Proposed amendment to table 7-8

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This version has been edited for publication as PDF file at ComNets, RWTH Aachen University.

Some animations may not be displayed correctly in PDF format.

Please see

https://mentor.ieee.org/802.11/file/07/11-07-

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<u>table-7-8.ppt</u> for the original version in **PowerPoint format.**

Abstract

In Std. 802.11-2007, table 7-8 (page 80) in chapter 7.2.3.1 (Beacon frame format) describes the Information Elements (IEs) and their order of occurrence in a beacon frame. As 802.11s uses beacon frames that are sent independently of beacon frames for infrastructure BSSs or IBSSs, we propose to amend table 7-8 to explicitly describe the relationship between the presence of specific IEs and the setting of the Capability Information field element bits B0 and B1.

Proposed amendment (1)

| Capability Information field bits B0 B1 | 00 | 01 | 10 | 11 | |
|---|----------------------|----------------------|----------------------|-----------|---|
| Order Information | | | | | Notes |
| 1 Timestamp | Shall be present | Shall be present | Shall be present | undefined | |
| 2 Beacon interval | Shall be present | Shall be present | Shall be present | undefined | |
| 3 Capability | Shall be present | Shall be present | Shall be present | undefined | |
| 4 Service Set Identifier (SSID) | Shall not be present | Shall be present | Shall be present | undefined | |
| 5 Supported rates | See Notes | See Notes | See Notes | undefined | |
| 6 Frequency-Hopping (FH) Parameter Set | See Notes | See Notes | See Notes | undefined | The FH Parameter Set information element is present within Beacon frames generated by STAs using FH PHYs. |
| 7 DS Parameter Set | See Notes | See Notes | See Notes | undefined | The DS Parameter Set information element is present within Beacon frames generated by STAs using Clause 15, Clause 18, and Clause 19 PHYs. |
| 8 CF Parameter Set | See Notes | See Notes | See Notes | undefined | The CF Parameter Set information element is present only within Beacon frames generated by APs supporting a PCF. |
| 9 IBSS Parameter Set | Shall not be present | Shall be present | Shall not be present | undefined | The IBSS Parameter Set information element is present only within Beacon frames generated by STAs in an IBSS. |
| 10 Traffic indication map (TIM) | See Notes | Shall not be present | Shall be present | undefined | The TIM information element is present only within Beacon frames generated by APs. |

Proposed amendment (2)

| Capability Information field bits B0 B1 | 00 | 01 | 10 | 11 | |
|---|-----------|-----------|-----------|-----------|---|
| Order Information | | | | | Notes |
| | | | | | The Country information element shall be present when dot11MultiDomainCapabilityEnabled is true or dot11SpectrumManagementRequired is |
| 11 Country | See Notes | See Notes | See Notes | undefined | true. |
| 12 FH Parameters | See Notes | See Notes | See Notes | undefined | FH Parameters as specified in 7.3.2.10 may be included if dot11MultiDomainCapabilityEnabled is true. |
| 13 FH Pattern Table | See Notes | See Notes | See Notes | undefined | FH Pattern Table information as specified in 7.3.2.11 may be included if dot11MultiDomainCapabilityEnabled is true. |
| 14 Power Constraint | See Notes | See Notes | See Notes | undefined | Power Constraint element shall be present if dot11SpectrumManagementRequired is true. Channel Switch Announcement element See Notes if |
| 15 Channel Switch Announcement | See Notes | See Notes | See Notes | undefined | dot11SpectrumManagementRequired is true. |

Proposed amendment (3)

| Capability Information field bits B0 B1 | 00 | 01 | 10 | 11 | |
|---|----------------------|-----------|----------------------|-----------|--|
| Order Information | | | | | Notes |
| 16 Quiet | See Notes | See Notes | See Notes | undefined | Quiet element See Notes if dot11SpectrumManagementRequired is true. IBSS DFS element shall be present if |
| 17 IBSS DFS | Shall not be present | See Notes | Shall not be present | undefined | dot11SpectrumManagementRequired is true in an IBSS. |
| 18 TPC Report | See Notes | See Notes | See Notes | undefined | TPC Report element shall be present if dot11SpectrumManagementRequired is true. |
| 19 ERP Information | See Notes | See Notes | See Notes | undefined | The ERP Information element is present within Beacon frames generated by STAs using extended rate PHYs (ERPs) defined in Clause 19 and is optionally present in other cases. |
| 20 Extended Supported Rates | See Notes | See Notes | See Notes | undefined | The Extended Supported Rates element is present whenever there are more than eight supported rates, and it is optional otherwise. The RSN information element shall be present within Beacon frames generated by |
| 21 RSN | See Notes | See Notes | See Notes | undefined | STAs that have dot11RSNAEnabled set to TRUE. |
| 22 BSS Load | See Notes | See Notes | See Notes | undefined | The BSS Load element is present when dot11QosOption-Implemented and dot11QBSSLoadImplemented are both true. |

Proposed amendment (4)

| Capability Information field bits B0 B1 | 00 | 01 | 10 | 11 | |
|---|-----------|-----------|-----------|-----------|--|
| Order Information | | | | | Notes |
| 23 EDCA Parameter Set | See Notes | See Notes | See Notes | undefined | The EDCA Parameter Set element is present when dot11QosOptionImplemented is true and the QoS Capability element is not present. |
| 24 QoS Capability | See Notes | See Notes | See Notes | undefined | The QoS Capability element is present when dot11QosOption-Implemented is true and EDCA Parameter Set element is not present. |
| 25 Vendor Specific | See Notes | See Notes | See Notes | undefined | One or more vendor-specific information elements may appear in this frame. This information element follows all other information elements. |

References

• Std. 802.11-2007