

RE.CON

**2021: Hit the Ground Sprinting with
Digital and Data**

Mega Trends of 2021 and Beyond

The Next Ten Years: Tech Trends that Matter

October 2020

Speaker



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March Capital Partners

MARCH
CAPITAL

ada
analytics - data - advertising



AGENDA

HOW WE GOT HERE: TIMELINE OF MAJOR INNOVATIONS

CLOUD TAKES OVER

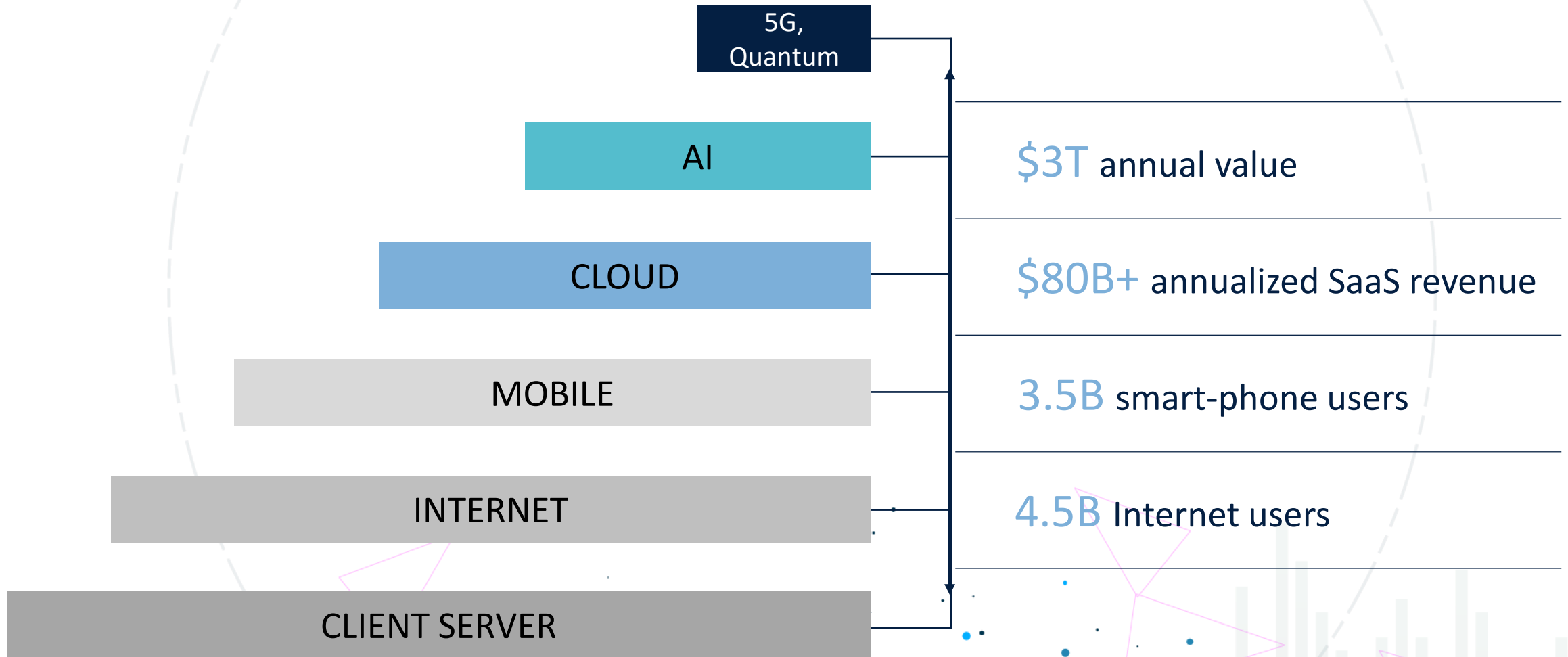
AI IN THE ENTERPRISE

THE IMPACT OF COVID-19

LOOKING FORWARD



FOUNDATIONAL TECH THAT MATTERS MOST





TIMELINE OF MAJOR INNOVATIONS

1980s: Personal Computers, GUI and Cable TV

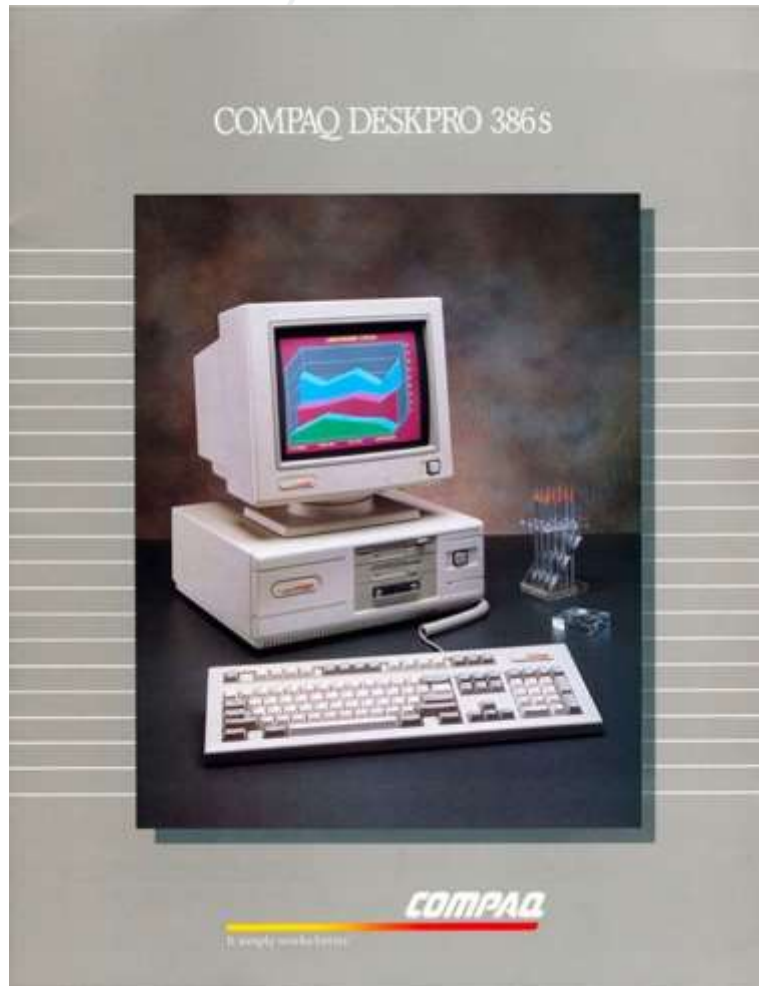
1990s: WWW (Internet), E-commerce, Java

2000s: iPhone, Social Media, Search engines

2010s: AI, Power of analytics, Automation



1980s: PERSONAL COMPUTERS



4MB RAM

40MB HARD DRIVE

COST: \$5K+

This was the catalyst for modern computing as we know it.

Internet Speed

Internet Users

1980



1990s: INTERNET: THE WORLD CONNECTS

1990

Internet invented

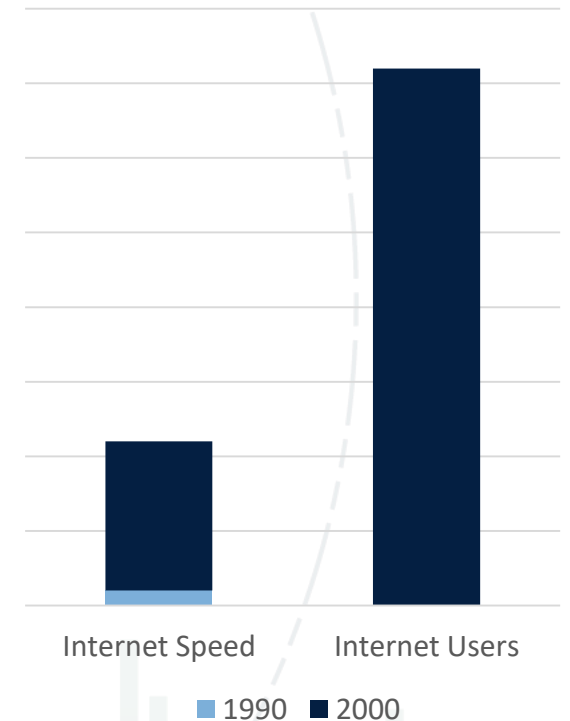
1995

14% of US adults had internet access

42% of US adults had never heard of the internet

ENABLED

Unprecedented, widespread access to information





2000s: COMPUTE EVERYWHERE

2006

iPhone Launched

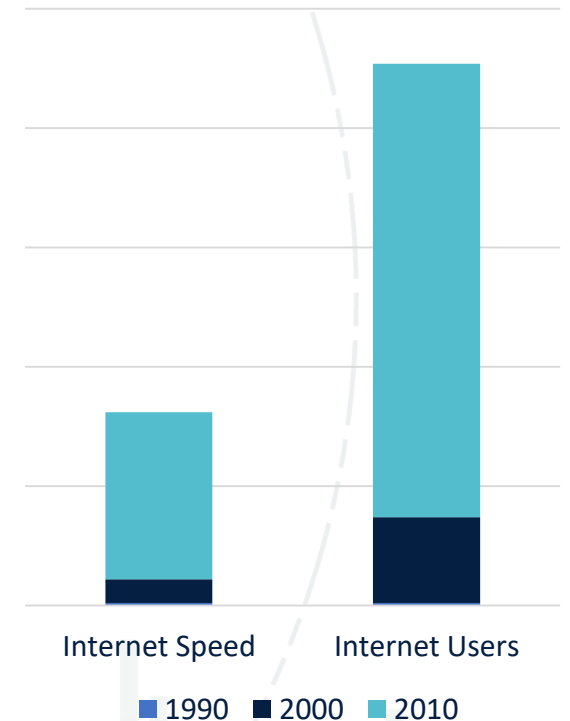
Global internet users surpass 1 billion

AWS founded

The cloud takes off

ENABLED

Social media, applications, streaming, SaaS, user data





2010s: DATA, ANALYTICS, ARTIFICIAL INTELLIGENCE

Performance Since 2009...

10,000x

COMPUTE

Innovations in sw/hw powered a 2.5x per year improvement in computing performance

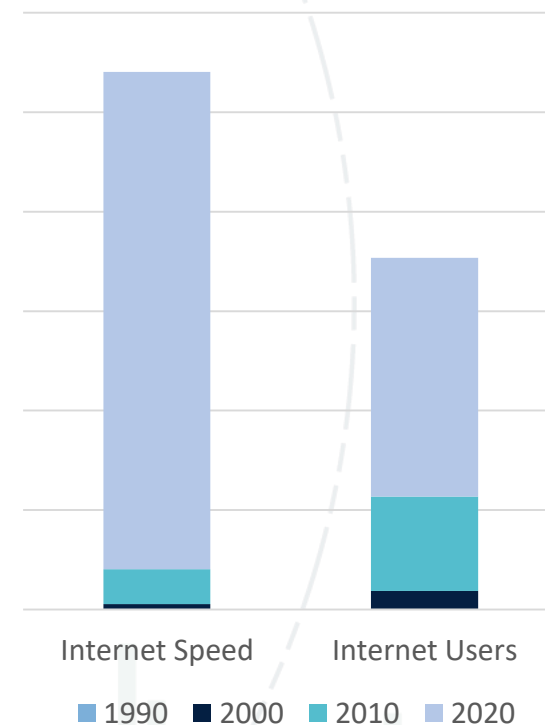
140x

NETWORK

Broadband increased from 7.1 mb/s to 1 gigabyte/s

ENABLED

Predictive analytics, computer vision, voice, NLP





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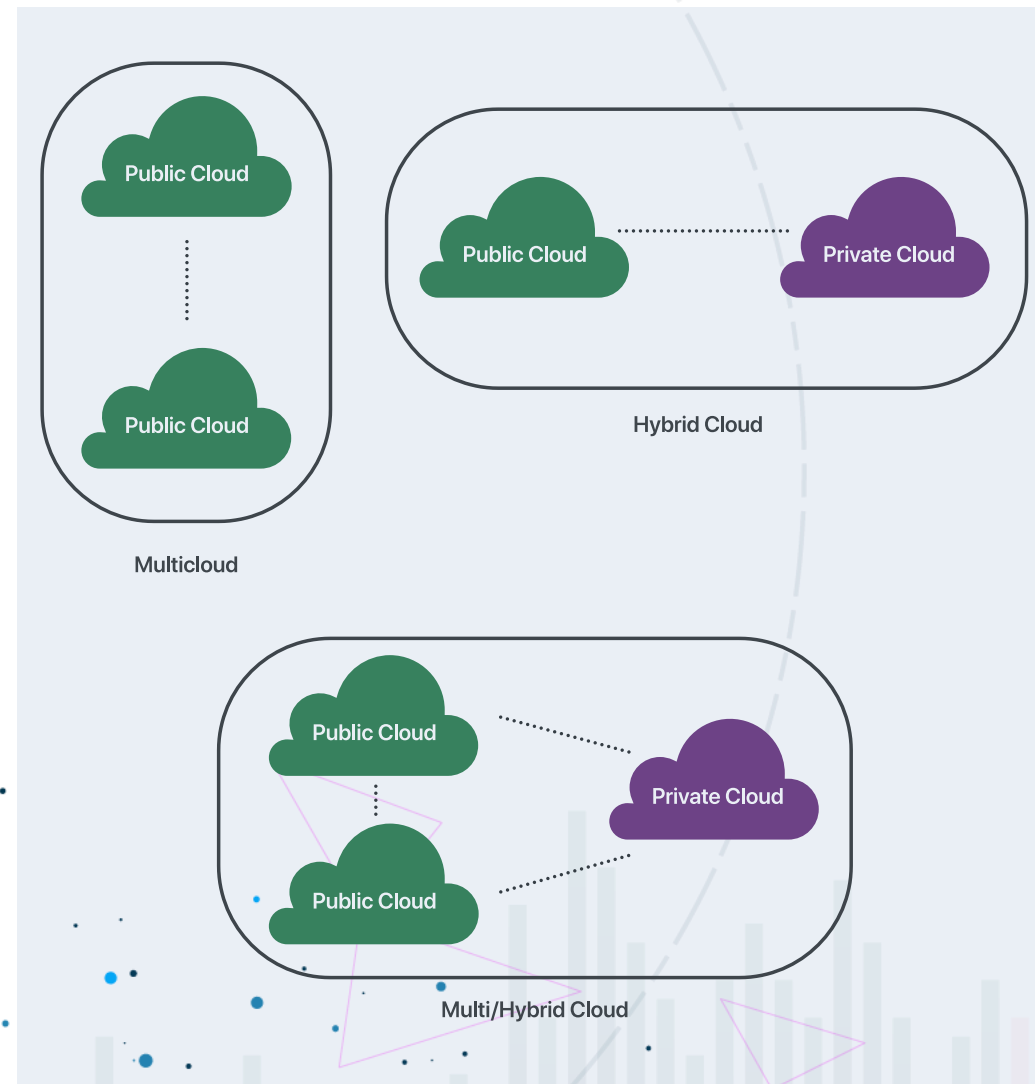
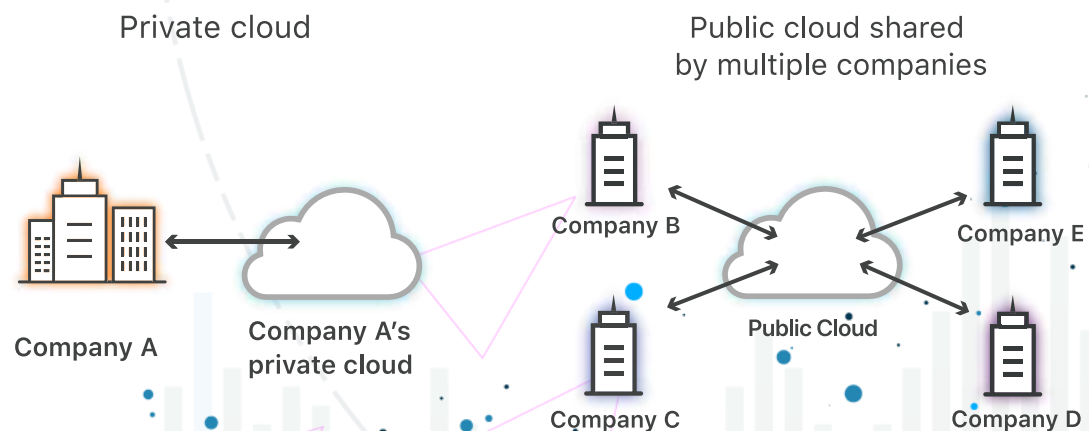
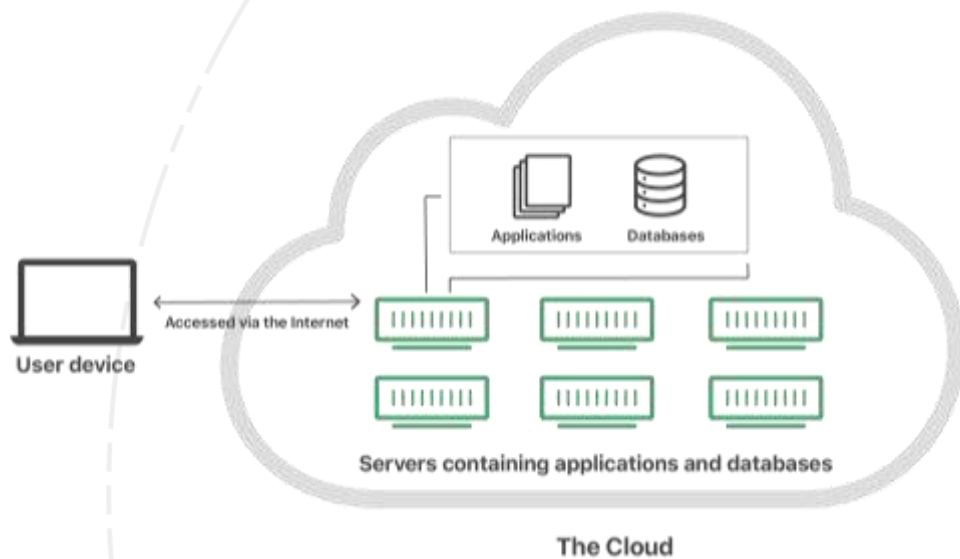
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WHAT IS THE CLOUD?





WHAT CLOUD UNLOCKS

DATA CENTER

SOFTWARE AS A SERVICE

INFRASTRUCTURE AS A SERVICE

STREAMING

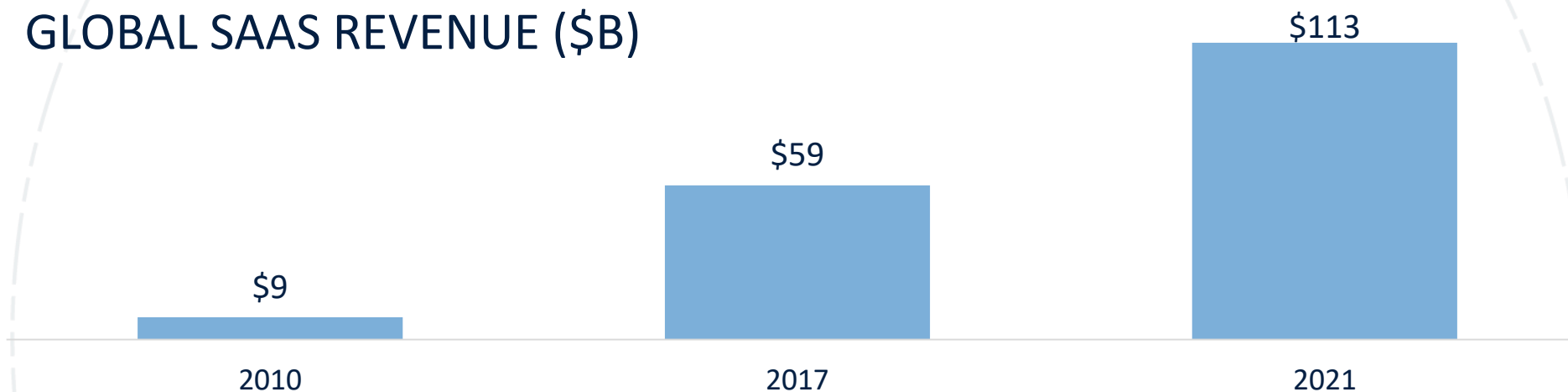
CLOUD STORAGE

ECOMMERCE



CLOUD WILL AFFECT \$1.3T IN I.T. SPEND BY 2022

GLOBAL SAAS REVENUE (\$B)



\$236B

servicenow

\$100B



\$132B



\$54B

ATLASSIAN

\$48B

MARCH
CAPITAL

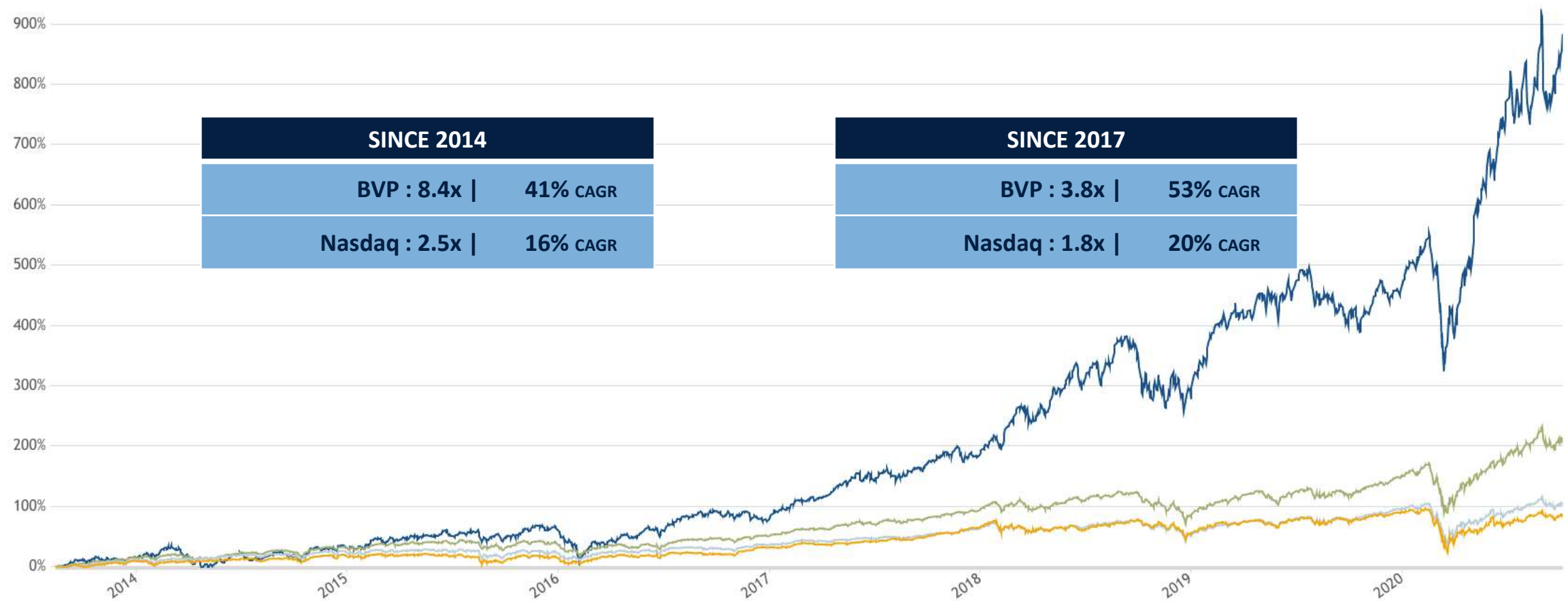
ada
analytics · data · advertising



CLOUD STOCKS OUTPERFORMING

Indexed as of August 2013, Last Updated October 2020

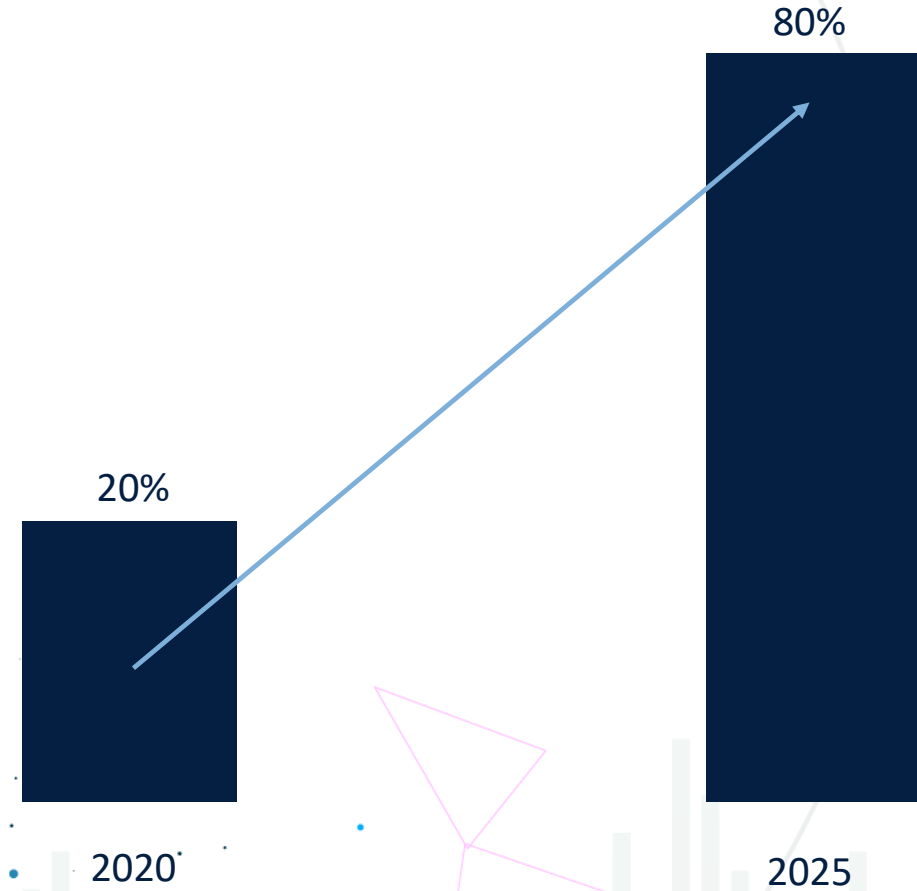
ALL 1M 3M 6M YTD 1Y 3Y 5Y





WIDESPREAD MIGRATION TO THE CLOUD

PERCENTAGE OF ENTERPRISE WORKLOADS
ON THE CLOUD PROJECTED TO GROW
FROM **20%** TO **80%** IN 5 YEARS





CLOUD TOPICS FOR 2020

SECURITY

PRIVACY

MULTI/ HYBRID
CLOUD

EDGE

CEO QUESTIONS

IS OUR DATA SECURE?

HOW DO WE MAKE THIS FASTER?

HOW DO WE MAKE THIS CHEAPER?

OPTIMIZE



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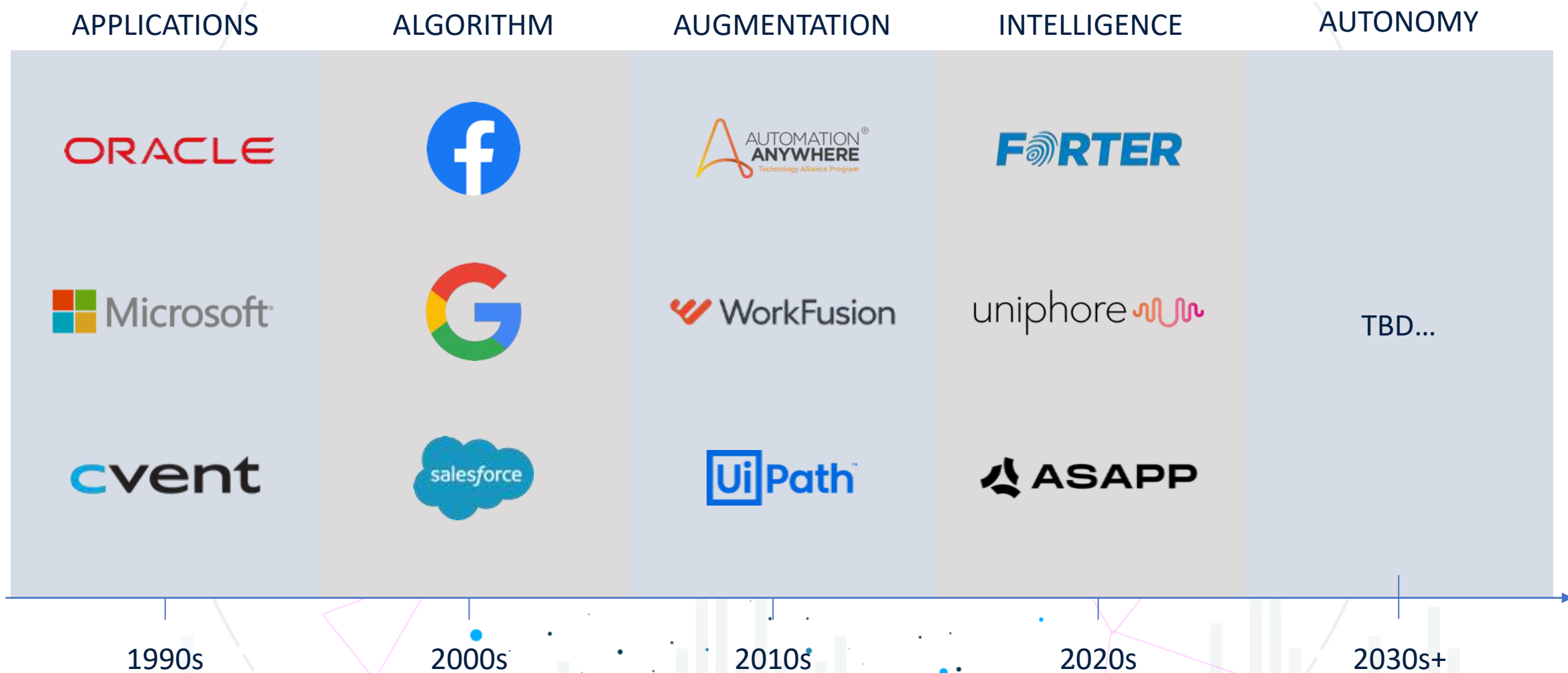


WHAT'S HAPPENING IN ENTERPRISE AI

AI Augmentation will create **\$2.9T of business value** in 2021

10% of enterprises use 10 or more AI applications

Spending on AI systems will increase from **\$36B in 2019** to **\$98B in 2023**





AI: WHY IT MATTERS + WHAT IT CAN DO

J.P.Morgan

Automated 360K hours of legal work



Saving RN's 20% of time with virtual assistants



Automates thousands of hours for
50% of Fortune 50



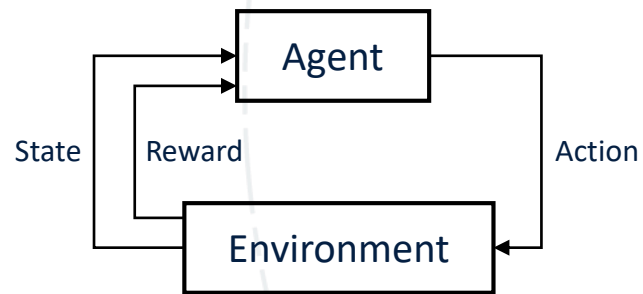
Recruiting AI reduced cost per hire by 71%



RECENT DEVELOPMENTS

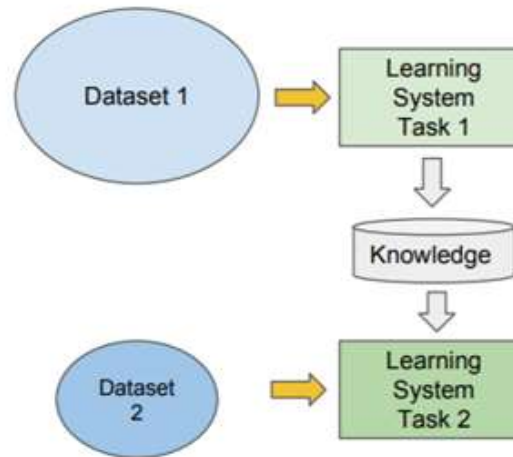
REINFORCEMENT LEARNING

Self-training AI



TRANSFER LEARNING

Knowledge transfer to other tasks



FEDERATED LEARNING

Shares learnings but not data



LESS DATA LABELING

FASTER SCALING

PERSONALIZED AI



WHAT AI CAN'T DO: UNDERSTAND CAUSATION

AI TODAY: DOES ONE THING VERY WELL, DATA CORRELATION

FUTURE: UNDERSTAND CAUSE AND EFFECT



REAL WORLD IMPACT: ENTERPRISE



AI enabled customer service

US MOBILE BRAND

92%

Call prevention after
initial interaction

65%

Containment
through AI
automation



Complete Customer Data Platform for the Enterprise

SUBSCRIPTION MEDIA COMPANY

30%

Increase in retention

50%

Reduction in CAC



REAL WORLD IMPACT: ENTERPRISE



AI solutions focused on IIoT

OFFSHORE OIL RIG

Identified
75%
Of production
impacting events

\$30M
Production
improvement per
rig, per year



AI enabled fraud detection

ONLINE TRAVEL AGENCY

99.3%
Approval rate

56%
YoY chargeback rate
reduction



AI POTENTIAL TO REWRITE: WORK

50%

of current work activities automatable by adapting current technologies

15%

of global workforce may need to switch occupations due automation by 2030

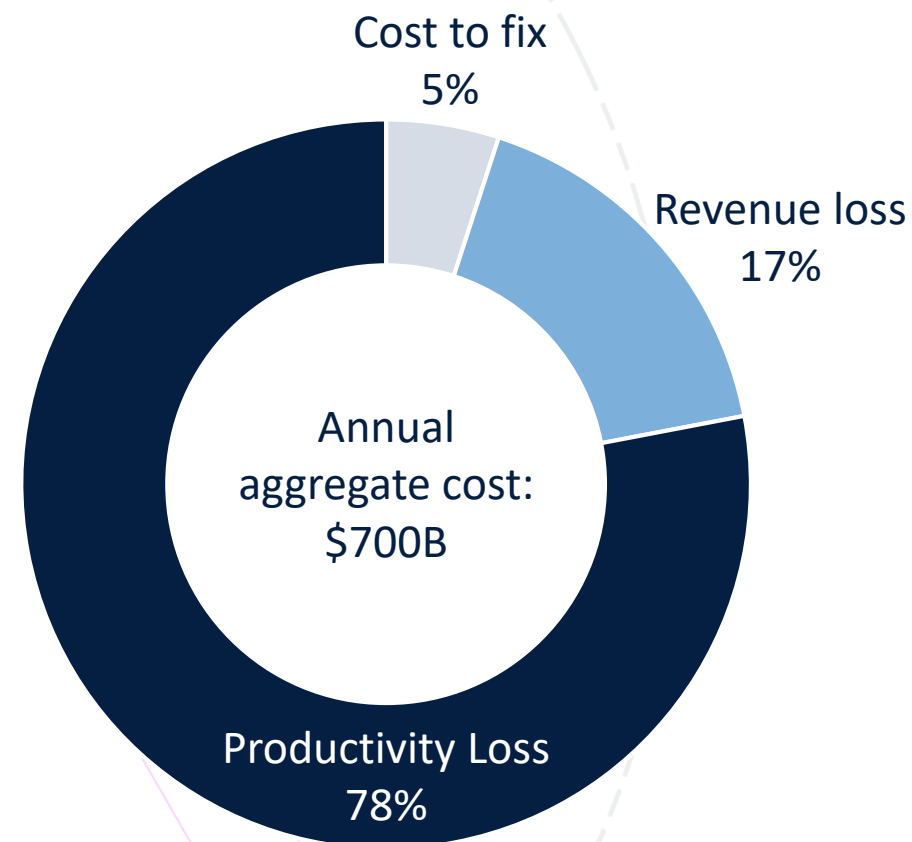


AI POTENTIAL TO REWRITE: NETWORKS

I.T. DOWNTIME COSTS NORTH AMERICAN
BUSINESSES **\$700B PER YEAR**



PROVIDING BROADBAND
FOR \$1 / MONTH



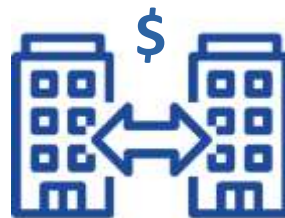


AI POTENTIAL TO REWRITE: FINANCIAL SERVICES



\$2.7 TRILLION

Cost of AP today



\$127 TRILLION

B2B Payment Volume



60%

Of B2B Payments still made by check

AUTOMATED DIGITAL B2B PAYMENTS COULD REDUCE AP COSTS BY 75%



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TECH INDUSTRY LAYOFFS &
THE SHIFT TO WFH

**52% OF AMERICANS SHIFTED TO
FULLY REMOTE WORK IN MAY**



DISRUPTED SUPPLY CHAINS

**200 COMPANIES OF THE
FORTUNE 500 HAVE DIRECT
PRESENCE IN WUHAN**



RETAIL STANDSTILL

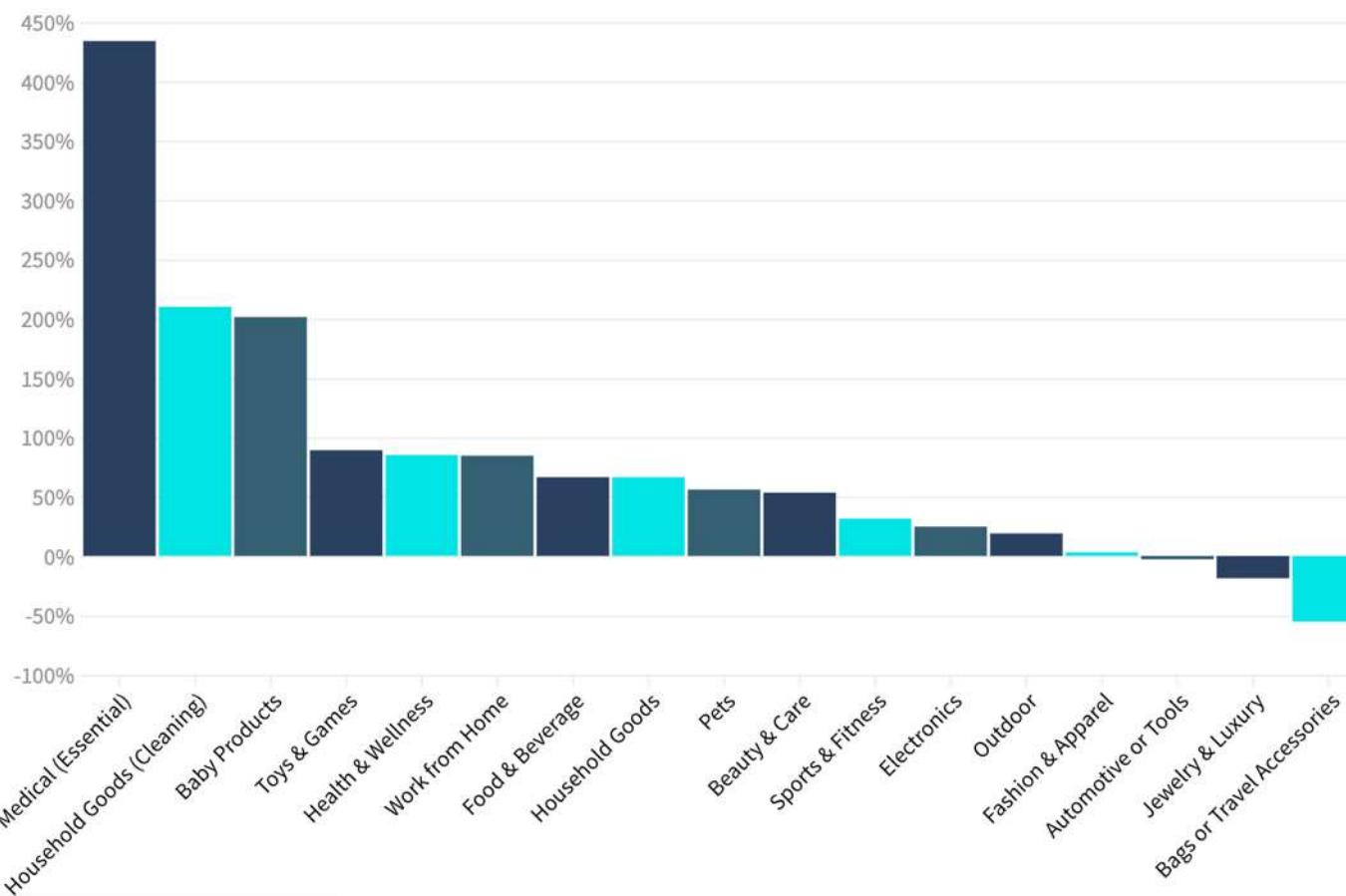
**50% OF CONSUMERS ARE NOT
ENTERING PHYSICAL STORES FOR
NON-NECESSITIES**



UNPRECEDENTED YoY ECOMMERCE GROWTH

Ecommerce Consumer Sales (COVID-19) +52.20%

Aggregated via ShipBob, ShipHero, Attentive, Stackline, CTC, Klaviyo, Emarsys, Rakuten & Adobe





EXPEDITED DIGITAL TRANSFORMATION

CLOUD BECOMES A **NEED TO HAVE** FOR
BUSINESS CONTINUITY



PROBLEM: WHAT HAPPENS WHEN...

10,000

CALL CENTER AGENTS MANAGE PII REMOTELY

ENGINEERS SWITCH TO WFH IN A DAYS' TIME



SOLUTION: CLOUD DEPLOYED PLATFORMS



UNIPHORE

Cloud-based call center automation

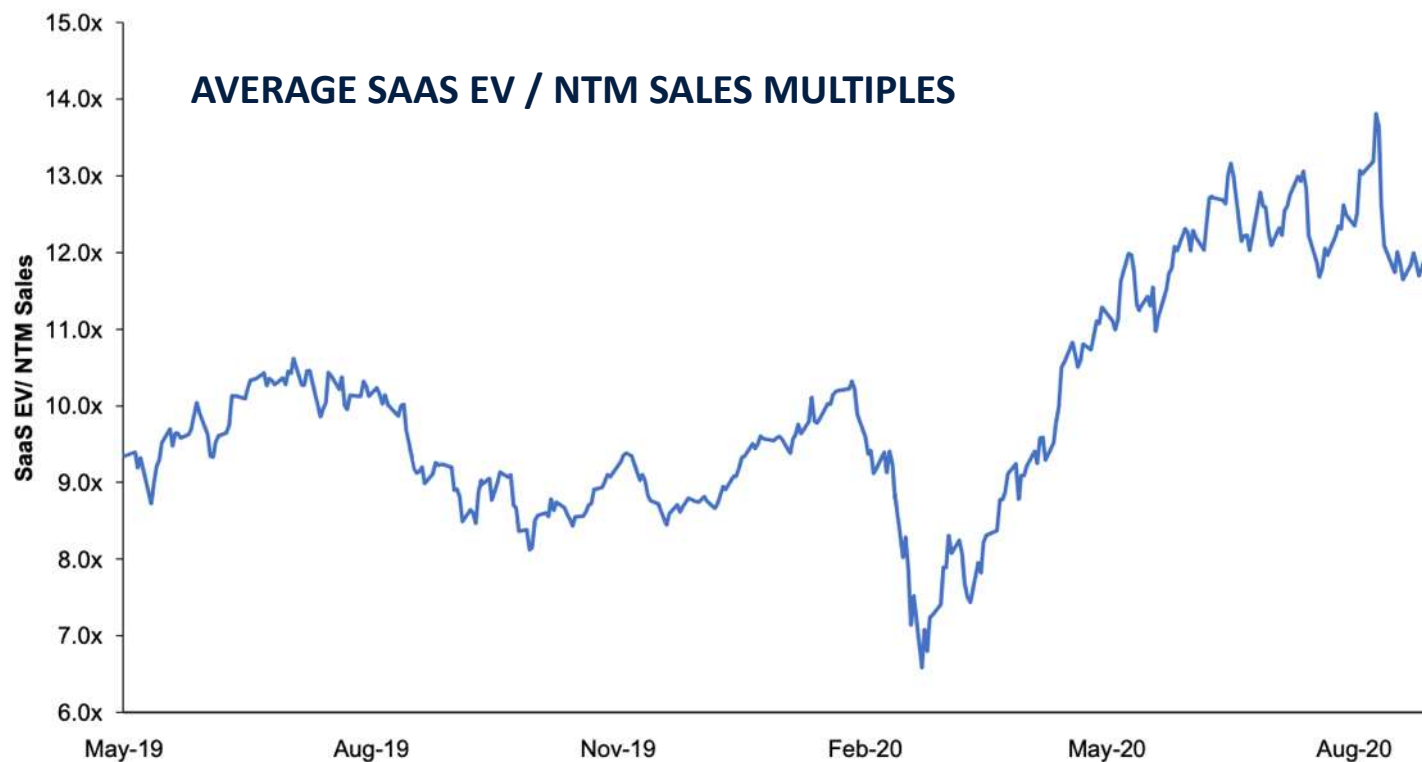
CROWDSTRIKE

Frictionless endpoint protection



S/W MULTIPLES TRADE ABOVE PRE-COVID PEAK

CLOUD SOFTWARE HARDLY
MISSES A BEAT IN THE
PANDEMIC





WHAT WILL THE RECOVERY LOOK LIKE? IT DEPENDS

“V shape”

- Remote infrastructure
- Security
- Collaboration
- Automation
- Digital payments
- Gaming

**Digital
Transformation**

“Bathtub shape”

- Vertical software (O&G, Retail, Automotive)
- Non mission-critical software (ERP, CRM, Business Analytics)
- Modernization projects
- SMB software
- POS systems
- BPO

“L shape”

- Legacy systems
- On-prem infrastructure
- On-prem software
- Offline payments



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5G AND INTELLIGENT EDGE BENEFITS (COMPARED TO 4G)

Sample Use Cases

Billions of Connected Devices

1M connected devices per km²

- Wearables
- Smart metering*
- Smart parking*

Increased Mobile Data Volumes

Enables complex applications that require high data volume processing/transferring

- Thin Client/virtual device
- Autonomous vehicle
- 4K/8K video streaming
- AR/VR
- Multi-player games

Ultra Lower Latency

Data travel time between nodes is ~1ms

- Autonomous vehicle
- Thin Client/virtual device
- Robotic control
- Drone Monitoring
- Live streaming

Significantly Higher Bandwidth

Allows high rates of data transfer to the end-user (Throughput >10Gbps)

- AR/VR
- Video surveillance
- 4K/8K video streaming
- Rich video-conferencing
- Multi-player games

Faster Data Speeds

The amount of data successfully moved from one place to another

- AR/VR
- Video surveillance
- 4K/8K video streaming
- Rich video-conferencing
- Multi-player games

Long Battery Life

Devices send less control messages to the network, hence consume less power

- Wearables
- Agriculture*
- Smart metering*

5G

4G

Millimeter Wave Spectrum

Multi-access Edge Compute

Deep - Fiber

Virtualization

Cloud RAN/CORE

Automation

Software Defined Networks

Analytics & Intelligence



5G's DATA CAPACITY CAPABILITIES WILL POWER THE IoT FUTURE OF AI AND ML



5G Impact

+ Edge Computing





5G: GREATEST IMPACT IN INDUSTRIAL



SHORT RANGE FAVORS SELECT SITE VS. BROAD CONSUMER COVERAGE

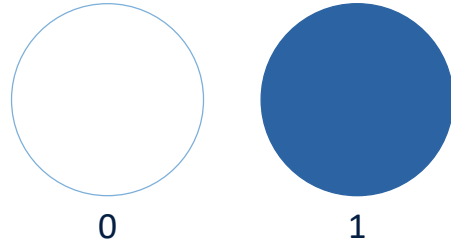
QUICKEST + HIGHEST ROI IMPACT IN INDUSTRIAL

• CAMPUS WIDE 5G FOR ~\$1M? •

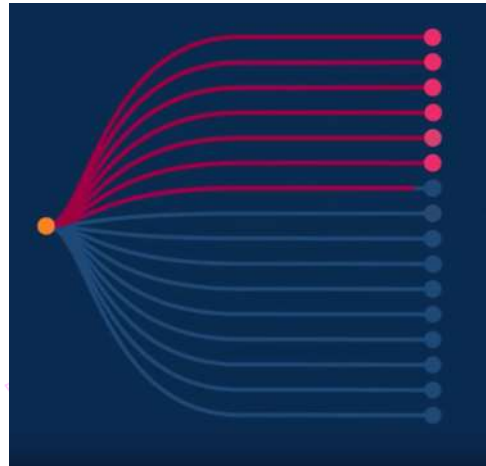


QUANTUM COMPUTING

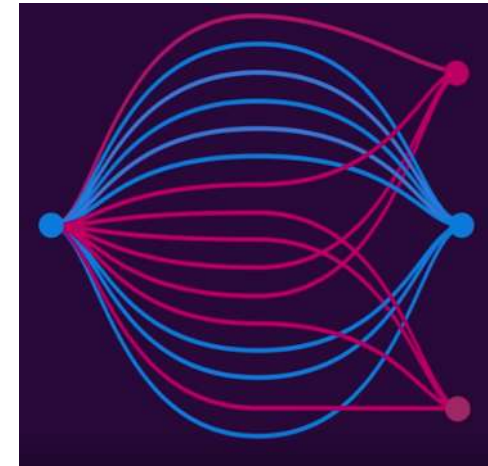
CLASSICAL COMPUTER



QUANTUM COMPUTER



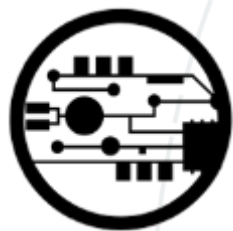
ONE AT A TIME



ALL AT ONCE



WHAT WILL BE AFFECTED?



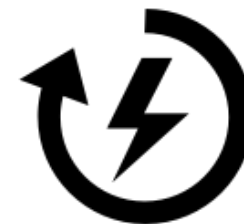
HIGH-TECH



INDUSTRIAL



CHEMISTRY



ENERGY



FINANCE

- ML & AI
- Search
- Cybersecurity

- Logistics
- Semiconductors
- Aerospace

- Enzyme design
- Pharma
- Bioinformatics

- Network design
- Energy distribution
- Well Optimization

- Trading
- Portfolio optimization
- Fraud detection



VIRTUAL AND PHYSICAL WORLDS MERGE



LIGHTING

HVAC

HOME + OFFICE APPLIANCES



IDENTITY

DIGITAL ACCESS

PHYSICAL ACCESS



CONNECTED CARS

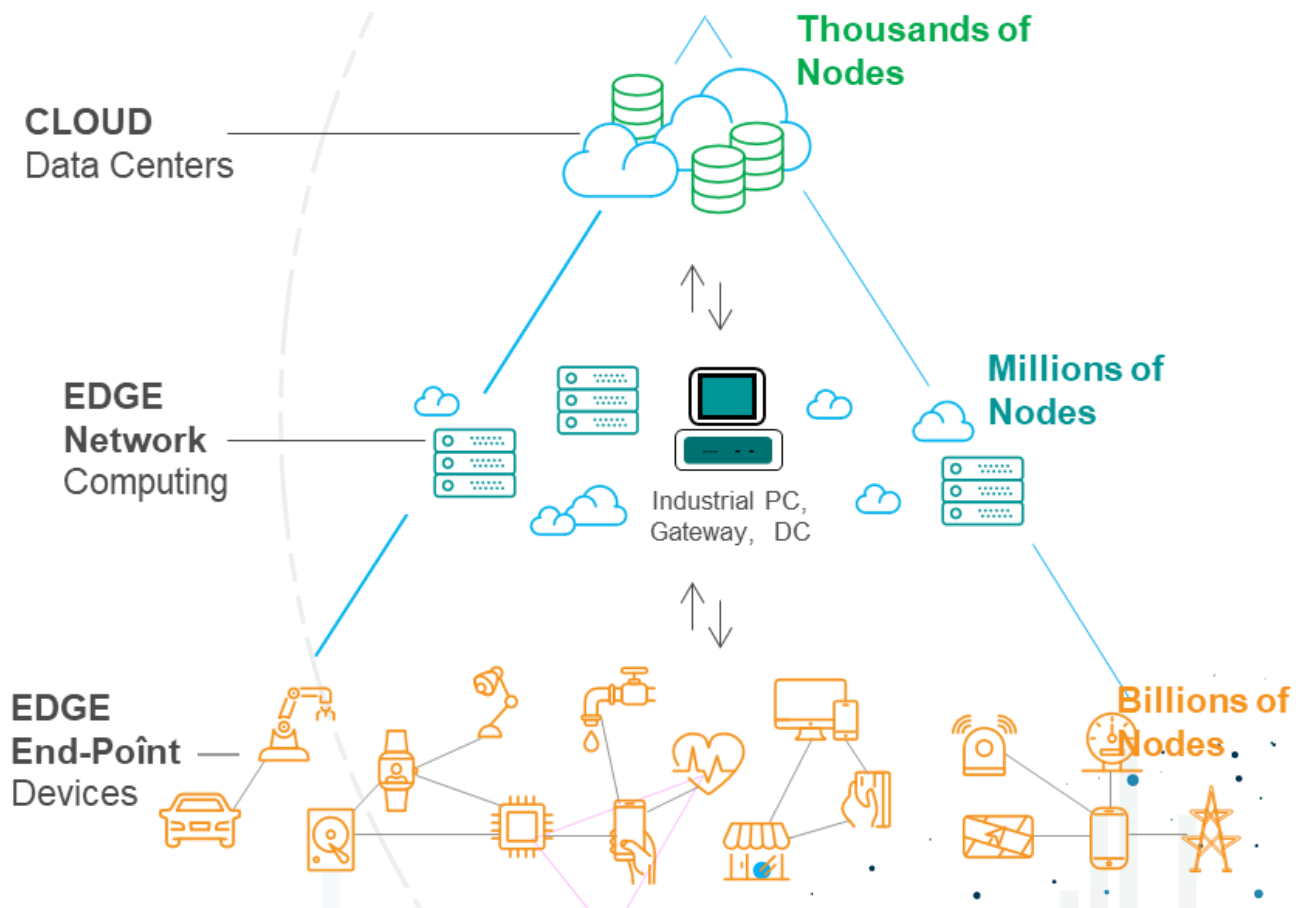
DIGITAL SHARES CONTROL



VOICE AS THE INTERFACE



AI + 5G + EDGE: A CITY-WIDE SUPERCOMPUTER



CLOUD CONNECTS + ORCHESTRATES NETWORK

REAL TIME AI COMPUTATIONS OCCUR AT EDGE

5G PROVIDES ZERO LATENCY BETWEEN NODES

THE COMING DECADE WILL SEE **10X THE INNOVATION**
OF THE PAST DECADE

About ADA

ADA is a data and artificial intelligence company that designs and executes integrated digital, analytics and marketing solutions.

Operating across 9 markets in South and Southeast Asia, ADA partners with leading brands to drive their digital & data maturity and achieve their business goals.



About Our Data

Their Digital behaviour culled from **400,000 apps**

Their Offline behaviour gathered from **1 million point of interests**

Their Content Consumption Patterns derived from **800 million videos views**

Their Social media use analysed from **150 million sources**

375 M
CONSUMERS

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