Cloud Computing - The Basics



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Overview



What is it?

Traits of a Cloud

Benefits of Cloud Computing

Risks of Cloud Computing

Many Forms of Cloud Computing

History of Cloud Computing

Demo - Cloud Computing in Action



Cloud Computing Is...

On demand computing resources, delivered to you over the Internet

A computing service you traditionally did local (onpremises), now performed remotely, across the Internet (off-premises)



According to VMware...

Cloud computing is an approach to computing that leverages the efficient pooling of an on-demand, self-managed, virtual infrastructure."



Traits of a Cloud

Elastic

Scales up or down quickly

Metered

Pay only for what you use

Self-Service

No (or reduced) need for IT Experts



To Understand Cloud Computing You Must be Able to Answer These Questions

Where are my applications running?

Where is my data stored?

Who am I paying for those services?



Benefits of Cloud Computing

Fast access to resources or applications you or your company needs

Only pay for what you use

No capital expenditure to get started

Potential to eliminate the need for local IT staff to maintain infrastructure and applications

Potential to lower costs

Deploy what you need, yourself, with selfservice

Allow IT staff to instead focus on the business



Risks of Cloud Computing Placing your trust in the cloud provider

Potential for data loss

Potential for slow access to your data

Potential questions related to legal/regulatory

Potential for loss of customization

Potential for unknown costs



Cloud Computing Comes in Many Forms...



Software as a Service





Infrastructure as a Service





Platform as a Service





(everything) as a Service (?aaS)





History of Cloud Computing

"The more things change, the more they stay the same"

French proverb, later said by Kurt Russell (aka Snake Pliskin) in "Escape from LA"



What has Cloud been called in the past?

Centralized computing

Grid computing

Distributed computing

On-demand computing

Hosting

Application service provider (ASP)



History of Cloud Computing

1950 - 1960's

Mainframe computing Central computer with dumb terminals

1970

First Virtual Machine (not in the cloud)

1990's

The Cloud

Numerous Cloud Computing advances and the term begins to be used

1960 - 1980's

ARAPNET, TCP/IP, and Compuserve

1990's

Virtual Private Networks
Telecom offers VPNs

1999

SalesForce.comThe first SaaS



History of Cloud Computing

2006

Amazon.com

Amazon launched their EC2 laaS as a beta

2008

Microsoft Azure

Azure laaS were announced

2016

AWS EC2 Revenue

As of 2016, Revenue now \$12.22 Billion

2006

Google Docs

Google Docs was launched



Google Compute Engine

GCE laaS released to GA

2017

SalesForce Revenue

As of 2016, Revenue now estimated to be over \$8 Billion



Demo



Cloud Computing in Action....



Summary



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