To:

From:

Date: July 13, 2015

Re: What’s in a Cloud

Anita,

**Background**

I am pleased to hear that you have expressed interest in using cloud computing to its full potential in order to benefit your business. Before elaborating on the benefits of cloud computing and how it can be used to improve the data management and applications of your company, it is immensely important that you become familiar with the existing categories of cloud computing. The three primary types of cloud computing are public, private and hybrid. “When we talk about public cloud, we mean that the whole computing infrastructure is located on the premises of a cloud computing company that offers the cloud service,” (Candrlic 1). This form of cloud computing is advisable for the less tech-savvy manager or company, given the fact that the entire control of the cloud lies in within the power of the separate entity. Alternatively, as its name implied, private cloud infrastructure is operated by the customer is not shared with other entities. As a result, this breed of infrastructure is conducive to a higher level of security. The final type of cloud computing infrastructure is defined as hybrid, which blends both public and private computing. “For example, public cloud can be used to interact with customers, while keeping their data secured through a private cloud,” (Candrlic 1). It is indisputably important to familiarize yourself with each type of infrastructure in order to develop an understanding of your options and make a selection best suited to the needs of your industry.

**Benefits**

Just as cloud computing is segmented into an assortment of types, it is also operable across different platforms such as SaaS, PaaS, and Iaas. “These services are made possible by virtualization, the ubiquity of high-speed networks and the capabilities of today’s browsers,” (Caruso 1). SaaS or Software as a Service is the most abstract option, though it highly probable that you have already experienced it, both professionally and on a personal level. “A simple example of SaaS is an online email service, like Gmail. If you use Gmail you are not hosting your own email server. Google is hosting and you are simply accessing it through your browser-as-client,” (Caruso 1). The SaaS flavor of computing is most geared toward end-users of an application. IaaS or Infrastructure as a Service is considerably different in nature and capabilities. A client possesses control of the software but is spared the burden of owning and operating the servers and equipment responsible for the processing of the software. PaaS or Platform as a Service exists in between SaaS and IaaS. It is neither a fully developed product nor a blank slate on which the client can create freely. “For example, Microsoft’s Windows Azure gives you tools to develop mobile apps, social apps, websites, games and more. You build these things, but you use the APIs and tools to hook them into the Azure environment and run them there,” (Caruso 1). Based on the needs of your business, I would recommend employing both SaaS and IaaS. Naturally, SaaS is already an integral facet of your business operation, with the use of email serving as a staple of your correspondence. IaaS, will allow you to have access to and operate your own applications, without having to concern yourself with the management of servers.

**Recommendation**

In order to enhance your company’s presence as an innovator in the realm of cloud computing, I would advice using a hybrid type infrastructure. As previously stated, this will allow you to interact with your customers while maintaining a satisfactory standard of privacy and security in regards to the personal information of the consumer. Some of the most pivotal applications permitted by cloud computing are referred to as channel operations. While I previously mentioned three flavors of computing, there is a separate breed of computing directly related to your company and industry as a whole classified as Retail as a Service (RaaS). “RaaS brings operational processes, like sales associate management and restocking onto a single cloud platform,” (Sepple and Schmaltz 1). Apart from an exceptionally heightened sense of convenience, RaaS will dramatically ease the peak loads synonymous with holiday seasons or product unveilings/launches.

On a similar level cloud gives retailers like yourself “access to industry leading inventory processes, such as Master Content Management (MCM) which creates a process to more effectively share IT data with businesses,” (Sepple and Schmaltz 1). This feature is of particular importance as it helps familiarize a company with its consumers. The modern consumer has an unflinching desire for their preferred retailers to become acquainted with them, and as a result possess the intel required to cater to their needs. These aforementioned applications can help “retailers use social data to better understand and influence consumer behavior,” (Sepple and Schmaltz 1). It is tremendously important to note, that prior to introduction of cloud computing to the world of retail, applications of this nature were reserved for massive multinational corporate chains. Through the adaptation to cloud computing, applications like these will enable you to maximize the efficiency of your business-consumer interacts, and prevent stock-outs or overstock through inventory monitor applications.

It is with an unrestrained degree of confidence that I recommend your company wholly adapt to cloud computing rather than unhurriedly gravitating in the direction of change. There is a prevailing trend in the retail industry defined by a transcendent resistance to updating antiquated servers. The adaptation to cloud computing will give you an unquestionable edge over your competition and perhaps most importantly provide your customers with an unparalleled retail experience.

Works Cited

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Caruso, Jeff. “IaaS vs. PaaS vs. SaaS.” *Network World.* 2 November 2011. Web.

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