**Week 4 Assessment**

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CLD 400: Virtualization and Storage

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February 4, 2024

**Cloud Transformation for Conscious Technology**

1. **Business Background and Situation**

Conscious Technology is an IT services provider that has been offering IT services for more than three years, they have clients from different parts of the world and it is growing quickly. One of the challenges it faces is that its outdated servers don't meet their goals. As a result, it needs flexible servers that can adapt to changing technology. Now they want to explore cloud virtualization.

1. **Solution Research:**

To address the problem of Conscious Technology I have to research and conduct an in-depth analysis of top cloud service providers. Amazon Web Services, Google Cloud Platform, and Microsoft can be considered as one of the best cloud service providers. Choosing any of these three would meet the needs of Conscious Technology. The main things that I looked up to have a better picture of which will be suitable for the business are backup services, security, storage services, serverless computing, database services, and pricing.

**Table: Comparison between three cloud providers**

|  |  |  |  |
| --- | --- | --- | --- |
| Basis | AWS | Azure | GCP |
| Pricing | offers a variety of payment methods, including pay-as-you-go, allocated instances, and spot instances. | offers a range of pricing options, including as pay-as-you-go, reserved instances, and hybrid benefits. | offers a variety of pricing choices, including savings for regular use and pay-as-you-go. |
| Compute Services | offers several computing services, like as Lambda, ECS (Elastic Container Service), and EC2 (Elastic Computing Cloud). | offers computer services, such as Virtual Machines (AKS), Azure Functions, and Azure Kubernetes Service. | provides cloud computing services, including Compute Engine, Google Kubernetes Engine (GKE), and Cloud Functions. |
| Storage Services | offers scalable storage options including Amazon S3 (Simple Storage Service), EBS, and Glacier. | provides storage options such as Azure Disk Storage, Azure Files, and Azure Blob Storage. | offers storage solutions including Google Cloud Storage (GCS), Persistent Disk, and Cloud Filestore. |
| Networking | provides networking services, including Amazon VPC (Virtual Private Cloud), Route 53, and Direct Connect. | offers networking services, such as Azure DNS, Azure Virtual Network, and ExpressRoute. | provides networking services, including virtual private cloud (VPC), cloud DNS, and cloud load balancing. |
| Database Services | offers a wide range of database substitutes, including Amazon RDS, Aurora, and DynamoDB. | provides Cosmos DB, Azure SQL Database, and Azure Database as database services for MySQL. | offers Bigtable, Firestore, and Cloud SQL database services. |
| Availability | provides low latency and high availability by having a wide global reach across several regions and availability zones. | Furthermore, it enables low latency and high availability with its global reach across several countries and availability zones. | has a presence throughout the world and multiple regions, but it's generally believed to have fewer regions than AWS and Azure. |

1. **Clear Recommendation:**

After the research, I will suggest Conscious Technology to tie up with Amazon Web Services. Through my analysis, AWS has better features as compared to Azure and Google Cloud. They are rich in features and have an affordable pricing range to get the features easily. They also have the best customer support as compared to other service provider. We can have personal customer support if any case our system gets affected. Another factor in choosing AWS is it has captured the market and has people's beliefs. Because it provides a dependable and scalable cloud platform for Conscious Technology's rapid growth and technical improvement, AWS is ideally suited to fulfill the company's changing needs in the IT services industry.

**Amazon Web Services: Selection Criteria**

1. **Cloud Hybrid Capability:** Amazon offers people secure hybrid solutions that help businesses combine their on-premises resources and cloud which helps Conscious Tech to handle different services easily.
2. **Smooth Integration:** Conscious Tech can easily move to the cloud within a second. We can have instant access with no impact as it connects with a wide range of current resources, apps, and IT infrastructure with ease.
3. **Enterprise Focus and Support:** Conscious Tech's wide range of clients is supported by AWS's complete enterprise-grade services, which include identity management, and security features.
4. **Cost-Effective Scalability:** One of the main reasons to select Amazon is its pricing too. It has a flexible pricing range according to the choices of the business. It helps to reduce the cost of Conscious Tech while expanding its IT offerings on demand. Moreover, Conscious can look up to Amazon as a provider who will help them achieve their needs and goals with minimal expenses.

**References**

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