

Empirical Study of 802.11b Wireless Networks in the Presence of Bluetooth Interference

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Abstract: Two complementary wireless networking standards, Bluetooth and 802.11b, operate in the 2.4 GHz Industrial, Scientific, and Medical (ISM) band. Although they use different methods to modulate and transmit data, significant interference can occur. Under certain conditions, a Bluetooth-enabled device can render an 802.11b connection almost useless. This paper presents measurement results from a study on the throughput of an 802.11b link when one end of the link is subjected to interference from Bluetooth devices.

keywords: Bluetooth, 802.11b, interference, empirical, wi-fi, rf measurement, data throughput, wireless networking