FUTURE WLANS: A CANDIDATE FOR SMART HOMES IN INTERNET OF THINGS (IOT)

Rashid Ali˜, Muhammad Usman Ali˜, Waqas Khalid˜, Byung-Seo Kim#, Sung Won Kim˜*
˜Department of Information and Communication Engineering, Yeungnam University, Gyeongsan
#Department of Computer and Information Communication Engineering, Hongik University, Sejong
Republic of Korea

Abstract

Billions of new electronic devices are expected to need network connectivity in the future in a trend known as the Internet of Things (IoT). The exponent of such a trend is bringing the benefits expected to accrue to various technology players. For instance, technology companies with exposure to various forms of unlicensed wireless technology such as WLAN, Bluetooth, Zigbee, talk about IoT in the context of driving growth of their particular type of networking technology. It is expected that WLAN devices will be the primary way that most IoT devices connect to networks. In this context, we perform a study to analyze the possibility of future WLANs as a candidate for IoT. This study gives a Raspberry Pi-based IoT prototype using ESP8266 as a WLAN communication technology. A smart home application of IoT is used to evaluate the WLAN as a candidate for IoT.