



Partly Cloudy: Bridging The Gap Between UNH RCC and Cloud Services

Adam Moynihan, Ryan Stuart



Purpose

The goal of Partly Cloudy is to facilitate research to help the UNH Research Computing Center (RCC) integrate cloud services in any way possible when assisting researchers. Some of the work being done to accomplish this are gathering research and creating a wiki.

We conducted research on the big three providers, which are Amazon Web Services, Microsoft Azure, and Google Cloud Platform. Creating a wiki will allow us to put all the information in one place.

Background

One of the ways the UNH RCC currently helps researchers with their projects is by using the local machines that they have on campus. Recently, they have been looking into moving some of this work on to the cloud, as it would be beneficial to both researchers and the UNH RCC in many ways.

Research Design/Goals

The data gathering was mainly conducted through internet research and the knowledge bases of the three providers. This, along with the wiki, will allow us to achieve our main goals for this project:

- Collect research of key services from big three providers likely to be most beneficial to researchers
- Gather all the information in one place for future reference

Cloud Benefits

The cloud would be beneficial to academic research in a lot of different ways. Some of the benefits include:

- Flexibility
- Scalability
- Low Cost
- Reliability

Researcher Needs

The specific needs of researchers will vary on a case-by-case basis, as every project will have a different set of requirements. For this project, we primarily dived into a few key services on each platform which we deemed would be the ones most beneficial for researchers. These include:

- Databases
- Functions
- Virtual Machines
- Storage



The three providers we researched.

Wiki Design

We have decided that the most sustainable way for us to compile our research is to create a wiki to hold all our data. Our wiki will be divided into multiple sections, which include the three main cloud service providers as well as a homepage for FAQs, like 'Getting Started with the Cloud'.

The Three Providers

We have decided it would be most effective that along with a getting started page, we will divide information based off the big three providers:

- Amazon Web services
- Google Cloud Services
- Microsoft Azure

Services

We will have pages discussing the different services we researched from the three providers, and many of them offer comparable services. For example, if the user knows they need a database, they can look at all the databases offered by the various providers.

Results/Next Steps

We collected a lot of data for the different services and it will be added to the wiki for future reference. This will be helpful for researchers seeking information on what they should use for their projects. A potential next step is taking the wiki and doing some tests with researchers seeing how effective it is in real scenarios.

Wiki URL: partlycloudyunh.wikidot.com