Deployment of Virtual Clusters on a Commercial Cloud Platform for Molecular Docking

Subtopic: Multi-Cloud

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- FutureGrid
 - Virtual Image has been altered to have DHCP network configuration and was uploaded on to FutureGrid.
 - Ran into problems regarding available space on FutureGrid but problem was resolved.
 - Virtual Image was launched and runs but networking is still not functioning properly despite the change to DHCP.

Week 5 Progress

- ViNe
 - Worked with Dr. Mauricio Tsugawa to properly set up ViNe.
 - Encountered a new type of error but resolved the problem.
 - ViNe is connected.
 - Verified by ping and ssh test.
- Hadoop
 - Looked into Hadoop
 - Attempted to set it up.
 - Only able to successfully complete Single node Standalone Operation

Road Blocks -> Approach -> Outcomes

- FutureGrid
 - Ran into issues regarding Space and Networking
 - To resolve issues I have contacted FutureGrid as well as Dr. Mauricio Tsugawa who helped design FutureGrid
 - With regards to space I was given directions as to where I would have more space on the FutureGrid cloud computing resources.
 - With regards to networking, I have been given helpful information and I am testing different images with different network configurations.

Road Blocks -> Approach -> Outcomes

ViNe

- ViNe is a very new software with very little documentation.
 Because of this it was very difficult to learn much about the software and how to use it.
 - To deal with this, I have contacted Dr. Mauricio
 Tsugawa and worked with him to set up ViNe overlays
 on the AIST private cloud and NAIST local server.
 - I am continuing to work more with Dr. Mauricio Tsugawa to learn more about ViNe and how to implement it.



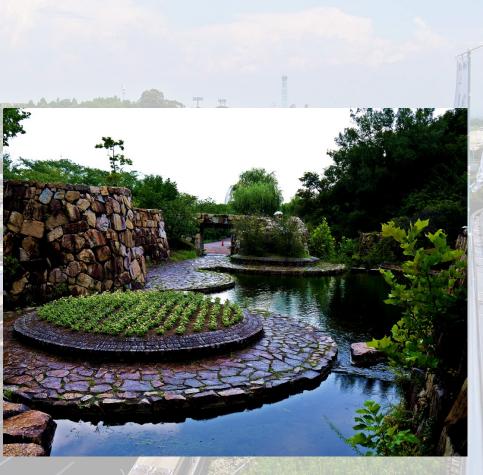
- FutureGrid
 - Figure out why current networking configurations will not work on FutureGrid.
 - Make networking on VM launched via FutureGrid work and try to set up ViNe on this VM.
 - Setting up ViNe on FutureGrid may be different than before because of DHCP network setting.

Week 6 Plans

- ViNe
 - Set up ViNe on FutureGrid
 - Attempt another test using ViNe.
 - Try to send a file between the VMs via ViNe
 - Try sending a DOCK job via ViNe
- Google Cloud
 - Begin researching the cloud offered by Google.
 - May use this cloud as a part of my Multi-Cloud work.

Cultural Exploration





Cultural Exploration





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