IEEE P802.11
Wireless LANs

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| DRAFT IEEE 802.11 25th Anniversary Press Release |
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Abstract

This document contains a DRAFT IEEE 802.11 25th anniversary press release.

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IEEE Celebrates Global Impact of Wireless Communications at 25th Anniversary
of Ubiquitous IEEE 802.11™ Standard

*IEEE 802.11 working group recognized for ongoing, industry-making role as standards continue*
*to expand to support new applications such as smart grid and Internet of Things (IoT)*
*and new capabilities such as faster, more secure ‘Wi-Fi®’-enabled devices*

**PISCATAWAY, N.J., USA, 10 September 2015** – IEEE, the world’s largest professional organization dedicated to advancing technology for humanity, today celebrates the global impact of wireless communications by marking the 25th anniversary of IEEE 802.11™[[1]](#footnote-1), the standard that defines the technology for the world’s premier wireless local area network (LAN) products.

The IEEE 802.11 standard, often referred to as “Wi-Fi®,” underpins wireless networking applications around the world, that impact our daily lives, such as wireless access to the Internet from offices, homes, airports, hotels, restaurants, trains and aircraft. Today's laptops, tablets and mobile phones are typically equipped with an IEEE 802.11 radio. IEEE 802.11 standards have enabled a whole range of applications and economy for wireless communications, and their relevance continues to expand with the emergence of new devices, supporting new applications such as the smart grid and the Internet of Things (IoT).

After the Federal Communications Commission (FCC) opened the 2.4-2.5 GHz spectrum for use for individual and non-licensed applications in the late 1980s, IEEE recognized the need for a standard that fulfilled the demand for wireless communications and networking infrastructure. Work began on creating such a standard in September 1990, and the first approved and adopted version of IEEE 802.11 was published and made available in June 1997.

When work to develop IEEE 802.11 started, the goal was to bring together forward-thinking technology leaders to develop interoperable wireless standards reaching a data rate of over 1 Mb/s. Twenty five years later, the IEEE 802.11 Wireless LAN Working Group is crafting a series of IEEE 802.11 enhancements, such as IEEE P802.11ax™ to meet the new challenges of dense wireless LAN deployments, including stadiums, shopping malls and densely populated locations. This enhancement has the goal of providing over a 10,000-fold increase compared to the standard’s initial data rate.

In addition, work is underway on a wide breadth of wireless LAN enhancements, including precise indoor location, faster connection setup, much higher data rates and utilization of the 900 MHz unlicensed band. The IEEE 802.11 working group also addresses aspects such as more efficient use of the radio spectrum, advanced security, quality of service over the air interface and special regional extensions for China and Japan to meet their regulatory requirements for short-range radio equipment.

“The many people who have worked on the IEEE 802.11 standard have forever changed our world,” said XXXX, IEEE. “As one of the more popular and universally known IEEE standards, IEEE 802.11 already enhances ways of life around the world, and its role is exploding with the proliferation of application innovations such as the IoT and the smart grid. The high quality and broad commercial acceptance of the standard is a testament to the dedication, innovation and vision of the IEEE 802.11 working group’s members.”

Added Adrian Stephens, chair of the IEEE 802.11 Wireless LAN Working Group: “The IEEE 802.11 standard underpins widely deployed and dependable connectivity that dramatically influences our everyday lives and will continue to do so well into the future. IEEE 802.11 continues to push the boundaries of innovation two and a half decades after its inception. Devices using the standard are so interoperable and ubiquitous that we’re continuously seeing new and creative ways wireless devices connect to the Internet.”

For more information about the IEEE 802.11 Wireless LAN Working Group, please visit the [working group website](https://standards.ieee.org/develop/wg/WG802.11.html). The IEEE 802.11 standard is available for download via the [IEEE Get Program](http://standards.ieee.org/getieee802/download/802.11-2012.pdf).

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| ***This section may be represented as a sidebar, infographic or other media content; allowing the IEEE to adapt as necessary to meet the constraints of the medium*****IEEE 802.11 Wireless Milestones*** September 1990 - IEEE 802.11 project initiated with the concept of creating a WLAN standard for shared local communications interworking with the successful wired IEEE 802.3 (Ethernet) product. June 1989 saw the authorization by the IEEE Standards Board for the project.
* 1997 - Standard released, supported 2 Mb/s data rates in the 2.4 GHz band
* 1999 - Improvements were added for increased data rates in the 2.4 GHz band and availability in the 5 GHz band
* 1999-2009 -The IEEE 802.11 wireless LAN blossomed both in the enterprise and consumer markets. Also, users started to apply the devices to build community networks where incumbent telecommunications providers did not offer service
* 2009 - The IEEE 802.11n™ amendment provided another ten-fold increase in data rate (now peaking at 600 Mb/s) and added other radio range extension enhancements such as beam-steering
* 2012 – The IEEE 802.11ad™ task group developed an extension for operation within the millimeter wave bands at 60 GHz, opening up new opportunities for short range high speed WLAN connectivity
* 2013 – The IEEE 802.11ac™ task group further extended the successful IEEE 802.11n capabilities in the 5 GHz band with advanced MIMO and beamforming techniques with additional speed increases.
* Other extensions completed have provided dynamic management, adaptations for vehicular use, mesh operation, interworking with cellular systems, peer-to-peer link establishment and operation in TV Whitespaces.
* September 2015 - The IEEE 802.11 Working Group celebrates 25 years of achievements

**IEEE 802.11 Ongoing Enhancements*** IEEE P802.11ah – Support for 900 MHz operation, targeting Internet of Things (IoT) applications
* IEEE P802.11aj – Use of the 45 GHz band in China, plus enhancements of IEEE 802.11’s existing 60 GHz technology to use in China
* IEEE P802.11ai – Faster link setup
* IEEE P802.11ak – General link operation (making it possible to bridge across IEEE 802.11)
* IEEE P802.11aq – Discovery of services using IEEE 802.11 before network link setup
* IEEE P802.11ax – High efficiency wireless LAN improving throughput, range and efficiency in high density environments in the 1 -6 GHz bands
* IEEE P802.11ay – Next generation 60 GHz improving throughput, range and reliability
* IEEE P802.11az - Next generation positioning refining and extending support for indoor location technologies using IEEE 802.11
* Also coming in maintenance updates to the IEEE 802.11 standard is support for indoor location.
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**About the IEEE Standards Association**

The IEEE Standards Association, a globally recognized standards-setting body within IEEE, develops consensus standards through an open process that engages industry and brings together a broad stakeholder community. IEEE standards set specifications and best practices based on current scientific and technological knowledge. The IEEE-SA has a portfolio of over 1,100 active standards and more than 500 standards under development. For more information visit <http://standards.ieee.org>.

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1. IEEE 802.11™ “Standard for Information technology--Telecommunications and information exchange between systems Local and metropolitan area networks--Specific requirements Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) Specifications” [↑](#footnote-ref-1)