IEEE P802.11  
Wireless LANs

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| RCM A PAR Proposal | | | | |
| Date: | | | | |
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# PAR

**P802.11**

**Submitter Email:**   
**Type of Project:** Amendment to IEEE Standard 802.11  
**PAR Request Date:**   
**PAR Approval Date:   
PAR Expiration Date:   
Status:** Unapproved PAR, PAR for an amendment to an existing IEEE Standard

**1.1 Project Number:**   
**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 service with radndomized MAC addresses

**3.1 Working Group:** Wireless LAN Working Group (C/LM/WG802.11)   
**Contact Information for Working Group Chair Name:** Dorothy Stanley  
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**3.2 Sponsoring Society and Committee:** IEEE Computer Society/LAN/MAN Standards Committee (C/LM)   
**Contact Information for Sponsor Chair**

**Name:** Paul Nikolich  
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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:**  
**4.3 Projected Completion Date for Submittal to RevCom:**

**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 an enhanced user experience in environements where non-AP STAs use randomized or changing MAC addresses without increased exposure to user privacy.

This amendment introduces mechanisms to enable session continuity in the absence of unique MAC address-to-STA mapping.

**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 increasing. Privacy concerns are pushing non-AP STA vendors to randomize the non-AP STAs MAC address for a growing number of interactions with other 802.11 STAs. In turn, this randomization may affect the user experience, for example by disrupting services that assume a unique MAC address per STA. Additionally, many references in IEEE Std. 802.11 to MAC address were made at times where the assumption of a unique assocaiton between a STA and a MAC address was strong.

There is a need to:

Ensure that IEEE Std. 802.11 provisions that refer to a non-AP STA MAC address remain valid when that MAC address is random or changes.

Design mechanisms that enable an optimal user experience when non-AP MAC addresses are randomized or change. These mechanisms should increase user privacy exposure.

**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:** Project may define new management frames (extending the existing IEEE 802.11 frame structure) to support its new features. These frames may include fields that contain 48-bit MAC addresses. It is not expected that any new namespaces for allocation under RAC control will be defined.

**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 (Item Number and Explanation):**