

# Abstract

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## **MedCloud : Healthcare Cloud Computing System**

Existing systems for patients' data storage are not scalable enough for the increasing number of patients and applications. Cloud computing promises low cost, high scalability, availability and disaster recoverability which can be a natural solution for some of the problems faced in storing and analysing patients' medical records. This paper examines the impact of cloud computing on improving healthcare services. More specifically, this research details the architectural design for a personal health record system called "MedCloud" that utilizes and integrates services from Hadoop's[1] ecosystem in conjunction with HIPAA privacy and security rules[2]. A scalable platform is proposed for developers to use in application development and Restlet[3], a web portal, is presented to users, to access the MedCloud system. Later on, the development of the MedCloud model is illustrated through issues analysis followed by an in-depth performance evaluation.