Personalized Health Tracking with Edge Computing Technologies

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Abstract

© 2016, Springer Science+Business Media New York.The health monitoring component is the essential block, a pillar of several e-health systems. Plenty of health tracking applications and specific technologies such as smart devices, wearables, and data management systems are available. To be effective, promptly reacting to issues, a health monitoring service must ensure short delays in data sensing, collection, and processing activities. This is an open problem that distributed computing paradigms, such as Internet of Things (IoT), Cloud, and Edge computing, could address. The solution proposed in this paper is based on Stack4Things, an IoT-Cloud framework to manage edge nodes such as mobiles, smart objects, network devices, workstations, as a whole, a computing infrastructure allowing to provide resources on-demand, as services, to end users. Through Stack4Things facilities, the health tracking system can locate the closer computing resource to offload processing and thus reducing latency per the Edge computing paradigm.

Keywords

Cloud, Edge computing, Health monitoring, IoT, Stack4Things

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