



OpenStack at NDSU - Closure Specification

Justin Anderson
John Nagel
Cesar Ramirez
John Rensberger

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1. Summary of Delivered Product

1.1. Goals/Vision

Last year IBM approached NDSU to have a computer science capstone group implement an OpenStack environment on campus as a proof-of-concept, higher education oriented open source cloud. The task was a huge success and expectations were greatly surpassed by what the group was able to accomplish. IBM wanted our group to continue last year's project to help further the development and utilization of the cloud at NDSU. Through this capstone project, IBM is able to further their relationship with the university and to explore the benefits of this type of platform in higher education. This allows them to contribute more as a corporate sponsor to OpenStack and also aid in its deployment to locations that are able to benefit from the opportunities that OpenStack makes possible.

1.2. Delivered Solution

- What We Planned
 - Multi-node installation of OpenStack
 - The ability to create & destroy virtual Hadoop clusters using the dashboard
 - Document our process for future users
 - Reach out to faculty to introduce OpenStack and its capabilities
 - Integrate computer science department's LDAP for authentication
- What We Delivered
 - Multi-node installation of OpenStack using the latest release (Grizzly)
 - Launching Hadoop clusters using the dashboard
 - Documentation:
 - Installation
 - Using the dashboard
 - Administration Tips
 - Presentation demonstrating how to use OpenStack for department

1.3. Remaining Work

- Continue maintain OpenStack with its recent updates
- Integrate computer science's Active Directory LDAP authentication with Keystone (OpenStack Identity Service)
- Keep OpenStack up-to-date, including new releases

- Keep up-to-date with Savanna.

2. Deliverables

Our deliverable is our OpenStack environment. Here is login information.

https://csprojects.cs.ndsu.nodak.edu/csci445/2013/spring/csci445_s13_ibm/trac/wiki/OpenStack/Documentation/Environments/Production

2.1. Requirements and Design Documents

2.2. Install Process

The documentation required to install OpenStack is located on our Trac.

https://csprojects.cs.ndsu.nodak.edu/csci445/2013/spring/csci445_s13_ibm/trac/wiki/OpenStack/Documentation/Installation

2.3. User's Manual or Online Help Files

We have maintained our trac's index with links to all specific forms of documentation.

https://csprojects.cs.ndsu.nodak.edu/csci445/2013/spring/csci445_s13_ibm/trac/wiki

2.4. Post Mortem Document

The final post mortem document is located on our Trac.

2.5. Final Report

The Final Slides are located at link below. You may have to right click save-as.

<https://github.com/ndsuopenstack/2013-spring/tree/master/documents/Completed>

3. Sign-Off

3.1. Final Review

Describe where and when the final review took place both with the customer and instructor.

3.1. Customer Sign-Off

Customer Sign-off is due by 5/2/2013. Either a hard copy signature or email confirmation will work.

Approver - Sponsor	Title
Name:	Signature:
Approver - Mentor	Title
Name:	Signature: