

# Beyond the buzz

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**Start your emerging technology preparedness**

Philadelphia AFP Webinar  
February 13, 2019

Together we'll go far





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1876

Western Union turns down Alexander Graham Bell's offer to sell his invention...

**the telephone**



1979

Ross Perot walks away from a \$50MM deal to purchase a little company from Bill Gates...

**Microsoft**



1999

Excite.com passes on buying a search engine for the bargain price of \$750k, that search engine was...

**GOOGLE**



2000

Blockbuster decided that \$50MM is not a price they are comfortable with to purchase...

**NETFLIX**

Where is your  
daily focus?



# How do you digest new technology?

Your kids?



The media?



Leave it to IT?



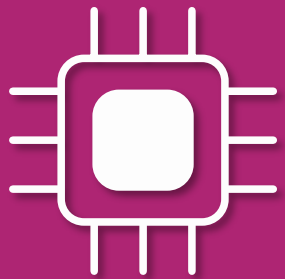
Wait for a bank solution?



**Big data**



**Internet  
of things**



**Artificial  
intelligence**



**DLT and  
blockchain**



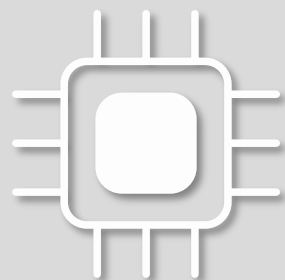
**APIs**



**Big data**



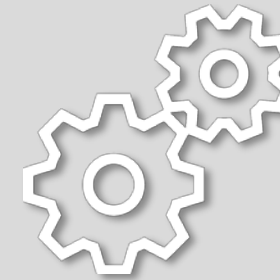
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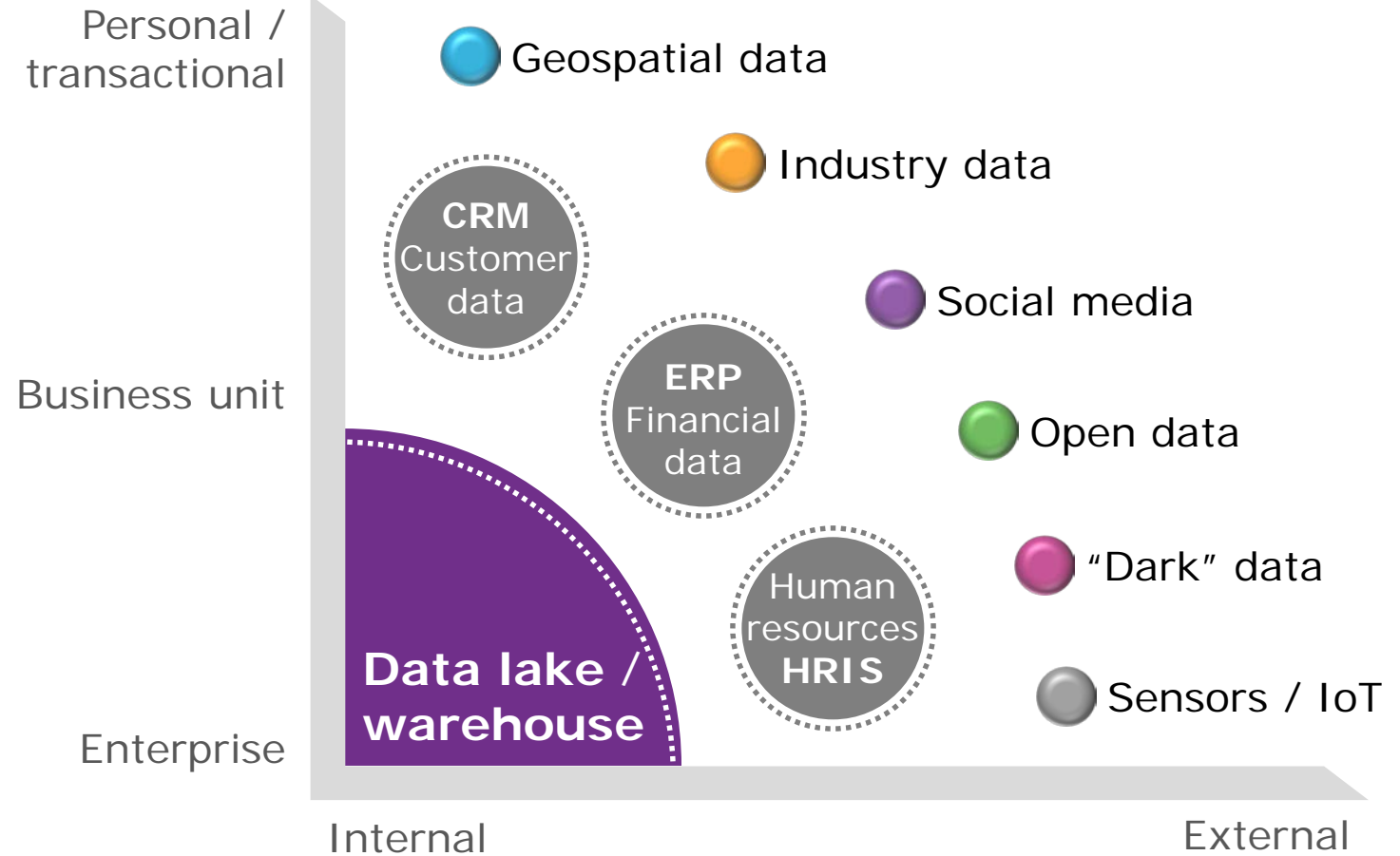
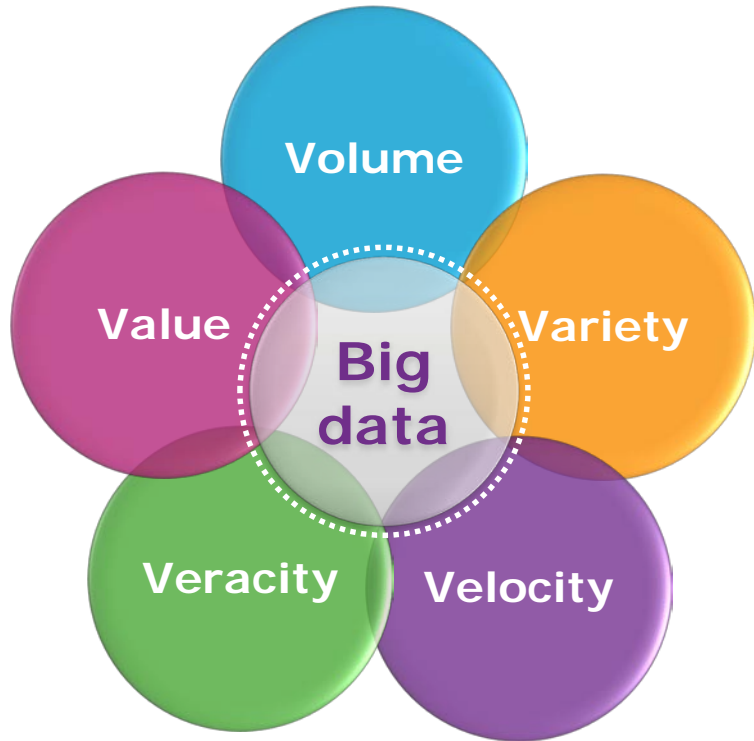
**DLT and  
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**APIs**



# Big data



An **accumulation of data** that is too large and complex for processing by traditional database management tools



# The big data buzz

*Huge volumes of data, cheap to store and tough to analyze*



average number of unique data sources that companies use for analysis

more  
than



of average company's volume of data growing over 50% per year

*Fuel for the Artificial Intelligence engine*

# Beyond the big data buzz

1

Big data is **not just** for big companies

2

Integration, consolidation, and upgrades **monopolize** IT

3

**The data lake:** swimming, treading, or drowning?

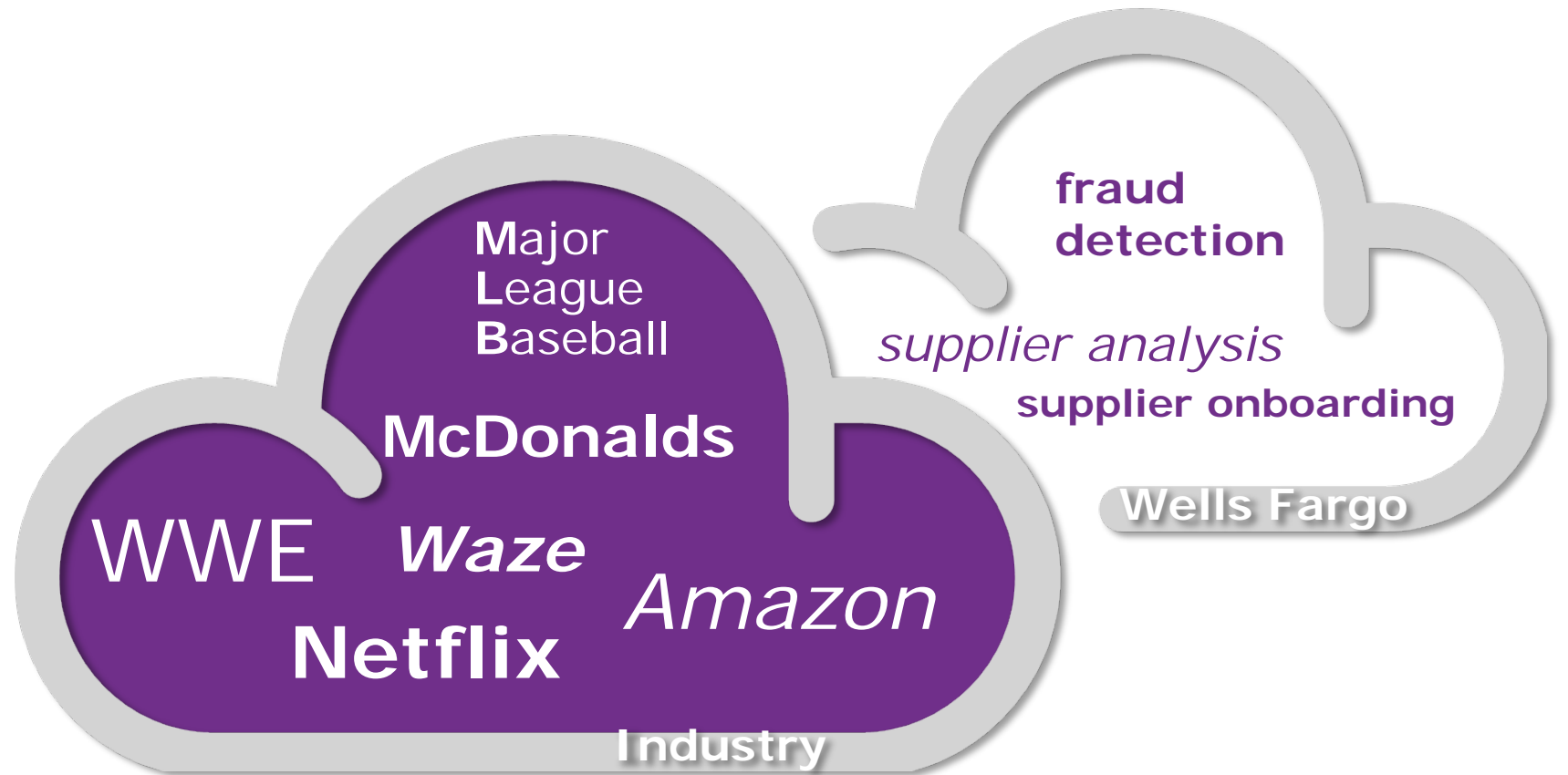
4

**Wanted:** Resources to manage and use data analytics

5

Ready to hire a treasury or finance data **scientist**?

# Big data use cases

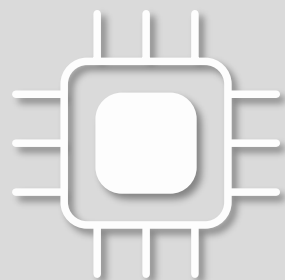




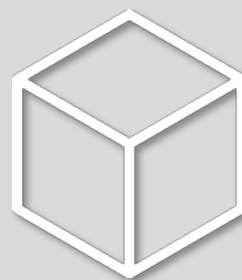
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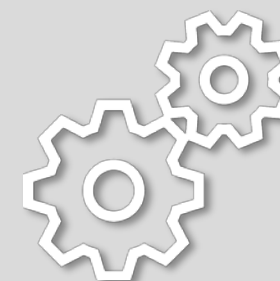
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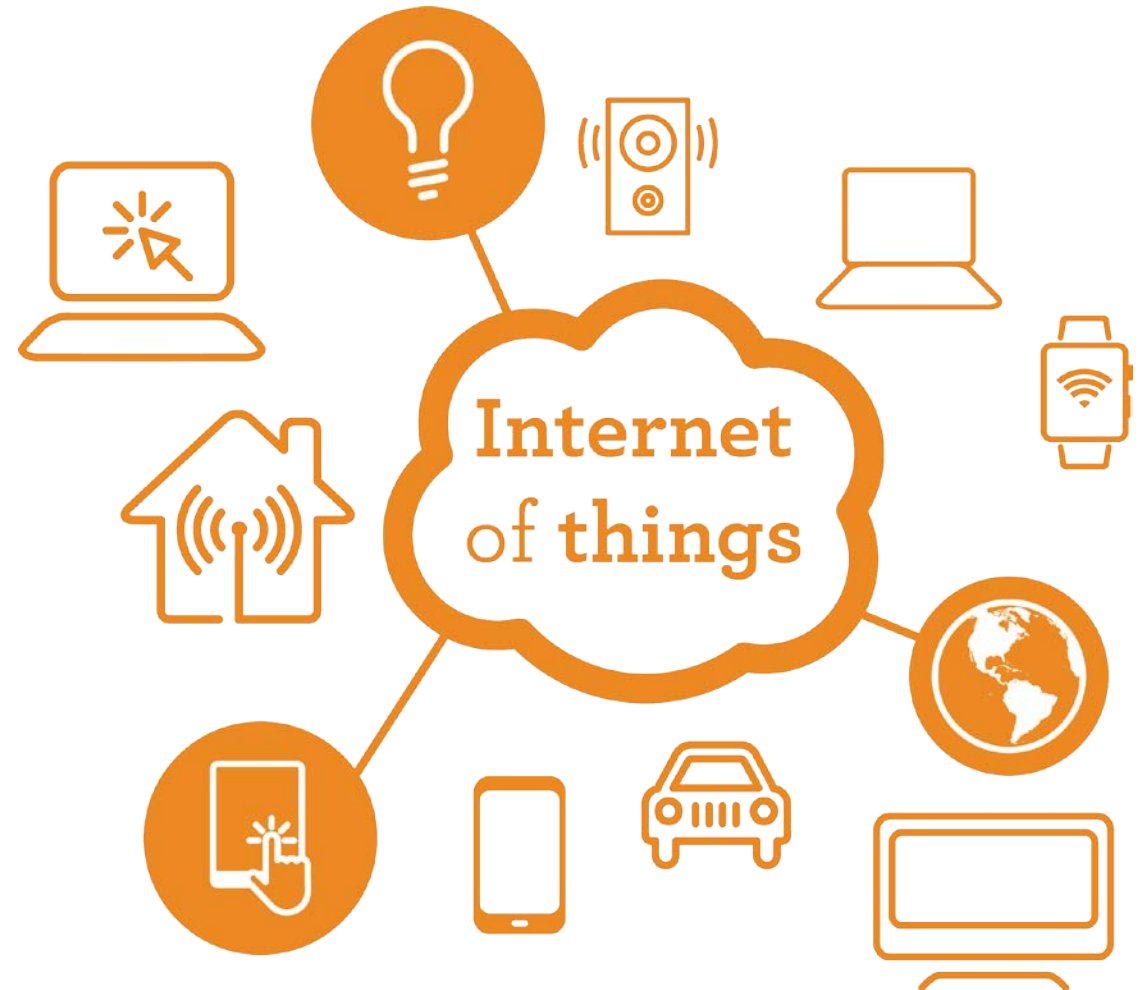
**DLT and  
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**APIs**

# IoT | Internet of things

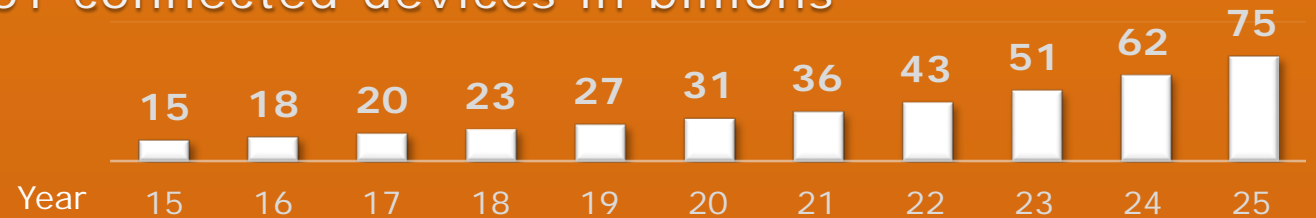
The **interconnection via the internet** of computing devices embedded in everyday objects, enabling them to send and receive data



# The IoT buzz

The number of connected devices is expected to exceed **75** billion by 2025

IoT connected devices in billions

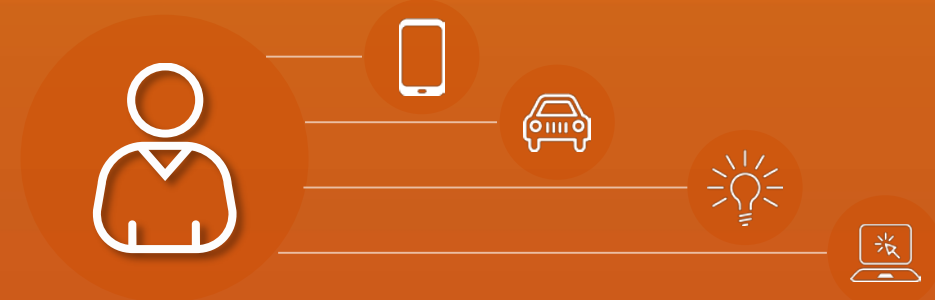


In 2008 the number of IoT devices surpassed the world population



Modern cars have over 100 sensors that create 25 gigabytes of data per hour

By 2020 with 31 billion devices connected, this would equate to an average of **4** IoT connected devices per person



# Beyond the IoT buzz



**1 Monetize:** data streams need thoughtful pricing



**2 Data management:** key to IoT



**3 Security:** DDoS increased 91% in 2017



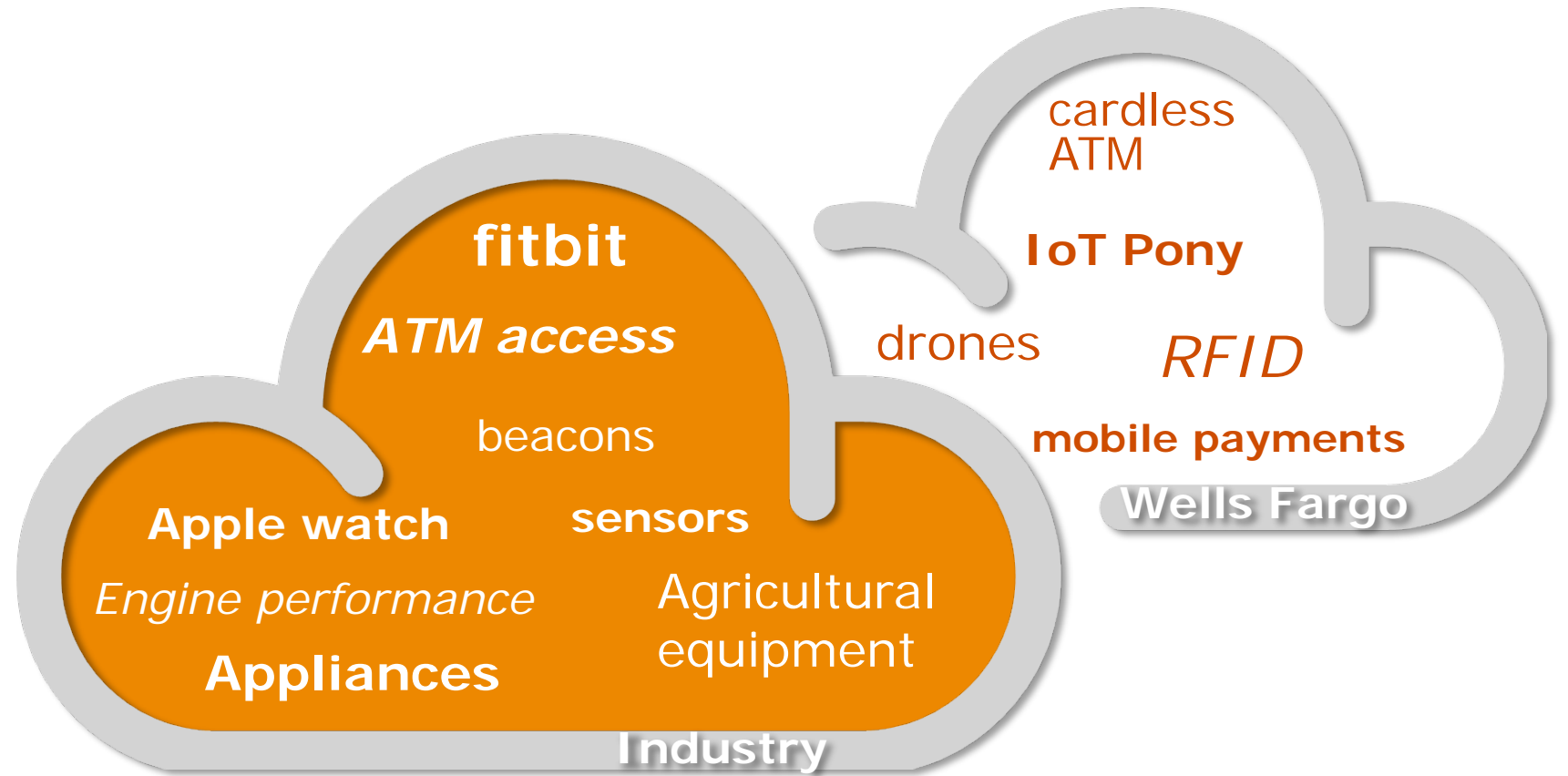
**4 Privacy:** Allow for customers to opt-out

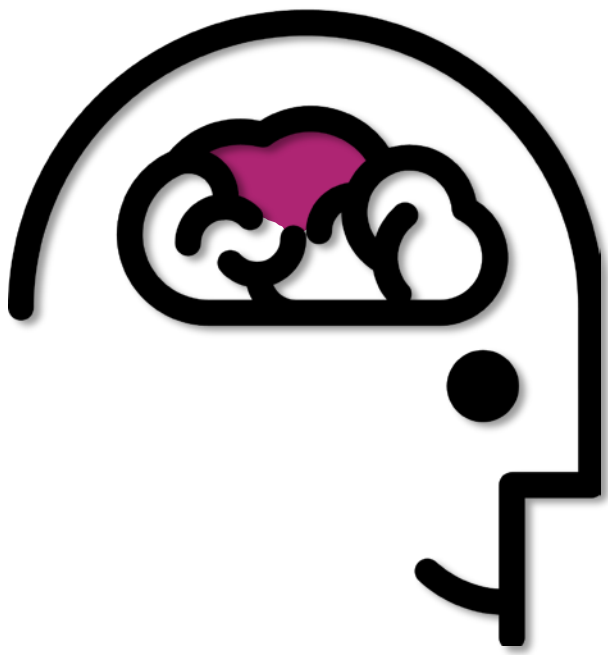


**5 Bandwidth issues:** 5G McKinsey, LPWA (low power wide area)



# IoT use cases

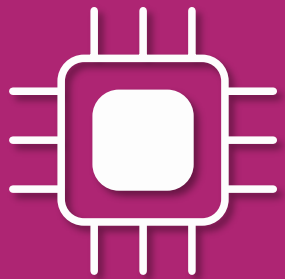




**Big data**



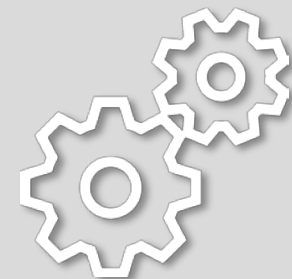
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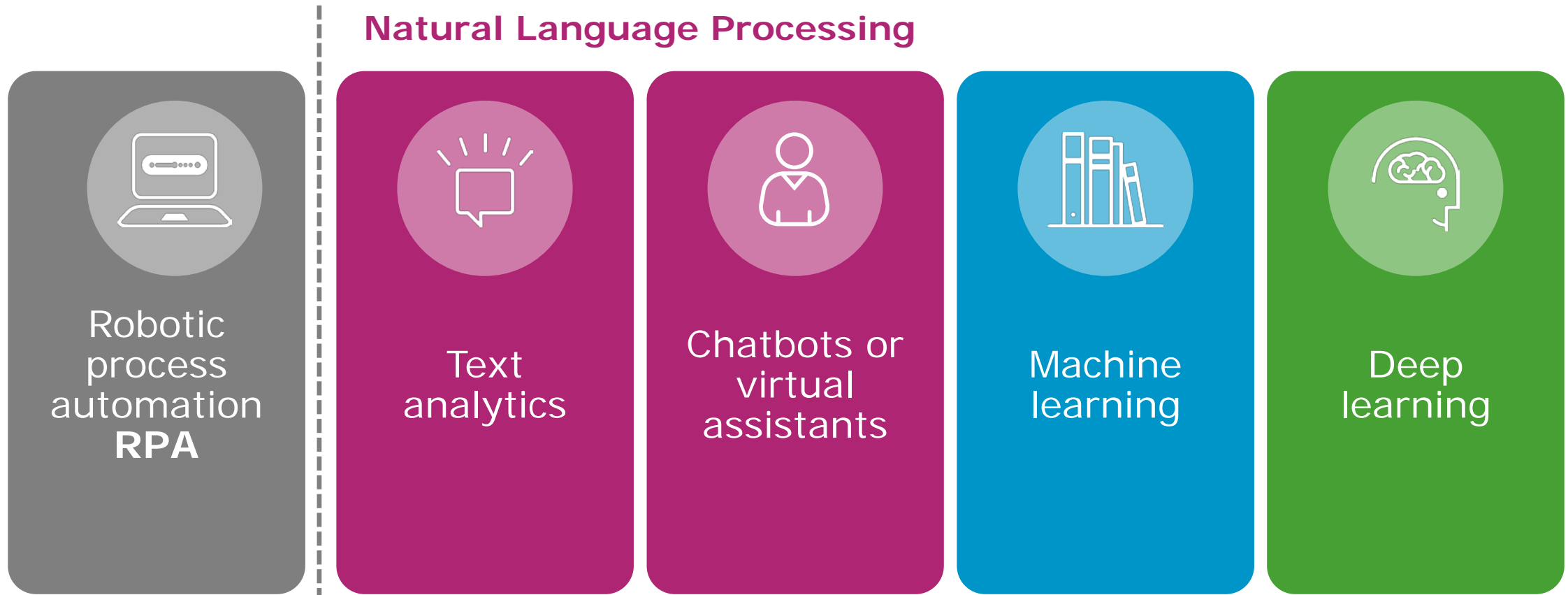


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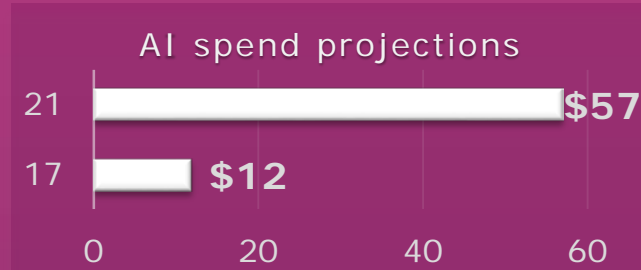
# AI | Artificial intelligence



AI is the **simulation of human intelligence** by machines

# The AI buzz

Global spending is expected to expand from **\$12B** in 2017 to **\$57B** in 2021



"Master of Go Board Game is walloped by GOOGLE computer program."

- *New York Times*, 2016

Rapper Common  
evangelizing AI  
for Microsoft in TV ad



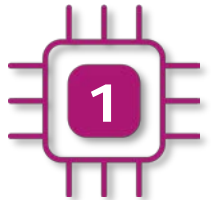
Alexa, Siri, Cortana battle for  
virtual assistant supremacy

**Machines**  
to replace or co-work with humans

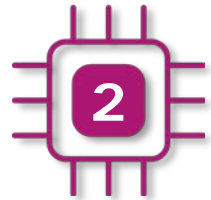


Barbie to partner with AI  
"See ya later Ken!"

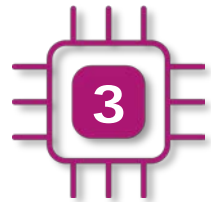
# Beyond the AI buzz



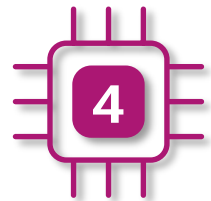
RPA: **AI** or **not AI**? That is the question.



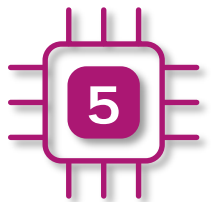
**Chatbots** rising for customer service



Gmail, LinkedIn: **predictive email responses**

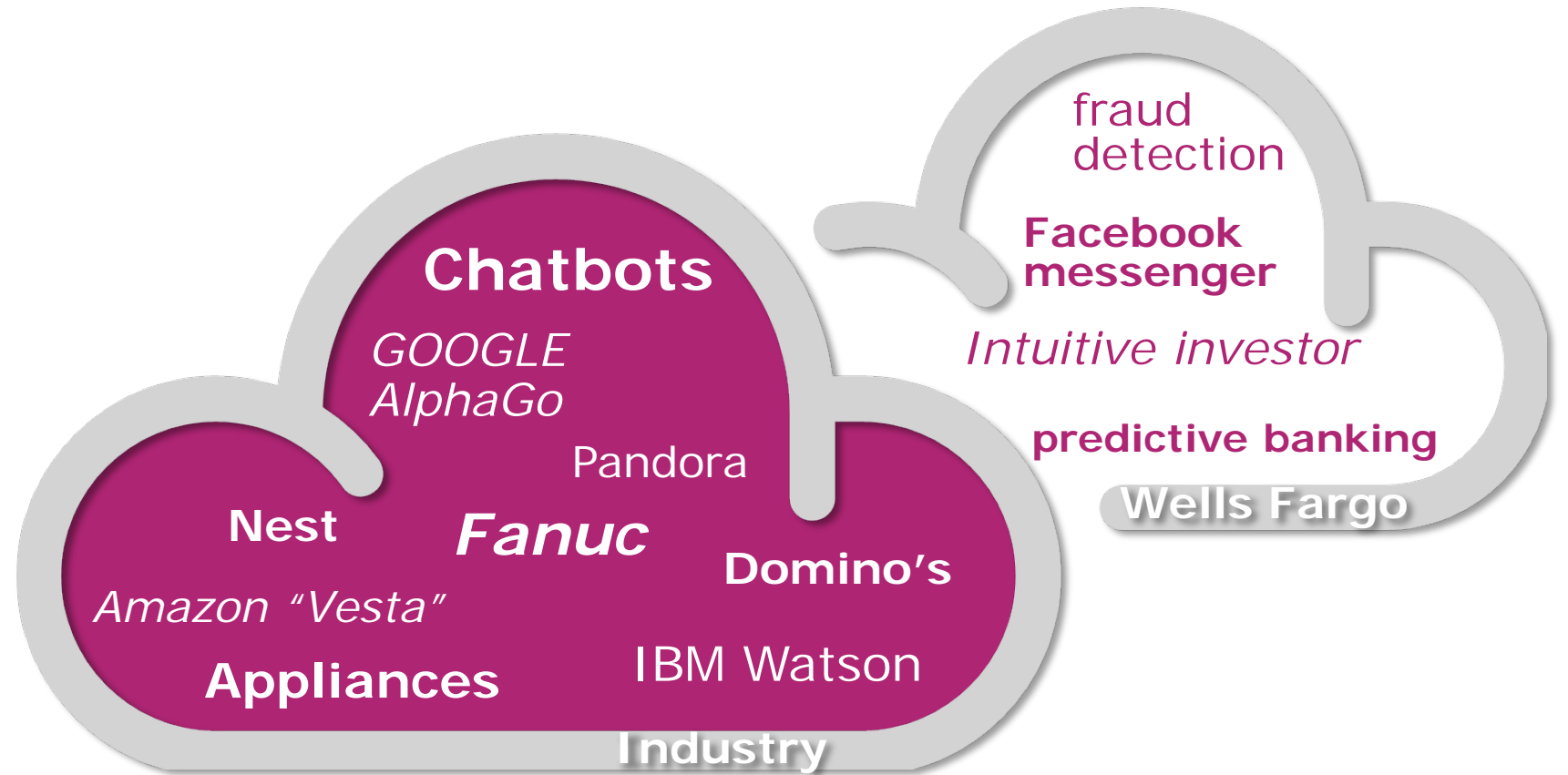


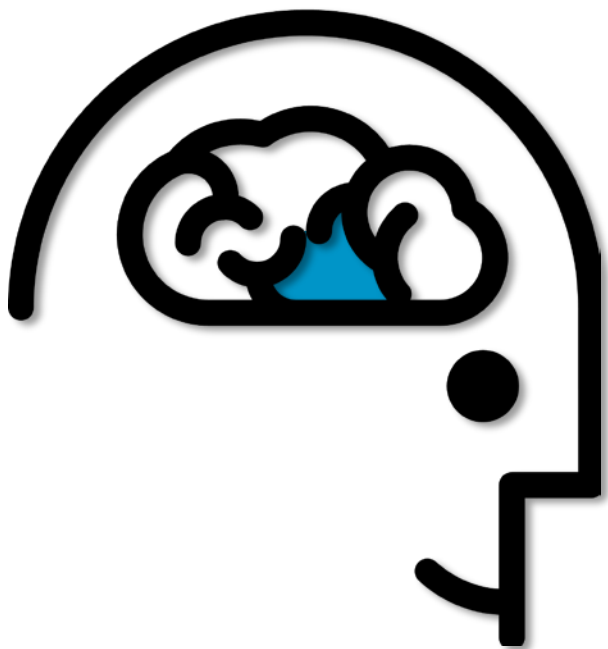
Range and nuance of emotional intelligence is too vast



Will Siri, Alexa, and Cortana compete on personality?

# AI use cases

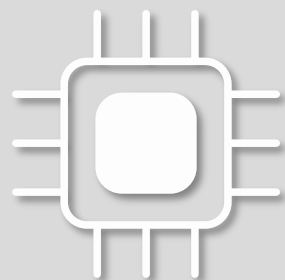




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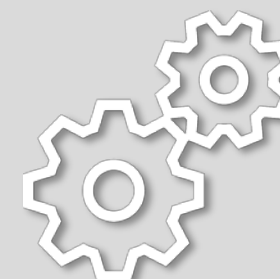
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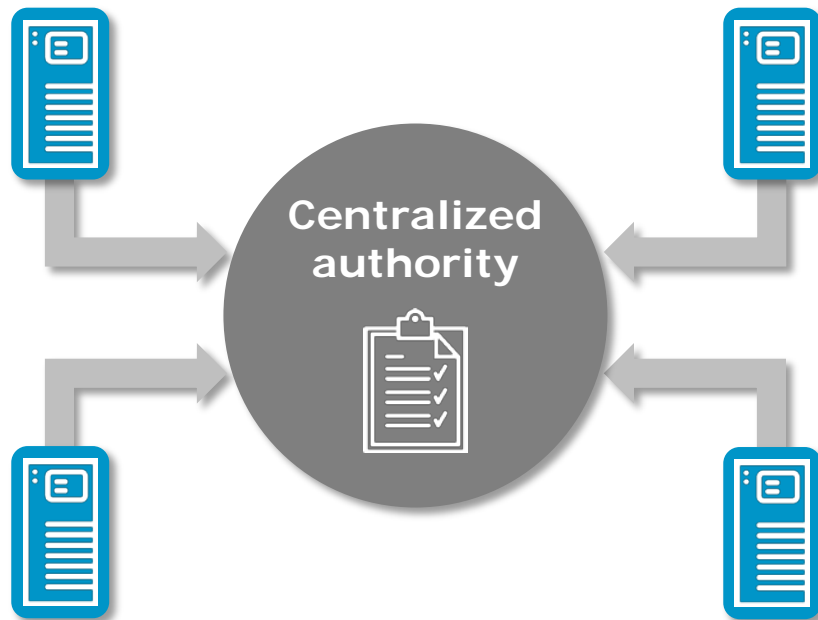


**APIs**

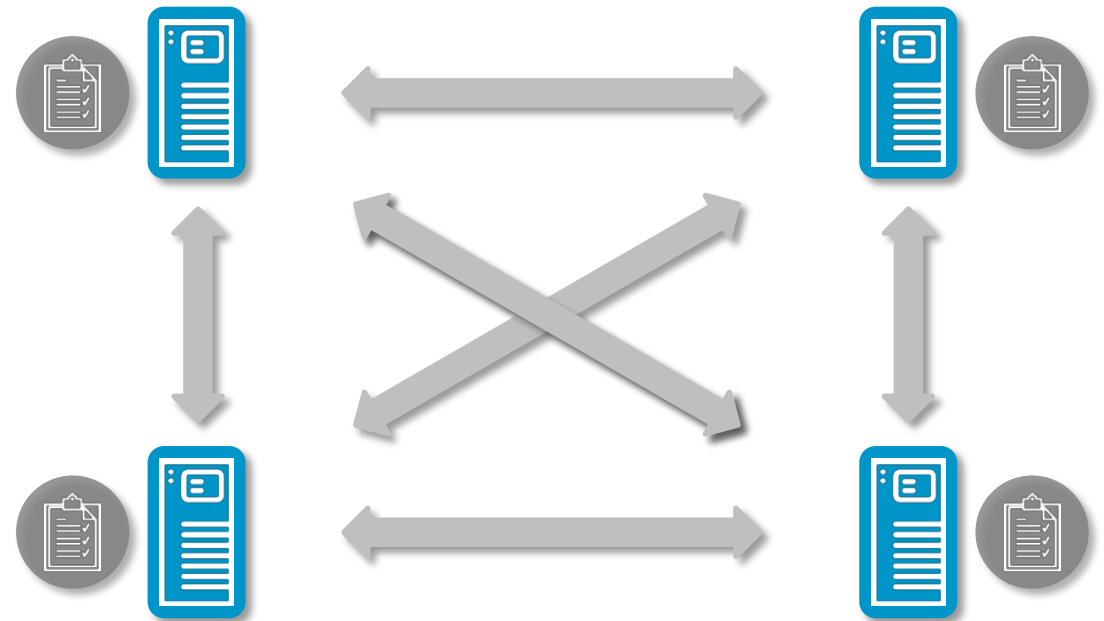


# DLT | Distributed Ledger Technology

## Centralized ledger



## Distributed ledger



A decentralized record-keeping solution that is **encrypted**, digitally **synched** and **shared** across the network

# The DLT buzz

bitcoin



blockchain

"Bitcoin is a technological tour de force."

– Bill Gates, Microsoft co-founder

"Stay away from it. It's a mirage, basically"

— Warren Buffet, CEO of Berkshire Hathaway

"It's gold for nerds."

–Stephen Colbert, Comedian

**\$20B**

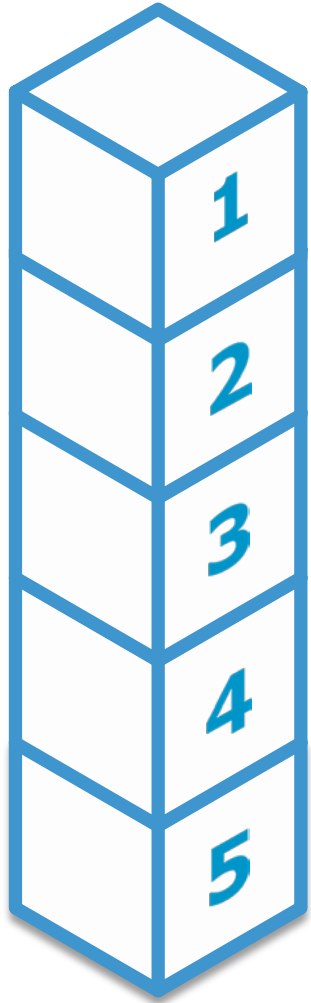
global blockchain  
technology market by 2024



**EARLY ADOPTORS**  
FI, Insurance and Healthcare



# Beyond the DLT buzz



Blockchain is **not always needed**

**40%** of blockchain projects originate in the U.S.

**90%** of blockchain trials go nowhere

Main street adoption is **3-5 years** out

Challenges yet to overcome  
**Standards, regulations, legal, governance**

# DLT and blockchain use cases

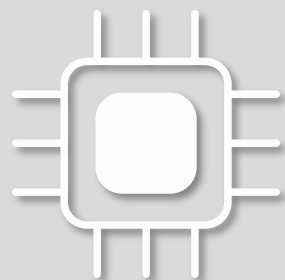




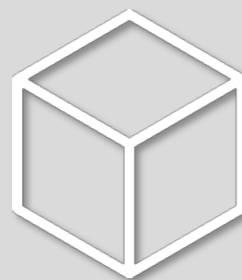
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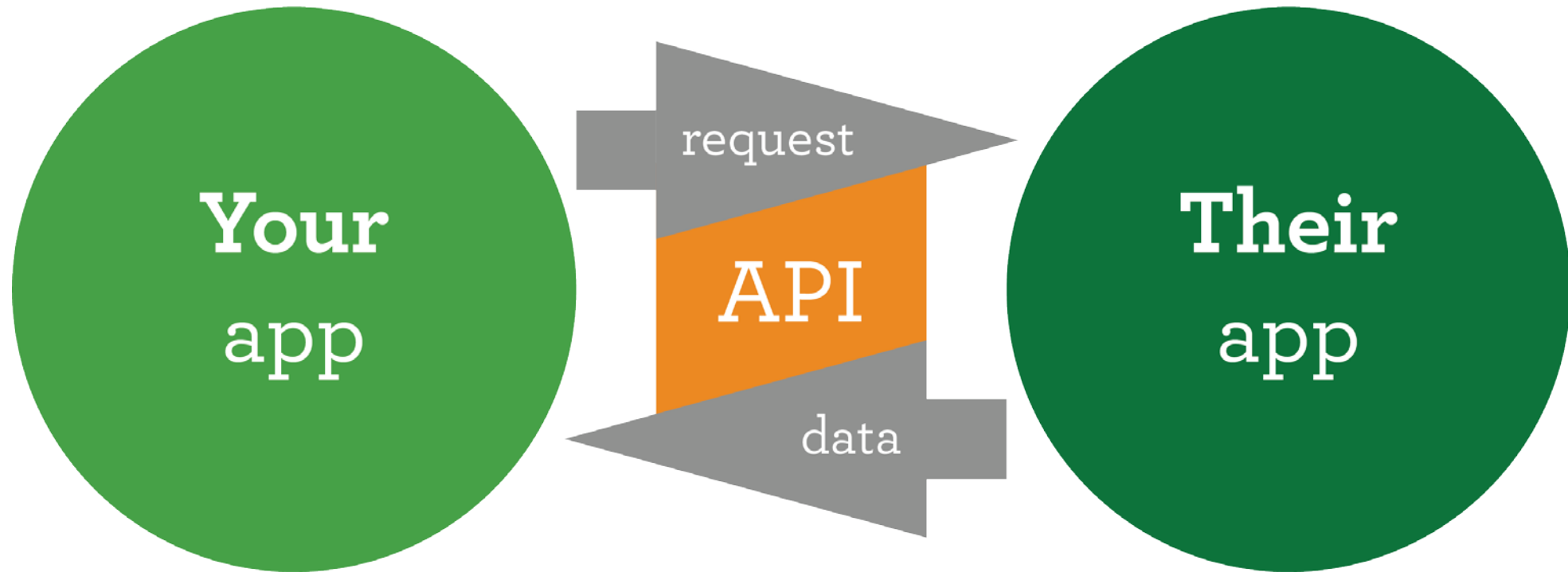


**DLT and  
blockchain**



**APIs**

# API | Application Program Interface



Allows one software application to **connect** to another using a common language to **perform a task** or **exchange data**

# The API buzz

\$**6.5**B acquisition  
of **Mulesoft** by **Salesforce**

The merger will help Salesforce users unite data across different cloud products

## Digital mash-ups

create joint value propositions for business partners' common customers

"APIs are the invisible hand behind the IoT."

– Jennifer Riggins, Nordic APIs

APIs are a  
**catalyst for innovation**

They can embed services inside other applications where and when those services can be most relevant



# Beyond the API buzz

1 

They are **NOT** new

2 

ERPs are creating an “**app store**” for banking

3 

Financial Institutions are **banking on APIs**

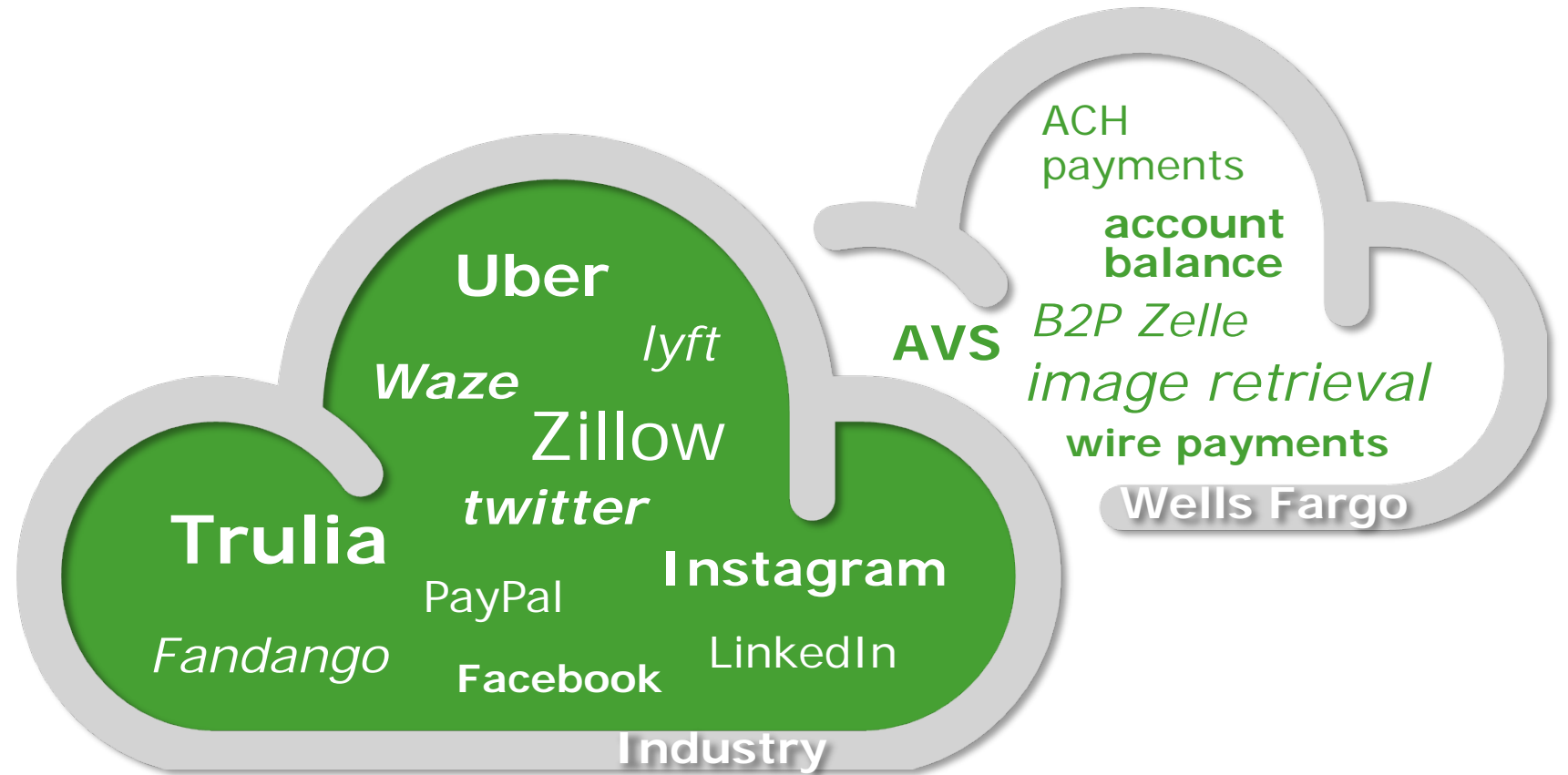
4 

Individual micro services that traverse the internet

5 

**Developers** and an **integration plan** are needed

# API use cases



How do I control  
this buzzing in my  
head?



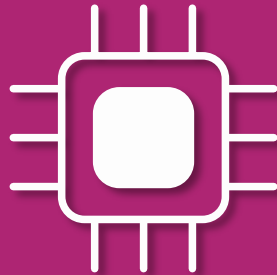
Technology doesn't change your core business,  
but helps you change how you run it...  
**faster...smarter...better**



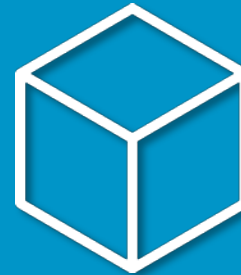
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