

# Making big data simple with Databricks



# We are Databricks, the company behind Spark



Founded by the creators of Apache Spark in 2013

75%

Share of Spark code contributed by Databricks in 2014



Created **Databricks** on top of Spark to **make big data simple.**



## WORKING WITH BIG DATA IS DIFFICULT

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“Through 2017, 60% of big-data projects will fail to go beyond piloting and experimentation and will be abandoned.”

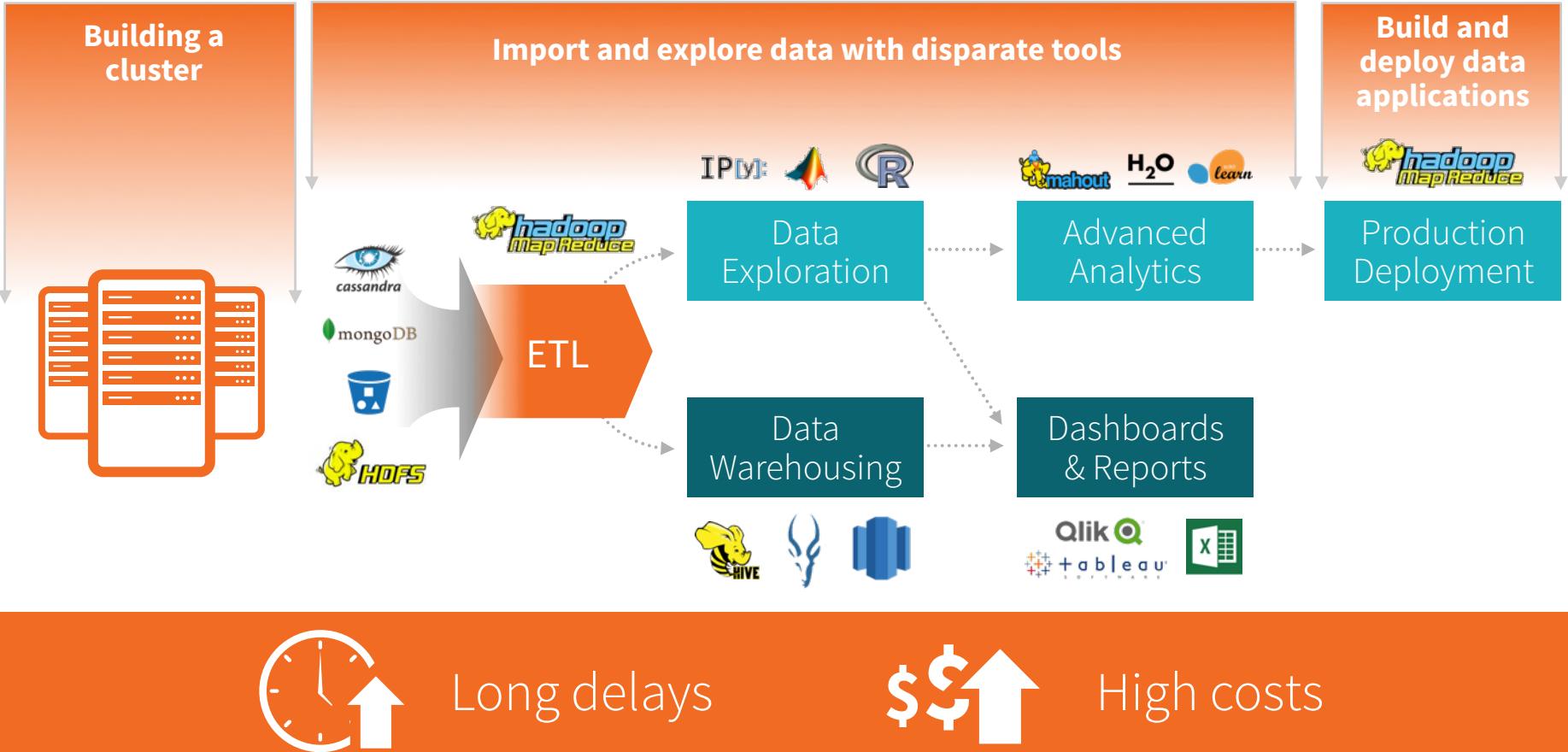
**GARTNER**

# PROBLEM

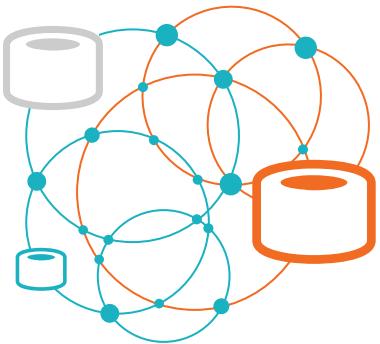
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Building infrastructure and data  
pipelines is complex

# Your difficult journey to finding value in data

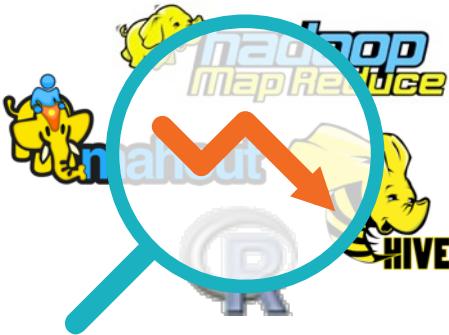


# 3 main causes of this problem:



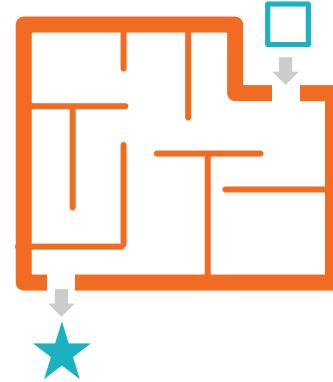
Infrastructure is complex  
to build and maintain

- Expensive upfront investment
- Months to build
- Dedicated DevOps to operate



Tools are slow, clunky,  
and disparate

- Not user-friendly
- Long time to compute answers
- Lots of integration required

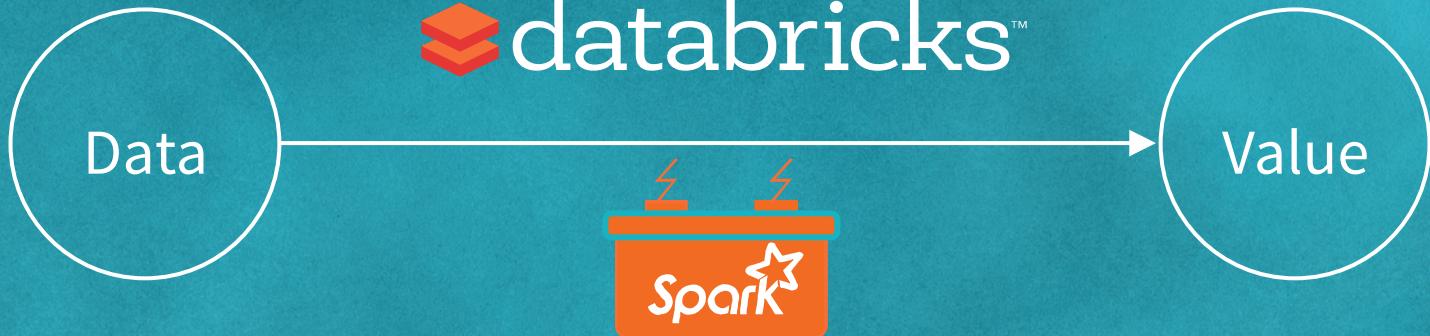


Re-engineering of  
prototypes for deployment

- Duplicated effort
- Complexity to achieve production quality

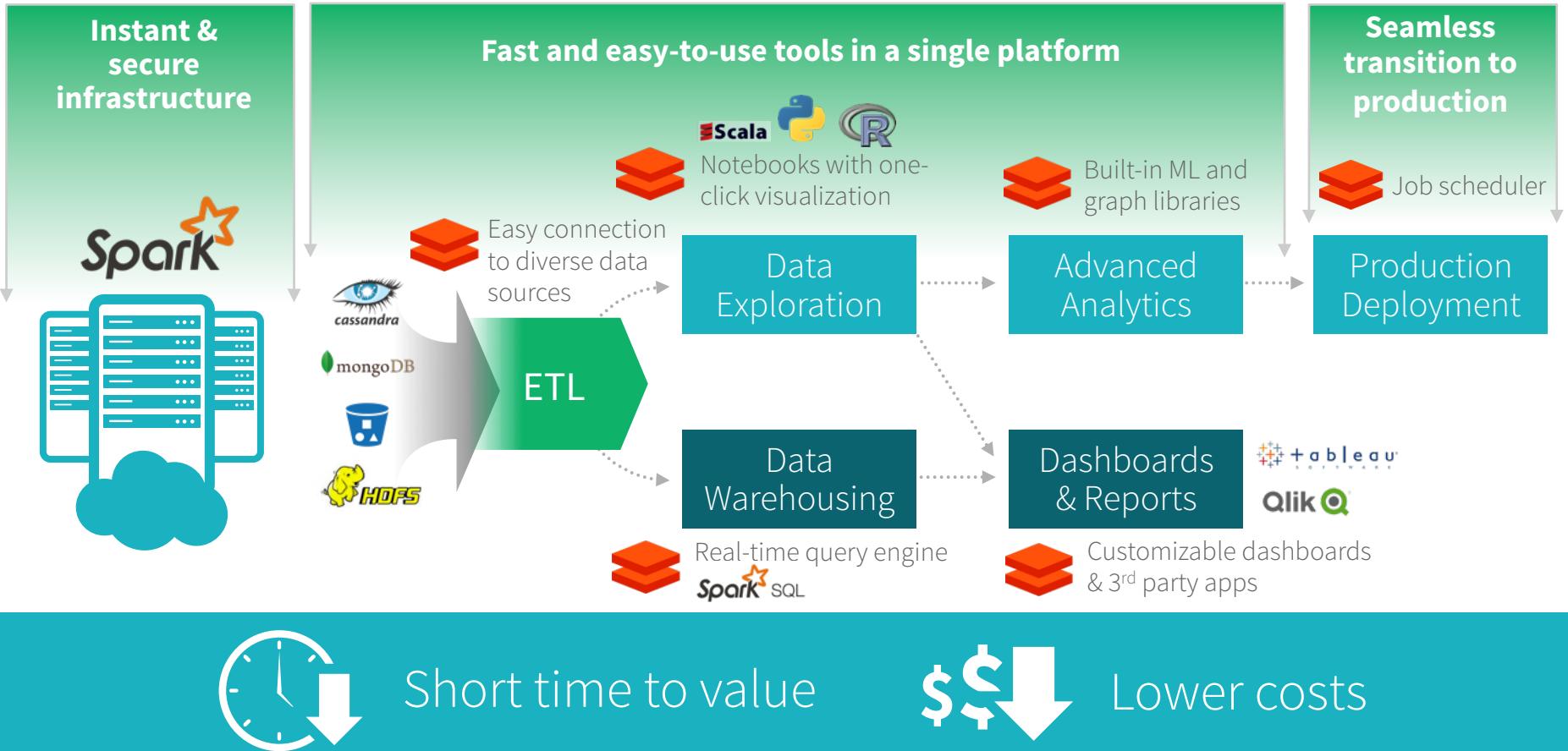
# SOLUTION

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Build **Databricks** on top of Spark to **make big data simple**

# A complete solution, from ingest to production



# Four components of Databricks

Make Big Data simple



## Managed Spark clusters

- Easily provision clusters
- Harness the power of Spark
- Import data seamlessly

## Production pipeline scheduler

- Schedule production workflows
- Implement complete pipelines
- Monitor progress and results

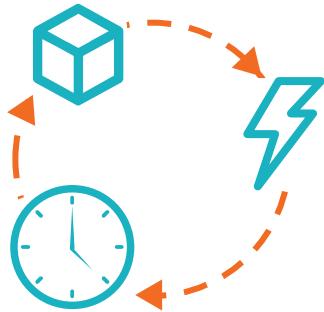
## Interactive workspace with notebooks

- Explore data and develop code in Java, Python, Scala, or SQL
- Collaborate with the entire team
- Point and click visualization
- Publish customized dashboards

## 3rd party applications

- Connect powerful BI tools
- Leverage a growing ecosystem of applications

# Databricks benefits



## Higher productivity

- Maintenance-free infrastructure
- Real time processing
- Easy to use tools



## Faster deployment of data pipelines

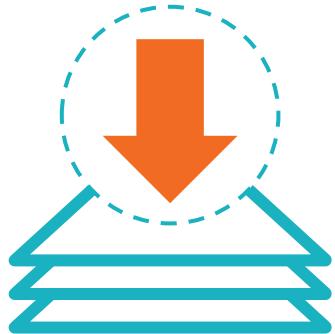
- Zero management Spark clusters
- Instant transition from prototype to production



## Data democratization

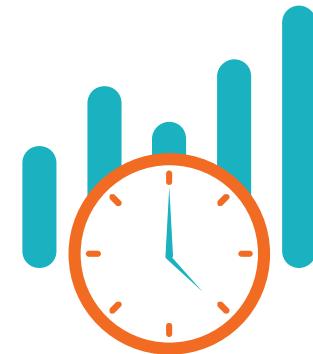
- One shared repository
- Seamless collaboration
- Easy to build sophisticated dashboards and notebooks

# A few examples of Databricks in action



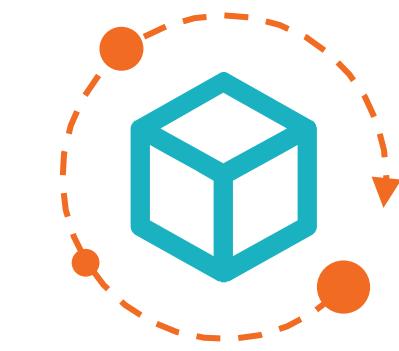
## Prepare data

- Import data using APIs or connectors
- Cleanse mal-formed data
- Aggregate data to create a data warehouse



## Perform analytics

- Explore large data sets in real-time
- Find hidden patterns with regression analysis
- Publish customized dashboards



## Build data products

- Rapid prototyping
- Implement advanced analytics algorithms
- Create and monitor robust production pipelines

# CUSTOMER CASE STUDIES

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# databricks<sup>TM</sup>

# Customer testimonials

RADIUS<sup>®</sup>

“Without Databricks and the real-time insights from Spark, we wouldn't be able to maintain our database at the pace needed for our customers”

*Darian Shirazi, CEO, Radius Intelligence*



“We condensed the 6 months we had planned for the initial prototype to production process to just about a couple of weeks with Databricks.”

*Rob Ferguson, Director of Engineering, Automatic Labs*

celtra The logo for celtra features the word 'celtra' in a bold, black, sans-serif font next to a red, speech-bubble-like icon.

“Databricks is used by over a third of our staff; After implementation, the amount of analysis performed has increased sixfold, meaning more questions are being asked, more hypotheses tested.”

*Jaka Jančar, CTO, Celtra*

# Radius Intelligence

Gathering customer insights for marketers

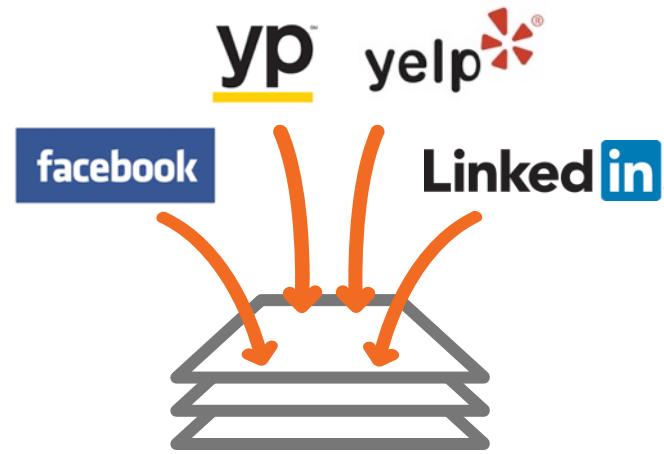
RADIUS®

## CHALLENGE: Complex data integration

- 25 million businesses
- Over 100 billion points of data

## RESULT: Speed up the data pipeline

- Entire data set processed in hours instead of days
- Deploy weekly updates to customers instead of monthly



**BENEFIT:**  
Higher productivity

# Automatic Labs

IoT for drivers – making car sensor data useful



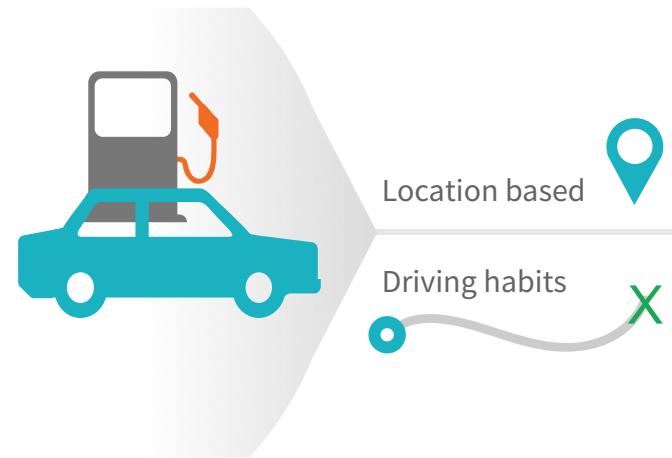
AUTOMATIC

## CHALLENGE: Product idea validation

- Ingest billions of data points
- Rapidly test hypothesis
- Iterate on ideas in real-time

## RESULT: Shorter time from idea to product

3 weeks with Databricks vs.  
2 months with previous solution



**BENEFIT:**  
Faster Deployment of Data Pipelines

## CHALLENGE:

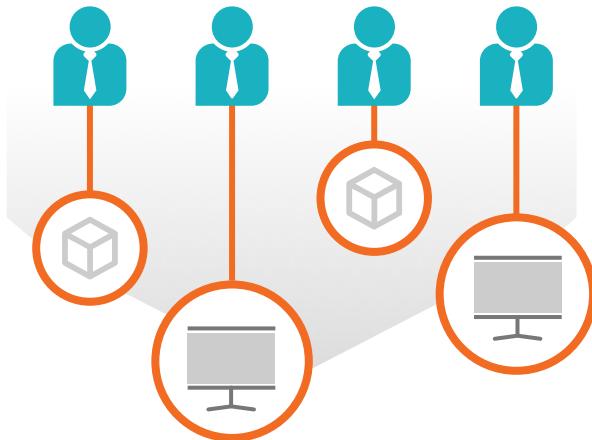
Analytics specialist bottleneck

- Billions of data points, operational data of the entire company
- Huge backlog of analytics projects

## RESULT:

Enable self-service for non-specialists

- Grew the number of analysts by 4x
- Increased analytics project completed by 6x in four months



**BENEFIT:**  
Data Democratization

# Sharethrough

Intelligent ad placement



## CHALLENGE: Slow performance, costly DevOps

- Terabyte-scale clickstream data, long delays in new feature prototyping
- Two full-time engineers to maintain infrastructure

## RESULT: Faster answers, zero management

- Prototyped new feature in record time
- Reduced system downtime with faster root-cause analysis
- Dramatically easier to maintain than Hive



## BENEFIT: Higher Productivity

# Yesware

Delivering tools and analytics for sales teams



## **CHALLENGE:** Infrastructure pain, slow & clunky tools

- 6 months to setup Pig, very problematic pipeline
- Too slow to extend reporting history beyond 1 month
- Need to develop machine-learning algorithms

## **RESULT:** Instant infrastructure, full suite of capabilities

- 3 weeks to setup robust Spark pipeline w/Databricks
- Double data processed, in fraction of time
- Built-in machine learning libraries



**BENEFIT:**  
**Faster Deployment of Data Pipelines**



## A few of our customers



AUTOMATIC



Mediative



picwell  
choose smarter

RADIUS®



sharethrough

trueffect®



# WHAT'S NEW?

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# What's new with Databricks

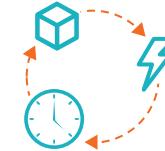
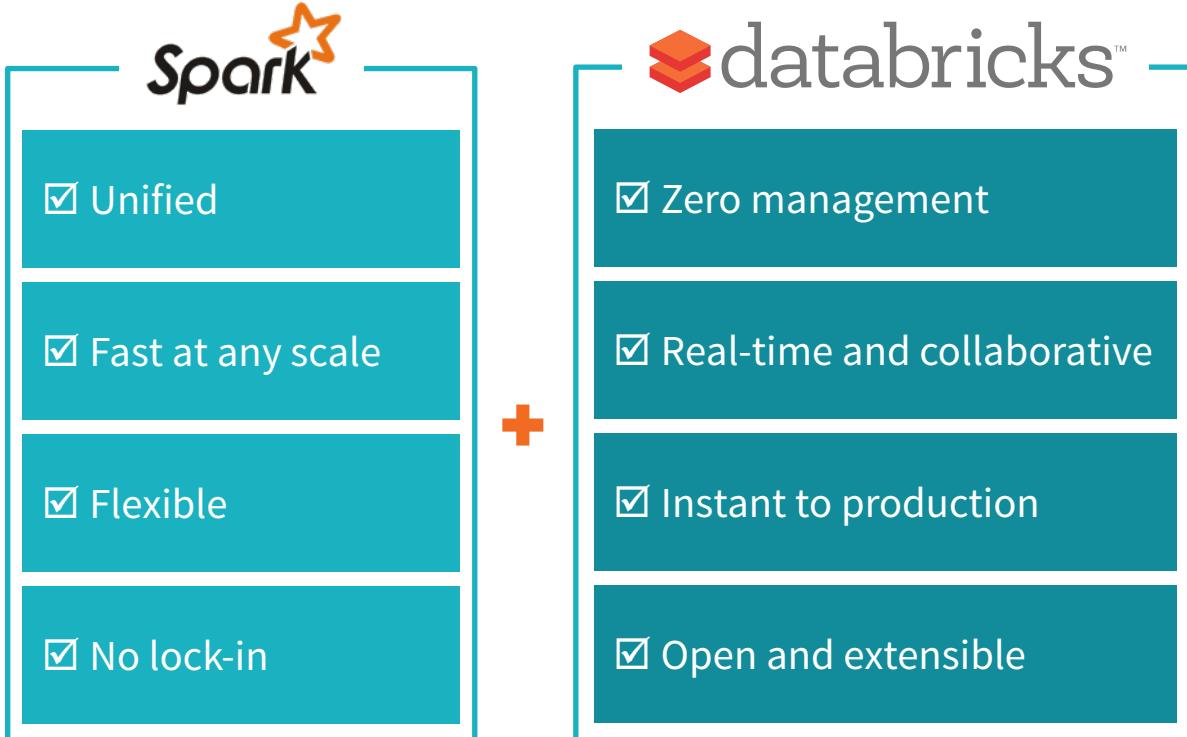
- Databricks is now generally available (announced on June 15<sup>th</sup>, 2015)
- Upcoming features during second half of 2015:
  - **R-language notebooks:** Analyze large-scale data sets using R in the Databricks environment.
  - **Access control and private notebooks:** Manage permissions to view and execute code at an individual level.
  - **Version control:** Track changes to source code in the Databricks platform.
  - **Spark streaming support:** Enabling a fault-tolerant real-time processing

# What's new with Spark

- The general availability of Spark 1.4 was announced on June 10<sup>th</sup> 2015
- Spark 1.4 is largest Spark release: more than 220 contributors and 1,200 commits.
- Key new features introduced in Spark 1.4:
  - New R language API (SparkR)
  - Expansion of Spark's Dataframe API's: window functions, statistical and mathematical functions, support for missing data.
  - API to build complete machine learning pipelines.
  - UI visualizations for debugging and monitoring programs: interactive event timeline for jobs, DAG visualization, visual monitoring for Spark Streaming.

# Data science made easy with Apache Spark

From ingest to production



Higher productivity



Faster deployment  
of data pipelines



Data democratization

# Databricks is available today

Contact [sales@databricks.com](mailto:sales@databricks.com)

Or sign up for a trial at  
<https://databricks.com/registration>



# Thank you

