

Performance Analysis of a Hybrid WLAN-Satellite Network

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Abstract

This paper contains a performance analysis of a hybrid WLAN-Satellite transmission environment, using QualNet Developer 5.0.2 Network Simulator. The test scenario developed in QualNet consists of a Wireless Local Area Network (WLAN) access segment and a satellite transport network. The access segment models an IEEE 802.11 WLAN sensor network connected to an Access Point. The Access Point is linked to the satellite transport network through a Ground Station. Collected data coming from the sensor network is transmitted through the DVB-S satellite segment to the Data Processing Center in order to be evaluated. The quality of the transmission is analyzed insisting on performance parameters such as: the Throughput, the Average Jitter and the Average End-to-End Delay.