IEEE 802.11be/Extremely High Throughput (EHT), a.k.a Wi-Fi 7

Abstract

IEEE 802.11be, which is also known as Wi-Fi 7, is the next amendment to the IEEE 802.11 standard for wireless local area networks (WLAN). This amendment is anticipated to greatly enhance the performance of indoor and outdoor WLAN operations at both stationary and pedestrian speeds in the 2.4, 5, and 6 GHz frequency bands. Wi-Fi 7, also called Extremely High Throughput (EHT), is set to provide multi-gigabit Wi-Fi with faster speeds, less interference, and better performance for high-bandwidth online activities. The new standard is expected to achieve a theoretical maximum speed of 30 Gbit/s, which significantly improves from the previous standard, IEEE 802.11ax. In this talk, Laurent Cariou will deliver a high-level overview of the features defined in the upcoming standard. Additionally, he will briefly introduce the next activity in 802.11, known as Ultra High Reliability (UHR), which is expected to become Wi-Fi 8.

Biography

Laurent Cariou earned his Ph.D. in electronics from the National Institute of Applied Sciences in Rennes, France, in 2003 and 2006, respectively. He has spent over a decade working in IEEE 802.11 and currently serves as Intel's principal engineer and technical lead for mainstream Wi-Fi in 802.11. Cariou played a key role in establishing the High-Efficiency WLAN (HEW) group, eventually leading to the development of 802.11ax and Wi-Fi 6. Recently, he also initiated the Extremely High Throughput (EHT) activity. Currently, Cariou is vice-chair for the 11be/EHT task group (Wi-Fi 7) and is also the chair for the Ultra-High Reliability (UHR – Wi-Fi 8) study group.