

## Stakeholders Research Report

### Stakeholders

AWS and Clemson's Makerspace

#### AWS (Client)

"Whether you're looking for computing power, database storage, content delivery, or other functionality, AWS has the services to help you build sophisticated applications with increased flexibility, scalability, and reliability." This statement comes directly from Amazon Web Services, and it succinctly summarizes what AWS does for its customers. Why do customers, both new and old, continue to flock to AWS to satisfy their data and web service needs? The answer is that AWS has built their business to deliver services and products in an extremely fast and cost-efficient manner. Per the AWS website, "One of the key benefits of cloud computing is the opportunity to replace up-front capital infrastructure expenses with low variable costs that scale with your business. With the Cloud, businesses no longer need to plan for and procure servers and other IT infrastructure weeks or months in advance. Instead, they can instantly spin up hundreds or thousands of servers in minutes and deliver results faster." In short, AWS has created a completely new way for customers to order (or even create for themselves) the IT infrastructure needed for their projects and continues to innovate with ways to make this process quicker, easier, and cheaper. Now let's review the market position of AWS as well as their core strengths:

- **Vision:** The AWS mission is to enable developers and businesses to use web services to easily build and be paid for sophisticated, scalable applications.
- **Industry:** Web service, cloud computing
- **Market:** AWS has a 33% market share in the cloud computing industry.

Low Cost: AWS is built so that clients benefit from variable expenses and only pay for what they need. This model is referred to as the Pay As You Go Pricing scheme. Due to the rise of cloud computing within the past year, AWS was able to lower prices 75 times. This makes computing power and storage more accessible for all modern companies (including startups or students projects such as our own).

Agility and Instant Elasticity: Before cloud computing, companies maintained redundant hardware to handle surges. This issue is resolved, however, on the AWS platform with the Pay As You Go Pricing scheme. Likewise, AWS hires top Architect and Network engineers, which allows clients to focus on their own software using an IaaS ( Infrastructure as a Service ) model. Instead of a project taking weeks or months to operationalize services, it can now be done in a matter of minutes.

Open and Flexible: AWS services are very flexible and can easily be tailored to meet the needs of a customer/business. Users can choose from a variety of services and carefully pick the ones needed. Services are not dependent on a singular programming style or development platform, so whatever is most convenient to the user can be leveraged. The idea behind AWS's flexibility is to allow the user "...to focus on innovation, not infrastructure."

Secure: For AWS, security is their top priority. This is demonstrated by the way that developers select their Availability Zone. I.e. They never disclose the exact data center for the client's data. Providing 69 Availability Zones around the globe, AWS stores client data safely in numerous data centers. AWS is also highly customizable and developers can implement their own forms of security beyond what AWS provides, giving their clients additional peace of mind.

#### Clemson Makerspace (Customer)

Clemson Makerspace offers students the opportunity to create projects using cutting edge technology. 3D Printers, Laser cutters, CNC mills, soldering supplies, and other tools can be accessed by students of all ability levels. The Makerspace offers all of its resources to students absolutely free and even provides training for 3D printers and lasers to students. Founded in the Fall of 2015, the program and its resources have continued to expand in the last 5 years and will continue to grow under the guidance of President Yan-Jing Ni!