IEEE P802.11
Wireless LANs

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| Proposed changes re IEEE-SA MEC comment related to Draft 2.1 of IEEE P802.11REVmd |
| Date: 2019-09-09 |
| Author: |
| Name | Affiliation | Address | Phone | Email |
| Edward Au | Huawei Technologies | 303 Terry Fox Drive, Suite 400, Ottawa, Ontario K2K 3J1 |  | edward.ks.au@gmail.com  |

##### This submission present proposed changes re IEEE-SA MEC comment related to Draft 2.1 of IEEE P802.11REVmd. The proposed changes are based on REVmd/D2.3.

##### Revision history:

##### R0 – initial version

##### R1 – updated based on the feedback received during the Toronto ad-hoc

##### R2 – add the outcome of the discussion in the Toronto ad-hoc

##### R3 – updated based on the feedback received in the September 3, 2019, teleconference call

##### R4 – added feedback from IEEE-SA Staff on their review on R3

***Problem Statement:***

**As referred to the IEEE 802.11md MDR report (19/0260r15), IEEE-SA MEC has the following major concern:**

*My biggest concern with this draft is that informative text seems to be combined with the normative parts of the standard.*

*The IEEE-SA Standards Board Operations Manual defines which parts of a standard are normative and which parts of a standard are informative.*

*Normative text is information that is required to implement the standard and is therefore officially part of the standard.*

*Informative text is provided for information only and is therefore not officially part of the standard.*

*Normative text (information required to implement the standard) includes the following:*

* *The main clauses of the documents including figures, tables, and equations*
* *Footnotes to tables*

*Interspersed normative and informative text is not allowed. As such, neither clauses nor subclauses shall be labeled as informative.*

*You have instances where figures are labeled as informative, which is not permitted, such as Figure 12-8 and Figure 12-21.*

*[Note from Co-Editor: It should be Figure 12-31, not Figure 12-21]*

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*You also specifically call out figures as informative in text, such as the following sentence: “The informative diagrams within this subclause further illustrate the protocol layer model adopted.”*

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*And in 1.4, the draft reads as follows: “Where normative text references a figure or subclause using “illustrated in”, the referenced figure or subclause is informative.”*

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*This seems to go against the Operations Manual. I would suggest removing the “informative” labels from the figures.*

*[Note from co-Editor: Clauses 6.4.1, 6.4.3, 6.4.4 and 6.4.5 of IEEE-SA Standards Board Operations Manual (version January 2019, approved by the IEEE-SA Standards Board)]*



*I also would consider removing the “informative” distinction from the text, i.e., “the informative diagrams within this subclause…” becomes “the diagrams within this subclause.”*

***Discussion:***

**Revision 2:**

In D2.3, there are 153 appearances of “illustrat\*”. Some of the figures using “illustrated in” are actually normative information, i.e., neither examples nor informative information.

In D2.3, there are 83 apperances of “informative”.

**Revision 3:**

Based on the discussion in the Toronto ad-hoc in August 2019, the proposed resolution includes (1) the removal of the sentence in Clause 1.4 about the informative description by using the term “illustrated in”; (2) the replacement of “illustrate” with other appropriate terms; and (3) the removal of the term “informative” in normative texts.

**Revision 4:**

The following two paragraphs are the email response from Catherine Berger (IEEE-SA) on her review on 19/1444r3:

*I read through your proposed changes and they are all acceptable to me.*

*This rule has always been confusing because some information is, just naturally, informative--such as examples, as you point out. But when this information is included in the main body of the document it is considered normative even if by nature it takes on an informative role. A user shall consider everything is the normative parts of the standard as being necessary to implement the standard--even examples. Removing the informative label is all you really need to do to successfully follow the Ops Manual. That being said, you do not have to go through and remove the word "example" in the thousand instances it occurs. There is also no problem with the wording “and is not meant to be exhaustive of all possible protocol uses."*

***Proposed resolution:***

Delete the following sentences at 150.40,

 “Where normative text references a figure, table or equation using “shown in” or “defined in”, the referenced figure, table or equation is normative, unless the word “example” is used. Where normative text references a figure or subclause using “illustrated in”, the referenced figure or subclause is informative.”.

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At 1307.44,

replace “The Constraint subfield is defined as illustrated in Figure 9-569 (Constraint subfield format for CMMG STAs) for CMMG STAs.”

With “The Constraint subfield is defined ~~as illustrated~~ in Figure 9-569 (Constraint subfield format for CMMG STAs) for CMMG STAs.”

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At 1425.29,

replace “The CDMG AP or PCP Capability Information field, illustrated in Figure 9-729 (CDMG AP or PCP Capability Information field format(11aj)), represents the capabilities, when the transmitting CDMG STA performs in the role of AP or PCP, that are in addition to the capabilities in the CDMG STA Capability Information field.”

with “The CDMG AP or PCP Capability Information field, defined in Figure 9-729 (CDMG AP or PCP Capability Information field format(11aj)), represents the capabilities, when the transmitting CDMG STA performs in the role of AP or PCP, that are in addition to the capabilities in the CDMG STA Capability Information field.”

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At 1427.51,

replace “The Allocation field is formatted as illustrated in Figure 9-733 (Allocation field format(11aj)).”

with “The Allocation field is ~~formatted as~~ defined in Figure 9-733 (Allocation field format(11aj)).”

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At 1429.22,

replace “The format of the SSW Report element is as illustrated in Figure 9-736 (SSW Report element format(11aj)).”

with “The ~~format of the~~ SSW Report element is ~~as~~ defined in Figure 9-736 (SSW Report element format(11aj)).”

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At 1433.52,

replace “The SPSH Report element is transmitted in the DMG Beacon frame and is formatted as illustrated in Figure 9-745 (SPSH Report element format(11aj)).”

with “The SPSH Report element is transmitted in the DMG Beacon frame and is ~~formatted as~~ defined in Figure 9-745 (SPSH Report element format(11aj)).”

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At 1434.9,

replace “The SPSH List field contains information of non-interfering links and is formatted as illustrated in Figure 9-746 (SPSH List field format(11aj)).”

with “The SPSH List field contains information of non-interfering links and is ~~formatted as~~ defined in Figure 9-746 (SPSH List field format(11aj)).”

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At 1435.10,

replace “The Clustering SPSH Control field is illustrated in Figure 9-748 (Clustering SPSH Control field format(11aj)).”

with “The Clustering SPSH Control field is defined in Figure 9-748 (Clustering SPSH Control field format(11aj)).”

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At 1443.36,

replace “The CMMG AP or PCP Capability Information field, illustrated in Figure 9-755 (CMMG AP or PCP Capability Information field format(11aj)), represents the capabilities, when the transmitting STA performs in the role of AP or PCP, that are in addition to the capabilities in the CMMG STA Capability Information field.”

with “The CMMG AP or PCP Capability Information field, defined in Figure 9-755 (CMMG AP or PCP Capability Information field format(11aj)), represents the capabilities, when the transmitting STA performs in the role of AP or PCP, that are in addition to the capabilities in the CMMG STA Capability Information field.”

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At 2088.4,

replace “An example with 4 TIMs and their 4 assigned page slices is depicted in Figure 10-103 (Illustration of Page Slicing with Page Slice element(11ah)).”

with “~~An example with~~The case of 4 TIMs and their 4 assigned page slices is depicted in Figure 10-103 (~~Illustration of~~ Page Slicing with Page Slice element with 4 TIMs(11ah)).”

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At 2088.30,

replace “Figure 10-103—Illustration of Page Slicing with Page Slice element”

with “Figure 10-103—~~Illustration of~~ Page Slicing with Page Slice element with 4 TIMs”

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At 3485.47,

replace “The control mode preamble is illustrated in Figure 25-4 (Control mode preamble(11aj)).”

with “The control mode preamble is defined in Figure 25-4 (Control mode preamble(11aj)).”

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At 3486.42,

replace “The SC mode preambles are illustrated in Figure 25-5 (CMMG SC mode preamble for CBW540 MHz(M101)(11aj)) and Figure 25-6 (CMMG SC mode preamble for CBW1080 MHz(M101)(11aj)).”

with “The SC mode preambles are defined in Figure 25-5 (CMMG SC mode preamble for CBW540 MHz(M101)(11aj)) and Figure 25-6 (CMMG SC mode preamble for CBW1080 MHz(M101)(11aj)).”

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At 3502.49,

replace “A CMMG SC mode PPDU frame is composed of the CMMG SC mode STF, the CMMG SC mode CEF, the CMMG SC mode SIG field, the optional CMMG SC mode SCTF, the SC data block, and the optional training fields, which is illustrated in Figure 25-17 (Format of CMMG SC mode PPDU(11aj)) where the SCTF fields is transmitted for 1080 MHz channel bandwidth.”

with “A CMMG SC mode PPDU frame is composed of the CMMG SC mode STF, the CMMG SC mode CEF, the CMMG SC mode SIG field, the optional CMMG SC mode SCTF, the SC data block, and the optional training fields, which is defined in Figure 25-17 (Format of CMMG SC mode PPDU(11aj)) where the SCTF fields is transmitted for 1080 MHz channel bandwidth.”

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At 405.33,

replace “The informative diagrams within this subclause further illustrate the protocol layer model adopted. Figure 6-3 (Measurement request—accepted) and Figure 6-4 (Measurement request—rejected) depict the measurement process for a peer STA to accept and reject a measurement request, respectively.”

with “The ~~informative~~ diagrams within this subclause further illustrate the protocol layer model adopted. Figure 6-3 (Measurement request—accepted) and Figure 6-4 (Measurement request—rejected) depict the measurement process for a peer STA to accept and reject a measurement request, respectively.”

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At 508.27,

replace “The informative diagram shown in Figure 6-12 (Event protocol exchange) illustrates the Event Request and Event Report process and is not meant to be exhaustive of all possible protocol uses.”

with “The ~~informative~~ diagram ~~shown~~ in Figure 6-12 (Event protocol exchange) shows the Event Request and Event Report process ~~and is not meant to be exhaustive of all possible protocol uses~~.”

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At 514.6,

replace “The informative diagram shown in Figure 6-13 (Diagnostic protocol exchange) depicts the diagnostic reporting process and is not meant to be exhaustive of all possible protocol uses.”

with “The ~~informative~~ diagram ~~shown~~ in Figure 6-13 (Diagnostic protocol exchange) shows the diagnostic reporting process ~~and is not meant to be exhaustive of all possible protocol uses~~.”

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At 517.58,

replace “The informative diagram shown in Figure 6-14 (Location configuration request and response protocol exchange) depicts the location configuration request and response process and is not meant to be exhaustive of all possible protocol uses.”

with “The ~~informative~~ diagram ~~shown~~ in Figure 6-14 (Location configuration request and response protocol exchange) shows the location configuration request and response process ~~and is not meant to be exhaustive of all possible protocol uses~~.”

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At 522.7,

replace “The informative diagram in Figure 6-15 (Location track notification protocol exchange) depicts the location track notification process, is not meant to be exhaustive of all possible protocol uses.”

with “The ~~informative~~ diagram ~~shown~~ in Figure 6-15 (Location track notification protocol exchange) shows the location track notification process~~, is not meant to be exhaustive of all possible protocol uses~~.”

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At 524.37,

replace “The informative diagram in Figure 6-16 (Timing measurement primitives and timestamps capture(#1563)) depicts various points in time that are of interest to the timing measurement procedure.”

with “The ~~informative~~ diagram ~~shown~~ in Figure 6-16 (Timing measurement primitives and timestamps capture(#1563)) shows various points in time that are of interest to the timing measurement procedure.”

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At 529.6,

replace “The informative diagram in Figure 6-17 (Fine timing measurement primitives and timestamps capture) depicts various points in time that are of interest to the FTM procedure.”

with “The ~~informative~~ diagram ~~shown~~ in Figure 6-17 (Fine timing measurement primitives and timestamps capture) shows various points in time that are of interest to the FTM procedure.”

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At 534.40,

replace “The informative diagram shown in Figure 6-18 (BSS transition management request—accepted) depicts the BSS transition management procedure and is not meant to be exhaustive of all possible protocol uses.”

with “The ~~informative~~ diagram ~~shown~~ shown in Figure 6-18 (BSS transition management request—accepted) shows the BSS transition management procedure ~~and is not meant to be exhaustive of all possible protocol uses~~.”

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At 542.12,

replace “The informative diagram shown in Figure 6-19 (FMS setup protocol exchange) depicts the FMS setup process and is not meant to be exhaustive of all possible protocol uses.”

with “The ~~informative~~ diagram ~~shown~~ in Figure 6-19 (FMS setup protocol exchange) shows the FMS setup process ~~and is not meant to be exhaustive of all possible protocol uses~~.”

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At 545.56,

replace “The informative diagram shown in Figure 6-20 (Collocated interference protocol exchange) depicts the Collocated Interference request and response process and is not meant to be exhaustive of all possible protocol uses.”

with “The ~~informative~~ diagram ~~shown~~ in Figure 6-20 (Collocated interference protocol exchange) shows the Collocated Interference request and response process ~~and is not meant to be exhaustive of all possible protocol uses~~.”

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At 550.33,

replace “The informative diagram shown in Figure 6-21 (TFS request and response exchange) depicts the TFS request and response process and is not meant to be exhaustive of all possible protocol uses.”

with “The ~~informative~~ diagram ~~shown~~ in Figure 6-21 (TFS request and response exchange) shows the TFS request and response process ~~and is not meant to be exhaustive of all possible protocol uses~~.”

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At 555.6,

replace “The informative diagram shown in Figure 6-22 (WNM sleep mode request and response exchange) depicts the sleep mode request and response process and is not meant to be exhaustive of all possible protocol uses.”

with “The ~~informative~~ diagram ~~shown~~ in Figure 6-22 (WNM sleep mode request and response exchange) shows the sleep mode request and response process ~~and is not meant to be exhaustive of all possible protocol uses~~.”

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At 559.17,

replace “The informative diagram shown in Figure 6-23 (TIM broadcast setup protocol exchange) depicts the TIM Broadcast setup process and is not meant to be exhaustive of all possible protocol uses.”

with “The ~~informative~~ diagram ~~shown~~ in Figure 6-23 (TIM broadcast setup protocol exchange) shows the TIM Broadcast setup process ~~and is not meant to be exhaustive of all possible protocol uses~~.”

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At 563.43,

replace “The informative diagram shown in Figure 6-24 (QoS traffic capability update protocol exchange) depicts the QoS traffic capability update process.”

with “The ~~informative~~ diagram ~~shown~~ in Figure 6-24 (QoS traffic capability update protocol exchange) shows the QoS traffic capability update process.”

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At 570.7,

replace “The informative diagram shown in Figure 6-26 (DMS or GCR setup protocol exchange(#1375)) depicts the DMS or GCR request and response process and is not meant to be exhaustive of all possible protocol uses.”

with “The ~~informative~~ diagram ~~shown~~ in Figure 6-26 (DMS or GCR setup protocol exchange(#1375)) shows the DMS or GCR request and response process ~~and is not meant to be exhaustive of all possible protocol uses~~.”

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At 629.27,

replace “The informative diagram shown in Figure 6-27 (Example SCS setup and termination protocol exchange) depicts the SCS request and response process and is not meant to be exhaustive of all possible protocol uses.”

with “The ~~informative~~ diagram ~~shown~~ in Figure 6-27 (~~Example~~ SCS setup and termination protocol exchange) shows the SCS request and response process ~~and is not meant to be exhaustive of all possible protocol uses~~.”

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At 816.44,

Delete “NOTE 7—The values for maximum PSDU size and maximum PPDU duration are informative only. References to the normative requirements are provided.”

At 815.42,

Delete “(see NOTE 7)”.

At 816.14,

Delete “(see NOTE 7)”.

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At 1249.27,

replace “See R.2 (Network discovery and selection) for informative text on usage of fields contained within the Interworking element.”

with “See R.2 (Network discovery and selection) for ~~informative text on~~ the usage of fields contained within the Interworking element.”

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At 1462.9,

replace “See R.2 (Network discovery and selection) for informative text on ANQP usage.”

with “See R.2 (Network discovery and selection) for ~~informative text on~~ the ANQP usage.”

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At 1706.1,

delete “(informative)”.

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At 2356.60,

replace “When location track notification is supported, a STA configured by another STA as described in the previous subclause shall transmit Location Track Notification frames as shown in the informative diagram in Figure 11-31 (STA transmission on three channels, three frames per channel with Normal Report Interval).”

with “When location track notification is supported, a STA configured by another STA as described in the previous subclause shall transmit Location Track Notification frames as shown in ~~the informative diagram in~~ Figure 11-31 (STA transmission on three channels, three frames per channel with Normal Report Interval).”

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At 2515.4,

replace “A WSM with a Map version value of 127 indicates that the WSM is informative and it does not affect the GDD enablement states of a GDD dependent STA.”

with “A WSM with a Map version value of 127 indicates that the WSM is ~~informative~~for reference only and it does not affect the GDD enablement states of a GDD dependent STA.”

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At 2575.10

replace “Informative Figure 12-8 (TKIP MIC relation to IEEE 802.11 processing (informative)) depicts different peer layers communicating.”

with “~~Informative~~ Figure 12-8 (TKIP MIC relation to IEEE 802.11 processing ~~(informative)~~) depicts different peer layers communicating.”

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At 2575.26,

replace “Figure 12-8—TKIP MIC relation to IEEE 802.11 processing (informative)”

with “Figure 12-8—TKIP MIC relation to IEEE 802.11 processing ~~(informative)~~”

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At 2636.48,

replace “Figure 12-31—Group key hierarchy (informative)”

with “Figure 12-31—Group key hierarchy ~~(informative)~~”

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At 2636.17,

replace “Figure 12-31 (Group key hierarchy (informative)) depicts an example of a relationship among the keys of the group key hierarchy”

with “Figure 12-31 (Group key hierarchy ~~(informative)~~) depicts an example of a relationship among the keys of the group key hierarchy”.

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At 2655.48,

replace “The following is an informative description of nonce(#1406) generation”

with “The following is a~~n informative~~ description of nonce(#1406) generation”

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At 2663.41,

replace “The following is an informative sample of a 4-way handshake for illustration.”

with “The following is a~~n informative~~ sample of a 4-way handshake for illustration.”

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At 2664.35,

replace “The following is an informative analysis of the 4-way handshake.”

with “The following is a~~n informative~~ analysis of the 4-way handshake.”

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At 2669.24,

replace “The following is an informative sample of a group key handshake for illustration.”

with “The following is a~~n informative~~ sample of a group key handshake for illustration.”

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At 2922.2,

replace “Time domain windowing, as described here, is just one way to achieve those objectives. The implementer may use other methods to achieve the same goal, such as frequency domain filtering. Therefore, the transition shape and duration of the transition are informative parameters.”

with “Time domain windowing, as described here, is just one way to achieve those objectives. The implementer may use other methods to achieve the same goal, such as frequency domain filtering. ~~Therefore, the transition shape and duration of the transition are informative parameters.~~”

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At 3122.15,

Delete “The sequences in the tables are normative, the description above is informative.”

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At 3537.35,

Delete “Note that the sequence sets in the tables below are normative, and the description above is informative.”

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