# Big Data



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#### Module Goals



What is Big Data?

Why Big Data Exists

How Big Data Works

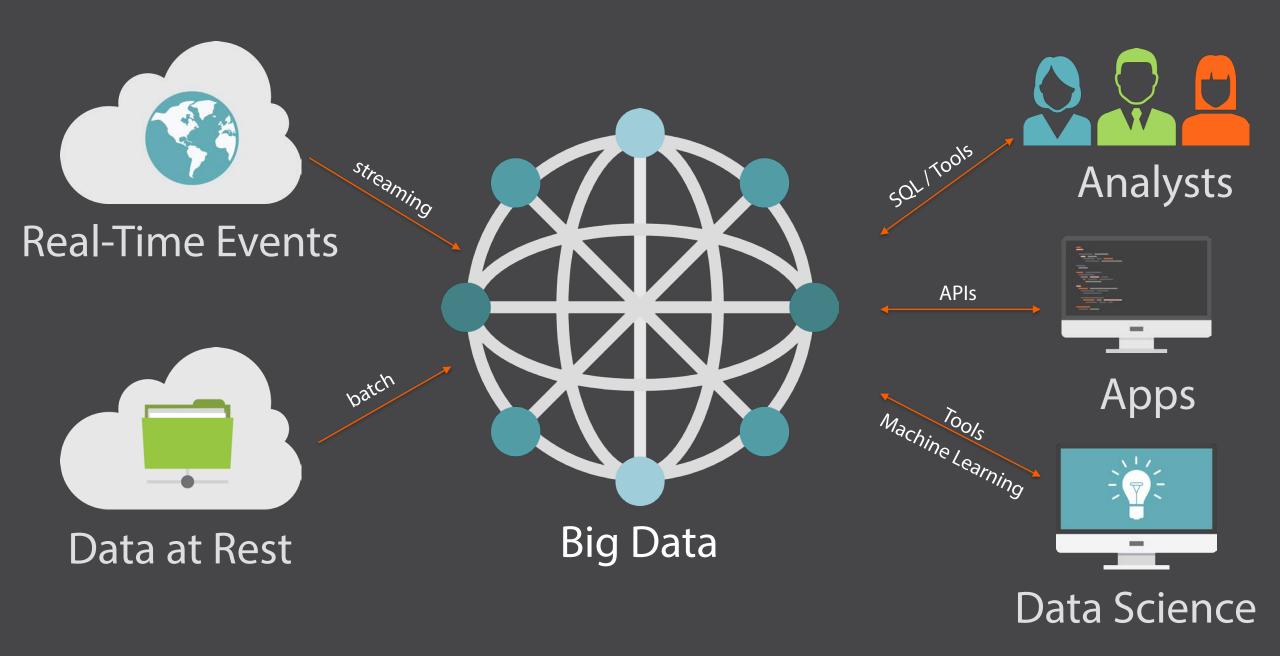
**Key Concepts** 

Where to Find More

# What Is Big Data?



Big Data is a set of technologies and methods for handling large volumes of data at rapid speeds and of various formats.

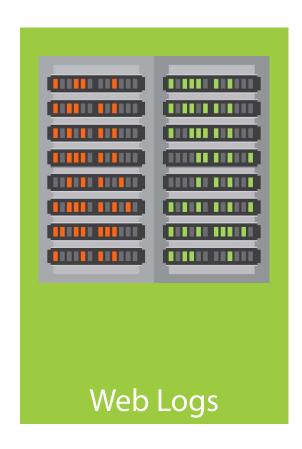


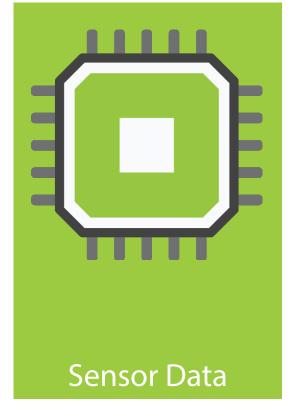
# Why Big Data Exists



Big Data exists because today's technology generates incredible volumes of data in a variety of formats needing to be processed in frequent intervals.

#### **Data Variety**









# Data Volumes per minute!

Facebook

2.4M Shares

YouTube

72hrs Video

Google

4M Searches

#### Velocity of Data

**Stock Markets** 

Manufacturing

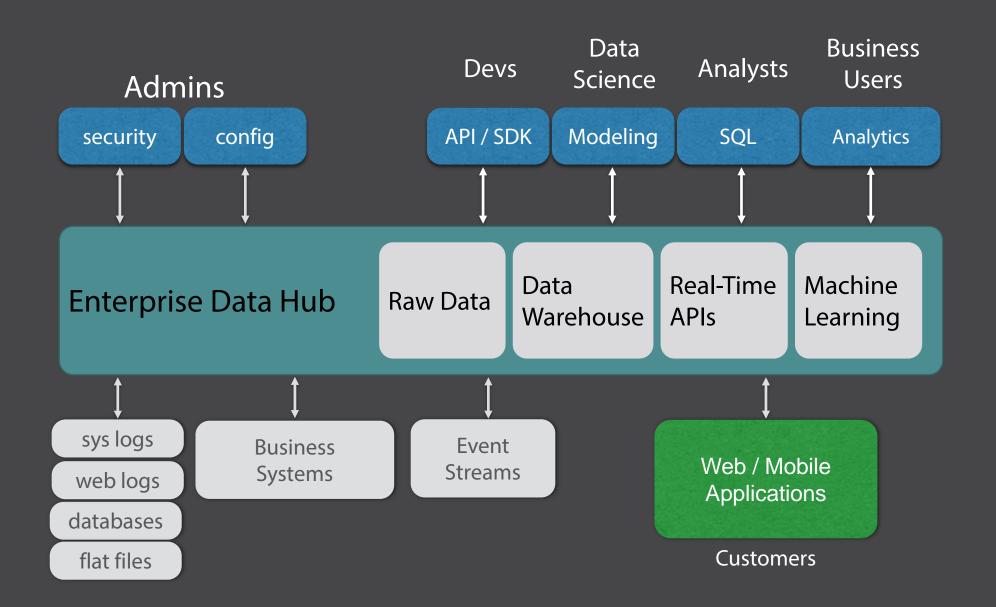
**Business Events** 

Telecom Providers

# How Big Data Works



By handling any format of data in realtime and at large scales, Big Data systems can now meet the needs of current technologies.



### Key Concept: Distributed Computing

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#### Key Concept: CAP Theorem

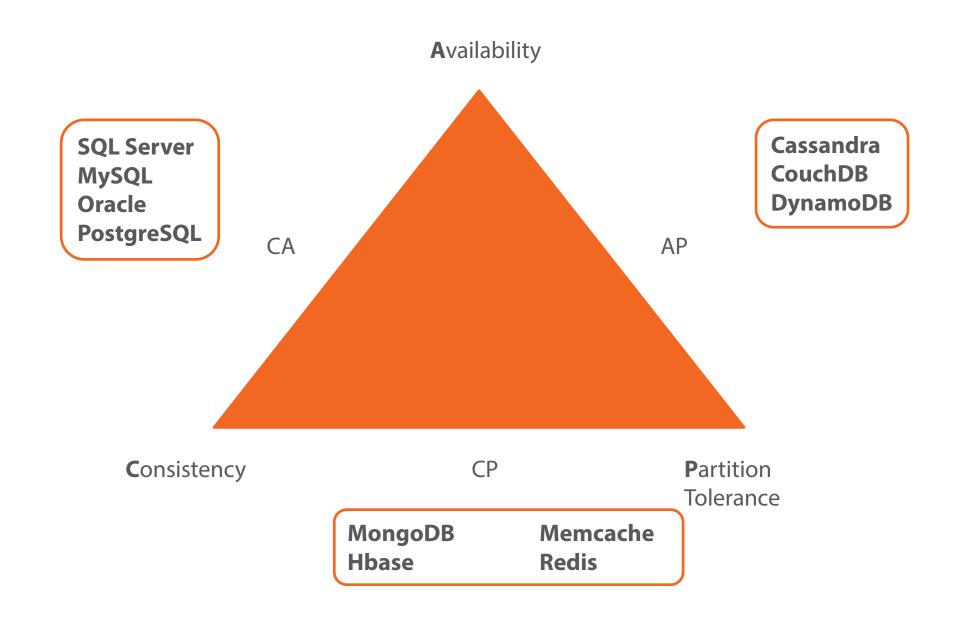
#### **CAP Theorem**



Consistency

**Availability** 

**Partition Tolerance** 



#### Where to Find More

#### **Additional Resources**



#### Pluralsight Courses:

- Big Data Analytics with Tableau
- Big Data: The Big Picture
- Big Data and Reporting with MongoDB
- Big Data on Amazon Web Services