

## Open Source Cloud

Prasad Kaulage

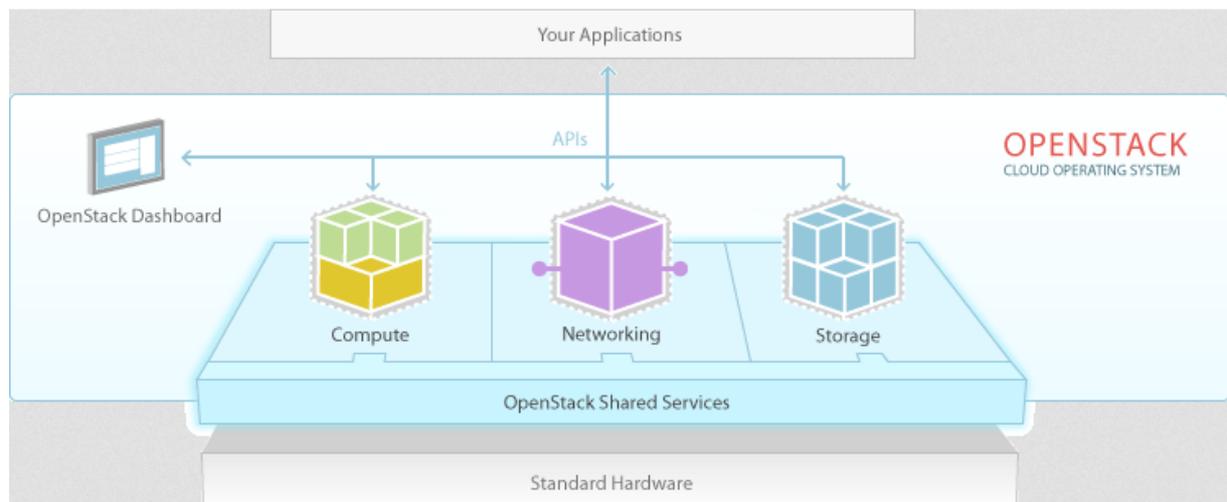
*Department of Computer Science and Engineering, SVERI's College of Engineering,  
Pandharpur*

Third Year Engineering Student

### Introduction:

Cloud computing is the new and exciting technology .People have embraced this technology after knowing its capabilities. It is promising technology, which has a lot to offer.

On the other hand, Open Source has always been one of the finest forms of software. It is free and customizable. Computer geeks have always experimented and learned from it. This makes both these technologies best in their field. Now, with open cloud computing, one can easily improve the experience of cloud based services.



OpenStack software controls large pools of compute, storage, and networking resources throughout a datacenter, managed through a dashboard or via the OpenStack API. OpenStack works with popular enterprise and open source technologies making it ideal for heterogeneous infrastructure.

Hundreds of the world's largest brands rely on OpenStack to run their businesses every day, reducing costs and helping them move faster. OpenStack has a strong ecosystem and users seeking commercial support can choose from different OpenStack-powered products and services in the marketplace.

The software is built by a thriving community of developers, in collaboration with users, and is designed in the open at our Summits..

- About OpenStack:

Open Stack is a cloud operating system that controls large pools of compute, storage, and networking resources throughout a datacenter, all managed through a dashboard that gives administrators control while empowering their users to provision resources through a web interface.

**OpenStack Compute**

The OpenStack cloud operating system enables enterprises and service providers to offer on-demand computing resources, by provisioning and managing large networks of virtual machines. Compute resources are accessible via APIs for developers building cloud applications and via web interfaces for administrators and users. The compute architecture is designed to scale horizontally on standard hardware, enabling the cloud economics companies have come to expect.

**OpenStack Storage:**

Object Storage is ideal for cost effective, scale-out storage. It provides a fully distributed, API-accessible storage platform that can be integrated directly into applications or used for backup, archiving and data retention. Block Storage allows block devices to be exposed and connected to compute instances for expanded storage, better performance and integration with enterprise storage platforms, such as NetApp, Nexenta and SolidFire.

**OpenStack Networking:**

OpenStack Networking is a pluggable, scalable and API-driven system for managing networks and IP addresses. Like other aspects of the cloud operating system, it can be used by administrators and users to increase the value of existing datacenter assets. OpenStack Networking ensures the network will not be the bottleneck or limiting factor in a cloud deployment and gives users real self service, even over their network configurations.

**OpenStack Dashboard:**

The dashboard is just one way to interact with OpenStack resources. Developers can automate access or build tools to manage their resources using the native OpenStack API or the EC2 compatibility API.

**OpenStack Shared Services:**

OpenStack has several shared services that span the three pillars of compute, storage and networking, making it easier to implement and operate your cloud. These services — including identity, image management and a web interface— integrate the OpenStack components with each other as well as external systems to provide a unified experience for users as they interact with different cloud resources.