The Spatiotemporal Hybrid Cloud Platform

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1. Introduction & Objective

The spatiotemporal hybrid cloud platform is powered by Dynamic Computing Cloud (DC2®), a hybrid cloud platform management software, and is capable to deliver IT operators better control over the entire infrastructure (the combination of private and public cloud) through a single enter point.

Without caring about the heterogeneity in structure and operations among different cloud platforms, IT operator can customize applications based on the resource pool efficiently.

Dynamic Computing Cloud (DC2) is a unique software to interoperably manage, simplify, optimize and secure hybrid clouds: Amazon AWS, Eucalyptus Cloud and Openstack Cloud. DC2 uses different roles to control and grant user permissions; projects are also used to manage a group of users. With DC2, cloud consumers can:

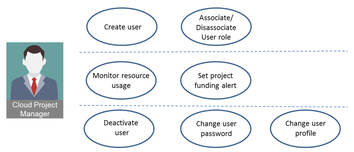
1. Associate AWS accounts to projects and track the billing details, manipulate AWS compute, image, stack, VPC, S3 and other resources
2. Fully operate Eucalyptus and burst into Amazon AWS
3. Use Openstack with rich and scalable solutions

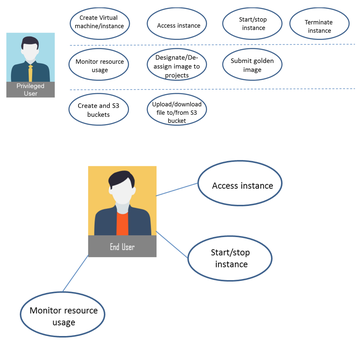
2. User Roles

Three important user roles:

1. Cloud Project manager (Project PI) is a role to manage project resources in the project
2. Privileged user is a unique role to manage computing resources as a project system admin in the project
3. End user is a role to use the instances in the project

*Figures show the functions of relevant roles



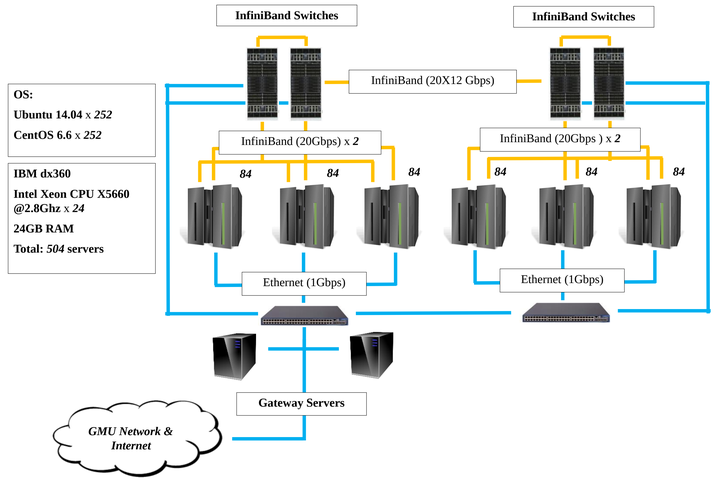


3. Capabilities

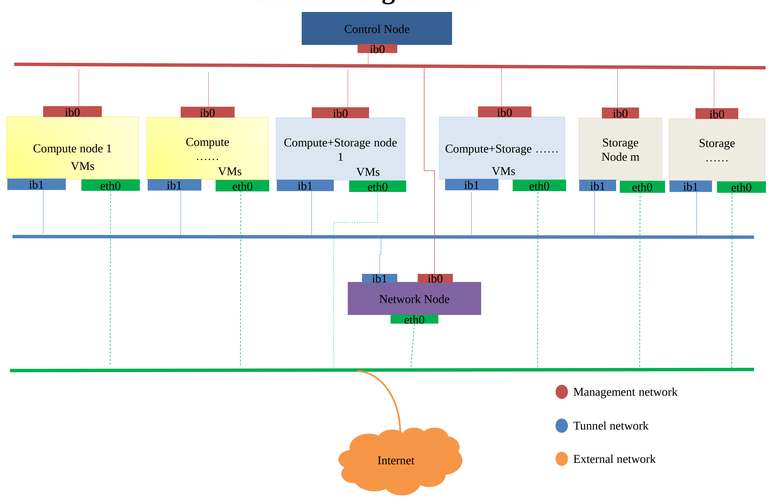
1. Customized Account Management
2. Scalable and Dynamic Resource Provision
3. Real-time Usage Visibility
4. Consolidated Cloud Platform Management
5. Cloud-based Workflow
6. Cloud-based High Performance Computing
7. Simplified Infrastructure Installation
8. Multiple cloud roles

4. Network and Cloud Configuration

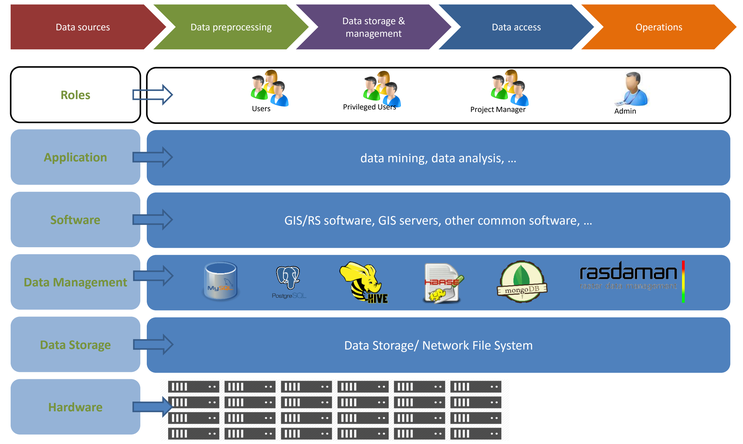
Network configuration:



Cloud configuration:

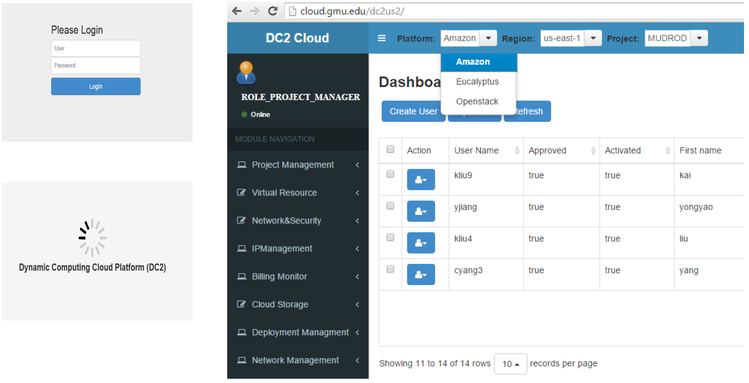


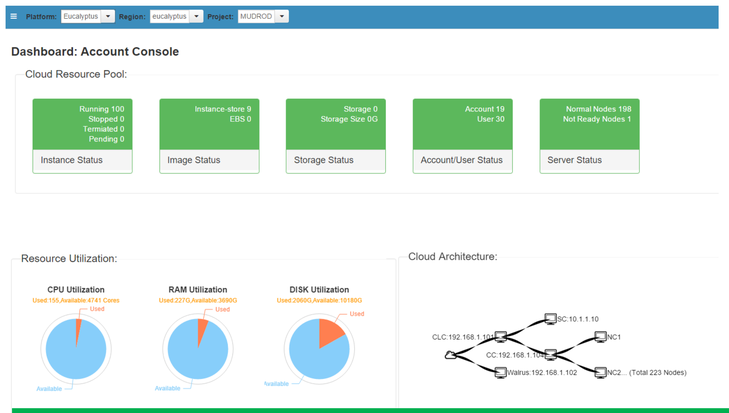
5. Software/Data Infrastructure



6. Cloud Platform

Cloud Platform Port: http://cloud.gmu.edu/dc2us2/





Contact Us

- Data center website: http://stcenter.net/stc/
- Resource online application form: http://199.26.254.185/form.html
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