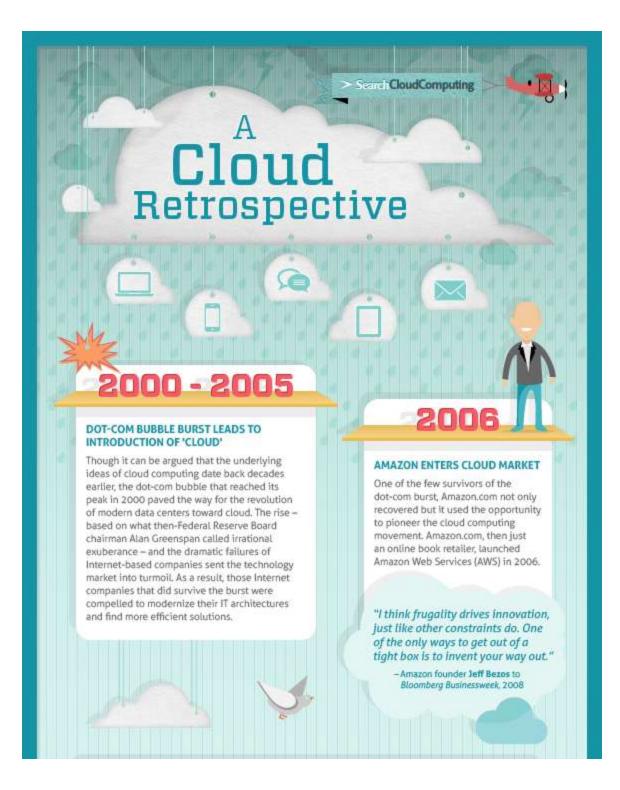INFOGRAPHIC

Cloud computing timeline illustrates cloud's past, predicts its future

- Caitlin White, Site Editor
  Reprints

To understand where you're going, it always helps to look where you've come from. Cloud computing has come a long way since its inception, when Amazon was still only known for selling books and movies, Myspace was considered "cloud," and experts argued on the true definition of cloud computing -- though the latter can still be true. By delving into this cloud computing timeline, IT pros can learn from past ups and downs and have a clearer idea of where the cloud market is heading -- though, of course, there are always unforeseen hiccups that can alter its course, such as the PRISM scandal. This cloud retrospective aims to give a high-level view of cloud's history and question what that means beyond 2014.

A
Cloud
Retrospective

2000 - 2005

DOT-COM BUBBLE BURST LEADS TO INTRODUCTION OF 'CLOUD'

Though it can be argued that the underlying ideas of cloud computing date back decades earlier, the dot-com bubble that reached its peak in 2000 paved the way for the revolution of modern data centers toward cloud. The rise – based on what then-Federal Reserve Board chairman Alan Greenspan called irrational exuberance – and the dramatic failures of Internet-based companies sent the technology market into turmoil. As a result, those Internet companies that did survive the burst were compelled to modernize their IT architectures and find more efficient solutions.

2006

AMAZON ENTERS CLOUD MARKET

One of the few survivors of the dot-com burst, Amazon.com not only recovered but it used the opportunity to pioneer the cloud computing movement. Amazon.com, then just an online book retailer, launched Amazon Web Services (AWS) in 2006.

"I think frugality drives innovation, just like other constraints do. One of the only ways to get out of a tight box is to invent your way out."

– Amazon founder **Jeff Bezos** to *Bloomberg Businessweek*, 2008

2007 - 2008

THE MARKET DISAGREES IN UNDERSTANDING CLOUD

"Is this cloud thing really any different than the things that we've known in the past? The answer is absolutely and resoundingly 'yes.'"

– **Ray Ozzie**, Microsoft chief software architect, October 2008

"Even if someone builds the Cadillac of cloud services, they'll be out of business within a year."

–Windows expert **Mark Minasi**, December 2008

"What would you do for your business if you were running a small company and had no IT budget in place? ... They'll fight [cloud] at first, then wonder why you were gouging them for so many years prior to the cloud solution."

– **Harold Mann**, co-founder and president of Mann Consulting, October 2008

"Bad news for people who hate buzzwords: Another big-time IT vendor is getting into cloud computing."

– **SearchWinIT.com** staff, May 2008

2008

MAY 2008

CLOUD MARKET EXPANDS AS MORE VENDORS JOIN

"Google's in the cloud (didn't Google once just search the Web?), Amazon is in the cloud (didn't it once just sell books?), Microsoft is in the cloud, Cisco Systems is in the cloud, Myspace is in the cloud."

– **Carl Brooks**, analyst at 451 Research and former SearchCloudComputing contributor

2008 - 2009

SEPT 2008 - OCT 2009

IT ATTENTION SHIFTS TO EMERGING 'PRIVATE CLOUDS'

Capitalizing on enterprise IT's fears of data security, Microsoft, Rackpace and other vendors position their services toward 'private cloud' – but some IT shops take it upon themselves to shape their own internal clouds.

"There's no way we'll ever use a public cloud, but maybe we can adopt some of these concepts for a private cloud."

– A database engineer at the **Federal Reserve Bank**, October 2009

2009 - 2010

THE OPEN SOURCE CLOUD MOVEMENT TAKES HOLD

EUCALYPTUS, MAY 2009

Dr. Rich Wolski of UC-Santa Barbara creates the Elastic Utility Computing Architecture for Linking Your Programs To Useful Systems (EUCALYPTUS). EUCALYPTUS is open source software compatible with Amazon EC2 and using AWS APIs. It's described as a 'turnkey data center' for companies wanting a private cloud.

"We don't believe there is a real second alternative [to EUCALYPTUS] in the open source world today."

— NASA chief technology officer **Chris Kemp**

OpenStack, JULY 2010

Rackspace teams up with NASA to launch open source cloud platform OpenStack.

"OpenStack offers the promise of do-it-yourself clouds in a secure, private test lab before moving to either private cloud or public cloud, along with insight into the real security issues behind cloud computing and Infrastructure as a Service. OpenStack has been hailed as the most significant development in cloud computing to date. What doesn't it offer? A tie-in to the No. 1 cloud provider, Amazon, for one. For that, you'd have to turn to EUCALYPTUS."

— **Joseph Foran**, SearchCloudComputing, contributor, 2008

2009 - 2012

CLOUD COMPUTING FINDS ITS NICHE

Cloud computing picks up in acceptance in the enterprise and small businesses, but Amazon rises to the top among its competitors with high-profile clients and successes, including Netflix, which joined AWS in 2009, the Obama for America team and the partnership with NASA for the Mars Curiosity Rover landing in 2012.

"Netflix made $600 million in profit on $1.6 billion in sales last year. Based on those numbers, it can claim to be the largest commercial operation in the cloud. Wall Street thinks Netflix is worth $8 billion; if you had bought the stock at the IPO seven years ago, you'd be 1,000% richer by now."

— **SearchCloudComputing** staff, October 2010

@jorke Excuse my ignorance of the US electoral system, but did he say #aws is responsible for Obama winning? #reinvent

2011

HYBRID CLOUD IS BORN

Hybrid cloud, which combines public and private cloud environments, is introduced conceptually. While true hybrid clouds require interoperability and the ability to move workloads between the two clouds as needed, few enterprises have reached this point of deployment.

"Even clients pessimistic about today's capabilities in public cloud agree that in the next two to three years, hybrid cloud architecture will be the target environment."

— BMC Software's CTO **Kia Behnia**, 2013

2012 - 2013

HOW CLOUD COMPUTING IS VIEWED TODAY

Increased acceptance of cloud computing has led to the rise of IaaS and PaaS, and no surprise, Amazon is still at the top. The many acquisitions of smaller, innovative cloud providers by larger vendors has created what some call a stagnant market – but how else can vendors try to buy themselves into competition with AWS? And will the collapse of Nirvanix be the canary in the coal mine for IaaS? Meanwhile, cloud adopters are building more complex environments, focusing on building hybrid clouds to capitalize on security and control while also seeing the benefits of public cloud and creating multicloud architectures.

2012

67%

Approximately **67%** of respondents reported they use some form of cloud services, while...

7%

7% of respondents do not use cloud services, but plan to, and...

26%

26% of respondents do not use cloud services at this time.

2013

Respondents were asked:
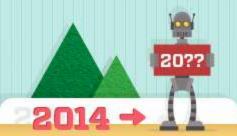**Which principal cloud IT services model are you currently using?**

22%

Private cloud

40%

Public cloud

39%

Hybrid cloud

20??

2014 →

WHERE IS CLOUD GOING?

As cloud computing continues to make inroads in enterprises, IT pros are looking to the future evolution of the model. The National Security Agency and PRISM scandal awoke a stagnant security industry, and it could be the mother of invention for more innovative cloud privacy services. Meanwhile, high-performance computing and software-defined networking could shape where cloud is going. And, can anyone take down Amazon Web Services?

For up-to-date news, analysis and advice on cloud computing, visit
SearchCloudComputing.com.

Cloud computing timeline references

The market disagrees in defining cloud: VMware jumps onto cloud bandwagon; Solution providers play advisory role in cloud computing model; Minasi says cloud computing is rife with flaws; Tech Watch: Cloud computing services

Cloud market expands as more vendors join: VMware jumps onto cloud bandwagon; Atempo, Nirvanix offer cloud-based file archiving; Up, up and away: Oracle heads for the clouds; Microsoft Azure Platform moves Windows to Compute Cloud; Google et al. pitch cloud computing to wary IT pros; Rackspace attempts to retool hosting into cloud; Red Hat CTO elaborates on lofty 'cloud' vision; VMware unveils cloud computing vision with new Virtual Datacenter OS

IT attention shifts to emerging private clouds: Microsoft positions virtualization in the private cloud; IT shops shaping 'internal clouds'; Rackspace pitches pricey private cloud

The open source cloud movement takes hold: Eucalyptus hopes to keep open source ball rolling from academia to enterprise; Rackspace and NASA launch free cloud software; Comparing open source cloud platforms: OpenStack versus Eucalyptus

Cloud computing finds its niche: Netflix now the largest commercial operation in the cloud; Seven minutes of terror in cloud performance testing

Hybrid cloud is born: Hybrid cloud computing explained; Dow Jones pushes limits of hybrid cloud; Hybrid cloud: The best of public and private clouds

Where is cloud going? HPC systems: Out of the lab and into the enterprise; Cloud across borders: Best practices for global cloud privacy and security; NSA scandal serves as mother of invention for cloud privacy industry

http://searchcloudcomputing.techtarget.com/feature/Cloud-computing-timeline-illustrates-clouds-past-predicts-its-future?asrc=EM_NLN_26009358&utm_medium=EM&utm_source=NLN&utm_campaign=20140107_Infographic%20delves%20into%20cloud?s%20past,%20looks%20to%20future_ahughes&track=NL-1814&ad=891065