

# Analysis of Challenges and Benefits of Internet of Things in Healthcare

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**Abstract:** *The research paper discusses various challenges related to Internet of Things implementation into the healthcare sector, for example data resource management, security, loss of privacy, access control, and stakeholder collaboration.*

*In the future Internet of thing is going to be an integral part of the patient's diagnosis, treatment, recovery, and monitoring process.*

*It is estimated that a large number of objects will be connected to the Internet of thing network. All these devices will generate unstructured data; these data must be processed in a time-critical manner. Otherwise, it becomes inadequate for real-time monitoring and decision-making, which requires immense infrastructure, computation, networking, storage capacity, etc. For monitoring purposes, it is critical to process and deliver data in synchronization to the stakeholders like treating physician's panel, analytics platforms, healthcare providers, and insurance companies*

*Patients' data security is a another challenge for IoT healthcare system these data flow in the network without any encryption. Any malicious actor can access data and can cause severe consequences. Patient's data can be altered, and these corrupted data can be used to take the life and death decisions. Data can be corrupted at the origin or in the network. The concern is about how to trust the data received from sensors, which travel across the network.*

*Privacy is also of extreme importance in IoT healthcare system as the patients expect their information (medical or otherwise) to be confidential. Only necessary information that is required to provide the healthcare should be sent over the network. The government also plays an important role while dealing with the loss of privacy. A government may form laws to protect the sensitive information of citizens. Finally, IoT healthcare system is a collaboration between the health care industry and the IoT sector. All the stakeholders, especially the one who will make use of this system (e.g., nurses, patients, doctors), should receive a precise and professional training, and to a large extent the success of the IoT healthcare industry will be dependent on it*

**Keywords:** Internet of Things