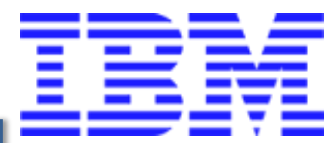# IBM Project Update

Justin Anderson
Cesar Ramirez
Jack Nagel
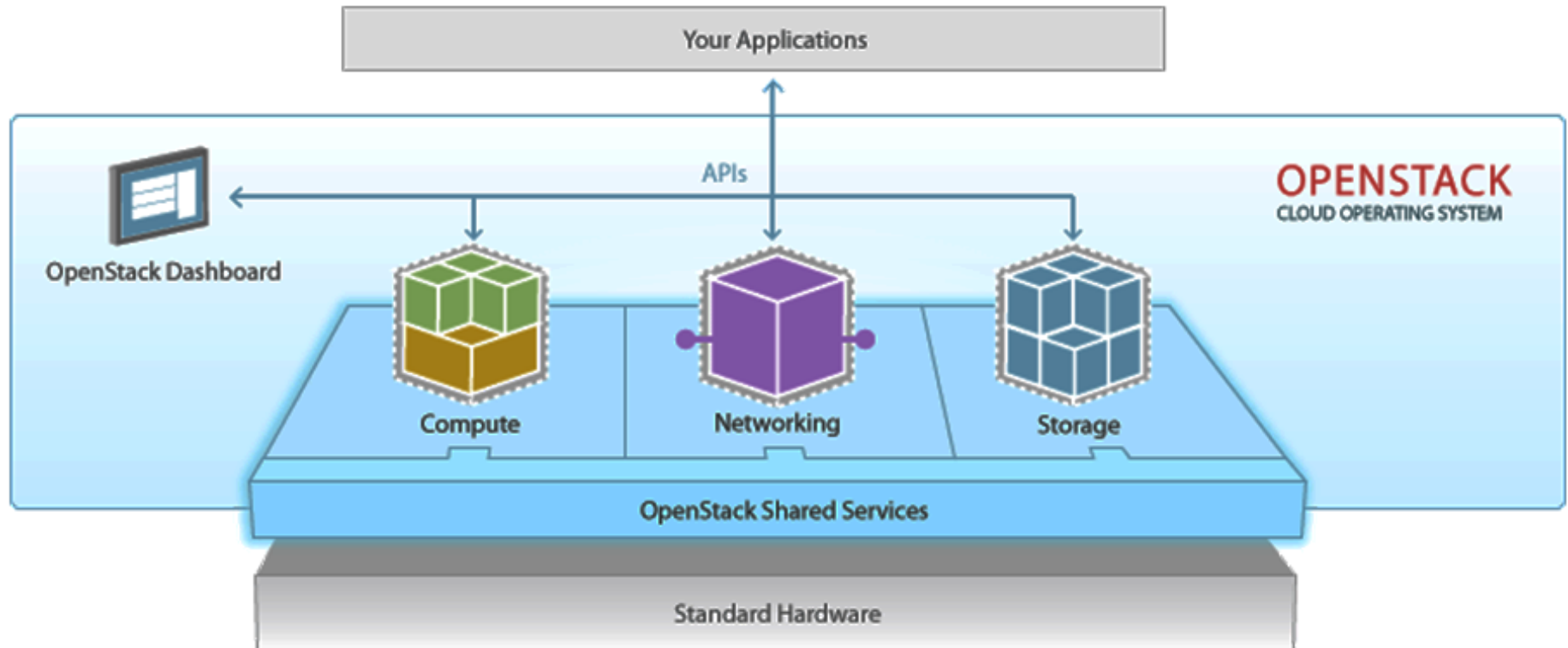John Rensberger

What Is OpenStack?

- OpenStack is an application that controls large pools of:
    - Computing Nodes
    - Storage Nodes
    - Network Resources
- These resources create a cloud environment
- Users control and deploy these resources through a web portal

OpenStack Continued

Our Project

- We are working with IBM
- Continuation from previous IBM capstone project
- We plan to deploy OpenStack for the CS department

Our Goal

- Learn how OpenStack works and how to deploy it

- Continue working on the OpenStack deployment from the last year

- Document and streamline the process of deployment for future use

- Deploy more desired features

Project Plan

- Gather requirements from faculty

- Deploy OpenStack for these projects

- Document steps needed for future deployments and maintenance

- Incorporate OpenStack with Computer Science Department's LDAP and AD servers

- Code scripts for automatic installation

What We've Done

- We have 3 virtual machines for:
  - Controller Node
  - Network Node
  - Compute Node
- We have a finished tentative project plan
- We are working setting up a few real machines for more compute nodes

Possible Difficulties

- Implement Quantum with OpenStack
  - Quantum is a component of OpenStack that provides "Networking as a service"
  - Quantum is currently not installed
- Incorporate the C.S. Department's LDAP and AD server with OpenStack
- Testing OpenStack capabilities using a large scale network

Demo

Summary

- What is OpenStack?
- Our Project
- Our Goal
- Project Plan
- What We've Done
- Possible Difficulties