

# Azure Cosmos DB

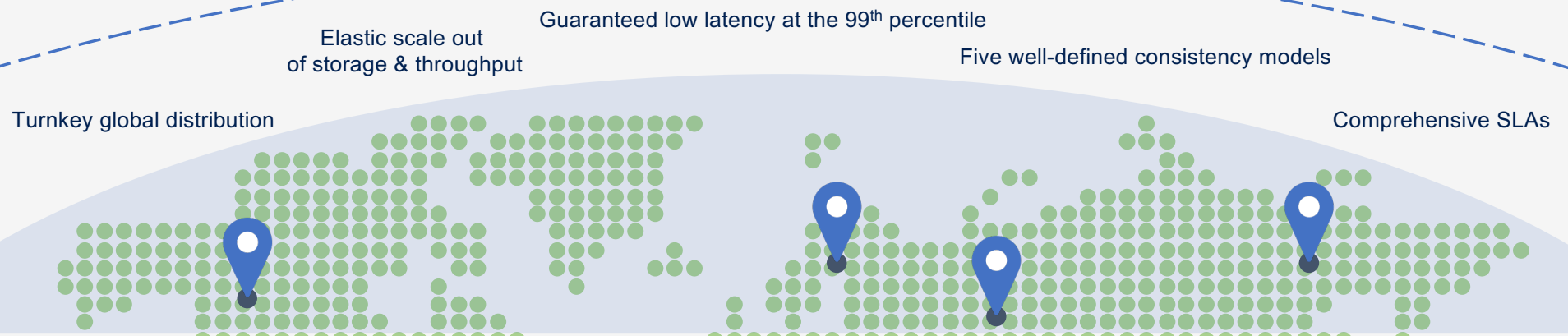
# What is Azure Cosmos DB



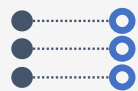
A fully-managed globally distributed NoSQL database service built to

Guarantee extremely low latency and massive scale for modern apps

# Azure Cosmos DB



# Azure Cosmos DB



Key-value



Column-family



Document



Graph

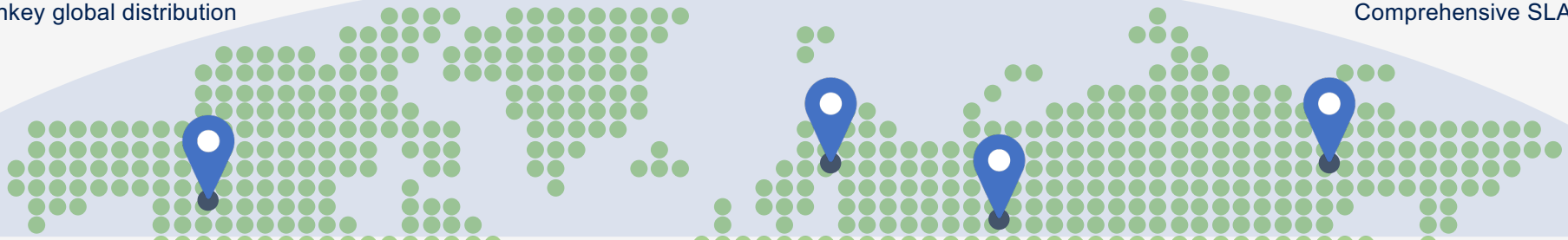
Elastic scale out  
of storage & throughput

Guaranteed low latency at the 99<sup>th</sup> percentile

Five well-defined consistency models

Turnkey global distribution

Comprehensive SLAs



# Azure Cosmos DB



Table API



*cassandra*

SQL



Cosmos DB's API for  
MongoDB



**Gremlin**  
 $G = (V, E)$



Key-value



Column-family



Document



Graph

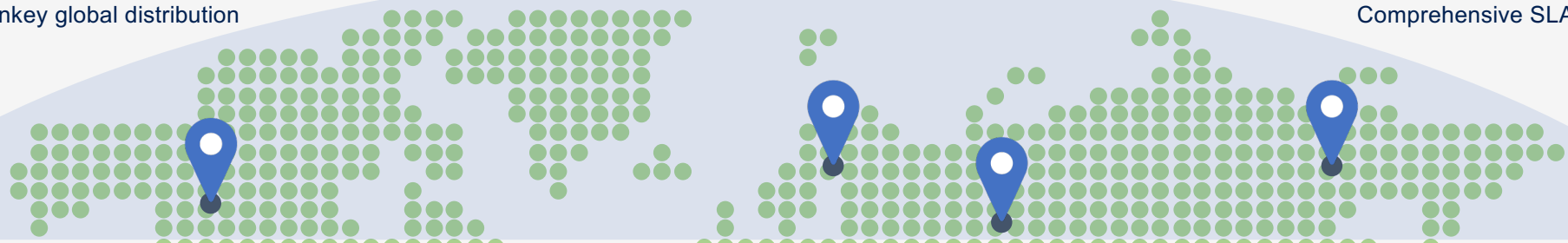
Elastic scale out  
of storage & throughput

Guaranteed low latency at the 99<sup>th</sup> percentile

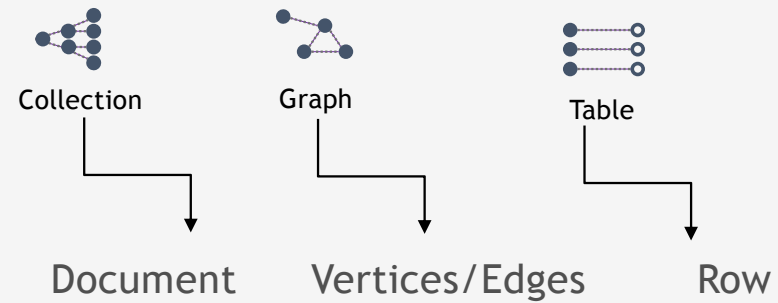
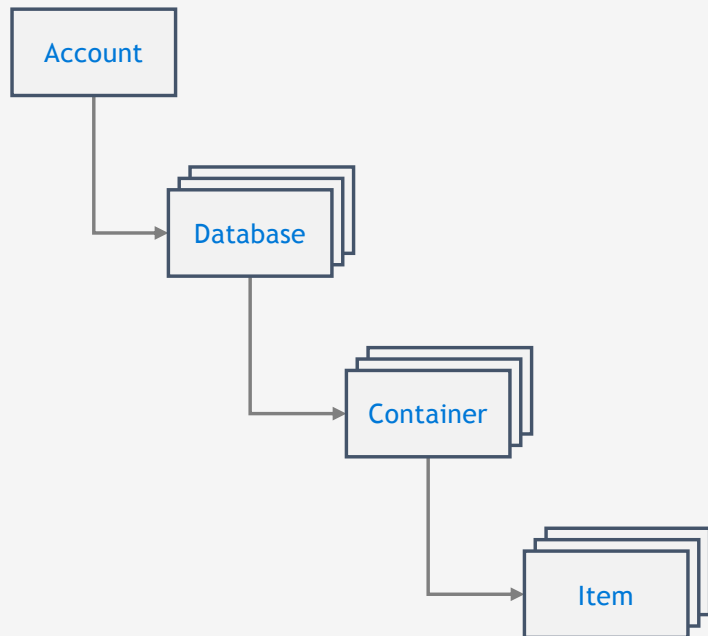
Five well-defined consistency models

Turnkey global distribution

Comprehensive SLAs

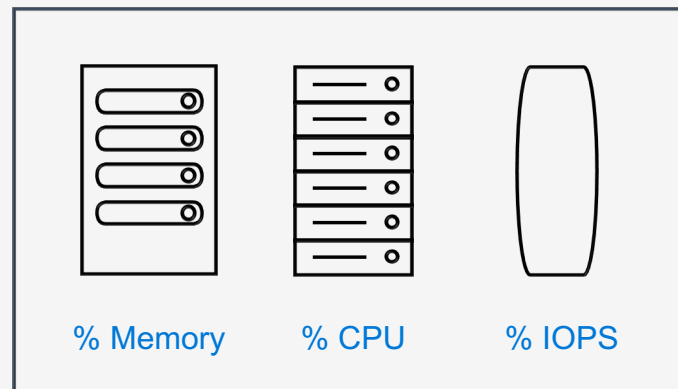


# Azure Cosmos DB: Resource Model



## Azure Cosmos DB: Request Units

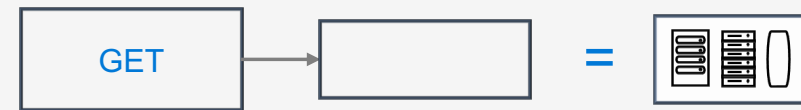
Request Units (RUs) is a rate-based currency - e.g. 1000 RU/second



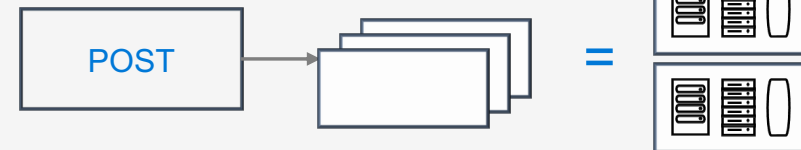
Abstracts physical resources for performing requests

# Azure Cosmos DB: Request Units

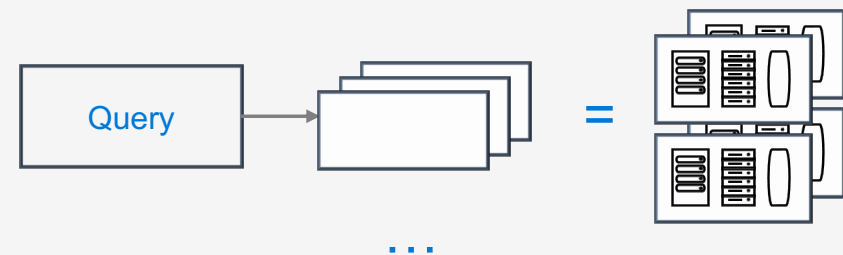
Approx. 1 RU = 1 read of 1 KB document



Approx. 5 RU = 1 write of a 1KB document



Query: Depends on query & documents involved





# Azure Cosmos DB: What it costs



Unit	Price (for most Azure regions)
SSD Storage (per GB)	0.25 € per month
Provisioned Throughput (single region writes)	5.91 €/month per 100 RU/s
Serverless	0.236 € / 1,000,000 RU

# Demo: Azure Cosmos DB



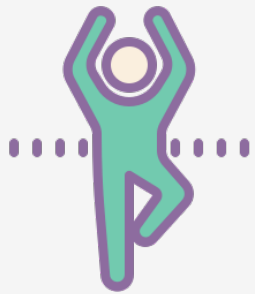
Create an Azure Cosmos DB Account

Create a database

Create a collection

Insert / query items

# Exercise



Challenge 3 - Receive the events from Event Grid and  
store the data inside a Cosmos DB