Executive Summary

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# Project Description

Provide Don & Associates, a financial consulting company the potential benefits and risks of migrating to cloud computing and if it is a viable solution to the need for the infrastructure.

# Statement of Need

Don & Associates is a very successful company looking to expand into neighboring states within the Northeast region. The company's consistent growth has come to a situation where we need to reevaluate our IT infrastructure and look at other means to implement low-cost but high-performance solutions. Our company, Don & Associates, relies extensively on our IT department and internal network, which can strain our internal infrastructure. This conclusion means that we should look towards advancing our company's infrastructure into a cloud-based platform solution, especially with the future expansion of our company.

Currently, the company hosts its network on premises which has a costly expense in the upkeep of hardware but also is dependent on having an over-exerted IT department to handle the daily tasks associated with running an on-premises internal storage network. Currently, some cyberattacks have led to data loss and network outages that have put a strain on productivity due to employees not being able to access the network. This can also hurt our relationship with our clients if it shows that we are an unreliable provider in the financial market.

Considering all these factors, it would be prudent to consider migrating our onsite databases and applications into a cloud-based infrastructure solution. Cloud-based businesses are becoming one of the leading investments in most, if not all, organizations. "The reduced burden of no longer needing to maintain servers alone is highly cost-effective (Capistran, 2018)". The goals of migrating to cloud-based infrastructure for the company would be to reduce costs, consolidate billing of other branches that will use the service (this will help in our assessing our annual budgeting), and ensure that our servers are stable and more reliable in case of a cyber-attack or a natural disaster.

Using a cloud-based solution will also have benefits for our company's productivity. With cloud computing, we could tailor our needs to what services we would use instead of buying what we can afford at a lower cost. "This will allow you to choose the best-of-breed solution that's right for you, but it also makes it easier to dump that software solution if it is not a good fit and keeps our databases intact (Capistran, 2018).

Cloud Service Providers

There are many different could service providers, and these providers have potential and many other options for Don & Associates when migrating our infrastructure to a Cloud-based one. The constantly growing cloud technology industry has created many different companies to choose from, with millions of other apps and services that they provide at a fraction of the cost compared to on-premises infrastructure.

Amazon web services (AWS) would be the first company to consider. AWS is a leading provider of cloud-based solutions and has a significant stake in the market. They have the vastest array of applications and services and some of the world's largest and most secure data centers (Amazon Web Services, 2022). AWS offers many different services in the form of EC2 (Elastic Cloud Compute), S3 (Simple Storage Service), AWS Security Hub, AWS Shield, and many more. They also have a Relational Data Base Service (RDS), a collection of managed services that makes it simple to set up and operate. Scale databases in the cloud (Amazon Web Services, 2022) AWS also has a very user-friendly management hub. The hub also helps you with many different cloud management tasks and billing and cost analysis solutions.

The following cloud service provider I would recommend would be Microsoft Azure. Microsoft Azure is also a fast-growing cloud-based solution provider with extensive partnerships with many government agencies. Azure provides enterprise-grade cloud infrastructure on which customers and partners can rely. This includes physical elements like redundant power, networking, and cooling, as well as software elements like safe deployment processes, impactless maintenance, and failure prediction enabled by machine learning (Microsoft, 2022). There is also an Azure migration and modernization center; this allows a company to ease the migration process and help manage and secure the data you are migrating onto the Azure cloud.

The final cloud service provider I would recommend would be Google Cloud Platform (GCP). Google Cloud includes a combination of services available over the internet that can help organizations go digital. Google Cloud Platform (which provides public cloud infrastructure for hosting web-based applications (Knox, 2021). GCP offers an extensive and secure cloud infrastructure to ensure anything stored in their environment will be protected from outsider threats. GPC also has a wide array of applications and services to choose from based on the company's needs. These applications and services are computing and hosting, Storage and database, Networking, Big Data, and Machine learning (Google, 2022).

# Recommended Plan

My recommendation for Don & Associates for a cloud-based service would be Amazon Web Services (AWS). With all the different cloud service providers, AWS has more to offer our company and aligns more with our business model. AWS is the lead cloud technology provider and the best solution for our needs here at Don & Associates. AWS has one of the world's giant cloud service provider footprints and is constantly growing; from its data centers, the business provides over 200 fully featured services, including computing, storage, and databases (Amazon Web Services, 2022).

This large footprint is essential for expanding our company in the northeast states and will provide better quality service at more affordable prices. AWS has many different security services offered to protect our data. Some security services are listed above, along with DDoS mitigation and data encryption. They also have system monitoring and access and identity control applications. AWS also offers third-party solutions like IBM security and auth0; these can also be great for mobile authentication for corporate mobile devices. AWS is the best and most compatible and versatile cloud-based solution that fits our needs here at Don & Associates.

# Impact of Recommended Plan

The recommended plan for Don & Associates is first to evaluate our needs and current IT infrastructure. Since cloud computing offers a wide range of services, software, applications, and storage solutions, we may offset some costs by selling off unused or no-longer-needed hardware. This could be more of a good than a harmful impact on the company if AWS provides everything we need. Eventually, the company can save more money by migrating to a full-time cloud-based solution since our servers, software licenses, and databases will no longer be needed. This won't be an immediate result but will be noticed over time, possibly within the first year.

When it comes to the migration of our data onto the AWS cloud, their migration service helps us migrate our data quickly and securely with little to no risk to our data. Our current servers will still be active during the process, and employees and consumers will not even notice that we have changed over to a cloud environment, depending on the service we want to opt into at AWS. The AWS Migration hub is a single location to track the progress of our application migrations so that we will know the status of the migration throughout the process.

# References

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