

# 云计算助力生物天然气产业 创新发展

## More Innovation in Cloud

程浩鑫 Cheng Haoxin

亚马逊AWS解决方案架构师 AWS Solution Architect

Beijing, Nov 4<sup>th</sup>, 2016

# Today's Presentation Will Cover...

1

The new normal

2

What's Amazon Web Services (AWS)

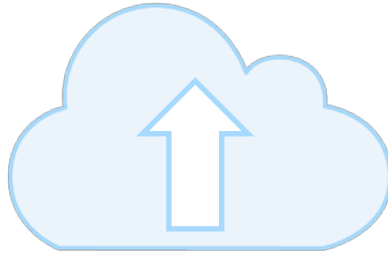
3

Key Use Cases where AWS can Help Energy Industries

# The new normal

# Cloud computing has become the new normal

Deploying new applications to the cloud by default



Migrating existing applications as quickly as possible

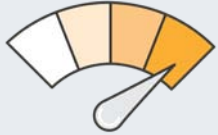
AWS services more than a million active customers every month in 190 countries.

Through customer obsession and an increasing pace of innovation, AWS is the fastest technology vendor in history to reach a \$10B run rate.

# The AWS Cloud



**Eliminate costly technical debt** and reallocate resources so you can deliver high-value, revenue-generating projects faster.



**Innovate faster** and solidify your competitive advantage by merging startup agility with enterprise experience and resources.



**Reduce risk** by focusing resources dedicated to security, compliance and availability to the most important areas of your business.

---

*"AWS is our trusted partner that is going to run our company for the next 140 years."*

Jim Fowler – CIO, General Electric

# Global Enterprise Customers



salesforce

“There is no public cloud infrastructure provider that has more robust enterprise capabilities.”

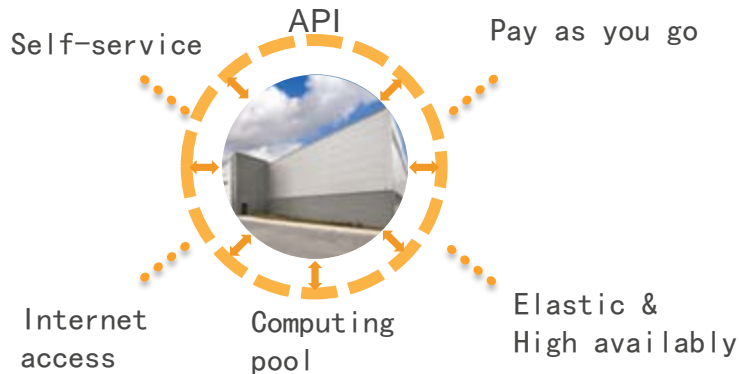
Marc Benioff, Chairman & CEO, Salesforce

# What's Amazon Web Services?

# What is Cloud computing?

cloud computing is a model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction

-- NIST



Cloud  $\neq$  data center

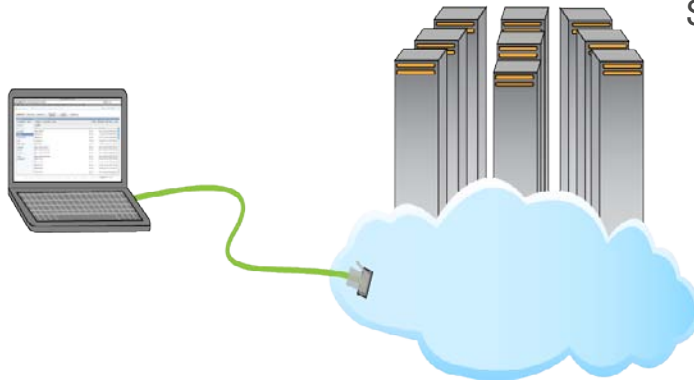
Cloud  $\neq$  virtualization

Cloud  $\neq$  IDC



# Amazon Web Services

Amazon Web Services (AWS) is a secure cloud services platform, offering compute power, database storage, content delivery and other functionality to help businesses scale and grow. Millions of customers are currently leveraging AWS cloud products and solutions to build sophisticated applications with increased flexibility, scalability and reliability

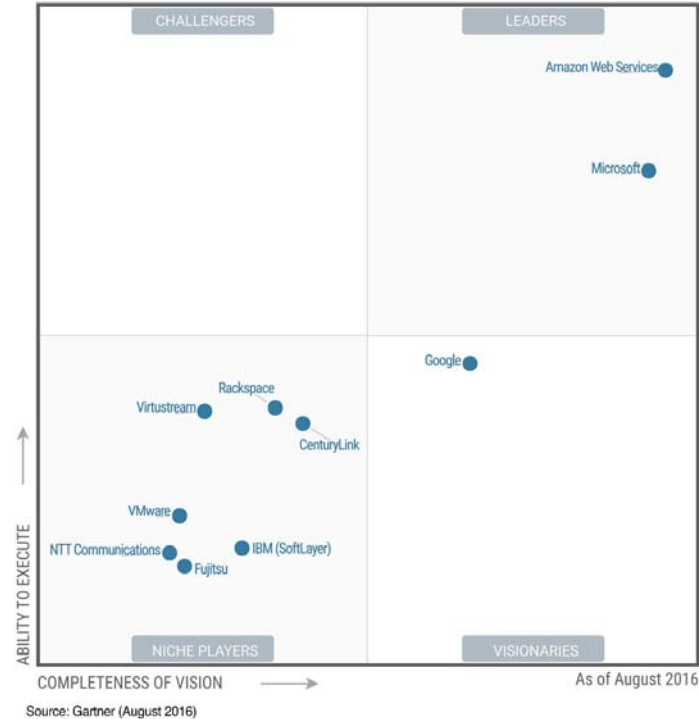


Software defines everything -- SDX

# AWS Positioned as a Leader in the Gartner Magic Quadrant for Cloud Infrastructure as a Service, Worldwide\*

AWS is positioned highest in execution and furthest in vision within the Leaders Quadrant

Figure 1. Magic Quadrant for Cloud Infrastructure as a Service, Worldwide



\*Gartner, Magic Quadrant for Cloud Infrastructure as a Service, Worldwide, Leong, Lydia, Petri, Gregor, Gill, Bob, Dorosh, Mike, August 3 2016

This graphic was published by Gartner, Inc. as part of a larger research document and should be evaluated in the context of the entire document. The Gartner document is available upon request from AWS: <http://www.gartner.com/doc/reprints?id=1-2G2O5FC&ct=150519&st=sb>

Gartner does not endorse any vendor, product or service depicted in its research publications, and does not advise technology users to select only those vendors with the highest ratings or other designation. Gartner research publications consist of the opinions of Gartner's research organization and should not be construed as statements of fact. Gartner disclaims all warranties, expressed or implied, with respect to this research, including any warranties of merchantability or fitness for a particular purpose.

# Our Global Footprint

Everyday, AWS adds enough new server capacity to support Amazon.com when it was a \$7 billion global enterprise.

## 13 Regions

(S. Korea launched in January, India in June, 4 additional in 2016: Ohio, Canada, London, China)

## 35 Availability zones

## 57 Edge Locations

Over 1 million active customers across 190 countries

900+ Government Agencies

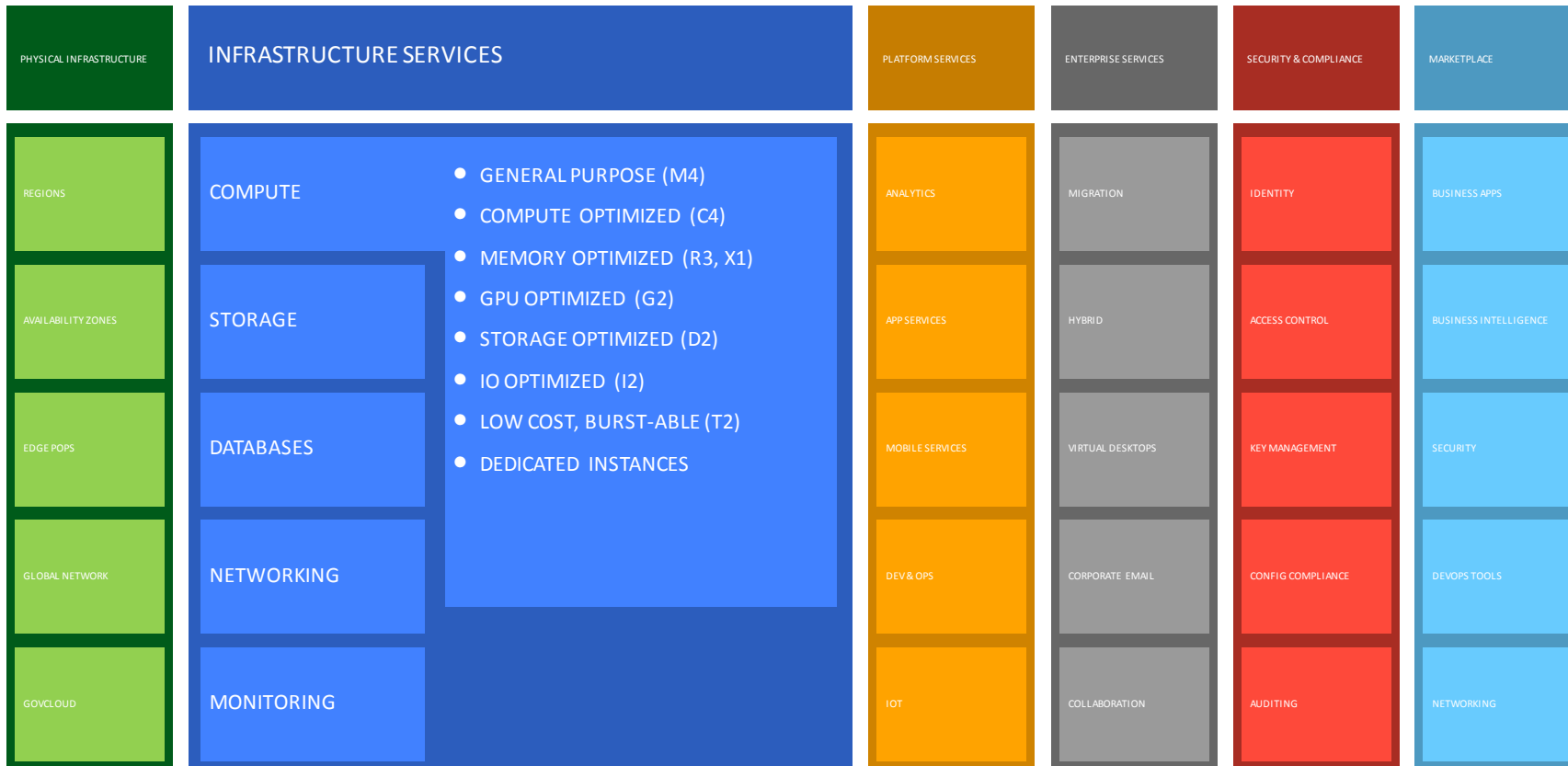
3,400+ Educational Institutions



# Our Services

PHYSICAL INFRASTRUCTURE	INFRASTRUCTURE SERVICES	PLATFORM SERVICES	ENTERPRISE SERVICES	SECURITY & COMPLIANCE	MARKETPLACE
REGIONS	COMPUTE	ANALYTICS	MIGRATION	IDENTITY	BUSINESS APPS
AVAILABILITY ZONES	STORAGE	APP SERVICES	HYBRID	ACCESS CONTROL	BUSINESS INTELLIGENCE
EDGE POPS	DATABASES	MOBILE SERVICES	VIRTUAL DESKTOPS	KEY MANAGEMENT	SECURITY
GLOBAL NETWORK	NETWORKING	DEV & OPS	CORPORATE EMAIL	CONFIG COMPLIANCE	DEVOPS TOOLS
GOVCLOUD	MONITORING	IOT	COLLABORATION	AUDITING	NETWORKING

# Our Services



# Our Services



# Our Services



# A Focus on Security & Enabling Compliance

AWS provides the same, familiar approaches to security that companies have been using for decades with increased visibility, control, and auditability.

## Visibility

## Control

View your entire infrastructure with one click

Deep insight with AWS CloudTrail

You have sole authority on where data is stored

Shared responsibility model

## Auditability



3<sup>rd</sup> Party Validation – Certifications for Workloads that Matter



“Based on our experience, I believe that we can be even more secure in the AWS cloud than in our own data centers.” – Tom Soderstrom, CTO, NASA JPL



# Security of the **AWS** Cloud

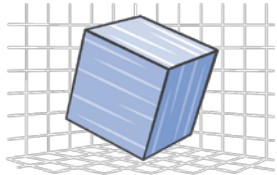
SOC 1 / ISAE 3402	ISO 27001	FedRAMP 
SOC 2	ISO 9001	ISO 27017
SOC 3	ISO 27018	PCI DSS Level 1
HIPAA	GxP	FIPS 140-2
CJIS	ITAR	G-Cloud 
DoD SRG Levels 2 & 4	FERPA	IT-Grundschutz 
MLPS Level 3 	Section 508 / VPAT	MCAA
MTCS Tier 3 	NIST	Cloud Security Alliance
IRAP 	FISMA, RMF, and DIACAP	Cyber Essentials Plus 

# Key Use Cases where AWS can Help Energy Industries

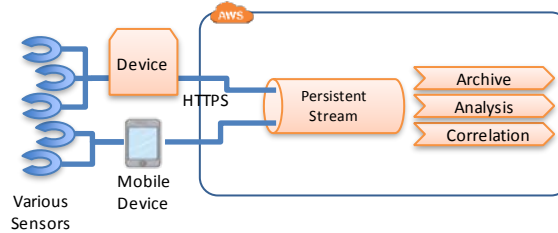
# Energy & Utilities-leveraging cloud technology

## High Performance Compute

Modeling and Simulation



## Internet of Things



## Customer Engagement



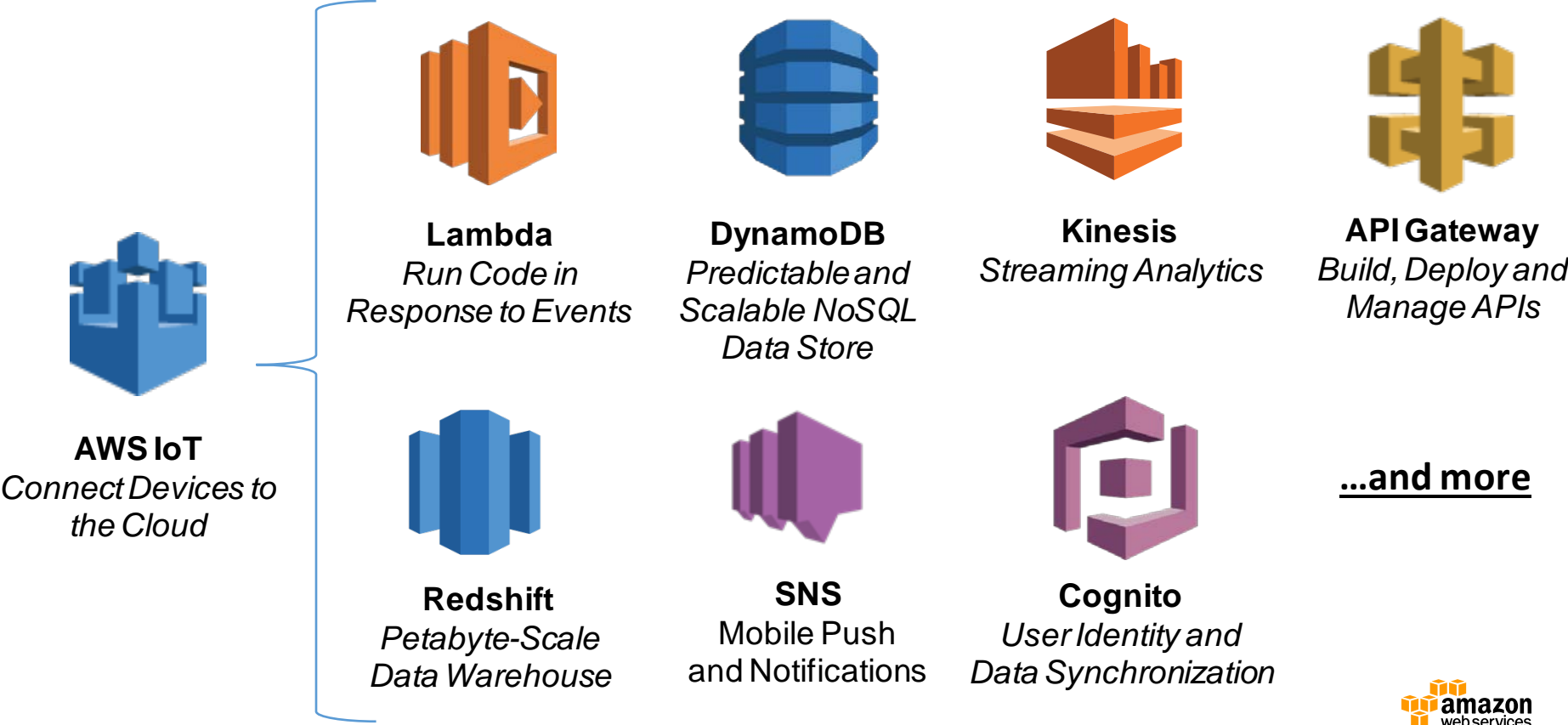
Data

# Educate and Research Program

Amazon Web Services提供教育和研究支持计划，如：

- **AWS Educate**
  - AWS Educate 是 Amazon 的一项全球计划，旨在为学生和教育工作者提供所需的资源，从而加快云相关内容的学习进度
- **AWS Cloud Credits for Research**
  - 我们支持使用AWS用于科学研究
- **AWS Public Dataset**
  - AWS 托管了各种公用数据集，且任何人都可以免费访问，AWS 希望能以更快的速度实现更多的创新

# AWS IoT: simplify and Accelerate IoT Development



# British Gas Connected Homes Measures Latency in Milliseconds



AWS tools have actually helped to make our service better.

**Adrian Heesom**

Operations Director, British Gas Connected Homes

  
**A British Gas innovation.**



- Needed an IT model to support lean enterprise
- Used Amazon EC2, Amazon RDS, and Amazon S3
- Gained lean, agile IT infrastructure
- Reduced latency from seconds to milliseconds
- Scaled up easily in winter months

UK energy provider British Gas launched its Connected Homes business through which it delivers the Hive Active Heating platform.

# GE is Migrating 9,000 Workloads to AWS Over the Next Three Years



AWS is our trusted partner that is going to run our company for the next 140 years.

**Jim Fowler**  
CIO, General Electric



- GE had an existing, aging infrastructure built up over the years with legacy systems and acquisitions
- Migrating more than 9,000 workloads to AWS including 300 ERPs
- Plans to reduce datacenter footprint from 34 to 4 over the next three years
- GE Oil & Gas division leading company-wide effort, migrating more than half of its core applications while cutting 52 percent in TCO
- Using AWS with agile methodologies, automation has helped GE Oil & Gas cut outages by 98%

General Electric is the world's Digital Industrial Company, transforming industry with software-defined machines and solutions that are connected, responsive, and predictive.

# THANKS

亚马逊AWS: 兰明

电话: 13511001601

email: [minglan@amazon.com](mailto:minglan@amazon.com)