

Move fast, build things with AWS

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Top 10 CIO concerns in 2016

1. Technology alignment with the business
2. Security & Privacy
3. Speed of IT Delivery & Time-To-Market
4. Innovation
5. Business Productivity & Efficiency
6. IT Value Proposition to the Business
7. IT Agility & Flexibility
8. IT Cost Reduction & Controls
9. Business Agility & Flexibility
10. Business Cost Reduction & Controls

This list was probably
identical in 2006...

1996...

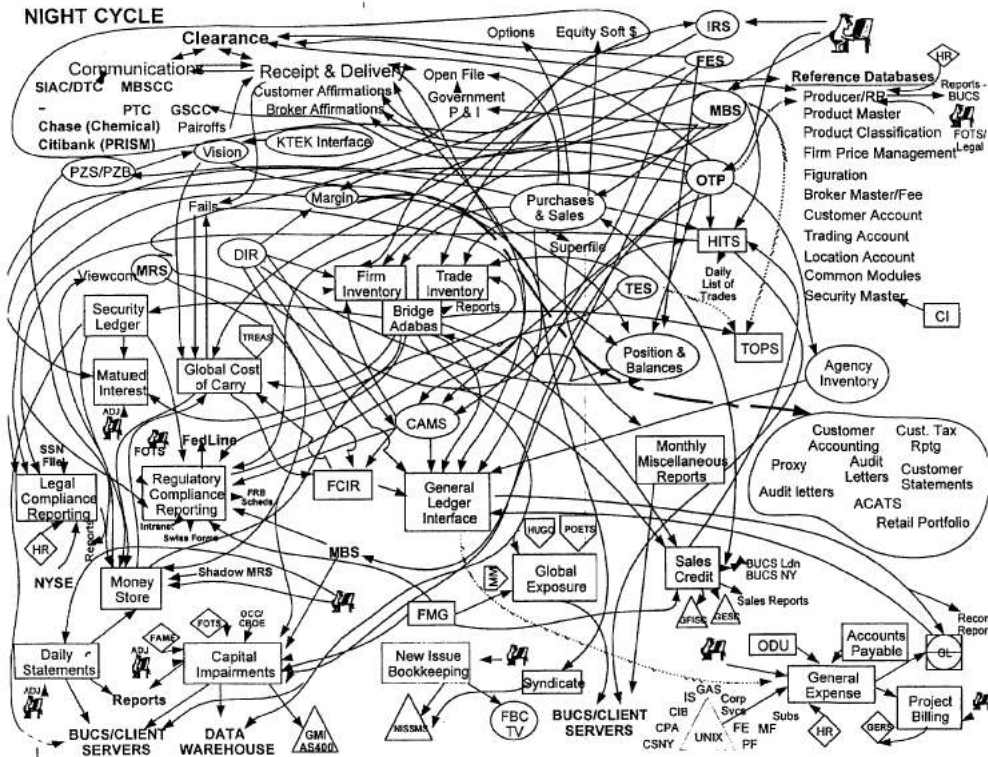
1986...

Why aren't problems
being solved?

Attitude



Processes



Tools



Big dog ?



Source: Wikipedia

Fat Dog ?



Source: Wikimedia

Meet your competition



Source: Wikipedia

Death by a thousand bites

Life expectancy of an SP500 company: 13 years

Was 60+ years 50 years ago

Only one company left from the original 1906 list (guess who?)

The question is: who will be in the SP500 in 2030?



Digital innovators

What does
“Digital”
really mean?



Turning
Data
into
Business Value

...through
Software

Jeff Immelt, GE Chairman & CEO



*“If you went to bed last night as an industrial company, you’re going to wake up this morning as a **software** and **analytics** company.”*

Digital businesses differentiate
themselves purely through:

ideas, data and
customer relationships

The faster you get new ideas to market,
The better you collect, analyze and predict data,
The quicker you react to customer feedback,

The more successful
you are.

Build and own what's
core to your business,
delegate the rest



What about
hardware?

Hardware-driven IT

Old IT

- Software on virtual hardware
- “Private Cloud”



Even older IT

- Software on hardware
- 1:1



Digital in a legacy world: not a fighting chance



New IT wish list

Self-service: everything an API call away

Move **from CAPEX to OPEX**

- Pay as you go
- Low cost of **experimentation** and **failure**

Focus on **business value**, not on heavy lifting

- **Managed** services take care of the plumbing
- Built-in **scalability**
- Built-in **high availability**
- Built-in **security**

A simple definition of Cloud Computing ;))





The technology platform
of choice



GE is migrating **9000 workloads** over to AWS

Intends to reduce the number of datacenters from **34** down to **4**

GE Oil & Gas

Business Agility	Operational Resilience	Cost Avoidance	Workforce Productivity	Operational Costs
<ul style="list-style-type: none">• 77% faster to deliver business applications• Rapid experimentation• Reduced technical debt• Streamlined M&A activity	<ul style="list-style-type: none">• 98% reduction in P1/P0's• Improved security posture• 15 cloud services created• Improved performance	<ul style="list-style-type: none">• 52% average TCO savings• 80% cloud first adoption	<ul style="list-style-type: none">• 15 automated bots developed• 8 cloud migration parties• Shift to self-service culture• DevOps in Practice	<ul style="list-style-type: none">• 35% reduction in compute assets (792)• 50 applications decommissioned• \$14M YOY Savings
<div><div><div>\$14.2M Investment</div><div>+</div><div>18 Months</div><div>+</div><div>Progress Focus</div><div>=</div><div>311 Apps in Cloud</div><div>&</div><div>\$14M YOY Savings</div></div></div>				



Kellogg Company

Kellogg needed a solution that could accommodate terabytes of data, scale according to infrastructure needs, and stay within its budget.

Amazon Web Services (AWS) offered **a fully SAP-certified HANA environment** on a public cloud platform. Kellogg decided to start immediately with test and development environments for its US operations.

These Amazon EC2 instances process **16 TB of sales data weekly** from promotions in the US, modeling **dozens of data simulations a day**.

Nasdaq

In 2014, Nasdaq replaced the existing data warehouses for its US equities and options exchanges with Amazon Redshift.

On a nightly basis, Nasdaq loads approximately 5 billion rows of data into Redshift within a 4-6 hour window.

Amazon Redshift now powers a number of data analytics applications at Nasdaq, including its billing system for US customers. In 2015, Nasdaq is expanding its use of Redshift to its global exchange properties.

AON Benfield

Aon Benfield is the world's leading reinsurance intermediary and full-service capital advisor.

Aon Benfield Analytics offers industry-leading catastrophe management, actuarial, rating agency advisory and risk and capital strategy expertise.

By using AWS GPU instances, Aon Benfield is able to perform actuarial calculations with greater computing power, in shorter time frames, and for less cost than on-premise deployments and CPU cores.

Hearst

Hearst Corporation is one of the largest diversified communications company in the world.

The company began migrating **10 of its 29 global data centers** to AWS to reduce its IT infrastructure footprint.

Hearst Corporation monitors trending content on **250+ sites worldwide**. To facilitate this, Hearst built a clickstream analytics platform on AWS that transmits and processes over **30 TB of data a day** using AWS resources.

The Guardian

*“2 or 3 years ago (...) we decided to build our own private cloud based on OpenStack. I would say it was a **complete and total disaster**”*

“All the benefits we get from AWS we simply did not get inside of the cloud that we were building internally”

*“In the last year, we decided to **let Amazon do the hard work**. In fact we are closing down all of the stuff we have remaining in our data centres and **moving them to AWS** as well”*

Graham Tackley, Director of Architecture, The Guardian

Selected French Enterprise customers



Transformation is only
the first step

For some, **innovation** is
a way to invent
new business models

John Deere

Service platform storing, analyzing and sharing data coming from 200,000 farming vehicles



ExactEmerge™ Intelligent Planter
Places seed at exact space and depth
Raises productivity during short planting windows

For others, it's a matter
of **survival**

*“Banks aren’t being disrupted
by FinTech, they’re being
disrupted by **customer
expectations**”*

- McKinsey & Company

Capital One

Capital One is one of the US's largest banks and offers credit cards, checking and savings accounts, auto loans, rewards, and online banking services for consumers and businesses.

Capital One is using AWS as a central part of its technology strategy, and plans to reduce its data center footprint from 8 to 3 by 2018.

It is using or experimenting with nearly every AWS service to develop, test, build, and run its most critical workloads, including its new flagship mobile-banking application.



ROB ALEXANDER
CIO, CAPITAL ONE

*“The financial service industry attracts some of the worst cyber criminals. We work closely with AWS to develop a security model, which we believe enables us to operate **more securely in the public cloud** than we can in our own data centers”*

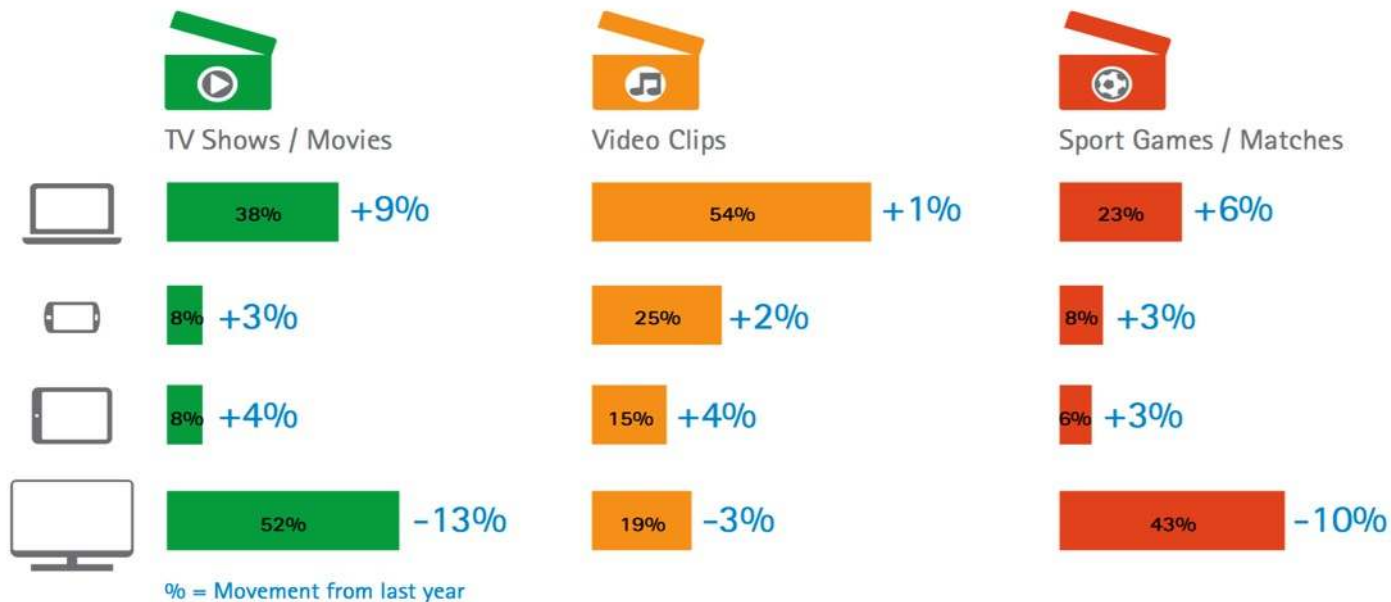
French banks are also using AWS



Television is heavily disrupted

Figure 1: Preferred device when accessing different types of digital content

% Users selecting 1 or 2 preferred devices for each of the digital content



Source: 2015 Accenture Digital Consumer Survey.

Canal +

CANAL Football App

UNE INNOVATION MONDIALE POUR VIVRE À 200% LES GRANDS MATCHS DE LIGUE 1 SUR CANAL+



Could infrastructure be
even leaner ?

Zero cost when unused
... with instant scalability ?

A photograph of Werner Vogels, CTO of Amazon.com, standing on a stage during the AWS re:Invent 2015 conference. He is positioned in the center of the stage, facing the audience. Behind him is a large screen displaying the text "No Server Is Easier To Manage Than No Server". The stage is lit with warm, golden light, and the background screen has a subtle pattern of diagonal lines. Two podiums with the AWS logo are visible on either side of the stage.

No Server Is Easier To Manage Than No Server

Werner Vogels, CTO, Amazon.com
AWS re:Invent 2015

Managed services
+
AWS Lambda
=
Serverless architecture

Another way to put it

Tim Wagner,
General Manager,
AWS Lambda

Serverless conference, NYC
May 2016

<https://www.youtube.com/watch?v=aXaZAFi3Ytk>



Selected serverless platforms



THREAT INTELLIGENCE
AND ANALYTICS



MOBILE
CHAT APP



AD DATA ANALYTICS
AND ROUTING



MOBILE APP
ANALYTICS



IMAGE CONTENT
FILTERING



WEB
APPLICATIONS



WEB APPLICATIONS



DATA
PROCESSING



CLOUD
TELEPHONY



REAL-TIME VIDEO
AD BIDDING

NORDSTROM

PRODUCT
RECOMMENDATION



THOMSON REUTERS

NEWS CONTENT
PROCESSING

BUSTLE

NEWS CONTENT
PROCESSING



Benchling

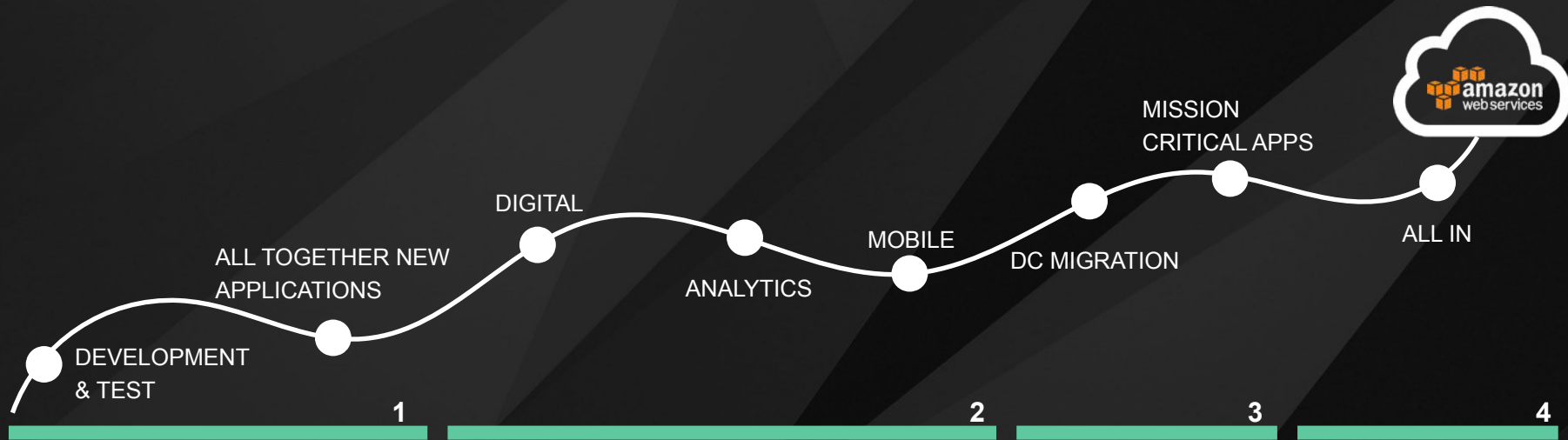
GENE SEQUENCE
SEARCH



GAME METRICS ANALYTICS

Of course, this doesn't
happen overnight,
but...

The journey to the cloud is a well-trodden path



Increasing Efficiency

Lift and Shift



10% - 30%
cost reduction

1 – 3 months

Increasing Efficiency

Lift and Shift

Optimized for Cloud



10% - 30%
cost reduction

1 – 3 months



30% - 50%
cost reduction

3 – 9 months

Increasing Efficiency

Lift and Shift



10% - 30%
cost reduction

1 – 3 months

Optimized for Cloud



30% - 50%
cost reduction

3 – 9 months

Cloud Native



50% - 80%
cost reduction

3 - 12 months

Get started



Source: Wikimedia

We'll help you grow



Source: Wikipedia

Thank you!

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