Emergency Alerting System for Supporting Power-Efficient Set-Top Boxes

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Abstract— **In recent days, previous studies have proposed power-efficient set-top boxes that can receive only magic packets for wake on LAN (WoL) technology in standby state where the set-top boxes do not receive broadcast services. However, current emergency alerting system cannot support the power-efficient set-top boxes in standby state because the set-top boxes cannot receive emergency alert messages from the emergency alerting system. In this paper, we propose emergency alerting system that activates the power-efficient set-top boxes in standby state by using WoL technology and thus enables the set-top boxes in standby state to receive emergency alert messages. The proposed emergency alerting system will contribute wide deployment of the power-efficient set-top boxes and huge reduction of national power consumptions.**

***Keyword*— Emergency alerting, disaster, set-top box, Wake on LAN, Standby mode**

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