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## An efficient big data collection in Body Area Networks

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**Abstract:** In this paper we present an efficient big data collection model in Body Area Network (BANs) using cloudlet-based system prototype. The novelty of the proposed work is to have the monitored data of BANs in a large scale and deliver it in reliable manner to the service providers. A prototype of BANs is proposed in this paper to include virtualized machines and Cloudlet in order to characterize the efficient BAN data collection. A scalable storage and processing infrastructure have been proposed to support large scale BANs system, which is efficiently capable to handle the big data generated by BANs users. The model supports effective cost communication technologies through Wi-Fi technology. Performance results of the proposed prototype are evaluated using advanced CloudSim simulator. The performance results show the consumed power and packet delay of the collected data is decreased by increasing the number virtualized machine and Cloudlets.