

real-time alerting, analytics and reporting at scale
with
Apache Kafka and Apache Ignite

Hello 🙌



@denismagda

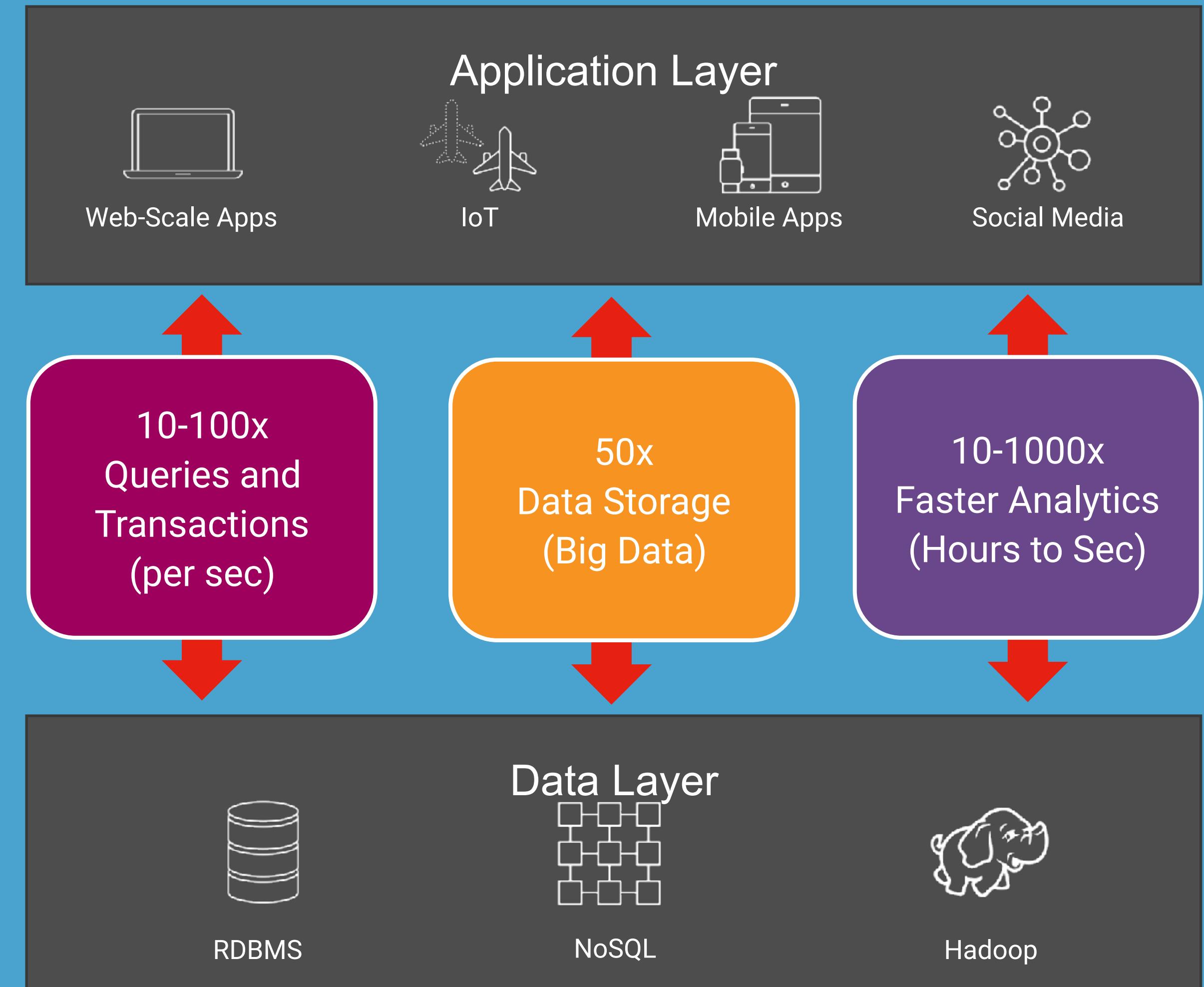


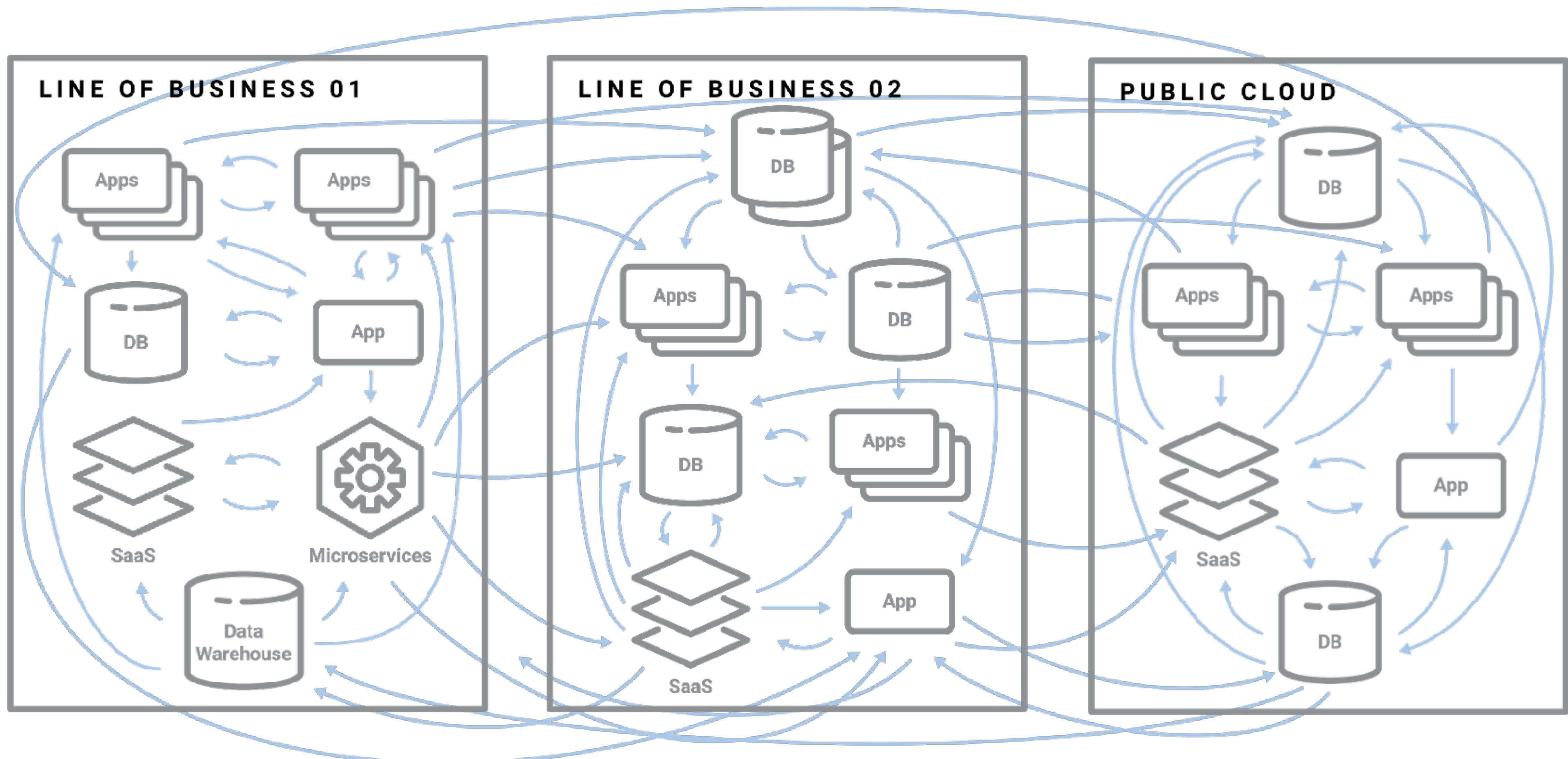
@jwfbean

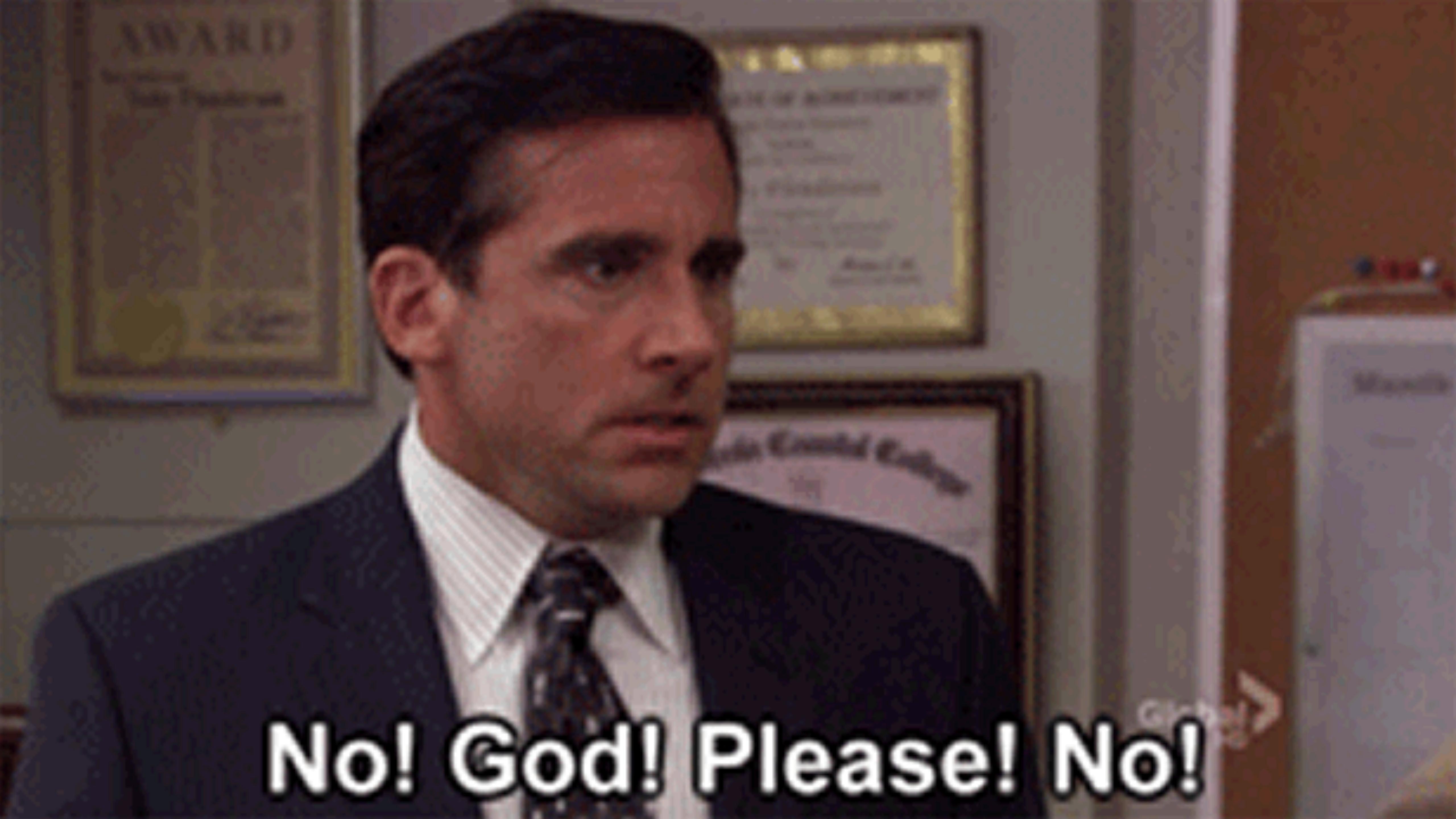
Digital transformation challenges

Digital Transformations Challenges

- 10-100x more queries and transactions
- 50x more data today as a decade ago
- Overnight analytics become real-time



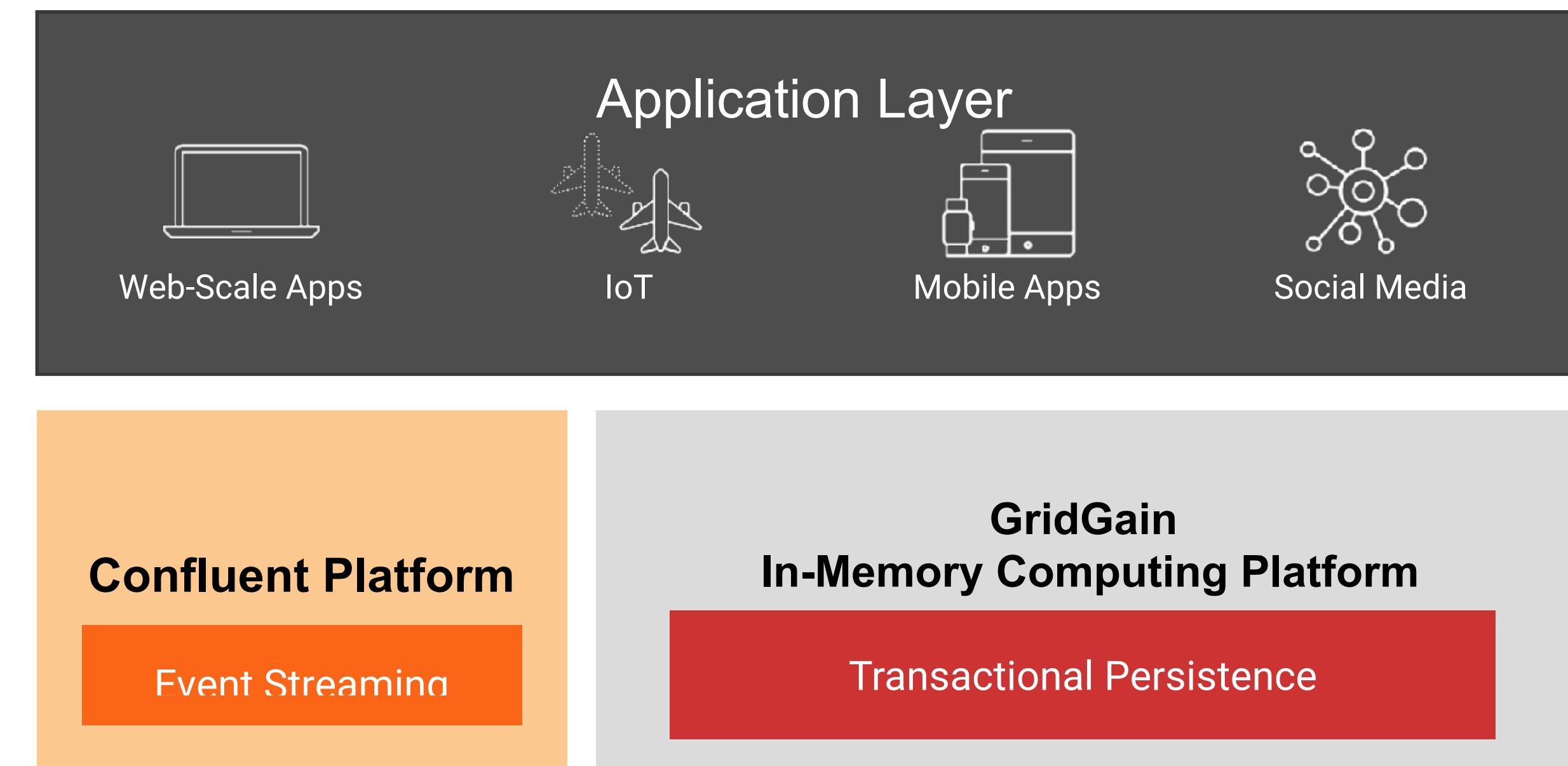


A close-up photograph of a man with dark hair and a mustache, wearing a dark suit jacket, a white shirt, and a patterned tie. He has a shocked or distressed expression, with wide eyes and a slightly open mouth. The background shows a wall with framed certificates or awards.

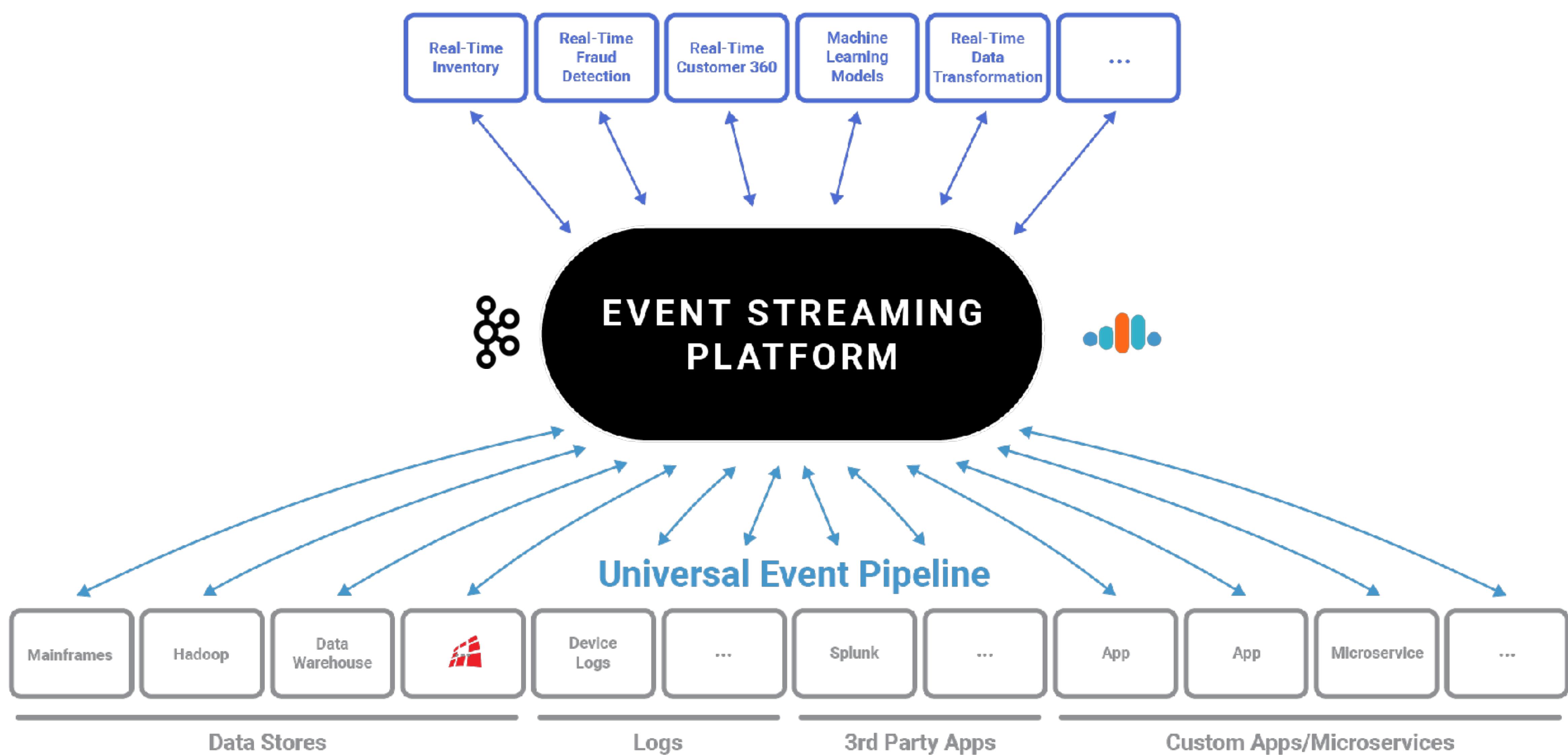
No! God! Please! No!

In-Memory Computing and Stream processing

- Performance and velocity increases
- Scalability up to petabytes of data
- Act faster by analyzing streams of data using SQL language

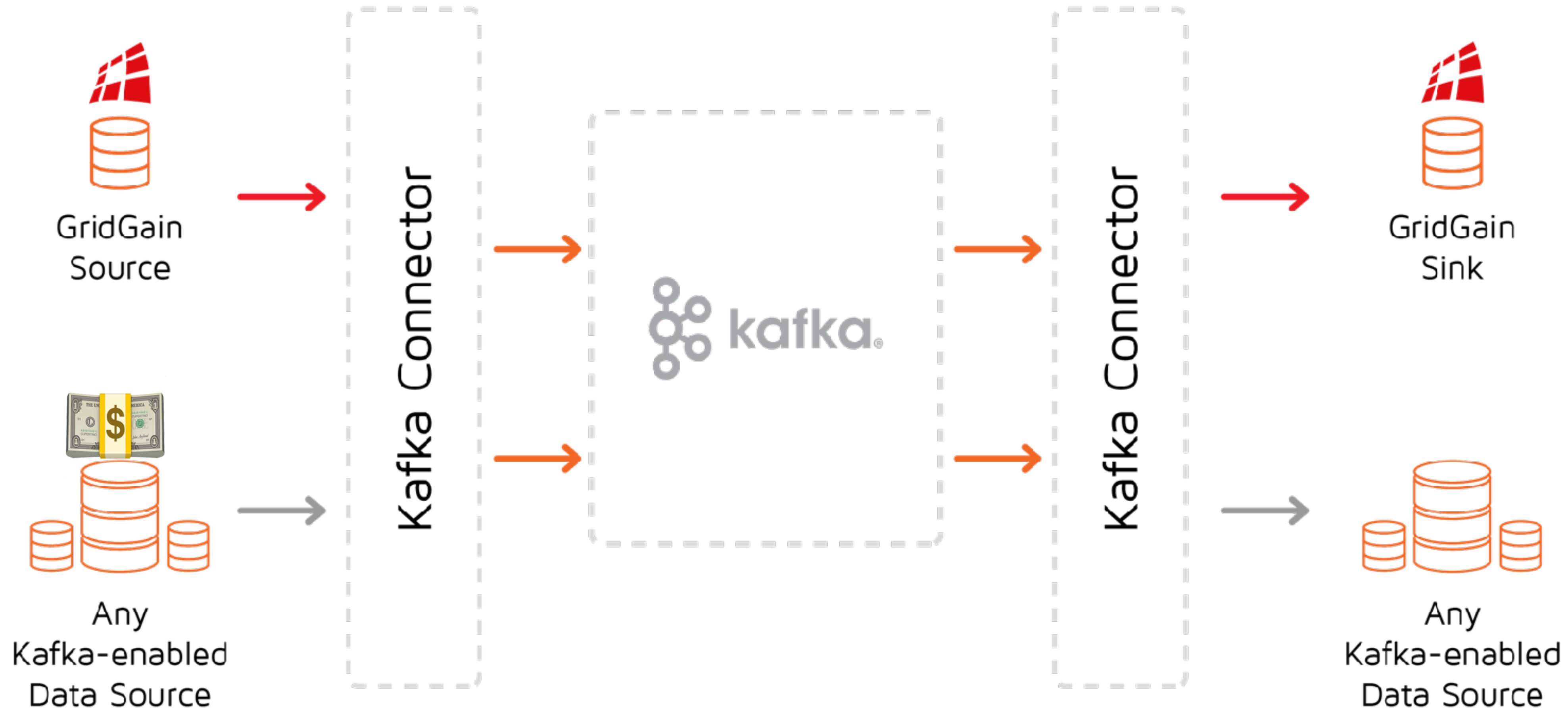


Contextual Event-Driven Apps

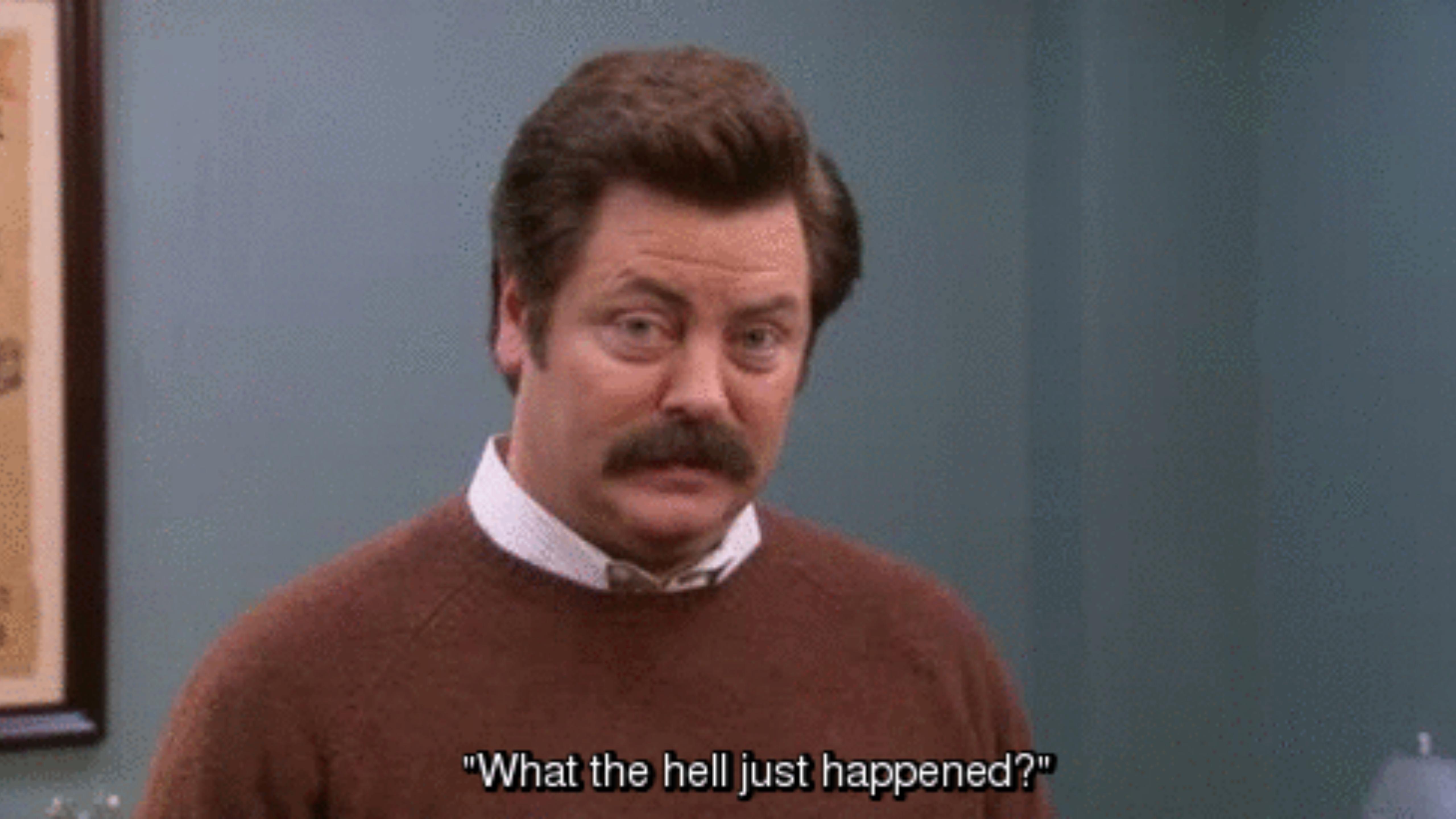


Kappa Architecture:

GridGain and Kafka Connect



Demo

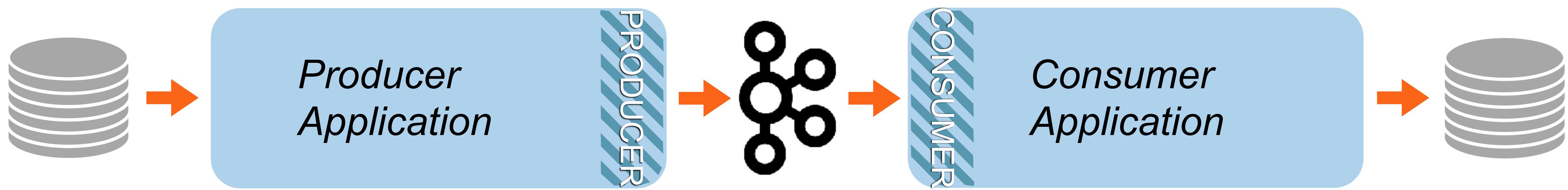


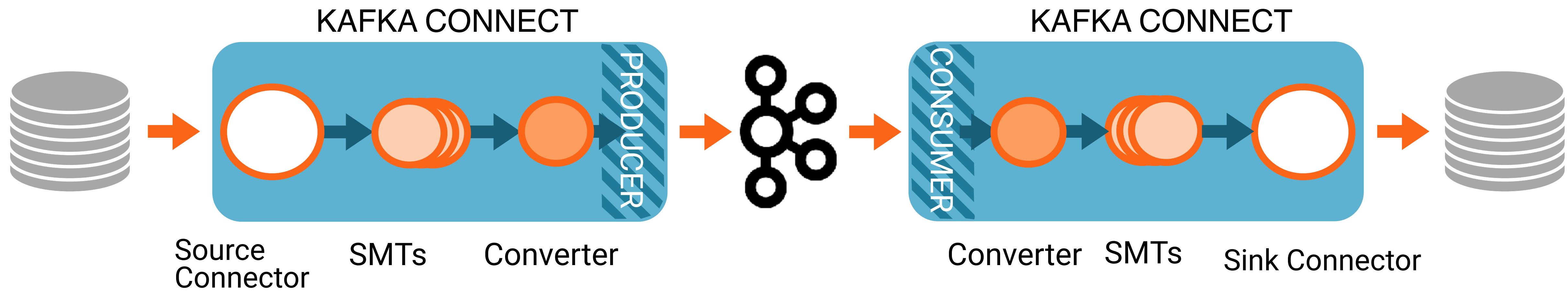
"What the hell just happened?"



Enter Kafka Connect

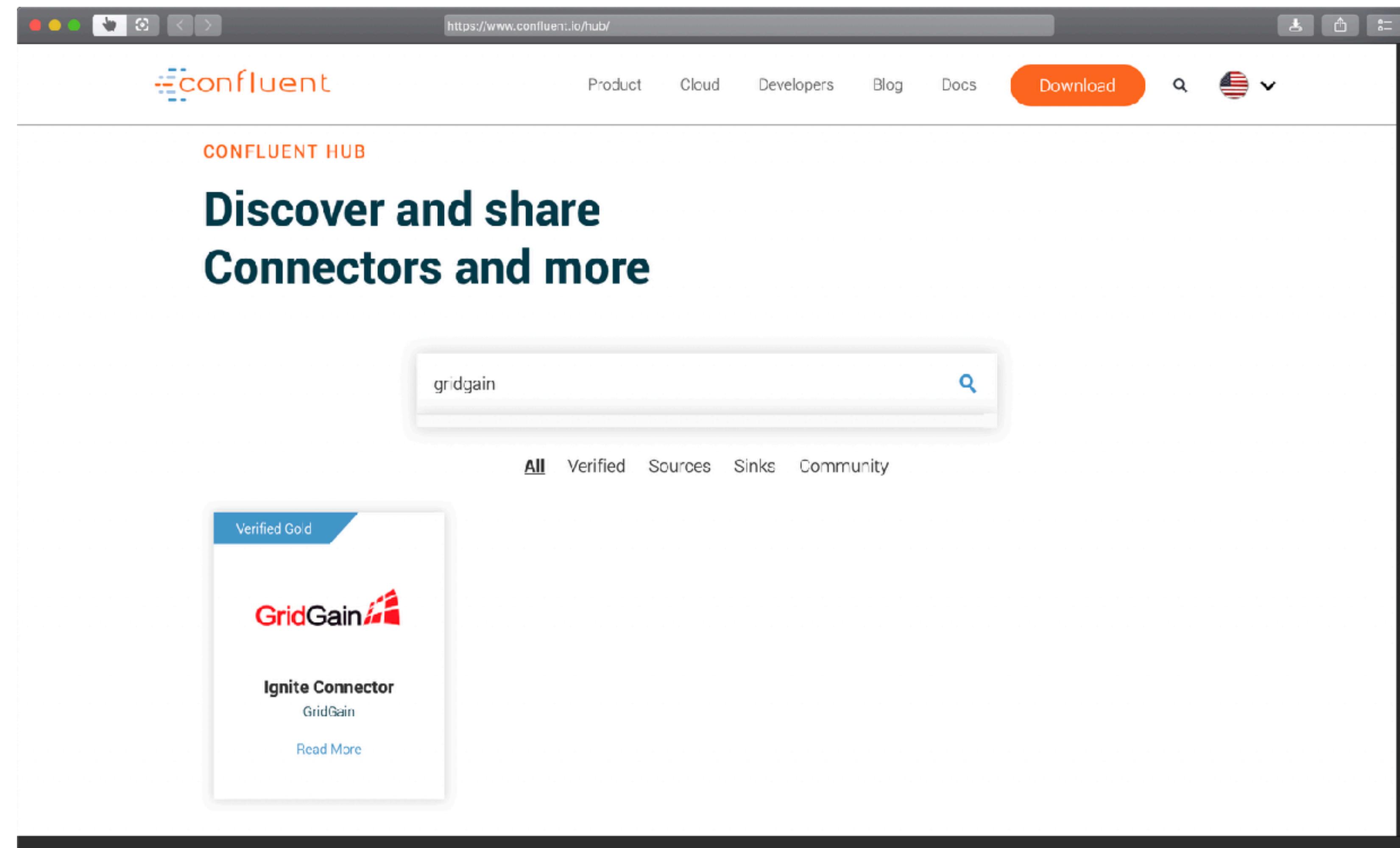
@denismagda | @jwfbean | @IMCSUMMIT





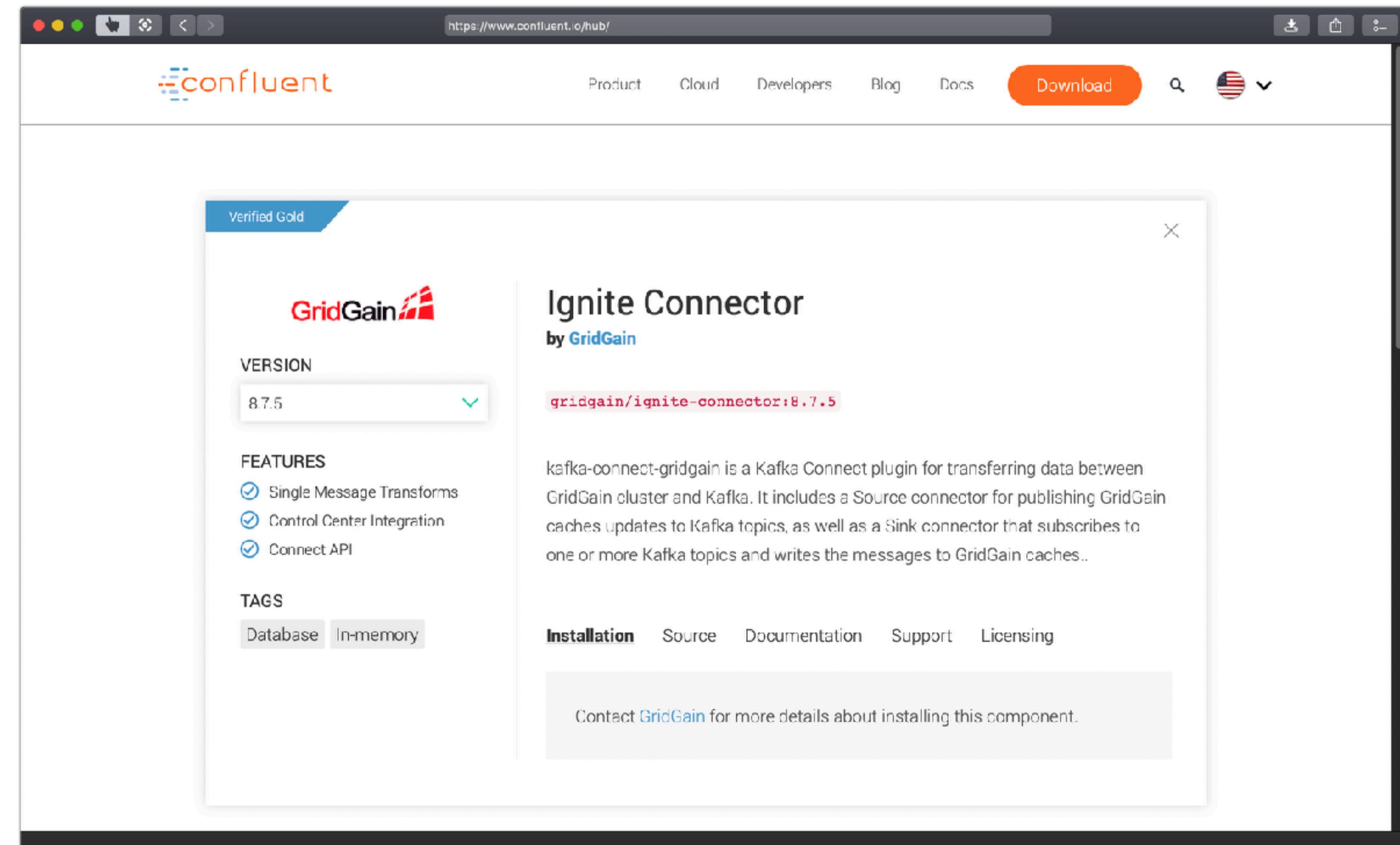


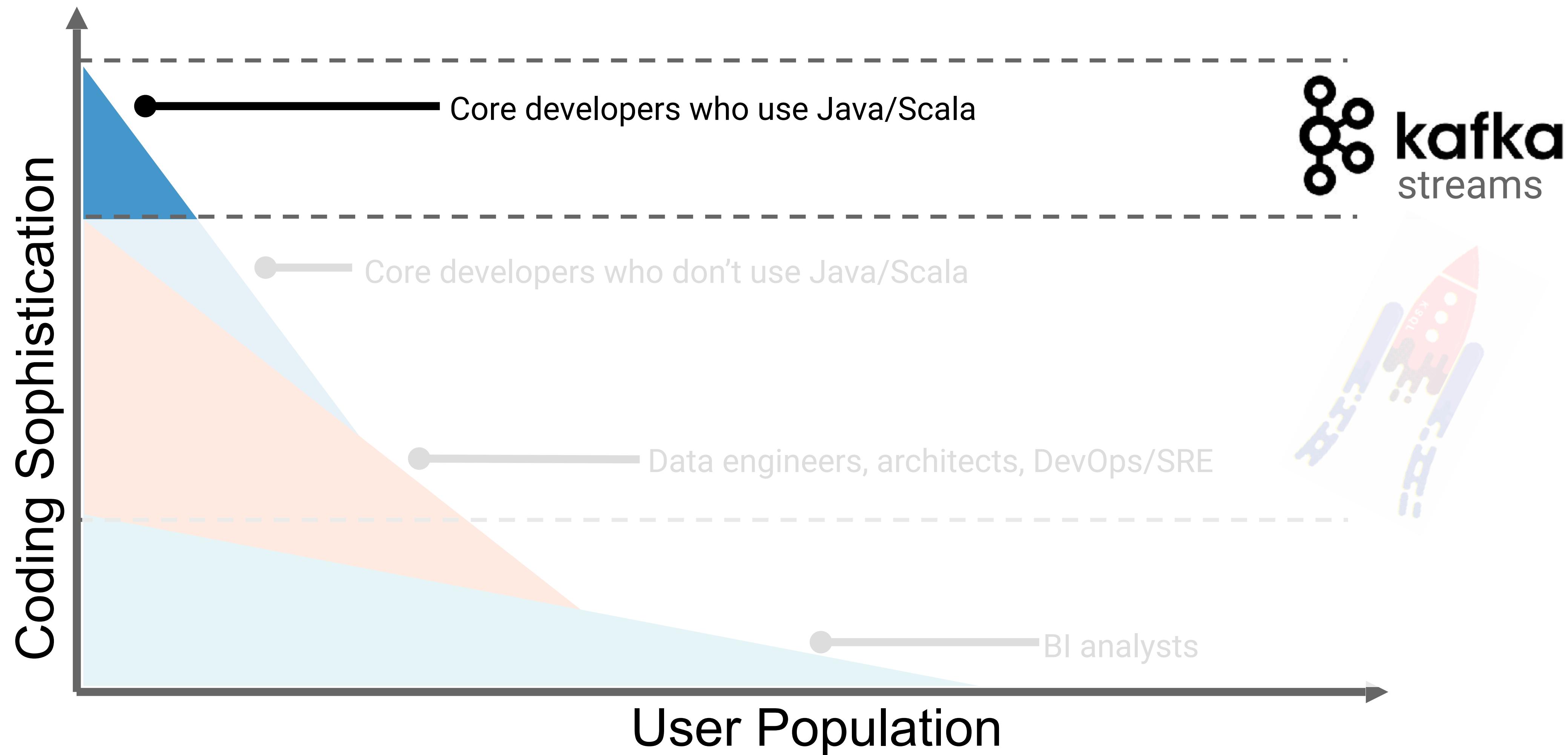
Discover connectors,
SMTs, and
converters



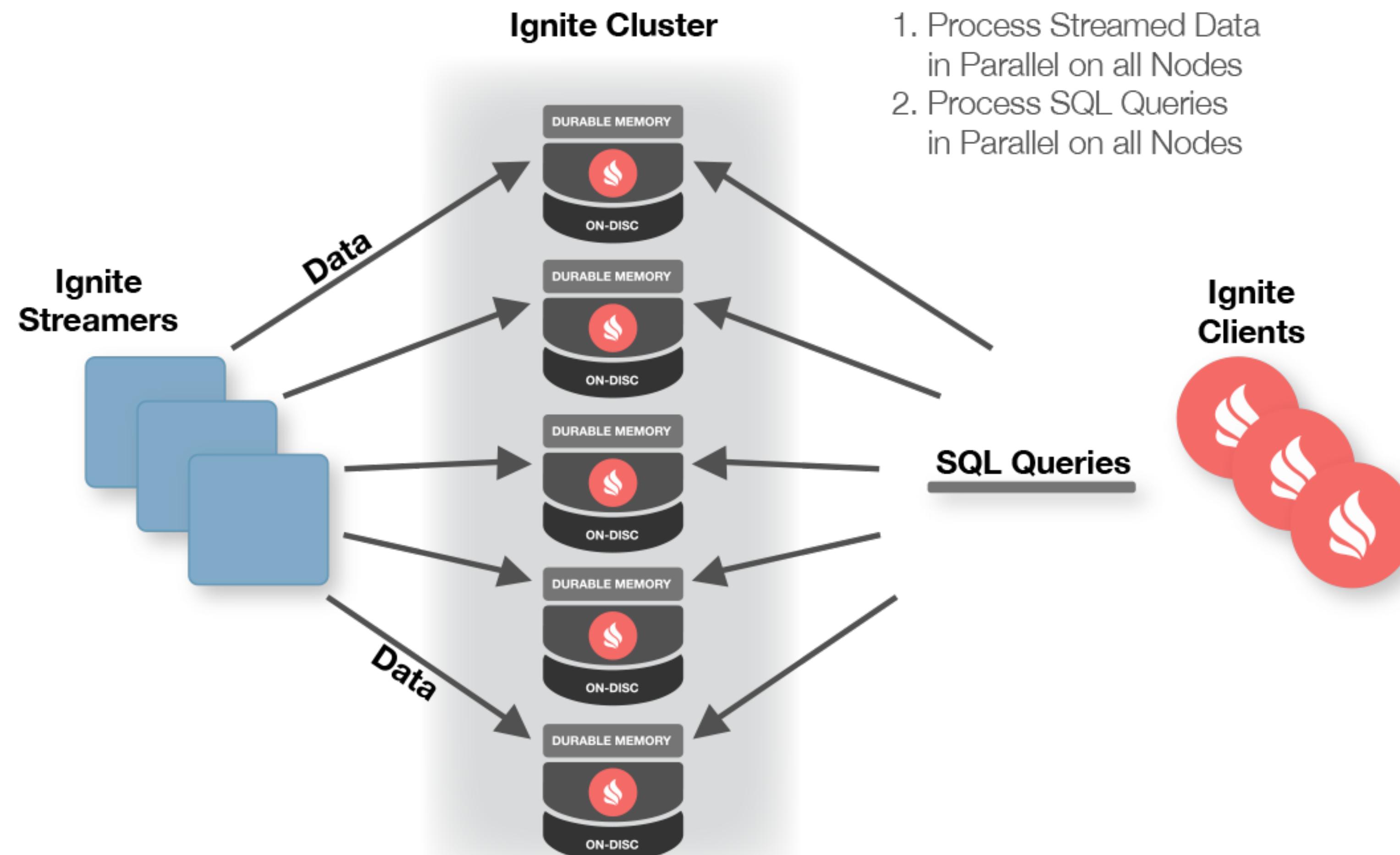
The screenshot shows a web browser displaying the Confluent Hub at <https://www.confluent.io/hub/>. The page features the Confluent logo and navigation links for Product, Cloud, Developers, Blog, and Docs, along with a prominent orange Download button. A search bar at the top right contains the American flag icon. The main heading reads "CONFLUENT HUB" and "Discover and share Connectors and more". Below this, a search bar contains the text "gridgain". Underneath the search bar are filter buttons for All, Verified, Sources, Sinks, and Community. A detailed listing for the "GridGain Ignite Connector" is shown, featuring the GridGain logo, the connector name, the developer (GridGain), and a "Read More" link.

- ✓ Discover connectors, SMTs, and converters
- ✓ Descriptions, licensing, support, and more



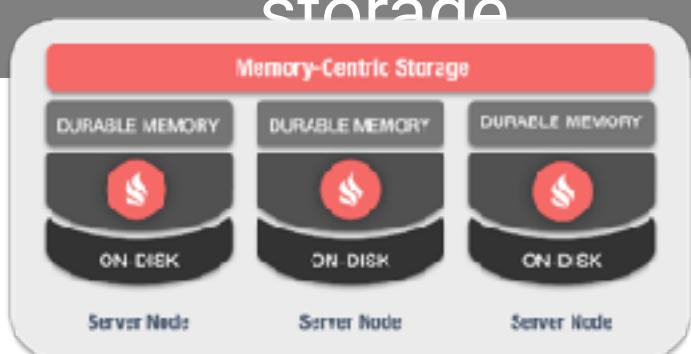


Store and process with GridGain



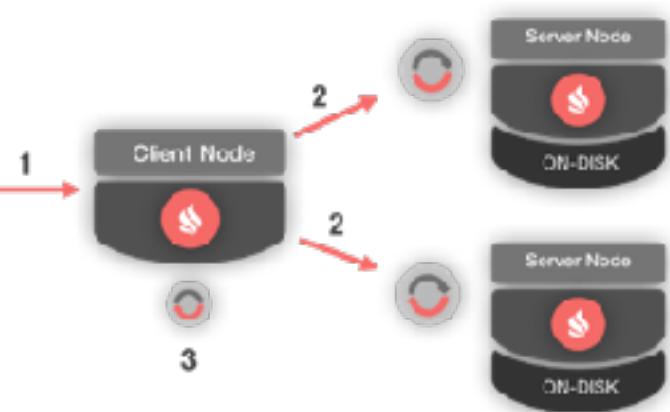
Essential GridGain APIs

Distributed memory-centric storage



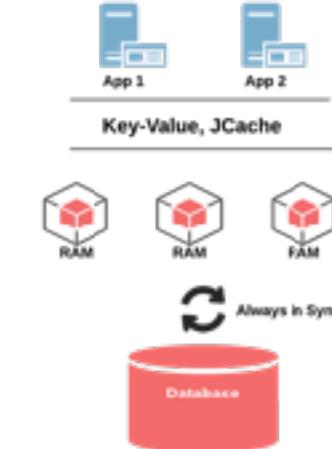
Combines the performance and scale of in-memory computing together with the disk durability and strong consistency in one system

Co-located Computations



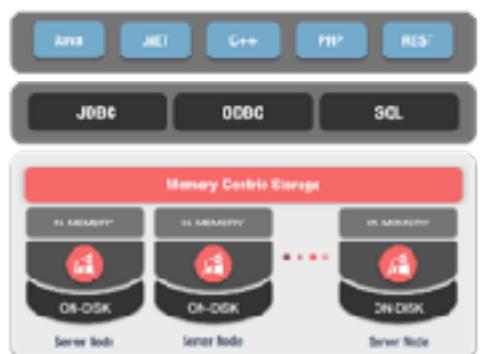
Brings the computations to the servers where the data actually resides, eliminating need to move data over the network

Distributed Key-Value



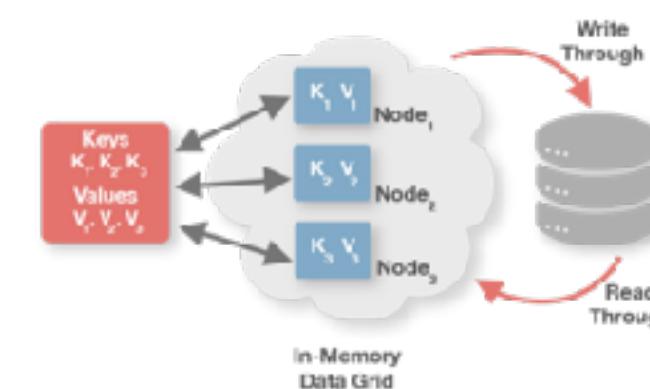
Read, write and transact with fast key-value APIs

Distributed SQL



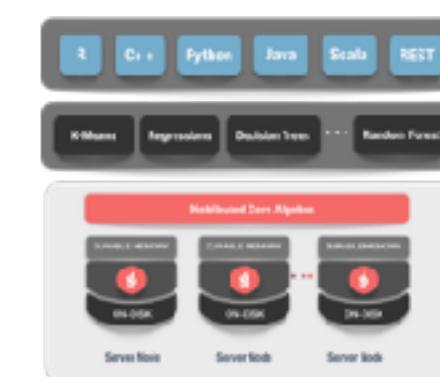
Horizontally, fault-tolerant distributed SQL database that treats memory and disk as active storage tiers

ACID Transactions



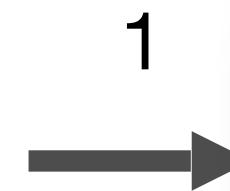
Supports distributed ACID transactions for key-value as well as SQL operations

Machine and Deep Learning

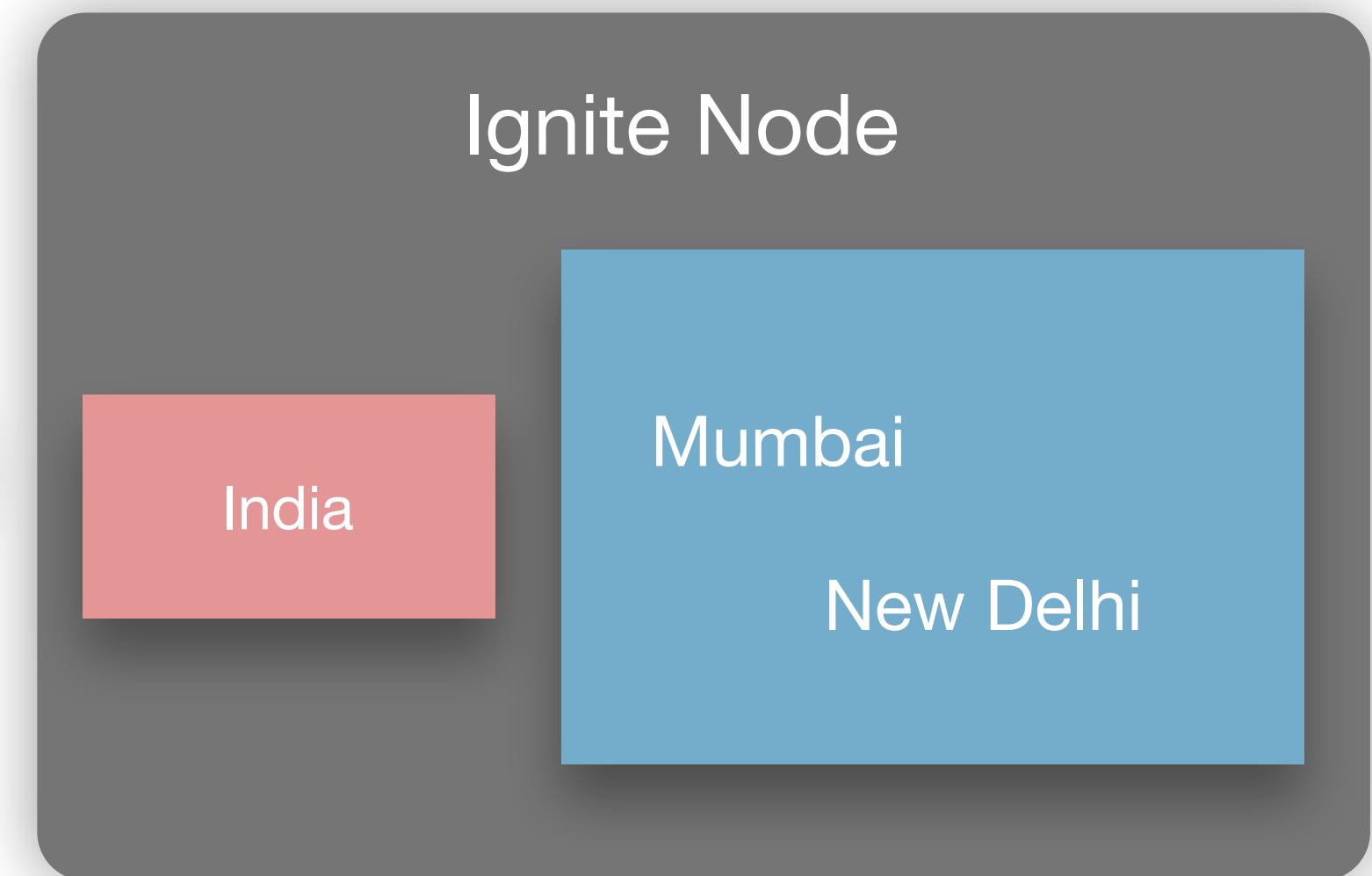
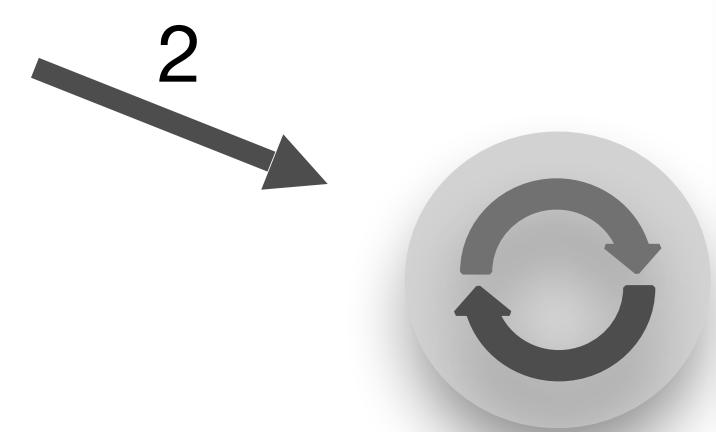
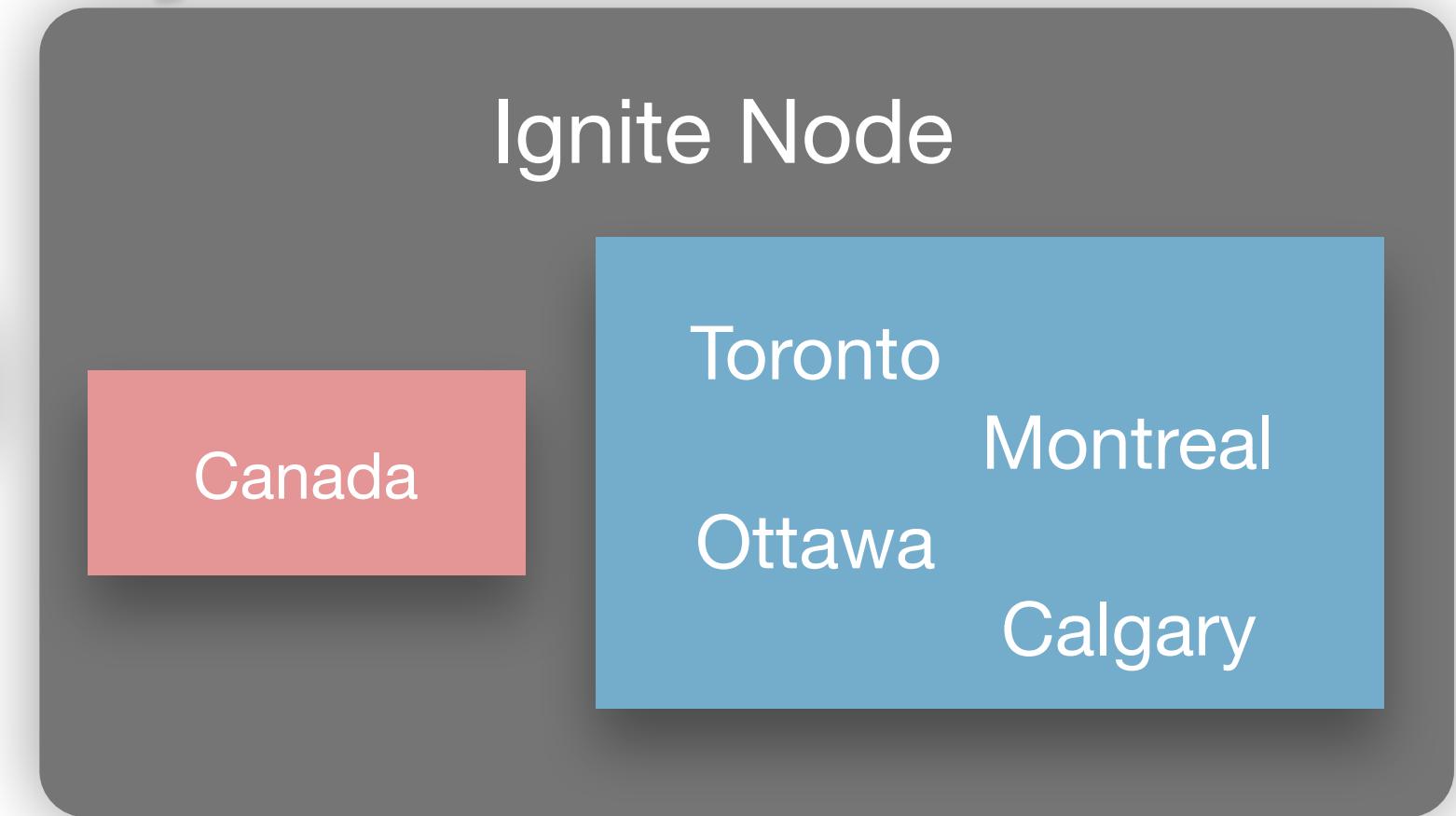
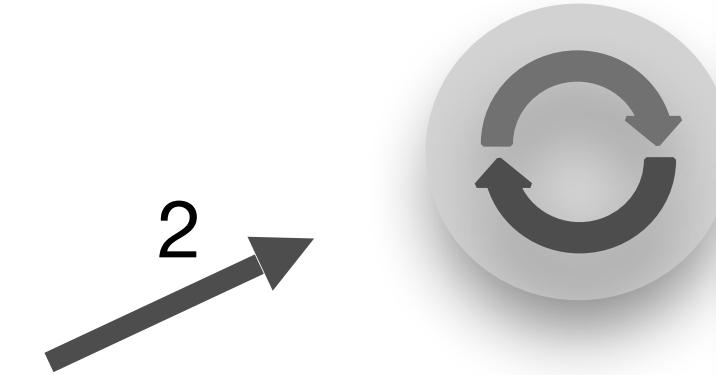


Set of simple, scalable and efficient tools that allow building predictive machine learning models without costly data transfers (ETL)

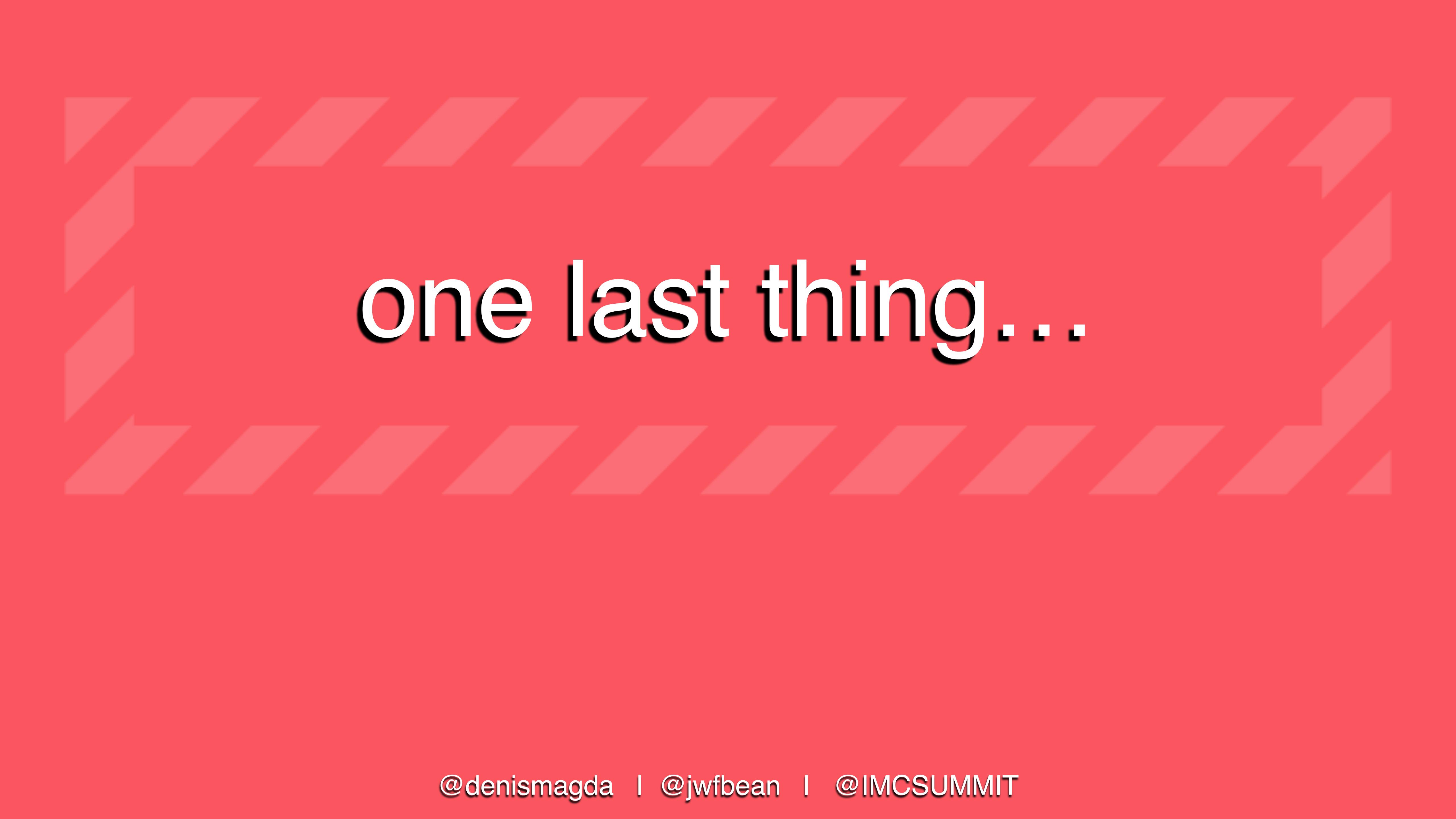
GridGain SQL For Real-Time Analytics



```
1  
SELECT ct.name, count(c.name)  
FROM Country as ct  
JOIN City as c ON c.countryCode = ct.code  
WHERE ct.name IN ('Canada', 'India') GROUP BY (ct.name);
```



1. Initial Query
2. Query execution over local data
3. Reduce multiple results in one



one last thing...

Q&A



Thanks!

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