

The Opportunities and Challenges of Hosting on the Cloud - 2014



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Overview

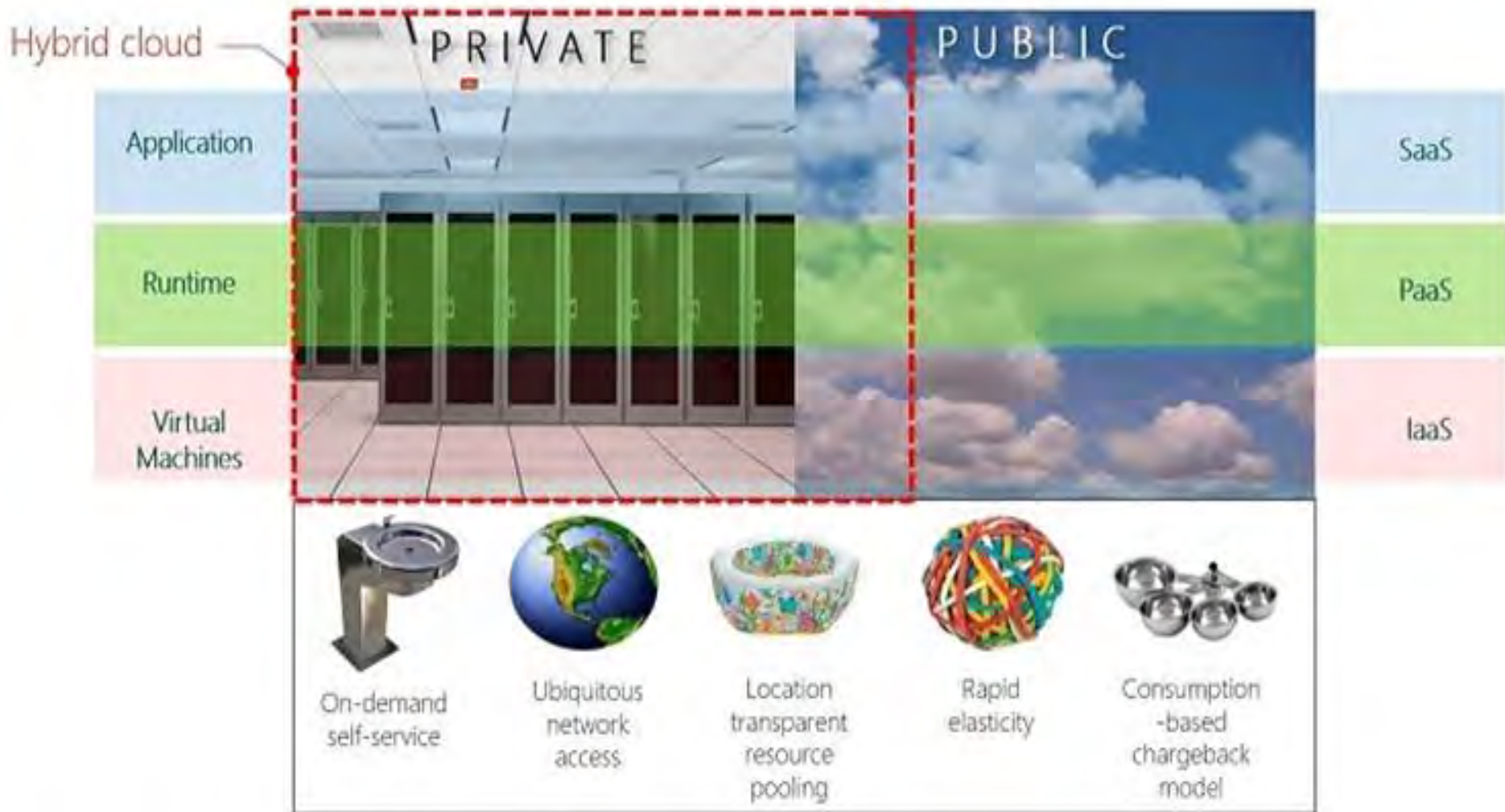
- What is Cloud Computing?
 - Why Cloud?
- Cloud Benefits & Threats
- Cloud Demonstration
- Migration Issues

What is Cloud Computing?

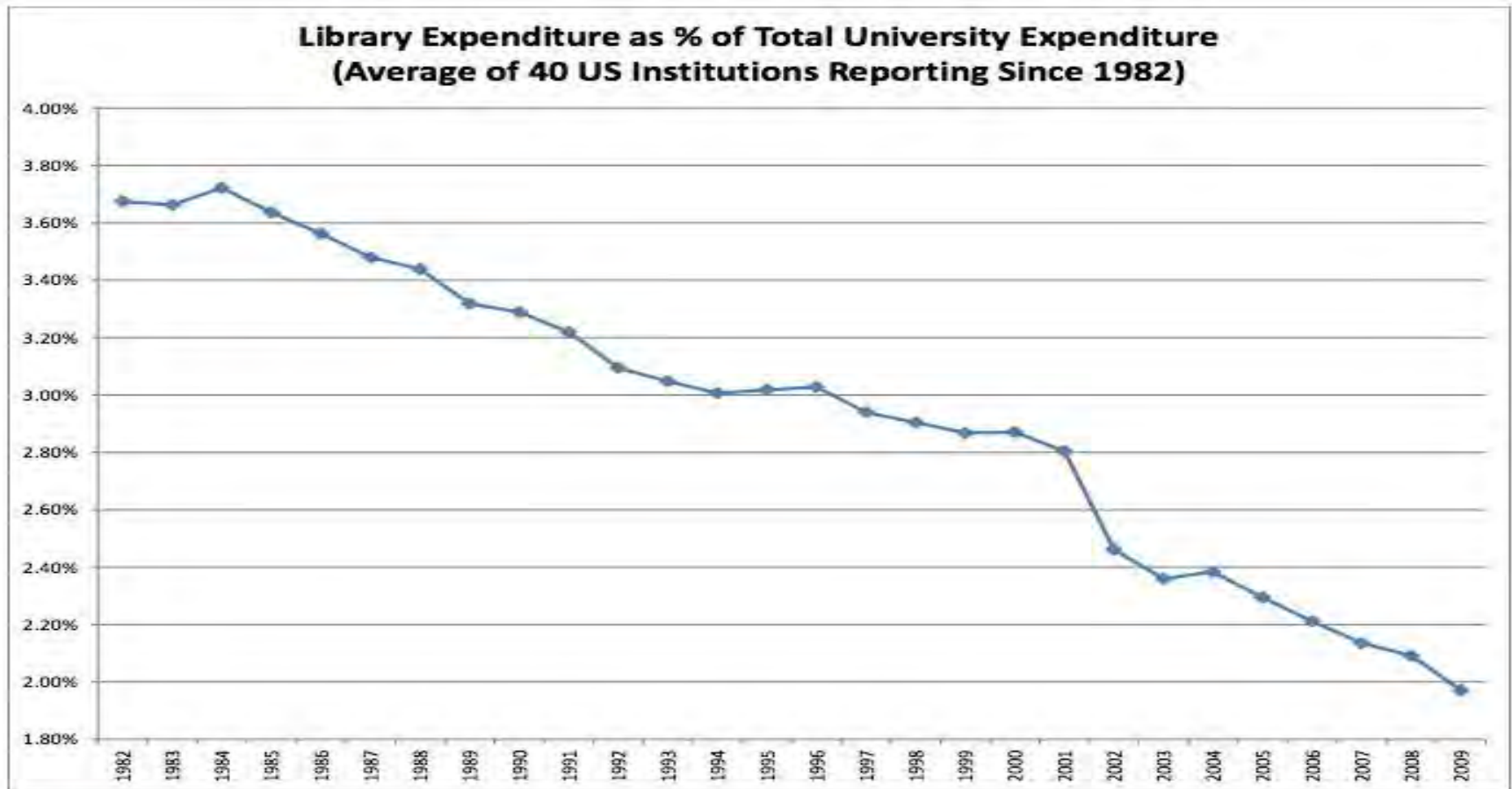
- It is a model for enabling;
 - ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources that can be rapidly provisioned and released with minimal management effort or service provider interaction.
 - This cloud model is composed of five essential characteristics, three service models, and four deployment models

(Mell & Grance, 2011)

The 5-3-2 Principle of Cloud Computing



Why Cloud?

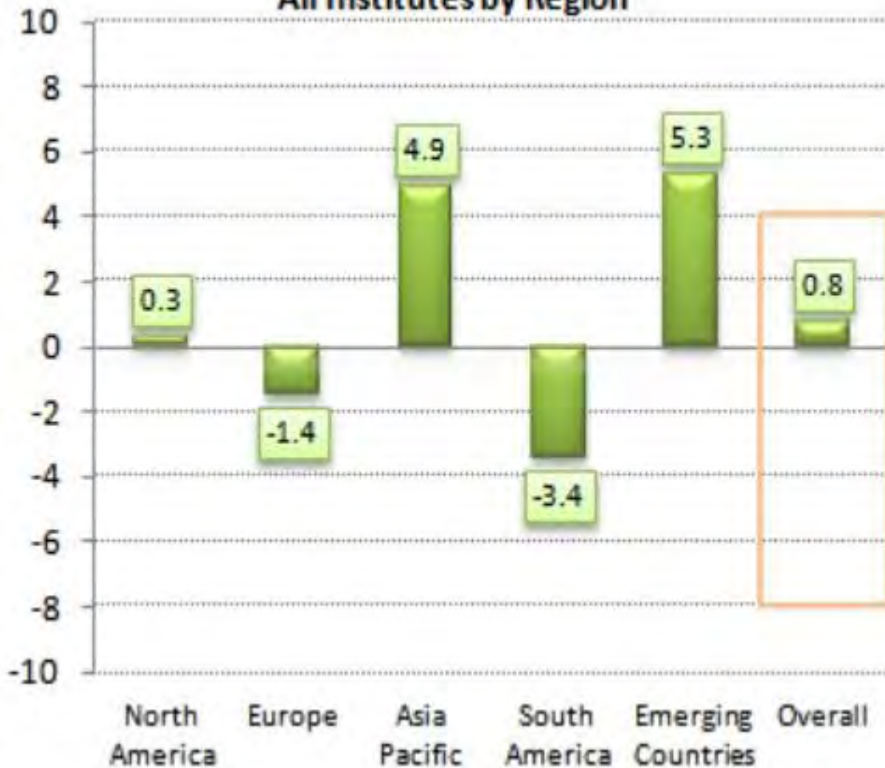


© Association of Research Libraries, 2012

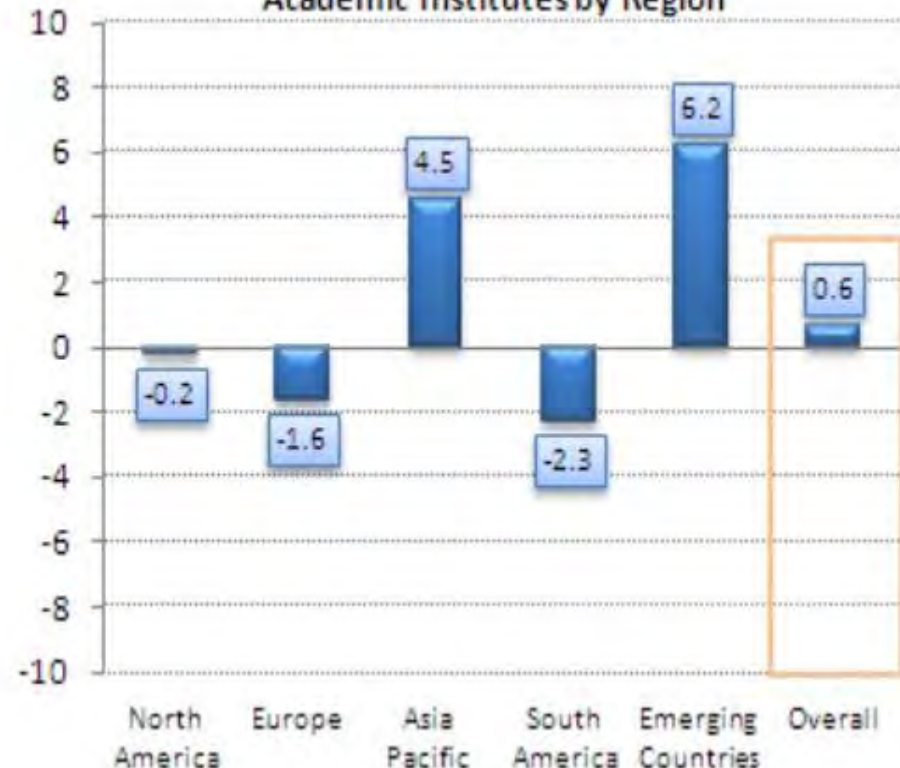
Why Cloud?

Library Projections: 2013

Overall Budget % change -
All Institutes by Region



Overall Budget % change -
Academic Institutes by Region



(PCG Plus Consultancy, 2013)

Why do SMEs Choose the Cloud?

Flexibility
50%

Hardware
Cost Savings
49%

Increased Efficiency
46%

Space Savings
42%

Easy &
Available Updates
38%

Energy Savings
36%

Increased
Productivity
34%

98% of SMEs think that IT is important to success¹

The cloud has given companies the chance to adapt and compete more successfully in a changing market. Several industry estimates suggest that businesses can save around 25% of their IT outgoings, by utilising cloud computing².

So what is the greatest benefit? Flexibility rather than cost savings alone was cited as the primary driver by those responding to the Cloud Industry Forum's research questions³.

Simplified
Infrastructure
32%

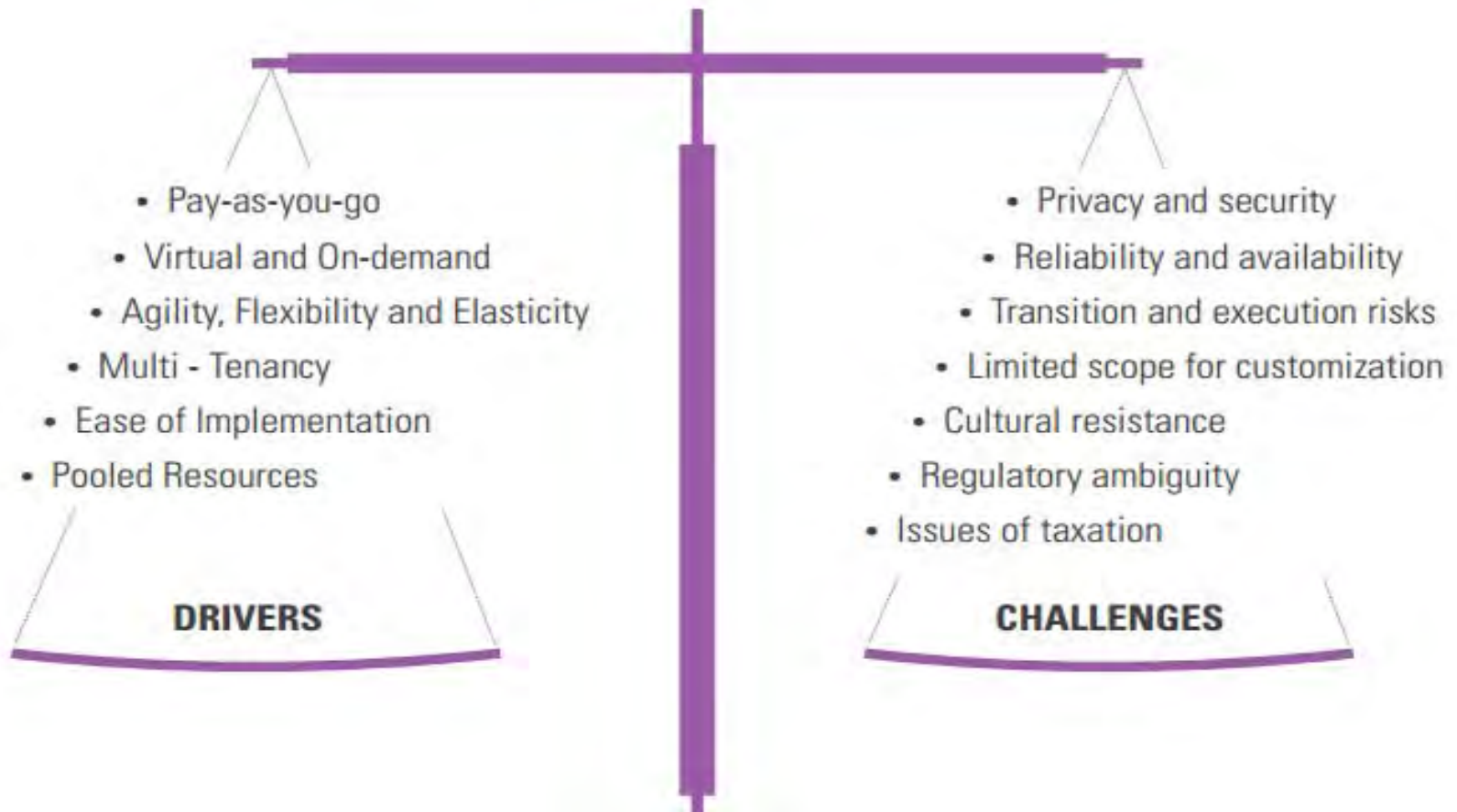
Scalability
32%

Reduced
Integration Issues
23%

Improved
Interoperability
25%

Other
9%

The Cloud: Changing the Ecosystem



(KPMG's, The Cloud: Changing the Business Ecosystem, 2011)

Cloud Demonstration (Amazon AWS)

Get Started for Free

Launch virtual machines and apps in minutes.



AWS FREE TIER

Gain hands-on experience with AWS free for 12 months



WHAT IS AMAZON WEB SERVICES?

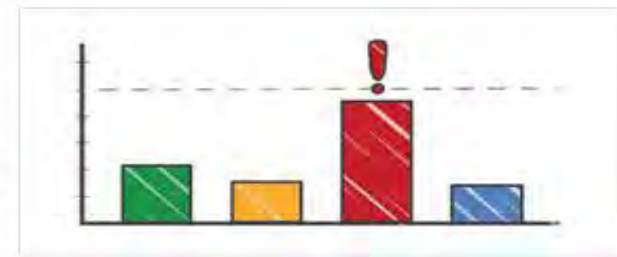
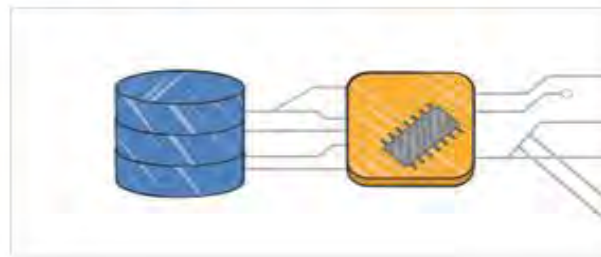
Learn about the AWS platform, products, and services



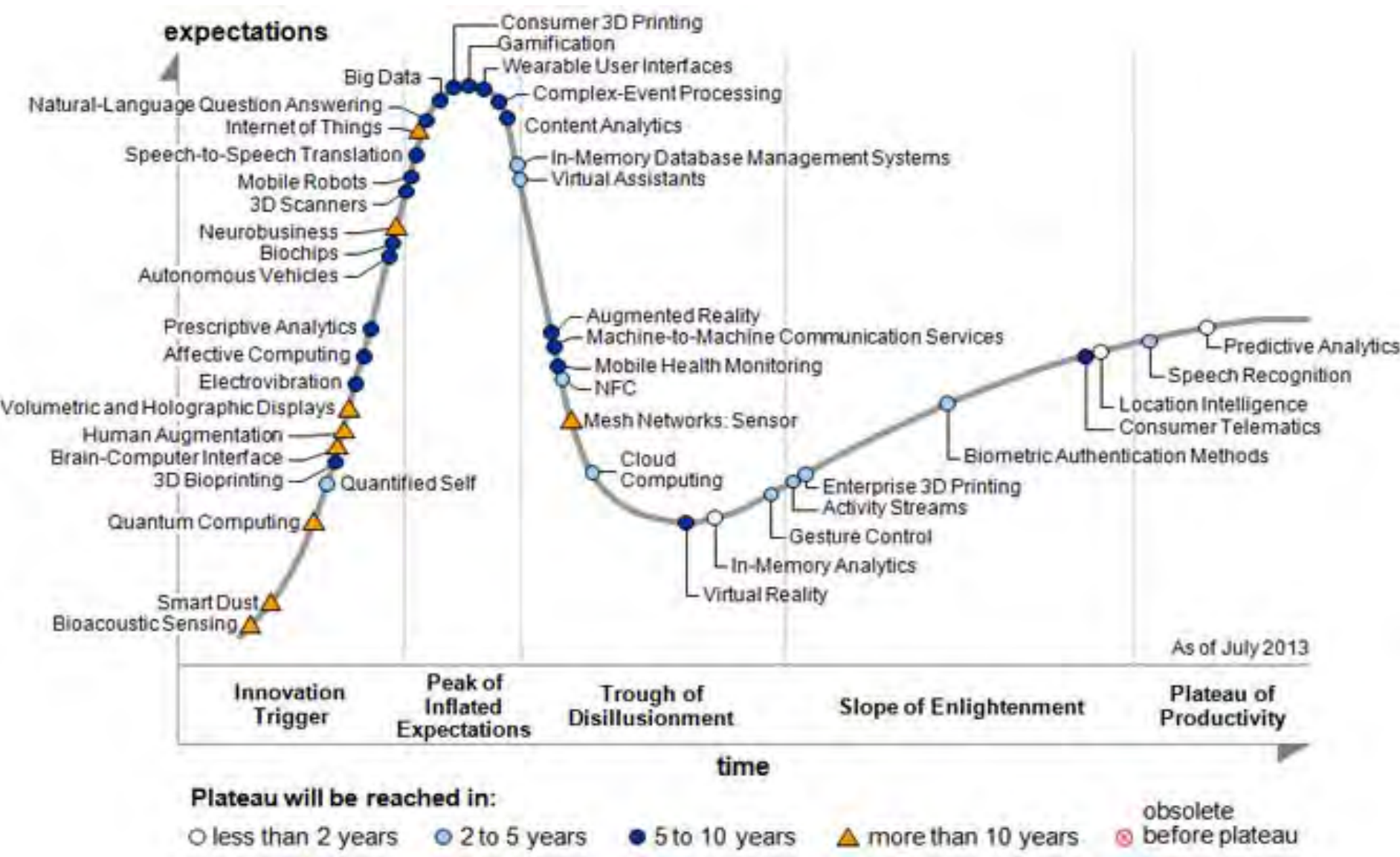
GET STARTED WITH AWS

Learn how to start using AWS in under 15 minutes

What's New with Amazon Web Services



Gartner Hype Cycle August 2013



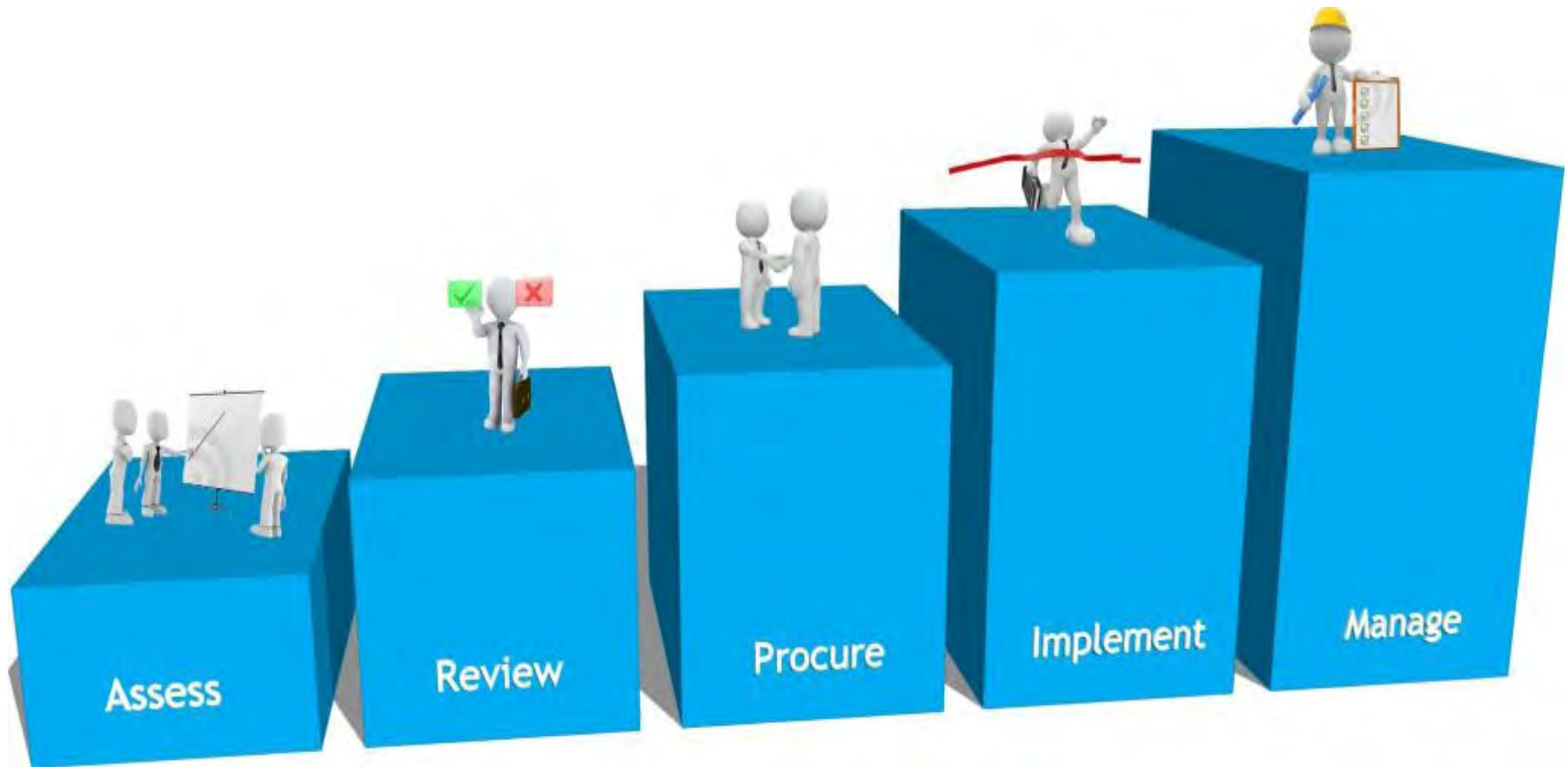
Check List Prior to Cloud Decision

- IaaS & PaaS
 - What are your approximate bandwidth requirements
 - The exact number of CPU cycles you require
 - Amount of storage
 - Redundancy
- SaaS
 - Interoperability
 - Lock in
 - License Agreements
 - Complete Data ownership of traffic

Check List Prior to Cloud Decision

- Ownership of data
- Data privacy and security
- Physical Location of data
- E-Discovery
- Governing laws and jurisdictions
- Forensics and criminal investigations
- Your responsibility for data security
- Your right to audit information security practices
- Service Level Agreements (SLA) - including penalties / compensation
- Insurance and liability
- Exit terms and conditions of cloud service

Cloud Adoption Framework for SMEs



(Cloud Compare, 2014)

Future Discussion

- Will the discussion on Network Neutrality create pinch points in the infrastructure?
 - Negates SLA with Cloud Provider
- Should the role of the Librarians evolve further?
 - gatekeepers for the era of “Big Data”
 - University of Ulster doing research on data obesity in the cloud.
 - No one ever deletes data
 - How will we store it?
 - How will we catalogue it?
 - The Fog (IOT)

Further Reading

- ‘Cloud Computing for Libraries’ – Breeding, M. 2012: Facet Publishing
- KPMG: The Cloud Changing the Business Ecosystem, 2011.
 - http://www.kpmg.com/IN/en/IssuesAndInsights/ThoughtLeadership/The_Cloud_Changing_the_Business_Ecosystem.pdf
- ‘Cloud Computing: Case Studies and Total Costs of Ownership’ – Han, Y., 2011, Information Technology and Libraries

Further Reading

- Sample of the Service Level Agreement between the City of Los Angeles & Google Apps
 - http://clkrep.lacity.org/onlinecontracts/2009/C-116359_c_11-20-09.pdf
- Deloitte Consulting – Cloud Computing Risk Intelligence Map
 - <http://www.isaca.org/Groups/Professional-English/cloud-computing/GroupDocuments/Deloitte%20Risk%20Map%20for%20Cloud%20Computing.pdf>
- Brian Hickey & Damien Kettle – Cloud Demonstration
 - https://www.youtube.com/watch?v=7Yo7_c3_0GM&feature=youtu.be

Our Disaster Recovery Plan Goes Something Like This...



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