Cloud computing



Plan

- History
- Cloud Concepts
- Current Solutions
- Pros and Cons

Definition

"Cloud computing is a concept used to describe a variety of computing concepts that involve a large number of computers connected through a real-time communication network such as the Internet. [...]"

from Wikipedia.org

History

1950:



History

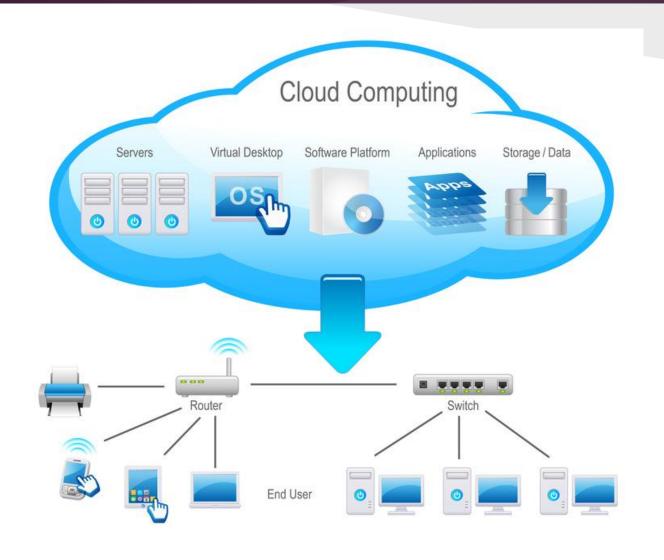
2000:



Cloud Concepts

- 1. The use of cloud computing
- 2. Cloud technologies
- 3. Cloud services
- 4. Cloud accessibility

The Use of Cloud Computing



Cloud Technologies



- Giant data centers
- Grid computing
- InterCloud



Cloud Services

Cloud Clients

Web browser, mobile app, thin client, terminal emulator, ...



SaaS

CRM, Email, virtual desktop, communication, games, ...

Application

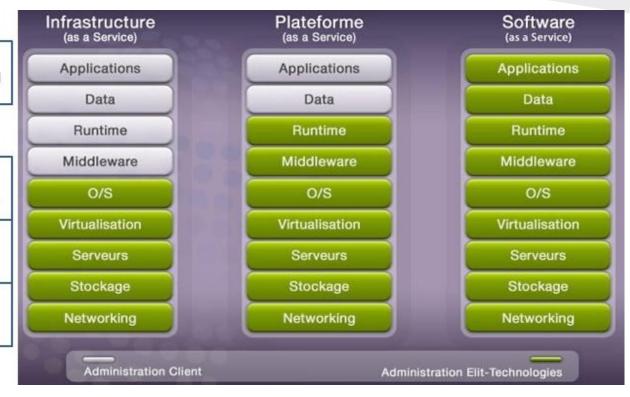
Platform

PaaS

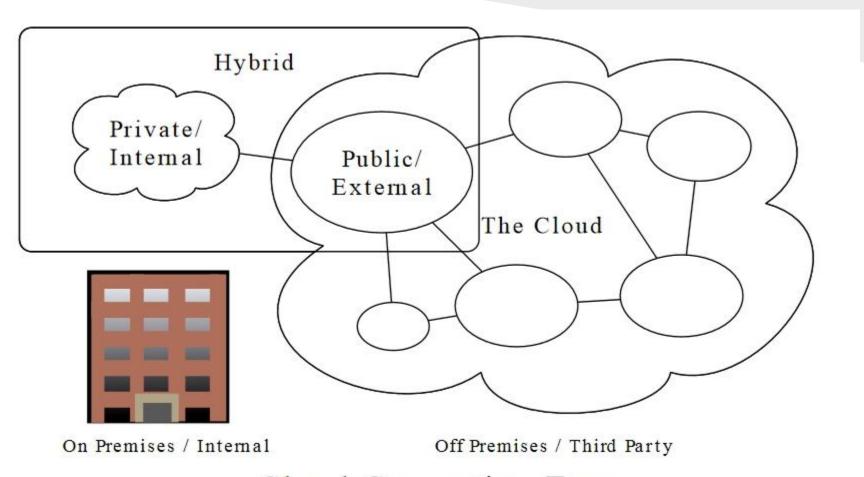
Execution runtime, database, web server, development tools, ...

laaS

Virtual machines, servers, storage, load balancers, network, ...

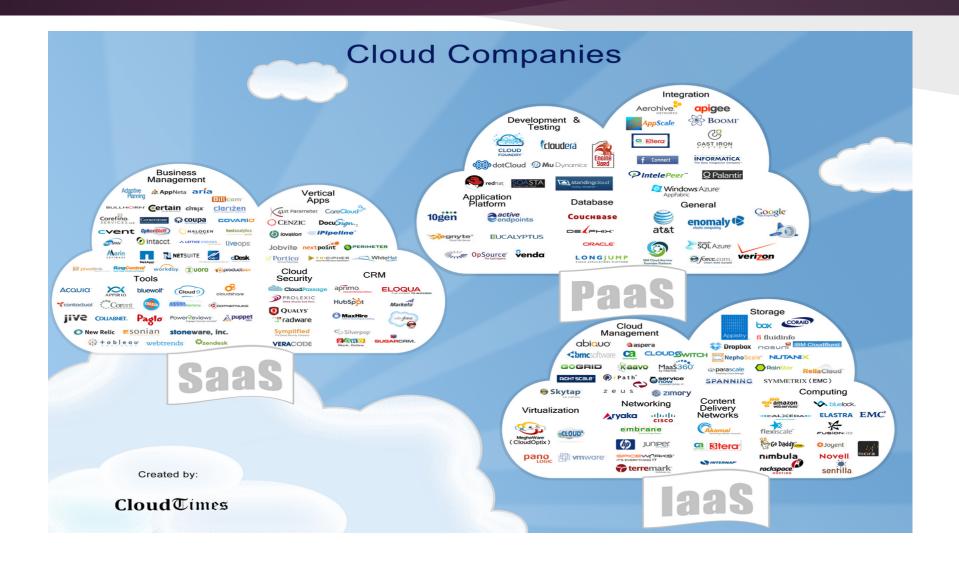


Cloud Accessibility



Cloud Computing Types

Current Solutions



NVIDIA (Cloud Gaming)



Pros and cons



- 1. Powerful
- 2. Provide easy access
- 3. Easy to deploy
- 4. Freedom
- 5. Cost



- 1. Security
- 2. Control
- 3. Reliability
- 4. Privacy/Confidentiality

How to secure the cloud



Deterrent controls

Preventive controls





Corrective controls

Detective controls



Legislation

Who is responsible for the data?



Conclusion



In which decade was the concept of cloud computing invented?

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Which cloud service provides operating systems and databases?

A - IaaS

B - PaaS

C - SaaS

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What is the name of multiple clouds with different accessibility bound together?

A - Inter Cloud

B - Mixed Cloud

C - Hybrid Cloud

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Which one is an advantage of cloud computing?

A - Security

B - Cost

C - Privacy

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Which one of these security controls do NOT reduce the actual vulnerability of cloud computing?

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Who is usually responsible for data hosted on clouds?

A - The customer

B - The cloud provider

C - The government

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Link each service with the correct layer:

IaaS

VPN

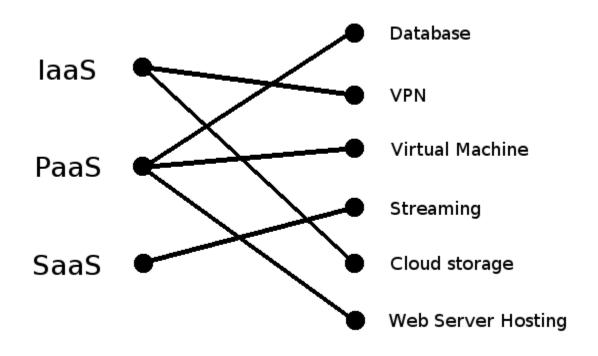
PaaS

Streaming

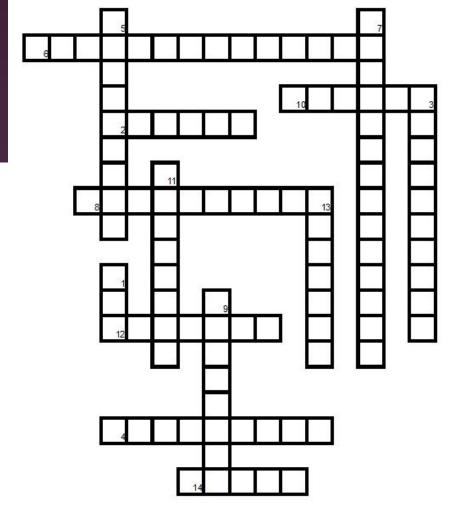
Cloud storage

Web Server Hosting

Link each service with the correct layer:



Complete the crossword:



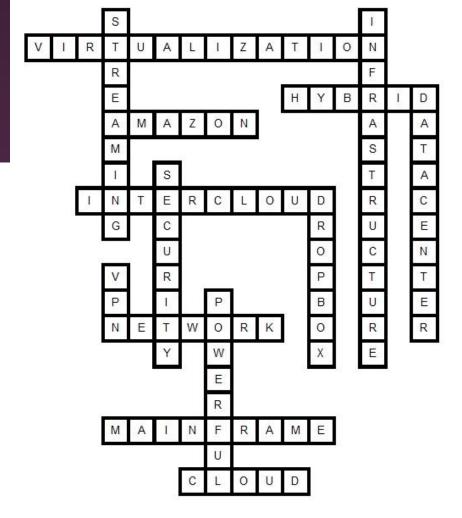
Vertical:

- 1. virtual private network
- 3. where cloud hardware is
- 5. VOD system
- 7. lowest level of cloud services
- 9. cloud advantage
- 11. cloud disadvantage
- 13. popular cloud storage

Horizontal:

- 2. first cloud provider
- 4. first large-scale computer for clouds
- 6. cloud partitioning process
- 8. cloud of clouds
- 10. cloud with different accessibility levels
- 12. cloud infrastructure
- 14. fluffy thing in the sky

Complete the crossword:



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