

Cloud-Based Smart Telemedicine

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Dear Editor,

Today's needs and requirements have improved the healthcare system. Throughout the world, the healthcare services provision system is a set of knowledge and data on medical, management, financial, and technological sciences. The advent of certain factors such as receiving healthcare services from different organizations and people, patients' geographical movement, and the vital need for their former information, which are necessary for making sound decisions, has made it necessary to improve the use of some older techniques. Thus, considering upgrading global healthcare became very necessary because of the importance of internet-of-things-based smart telemedicine development.¹ In this way, analyzing cloud computation can be regarded as a possible solution to ensure using and taking advantage of smart telemedicine technology, which allows users to purchase only those services they need. Thanks to cloud computing, holding video conferences and sharing patients' medical information have become easier.²

Forming a sizeable, secure, high-speed, and accessible network that facilitates data transmission and sharing is among the requirements for exchanging information in a telemedicine system. The designers can supply storage, software, processing, and machine-based learning tools through cloud facilities.

The analysis of challenges for a full platform is often completed by analyzing the following items:

- Recognizing the key factors affecting the decision-making about launching cloud computation across telemedicine;
- The importance of doctors' experience in assessing the patients' status;
- Its economic impact.

Cloud Computation

Information technology development depends on

performing computation activities anytime and anywhere, and it is realized through bypassing obstacles and limits, including space, hardware, and software; therefore, currently, cloud computation is the latest technological response to such needs. Cloud computation refers to the practical applications provided over the internet as well as systematic hardware and software across the data centers.³

For cloud computation, the information technology world's resources including hardware, software, and infrastructures are provided through various models, all of which are referred to as services.

The Classification of Clouds by Type of Emergence

Public Cloud

Cloud infrastructure is designed so that its accessibility is possible only through public networks such as the internet.

Private Cloud

Cloud data centers are particularly designed and launched for the use of employees of a certain organization, and they are inaccessible to those outside the organization.

Community Cloud

This kind of cloud belongs to several organizations that decide, for some common considerations, to use the same cloud.

Hybrid Cloud

A mixture of public and private clouds is used in an organization.^{4,5} Thus, private cloud computation is recommended for launching a safe telemedicine system.

Benefits of Using the Cloud Instead of Communication Networks in Telemedicine

1. Rapid implementation;
2. Constant high-speed communication between



- physicians and patients;
3. Proper storage space for telemedicine by lowering costs;
 4. Best locations for data centers and connecting various databases;
 5. Expert system analysis of information gathered in the cloud space;
 6. Intensive data processing;
 7. Organizing health e-cases in the cloud;
 8. Allowing patients to use significant benefits of healthcare services electronically.^{1,5}

Authors' Contribution

All authors drafted, revised, and approved the initial and final article.

Competing Interests

The authors declare no conflict of interests.

Ethical Issues

Not applicable.

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