



SECURE DATA STORAGE MECHANISM FOR INTEGRATION OF WIRELESS SENSOR NETWORKS AND MOBILE CLOUD

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Submitted: Mar 23, 2016 Accepted: July 31, 2016 Published: Sep. 1, 2016

Abstract-Together with an explosive growth of the mobile applications and emerging of cloud computing concept, mobile cloud computing (MCC) has been introduced to be a potential technology for mobile services. Wireless Sensor Networks (WSN) is the technology that connects the virtual world and the physical world where nodes can autonomously communicate among each other and with intelligent systems. This paper describes the concept of wireless sensor networks and mobile cloud computing. Recently, much research has proposed to integrate wireless sensor networks (WSNs) with mobile cloud computing, so that powerful cloud computing can be exploited to process the sensory data accumulated by WSNs and provide these data to the mobile users on demand. The current WSN-MCC integration schemes have several drawbacks. This paper proposes a data processing framework, which aims at transmitting desired data to the mobile users in a rapid, reliable and even more secure manner. The proposed framework decreases the storage requirements for sensor nodes and networks gateway. And it minimizes the traffic overhead and bandwidth requirement for sensor networks. Additionally, the framework can predict the future trend of sensory data and provide security for this sensory data. This framework ensures the mobile users obtain their desired data faster.

Index terms: *Mobile cloud computing; Wireless Sensor Networks (WSN); Cloud Architectures; Secure Data Storage; framework; integration*