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Title → OpenStack

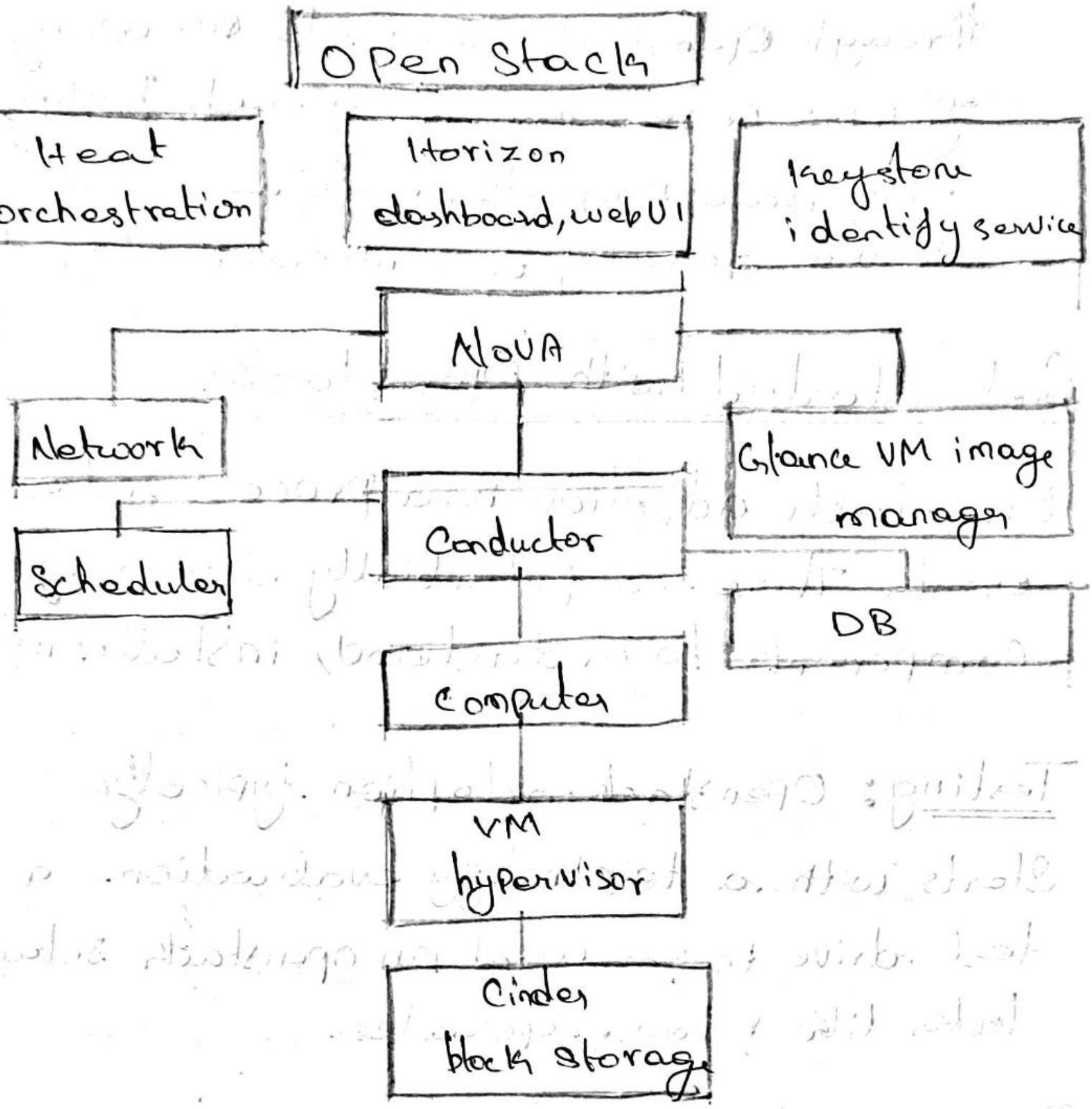
OpenStack:-

- OpenStack is a free, Open standard cloud computing Platform. It is mostly deployed as infrastructure-as-a-service (IaaS) in both public & Private clouds where Virtual servers & other resource are made available to users.

- The software platform consists of interrelated components that control diverse, multi-vendor hardware Pools of processing, storage & networking resources throughout a data center.

- OpenStack began in 2010 as a joint project of Rackspac Hosting & NASA As of 2012, it was managed by the OpenStack Foundation.

Architecture of openstack :



Openstack contains a modular architecture along with several code names for the component.

Does of Openstack :-

Ans Installing Openstack software on top of a virtualized environment forms a cloud operating system. An organized can use that to organize, provision & manage large pools of heterogeneous compute.

* This cloud-based infrastructure created through Openstack supports an array of uses cases, including web hosting, big data projects, Software-as-a Service delivery & container deployments.

Get Started with Openstack:-

Openstack adoption is a process, not an event. There are potentially dozens of components to understand, install & employ.

Testing: Openstack adoption typically starts with a technology evaluation -- a test drive to see what an openstack setup looks like & how it operates.

Preparation: Once an Organization choose to adopt Openstack, it must prepare to address the following three elements.

* Education: Learn more about Openstack components, how they operate and how they're used.

* Support: Identify & engage with Openstack support services, from simply finding online communities to identifying competent Openstack employees.

* Infrastructure: Identify the hardware infrastructure to initially deploy openstack. (which may require Procurement & installation.

Deployment:

* Organization should consider starting with limited . Proof-of-concept Openstack Projects.

eg: As an example the Openstack Compute Starter kit focuses on just five components: Nova (compute), Glance (vm image), Keystone (identify management) Neutron (networking) and Placement (resource usage & tacking.)

Expansion:

* As an Organization gains expertise in the Openstack environment, it may want to expand its Openstack deployment through additional Components.

* It is highly unlikely that every business use case will need every available component; so organizations can select components.

Pros & Cons of OpenStack:-

Pros :

* Affordable : OpenStack is available freely as open Source software released under the Apache 2.0 license. This means there is no upfront cost to acquire & used OpenStack.

* Reliable : With almost a decade of development & use, Openstack provides a comprehensive & proven production ready modular platform upon which an enterprise can build & operate a Private or Public Cloud.

* Vendor-neutral :- Because of OpenStacks Open Source nature, Some Organization also See it as a way to avoid Vendor lock-in as an overall Platform as well as its individual component functions

Some drawbacks:-

* **Complexity:** Because of its size & scope, Openstack requires an IT staff with significiant knowledge to deploy the platform and make it work.
In some case an organization might require additional staff or a consulting firm to deploy Openstack, which adds time & cost.

* **Support:** As open source software. Openstack in not owned or directed by any one Vendor or team. This can make it difficult to obtain support for the technology. beyond the open source community.

* **Consistency:** The Openstack component suit is alway in flux as new components are added & other are deprecated.

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