IEEE P802.11 Wireless LANs

TGp Comment Resolution Forms Date: 2006-05-18 Author(s):										
						Name	Company	Address	Phone	email
						Lothar Stibor	Philips & ComNets, Chair of Communication Networks, RWTH Aachen University	Kopernikusstr. 16, 52074 Aachen, Federal Republic of Germany	+49-241-802- 0547	lsr@comnets.rwth- aachen.de
Yunpeng Zang	Philips & ComNets, Chair of Communication Networks, RWTH Aachen University	Kopernikusstr. 16, 52074 Aachen, Federal Republic of Germany	+49-241-802- 5829	zangyp@ieee.org						
Hans-Jürgen Reumerman	Philips Research Laboratories	Weißhausstr. 2, 52066 Aachen, Federal Republic of Germany	+49-241-600- 3629	<u>hans-</u> <u>j.reumerman@philips.co</u> <u>om</u>						

Abstract

This document describes the proposed resolution of LB81 comment 901.

Notice: This document has been prepared to assist IEEE 802.11. It is offered as a basis for discussion and is not binding on the contributing individual(s) or organization(s). The material in this document is subject to change in form and content after further study. The contributor(s) reserve(s) the right to add, amend or withdraw material contained herein.

Release: The contributor grants a free, irrevocable license to the IEEE to incorporate material contained in this contribution, and any modifications thereof, in the creation of an IEEE Standards publication; to copyright in the IEEE's name any IEEE Standards publication even though it may include portions of this contribution; and at the IEEE's sole discretion to permit others to reproduce in whole or in part the resulting IEEE Standards publication. The contributor also acknowledges and accepts that this contribution may be made public by IEEE 802.11.

Patent Policy and Procedures: The contributor is familiar with the IEEE 802 Patent Policy and Procedures http://ieee802.org/guides/bylaws/sb-bylaws.pdf, including the statement "IEEE standards may include the known use of patent(s), including patent applications, provided the IEEE receives assurance from the patent holder or applicant with respect to patents essential for compliance with both mandatory and optional portions of the standard." Early disclosure to the Working Group of patent information that might be relevant to the standard is essential to reduce the possibility for delays in the development



LB81 Comment Resolution

CID Commenter: Clause: Addressed By: Original Date Prepared

901 Godfrey P.4 Lothar Stibor 2006-05-18

1. **COMMENT**: 901

More thorough explanation needed here.

2. Commenter's Suggested Remedy (If appropriate): [From Spreadsheet]

Reference to 7.3.2.22.2 (P802.11-REVma-D5.2), and specify that the medium occupancy threshold is calculated in the same manner as the CCA Report busy fraction parameter.

3. Background, Explanation, Discussion, etc.:

There is already a facility for measuringe the fractional duration over which CCA indicated the channel was busy during the measurement duration. The CCA request (7.3.2.21.3 It requests the measurement for a channel (as defined in 17.3.8.8.3), starting at a time (TSF value or 0 for NOW) for a duration (in TUs, 2Byte field). The STA responds with CCA report as defined in 7.3.2.22.2). Unfortunately it is optional for a STA to support this report. Additionally to the values from the request frame (channel, start time, duration) the CCA response frame contains the CCA busy fraction defined as:

Ceiling (255 * [Duration CCA indicated channel was busy (microseconds)] / (1024 * [Measurement duration (TUs)]))

As the CCA busy fraction field is a 1Byte field, a value of 255 represents 100% CCA busy during the measurement. Tthis is why the scaling factor 255 is here. The factor 1024 converts the measurement duration TUs to μ s.

4. Recommended Resolution of the Comment:

Change the text of P4 as stated below and make the support of the CCA report mandatory for STAs in WAVE mode.

Congestion on the current channel shall be monitored to ensure it does not fail under congested conditions. The STAs MLME shall monitor the current channel by requesting a CCA report for the current channel every 100 TUs with measurement duration of 100 TUs. The CCA busy fraction shall be reported to the upper layers. If the CCA busy fraction on the

current channel is larger than 128, the MAC layer shall reject the transmission attempt from upper layers for all but the highest priority access category with the transmission status "undeliverable" in the MA-UNITDATA-STATUS.indication.

5. Motion (if technical and/or significant): (And instructions to the editor.)

Move to: Change the text of P4 as stated below and make the support of the CCA report mandatory for STAs in WAVE mode.

Congestion on the current channel shall be monitored to ensure it does not fail under congested conditions. The STAs MLME shall monitor the current channel by requesting a CCA report for the current channel every 100 TUs with measurement duration of 100 TUs. The CCA busy fraction shall be reported to the upper layers. If the CCA busy fraction on the current channel is larger than 128, the MAC layer shall reject the transmission attempt from upper layers for all but the highest priority access category with the transmission status "undeliverable" in the MA-UNITDATA-STATUS.indication.

Motion by:	Date: _	
Second:		
Approve:	Disapprove:	Abstain: