

# A study on Privacy Protection and Data Security in Cloud Computing

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## 1) Abstract -

Cloud computing is the used to store the huge amount of data in the cloud for storing the various types of data such as –text ,video audio etc. And cloud computing is used the various algorithms to secured a data for the cloud.Cloud computing is the most useful computing model of previous years it is a sure a safety provided services by cloud or user for his security, privacy, protecting the data.

Cloud computing is the provide service to consumers and businesses to use without any type of application can't installing any app to use cloud service access to the internet. Cloud is the various types of advantages included the creation and storage of data at control the cloud server. User can access of our personal files data in any type of computer with the help of connect via internet. In current situation cloud computing can access the business application with the help of internet then there are create a several types of challenges then various benefits to the cloud

In current situation cloud computing is the one of the most popular software in IT industry and any other, then occurs a any type of security issues this paper gives solutions for this security issues.

## 2)Introduction -

A cloud computing is the one of the best system ever in world because cloud is provide on demand quality data storage system and its provides extra storage to demand on customers. Cloud computing is all services can use when connect via internet.

Nowadays many organizations and medium or small businesses enterprises can increase a benefit by application of data cloud. Main advantage of cloud computing his reduces the infrastructure cost and offer a service when customers can requested.

The main challenges of cloud computing is solve the security and privacy protection problems it can be big challenge of security of data and cloud provided better privacy protection to the customers. All clients can expect their applications of data can remain private or secured don't misused their data to fraud peoples

Cloud computing is most common components are software, platform, infrastrucatur this components are models of a cloud computing. With the help of cloud computing is boost the companies performance and don't waste a extra time to other activities. In this case customers can created a trust issues problem its issues a security of a system in this way service provider can implementing the security of a system and provider must guaranty that their data or infrastructure can secured or private can only user can seen or edit our data

End user can access the cloud services without any type of knowledge of the technology. Users can protecting a personal information to the privacy via self defence means every users can control his own data whether public or private. This paper presents the overview of a security and privacy protection of cloud computing.

### 3) SECURITY OF CLOUD COMPUTING -

The cloud is the fact that the security is the critical problem cloud security is the big challenge to the cloud providers. Using a trusted network and platform may improve the cloud security and storage.

A secure cloud provides a reliable service by protecting data and its services available to the client with high performance. providers must provide a service free of any problems like data loss or theft problems.

The security issues in the cloud related to the communication between the customers from one side and the cloud machines on the other side

#### CLASSIFICATION OF SECURITY CONCERNS ACCORDING ON CLOUD TYPE

<i>Personal Cloud</i>	<i>General Cloud</i>
<ul style="list-style-type: none"> <li>-Identity and access management.</li> <li>-Data protection.</li> <li>-Security intelligence.</li> <li>-Software, platform &amp; infrastructure security.</li> </ul>	<ul style="list-style-type: none"> <li>-DOS attack.</li> <li>-Attack on virtual machine.</li> <li>-Placing malicious code.</li> <li>-Attack on physical machine.</li> </ul>
<i>Domain-Specific Cloud</i>	<i>Mixed cloud</i>
<ul style="list-style-type: none"> <li>-Compliance and auditing.</li> <li>-Firewall feature &amp;</li> <li>-Intrusion detection.</li> <li>-Access controls</li> <li>-Antimalware &amp; antivirus protection.</li> </ul>	<ul style="list-style-type: none"> <li>-Multiple cloud tenants</li> <li>-Ongoing compliance concern..</li> <li>-Identity management &amp; access control.</li> <li>-Data slinging.</li> </ul>

Ø The cloud Security Challenges

Ø The Cloud Security Issues

Ø Solutions to Security Issues

#### 4)The cloud Security Challenges -

the most important role in cloud computing, users can't imagine putting their information and running their software on external hard disk and someone else's CPU.

Several security issues like phishing and data loss produce serious threats to data and software operated by the organization.

**Costing model:**CC is reduce the cost of infrastructure but it may increase data communication cost such issues are notify then user uses the combination of public and private cloud deployment model

**Charging model:**the virtual machine is going to become a unit cost rather than physical server analysis item.

## 5)The Cloud Security Issues -

classified cloud computing security issues into two main categories: security issues faced by the providers and security issues faced by the users. Cloud security issues are main challenge to the cloud service providers because cloud computing solve the security issues then system is the tightly secure.

Security is that attack when users send a message, they must wait a cloud server to complete the computational processes, before this request, the client must be authenticated to use the cloud system. Identified another cloud security issue called data protection. The data is protected when one customer data is separated from the other customers,

o Several security issues can affect the cloud security levels

Regularity compliance: when the data is held by the providers, the clients have the responsibility of their data security and integrity.

Recovery: When the cloud server is down then their data can not recovered easily

Viability: The availability of the data after faults

Data segregation: Data from customers share the same environment with other customers

## 6) Solutions to Security Issues -

Many security issues such as data segregation, authentication, privacy, policy integration, console security, recovery, and access sensitive data, may face for cloud computing. To handle those threats, some solutions like API standardization, legal support improvement, virtual machine improvement, and cryptography have been used. To reach an acceptable level of security in the cloud, it's important to have standard security measures.

focused on the measures of the security that are used to increase the effectiveness of cloud computing implementation

Another solution is by using better enterprise infrastructure; it provides configuration and installation of the components, such as firewalls, routers, operating systems and proxy servers. Using data encryption also is another solution since no need for further security from the enterprise, and all of the security loads are placed on the cloud provider. final solution is identifying data flow chart.

## 7) PRIVACY CHALLENGES -

One of the most important goals we want to achieve in cloud computing security is protecting data privacy. Privacy is the main point of the cloud computing because of customers can believe in privacy of their data to save in cloud storage. Another difficult issue about cloud computing is the movement of data, where data may transfer between countries and face local regulations.

One of the biggest challenges for business adoption of cloud computing is the lack of privacy and data security. Cloud

computing is the provides a as per as better privacy protection to their data in store in cloud, there are many challenges occur in several times. data security risks are potent because of open environment of CC. Such issue raises more challenges related to privacy where it increases the risks of information confidentiality because of the density of data within common clouds.

## 8) Privacy issues solutions -

Many methods were proposed to solve problems privacy anytime and anywhere in this review we will describe some of these methods and approaches.

Architecture and framework for solving privacy issue in cloud

a new cloud framework known as Data Protection as a Service, which is able to reduce the application development efforts which are required for data protection and mean time it also allows the rapid development and maintenance

Approach or prototype for solving privacy issue in cloud

privacy protection framework for cloud environment to provide confidentiality to users data without affecting system performance.

## 9) Conclusion -

In this research paper there are several points or cloud about all information covered and conclusion is cloud computing is the used several fields then its all about data or information can be secure as per as possibilities. Cloud computing is the main part of customers data privacy then this paper can covered issues occur in safe the data and customers data can private it can not used anytime anywhere and also be solutions to the issues occur in security and privacy to cloud computing. Cloud computing is the provide better security compare to the other services it can also provide data privacy.

## REFERENCES :

<https://www.ieee.org/>