Impact of Cloud Computing on Small Scale Industries

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Abstract*: Now a days cloud services are widely used in industries. Even in the large-scale industries instead of owning the server for companies' requirement, they go for the cloud approach. As the start-up companies are coming ahead to fulfill their dreams in this busy world, the friendly resource to them is "Cloud service". "Mind full of thoughts heart full of dreams". To acquire a deep knowledge of cloud computing.*
- It will explain to you the following questions.
• How will it workin the real-time scenario.
• How the small-scale industries or start-up companies will get good impact by using the cloud services.
• How we can acquire more knowledge about Cloud Computing.

Keywords: Cloud Computing Storage, Networking, Security

I. INTRODUCTION

In the early period when Cloud computing came into picture "**Client Server Architecture**" method were used, so whenever the user wants to access the data, they need get the permission from the vendor. So, after Client Server Computing, Distributed computing came into picture there were some limitations in it. To remove this limitation Distributed computing emerged with Cloud computing to give a better performance.

Now Cloud Computing is a convenient feature for startup companies and for the small- scale industries as they use shared pool for resources. It basically refers to the access and storing of information through the internet.

In today's scenario, Cloud vendors are king in the market as most of the software vendors are relying on cloud-based applications.

How will it work in the real-time scenario?

Cloud computing has become the most important integral part of modern technology, its real-time applications continue to touch the high. In a real-time scenario, cloud computing provides on-demand access to a variety of computing resources, services, and data storage over the internet. Let's see how it operates:

Resource Provisioning: Cloud providers like Amazon Web Services (AWS), Microsoft Azure, and Google Cloud Platform (GCP) maintain vast data centers with multiple servers, storage, and with required network equipment.

Service Models: Cloud computing offers different service models, including.
Infrastructure as a Service (IaaS)
Platform as a Service (PaaS)
Software as a Service (SaaS)

- **Monitoring and Management:** Cloud providers offer tools for monitoring and managing resources in real time. These tools will help us to gain insights about application performance and security threats.
- **Data Storage and Databases**: Cloud providers offer various storage options, including object storage, databases, and caching services. These services enable real-time data storage and retrieval.

In short, cloud computing in a real-time scenario provides the flexibility, scalability, and resources needed to support applications and services that require instant data processing, and high availability. It has become critical for various industries, including finance, healthcare and more, by powering real-time analytics, decision-making, and responsive user experiences.

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How the small-scale industries or start-up companies will get good impact by using the cloud services.

- Small-scale industries and startup companies can benefit significantly from using cloud services in various ways. Here are few points below:

- **Pay-as-you-go pricing models**: Cloud services offer flexible pricing where businesses only pay for the resources and services they use, helping startups manage their budgets more effectively.
- **On-demand scalability**: Startups can easily scale their IT resources up or down as their business needs change.
- **Rapid deployment**: Cloud services provide startups to launch applications and services.
- **Experimentation**: Startups can experiment with new ideas and technologies without the constraints of traditional IT infrastructure.
- **Area expansion**: Cloud services can be easily expanded to multiple regions, facilitating global growth for startups without the need for extensive physical infrastructure.

cloud services provide small-scale industries and startups with the resources they need to compete and to face today's digital world. By digging cloud technologies, these businesses can improve their operational work and focus on innovation and growth of the company.

How we can acquire more knowledge about Cloud Computing?

- Acquiring more knowledge about cloud computing can be accomplished through various means, both formal and informal.
- Undertake personal or small projects to apply your knowledge practically. This can help you strengthen your understanding of cloud concepts.
- Cloud computing is a vast field, so continuous learning and keeping up with new developments are essential to stay current and proficient in this domain.

Below here some advantages and disadvantages:

Advantages:

- **Cost Efficiency:** Cloud computing eliminates initial investment in hardware and infrastructure.
- **Scalability:** Cloud services can easily scale up or down based on demand. This flexibility allows businesses to efficiently handle changes in workload and avoid overprovisioning.
- **Accessibility:** Accessing the application through the internet from anywhere.
- **Reliability:** Backup and recovery are very fast.
- **Maintenance:** Cloud providers handle hardware maintenance, there will be no dependency on the internal IT for hardware maintenance.
- **Global Reach:** Cloud services can be deployed and accessed globally, making it easier for small scale industries to expand into new markets and reach a wider.
- **Resource Utilization:** Cloud resources can be dynamically allocated and shared among multiple users, leading to efficient resource utilization.

Disadvantages:

- **Security and Privacy:** Handover of information to the third-party vendor is a bit riskyand breaching of the sensitive data.
- **Connection issue:** Cloud service requires a stable internet connection for accessing the application.
- **Time-Consume:** As the cloud server uses shared network, upload and download of large data will be time-consuming.
- **Performance:** Performance can vary based on usage of the application as it is using shared resources.
- **Compliance:** As per the compliance requirements industries mostly prefer On-Premises services.
- **Long-Term Costing:** While cloud computing offers cost saving inthe initial stage, there will be long-term costing, if resource usage is not carefully managed.

It's important to note that the impact of these advantages and disadvantages can vary based on the specific needs and requirements of each business. Organizations should carefully consider these factors when deciding whether to adopt cloud computing and choose the right cloud strategy that aligns with their goals and priorities.

Review

The advantages of cloud computing are very low-cost and affordable to all the small-scale industries where they use the source as an asset. Reducing the investment in infrastructure and accepting cloud computing requires a balance between benefits and potential challenges.

II. ANALYSIS & DISCUSSION

By using the cloud services there will be less requirement of On-Premises server for startup companies and small businesses. As the Cloud server is pocket friendly for the startup companies, hardware and infrastructure are not focused by them.

III. CONCLUSION

Organizations that adopt dynamic, cloud-based operating models are better positioned to compete in today's fast-changing business environment. **Cloud computing** not only provides businesses with short term benefits, it also plays a key role in positioning these enterprises to be early adopters of the disruptive innovations that will shape the future.

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