A Cloud Computing Training Platform

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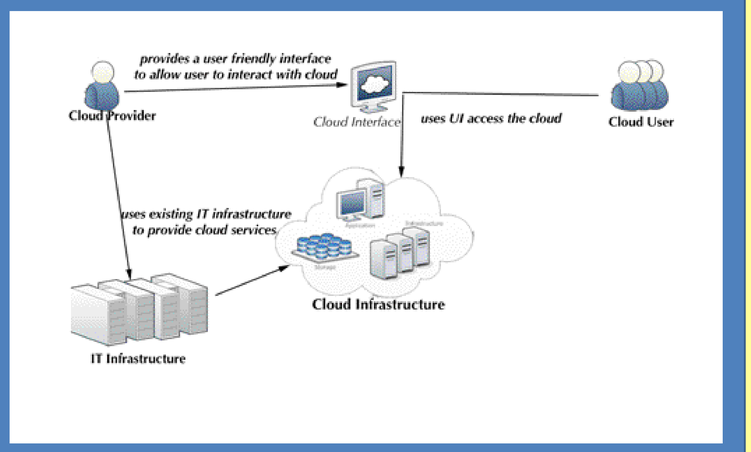
INTRODUCTION

- History of computing has been of a pendulum fashion
- Cloud Computing is the latest computing paradigm
- Age of the Internet: Both business and individuals hope to benefit from Cloud Computing.
- Confusion and varying opinions as to what Cloud Computing still exists

OBJECTIVE

- Design and build a cloud computing platform
  - To educate users about Cloud Computing
  - Present the opportunities and capabilities of the cloud

System Requirements



Frontend

1. Easy to Use
2. Easy Accessibility
3. Provisioning

Backend

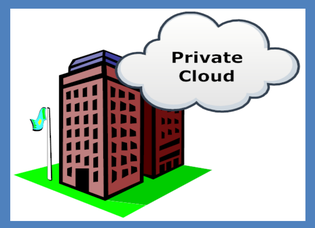
1. Infrastructure
2. Multi-tenant

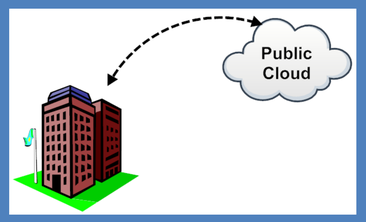
Cloud Computing Models

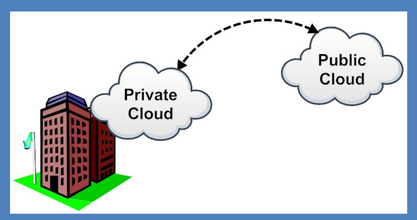
Service Model

1. Software-as-a-Service: delivers the complete application, on demand and to as many users as possible.
2. Infrastructure-as-a-Service: basic storage and computing resources are provided.
3. Platfrom-as-a-Service: platform and other development environment is provided to the customer to create and deploy applications.

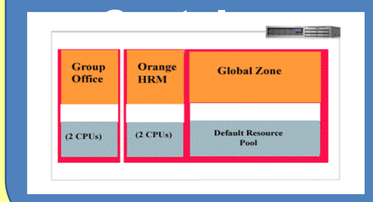
Deployment Model

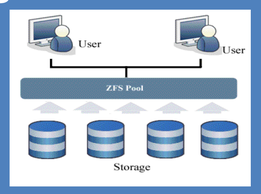




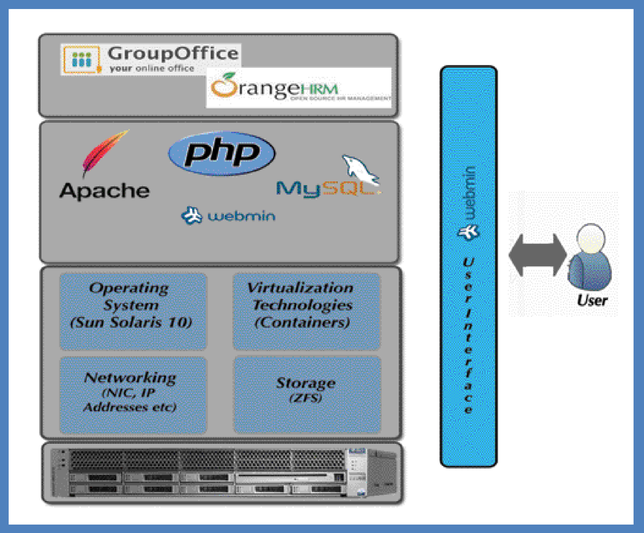


Implementation Using Sun Technologies

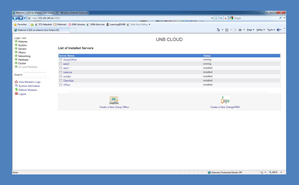


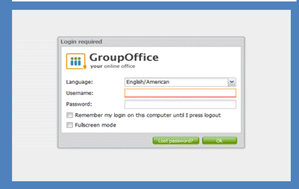


Platform Architecture



Case Studies





Why Migrate to the Cloud?

- Cost Savings
- Preconfigured applications
- Resources on Demand
- Easy set-up and tear down of environments

Conclusion

- A prototype cloud platform was designed and developed based on existing market clouds, and implemented using Sun Technologies.
- As a proof of concept of the cloud implementation, two case studies were done using SaaS applications that were run on the cloud.
- The implementation of cloud was centered around web applications. However, this is not necessarily the case. Cloud's potential is vast and seen as new computing paradigm that will massively change the future of IT business.