



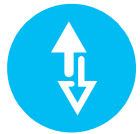
Cloud-First Policies: Status and Outlook

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Cloud? What Cloud?

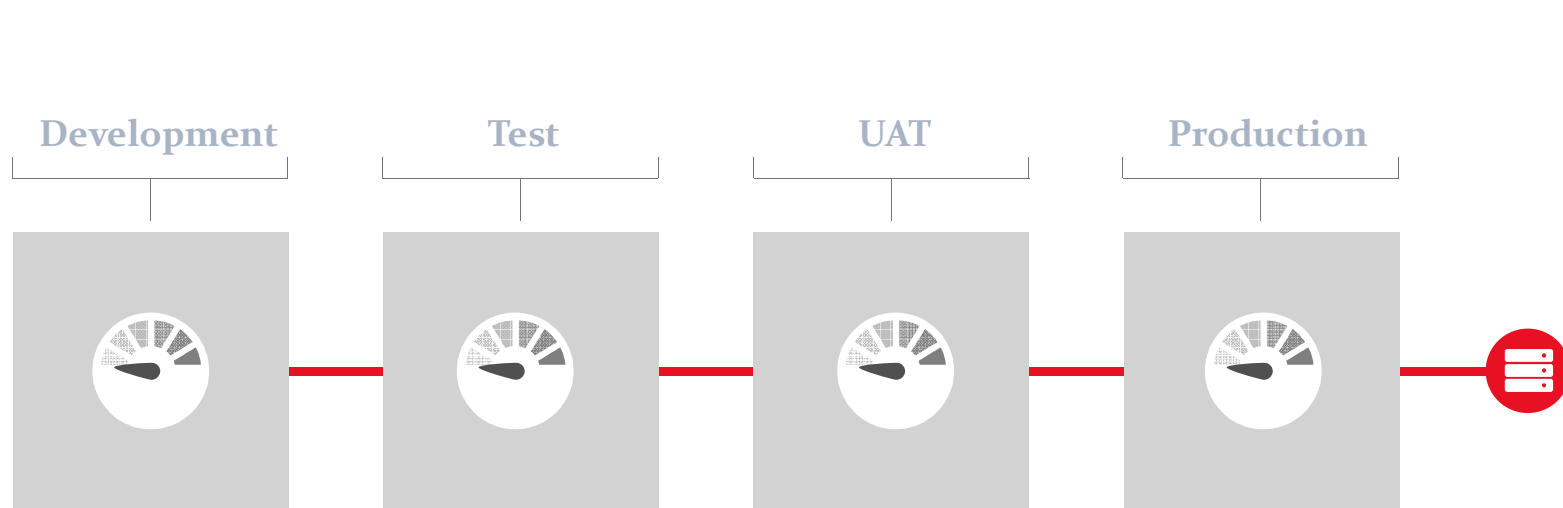


Self Service:
on-demand storage
and processing power.

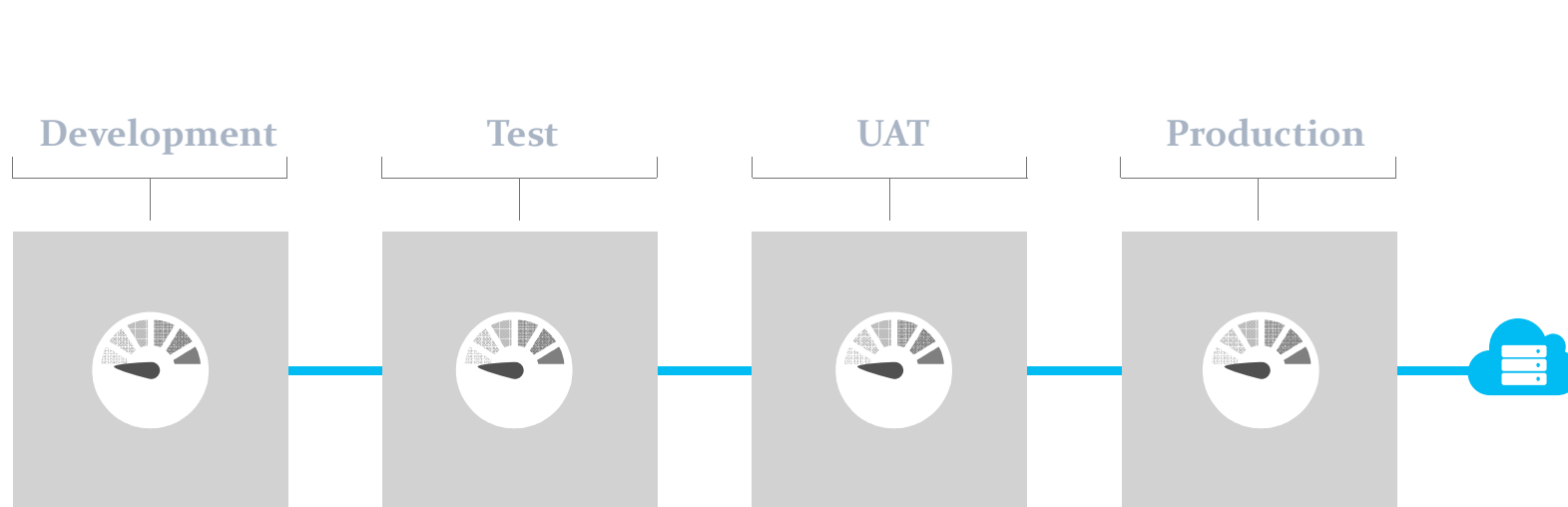


Elasticity:
instant storage, bandwidth
and compute capacity.

The Economic Impact of Self-Service

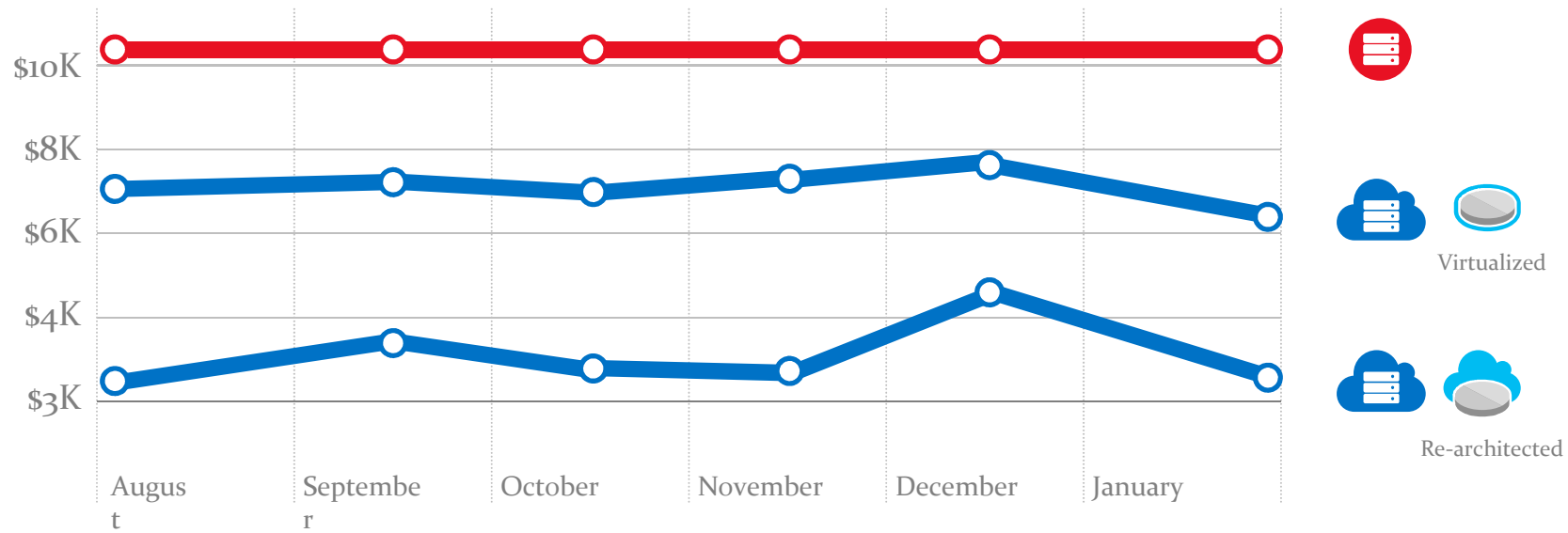


The Economic Impact of Self-Service



The Economic Impact of Elasticity

Actual monthly cost of an LOB app



Cloud is a New Normal. Well, is it?

Organizations that are frozen in the past usually dwell in the illusion that old IT skills and organizational compositions are good-enough in the cloud world as well; virtualized here, virtualized there – the concepts are all the same, what is the big deal? Cloud transformation in such organizations becomes nothing but a lip service (“yes, we can do cloud too”) and is not providing foundational benefits of **infinite scalability, globally resilient workloads and cost-optimized IT platforms.**

-- Miha Kralj, [“From cloud aspiration to cloud competence”](#)

IDC FutureScape: Worldwide Services 2016 Predictions

Prediction 1: By the End of 2016, 40% of Buyers Will Pursue a "Cloud First" Strategy and the Share of Overall IT Budgets Dedicated to Cloud Services Will Increase to 25%

Things to Ponder for Cloud-First Strategy

Cloud Adoption (Security) Frameworks

- Data Governance and Classification scheme

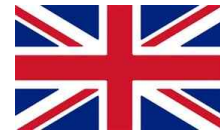
Go to the Ocean instead of captured in an Aquarium

- Very good vs. World-class (hyperscale) datacenter

Cloud-enabled \neq Cloud-optimized

Refocus people and skills for more strategic efforts

Government Security Frameworks



Data Classification

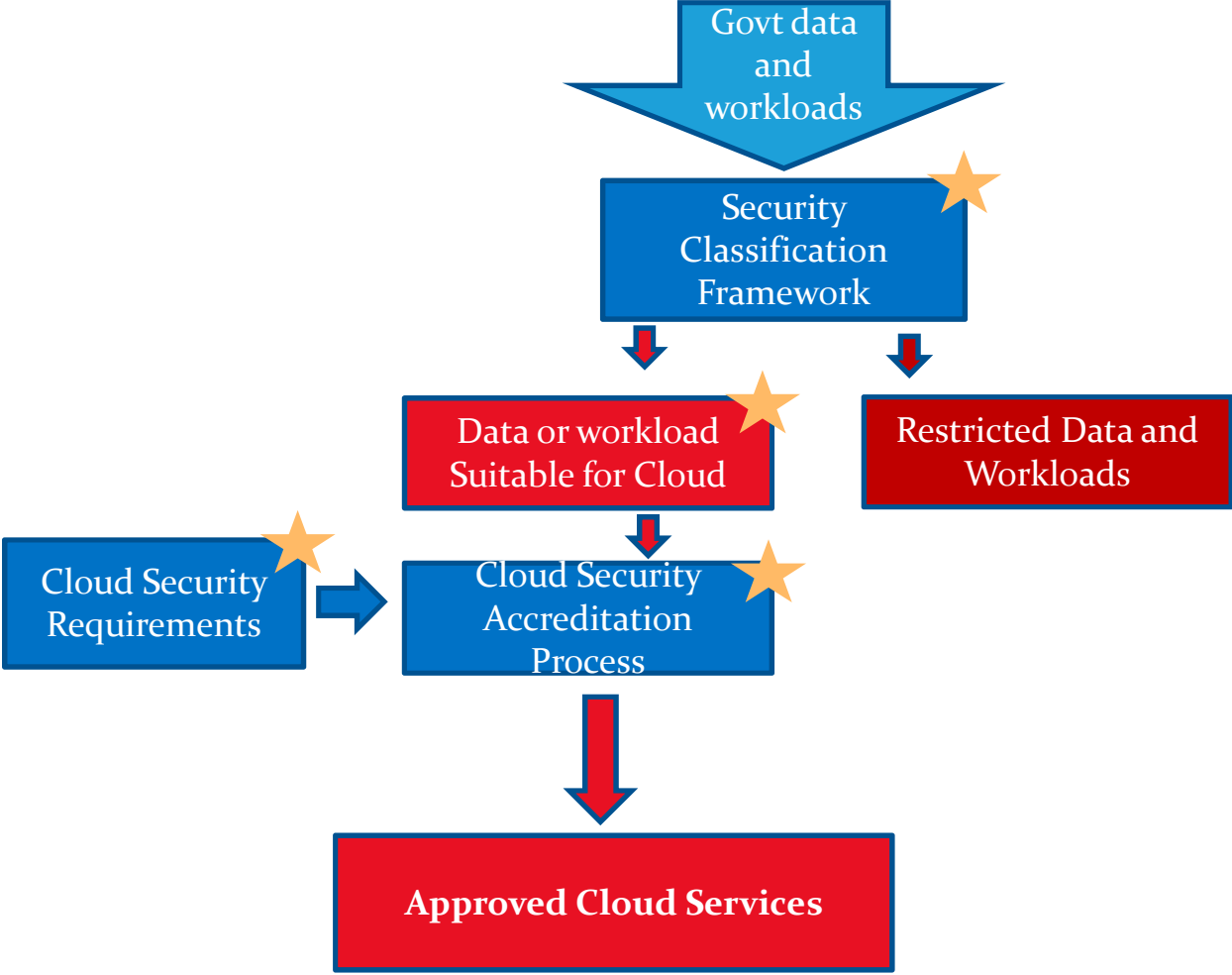
- Responsibly charting a path to the cloud
- Aligning information/systems to appropriate security requirements

Substantive Security Requirements

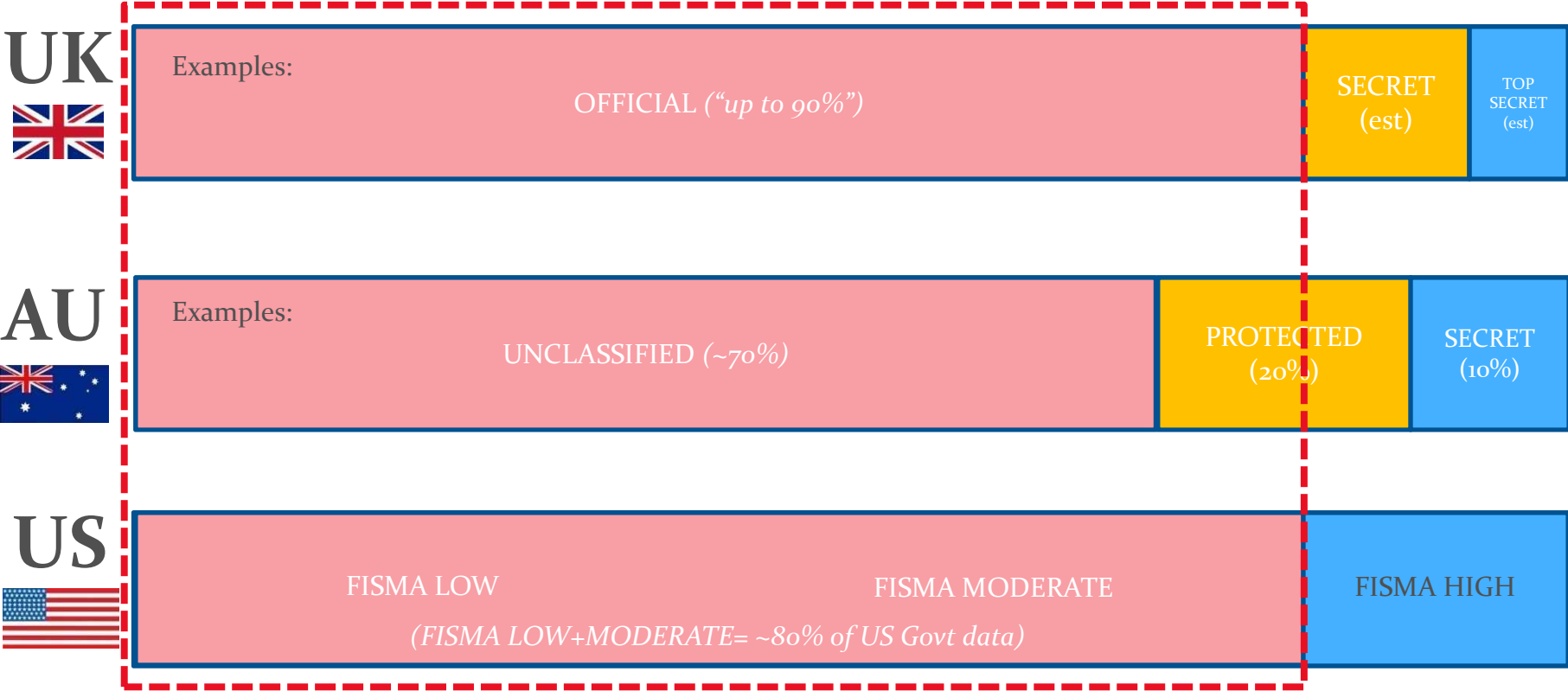
- Unique vs non-unique risks for governments
- The growing role of international standards
- Cost, Security, complexity and other factors

Security Accreditation Process

- Centralized vs distributed decision making
- Proof requirements



Data Classification Comparison



The Ocean vs. an Aquarium

Cloud environments are for **economies of abundance** where resources and services are universally accessible in unlimited quantities.

All in-house environments (private clouds) have to follow the limitations of **economy of scarcity**; they can't offer the paradigm shift that happens in organizations that start using real cloud environments.

The freedom of the ocean can't ever be compared with the freedom of an aquarium.

-- Miha Kralj, ["From Infrastructure Automation to Cloud Capabilities"](#)

Capturing Benefits of Cloud is Hard

Cloud-enabled (easy) vs. Cloud-optimized (hard)

Achieving multi-tenancy is often difficult for even sophisticated IT departments

- If done poorly, it may end up either significantly raising the development costs; or capturing only a small subset of the savings

Stateful programming is considered an anti-pattern in the Cloud environment!

- Almost all apps that depend on internal states should be revised

Capturing Benefits of Cloud

For packaged apps

- Use SaaS offerings that have been architected for scale-out and multi-tenancy

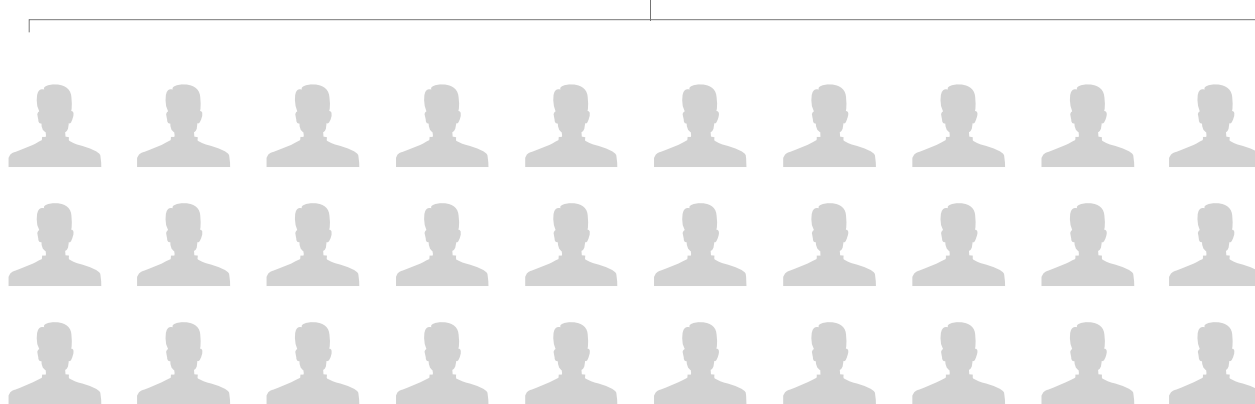
When writing custom apps

- Leverage PaaS offerings
- Make uses of Cloud APIs; avoid traditional APIs!

Refocusing People and Skills



Commodity services
with commoditized skills



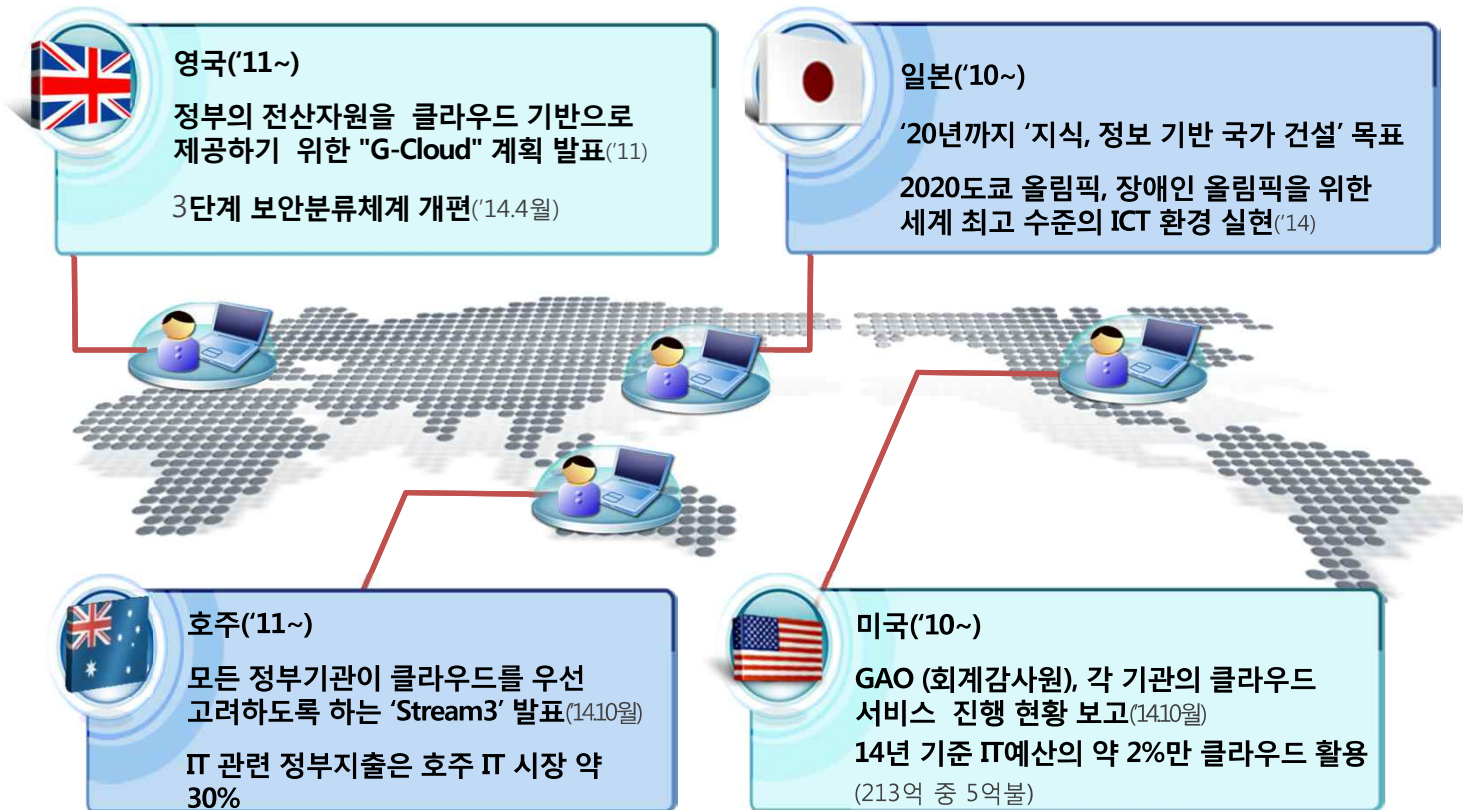
Refocusing People and Skills



Refocused for
strategic efforts



○ 해외정부 클라우드 우선도입 추진현황



공공부문 클라우드 퍼스트, Why and How, 한국정보화진흥원 김은주 팀장님 자료 인용

Korean Gov'ts Cloud-First Policy

대상기관	정보자원 중요도		
	상	중	하
중앙 행정기관	G-Cloud	G-Cloud	G-Cloud 우선
지자체	자체 클라우드	자체 클라우드 민간 클라우드 검토	자체 클라우드 민간 클라우드 검토
공공기관	G-Cloud 자체 클라우드	민간 클라우드 검토	민간 클라우드 우선

시사점

- 공공기관의 특수 경우를 제외하면 민간 클라우드 사용 가능성이 거의 없음
- 망분리 규정에 따라 민간 클라우드 사용이 원천 금지된 환경이 대다수임

Concluding Remarks

Cloud-First policy demands strategic thinking:

- Cloud adoption framework based-on data classification
- Maximizing benefits (self-service, elasticity, hyperscale) while avoiding snags
- Readiness for Cloud-optimized systems and apps
- Refocusing people and skills for more strategic efforts

Korean Government's Cloud-First Policy:

- Complicated by the existence of G-Cloud and network segmentation requirement
- Recommended to adopt a simpler approach based-on data classification scheme only

Thanks!

