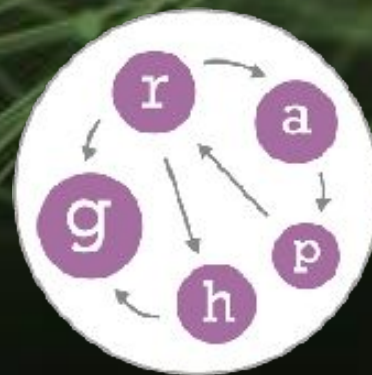




Hi & welcome to
"How native multi-model works"
...we will begin in a few moments



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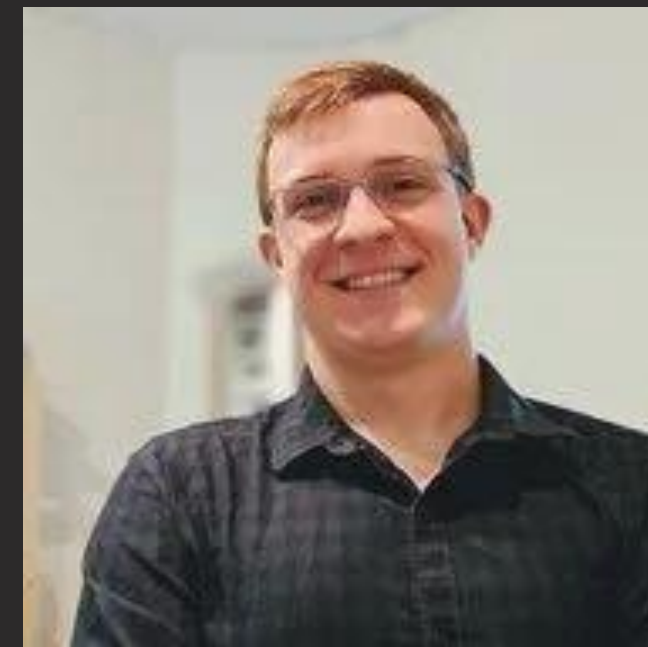


Thanks for joining us



Jan Stücker

- ▶ Head of Communications
- ▶ Community Support, Learning Content, Marketing Stuff



Chris Woodward

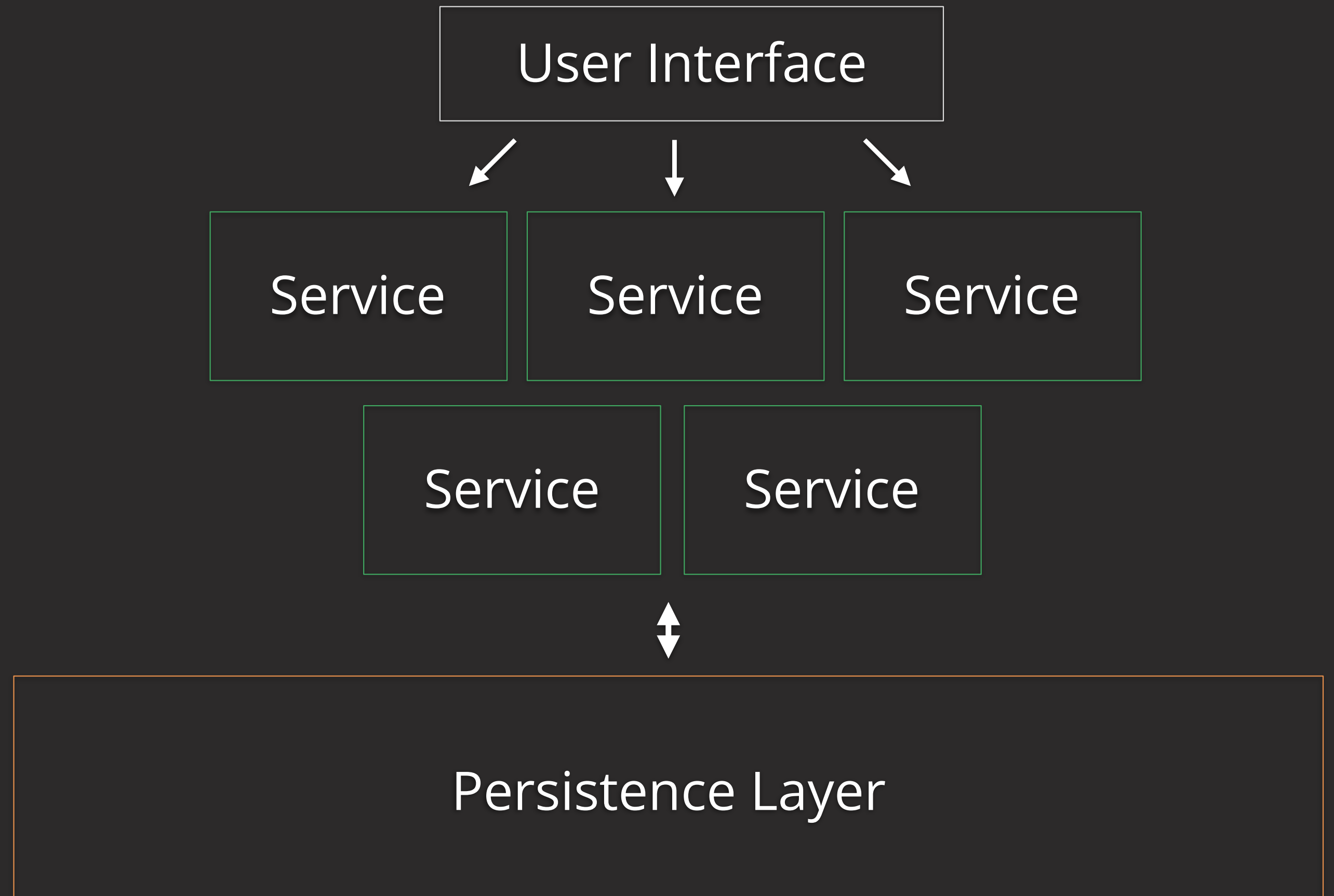
- ▶ Developer Relations Engineer
- ▶ Tutorials, Courses, Demos, Community Support



Today we will talk about

- ▶ Native multi-model approach
- ▶ Features & Use Cases
- ▶ Scaling with ArangoDB
- ▶ Managed service – ArangoDB Oasis
- ▶ Hands-on: Aggregations, JOINS, Graph, Geo-spatial

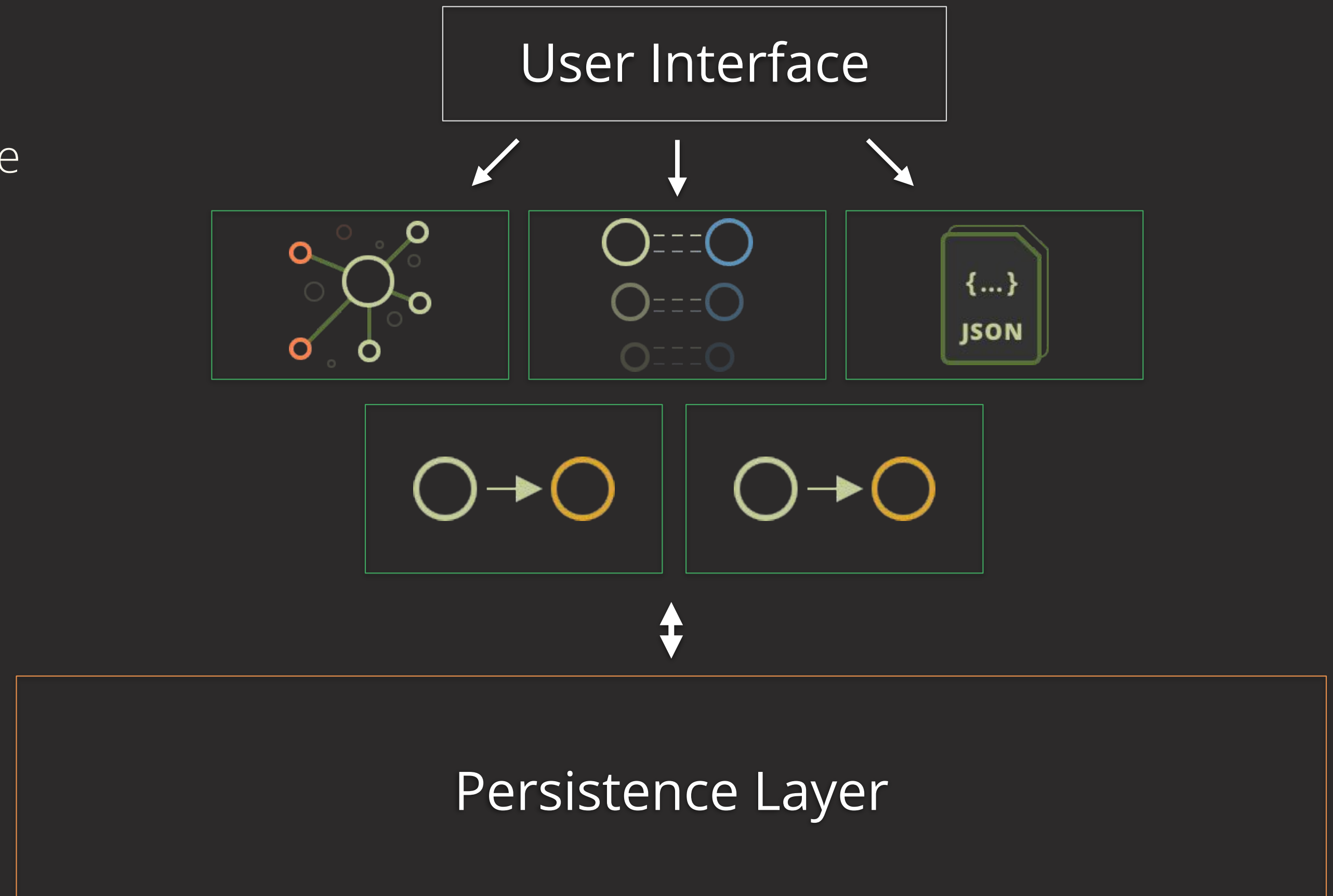
Why multiple models anyway?



Why multiple models anyway?

Benefits of using the right data model for applications

- ▶ Native mapping of data to the database
- ▶ Precisely tailored queries
- ▶ Leveraging data model specific optimizations

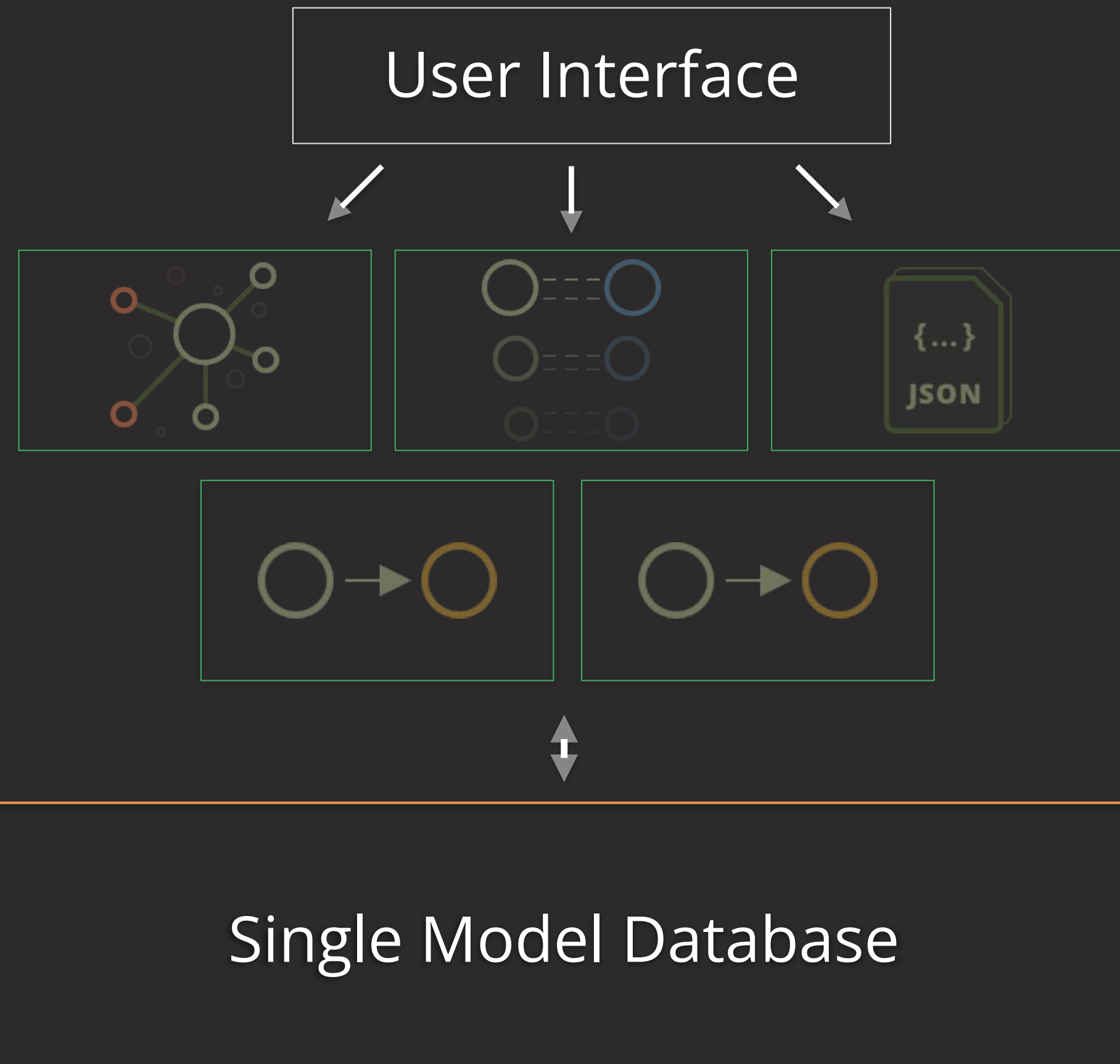


Isn't a single model enough?

Single model databases were designed to support only a single data model

- ▶ No optimal mapping of other models
- ▶ No optimizations for other data models
- ▶ Stunts & workarounds in application layer

Is this a scalable approach?



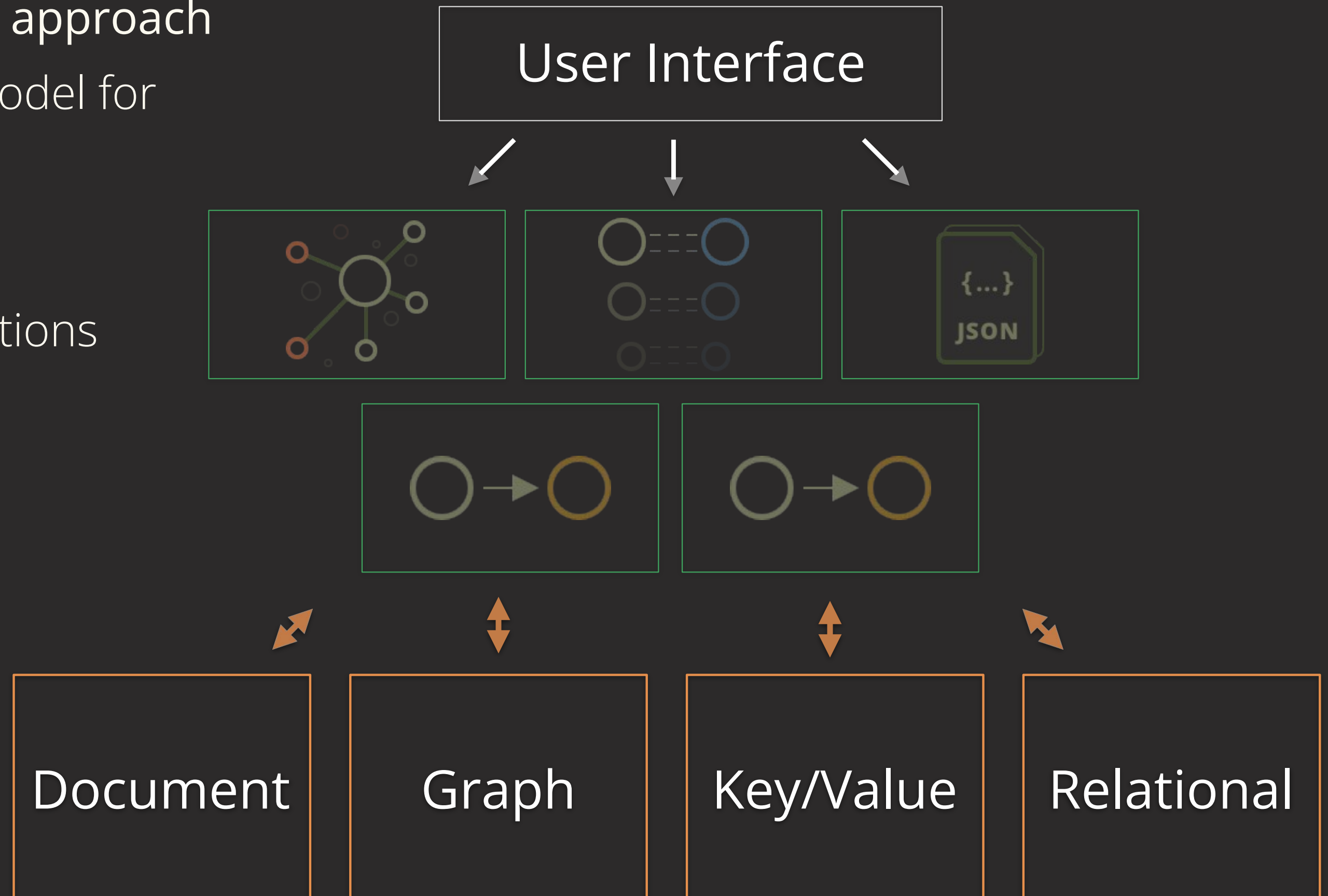
Ok, let's use multiple data stores

Polyglot Persistence is a great approach

- ▶ You can use the right data model for the right job
- ▶ Precisely tailor queries
- ▶ Data model specific optimizations

BUT

- ▶ Learn & orchestrate multiple technologies
- ▶ Increased complexity
- ▶ Consistency among DBs?
- ▶ Multi-model queries?



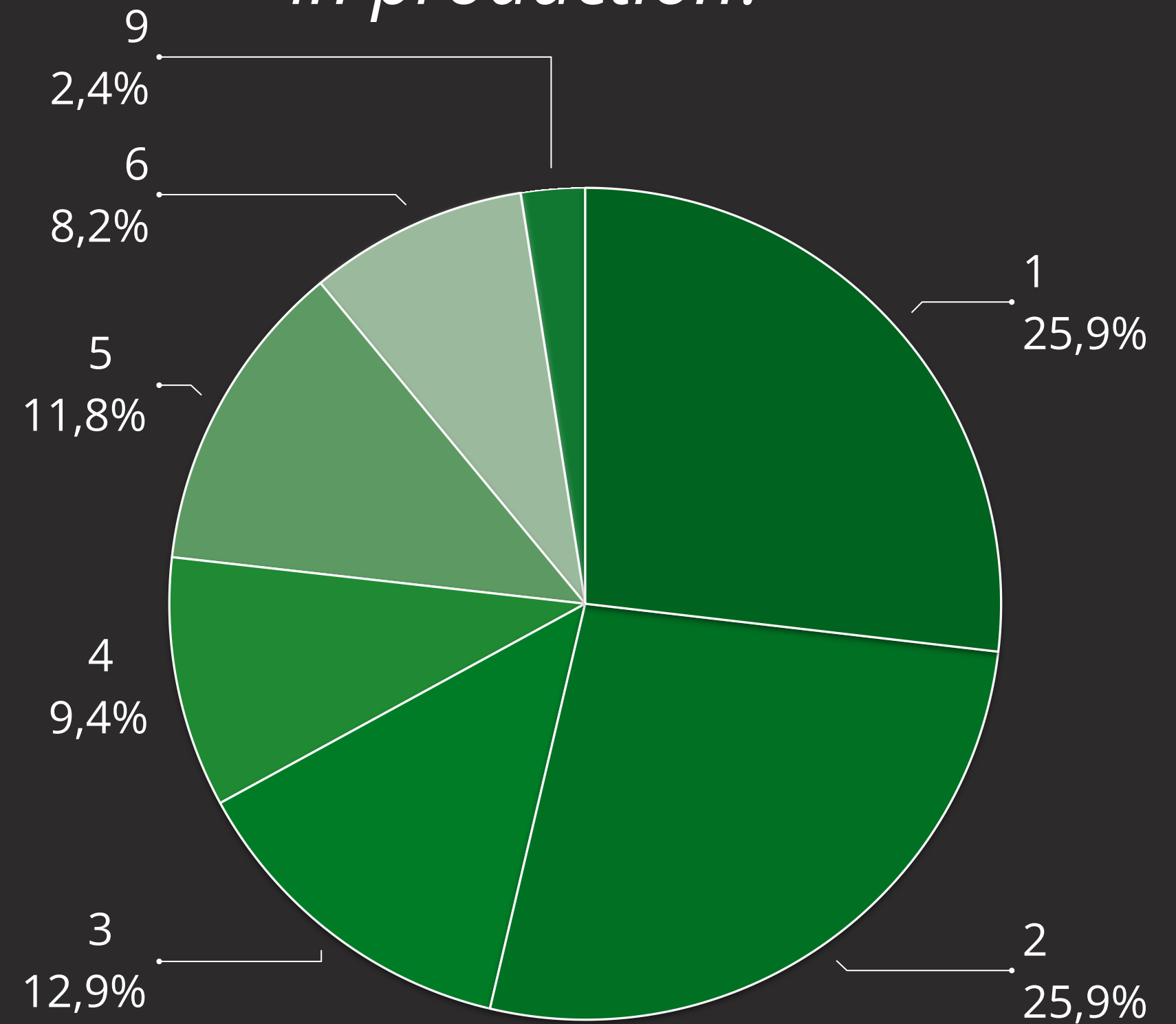
Let's broaden the perspective

74% use multiple database types in their organization and have to deal with:

- ▶ Fragmented technology landscape
- ▶ Fragmented skillset
- ▶ Difficult to move from one project to the other
- ▶ High infrastructure complexity
- ▶ Multiplied costs

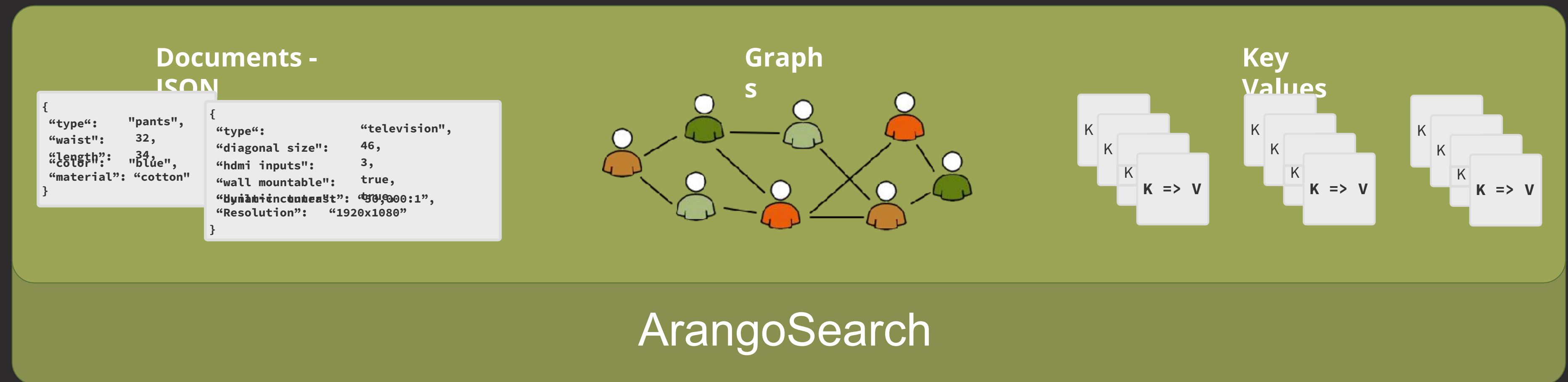
Large enterprises easily have 10-20 different databases in production

How many DBs run in production?



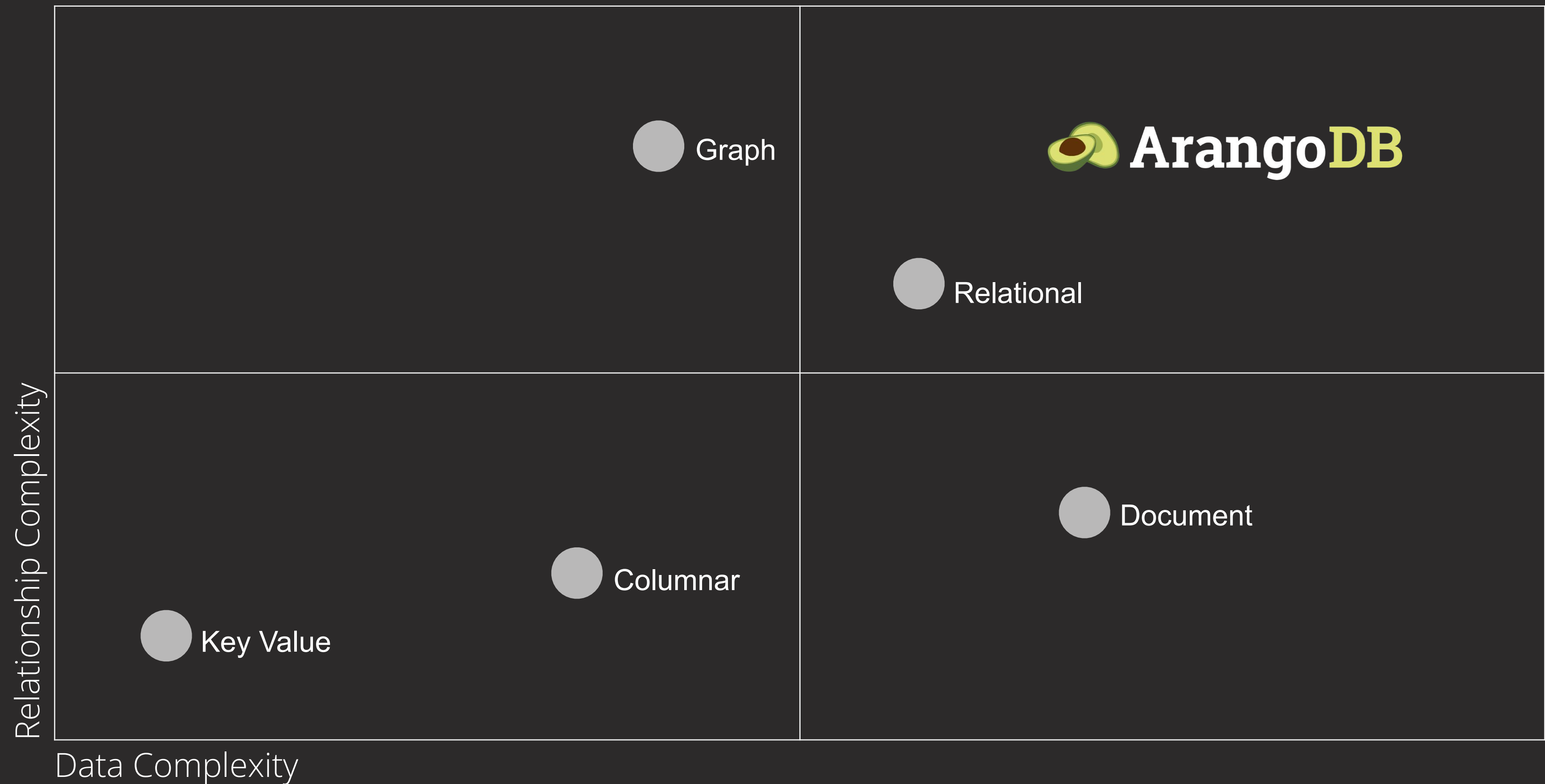
Source: Open Source Database Report 2019 (ScaleGrid)

Native Multi-Model Approach

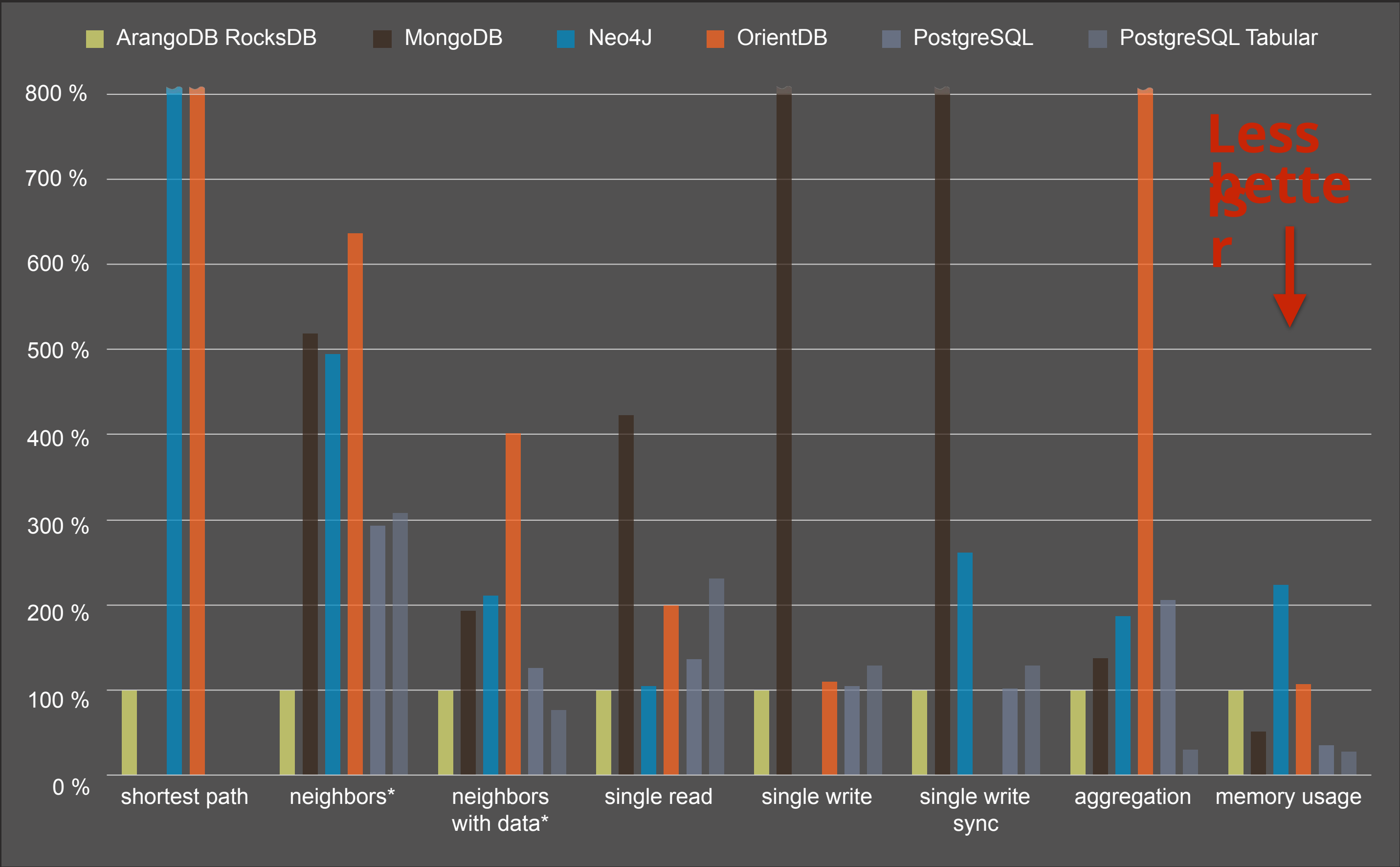


One Core. One Query Language.
Multiple Data Models.

Huge Solution Space

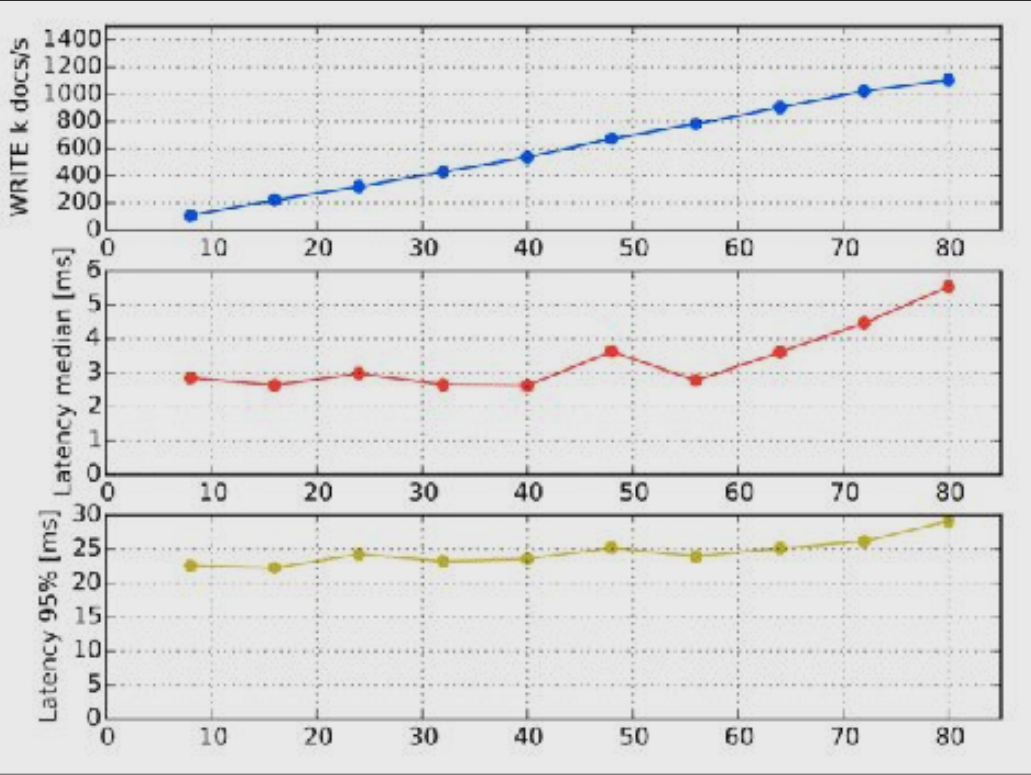


Single instance



Cluster

Database	document writes per vCPU/second
ArangoDB	1,730
Aerospike	2,500
Cassandra	965
Couchbase	1,375
FoundationDB	750



Company at a Glance

\$17.2m Funding

60+ Employees

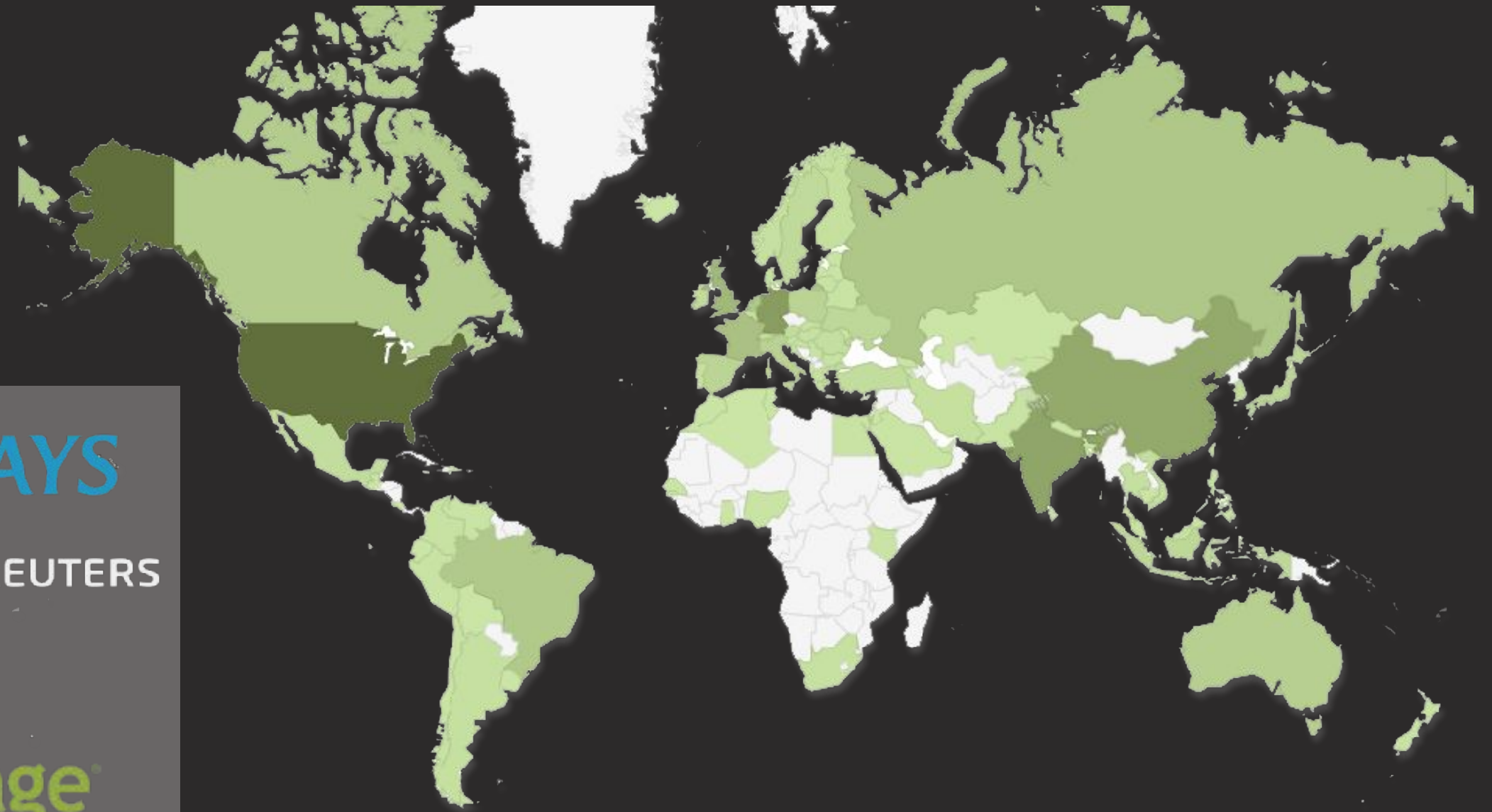
7.2m+ Downloads over all sources

8000+ Stargazers

95+ External code contributors

500+ Production installations

Fortune 10 and **500** customers



ArangoDB Use Cases so far

Finance

- Product Recommendation
- Privacy, Risk & Compliance
- 360 Customer View
- Workflow Management
- Reporting/BI/BA
- Dependency Management
- Sybase & Oracle Replacement

Cybersecurity

- Thread Intelligence
- Connected Feature Extraction
- Identity & Access Management
- Digital Forensics

Telecommunications

- Network Analytics
- Outage Predictions
- Usage Scoring

Manufacturing

- Aircraft Fleet Management
- Bill of Materials & Simulations
- Knowledge Graphs

IoT

- Demand Prediction
- Streamlined ML/AI Pipeline
- Device Authorisation/Access Management
- Streamlined Data Analytics

Customer Use Cases

- ▶ Identity & Access Management for their +200k employees
- ▶ JSON & Graphs perfect for Identity & Access applications
- ▶ Leveraging SmartGraph feature to handle billions of nodes & edges



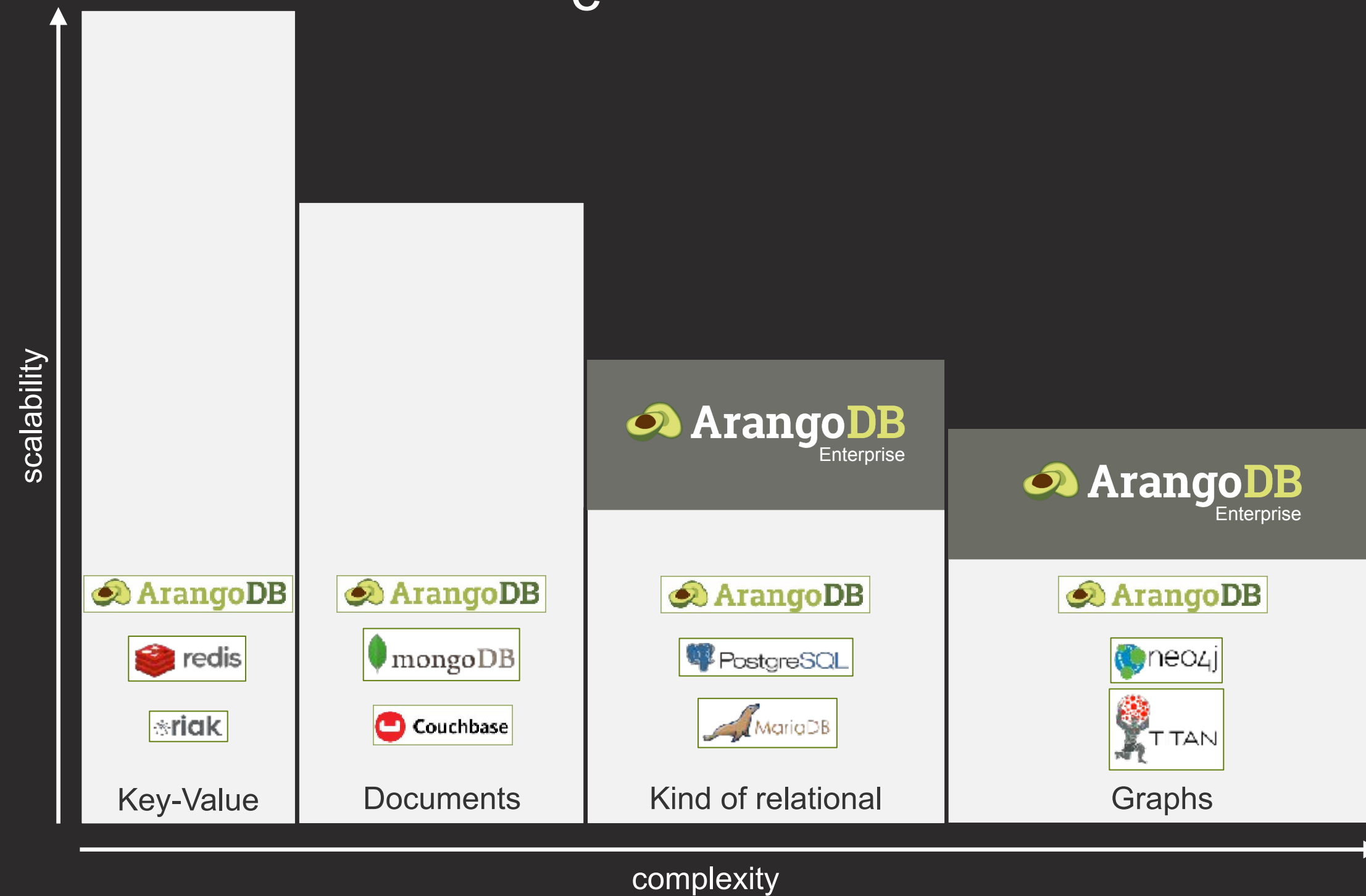
- ▶ Enhanced BI & BA application for all employees
- ▶ Leverage relational and graph access patterns
- ▶ Intensive use of Foxx Framework
- ▶ Business Analysts & Product Owners writing own AQL queries

- ▶ Simplified ML pipeline for kPlexus & iPlexus system
- ▶ Full native multi-model usage
- ▶ Replaced MongoDB, Neo4j, ElasticSearch & Redis
- ▶ Reduced data redundancy, maintenance & evaluation costs



ArangoDB

Enterprise



Enterprise Features

- like:
- Encryption 360 (Transit, Rest, Backup)
 - ▶ Auditing
 - ▶ LDAP
 - ▶ Multi Data Center support
 - ▶ Data masking
 - ▶ Managed Cloud Service

Unique Enterprise Features

like:

- ▶ SmartGraphs
- ▶ SatelliteCollections
- ▶ SmartJoins

ArangoDB Managed Service

- ▶ Fully managed ArangoDB Cloud
 - ▶ Runs Enterprise Edition including all features
 - ▶ Supports all major cloud providers & regions
 - ▶ Choose any instance you like
 - ▶ Usage based pricing
 - ▶ Closed beta to start in ~3 weeks



Join the Early Bird list:
www.arangodb.com/managed-service/

Thanks for joining us today



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arangodb/arangodb

Thanks for joining!

Time for Questions

