P802.11aq

Submitter Email: mccann.stephen@gmail.com
Type of Project: Amendment to IEEE Standard 802.11-2012
PAR Request Date: 09-Oct-2012
PAR Approval Date: 05-Dec-2012
PAR Expiration Date: 31-Dec-2016
Status: PAR for an Amendment to an existing IEEE Standard
Root Project: 802.11-2012

1.1 Project Number: P802.11aq
1.2 Type of Document: Standard
1.3 Life Cycle: Full Use

2.1 Title: IEEE 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: Pre-Association Discovery

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
  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: 05/2015
4.3 Projected Completion Date for Submittal to RevCom: 05/2016

5.1 Approximate number of people expected to be actively involved in the development of this project: 45
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 defines modifications to the IEEE 802.11 standard, above the physical layer (PHY), to enable delivery of pre-association Service Discovery information discovery by IEEE 802.11 stations (STAs).

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 WLAN environment is evolving and is no longer one where stations are merely looking for access to internet service. This creates opportunities to deliver new services, as the IEEE 802.11 standard needs to be enhanced to better advertise and describe these new services.
This amendment will provide mechanisms that assist in pre-association discovery of services by addressing the means to advertise their existence and enable delivery of information that describes them. This information about services is to be made available prior to association by stations operating on IEEE 802.11 wireless networks.
There are existing higher layer service discovery/description approaches (e.g. Universal Plug and Play - UPnP, Bonjour) as well as mechanisms to deliver information in pre-association states (e.g. just as Access Network Query Protocol - ANQP can be delivered over Generic Advertisement Service - GAS).

The group will evaluate advertising services that permit information about these services to be delivered using an approach that may avoid developing yet another service description scheme while leveraging the existing evolving schemes.

5.6 Stakeholders for the Standard: The stakeholders of this standard are the developers and users of the Wireless LAN devices, including service providers, manufacturers, health care workers, retail service providers, and many others.

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

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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

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8.1 Additional Explanatory Notes (Item Number and Explanation): 5.5: References for technologies are:
UPnP - "Universal Plug and Play" <http://www.upnp.org>
Bonjour - this is an open protocol for zero-configuration networking over IP that Apple has submitted to the IETF as part of a proposed working group "mdnsext"
ANQP - "Access Network Query Protocol" (section 10.24.3.2 of IEEE 802.11-2012)
GAS - "Generic Advertisement Service" (section 4.11 of IEEE 802.11-2012)