


What's “the Cloud”?

JUNE 17, 2015

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Purpose

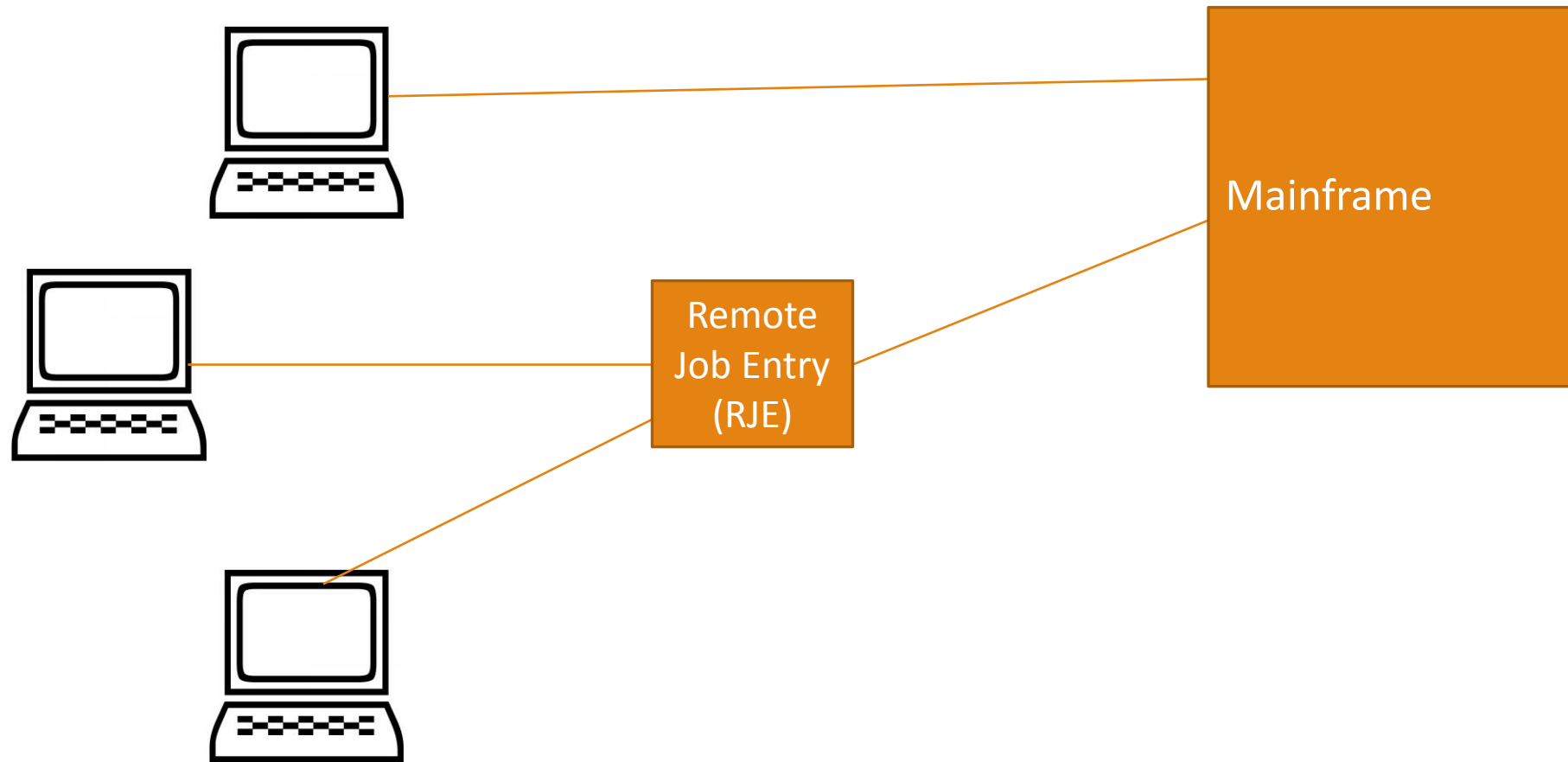
Thought provoking about what it means to use the Cloud.

- Historical basis and evolution to Cloud computing

Computer Room in the 70's



1970's Configuration (Timesharing)



Contractual Outsourcing in place



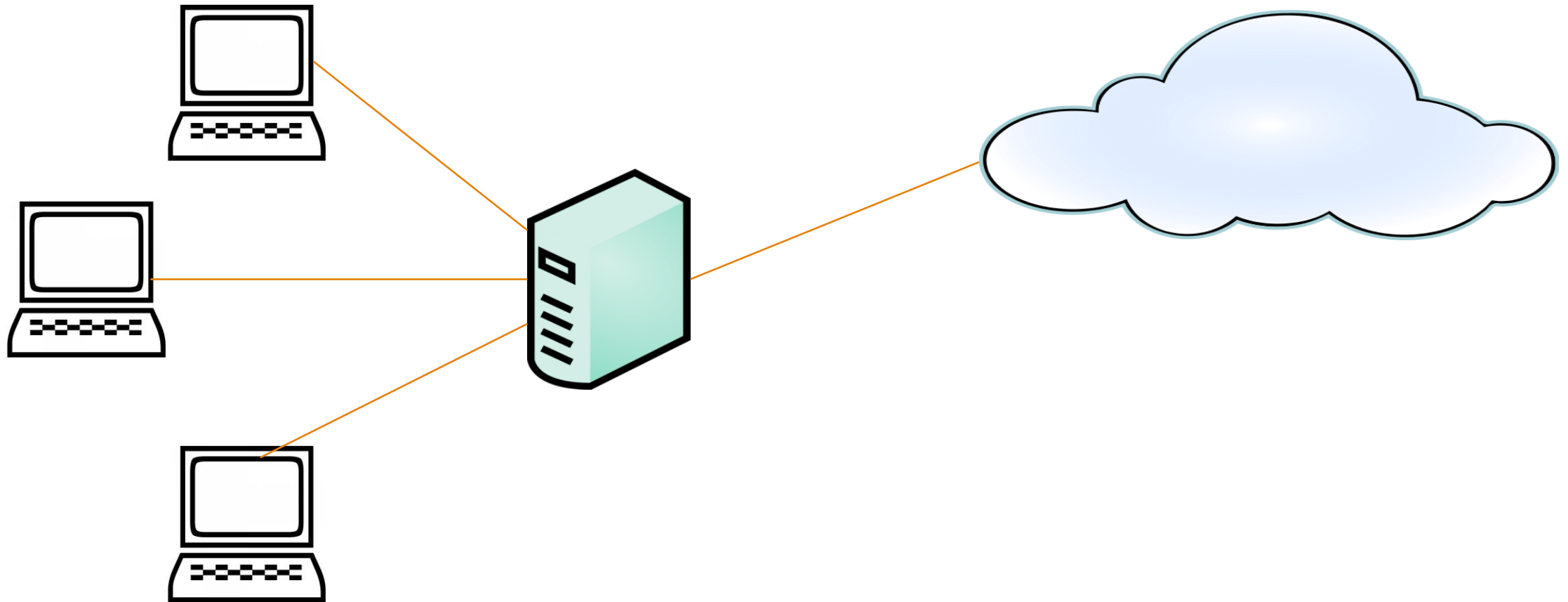
Contractual Outsourcing to Data Center based on Service Level Agreements (SLAs) 1990's



x10426842 fotosearch.com

Application Developer perspective

The Cloud as a Metaphor



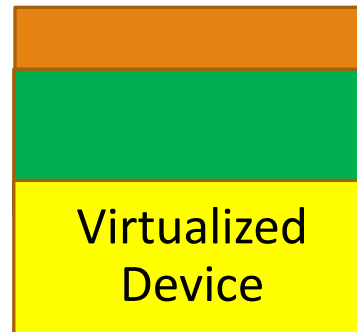
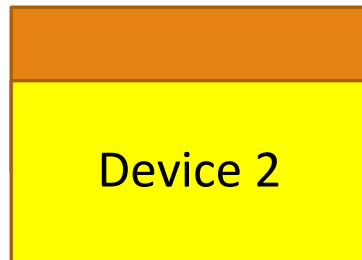
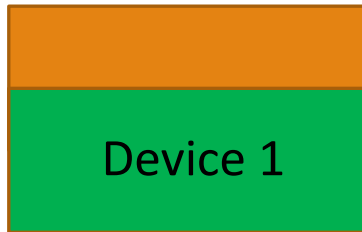
Virtualization

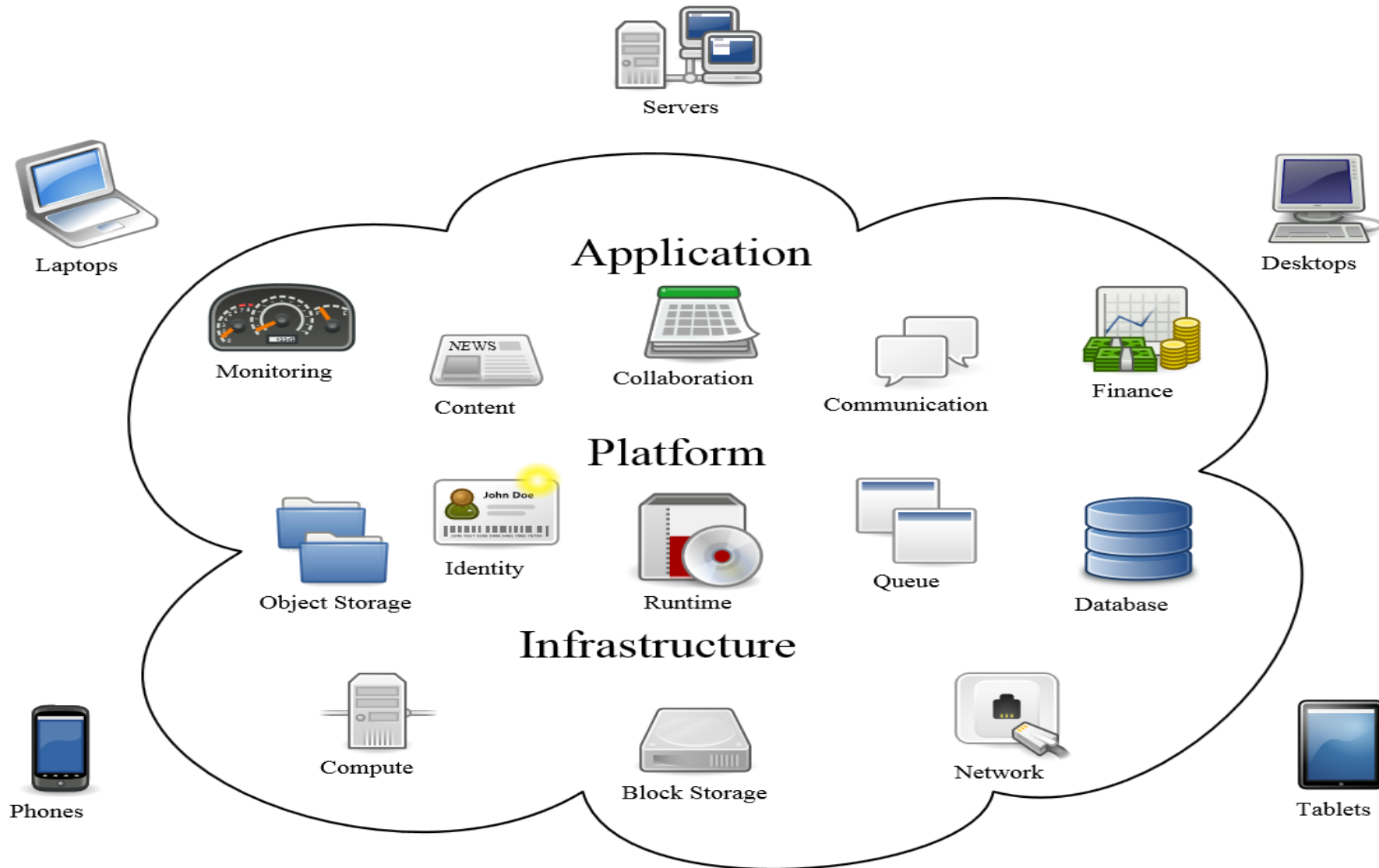
Creating a virtual rather than actual version of something

- People – virtual workplace
- Hardware or platform virtualization – Virtual machines that act like another computer with an operating system.
- Desktop virtualization – separates the logical desktop from the physical machine

Cloud enabling technology

Virtualization software separates the physical computer device into one or more virtual devices:





Cloud Computing

Cloud Provision Models

- Private cloud, owned and operated by the customer
- Private cloud, owned by the customer but operated by the provider
- Private cloud, owned and operated by the provider
- Virtual private cloud services (based on multi-tenanted support for individual enterprises)
- Public cloud services (based on provision of services to individuals)

Advantages of Cloud Computing

- Ease of use and management of computer tasks
- Maintenance of applications is easier since they do not need to be loaded onto individual machines.
- Idle computing resources can be allocated and used more efficiently
- Reduces computer footprint and thus floor space and utilities (electrical)
- Agility for Information Technology changes (both infrastructure and software)
- Users can provision resources on demand
- Reduces labor costs. Data Centers are currently run in the “dark.”

Security and Privacy

Confidentiality – The protection of sensitive or private information from unauthorized disclosure

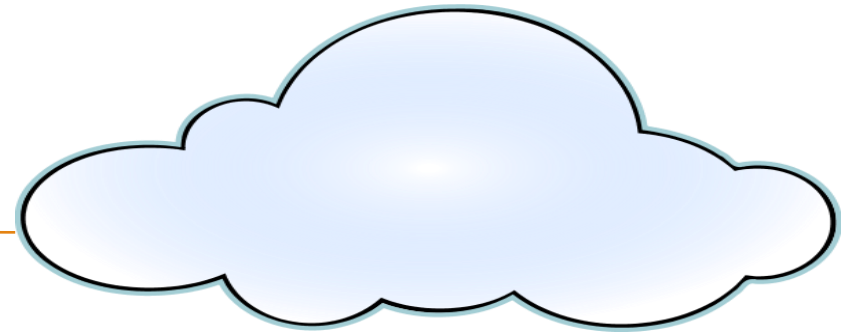
Integrity – The accuracy, completeness, and validity of information

Accessibility – The ability for access data, permission or privileges granted to users to change, delete, or view data.

Cloud Computing as a Service

Similar service to the electric company, i.e Nevada Energy

- From a capital equipment investment to a service investment and the tax impacts.
- Metrics managed by the provider



References

www.ibm.com

www.isaca.com

www.pmi.com

www.wikipedia.com