IEEE P802.11
Wireless LANs

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| **Proposed resolution for CID 122, 576, 972, 2598** |
| **Date:** 2016-09-xx |
| **Author(s):** |

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Abstract

This document contains a text proposal for resolution of CID 122, 576, 972, 2598.

# Introduction

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **CID** | **Clause Number(C)** | **Page(C)** | **Line(C)** | **Comment** | **Proposed Change** |
| 576 | 10.3.2.4 | 39 | 52 | The mechanism to configure the use of RTS/CTS is not defined | Define the mechanism |
|  |  |  |  |  |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| CID | Commenter | PP.LL | Comment | Proposed changes | **Resolution** |
| 972 | Kaiying | 39.52 | The mechanism for HE AP to configure the use of RTS/CTS initiated by non-AP STA is still TBD. | Comment resolution and supporting PPT will be provided | Define the mechanism |
| 576 | EVGENY KHOROV | 39.52 | The mechanism to configure the use of RTS/CTS is not defined | Define the mechanism | Define the mechanism |
| 122 | Alfred Asterjadhi | 57.52 | The AP may use a TBD mechanism to configure the use of RTS/CTS frames initiated by non-AP STAs. This mechanism should be defined. | As in comment. | Define the mechanism |
| 2598 | Young Hoon Kwon | 39,51 | Added text has no technical meaning unless TBD mechanism is described. | Delete the sentence or specify the TBD mechanism. | Define the mechanism |

The 11ax Specification Framework document reorded the following agreement:

The amendment shall define a mechanism to allow the AP to configure the use of RTS/CTS initiated by non-AP STA [MAC Motion #1, January 2015]

CID 576 points out that no mechanism has been defined. This submission provides a text proposal for such a mechanism.

# Text proposal

Text changes and additions are shown below. Changes are relative to Draft P802.11-REVmc/D7.0 and IEEE P802.11ax/D0.3. Editor instructions are highlighted in ***red***.

# 9 Frame formats

## 9.4 Management and Extension frame body components

#### 9.4.2.214 HE Operation element

***Change Figure 9-ax6 - HE Operation Parameters field format as shown:***

|  |  |  |  |
| --- | --- | --- | --- |
|  | B0  |  |  ~~B15~~ TBD |
|  | BSS Color | Default PE Duration | HE Duration-based RTS Threshold | Reserved |
| Bits: | 6 | 3 |  10 TBD |

***Insert the following paragraph at the end of section 9.4.2.214***

The HE Duration-based RTS Threshold field allows an HE AP to manage RTS/CTS usage by the associated HE STAs. The length of the HE Duration-based RTS threshold field is 10 bits. The value is specified as an unsigned integer, in units of 32 us. Value zero indicates RTS/CTS must be used for all the data transmit sequence, value 1023 indicates this feature is disabled.

# 10 MAC sublayer functional description

### 10.3.1 General

Change as follows:

When HE Duration-based RTS is disabled, the use of the RTS/CTS mechanism is under control of dot11RTSThreshold. This attribute may be set on a per-STA basis. This mechanism allows STAs to be configured to initiate RTS/CTS either always, never, or only on frames longer than a specified length.

When HE Duration-based RTS is enabled, the use of the RTS/CTS mechanism is under control of dot11DurationRTSThreshold. This mechanism requires STAs to initiate RTS/CTS when TXOP is longer than dot11DurationRTSThreshold.

### 10.3.2 Procedures common to the DCF and EDCAF

#### 10.3.4.2 Setting and resetting the NAV

Remove the following at the end of 10.3.2.4:

An HE AP may use the HE Duration-based RTS Threshold to configure the use of RTS/CTS initiated by non-AP HE STA.

Insert a new subclause following 10.3.2.4:

#### 10.3.2.4a Duration-based RTS/CTS

In dense environments, managing RTS usage by an AP can help the overall interference situation since the AP may have better view of the network situation. To improve spectrum utilization, RTS usage should be duration-based, rather than length-based.

# Annex C

## C.3 MIB Detail

Insert the following text:

dot11DurationRTSThreshold OBJECT-TYPE

SYNTAX Unsigned16 (0..1023)

UNITS "32 microseconds"

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"This is a control variable.

It is written by an external management entity or by the MAC upon receiving Duration-based RTS Threshold notification frame.

Changes take effect as soon as practical in the implementation.

This attribute indicates the duration of the transmission or TXOP above which an

RTS/CTS handshake is performed. Value zero means the RTS should be always used for TxOP transmission. Value 1023 means this feature is disabled"

DEFVAL { 1023 }

::= { Dot11OperationEntry <ANA> }