

• What is Cloud Computing?

-Definition

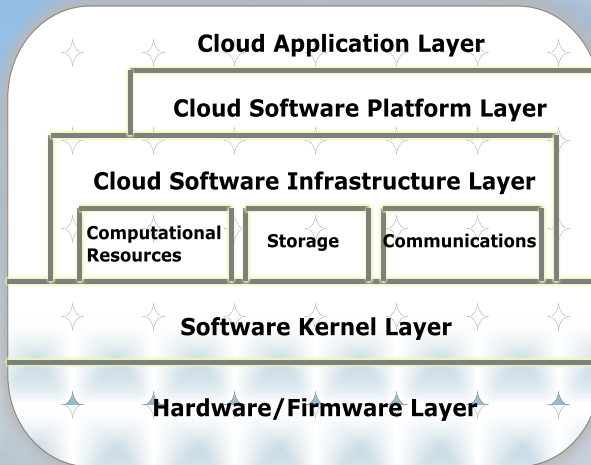
• Introduction

- The New Generation of Computing
- Economics

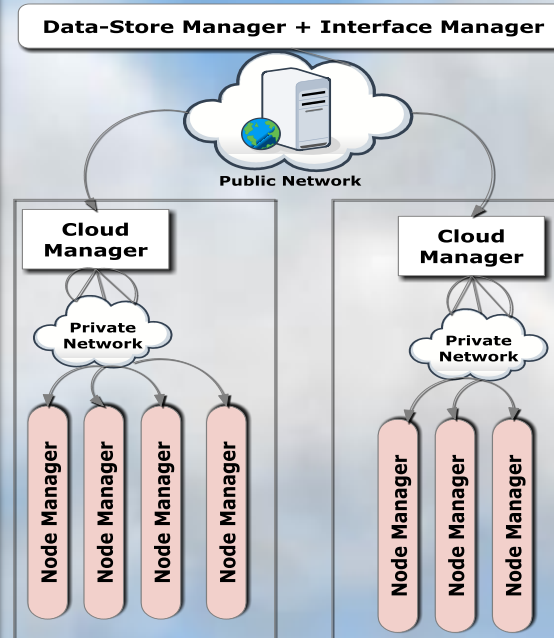
• The Current scenario.

- ▶ Amazon (EC2, S3)
- ▶ Google (Google App Engine, docs)
- ▶ Microsoft (Azure)

Cloud Architecture



Infrastructure Layer



Future Work:

- The security aspect
- Semantic Search for cloud Entities
- Virtualization for Cloud
- Petri-Net Modeling Techniques for the cloud

Characteristics of a Cloud Application

- Ability to Scale
 - ✦ Simplicity
 - ✦ Splitting functions
 - ✦ Loose Coupling
 - ✦ Network Communication
 - ✦ Clustering
- Ability to handle failure
 - ✦ Resilience/Fault tolerance
 - ✦ Distribute Failure Impact
 - ✦ Quick recovery
 - ✦ Data Preservation
 - ✦ Test Failure Scenario
- Automation
 - ✦ Automating Recovery
 - ✦ Auto-scaling
 - ✦ Storage – Backup
 - ✦ Hybrid applications
 - ✦ Cross-vendor services
- Ability to manage Software