



CLOUD COMPUTING APPLICATIONS

IaaS: OpenStack

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OpenStack

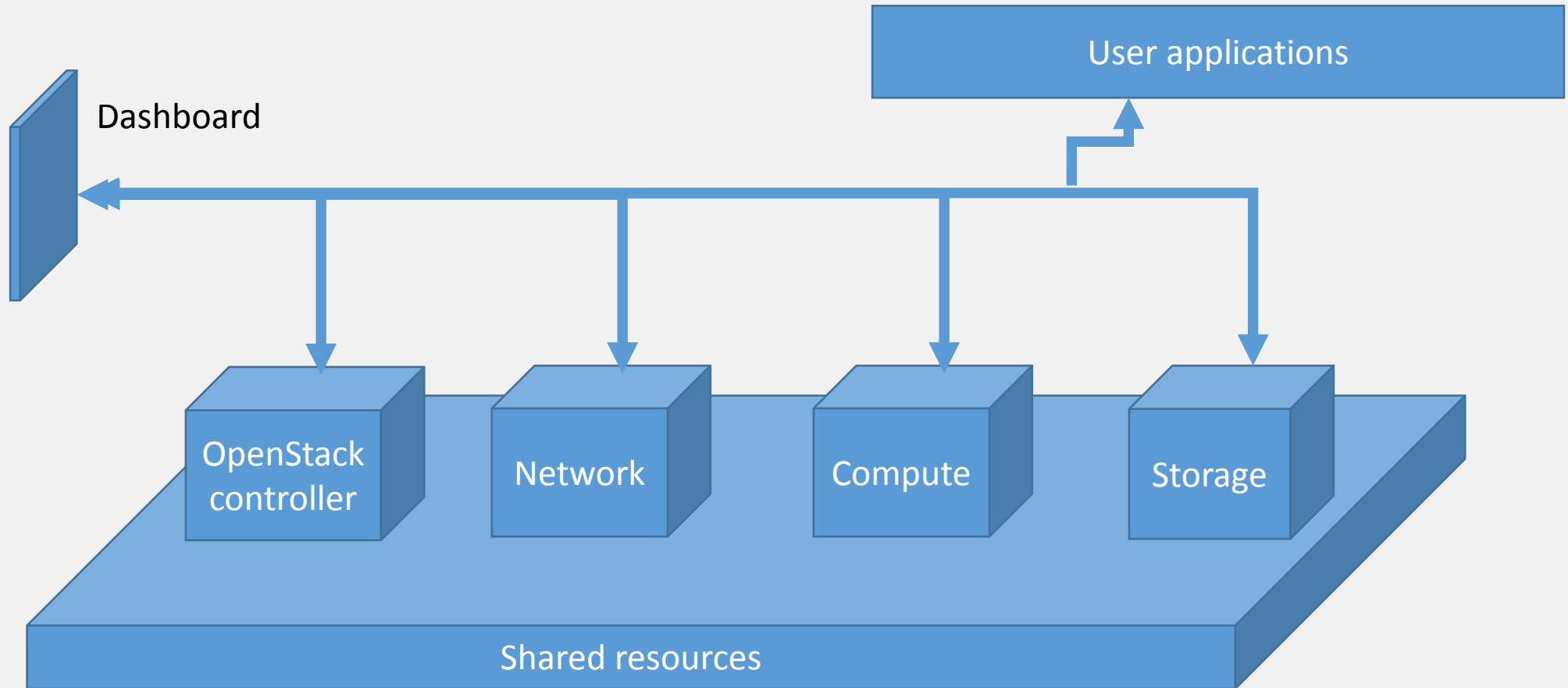
“The OpenStack project has been created with the audacious goal of being the ubiquitous software choice for building cloud infrastructures.”

— Ken Pepple

“OpenStack is a collection of open source software projects that enterprises/service providers can use to set up and run their cloud compute and storage infrastructure.”

— docs.openstack.org

OpenStack Architecture



OpenStack's Core Components

- **Compute (“Nova”)**
 - Orchestrates large network for virtual machines (VMs)
 - Responsible for VM instance lifecycle, network management, and user access control
- **Object Storage (“Swift”)**
 - Provides scalable, redundant, long-term storage for things like VM images, data archives, and multimedia

OpenStack's Core Components

- Image Service (“Glance”)
 - Manages VM disk images
 - Can be a stand-alone service
 - Supports private/public permissions, and can handle a variety of disk image formats