

P802.11bc

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Type of Project: Amendment to IEEE Standard 802.11-2016

PAR Request Date: 27-Sep-2018

PAR Approval Date: 05-Dec-2018

PAR Expiration Date: 31-Dec-2022

Status: PAR for an Amendment to an existing IEEE Standard

Root Project: 802.11-2016

1.1 Project Number: P802.11bc

1.2 Type of Document: Standard

1.3 Life Cycle: Full Use

2.1 Title: 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
Amendment: Enhanced Broadcast Service

3.1 Working Group: Wireless LAN Working Group (C/LM/WG802.11)

Contact Information for Working Group Chair

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3.2 Sponsoring Society and Committee: IEEE Computer Society/LAN/MAN Standards Committee (C/LM)

Contact Information for Sponsor Chair

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4.1 Type of Ballot: Individual

4.2 Expected Date of submission of draft to the IEEE-SA for Initial Sponsor Ballot: 03/2021

4.3 Projected Completion Date for Submittal to RevCom

Note: Usual minimum time between initial sponsor ballot and submission to Revcom is 6 months.: 02/2022

5.1 Approximate number of people expected to be actively involved in the development of this project: 50

5.2.a. Scope of the complete standard: The scope of this standard is to define one medium access control (MAC) and several physical layer (PHY) specifications for wireless connectivity for fixed, portable, and moving stations (STAs) within a local area.

5.2.b. Scope of the project: This amendment specifies modifications to the IEEE 802.11 medium access control (MAC) specifications that enable enhanced transmission and reception of broadcast data both in an infrastructure BSS where there is an association between the transmitter and the receiver(s) and in cases where there is no association between transmitter(s) and receiver(s).

This amendment introduces origin authenticity protection for broadcast data frames.

5.3 Is the completion of this standard dependent upon the completion of another standard: No

5.4 Purpose: The purpose of this standard is to provide wireless connectivity for fixed, portable, and moving stations within a local area. This standard also offers regulatory bodies a means of standardizing access to one or more frequency bands for the purpose of local area communication.

5.5 Need for the Project: The number of mobile devices incorporating IEEE Std. 802.11 is steadily growing and new enhanced broadcast services will create new market opportunities.

Enhanced Broadcast Service (eBCS) extends the reach of wireless local area network (WLAN) to markets and use cases that require efficient distribution of local information such as:

- * Information announcement systems in public locations, e.g., airports, stadium, etc.
- * Sensor information collection, e.g., asset tracking
- * Non-safety related transportation applications operating in unlicensed bands
- * Multi-media broadcast

Some of the new enhanced broadcast use cases have requirements for protecting broadcast traffic and the privacy of the stations receiving that traffic, in ways that are not addressed by the current standard.

The current IEEE Std. 802.11 has a group temporal key security association (GTKSA) security framework for multicast that does not protect origin authenticity between devices having that GTKSA. Such protection is needed in some broadcast use cases.

5.6 Stakeholders for the Standard: Manufacturers and users of semiconductors, personal computers, enterprise networking devices, consumer electronic devices, home networking equipment, and mobile devices; together with cellular operators, transportation industries, multiple system operators, and video content suppliers.

Intellectual Property

6.1.a. Is the Sponsor aware of any copyright permissions needed for this project?: No

6.1.b. Is the Sponsor aware of possible registration activity related to this project?: Yes

If yes please explain: It is expected that no new registries will be defined by the project.

7.1 Are there other standards or projects with a similar scope?: No

7.2 Joint Development

Is it the intent to develop this document jointly with another organization?: No

8.1 Additional Explanatory Notes: