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Quality Model for CloudIoT Applied in Ambient Assisted Living (AAL)

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Abstract

Nowadays, CloudIoT is used in several domains. Among them, AAL applications, where it can support the monitoring of certain variables related to the wellbeing of older adults at real-time. They store and manage personal information about users and vital signs, which are essential to be transmitted securely and reliably. Then, this paper presents a quality model focused on the CloudIoT layers in Ambient Assisted Living. It evaluates security, usability, and reliability, applied on the AAL domain, and focused on each of CloudIoT layers: Cloud Computing, Fog Computing, and Edge Computing. Also, an empirical evaluation of the AAL applications evaluation process in CloudIoT is presented. This method was evaluated using the Method Evaluation Model (MEM), 15 experts in computer science participated in the evaluation, the obtained results show that people find that the method is useful, easy to use, and allows to evaluate the viability of CloudIoT applications in AAL. © 2021, Springer Nature Switzerland AG.

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