

P802.21c

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Type of Project: Amendment to IEEE Standard 802.21-2008

PAR Request Date: 16-Oct-2009

PAR Approval Date: 09-Dec-2009

PAR Expiration Date: 31-Dec-2013

Status: PAR for an Amendment to an existing IEEE Standard 802.21-2008

Project Record: 802.21

1.1 Project Number: P802.21c

1.2 Type of Document: Standard

1.3 Life Cycle: Full Use

2.1 Title: Standard for Local and metropolitan area networks -- Part 21: Media Independent Handover Services
Amendment:Optimized Single Radio Handovers

3.1 Working Group: Media Independent Handoff Working Group (C/LM/WG802.21)

Contact Information for Working Group Chair

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3.2 Sponsoring Society and Committee: IEEE Computer Society/Local and Metropolitan Area Networks (C/LM)

Contact Information for Sponsor Chair

Name: Paul Nikolich

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Contact Information for Standards Representative

None

4.1 Type of Ballot: Individual

4.2 Expected Date of submission of draft to the IEEE-SA for Initial Sponsor Ballot: 03/2011

4.3 Projected Completion Date for Submittal to RevCom: 03/2012

5.1 Approximate number of people expected to be actively involved in the development of this project: 25

5.2 Scope: This amendment defines enhancements to enable optimized single radio handovers between heterogeneous IEEE 802 wireless technologies and extend these mechanisms for single radio handovers between IEEE 802 wireless technologies and cellular technologies. These enhancements are based on media access independent mechanisms.

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

5.4 Purpose: The purpose of this amendment is to enhance the user experience by enabling optimized single radio handover solutions between heterogeneous networks. This standard defines mechanisms to reduce latency and enable service continuity during handover.

5.5 Need for the Project: There is a need to develop optimized single radio handover solutions between heterogeneous wireless networks. Dual radio operation requires multiple radios to be transmitting and receiving at the same time. This leads to platform noise and co-existence issues for radios operating in close proximity frequency bands and generally leads to increased cost of mobile device due to need for RF isolation, sharper filtering or active cancellation, apart from increased design complexity. This amendment defines protocols that will mitigate these issues by enabling controls for having only a single radio transmitting at any time during the entire handover process. This will simplify design of mobile devices and reduce service interruption time during handovers.

5.6 Stakeholders for the Standard: Semiconductor manufacturers, network equipment manufacturers, mobile and wireless device manufacturers and network operators.

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?: No

7.1 Are there other standards or projects with a similar scope?: Yes

If Yes please explain: 3GPP Technical Specifications have implemented Single Radio Handovers between 3GPP Radio Access Technologies and between 3GPP and 3GPP2 technologies

and answer the following

Sponsor Organization: 3GPP

Project/Standard Number: TS 36.300

Project/Standard Date: 31-Mar-2009

Project/Standard Title: E-UTRA and E-UTRAN Overall Description Release-8, March-2009

7.2 International Activities

a. Adoption

Is there potential for this standard (in part or in whole) to be adopted by another national, regional or international organization?: Do Not Know

Organization:

Technical Committee Name:

Technical Committee Number:

Contact Name:

Phone:

Email:

b. Joint Development

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

c. Harmonization

Are you aware of another organization that may be interested in portions of this document in their standardization development efforts?: Do Not Know

Organization:

Technical Committee Name:

Technical Committee Number:

Contact Name:

Phone:

Email:

8.1 Additional Explanatory Notes (Item Number and Explanation): 5.2 (Scope): Following definitions are provided for explanatory purposes:

Single Radio Handover: A multi-mode terminal where only a single radio is transmitting on at any given time during the handover process.

Dual Radio Handover: A multi-mode terminal where both the radios can be transmitting and/or receiving simultaneously at any given time.

Following item is included to clarify Scope of this amendment:

Security solutions as defined in 802.21a should apply to both dual and single radio handovers.