Quality of Service Architecture for Internet of Things and Cloud Computing

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Abstract

Internet of Things (IoT) and Cloud Computing paradigm is a next wave in the era of computing and it has been identified as one of the emerging technologies in the field of Computer Science and Information Technology. The complementarity of these two technologies play a major role in accessing any services and applications anywhere, anytime in the smart environment. But from the literature study, it has been understood that the integration of IoT and cloud computing is in its infantile phase and it has not been extended to all application domains due to its inadequate quality of service architecture. Hence, in this paper a novel, quality of service architecture for internet of things and cloud computing is proposed. This architecture facilitates the public to have an easy access over diversified smart applications and services distributed in the cloud with one IoT enabled Intelligent Smart Card (ISC) through mobile devices with assured quality of service. The cloud services are integrated and connected through an Internet Protocol / Multi Protocol Label Switching (IP/MPLS) core System. The QoS requirements are met with differentiated services. The performance of the proposed architecture is tested by establishing a test bed in a simulated environment.
References


Index Terms

Computer Science Information Sciences

Keywords

Internet of Things, Cloud Computing, Quality of Service, IP/MPLS, Diffserv.