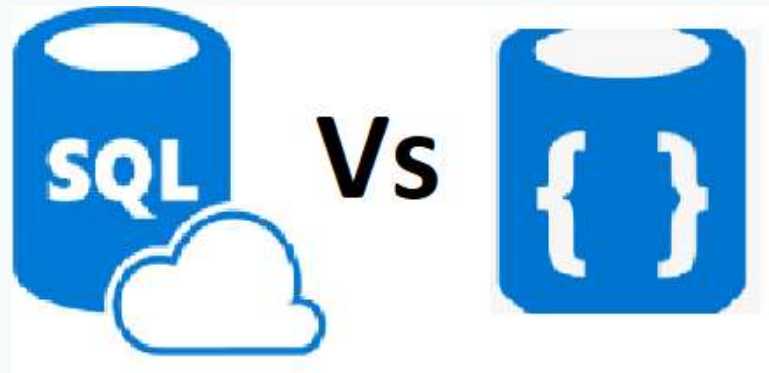




Cosmos DB

NoSQL Database

- Before moving to Cosmos DB, let check what is NoSQL database
- NoSQL are non-relational
- NoSQL databases have dynamic schemas for unstructured data
- NoSQL is better for unstructured data like JSON



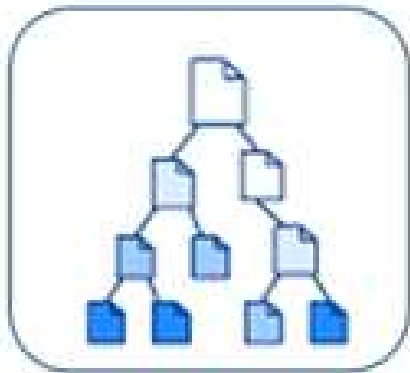
Why should go with Cosmos DB ?

- High-Throughput
- Low Latency
- Global Distribution
- Multi Consistency Model
- Support for different kind of APIs

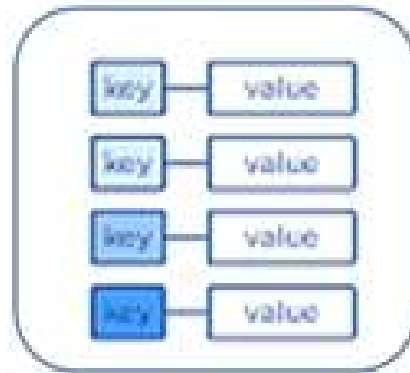
Cosmos DB

- PaaS (Platform as a service)
- Cloud-based NoSQL database
- A fully managed, globally distributed NoSQL database service in Microsoft Azure
- It provides extremely low latency, high availability, and consistency.
- Supports multi-region (Geo) replication

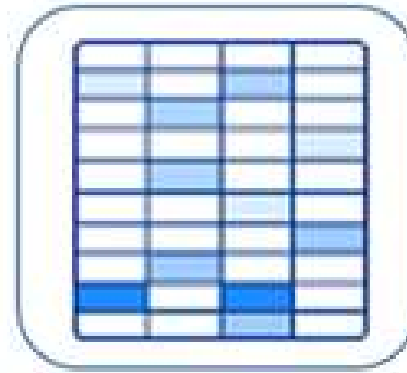
Cosmos database supports multi-model such as



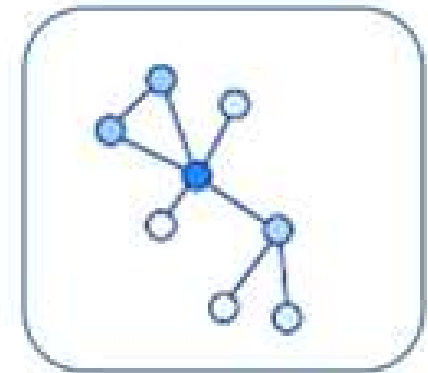
Document
Store



Key-Value
Store

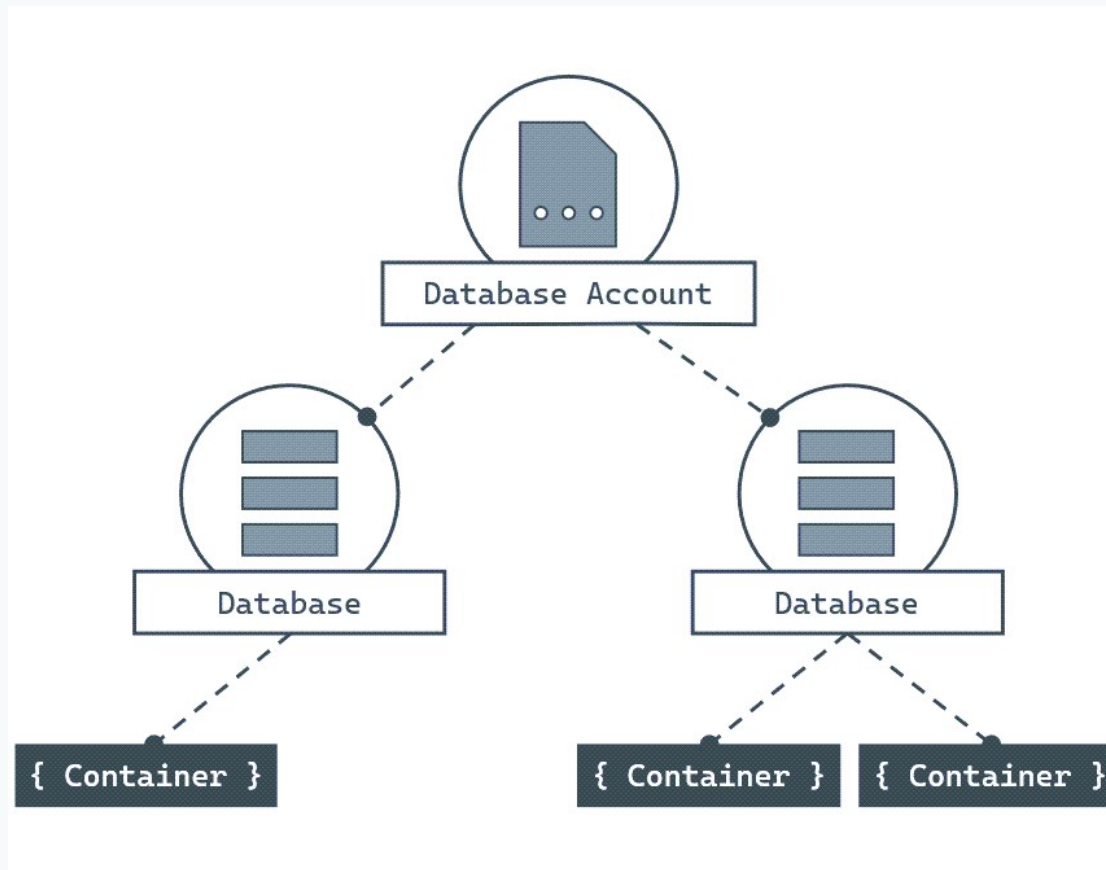


Wide-Column
Store

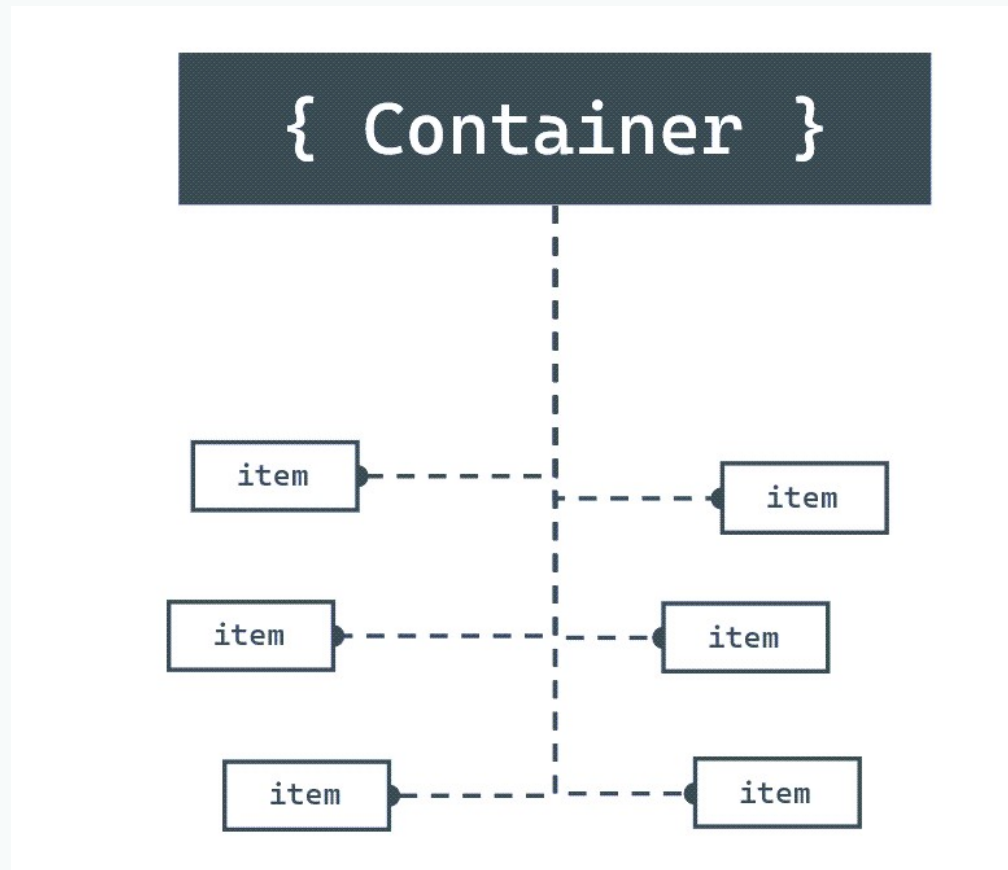


Graph
Store

Cosmos DB Architecture



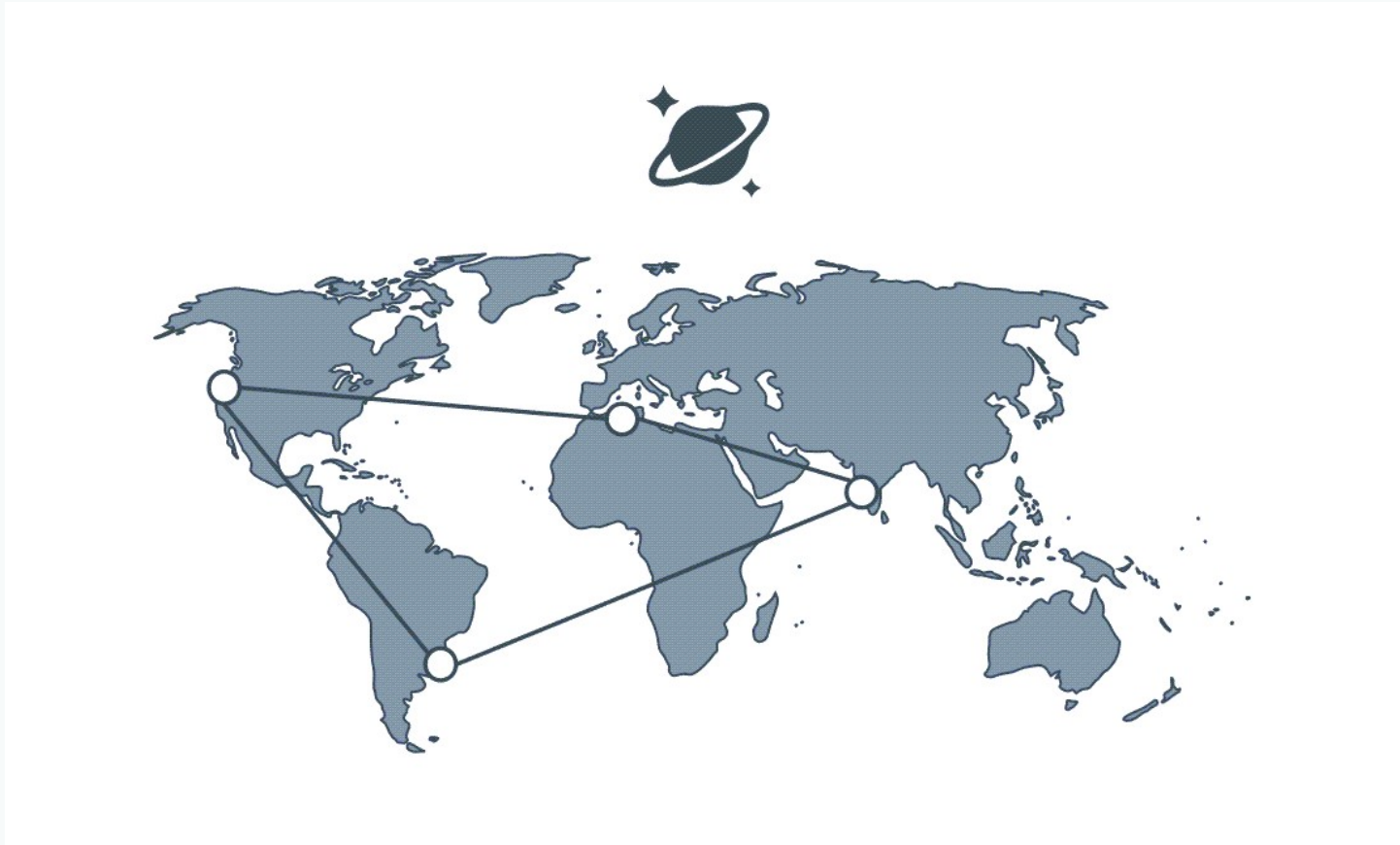
Items



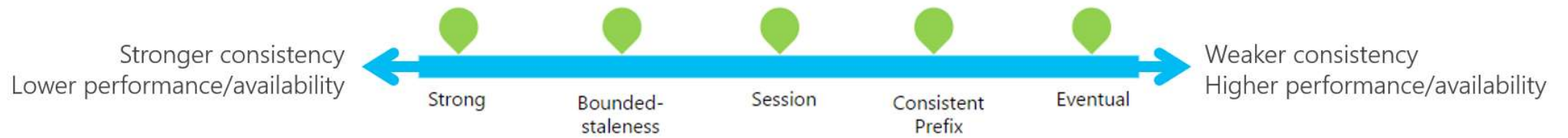
What is a JSON document?

- {
- "device": {
- "type": "mobile"
- },
- "sentTime": "2019-11-12T13:08:42",
- "spoolRefs": [
- "6a86682c-be5a-4a4a-bacd-96c4d1c7ece6",
- "79e78fe2-93aa-4688-89db-a7278b034aa6"
-]
- }

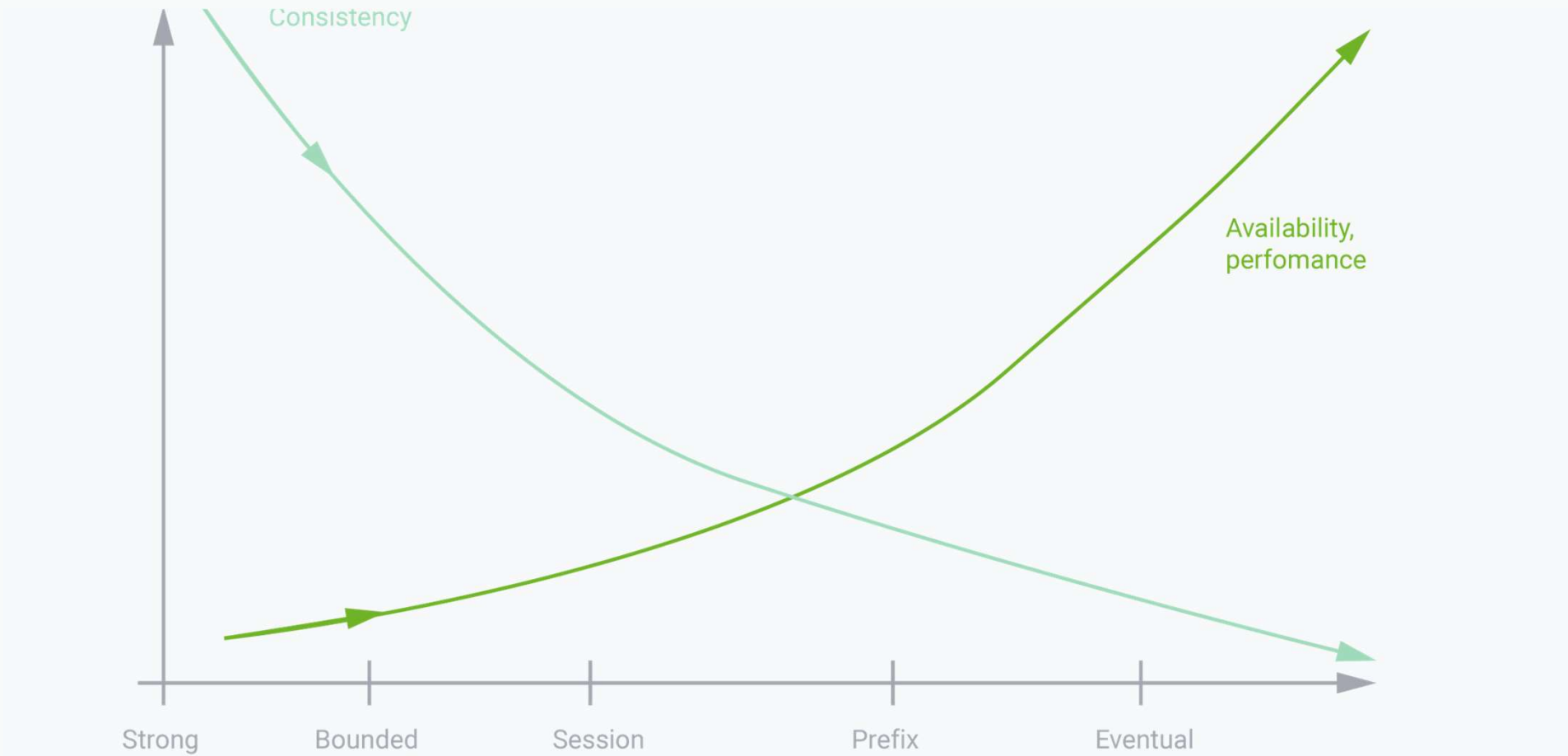
Globally Distributed



Consistency Levels



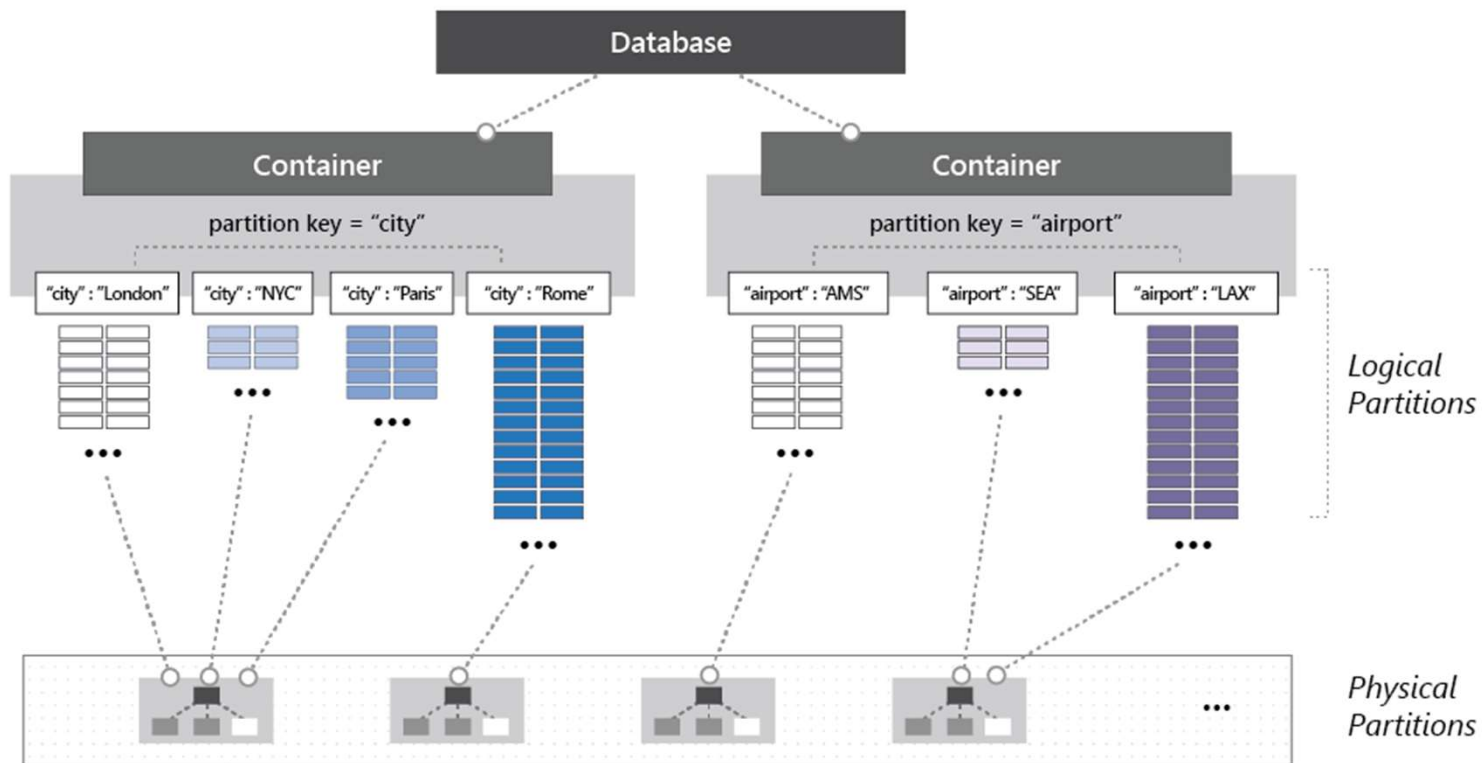
Consistency Levels



Consistency Levels



Partitioning



The screenshot shows the 'Scale & Settings' configuration page for a Cosmos DB database. The left sidebar contains a navigation menu with 'topItems' expanded, showing 'Documents', 'Scale & Settings' (highlighted with a red box), 'Stored Procedures', 'User Defined Functions', and 'Triggers'. The main content area is divided into two sections. The top section, 'Storage capacity', shows 'Unlimited' and a throughput slider set to '10000' (also highlighted with a red box). Below the slider, it states 'Estimated spend (USD): \$0.80 hourly / \$19.20 daily.' and provides a link to 'Contact support for more than 50,000 RU/s'. The bottom section, 'Settings', includes a 'Time to Live' toggle set to 'On' (highlighted with a red box) and a text input for 'second(s)' with the value '30' (highlighted with a red box). The 'Partition key' is set to '/Item' (highlighted with a red box).

▼ topItems

- Documents
- Scale & Settings**
- ▶ Stored Procedures
- ▶ User Defined Functions
- ▶ Triggers

Storage capacity
Unlimited

Throughput (1,000 - 50,000 RU/s)
10000

Estimated spend (USD): **\$0.80 hourly / \$19.20 daily.**
[Contact support](#) for more than 50,000 RU/s

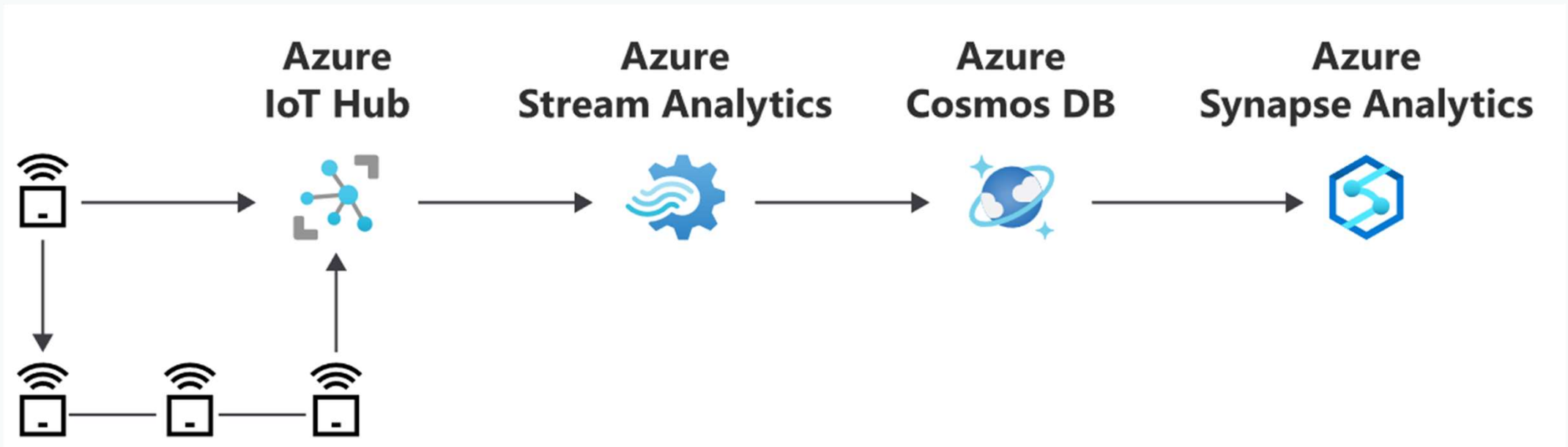
▼ Settings

Time to Live
Off On (no default) **On**

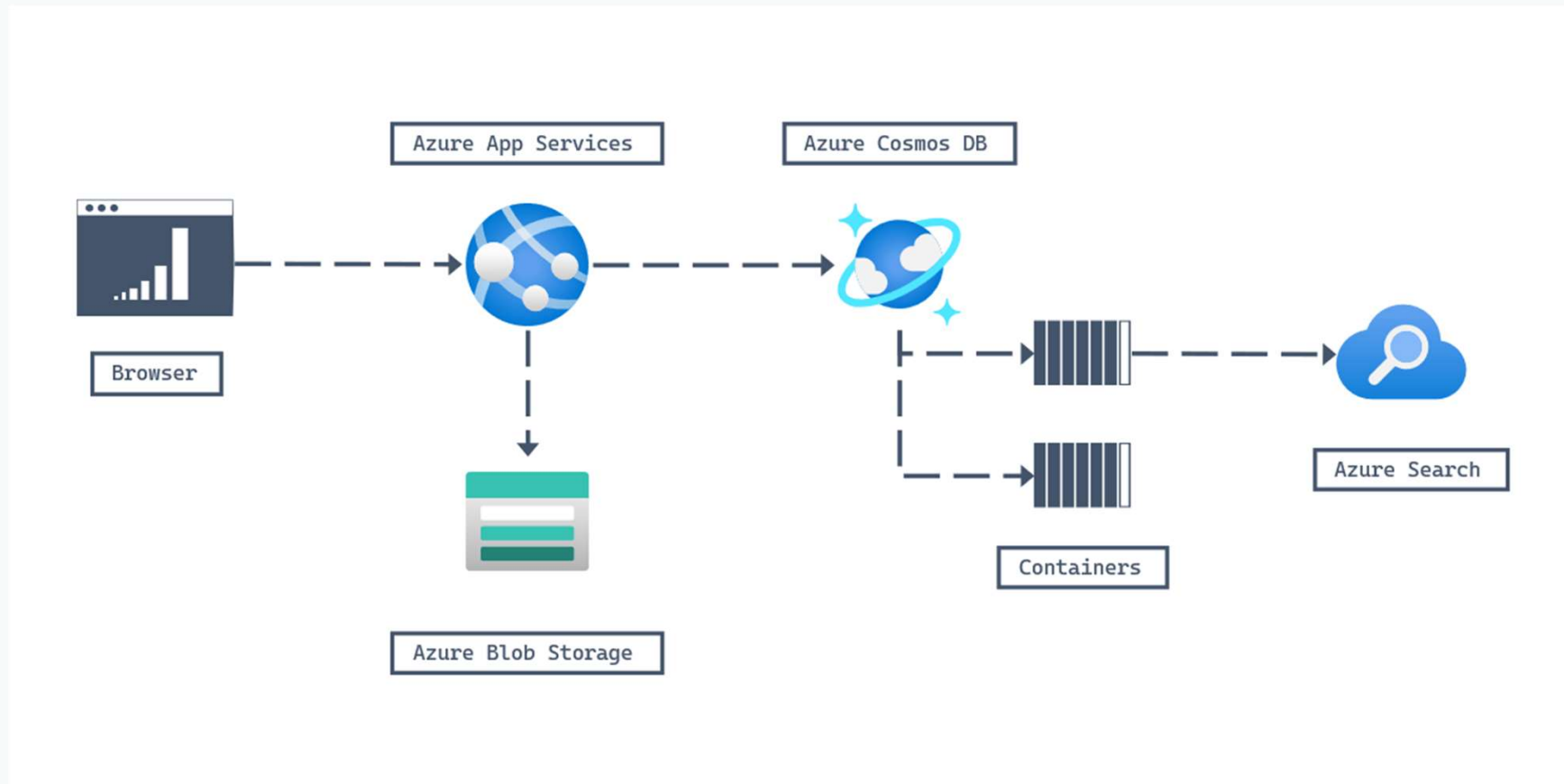
30 second(s)

Partition key
/Item

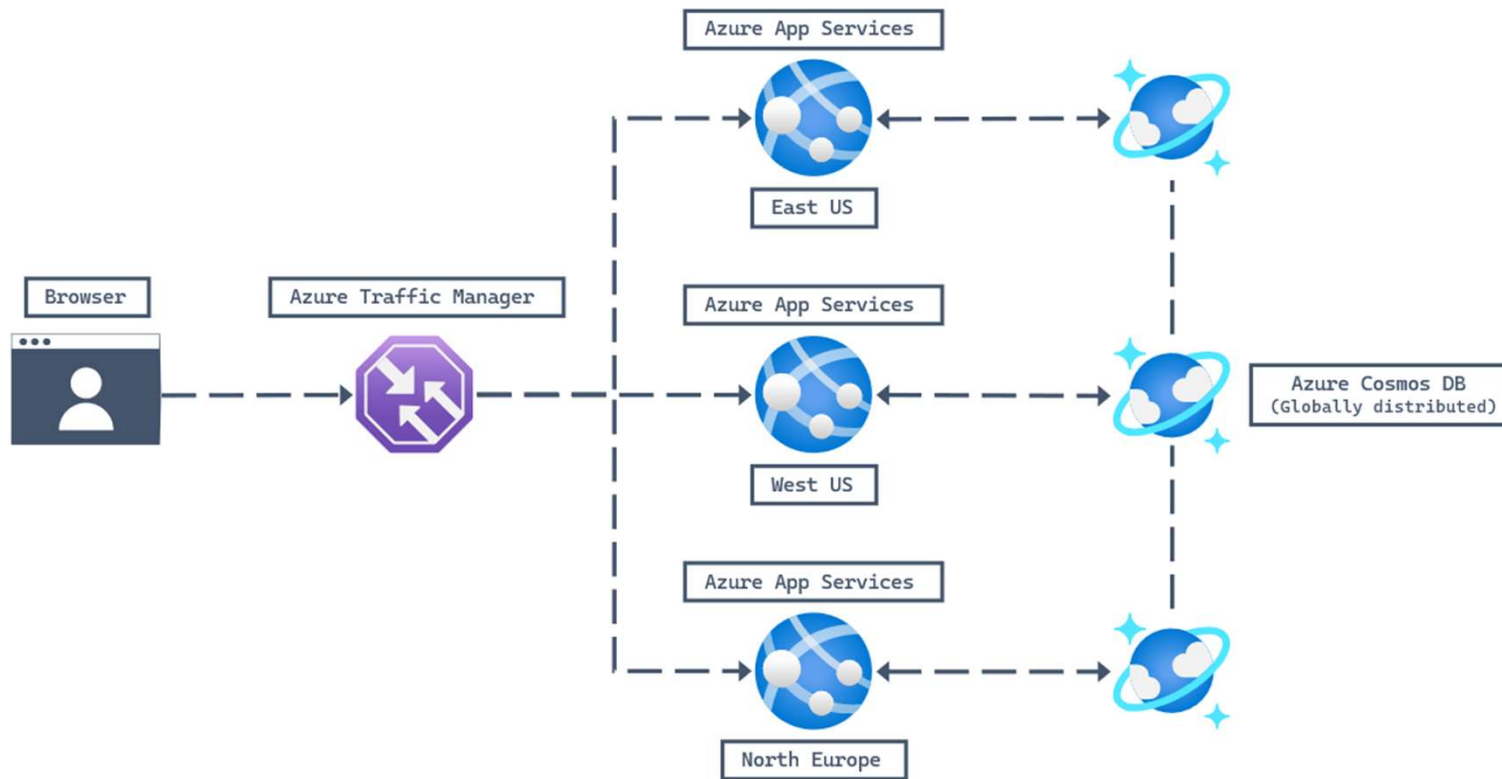
Use Case – IOT / Telemetry



Use Case – Retail/marketing



Use Case - Web/mobile



Thank You