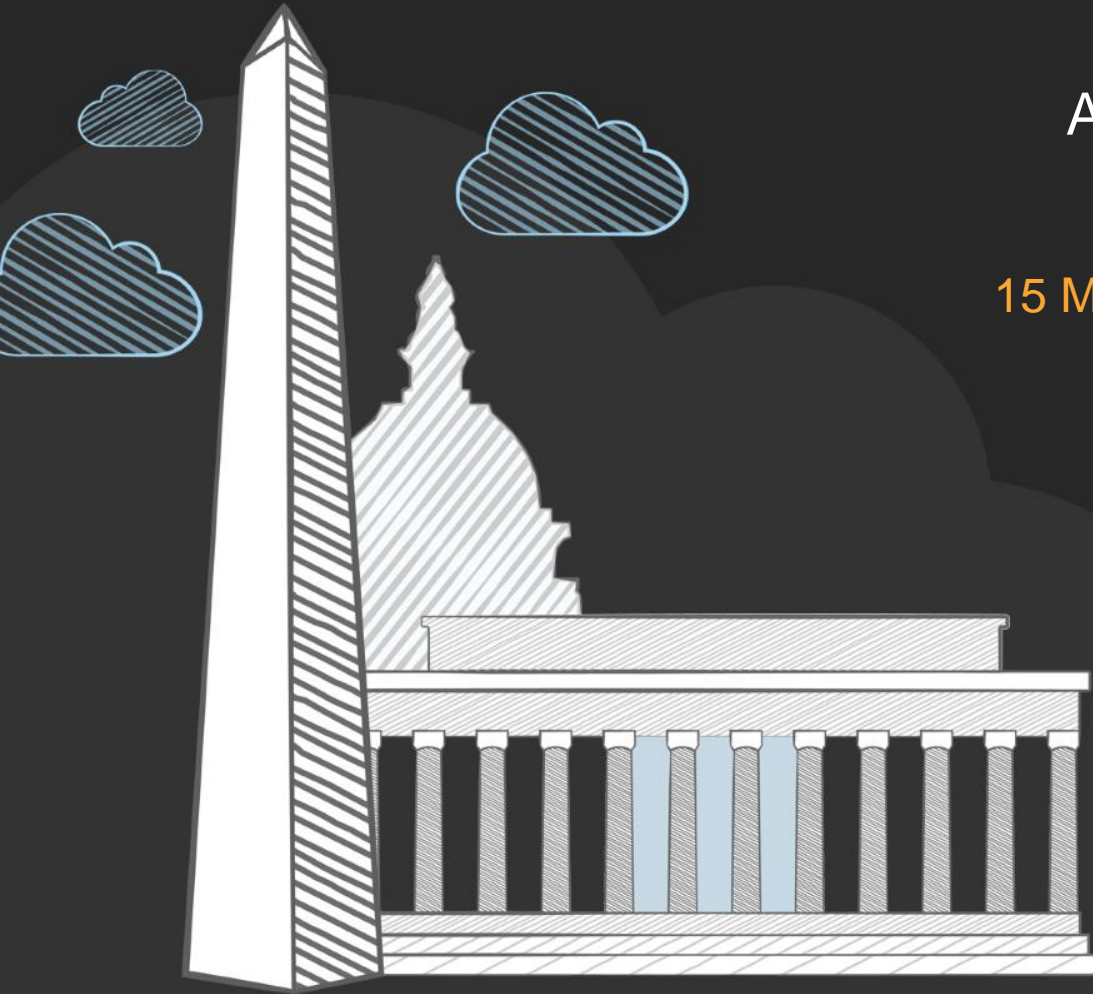


AWS Worldwide Public Sector

15 Minute Introduction to AWS and Q&A
April 2015

Mark Fox | Sr. Manager DoD Sales



BLUF

- I love/hate relationship with the term cloud
- Now the IT norm
- Commercial Cloud should not be scary nor considered less secure
- Commercial Cloud enables (competitive advantage- “eat your cake”)
 - Agility- from nothing to massive to nothing in minutes, time to capability
 - Increased cyber-security posture and insight
 - Cost Savings- OPEX, pay for only what you use
- AWS delivers every customer their own private cloud enclave (VPC) within public commercially available infrastructure.
- AWS has been authorized and is being used by the US Gov’t
 - Civilian and DoD (NIPR)
 - Intel Community via Community Cloud Region (TS SCI)
 - A&D via AWS GovCloud ITAR Compliant Region
- Commercial Cloud leverages Shared Security/Responsibility



What sets AWS apart?



Experience

Building and managing cloud since 2006



Service Breadth & Depth

40+ services to support any cloud workload



Pace of Innovation

History of rapid, customer-driven releases



Global Footprint

11 regions, 28 availability zones, 52 edge locations



Pricing Philosophy

45 proactive price reductions to date



Ecosystem

8,000+ SIs and ISVs; 2,000+ Marketplace products



*as of July 31, 2014



Experience with Operational Reliability

We are driven to remove any all causes of failure.

Our goal is to make our operational performance indistinguishable from perfect.

- Over a decade building the world's most reliable, secure, scalable, and cost-effective infrastructure for over a million customers. Many of them with millions of their customers leveraging cloud.
- Service SLAs between 99.9% and 100% availability. Amazon S3 maintains a durability of 99.999999999%.
- Availability Zones fault line and flood plain isolated, separate ISP's and electric grid isolation to substantially reduce the chance of simultaneous failure. Promote High Availability (HA) model.
- 24/7 visibility into the real-time operational status of all services around the globe..



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Experience with Cloud Security

AWS provides the same, familiar approaches to security that companies have been using for decades with increased visibility, control, and auditability. ~1,000 consistent controls.

Visibility

View your entire infrastructure with a click

Insight into your Virtual Private Cloud now and in the past

Control

You have sole authority on where data is stored

Shared responsibility model

Auditability

3rd party validation
Inherit/re-use

SOC 1 / SOC 2 / SOC 3	FISMA
SSAE 16 / ISAE 3402	HIPAA
PCI DSS Level 1	ITAR
DIACAP & FISMA	MPAA
ISO 27001 / 9001 / 13485	CSA
ISO/TS 16949	FIPS 140-2
FedRAMP (SM)	

“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



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Shared Security Responsibility

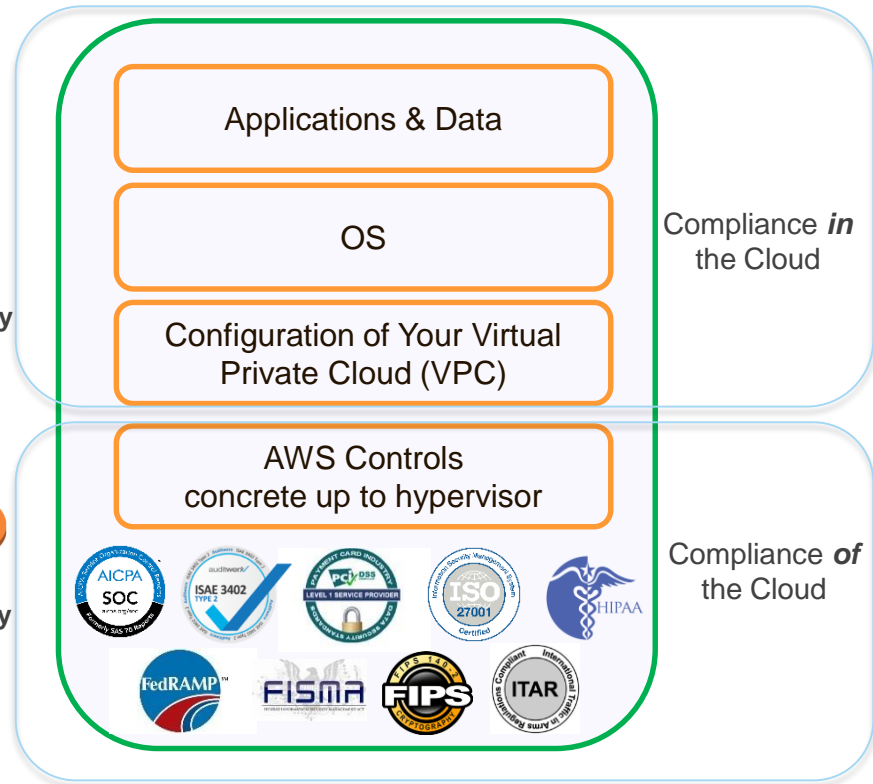
- AWS & Customers both have security/compliance obligations
- Logical assessment & accreditation boundaries
- Authorizations/Accreditations
 - Inherited by Customer as part of full stack ATO



Managed by
Customer



Managed by
AWS

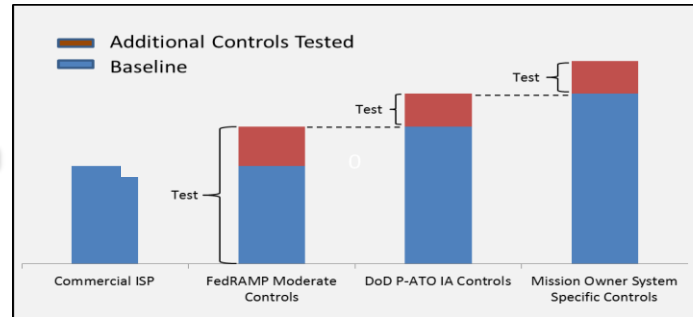
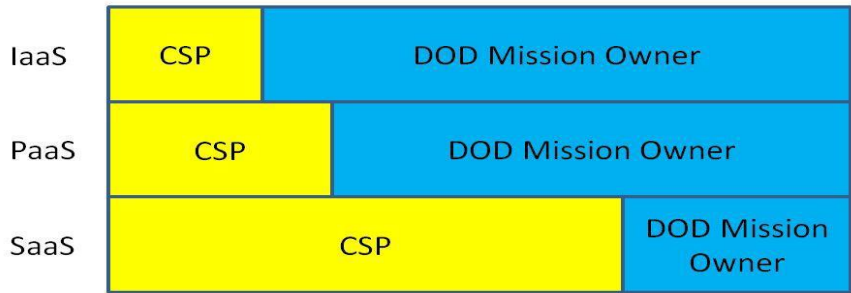


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Notional Risk Acceptance



IA Responsibility

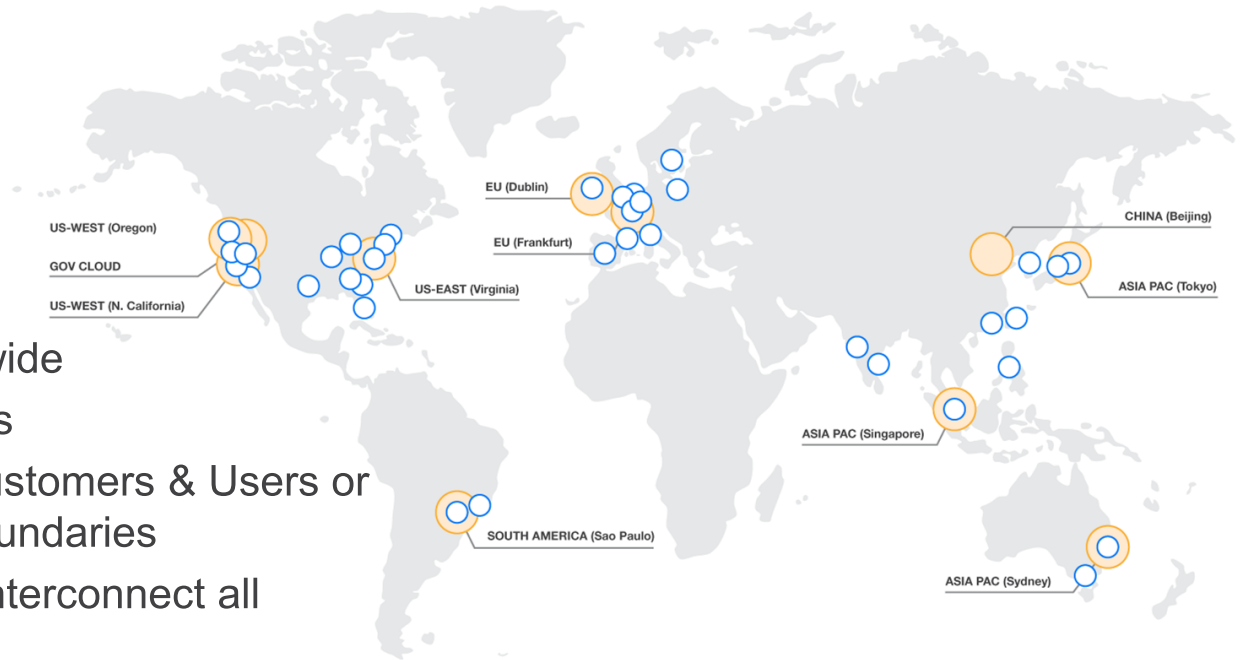


AO Decision

- Identify Cloud Service Provider (CSP) Offering (s) with DoD Provisional ATO (P-ATO) against mission data security requirements
- Select CSP after comparing risk profiles
- Reciprocity: maximize use of existing body of evidence (e.g. scope, testing, results, residual risk)
- Identify and resolve any additional testing requirements
- If risk is acceptable: Issue a Mission Owner ATO, explicitly reflecting acceptance of risk and liabilities in DoD P-ATO for system and mission.



AWS Worldwide Footprint



- 11 AWS Regions world-wide
- 50+ CDN Edge Locations
- Compute & storage to customers & Users or required jurisdictional boundaries
- Private AWS fiber links interconnect all major regions
 - Increased availability, higher performance, lower jitter, & reduced costs



AWS GovCloud Characteristics

- GovCloud designed to handle CUI including ITAR
 - Community Cloud: access controlled, US Persons for physical and logical access to the AWS infrastructure
 - DoD Provisional Authorization for public and sensitive workloads (Impact Levels 4, 5 require NIPRnet connectivity)
- Physically Isolated Region (Oregon)
- 3 Availability Zones
- Separate Isolated Credential Database
- Logical Network Isolation – all users run in Virtual Private Clouds (VPC)
- FIPS 140-2 Validated Hardware & Cryptographic Services for VPNs and AWS Service API End Points



Each day AWS adds the equivalent server capacity to power
Amazon when it was a global, **\$7B** enterprise

(circa 2004)