

## **Integration of Smart Wearable Mobile Devices and Cloud Computing in South African Healthcare**

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### **Abstract:**

The acceptance of cloud computing is increasing in a fast pace in distributed computing environment. The use of cloud environments for storage and data processing needs is on the rise. On the other hand, mobile devices have been seen as one of the most essential and affordable tool for data access. In South Africa, health care processes are mostly manually prepared. Collecting and analysing patient's information using the existing processes requires more effort. Generally these processes are prone to error and time consuming, and provide delay in information storage and accessibility. These conditions restrict monitoring and diagnostics capabilities thereof. The main aim of this study is to design a framework architecture that integrate smart wearable mobile devices and cloud computing in healthcare. The objective of this study are; investigating the existing devices; current status of healthcare research and cloud computing in South Africa; investigate the existing methods, models, architecture and frameworks that are used/proposed in health informatics to improve ubiquitous health care. We then will design the architecture that integrates smart wearable mobile device and cloud computing in public health care capable of aiding health-care professionals better manage patient bases by reducing or eliminating on-site consultations. This integration will be made possible by designing an integrated architecture that will enable patient's information to be stored in a centralised portal for remote access. For security and easy access of data, cloud computing is widely used in distributed mobile computing environment. It is important to also highlight on cloud computing related security issues that guide access of personal information.