

Weekly Report for Week Ending 03/01/2013

IBM - OpenStack

Justin Anderson, John Nagel, Cesar Ramirez, John Rensberger

Status Summary

This week we finished our Hadoop design document. We've also put a significant amount of effort into getting DevStack running as well as Hadoop within OpenStack. We've refined most of our DevStack configuration files so we're now consistently installing OpenStack. We started to implement our Hadoop scripts by porting them from EC2 scripts and are preparing OpenStack images and snapshots for testing these. We've also created another large use case with the College of Engineering that we're looking forward to.

Top Highlights

- Finished Hadoop design document.
- We started porting the existing Hadoop-EC2 scripts to the Eucalyptus tools and OpenStack.
- We were able to spend a significant amount of time configuring Quantum, discovering the architecture.
- We've started the DevStack/Openstack documentation for systems administrators.
- We developed another use case with the College of Engineering.
- We have a stable single-node OpenStack running with Heat but without Quantum.

Top Lowlights

- Though we've gotten Quantum to install, it's still not functioning. We're confident with more testing we'll get it working soon.
- We haven't been able to enable AD authentication yet.

Accomplishments vs. Plan

- Accomplishment - Completed Hadoop Design Document
 - Owner: Team
 - Status: Completed and reviewed it with IBM. We received some feedback on areas that we need to revise, so we'll be making those changes proactively as we develop the Hadoop scripts.
- Accomplishment - Installed Cinder and Swift
 - Owner: Cesar
 - Status: Most of our OpenStack environments have both Cinder and Swift. Both services are running and working correctly. The redundancy and distributed aspect of this storage services has not been configured.
- Accomplishment - Completed a Quantum install
 - Owner: John
 - Status: John found a repeatable method of installing Quantum. Prior installations were not allowing us to login to Horizon. We can now log in, but Quantum still needs further configurations.
- Accomplishment - Interface Eucalyptus tools with OpenStack's EC2 API
 - Owner: Jack
 - Status: Started adapting some existing Hadoop-EC2 scripts to work with the Eucalyptus command-line tools and OpenStack's EC2 API. These may be used to orchestrate deployment of VMs from the command-line.
- Accomplishment - Start building some custom images
 - Owner: Jack
 - Status: Got familiar with glance and how images are handled, and started building some custom Ubuntu images.
- Accomplishment - Research Heat and AWS Cloud Formation scripts for automated image configuration
 - Owner: Justin
 - Status: Learned what Openstack's heat is and what it can offer. Learned a little about how to fix it when it breaks.
- Plan - Finish setting up our multi-node OpenStack instance
 - Owner: John
 - Status: John finished installing the controller Thursday evening. We discovered issues where the CS department authentication was preventing DevStack, so we'll need to reconfigure our physical hardware to not use this authentication anymore.

- Plan - Create images
 - Owner: Cesar
 - Status: Researching two methods, both seem really simple. Some sample images have already been developed.
- Plan - PXE Server and Thin-clients
 - Owner: Cesar
 - Status: PXE server is going to be installed soon, as installation method is familiar..
- Plan - Test Linux Routers
 - Owner: John
 - Status: John is going to research router options for temporary use in the College of Engineering.
- Plan - Get Heat working properly
 - Owner: Justin
 - Status: Currently heat isn't functioning properly. Justin is going to figure out why and fix it.

Goals for Next Week

- Midterm Presentation
 - Owner: Team
- Quantum Testing
 - Owner: John
- SwiftStack Testing
 - Owner: John
- College of Engineering Design Doc
 - Owner: John
- Finish Hadoop deployment scripts
 - Owner: Jack
- AD authentication on Horizon
 - Owner: John
- Get Heat working
 - Owner: Justin

Risks

ID#	Status	Risk	Owner	Probability / Priority	Impact	Trigger	Recommendation / Resolution
R001	Incomplete	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/ 26	05/ 03
Planned milestone events are being met	OK	OK	OK	OK	OK								
Budget is under control	OK	OK	OK	OK	OK								
Quality control results are within specifications	OK	OK	OK	OK	OK								
Change control process indicated minimal requests for change	OK	OK	OK	OK	OK								
Project resources are being supplied per schedule and skill levels are adequate	OK	OK	OK	OK	OK								
Project team appears to be cohesive and reasonably happy	OK	OK	OK	OK	OK								
Users seem satisfied with progress of the work	OK	OK	OK	OK	OK								
Top management remains visibly supportive of project goals	OK	OK	OK	OK	OK								
Third-party vendors are delivering quality items on schedule	OK	OK	OK	OK	OK								
Risk events are under control and nothing unusual is appearing	OK	OK	OK	OK	OK								
Project training program is progressing according to plan	OK	OK	OK	OK	OK								
Relationships with support groups appear to have no identifiable issues	OK	OK	OK	OK	OK								