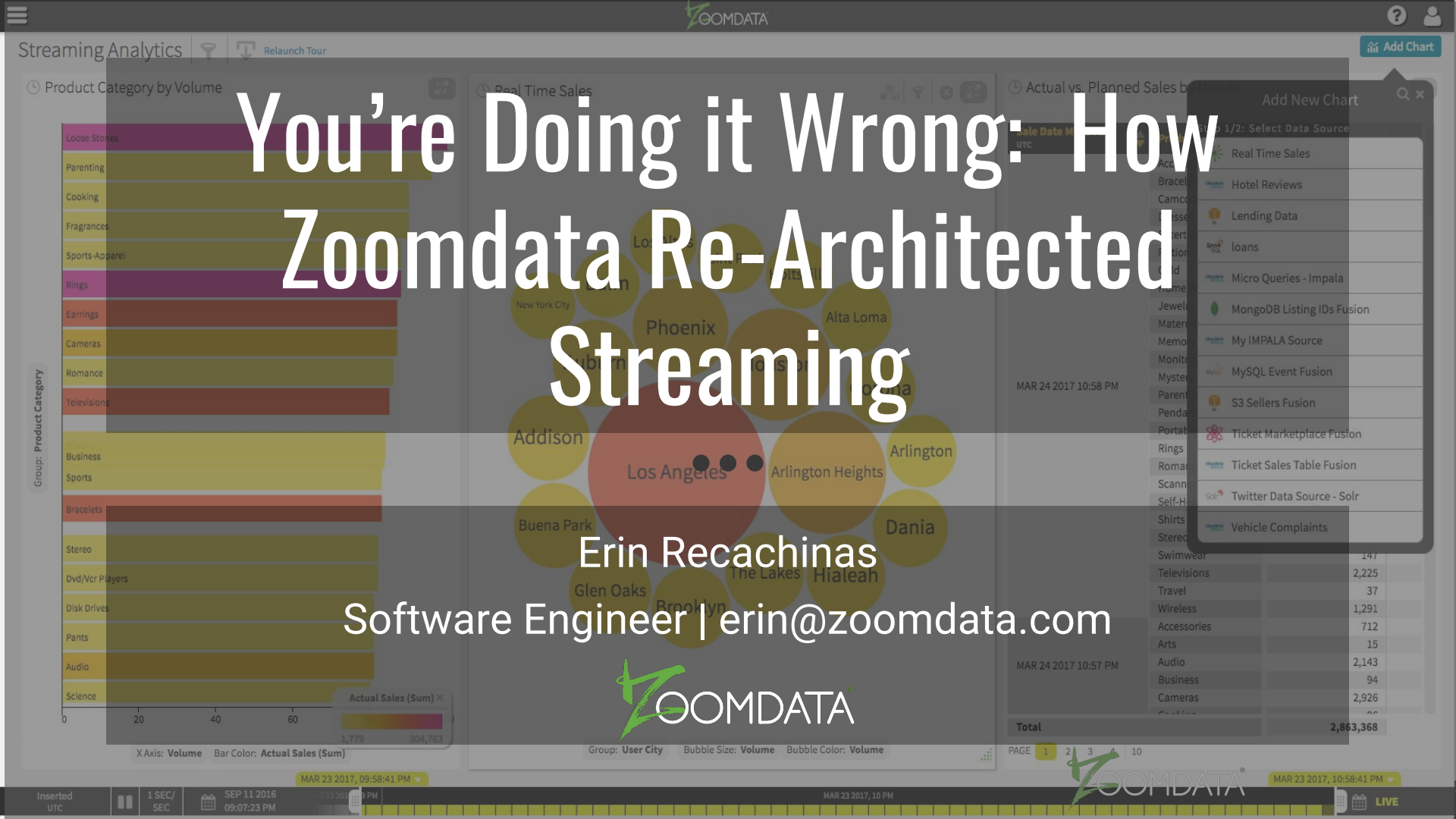


You're Doing it Wrong: How Zoomdata Re-Architected Streaming

Erin Recachinas

Software Engineer | erin@zoomdata.com

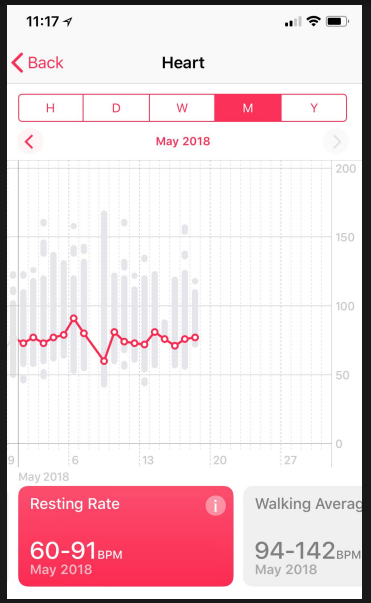
- Full stack engineer @ Zoomdata
- Built new streaming architecture
- #1 in Dresner Big Data Analytics Market Study 2016 & 2017

Use Case

Monitor

- Single
- Status
- Alerts

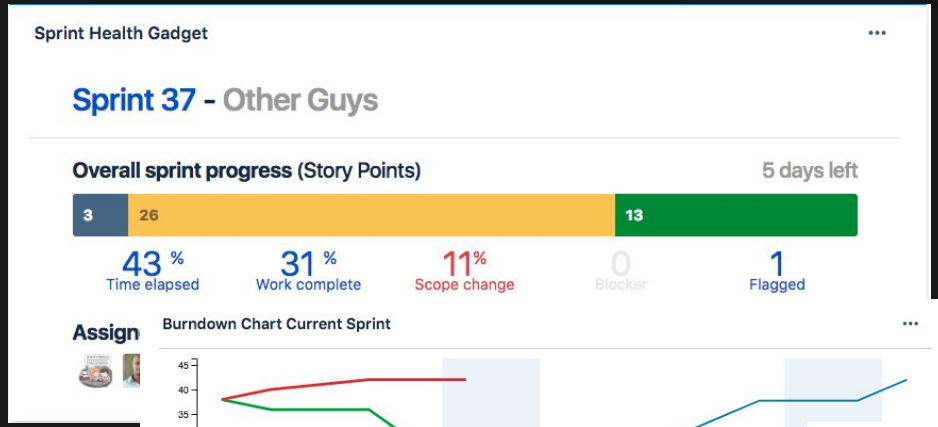
Aggregate

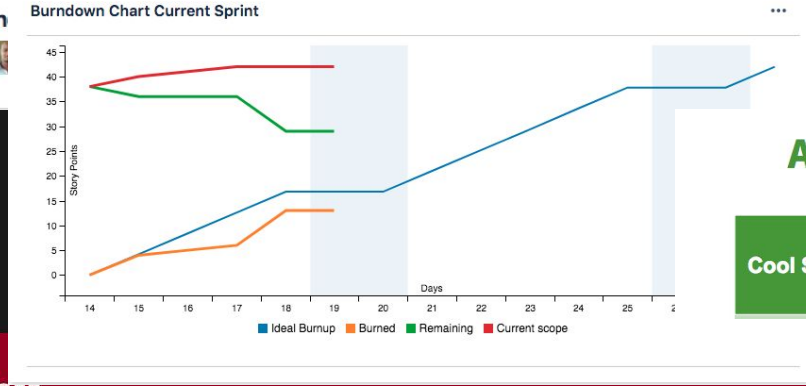


- Multiple
- Tracking
- Analytics

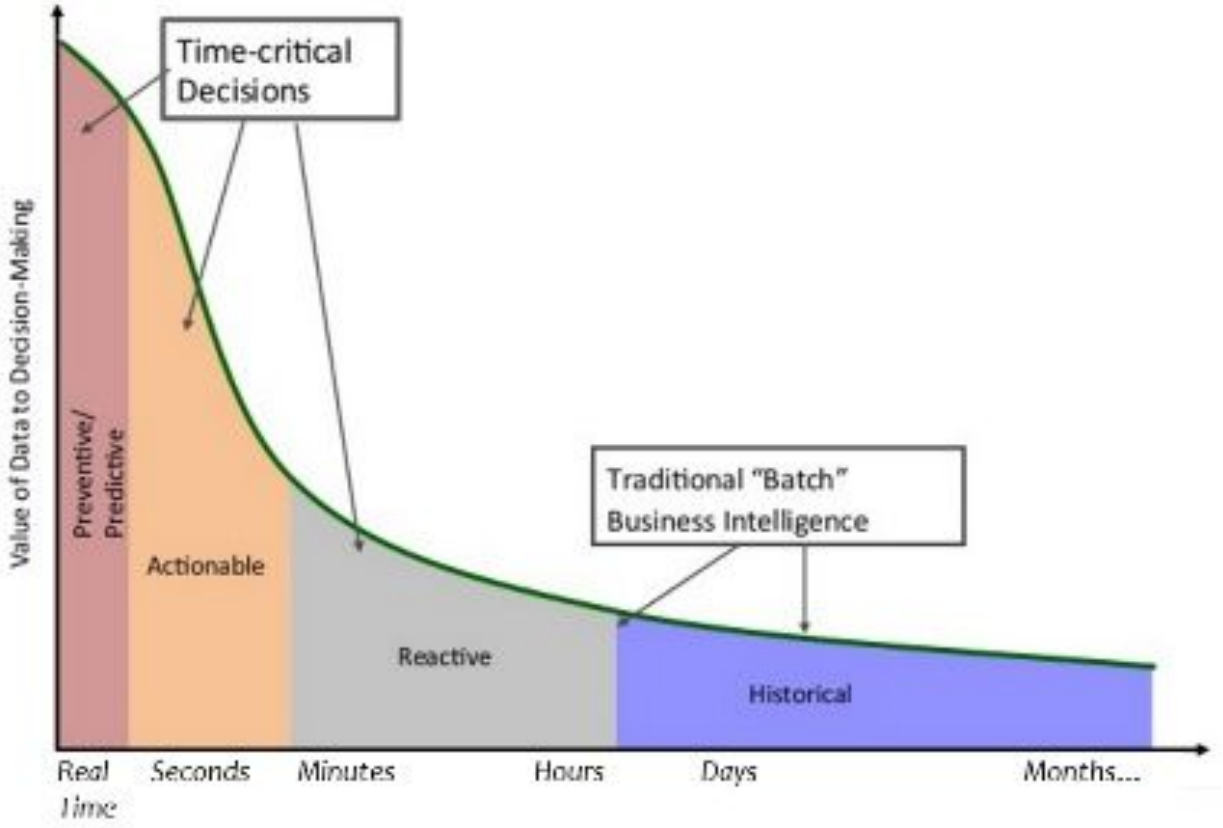
Use Case

Monitor

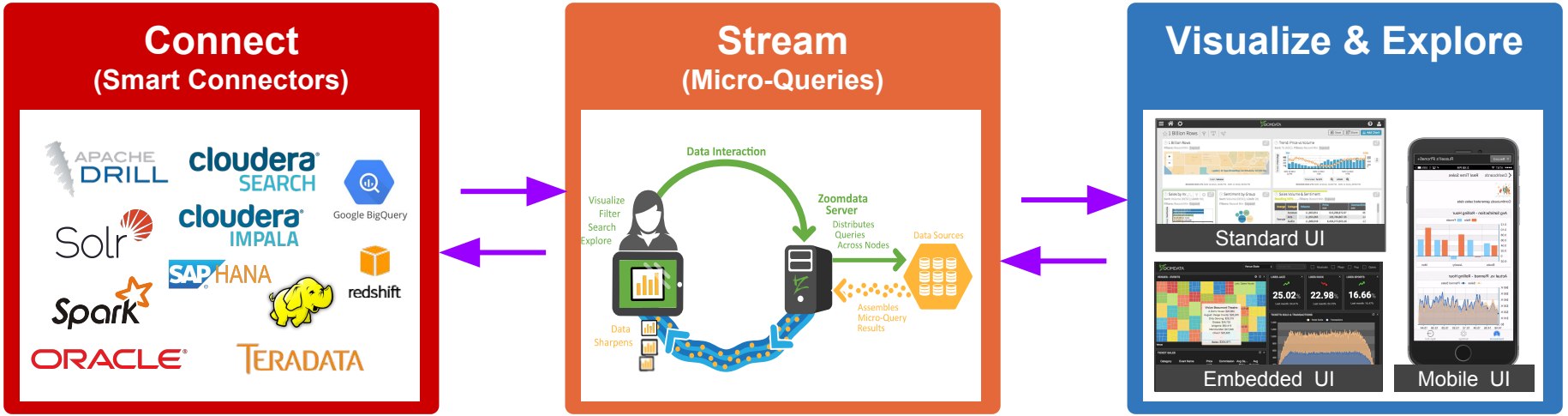




Aggregate


Time-critical Decisions
Traditional "Batch" Business Intelligence
Value of Data to Decision-Making
Preventive/ Predictive
Actionable
Reactive
Historical
Real Time
Seconds
Minutes
Hours
Days
Months...

Modern BI Components

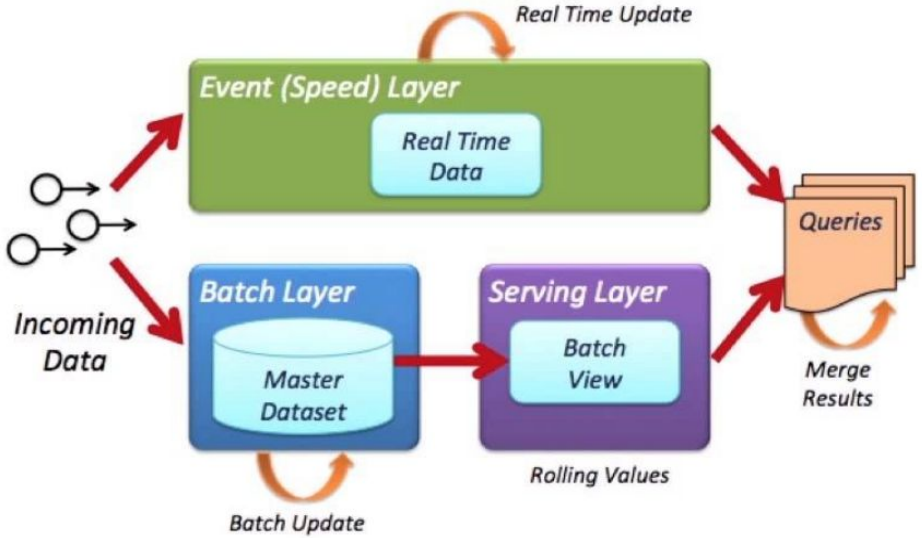


Traditional Streaming Architectures

Stream Processing

Lambda

(Stream + Batch)



How did we know we had a problem?

Customer use case

- Telecomm company
- 330M Subscribers
- 10 Billion transactions per day
- 4 Continents

Business Need

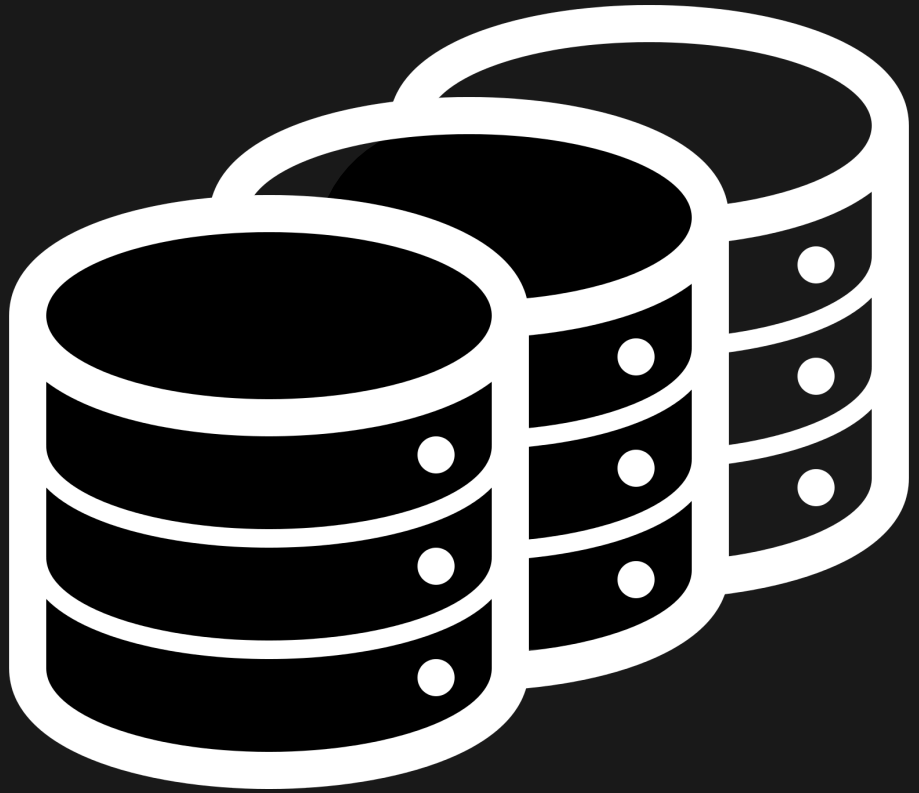
Single Platform

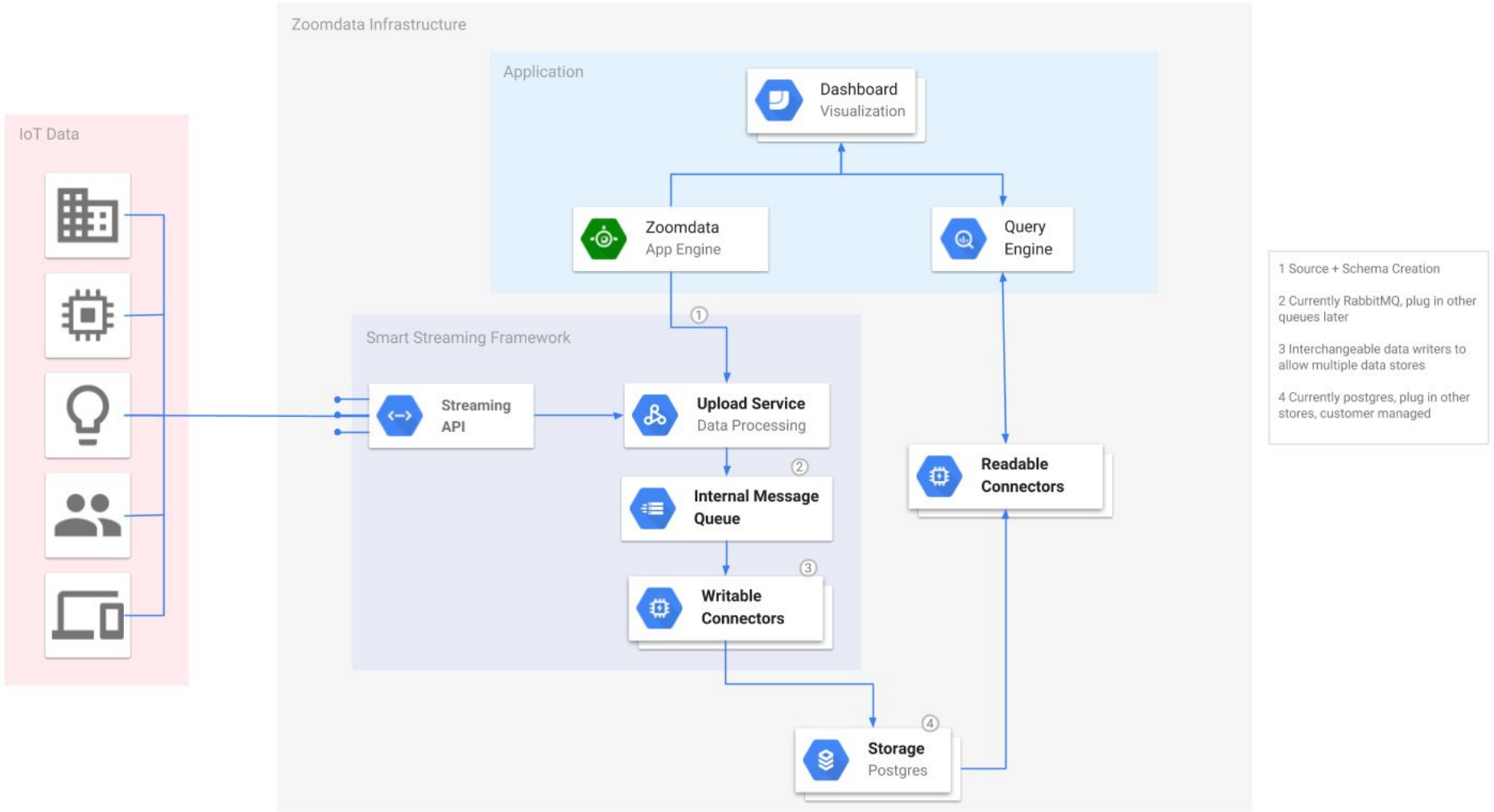
Real Time Analytics

- Velocity
- Volume

ZOOMDATA Strata DATA CONFERENCE

- Data Storage
- Data Writing




Zoomdata Infrastructure
Application
Dashboard
Visualization
Zoomdata
App Engine
Query
Engine
IoT Data
Smart Streaming Framework
Streaming
API
Upload Service
Data Processing
Internal Message
Queue
Writable
Connectors
Readable
Connectors
Storage
Postgres
1
2
3
4
1 Source + Schema Creation
2 Currently RabbitMQ, plug in other queues later
3 Interchangeable data writers to allow multiple data stores
4 Currently postgres, plug in other stores, customer managed

It was perfect and they lived happily ever after

ZOOMDATA Strata DATA CONFERENCE

~~It was perfect and they lived happily ever after~~

Lessons Learned

- Asynchronous vs Synchronous Workflows
- Stateless vs Stateful Microservices
- Data source security
- Achieving extensibility

Q & A

...

eatpraycodeblog.com/strata18

erin@zoomdata.com