IEEE P802.11  
Wireless LANs

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Abstract

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

**NOT FOR IMMEDIATE RELEASE**

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# IEEE 802.11 WORKING GROUP, CELEBRATES 25 YEARS OF CONTRIBUTIONS TO WIRELESS LANS

*Group Commemorates its Ongoing, Industry-Making Role and Contributions to Today's Global Wireless Computer Communication Networks*

**PISCATAWAY, N.J., USA, XX Month 2015** – IEEE, the world’s largest professional organization dedicated to advancing technology for humanity, today is commemorating the 25th anniversary of IEEE 802.11™, the standard that defines the technology for the world’s premier wireless local area network (LAN) products.

Often referred to as “Wi-Fi®”, IEEE 802.11 standards underpin wireless networking applications around the world, such as wireless access to the Internet from offices, homes, airports, hotels, restaurants, trains and aircraft. The standard’s relevance continues to expand with the emergence of 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. Created and maintained by the IEEE LAN/MAN Standards Committee, the first approved and adopted version of the IEEE 802.11 standard was published and made available in June 1997. However, work began on creating the standard in Sept 1990, with an approved project authorization request in March 1991.

As one of the more popular and universally known IEEE standards, IEEE 802.11 celebrates not only the past 25 years but also the many decades ahead for the technologies it enables. Many new draft standards and projects are in the works as the IEEE 802.11 Wireless LAN Working Group further expands Wi-Fi technology and the wireless networking devices that are supported by the standard.

When project IEEE 802.11 (Wireless Local Area Networks, WLAN) was created in September of 1990, its original goals were 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 working group is now working on what will become IEEE Std 802.11ax™, with a goal of providing over a 10000-fold increase compared to that initial data rate. In addition the working group is now working on a wide breadth of WLAN enhancements including: precise indoor location, faster connection setup, much higher data rates, and using the 900 MHz unlicensed band.

IEEE 802.11 standards have evolved to become one of the primary means to wirelessly access the Internet in the office, at home, airports, hotels, restaurants, trains and even 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 communication. The standards serve to underpin ubiquitous wireless communications networks for entire industries.

"The standards produced by the IEEE 802.11 Working Group have enabled widely deployed and dependable connectivity that dramatically influence our everyday lives and will continue to do so well into the future" said Adrian Stephens, Chairman of the Working Group. “It is fulfilling to see our work so broadly used. The high quality and broad commercial acceptance of the IEEE 802.11 standard is a testament to the members' dedication, innovation, and vision. IEEE 802.11 continues to push the boundaries of innovation two decades after its inception."

+ Quotes from Paul N, Jon, Dorothy and Stephen ?

Enhancements are not limited to data rate; the IEEE 802.11 working group is addressing aspects such as more efficient use of the radio spectrum, more 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.

**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
* 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 in the home market. 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 beamsteering
* 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 of the air interface, adaptations for vehicular use, mesh operation, interworking with cellular systems, and peer-to-peer link establishment
* Current projects include:
  + 802.11ah – support for 900 MHz operation, targeting Internet of Things (IoT) applications
  + 802.11aj – Use of the 45 GHz band in China, plus enhancements of 802.11’s existing 60 GHz technology to use in China
  + 802.11ai – Faster link setup
  + 802.11ak – General link operation (making it possible to bridge across 802.11)
  + 802.11aq – Discovery of services using 802.11 before network link setup
  + 802.11ax – High efficency wireless LAN
  + Revision mc – includes support for indoor location
  + Next Generation Positioning – refining and extending support for indoor location technologies using 802.11
* 2015 and Beyond - The IEEE 802.11 Working Group celebrates 25 years of achievements

“So much has been accomplished in the 25 years of IEEE 802.11. We’ve gone from plug-in cards for laptops, which were often very expensive, to the Internet of Things where we find ourselves surrounded by wirelessly connected devices in our homes, offices and cars,” said Jon Rosdahl, vice chair of the IEEE 802.11 Wireless LAN Working Group. “Commemorating this anniversary is a chance to not only reflect but to look ahead. The IEEE 802.11 standard is so interoperable and ubiquitous that we’re continuously seeing new and creative ways these devices connect to the Internet. Even the smart grid is impacted by the expansion of IEEE 802.11. There’s much to celebrate and anticipate.”

Added Konstantinos Karachalios, managing director of the IEEE Standards Association (IEEE-SA): “The IEEE-SA joins the IEEE 802.11 working group in celebration of the standard’s successes. The many people who have worked on this standard share a common bond and have forever changed our world with the proliferation of wireless networking technology. We can trace this back to the open and collaborative development process, enabled by the principles of OpenStand—a market-driven paradigm for global, open standards. IEEE 802.11 is a shining example of a market-driven standard that has become refined and perfected over the past 25 years. And of course this will continue in the decades ahead.”

See further information on [IEEE 802.11](http://grouper.ieee.org/groups/802/11/).

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

To learn more about IEEE-SA, visit us on [Facebook](http://www.facebook.com/ieeesa) external link, follow us on [Twitter](http://www.twitter.com/ieeesa) external link, connect with us on [LinkedIn](http://www.linkedin.com/groups?gid=1791118) external link, or on the [Standards Insight Blog](http://www.standardsinsight.com) external link.

**About IEEE 802**   
The IEEE 802® LAN/MAN Standards Committee has been developing interoperable LAN and metropolitan area network (MAN) standards for 35 years. Its most transformative successes have been Ethernet and Ethernet switching, Token Ring, IEEE 802.11 (Wi-Fi) and IEEE 802.15 PAN. Its work continues for the most widely used Ethernet family, Wireless LAN, Wireless PAN, Wireless RAN, Bridging and Virtual Bridged LANs standards. Individual working groups provide the focus for each area. Decisions by the IEEE 802 working groups will shape communications for years to come. See more information about the [IEEE 802 LAN/MAN Standards Committee](http://www.ieee802.org/).

**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 the IEEE-SA [Web site](http://standards.ieee.org).

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