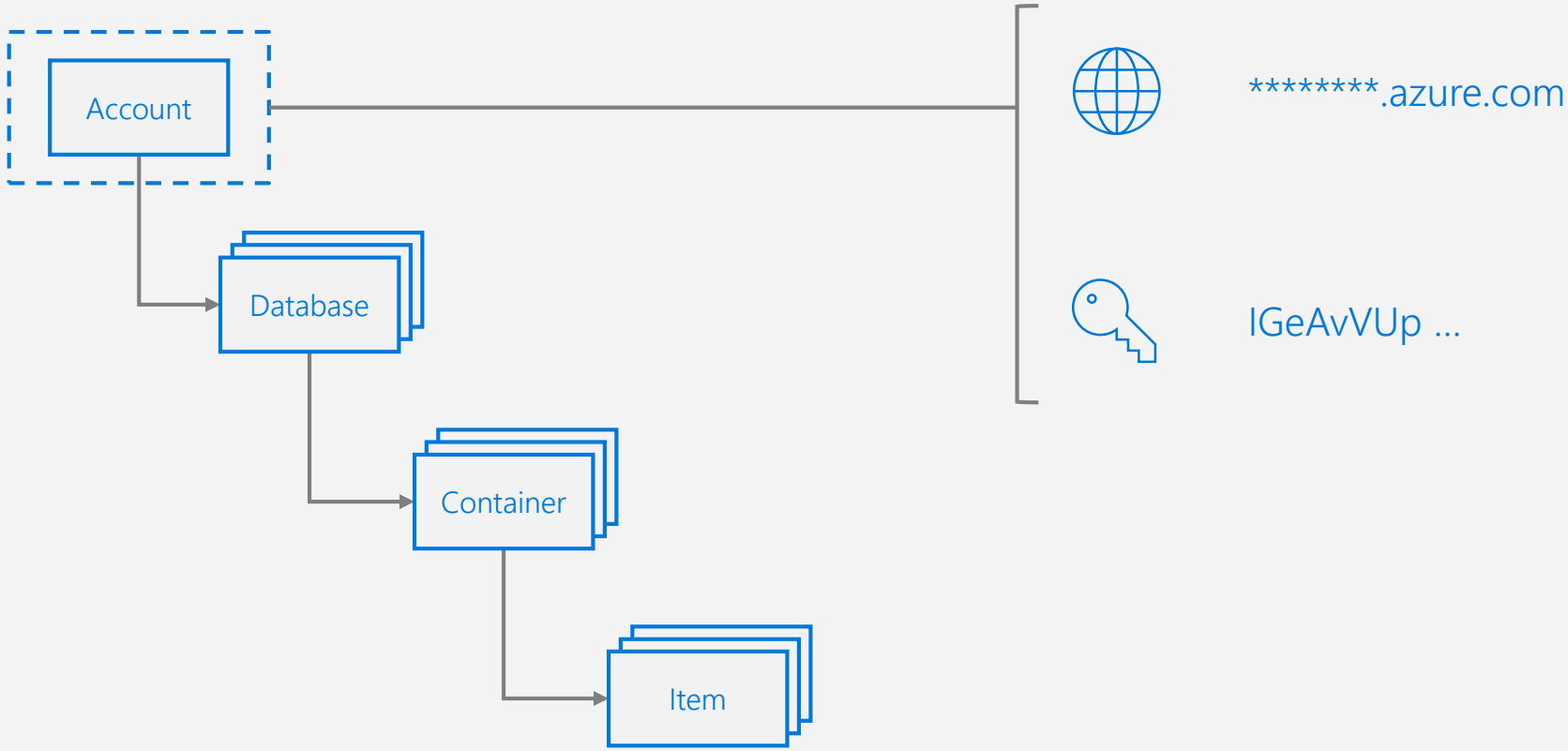
RESOURCE MODEL

Leveraging Azure Cosmos DB to automatically scale your data across the globe

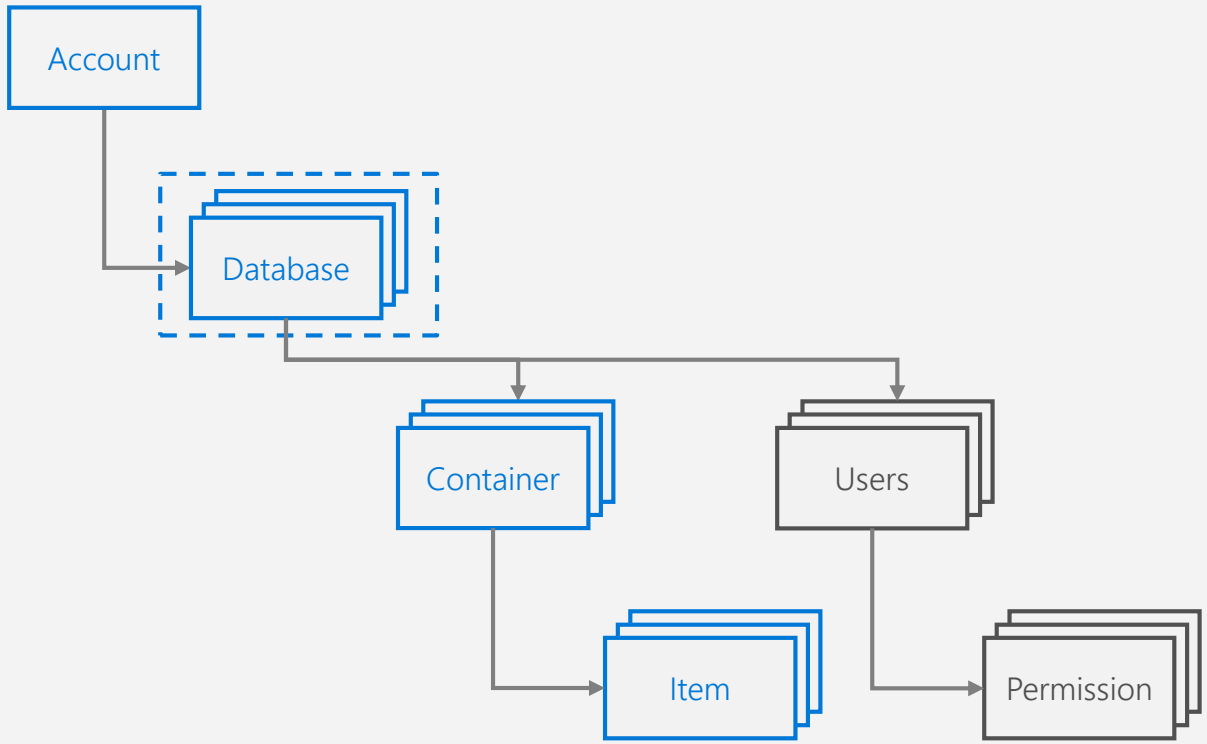
This module will reference partitioning in the context of all Azure Cosmos DB modules and APIs.



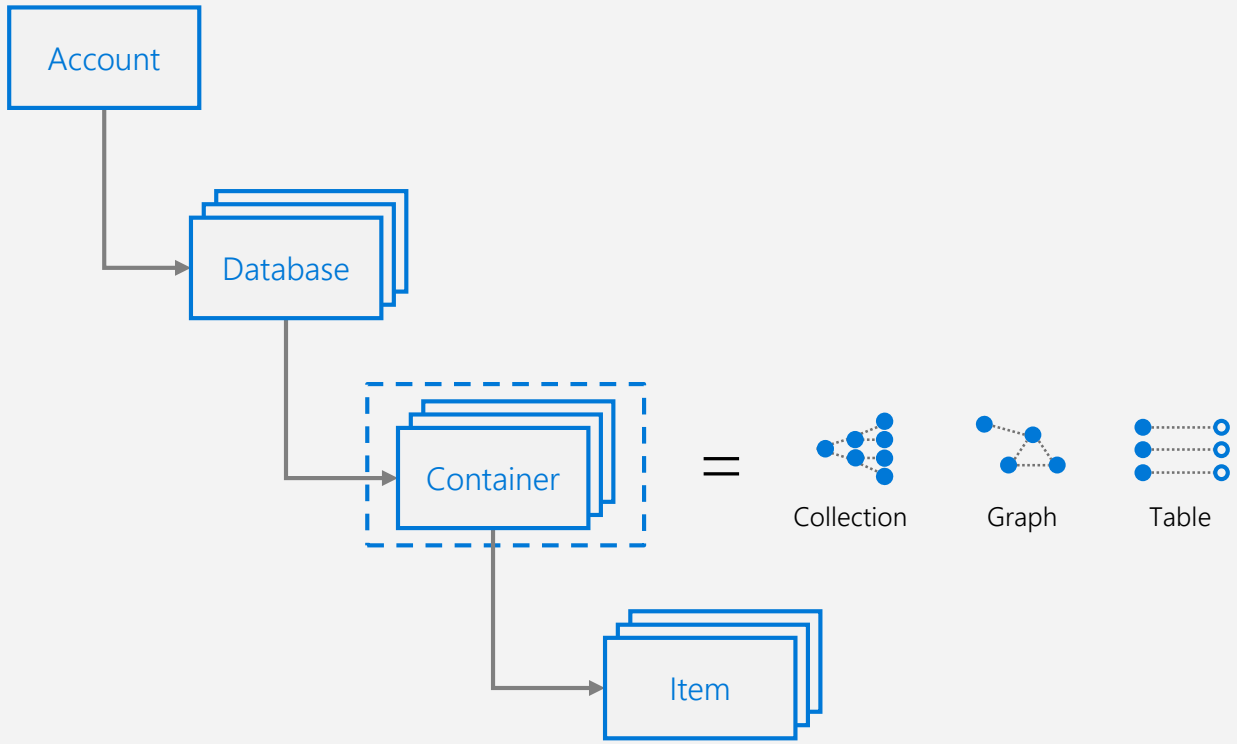
ACCOUNT URI AND CREDENTIALS



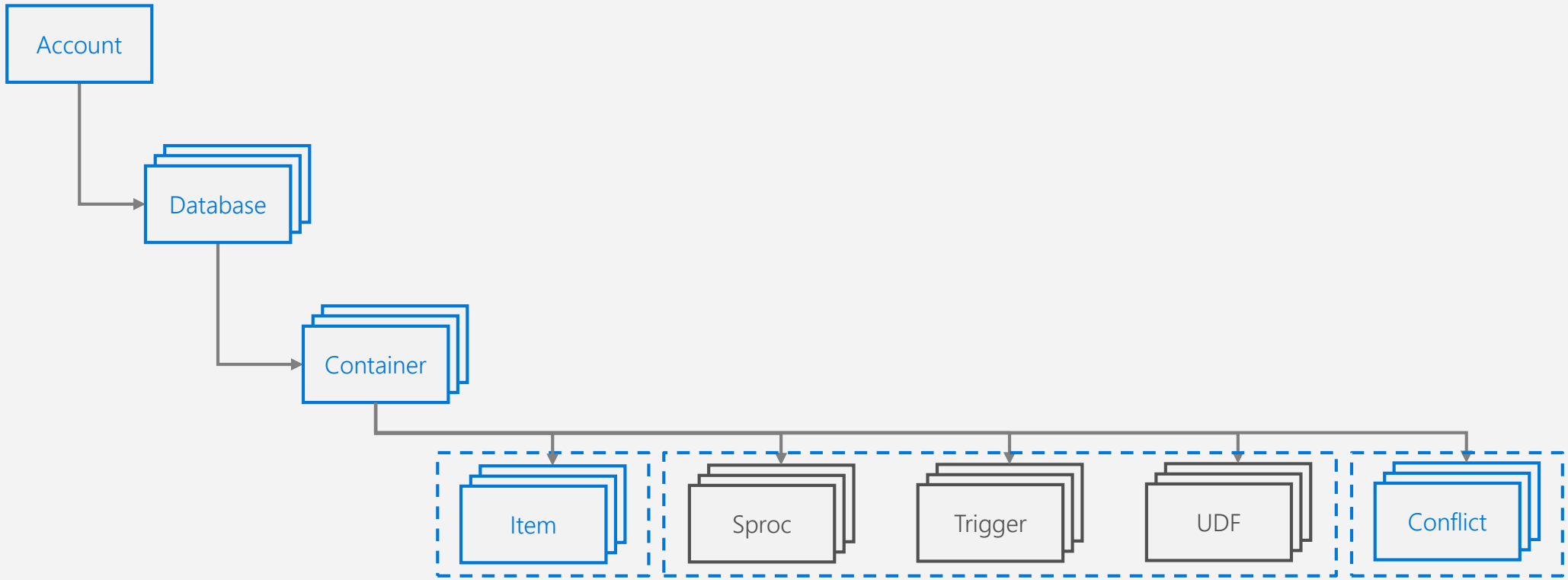
DATABASE REPRESENTATIONS



CONTAINER REPRESENTATIONS



CONTAINER-LEVEL RESOURCES



SYSTEM TOPOLOGY (BEHIND THE SCENES)