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## **A Mini Review on Benefit of Cloud Computing**

**S. Neetha\***

*Research Scholar, Department of Computer Science,  
Rathinam College of Arts and Science (Autonomous), Coimbatore, Tamilnadu, India*

**\*Corresponding Author**

**Email Id: s.neetha21@gmail.com**

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### **ABSTRACT**

*Cloud computing is so important because it offers flexibility, data recovery, little to no maintenance, easy access and a higher level of security. Security Cloud computing offers great security when any sensitive data has been lost. Cloud storage is one of the greatest benefits cloud computing has to offer. Any relevant business data can be stored in the cloud, which makes it more accessible and usable. That said, your data can be accessed from any device and anywhere in the world, which is ideal for remote workers and offices.*

**Keywords:** *Cloud Computing, Benefits and Advantages.*

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### **INTRODUCTION**

Cloud computing has been around for approximately two decades and despite the data pointing to the business efficiencies, cost-benefits, and competitive advantages it holds, a large portion of the business community continues to operate without it. According to a study by the International Data Group, 69% of businesses are already using cloud technology in one capacity or another, and 18% say they plan to implement cloud-computing solutions at some point. At the same time, Dell reports that companies that invest in big data, cloud, mobility, and security enjoy up to 53% faster revenue growth than their competitors. As this data shows, an increasing number of tech-savvy businesses and industry leaders are recognizing the many benefits of the cloud-computing trend. But more than that, they are using this technology to more efficiently run their organizations, better serve their customers, and dramatically increase their overall profit margins [1].

All this seems to indicate that given the apparent direction in which the industry is moving, there's never been a better time to get your head in the cloud. Cloud computing is a term that has gained widespread use over the last few years. With the exponential increase in data use that has accompanied society's transition into the digital 21st century; it is becoming more and more difficult for individuals and organizations to keep all of their vital information, programs, and systems up and running on in-house computer servers. The solution to this problem is one that has been around for nearly as long as the internet, but that has only recently gained widespread application for businesses [2].

Cloud computing operates on a similar principle as web-based email clients, allowing users to access all of the features and files of the system without having to keep the bulk of that system on their own computers. In fact, most people already use a variety of cloud computing services without even realizing it. Gmail, Google Drive, TurboTax, and even Facebook and Instagram are all cloud-based applications. For all of these services, users are sending their personal data to a cloud-hosted server that stores the information for later access. And as

useful as these applications are for personal use, they're even more valuable for businesses that need to be able to access large amounts of data over a secure, online network connection. For example, employees can access customer information via cloud-based CRM software like Sales force from their smartphone or tablet at home or while traveling, and can quickly share that information with other authorized parties anywhere in the world [3].

#### **BUSINESS ADVANTAGES OF CLOUD COMPUTING [4].**

1. Cost Savings
2. Security
3. Flexibility
4. Mobility
5. Insight
6. Increased Collaboration
7. Quality Control
8. Disaster Recovery
9. Loss Prevention
10. Automatic Software Updates
11. Competitive Edge
12. Sustainability

#### **Cost Savings**

If you are worried about the price tag that would come with making the switch to cloud computing, you aren't alone 20% of organizations are concerned about the initial cost of implementing a cloud-based server. But those who are attempting to weigh the advantages and disadvantages of using the cloud need to consider more factors than just initial price they need to consider ROI. Once you're on the cloud, easy access to your company's data will save time and money in project startups. And, for those who are worried that they'll end up paying for features that they neither need nor want, most cloud-computing services are pay as you go. This means that if you don't take advantage of what the cloud has to offer, then at least you won't have to be dropping money on it. The pay-as-you-go system also applies to the data storage space needed to service your stakeholders and clients, which means that you'll get exactly as much space as you need, and not be charged for any space that you don't. Taken together, these factors result in lower costs and higher returns. Half of all CIOs and IT leaders surveyed by Bitglass reported cost savings in 2015 as a result of using cloud-based applications [1].

#### **Security**

Many organizations have security concerns when it comes to adopting a cloud-computing solution. After all, when files, programs, and other data aren't kept securely onsite, how can you know that they are being protected? If you can remotely access your data, then what's stopping a cybercriminal from doing the same thing? Well, quite a bit, actually. For one thing, a cloud host's full-time job is to carefully monitor security, which is significantly more efficient than a conventional in-house system, where an organization must divide its efforts between a myriad of IT concerns, with security being only one of them. And while most businesses don't like to openly consider the possibility of internal data theft, the truth is that a staggeringly high percentage of data thefts occur internally and are perpetrated by employees. When this is the case, it can actually be much safer to keep sensitive information offsite. Of

course, this is all very abstract, so let's consider some solid statistics. Rapid Scale claims that 94% of businesses saw an improvement in security after switching to the cloud, and 91% said the cloud makes it easier to meet government compliance requirements. The key to this amped-up security is the encryption of data being transmitted over networks and stored in databases. By using encryption, information is less accessible by hackers or anyone not authorized to view your data. As an added security measure, with most cloud-based services, different security settings can be set based on the user. While 20% of cloud user claims disaster recovery in four hours or less, only 9% of cloud users could claim the same [2].

### **Flexibility**

Business has only a finite amount of focus to divide between all of its responsibilities. If your current IT solutions are forcing you to commit too much of your attention to computer and data-storage issues, then you aren't going to be able to concentrate on reaching business goals and satisfying customers. On the other hand, by relying on an outside organization to take care of all IT hosting and infrastructure, you'll have more time to devote toward the aspects of your business that directly affect your bottom line. The cloud offers businesses more flexibility overall versus hosting on a local server. And, if you need extra bandwidth, a cloud-based service can meet that demand instantly, rather than undergoing a complex (and expensive) update to your IT infrastructure. This improved freedom and flexibility can make a significant difference to the overall efficiency of your organization. A 65% majority of respondents to an InformationWeek survey said "the ability to quickly meet business demands" was one of the most important reasons a business should move to a cloud environment [3].

### **Mobility**

Cloud computing allows mobile access to corporate data via smartphones and devices, which, considering over 2.6 billion smartphones are being used globally today, is a great way to ensure that no one is ever left out of the loop. Staff with busy schedules, or who live a long way away from the corporate office, can use this feature to keep instantly up to date with clients and co-worker. Through the cloud, you can offer conveniently accessible information to sales staff who travel, freelance employees, or remote employees, for better work-life balance. Therefore, it's not surprising to see that organizations with employee satisfaction listed as a priority are up to 24% more likely to expand cloud usage [3].

### **Insight**

As we move ever further into the digital age, it's becoming clearer and clearer that the old adage "knowledge is power" has taken on the more modern and accurate form: "Data is money." Hidden within the millions of bits of data that surround your customer transactions and business process are nuggets of invaluable, actionable information just waiting to be identified and acted upon. Of course, sifting through that data to find these kernels can be very difficult, unless you have access to the right cloud-computing solution. Many cloud-based storage solutions offer integrated cloud analytics for a bird's-eye view of your data. With your information stored in the cloud, you can easily implement tracking mechanisms and build customized reports to analyze information organization wide. From those insights, you can increase efficiencies and build action plans to meet organizational goals. For example, the beverage company Sunny Delight was able to increase profits by about \$2 million a year and cut \$195,000 in staffing costs through cloud-based business insights [5].

## **Increased Collaboration**

If your business has two employees or more, then you should be making collaboration a top priority. After all, there isn't much point to having a team if it is unable to work like a team. Cloud computing makes collaboration a simple process. Team members can view and share information easily and securely across a cloud-based platform. Some cloud-based services even provide collaborative social spaces to connect employees across your organization, therefore increasing interest and engagement. Collaboration may be possible without a cloud-computing solution, but it will never be as easy, nor as effective [5].

## **Quality Control**

There are few things as detrimental to the success of a business as poor quality and inconsistent reporting. In a cloud-based system, all documents are stored in one place and in a single format. With everyone accessing the same information, you can maintain consistency in data, avoid human error, and have a clear record of any revisions or updates. Conversely, managing information in silos can lead to employees accidentally saving different versions of documents, which leads to confusion and diluted data [2].

## **Disaster Recovery**

One of the factors that contributes to the success of a business is control. Unfortunately, no matter how in control your organization may be when it comes to its own processes, there will always be things that are completely out of your control, and in today's market, even a small amount of unproductive downtime can have a resoundingly negative effect. Downtime in your services leads to lost productivity, revenue, and brand reputation. But while there may be no way for you to prevent or even anticipate the disasters that could potentially harm your organization, there is something you can do to help speed your recovery. Cloud-based services provide quick data recovery for all kinds of emergency scenarios, from natural disasters to power outages. While 20% of cloud users claim disaster recovery in four hours or less, only 9% of non-cloud users could claim the same. In a recent survey, 43% of IT executives said they plan to invest in or improve cloud-based disaster recovery solutions [2].

## **Loss Prevention**

If your organization isn't investing in a cloud-computing solution, then all of your valuable data is inseparably tied to the office computers it resides in. This may not seem like a problem, but the reality is that if your local hardware experiences a problem, you might end up permanently losing your data. This is a more common problem than you might realize computers can malfunction for many reasons, from viral infections, to age-related hardware deterioration, to simple user error. Or, despite the best of intentions, they can be misplaced or stolen (over 10,000 laptops are reported lost every week at major airports). If you aren't on the cloud, you're at risk of losing all the information you had saved locally. With a cloud-based server, however, all the information you've uploaded to the cloud remains safe and easily accessible from any computer with an internet connection, even if the computer you regularly use isn't working [3].

## **Automatic Software Updates**

For those who have a lot to get done, there isn't anything more irritating than having to wait for system updates to be installed. Cloud-based applications automatically refresh and update

themselves, instead of forcing an IT department to perform a manual organization-wide update. This saves valuable IT staff time and money spent on outside IT consultation. PCWorld lists that 50% of cloud adopters cited requiring fewer internal IT resources as a cloud benefit [4].

### **Competitive Edge**

While cloud computing is increasing in popularity, there are still those who prefer to keep everything local. That's their choice, but doing so places them at a distinct disadvantage when competing with those who have the benefits of the cloud at their fingertips. If you implement a cloud-based solution before your competitors, you'll be further along the learning curve by the time they catch up. A recent Verizon study showed that 77% of businesses feel cloud technology gives them a competitive advantage, and 16% believe this advantage is significant [5].

### **Sustainability**

Given the current state of the environment, it's no longer enough for organizations to place a recycling bin in the breakroom and claim that they're doing their part to help the planet. Real sustainability requires solutions that address wastefulness at every level of a business. Hosting on the cloud is more environmentally friendly and results in less of a carbon footprint [4].

### **CONCLUSION**

Cloud infrastructures support environmental proactivity, powering virtual services rather than physical products and hardware, and cutting down on paper waste, improving energy efficiency, and (given that it allows employees access from anywhere with an internet connection) reducing commuter-related emissions. A Pike Research report predicted data center energy consumption will drop by 31% from 2010 to 2020 based on the adoption of cloud computing and other virtual data options.

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