

## DataStax Hands-On Workshop

Aaron Regis & Richard Henderson

# Agenda

1	Quick intro to DataStax and Team
2	Key Facts DataStax Enterprise
3	Hands-On Agenda today



# DataStax

### DataStax

400+

**Employees** 

#### Founded in April 2010

Santa Clara • San Francisco • Austin •

London • Paris • Berlin • Tokyo • Sydney

\$190M

**Funding** 





















(Series E – Sept. 2014)

500+

Customers























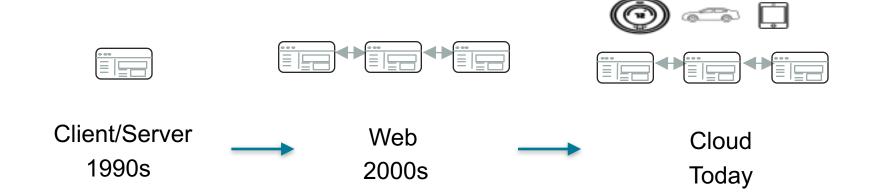


2016 World's Best 100 Cloud Companies



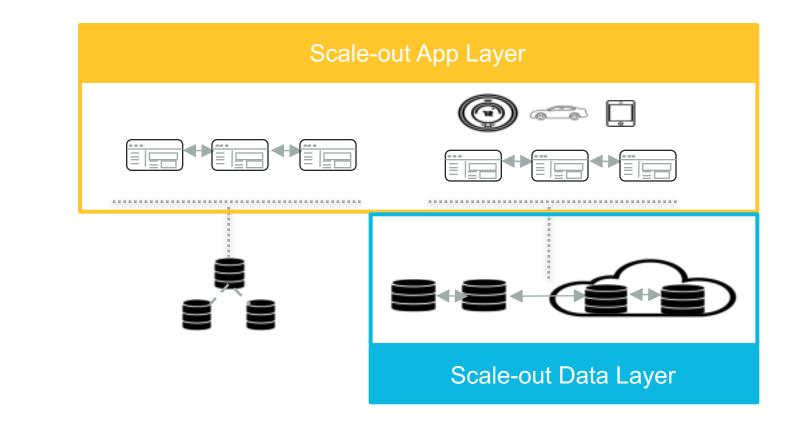
Ranked #1 in multiple operational

# Apps have changed





# And what powers them





## Cloud Application Characteristics











Real-Time

Distributed

Scalable



# **Powering Cloud Applications**

#### Always-on

 Designed to handle any failure, no matter how catastrophic.

#### **Effortless scale**

- Take advantage of every opportunity.
- Focus on what matters most to you.

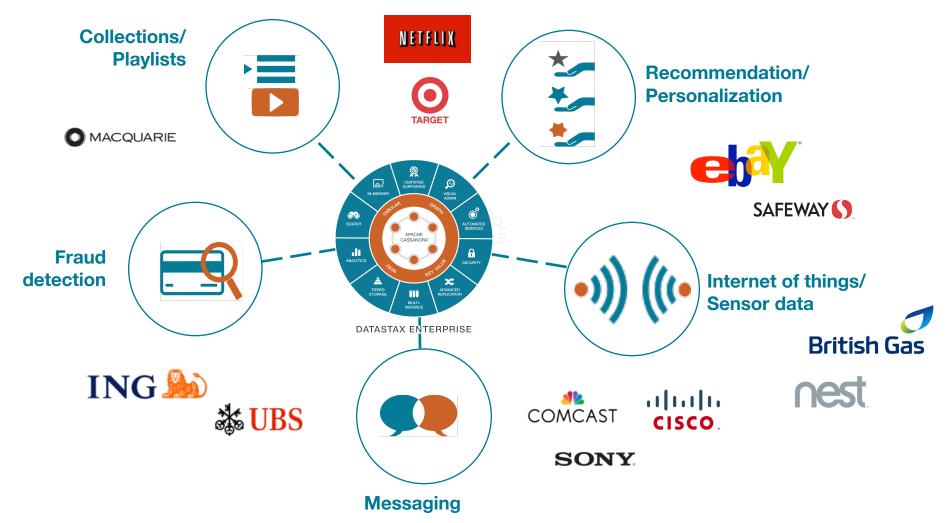
#### **Instant insight**

 Built into your application to create actionable, modern experiences.





### Functional use cases





# DataStax Enterprise

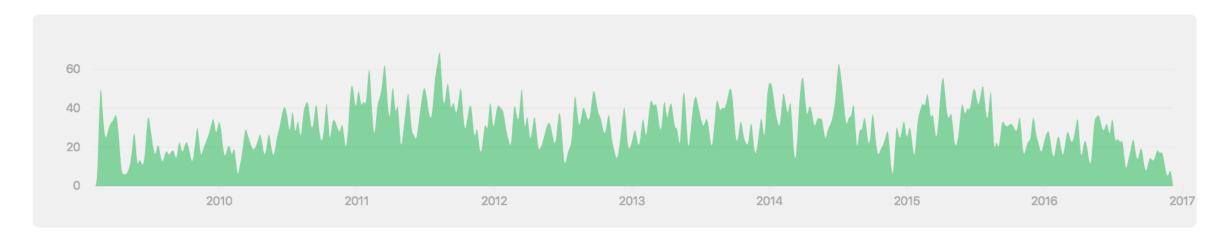
Key Facts

#### DataStax: The World Leader in Apache Cassandra™ Engineering

Mar 1, 2009 – Jan 8, 2017

Contributions to trunk, excluding merge commits





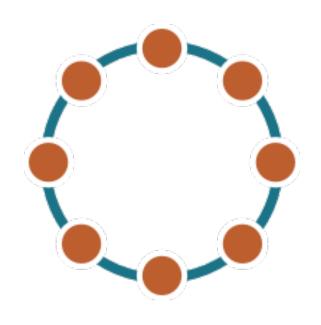
Contributors

110 Total 22 DataStax Employees (20%) Contributions

10,423 Total 8,950 DataStax Employees (86%)



# DataStax Enterprise (DSE)



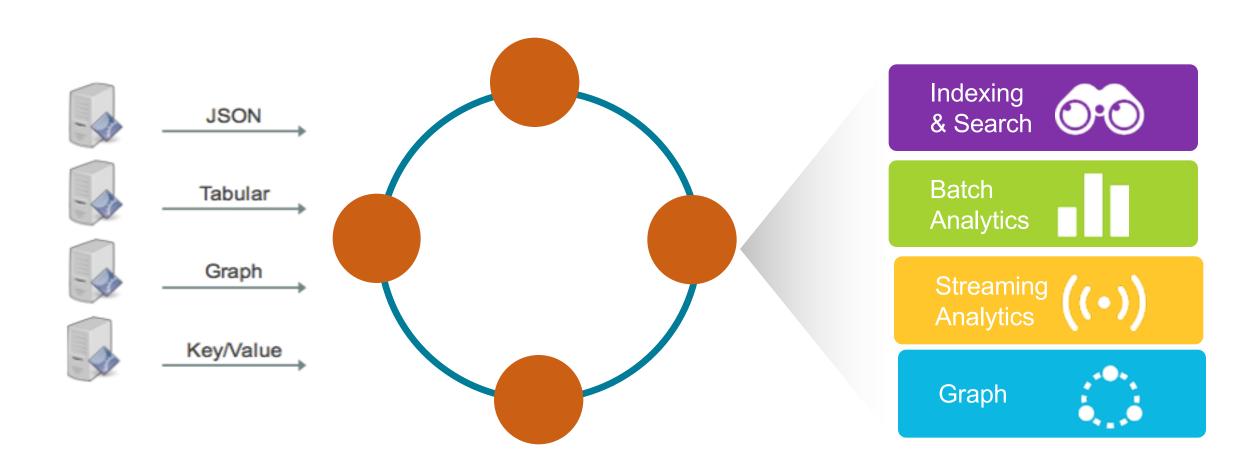
Based on the best distribution of Apache Cassandra™

- Continuously Available
- Master Less
- Fully Distributed
- Shared-Nothing Architecture
- Build In Replication
- Linear Scalability
- Scale out



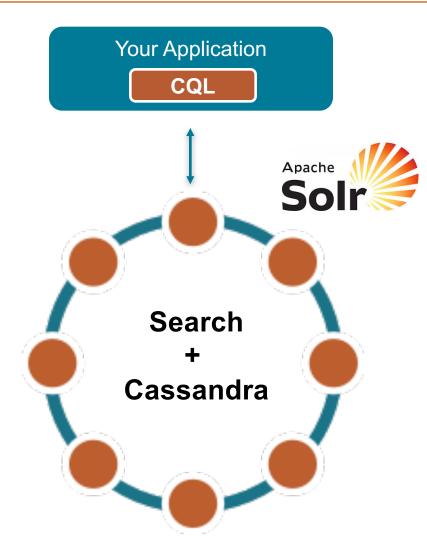


### Integrated Multi-Model/Mixed Workload Platform





### **DSE Search**



Live indexing engine with powerful search

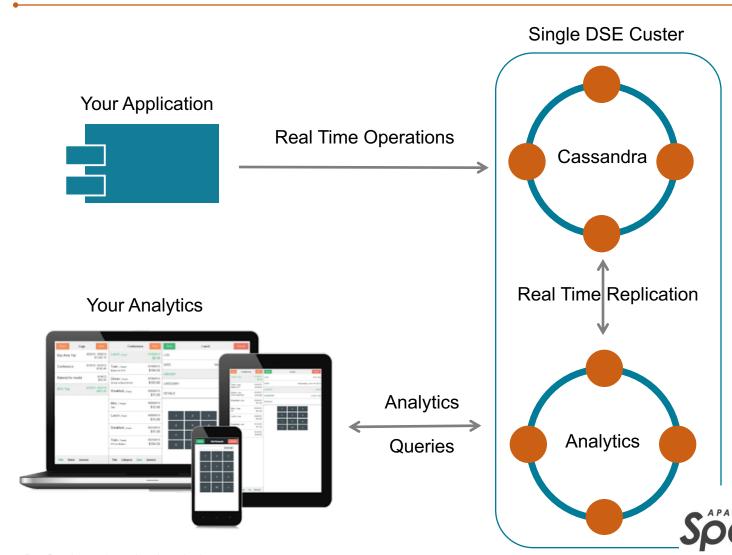
- Automatic indexing on insert
- Higher ingestion throughput
- Distributed query optimization

#### Compared to self-managed:

- No separate search cluster to manage
- Probably less total hardware required
- No "Split Brain" data inconsistencies
- No ETL or synch to build and maintain
- No app level data management code



## **DSE Analytics**



Streaming, ad-hoc, and batch

- High-performance
- Workload management
- SQL reporting

Compared to self-managed:

- No ETL
- True HA without Zookeeper



# **DSE Graph**

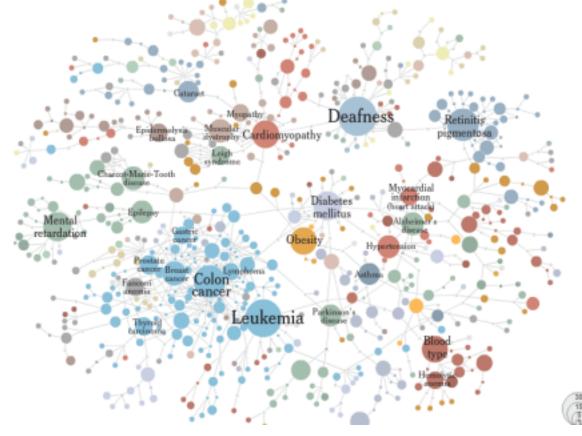
A scalable, distributed graph database that is optimized for storing, traversing and querying complex graph data in real time

- Value data between relationships
- DSE Analytics and Search integrated
- Perfect for use cases:

Customer360

Recommendations

Fraud Detection



# Agenda

1	<b>Workshop:</b> Apache Cassandra™ Data Structures and Replication	09:15
2	<b>Workshop</b> : DataModelling with DataStax Enterprise and Apache Cassandra™	10:00
	BREAK	10:45
3	DataStax Enterprise Search	11:15
4	DataStax Enterprise Analytics with Apache Spark	12:00
5	Discussion, Questions and Answers	12:30

