

# Wireless Industry Leaders Promote Next-Generation Wi-Fi Technology to Accelerate IEEE Standards Development

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Twenty six Wi-Fi industry leaders today announced a coalition formed to accelerate the IEEE 802.11n standard development process and promote a technology specification for next-generation wireless local area networking (WLAN) products.

By introducing a specification with widespread industry support, the Enhanced Wireless Consortium (EWC) hopes to speed ratification of an 802.11n standard, while enabling an ecosystem of high-performance WLAN products built to a common set of guidelines. This widely adopted specification will benefit consumers by, among other things, ensuring the interoperability of next-generation wireless products across a variety of brands and platforms.

The Enhanced Wireless Consortium has developed a specification that is designed to enable consumers to enjoy new levels of wireless performance, coverage and interoperability prior to ratification of an 802.11n standard. The EWC specification defines technologies that address the PC and networking equipment market, as well as emerging handheld and consumer electronic applications. The consortium has designed its specification to support speeds of up to 600 Mbps, and is considering the inclusion of other advanced technologies – including Space Time Block Coding (STBC) and beamforming – that will enable systems to deliver greater range for wireless products across multiple market segments and support advanced multimedia applications.

The EWC will make its draft product specification available for public download and will provide implementation rights to all silicon suppliers and system vendors who join the organization. Among the current members are Airoha, Apple, Atheros, Azimuth, Broadcom, Buffalo, Cisco Systems, Conexant, D-Link, Intel Corporation, Lenovo, Linksys, LitePoint, Marvell, Metalink, NETGEAR, Ralink, Realtek, SANYO, Sony, Symbol Technologies, Toshiba, USRobotics, WildPackets, Winbond and ZyDAS. If the EWC specification is ratified by the IEEE, EWC members have agreed to make their relevant intellectual property (IP) available to all parties on reasonable and non-discriminatory (RAND) terms. For additional information about the Enhanced Wireless Consortium and a complete listing of member companies, please visit [www.enhancedwirelessconsortium.org](http://www.enhancedwirelessconsortium.org) .

Members of the EWC will continue to work within the IEEE Task Group “N” to facilitate a ratified 802.11n standard. Its specification includes many elements of previous proposals, which will accelerate the completion of a merged proposal draft within the official IEEE timeline .

## **Technical Highlights**

The EWC specification comprises a number of technical elements, including:

- Mixed-mode interoperability with 802.11a/b/g networks – provides enhanced performance while maintaining communication with legacy devices;
- PHY transmission rates up to 600Mbps – supports applications requiring high data rates (such as transmitting multiple HDTV streams), and reduces battery drain by minimizing the time required to send and receive data streams;
- Enhanced efficiency MAC with frame aggregation – brings actual

throughput closer to the raw PHY rate, providing end users with at least 100 Mbps application level bandwidth;

- Use of 2.4GHz and/or 5GHz unlicensed bands – matches the frequency plan of existing 802.11 devices;
- 20MHz and/or 40MHz channel support – uses more of the wireless spectrum when available to enhance performance;
- Spatial multiplexing modes for simultaneous transmission using 1 to 4 antennas – increases robustness of wireless connections to support very high data rates;
- Enhanced range via multiple antennas and advanced coding – provides for a wider coverage area with consistent wireless speeds.

Source: Intel

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