

Проект по установлению критериев оценки облачных сервисов

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Аннотация

За короткий промежуток времени облачные вычисления изменили многие отрасли. Можно с уверенностью сказать, что облачные вычисления теперь революционизируют ИТ-индустрию. В настоящее время организация может зависеть от гибких затрат, а не думать о большом бюджете на владение активами. Но ИТ-специалисты и разработчики решений по-прежнему изо всех сил стараются найти подходящих облачных провайдеров для каждого клиента, чтобы сохранить свой долгосрочный успех.

Ключевые слова: облачные вычисления, критерии оценки, облачные сервисы, сертификаты и стандарты, дорожная карта, надежность, проблемы безопасности.

The project of establishment of evaluation criteria for cloud services

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Abstract

Within a short period of time Cloud computing has changed many industries. It is also safe to say that cloud computing is now revolutionizing the IT industry. At present time the organization can depend on flexible costs instead of thinking about a big budget for owning assets. But IT specialists and Decision Makers are still struggling to make sure for picking up suitable cloud providers for every client to maintain their long-term success

Keywords: Cloud Computing, Evaluation Criteria, cloud services, Certifications & Standards, roadmap, reliability, security issues.

Goal

Cloud computing is growing from strength to strength day by day. In recent years we have seen a revolution in terms of cloud computing and its providers. This is why decision makers must choose the best cloud provider using ample time and experience. In this article we will look forward to evaluate some necessary criteria for cloud services.

What is cloud Computing

The meaning of cloud computing can simply describe as the virtualization and central management of data center resources as software-defined pools.[1] The most popular meaning of cloud computing refers to running workloads over the internet remotely in a commercial provider's data center—the so-called “public cloud” model. From a customer perspective, the public cloud offers a way to gain new capabilities on demand without investing in new hardware or software.

AWS (Amazon Web Services), Microsoft Azure, Alibaba Cloud and Google Cloud Platform all exemplify this popular notion of cloud computing.

Criteria Evaluation

For writing this article I have discussed with a few company owners who right now are using cloud computing services. From them what I learn was very specific and relatable. And after interviewing them and discussing about cloud computing I came to a decision that firstly we need to clarify our specific requirements and minimum expectations very precisely.

To evaluate all the criteria of cloud services we need time. Taking a decision of using cloud computing services is not an easy one for both small and big companies. After all the idea of cloud computing is comparably new for many of us. So depending on our expectation we also need to find perfect timing for using cloud services.

For picking a cloud provider which will deliver the best kind of service characteristics for your company needs guidelines. We can look at some attributes when evaluating a cloud service provider. Moving your IT services to the cloud can change the cost and flexibility of work. But it requires running the business is critical to successfully migrating IT services to the cloud. Anyhow creating dedicated distributed applications to measure the real performances and create some relative scale seems to be a feasible solution.

For cloud service evaluation we can consider the following criteria:

- Availability;
- Service Roadmap;
- Reliability;
- Technologies;
- Data Security;

- Data Governance;
- Business policies;
- Scalability;
- Disaster Recovery;
- Dependencies;
- Performance;
- Migration Support;
- Vendor Lock in & Exit Planning;
- Competitively;
- Market Research [2].

Availability: While looking for the best cloud computing services checking the availability is one of the most important criteria. System failures and connectivity issues across the Internet can affect storage services. Availability is the recovery time when a service actually goes down. This is why before making a decision it is very important to check the availability of cloud services.

Roadmap: Every provider has a specific roadmap to develop their services. Their perfect planning to introduce new things and building up more advanced and established future in many ways depends on their complete roadmap and services. This is why we need to know the service roadmap before giving any commitment or taking decisions.

Reliability: Checking reliability of a service provider is one of the basic criteria for decision making. Here we can use several techniques to measure. But thinking of a perfect provider is very unlikely to get. We need to have compromising mentality, at the same time be cautious about our goal and demand. This is the checklist I strongly recommend anyone to give a look-

- Provider has attested and established processes;
- Able to handle planned and unplanned downtime;
- Intention to communicate with customers during times of delaying or interrupting the continuity of any services;
- Careful measures for liability and responsibility offered by the service providers.

Technologies: A service provider can have all best technologies but what we need may be something different. This is why before making a decision we all need to check if our requirements and providers services have a match or not. So check those followings-

1. How much customization we need to suit the platforms;
2. Do we need re-coding at all or not;
3. What kind of migration technologies they use;
4. Clear idea about their offers and technical support staffs.

Data Security: Cloud security refers to a broad set of policies, technologies, and controls deployed to protect data, applications, and the associated infrastructure of cloud computing. It is a sub-domain of computer security, network security, and, more broadly, information security. We need to ensure -

- The cloud provider's levels of data and system security;

- The maturity of security operations;
- Security governance processes;
- Ask about the internal security audit reports;
- Also briefly we should look after any Incident reports and evidence of remedial actions for any issues rose.

Data Governance: If we have specific requirements and obligations, we should look for providers that give us choice and control regarding the jurisdiction in which our data is stored, processed and managed. Whatever Cloud computing services we choose we should look at transparent and responsible data governance. We need to check either they are giving encryption for sensitive data or not. If the answer is yes then what kind of encryption and security for sensitive data including file/folders etc. are given. Also we need to understand the provider's data loss and breach notification.

Business Policies: Assess a provider's security policies and data management policies particularly relating to data privacy regulations. Ensure there are sufficient guarantees around data access, data location and jurisdiction, confidentiality and usage /ownership rights. There are a myriad of terms covered in the training module and your circumstances will dictate which are important, but key considerations include:

- Contractual and service governance, including to what extent the provider can unilaterally change the terms of service or contract.
- What are the policies on contract renewals and exit or modification notice periods?
- What insurance policies, guarantees and penalties are included and what caveats accompany them.
- And to what extent is the provider willing to expose their organization to auditing operations and compliance to policies.

Scalability: Scalability refers to the idea of a system in which every application or piece of infrastructure can be expanded to handle increased load. Before committing any deal or making any decision we need to understand the scalability of the service provider.

Disaster Recovery: Organizations can choose to fail over data, entire applications or virtual machine (VM) images. When data is failed over, it is available from file services in the cloud. However, cloud recovery can take a long time if there is a great deal of data. Application-based data can be replicated to another application running in the cloud. Or an entire VM image, including data, can be replicated to the cloud and powered up and accessed if there is an on-premises failover. [3]

Dependencies: It is important to check any service dependencies and partnerships involved in the provision of the cloud services or not. In some cases there may be a complex network of connected components and subcontractors that all play a part in delivering a cloud service. It's vital to ensure the provider discloses these relationships and can guarantee the primary SLAs stated across all parts of the service, including those not directly under its control. You should also

look to understand limitations of liability and service disruption policies related to these subcomponents.

Performance: Before stick to a decision we need to think about performance of cloud service providers. Some provider is designed as simple development platform that suffers when subjected to lengthy requests, while some values cheap, elastic computing power above all else. So we must have knowledge about all these issues and providing solutions.

Migration Support: It's very important to check what kind of Migration Supports we are going to get when we will start migrating our stuffs. It could be possible by communicating with the support team or searching things by your own.

Vendor lock-in & exit planning: Vendor lock-in is a major barrier to the adoption of cloud computing, due to the lack of standardization. Current solutions and efforts tackling the vendor lock-in problem are predominantly technology-oriented. Limited studies exist to analyze and highlight the complexity of vendor lock-in problem in the cloud environment. Consequently, most customers are unaware of their rights and consequences after joining a cloud service provider. This is why we need a clear idea about cloud computing Vendor lock-in. Similarly, ensure we have a clear exit strategy already in hand.

Competitively: The most compatible or most competitive cloud service is immaterial if the provider doesn't have a sound business. Make sure the main providers are a good fit for the long term. We need to look at analyst profiles, online reviews to get a sense of their market status.

Market Research: It's very important to check both our and service providers business history and market analysis to take a decision. A good analysis of market research is highly recommended for any decision making.

Summary

From Scalable Usage to Chatbots, cloud computing has a vast usage like communication, productivity, business process, backup and recovery, application development, test and development, big data analytics, social networking and so on. This is why most of the companies are now considering cloud computing as a reliable and permanent solution. If we consider decision making criteria like – Availability, Service Roadmap, Reliability, Technologies, Data Security, Data Governance, Business policies, Scalability, Disaster Recovery, Dependencies, Performance, Migration Support, Market Research etc. briefly and do our homework then it will definitely be a win-win situation for all.

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