Cloud Computing

Assignment No. 1

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Nimbus –

Nimbus is free and open-source software, subject to the requirements of the Apache License, version 2. Nimbus is a toolkit that, once installed on a cluster, provides an infrastructure as a service cloud to its client via WSRF-based or Amazon EC2 WSDL web service APIs.

The system grew to add an implementation of a scalable quota-based storage cloud, contextualization tools, allowing users to configure "one click" virtual clusters, as well as a variety of tools creating and managing configurations distributed over multiple clouds, and adapting them to the needs of the scientific community. Nimbus software was used to configure multiple research clouds (Future Grid being the most prominent example) as well as enable a variety of scientific applications.

Nimbus supports both the hypervisors XEN and KVM and virtual machine schedulers Portable Batch System and Oracle Grid Engine. It allows deployment of self-configured virtual clusters via contextualization. It is configurable with respect to scheduling, networking leases, and usage accounting.

Nimbus Web fully managed solution eliminates IT management burdens and costs. At the same time, we will have no risks from keeping our data on Public Clouds. We will have complete control over our data and security.

While pioneering and committed to a quality implementation, Nimbus remained primarily a research project. In the early 2010s, the OpenStack IaaS cloud implementation emerged as a viable alternative to Nimbus, with strong support from the open source community. To better leverage the momentum behind cloud-related development, the Nimbus team transitioned to become an OpenStack contributor, always advocating the needs of the scientific community, and significantly contributing to OpenStack services such as Blazar reflecting our community's requirements.

Today, the Nimbus team leads the operation of the Chameleon research cloud, an OpenStack-based testbed for computer science systems research. While the Nimbus project is no longer under active development, the Nimbus team continues to drive science-related features into cloud computing development via contributions in research, development, and operations. Aside from operating the Chameleon testbed, the Nimbus team actively

contributes to exploring topics such as auto-scaling, preemptible workloads, and the use of clouds to advance reproducibility in science.

Tplatform –

Metanet Tplatform is recognized as the sole cloud-based MSP in Korea that delivers 'End-to-End Hybrid Cloud' solutions.

It is now receiving attention as an emerging powerhouse in Asia's cloud market.

Metanet Tplatform builds On-Premise, Private Cloud, and Public Cloud systematically and in a most precise manner, and creates a 'Hybrid Cloud' environment by integrating them.

In particular, it constructs an end-to-end cloud environment by providing differentiated migration services across all areas of data and applications.

The company has been reinforcing all-encompassing capability for modernization of infrastructure toward IaaS, data modernization, and application modernization as the cloud is the core part for customers' digital transformation, and eventually for their business modernization.

Metanet Tplatform provides full-scope cloud services as an "end-to-end hybrid cloud integrator".