IEEE P802.11
Wireless LANs

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| Editorial comments |
| Date: 2012-05-13 |
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Abstract

We need to clean up some of terminologies, and some editorial corrections have been made. Editing instructions are based on P802.11af Draft 1.07.

## Interpretation of a Motion to Adopt

A motion to approve this submission means that the editing instructions and any changed or added material are actioned in the TGaf Draft. This introduction is not part of the adopted material.

***Editing instructions formatted like this are intended to be copied into the TGaf Draft (i.e. they are instructions to the 802.11 editor on how to merge the text with the baseline documents).***

***TGaf Editor: Editing instructions preceded by “TGaf Editor” are instructions to the TGaf editor to modify existing material in the TGaf draft. As a result of adopting the changes, the TGaf editor will execute the instructions rather than copy them to the TGaf Draft.***

***Change #1.***

**Discussion:** Do we need to have regulatory domain definitions? If it is not used throughout draft, it would be better to be deleted.

**Propose:**

*Line 60 of page 2 to line 65 of page 3, modify text as follows;*

white space map: Identified available frequency information for use of 802.11 STA obtained from geoloca­tion database.

*Insert new subclause and definition(s) retaining alphabetic order as follows:*

**3.3 Definitions specific to IEEE 802.11 operation in some regulatory domains**

contact verification signal:An encoded signal sent by a GDC enabling STA to validate the list of available frequencies and to verify that the GDC dependent STA is within reception range of the ~~master WSD~~GDC enabling STA.

~~master white space device: A device that has the ability to operate in accordance with parameters commu­nicated by a GDB, and may have the ability to manage slave WSDs as required.~~

~~model identifier: A unique text string set by the manufacturer at the time of placing the device on the mar­ket and communicated to the database provider. For example, it might have a form such as "MOT-WSD-M635".~~

personal/portable station: A STA that transmits and/or receives frames at unspecified locations that may change.

fixed station: A STA that transmits and/or receives frames at specified locations that do not change.

~~shared bands: radiofrequency bands in which both licensed and unlicensed operation are permitted.~~

~~slave white space device: A device which does not directly communicate with a GDB, but is under the con­trol of a master WSD.~~

television band device (TVBD): Intentional radiators that operate on an unlicensed basis on available chan­nels in the broadcast television frequency bands.

~~white space device (WSD): White space devices (WSDs) are devices that can use white space spectrum without causing harmful interference to protected services by employing required cognitive capabilities.~~

**3.4 Abbreviations and acronyms**

*Insert new acronyms retaining alphabetical order as follows:*

~~AGDB authorized geolocation database~~

CPM channel power management

CSM channel schedule management

CVS contact verification signal

NCC network channel control

RLSS registered location secure server

TLV type-length-value

TVWS TV white spaces

WSM white space map

*Insert new subclause and definition(s) retaining alphabetic order as follows:*

**3.5 Abbreviations and acronyms in some regulatory domains**

PLMR/CRS Private Land Mobile Radio/Cellular Mobile Radio

~~WSD white space device~~

***Change #2.***

**Discussion:** Non AP STA has been changed to GDCnonAPSTA. We don’t have a definition for Perfornal/Portable TV channel. And it is appeared only one time in an example.

**Propose:**

*In page 36, line 41 to 42, modify text as follows;*

**8.2.6.1.6 WSM Information Values**

The format of the WSM Information and values are shown in Table 8-14j (WSM information values). If the value of WSM Type field of the White Space Map element (8.4.2.172 (White Space Map element)) is 1, the WSM Information specifies available channel information for TV White Spaces, which is country-specific.

The Device Class field is defined in 8.2.6.1.1 (Device class). The Device Class field is set to a value identifying the Device Class used by the WSM and determines the length of the channel availability tuple consisting of the channel number, the maximum power level and the validity fields, which is repeated as the Length field of WSM element. If the Device Class field is 0, the Validity field in Channel Availability is not present. Otherwise, the Validity field shall exist in the Channel Availability field.

Table 8-14j—WSM information values

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Type | Length (octets) | Value | Scope |
| … | … | … | … | … |

NOTE—an example of full Map 1 for ~~non-AP STA~~GDCnonAPSTA describing two available ~~Personal/Portable~~ TV channels with power limits of 100 mW and 40 mW is shown as: <ANA>, 0x06, 0x00, 0x03, 0x15, 0x17, 0x33, 0x13.

Type is <ANA>, Length is 0x06, Device Class is 0x00, a full map with MapID 1 is 0x03, TV channel 21 is 0x15, 20 dBm Maximum Power Level is 0x17, TV channel 51 is 0x33, 16 dBm Maximum Power Level is 0x13.

***Change #3.***

**Discussion:** Length field in device location information element format is wrong. Some text is not clear.

**Propose:**

*In page 46, line 7 to 52, modify text and figure as follows;*

**8.4.2.172 Device Location Information element**

A Device Location Information element includes the location configuration information (LCI), which contains latitude, longitude, and altitude information. The Device Location Information element format is shown in Figure 8-401cf (Device Location Information element format).

|  |  |  |
| --- | --- | --- |
| Element ID | Length | Device Location Information body fields |
| Octets: 1 | ~~2~~1 | 16 |

Figure 8-401ch—Device Location Information element format

The Length field is set to 16.

…

The definition of fields within the Location Information ~~element~~ body fields shall be same as defined in Section 2.1 of IETF RFC 6225 except as defined in 8.4 (Management frame body components).*???*

***Change #4.***

**Discussion:** Editorial Error in Spectrum Mask descriptor.

**Propose:**

*In page 53, line 55 to 56, modify text as follows;*

**8.4.5.5 RLQP Network Channel Control element**

…

The Spectrum ~~Master~~Mask Descriptor field appears in the request frame. It is given in 8.2.6.1.3 (Spectrum Mask Descriptor).

*In page 61, line 19 to 20, modify text as follows;*

**8.5.8.33 Network Channel Control frame format**

…

The Spectrum ~~Master~~Mask Descriptor field appears in the request frame. It is given in 8.2.6.1.3 (Spectrum Mask Descriptor).

***Change #5.***

**Discussion:** Editorial Error in GDC enabling STA operation

**Propose:**

*In page 67, line 37 to 38, modify text as follows;*

**10.41.2 GDC enabling STA operation**

A GDC enabling STA may transmit a GDC enabling signal ~~in the band~~ using an available frequency to indicate that it offers GDC enablement service.

***Change #6.***

**Discussion:** Editorial Error in Figure 10-39 GDC dependent STA state transition diagram. And <ANA76> and 38 are not used in the figure. I think we need to include that. And there is an error in status code for authorization deenabled in section 10.41.3.

**Propose:**

*In figure 10-39 of page 68, modify figure as follows;*

“code Set to 77, or Failed enablement attempt within” to

“code Set to <ANA77>, <ANA76>, 38, or Failed enablement attempt within”,

and change “Status code set to 78” to

“Status code set to <ANA78>”

*In page 69, line 43 to 45, modify text as follows;*

**10.41.3 GDC dependent STA operation**

…

Once in GDCEnabled state, the following rules apply to a GDC dependent STA during its operations:

—The GDC dependent STA shall maintain a GDC enablement validity timer, by decrementing the dot11GDCEnablementValidityTimer attribute. The procedures for maintaining the GDC enablement validity timer are defined in 10.41.9 (White space map (WSM)), 10.41.6 (Contact verification signal (CVS)) and 10.41.4 (Channel Availability Query (CAQ) procedures).

—A GDC dependent STA shall cease all transmissions when the dot11GDCEnablementValidityTimer has expired. It then changes its GDC enablement state to Unenabled.

—A GDC dependent STA shall immediately cease all transmission if it receives an unsolicited GDC Enablement Response frame with a Status Code of <ANA~~77~~78> ("Authorization Deenabled") from the GDC enabling STA that enabled its operation.

***Change #7.***

**Discussion:** Power level indication is not clearly defined. Usually MSB indicates sign information in signed interger.

**Propose:**

*In page 43, line 54 to 56, modify text as follows;*

**8.4.2.169 Channel Power Management Announcement element**

…

The Constrained Maximum Transmit Power field indicates the maximum power~~, in units of 0.5 dBm,~~ allowed to be transmitted on the specified channel, after the channel power management announcement takes effect. MSB of this field represents sign of the constrained maximum transmit power value while remaining values indicates the absolute value in units of 0.5dBm. (The range of this field is -63.5 dBm to 63.5 dBm.)

*In page 36, modify table8-14k as follows;*

**8.2.6.1.6 WSM Information Values**

…

Table 8-14k—WSM information values

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Length (octets) | Value | Scope |
| … | … | … | … |
| Maximum Power Level | 1 | The Maximum Transmit Power Level field indicates the maximum power~~, in units of 0.5 dBm,~~ allowed to be transmitted on the Channel Number. MSB of this field represents sign of the maximum transmit power value while remaining values indicates the absolute value in units of 0.5 dBm. (The range of this field is -63.5 dBm to 63.5 dBm.) | WSM, US |
| … | … | … | … |

*In page 53, line 47 to 52, modify text as follows;*

**8.4.5.5 RLQP Network Channel Control element**

…

The Maximum Transmit Power gives the intended maximum transmit power in dBm for TV frequency operation in the request frame and indicates the maximum allowable transmit power in dBm for TV frequency operation in the response frame. Except for 0b11111111 which is used ~~The field is coded as a signed integer in units of 0.5 dBm. The field is set to 0~~ when a requesting STA requests a responding STA to provide a Network Channel Control response without specifying in the request the intended maximum transmit power~~.~~, MSB of this field represents sign of the maximum transmit power value while remaining values indicates the absolute value in units of 0.5dBm. (The range of this field is -63.0 dBm to 63.5 dBm.)

*In page 54, line 50 to 52, modify text as follows;*

**8.4.5.6 Neighboring Network Information Query element**

…

The Estimated Maximum Transmit Power field indicates the power~~, in units of 0.5 dBm,~~ of the expected maximum power level the device will be using for its operation, as allowed for its device class. ~~The Estimated Maximum Transmit Power field is a signed integer and is 1 octet in length.~~ MSB of this field represents sign of the estimated maximum transmit power value while remaining values indicates the absolute value in units of 0.5 dBm. (The range of this field is -63.5 dBm to 63.5 dBm.)

*In page 55, line 46 to 48, modify text as follows;*

**8.4.5.7 Neighboring Network Information Response element**

…

The Operating Transmit Power field indicates the power~~, in units of 0.5 dBm,~~ set as the maximum power allowed for transmissions within the BSS with the preceding BSSID value, for the specified channel in which the BSS is operating on. MSB of this field represents sign of the operating transmit power value while remaining values indicates the absolute value in units of 0.5 dBm. (The range of this field is -63.5 dBm to 63.5 dBm.)

*In page 61, line 11 to 16, modify text as follows;*

**8.5.8.33 Network Channel Control frame format**

…

The Maximum Transmit Power gives the intended maximum transmit power in dBm for TV frequency operation in the request frame and indicates the maximum allowable transmit power in dBm for TV frequency operation in the response frame. ~~The field is coded as a signed integer in units of 0.5 dBm.~~ Except for 0b11111111 which is used ~~The field is set to 0~~ when a requesting STA requests a responding STA to provide a Network Channel Control response without specifying in the request the intended maximum transmit power~~.~~, MSB of this field represents sign of the maximum transmit power value while remaining values indicates the absolute value in units of 0.5dBm. (The range of this field is -63.0 dBm to 63.5 dBm.)