Challenges Going to the Cloud

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Cloud service is like rabbit, they reproduce fast and you can't control its rapid growth.

- by Robert Herjavec (Shark Tank) at RSA Conference 2016

There is a service deployed in Amazon cloud every 11 seconds today. The number will become more astonishing as business in other regions come on board to take advantage all the benefits of cloud computing and storage. Before taking the leap, business leaders need to ask a few questions about the cloud infrastructure providers (IaaS providers) and clearly understand the differences between on-premise IT and the cloud environment.

How much do you trust your IaaS provider? After all, trust is everything to start with. The first question to ask is "who can access my data". If the provider's employee can access the data physically, for example, it would become necessary that the business encrypt the data at-rest. Now what if a third-party, such as government regulators or law enforcement, requests access to your data? What's is the protocol involved? What if there is a data breach incident, how does the IaaS provider notifies the business, how they recover from the incident and compensate the customers? These are not light issues to be ignored.

The next major decision is whether to use the public cloud or a private cloud? A private cloud is definitely safer at an expense. However in a public cloud, customers share a resource pool, including virtual machine, software and data sometimes. Depending on how segregated each customer is from others, abnormal usage by some customers can affect others.

According to Cloud Security Alliance, there are nine major security threats in the cloud environment (Data Breaches, Data Loss, Account Hijacking, Insecure APIs, Denial of Service, Malicious Insiders, Abuse of Cloud Services, Insufficient Due Diligence, Shared Technology Issues). You can download the original document at https://downloads.cloudsecurityalliance.org/initiatives/top_threats/The_Notorious_Nine_Cloud_Computing_Top_Threats_in_2013.pdf.

In the next blog, we will discuss some technology advances for cloud security.