

CLOUD 101

LEARNING WHAT YOU NEED TO KNOW ABOUT CLOUD COMPUTING

Cloud is moving from the hypothetical to the reality with many agencies already seeing benefits.

But do you know your cloud ABCs to help your organization make the most of this technology?

No worries, GovLoop is here to help you become a cloud expert.

LESSON 1

DEFINITION OF CLOUD

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. This cloud model is composed of five essential characteristics, three service models, and four deployment models. On-demand self-service. A consumer can unilaterally provision computing capabilities, such as server time and network storage, as needed automatically without requiring human interaction with each service. Broad network access. Capabilities are available over the network and

OR...

A NETWORK OF SERVERS THAT ARE ACCESSIBLE VIA THE INTERNET

LESSON 2

CLOUD BUILDING BLOCKS

4 Cloud Deployment Models



Private

An on- or off-premise cloud that is operated only for an organization, which a group or vendor may manage.



Community

Several organizations with common concerns such as policies or security requirements share the infrastructure.



Public

The infrastructure is available to the public and owned by a cloud service provider (CSP).



Hybrid

A combination of public, private, and community clouds that are accessed separately but share standardized or proprietary technology.

3 Service Models

SOFTWARE AS A SERVICE (SAAS)

Consumers run programs on a cloud platform that is completely managed by the CSP.



PLATFORM AS A SERVICE (PAAS)

Applications and data are still managed by the consumer, but the CSP takes responsibility for everything else, including operating systems and architectures.



INFRASTRUCTURE AS A SERVICE (IAAS)

Applications, data, and operating systems are managed by the consumer, while the CSP manages networking, storage, and virtualization.



LESSON 3

CLOUD BENEFITS



EFFICIENCY

Systems are consolidated in a high-capacity environment



COST-SAVINGS

Consumers pay-per-use for technologies built and maintained by CSP

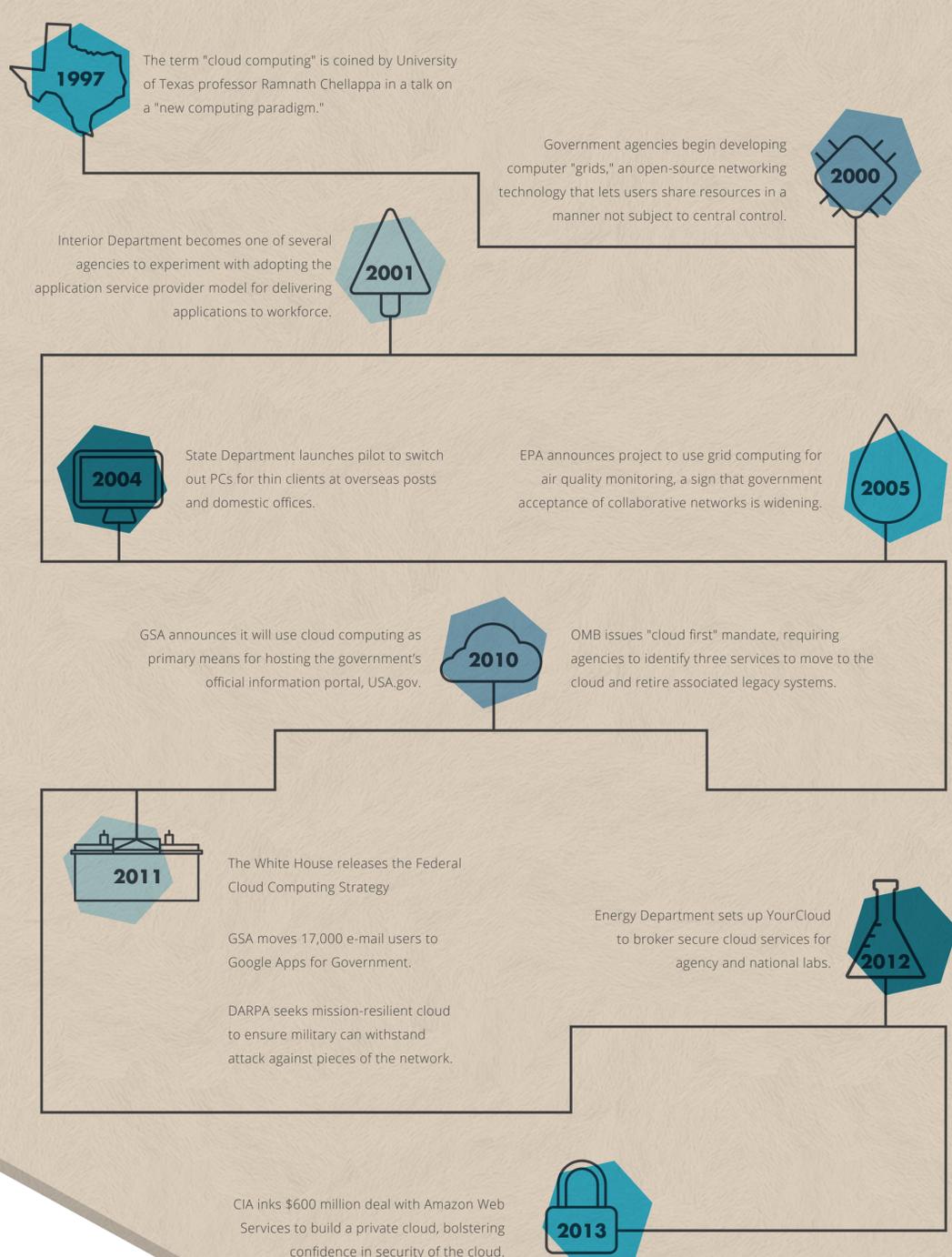


AGILITY

Services are scalable and easily altered without changing hardware

LESSON 4

GOVERNMENT CLOUD MILESTONES



LESSON 5

GOVERNMENT CLOUD LEADERS



OMB



DOD



DHS



GSA



STATE OF OHIO



OAKLAND COUNTY, MI

LESSON 6

REQUIRED READING

1 US Government Cloud Computing Technology Roadmap Volume I

<http://nvlpubs.nist.gov/nistpubs/SpecialPublications/NIST.SP.500-293.pdf>

2 Federal Cloud Computing Strategy

https://www.whitehouse.gov/sites/default/files/omb/assets/egov_docs/federal-cloud-computing-strategy.pdf

3 How Cloud is Reinventing Government

<https://www.govloop.com/resources/how-cloud-is-reinventing-government-new-guide/>

4 Your Guide to Using Everything-as-a-Service

<https://www.govloop.com/resources/guide-using-everything-service/>

SOURCES:

NIST
<http://csrc.nist.gov/publications/nistpubs/800-145/SP800-145.pdf>
Cloud Times
<http://cloudtimes.org/glossary/>
FedRAMP
<http://www.fedramp.gov/>
MeriTalk
<http://meritalk.com/cloud-without-commitment>
CDW
<http://www.cdwnewsroom.com/2013-state-of-the-cloud-report/>
GCN
<http://gcn.com/articles/2013/05/30/gcn30-timeline-cloud.aspx>

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