# Threats and Problems of Cloud Computing and Ways of Providing Security

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These services many advantages, they face many of the threats and risks that could affect seriously the data and information used if it is seriously keen to understand and put the right solutions to avoid them.

Cloud computing is the security and protection of the data subject. Despite that these clouds may be more defensible from a personal device, but the possibility of data loss is a problem. The goal of research to identify the cloud computing and the advantages and disadvantages, and you must know the gaps and weaknesses and how to identify solutions.

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*Strictly as per the compliance and regulations of:*

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## I. Introduction

Cloud computing is a technology that relies on the transfer and processing of computer storage space for the so-called cloud, hardware servers are accessed via the Internet. To turn programs from products to services. And allow users to access them via the Internet without the need to acquire knowledge and experience and control with material. Rely on advanced cloud computing data centers, which provide large storage space for users, as some programs as services available to users. Renowned for cloud computing by providing special services made it easier for users of their business, reduced costs, increased efficiency and made them focus on their goals and leave the technical things for service providers, so I went big companies to cloud computing, it became easier for new companies to start its full relying on cloud computing. Cloud computing faces many threats and risks that could affect seriously the work of the companies that use them if you do not seriously keen to understand and put the right solutions to avoid them. After clarifying the meaning of cloud computing can be done cloud computing summarized in three main sections based upon all of the above services and a variety of applications.

1. Software as a service
2. Platform as a service
3. Platform as a service

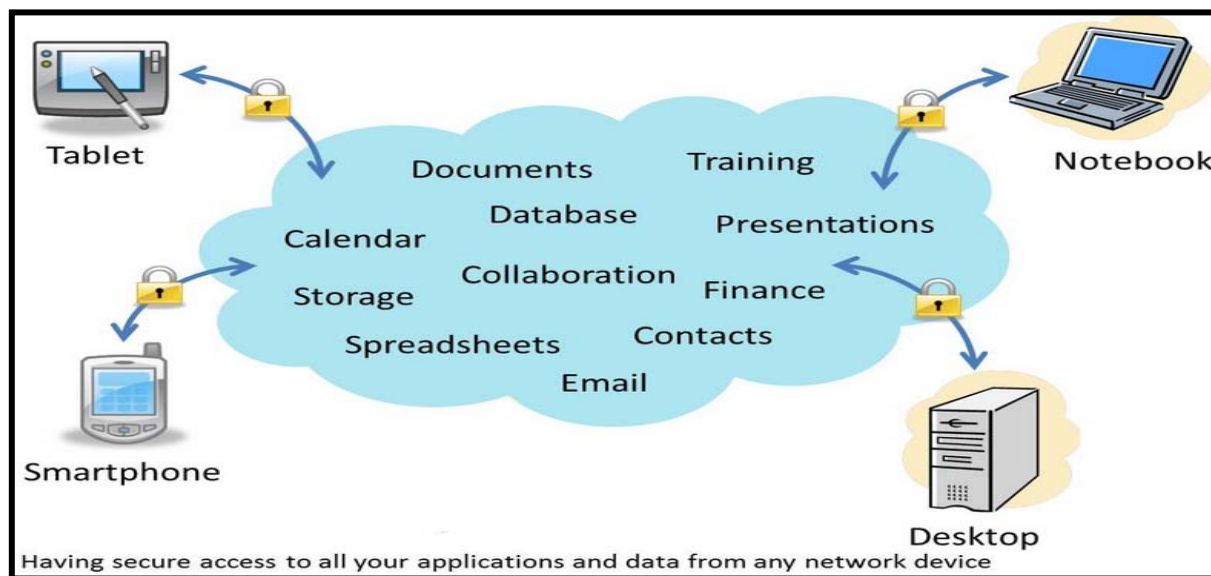These three sections representing all the different cloud computing services.



*Figure 1:* Shows the uses of cloud computing

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## II. The Importance of Research

The importance of the paper that the security of computing information cloud e is very important from many points of view and the point of view that the information not be safe only when management of the internal network, while others believe that cloud computing e can provide the necessary security to ensure the maintenance of information and safety. That the information security problems in the electronic clouds come from two sides: Service Provider, Customer But the main problem in the service provider, to provide a strong infrastructure, tools and secure storage warehouses.

Researchers interested in identifying threats and problems and find out weaknesses and how the solutions to the problems of cloud computing.

## III. Research Questions

1. What are the threats and problems facing cloud computing to provide services?
2. Methods and ways to address solutions and cloud computing problems.
3. What are the reality and the future of cloud computing technology?

## IV. Research Objectives

Objectives of this study are concentrated in the following:

1. Identify new concept known as cloud computing and the various applications and advantages and disadvantages.
2. Disclosure of the possibilities offered by cloud computing and how to utilize them in the provision of information services.
3. Identify threats in cloud computing applications.

## V. Weaknesses and Risks and Threats in Cloud Computing

From the viewpoint of researchers, users should know the disadvantages and risks of cloud computing services in addition to its advantages, and think about where researchers reviewed some weaknesses, threats and explained points are also know the solutions. Month's threats to cloud computing where she classifies them into the following nine categories:

1. Data Breaches Break through and steal data of the worst things, this also applies to customers' confidential or sensitive files.
2. Data Loss  Loss of data due to problems with the service provider, or mistakes, or  because of a hack either penetrate the service provider or even a user penetration, can lead to a big problem, a lot retains important files on cloud computing.

3. Hijacking Account or Service Traffic Multiple ways to steal and efficient data entry, whether it is done using tricks to fish fraud, or by taking advantage of applications and systems that deal with the user in organs gaps. When a hacker gets in any way they can then spying, manipulation of data sent and received data.
4. Insecure Interfaces and APIs The user typically controls their statements on the clouds across the interface linking services / applications provided by the service provider that, whether linking their systems own or through third-party systems. These interfaces must be safe to use against errors or malicious uses. The user must be careful when using these interfaces to follow the best ways to ensure the utmost security, in contrast to the service provider must be careful to provide maximum safety and control levels to ensure users' data.
5. Shared Technology Vulnerabilities Cloud computing services provider to share their network resources among users depends. A gap or a mistake in one of the settings in the accounts may lead to a full expose the network to the danger.

Secure cloud computing of the most important challenges we will look at the security gaps and try to reach solutions to the roads and not the pirates of computing that expand the possibilities of penetration to enable For example, a breakthrough passwords, and authentication tools to exploit SSL protocol on Debi an is also working on cloud computing, it is also working on a network of users. Collective attacks are still effective; of fraud attempts are persuading Amazon cloud network users to the implementation of malicious portrait of a Default.

Researchers from the figure illustrates the most important weaknesses and gaps in cloud computing low risk or at least not according to availability of features and availability.

*Figure 2:* Shows the reasons breakthroughs cloud computing

## VI. Conclusions

About the security of electronic clouds differ in the two destinations of view, that the information not be safe only when managed in an internal network. The point of view that the electronic clouds can provide the necessary security to ensure the conservation and integrity of information.

Researchers found a set of conclusions are summarized in the following:

– That cloud computing has become a very important day, with the increasing use of the cloud increases the risk to data.

– That the information security problems in the electronic clouds come from two sides: the client and the service provider, but always the greatest load is the responsibility of the service provider, it is mandatory to provide a strong infrastructure and tools and storage depots are safe.

– There are many security standards by which to maintain the confidentiality and security of information in the cloud.

## VII. Recommendations

1. Cloud computing need for further studies and research with respect to security aspects (weaknesses in their applications).

2. Keep abreast of developments in the areas of computing and give more attention to information security to cloud computing, there will come a time where all the governments, institutions and corporate data become associated with cloud computing and will switch all operating systems with speeds of cloud systems and very large capacities in the future.

3. The adoption of security standards facilitates secure cloud computing

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