

Precautions While Migrating Towards Cloud Computing

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Abstract: Today, cloud computing is essential for any organization's growth. If your cloud infrastructure is solid, you can grow your business and meet your customers' needs. Utilizing cloud computing can also help your company stay within its financial budget because it will offer the greatest solutions at a reasonable price. However, in order to create your own private cloud and provide your users access, you must first move your database and application to the cloud. However, there are several difficulties with database migration to the cloud. We may achieve a flawless migration if we plan it well. There are many elements to be taken into account while moving in the cloud, including service provider, migration strategy, pricing, technical support, migration tools, etc. You must keep in mind the Dos and Don'ts of cloud migration before making the switch. This study focuses on what can and cannot be done when moving over the cloud. There are fewer risks of data loss or application failure while transferring your application or database over the cloud if you know what to do and what not to do. If they follow the right instructions and directions offered by this paper, this document will also be a great aid for new users to migrate applications or data without spending a lot of money.

Keywords: Cloud provider, Migration, Community Forms, Rollback, and Downtime.

Introduction

Cloud computing and storage models can offer a practical solution to our migration issues if we employ cloud technology correctly. You need to understand how to survive and function in this new reality as quickly as possible using the current technological trend. Because of its speed and low cost, business has embraced cloud computing. It also offers infrastructure costs and quick access to the newest technology to improve and improve cloud. However, the question of how to proceed remains. Now what? What to avoid? Any cloud mover must first determine the answers to these questions before proceeding with the transfer. It can help you save money, time, and find a better solution. So, before moving to the cloud, here is some information that will be helpful. Some Precautions for Migration Towards Cloud Computing is mentioned below

1. Determine your true needs, such as what to move and how to migrate.

Find out what you need to migrate before you switch to cloud computing: applications or data? Plan your relocation after that. As an illustration, if you wish to transfer an application to the cloud, you must decide which cloud computing model to use. Different cloud computing models exist. Private, Public, and Community Forms are available, as well as Hybrid models that combine some, all, or none of these forms. Choose one of these based on your migration needs, and then continue. "It is great to start a new business without costly IT infrastructure and staff expenses. Cloud saves you a lot of money there". Once you are done with that, take the next step and figure out what to move to the cloud. It can be your data or an application(s). It may be portion of your IT infrastructure or the entire spectrum of IT operations (CloudTweaks, Jan 2019).

2. Do account for your finances

Cost is the foundation of company and can be a key factor in cloud migration. You must carefully calculate your costs versus other resources if you wish to migrate. You can use it to determine which option best fits your needs and those of your wallet. Being careless and failing to view cost as a mature problem while converting to cloud computing could do you financial harm in the future.

3. Do educate yourself about cloud computing

If you want to migrate anything over cloud it's better to learn some basic about cloud computing. This includes industry trends and available services, said Maluf. "All clouds are not created equal, and there are important distinctions, consumer-oriented versus enterprise-grade," he said. "Research cloud service providers and their capabilities and services" (McNickle, June, 2020). Knowledge about the cloud computing helps you to choose better solution to your business. You may select proper model for your business and save your cost as well as time.

4. Plan properly before developing your strategy.

Best plan always give best results. If you plan and build your proper strategy you will defiantly achieve best result. It's good to build an integrated cloud strategy and associate roadmap . Maluf Said "Focus on incremental value by emphasizing infrastructure delivery and management simplification," (McNickle, June, 2020).

5. Before moving, train your staff.

To obtain the best results in any firm, staff training is crucial. If you have trained workers, you can use any application more effectively. You and every member of your staff must receive the required training before migrating to the cloud. The individual who will be handling the application needs to be thoroughly knowledgeable about cloud computing. If not, however, it is time to train them. Speak with the service provider about scheduling training sessions. Because the skills needed to move and the skills needed to maintain a cloud-based system are very different.

6. Perform a risk analysis before moving.

It's better to Understanding Risk and analysis of that before migrating over cloud. It is important because if you are planning to move your data in public cloud then there is risk of data loss or security. As public cloud is shared by many subscribers there is privacy issue occurred and in public cloud provider is offered limited services there is no customization available that suits to your business and fulfill your needs. Maluf said don't neglect application performance management analysis , "otherwise, pre- and post-cloud migration user experience will be hard to quantify, and SLAs will be tough to agree upon and effectively manage" (McNickle, June, 2020). Therefore, to minimize risk, it is best to establish that the supplier best meets your needs or find someone who can. Ensure that your critical applications function correctly in the new cloud environment. If not, modify it appropriately and execute it. Before moving, complete all of these tasks to save time and money.

7. Do have a rollback strategy prepared.

While transferring to cloud computing, faults are always a possibility and can happen at any time. Therefore, it's crucial to have a plan B while migrating because if plan "A" fails, you must be prepared with an escape plan "B" while migrating. Your cloud provider should be totally open and accommodating in this regard. In order to ensure that you have complete control over your data in the event of a disaster, something going wrong, or if you decide to stop using the cloud, you must request formal confirmation from the provider. Your data should be accessible and retrievable in an useable state. If something goes wrong during migration, you should be able to securely reverse the operation and retrieve all the data.

8. Don't follow the herd.

Always keep in mind that if you want success, you shouldn't blindly follow other individuals. Just adhere to your own specifications if you want the greatest solution for your cloud migration. Although various public and private clouds may seem like the best place to store your application and data when moving, you must determine your own requirements. As you are aware, before choosing a cloud option, a thorough plan and proof of concept testing are required.

9. If it's not necessary, don't try to develop your own cloud.

Building your own cloud is useless if you still have to pay for provider or data centre online support. It is better to use any available provider if you want to migrate your data than to develop your own cloud. Simply pay for the service, and they will take care of all maintenance and other duties. You can have your own private cloud even if you pay for it; you just probably don't want to build it yourself. Making your own cloud is not a bad idea; the mistake is doing it without giving your demands sufficient attention.

10. Avoid the danger of unneeded downtime.

If you want to move your data to the cloud, consider the options you have for data transmission. When moving to the cloud, make sure what data transfer options your cloud service provider offers you. Every cloud, whether it offers hosted, private, or public services, has its own rules for the movement of data. Data migration between different platforms cannot be transparent, and it must proceed as soon as feasible. In order to avoid needless downtime, it is therefore preferable to consider data transfer capabilities before migration.

11. Don't Wait

It's time to start thinking about cloud migration, so stop wasting time pondering so much. Making your cloud strategy as early as feasible will save you money because waiting will increase your costs.

12. Avoid utilizing any arbitrary cloud services

Avoid choosing a brand-new or haphazard cloud service provider when transferring to the cloud. Even while managed cloud services are more expensive, they take on the responsibility for managing the complete IT infrastructure, allowing you to focus on your main business. If your provider is new, it won't adhere to the documented set procedures or runbook provided by the administrator or operator for the exceptional running of the system. It will explain how to manage stressful situations like a move while working under a heavy workload.

Conclusion

Before moving to the cloud, it is a good idea to analyse your needs, identify the options that are accessible, and test each one with the provider of your choice. Avoid attempting to create your own cloud; instead, use a private cloud service provider. This will increase your scalability and decrease your cost. Never follow the herd and always look for a better cloud model for your database. Not only is good migration necessary for great results, but also proper training for your personnel. Avoid using arbitrary providers. Always use experienced, managed service providers; they will cost you more, but they will offer better answers to your needs. To avoid needless downtime, consider data transfer capabilities as well before a migration. The most essential thing is to just do it. Simply follow the advice given above carefully to start out on the right path.

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