Lab 6

AWS Lab 2

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1.

* 1. The saying you can’t manage what you can’t measure is true in cloud as cloud economics and billing is important. Cloud Servers need to meet SLA agreements and SLAs also provide a framework for measurement of performance so that it can be analyzed over time. By grouping accounts in the AWS billing conductor, you can easily view the total costs and usage for each billing period across all of your accounts. Until we have a way to quantify the price tag attached to various resource utilization scenarios, we lack the information necessary to make informed decisions about which instances to run.
  2. The organization should be measuring the resources needed daily, weekly or monthly and even the performance of the resources in accordance with SLA metrics as the compliance with it will be ensured and it also gives the admins something to compare performance to.
  3. Besides measuring performance, an organization needs to use economies of scale to gain the benefits of using cloud computing. The organization also needs to ensure that performance claims promised to users is met while maintaining reliability. The full benefit is achieved through scaling to improve revenue.
  4. One reason could be improper scripting which allocates the resources to a server but after completion of the task or when shutting down a server, the resources are not unallocated. The unexpected usage of volume could also be caused by unexpected traffic spikes which results in autoscaling hence higher charge.
  5. It is not necessarily a bad thing as the owner can now charge more and auto scale to get a better load balance
  6. Ways we can address this issue is setting our auto scaling policies according to our budget and making changes to the SLA too.

1. On-premises resource optimization has benefited from capacity management for decades. As cloud environments continue to reshape IT, this method is being refined to encompass the centralized control, monitoring, and optimization of all of a company's resources, regardless of whether they are hosted in the cloud or on-premises. Capacity management provides insight into planning and forecasting for both cloud and on-premises resources by letting you know what to expect in terms of compute configurations, storage, database, and network bandwidth, and the most cost-effective way to provision them.
2. Capacity management has been useful for optimizing on-premises resources for a long time. This approach is being perfected as cloud environments continue to reshape IT; it now includes centralized control, monitoring, and optimization of all of a company's resources, regardless of where they are physically located. Planning and forecasting for cloud and on-premises resources can be improved with the information provided by capacity management. This includes knowing what to expect in terms of compute configurations, storage, database, and network bandwidth, as well as the most cost-effective way to provision them.
3. Elements of iterative capacitive management are:
4. Checking baseline capacity requirements
5. Check potential for scaling
6. Use elastic Load balancers
7. Use Auto Scaling policies

It is called iterative as this is a step-by-step process.

1. The tradeoffs between cost and technical performance on the cloud is that greater the technical performance more is the upfront cost.

a)

1) Greater the technical performance greater the customer satisfaction and

2) Greater the operational efficiency and

3) Lesser is the time to market

b)

1) Before selecting a provider we need to understand the core business functions of our

organization and research which cloud provider best suits the goals of our organization, we also compare costs.

2) We can improve performance through the relationship by using the comcept of economies of scale.

1. We can identify new business opportunities after we shift to the cloud by

* seeing the trends in the various markets. We can also focus on marketing now.
* With the help of cloud computing, you can get instant access to vital data and analytics. As a bonus, these discoveries are less difficult to disseminate, collaborate on, and evaluate across the entire workforce. Depending on your business's requirements, many cloud solutions also come with a variety of analytics tools and features. The four main analytics tools include descriptive, predictive, prescriptive, and diagnostic analytics.
* We can also identify new markets to expand to by upscaling our services.