

Wi-Fi Repeater Influence on Wireless Access

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Abstract

The increase in the number of Wi-Fi hotspots is influenced by a combination of technological advancements, changing user behavior, economic factors, and industry developments. The gradual increase in the number of devices leads to the need to expand the frequency ranges. At the same time, the process of ensuring security does not stand still, although the transition to new protocols is slow. The results of the experiment show that the number of nodes is limited. The sharp drop in transmission speed between the access point and the first repeater is due to the bandwidth limitations of the repeater chip. Further reduction in speed on each next node is not so significant, although half of the time is used for transit traffic. It should also be noted that the stability of this circuit may suffer due to the low gain of the built-in antenna. For practical use, repeaters should be replaced with more powerful ones with directional antennas. © 2023 IEEE.

Author keywords

access point; AP; Internet of Things; IoT; Wi-Fi

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