

Weekly Report for Week Ending 04/19/2013

IBM - OpenStack

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Status Summary

This week Cesar and John spent a significant amount of time fixing our Grizzly environments. Jack and Justin were working with the Savanna API and were able to resolve the remaining issues and launch clusters via both the API and dashboard. We were also able to complete a few of the required documents for running OpenStack for future use.

Top Highlights

- Successfully upgraded development environment from Folsom to Grizzly and managed to get Quantum working too.
- Successfully launched Hadoop clusters via Savanna's REST API and the dashboard in the development environment.
- The production environment configurations are well underway running Grizzly.

Top Lowlights

- There's not enough time in the day.

Accomplishments vs. Plan

- Accomplishment - Upgrade Development Environment to Grizzly
 - This task wasn't planned to happen yet, but a series of events occurred that caused it to be worthwhile.
 - We moved our primary compute node to the production environment and found that the other two compute nodes were not running correctly.
 - We had to reinstall Ubuntu on one node because we had erroneously installed Ubuntu 12.10 on one node and found that the kernel would not allow OpenvSwitch tunneling.
 - We then upgraded all the packages on the other nodes to Grizzly and synced the databases.
 - We also added [munin monitoring](#) to this environment which is [accessible here](#).
 - Owner: Team
 - Status: Complete
- Accomplishment - Implement Savanna and run test data set
 - Early in the week Jack installed Savanna on DevStack and was able to launch a three node cluster, but couldn't do anything after that as there weren't enough hardware resources to run a job.
 - After solving the compute, Quantum, and other issues in the development environment we were able to launch Savanna from the command line.
 - We successfully ran several sample jobs, including the PiEstimator and WordCount examples, and verified that the HDFS is working correctly across multiple nodes (we used a 1 master, 3 worker setup).
 - Owner: Jack
 - Status: Complete
- Accomplishment - Metadata Service in Grizzly
 - After getting the metadata service to work in Folsom we were confident that we can get it to work in Grizzly. At first we were getting connection refused errors that we then fixed to 404 not found. We then found another configuration line for Nova telling it to proxy the service through Quantum. After making that modification, the metadata service is functioning normally.
 - Owner: John
 - Status: Complete

- Accomplishment - Integrate Savanna into the OpenStack dashboard
 - The primary interface to Savanna is its REST API, but there is also a Horizon dashboard module available which has now been configured.
 - We were able to resolve the remaining issues and use the dashboard component to launch Hadoop clusters.
 - Owner: Jack and Justin
 - Status: Complete
- Plan - Configuration of Production Environment
 - We have made several changes to the production environment in the last week. We now have two compute nodes, one of which was the main compute node of our development environment.
 - We also removed the second VM that was in the environment as it was not doing anything. It did have Cinder services installed, but they were not working.
 - Cinder has been reconfigured and now it is working correctly on the controller.
 - i. A stress test was done with allocating and then destroying 80 volumes of 1GB each. The process run successfully in under 8 minutes.
 - Owner: John and Cesar
 - Status: In Progress
- Plan - Documentation
 - We are continuing to document things as we complete each task, especially things that are non-obvious and those that gave us trouble and differed from the official documentation.
 - A new section of documentation focused on the dashboard was added. Each section of Horizon has a screenshot and a small description.
 - The documentation for Quantum and Cinder were updated.
 - Documentation will be provided for end-users and administrators, as well as special documentation with respect to using Savanna.
 - Owner: Team
 - Status: In Progress

Goals for Next Week

- Fully operational production environment with Savanna.
- Continue working on documentation.
- Drafting final presentation.

Risks

ID#	Status	Risk	Owner	Probability / Priority	Impact	Trigger	Recommendation / Resolution
R001	Complete	Unable to complete design document	Team	100%/Medium	Will set back our progress	Decision with team and mentors during next meeting	We will complete this document by Monday evening for review on Tuesday

Issues

ID#	RID#	Status	Issue	Owner	Due Date	Impact	Recommendation / Resolution
I001		Resolved on 02/05/2013	Need access to more hardware	Team	02/05/2013	Having more hardware will provide us a system that is in a controlled environment	Contact Robert

Project Success Indicator	02/01	02/08	02/15	02/22	03/01	03/08	03/15	03/22	03/29	04/05	04/12	04/19	04/26	05/03
Planned milestone events are being met	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK		
Budget is under control	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK		
Quality control results are within specifications	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK		
Change control process indicated minimal requests for change	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK		
Project resources are being supplied per schedule and skill levels are adequate	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK		
Project team appears to be cohesive and reasonably happy	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK		
Users seem satisfied with progress of the work	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK		
Top management remains visibly supportive of project goals	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK		
Third-party vendors are delivering quality items on schedule	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK		
Risk events are under control and nothing unusual is appearing	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK		
Project training program is progressing according to plan	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK		
Relationships with support groups appear to have no identifiable issues	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK		