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**IEEE P802.11**  
**Wireless LANs**

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**802.11y Conditional Sponsor Ballot Report****Date:** 2007-07-13**Author(s):**

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**Abstract**

This is the report documenting the results of the WG letter ballots on IEEE 802.11y. This report is to be submitted to the IEEE 802 Executive Committee to support the request to forward IEEE 802.11y to Sponsor Ballot.

## **1. Introduction and Summary**

This is the report to the IEEE 802 Executive Committee that documents all the WG letter ballots of IEEE 802.11y, including voting results, comment statistics, and unresolved negative comments.

The total number of voters on IEEE 802.11y is 347. The final results of the voters on IEEE 802.11y are 326 voted, 242 yes, 24 no, 60 abstained, for a 90.98% approval rate, a return percentage of 93.9%, and an abstain percentage of 18.4%.

There are 125 outstanding negative comments from seventeen remaining negative voters; forty seven of these outstanding negative comments are from the latest latter ballot and the remaining 68 outstanding negative comments are previously recirculated unresolved negative comments from previous letter ballots.

Based on results of the letter ballots on IEEE 802.11y as documented in this report, we are asking for approval from the IEEE 802 Executive Committee to forward IEEE 802.11y to sponsor ballot.

Agenda Items and motions requesting conditional approval to forward when the prior ballot has closed shall be accompanied by:

- Date the ballot closed
- Vote tally including Approve, Disapprove and Abstain votes
- Comments that support the remaining disapprove votes and Working Group responses.
- Schedule for recirculation ballot and resolution meeting.

Letter Ballot 94 was a vote on Draft 1.0, and ran for 40 days starting 12 December 2007, and ending on 7 January 2007.

309 voted, 182 yes, 59 no, 71 abstained, 75.52% approval rate  
Approve 182, Disapprove comments 59, Abstain 71

Letter Ballot 104 was a recirculation vote on Draft 2.0 and resolutions in 11-07-0008-12, and ran for 16 days from 19 April 2007 until 5 May 2007.

324 voted, 221 yes, 41 no, 62 abstained, 84.35% approval rate  
Approve 129, Disapprove comments 19, Abstain 32 = 180 ballots

Letter Ballot 106 was a recirculation vote on Draft 3.0 and resolutions recorded in 11-07-0602-07, and ran for 15 days from 5 June 2007 until 20 June 2007.

326 voted, 242 yes, 24 no, 60 abstained, 90.98% approval rate  
Approve 129, Disapprove comments 9, Abstain 28 = 166 ballots cast

Subsequently two negative voters have changed their votes to Approve, and at this time there are 17 Negative voters with comments recorded in the comment database.

Note that the resolutions for LB 106 comments have not yet been approved by the WG.

Of the total 124 no-voter unsatisfied comments from all letter ballots, many are non-technical comments marked technical, and many address similar topics.

The comments may be categorized as follows:

62 Required Comments on Draft 1.0 with no subsequent Negative voter participation. They mainly had an issue related with TGn timelines: the Channel Switch Announcement text that also appeared in TGn Draft 1.0 (LB 84) and TGv, and in subsequent events got consolidated into

TGy, as it is scheduled to complete before TGn and TGv. At the time of LB 94, the TGn Channel Switch Announcement defined another way to change Regulatory Classes, and proponents of that scheme made comments in LB 94 to remove Extended Channel Switching. TGn then changed their definition of what Regulatory Classes would be required, and in TGn Draft 2.0 adopted the TGy language for LB 97. If the WG approves the proposed LB 106 comment resolutions, there will be just three Channel Switch Announcement comments from LB 104 and 106 that remain rejected.

LB	Comment	Accept	Accept in Principle	Reject
94	Technical Required	19	25	23
94	Editorial Required	1	2	0
104	Technical Required	1	2	3
104	Editorial Required	1	1	0
106	Technical Required	12	24	5
106	Editorial Required	3	2	1
		37	56	32

There was one Required comment on LB 104 “Confusions from submitting redline version without providing rationale to voters.” and suggesting “Cancel and reissue ballot with justification for redline draft and include clean version, too.” which the Task Group considers Out of Scope. If the WG agrees it is out of scope, then the voter’s previous Approve vote on LB 94 would be the official one, not the Negative vote on LB 104.

The working group responses to all of these unsatisfied comments are on the following pages:

Cl 00 SC P L # 1110  
 "Kurihara, Thomas"  
 Comment Type GR Comment Status D  
 Confusions from submitting redline version without providing rationale to voters.  
 SuggestedRemedy  
 Cancel and reissue ballot with justification for redline draft and include clean version, too.  
 Proposed Response Response Status W  
 PROPOSED REJECT. Out of Scope

Cl 00 SC 0 P1 L # 5  
 "Amann, Keith"  
 Comment Type TR Comment Status A  
 The document does not cite which base document(s) this addendum applies to, therefore making it impossible to know what this document is modifying.  
 SuggestedRemedy  
 Add the statement "[This document is based on IEEE Std 802.11(tm), 2007 Edition]", assuming that this is the correct reference for the recently adopted maintenance release of 802.11. If not then the reference should be adjusted accordingly.  
 Response Response Status W  
 PROPOSED ACCEPT.

Cl 03 SC 3.34a P1 L 54 # 2051  
 Myles, Andrew  
 Comment Type TR Comment Status X  
 The text speaks of an association between the dependent STA and the enabling AP.  
 However, this is confusing because I understand that this is not intended to be an 802.11 association.  
 SuggestedRemedy  
 Modify nomenclature to call relationship between the dependent STA and the enabling AP a "registration"  
 Proposed Response Response Status W  
 PROPOSED REJECT. As the FCC uses "registration" for licensed operators and stations in required databases and regulations, it would be very confusing to replace "enablement" with "registration"

Cl 03 SC 3.34b P1 L 59 # 2049  
 Myles, Andrew  
 Comment Type TR Comment Status X  
 Definition uses term "restricted channel"  
 However, this is not defined anywhere  
 SuggestedRemedy  
 Define "restricted channel"

A similar comment applies to 3.48a, which defines "restricted bands"  
 Proposed Response Response Status W  
 PROPOSED ACCEPT IN PRINCIPLE. Adding definition of restricted channel ", which is a channel where transmission is restricted to licensed operators and stations operating under their control".

Cl 03 SC 3.54a P1 L 65 # 2050  
 Myles, Andrew  
 Comment Type ER Comment Status X  
 The text uses "station"  
 However, "STA" would be more consistent with the rest of clause 3  
 SuggestedRemedy  
 Replace "station" with STA  
 Similar comment applies to other clauses in draft  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 03 SC 3.y1 P9 L 12 # 426  
 "Palm, Stephen"  
 Comment Type TR Comment Status D  
 What does "publicly registered" mean?  
 SuggestedRemedy  
 explain  
 Proposed Response Response Status W  
 PROPOSED ACCEPT IN PRINCIPLE. Replaced with 'registered STA', meaning there is a registration system than can be used to facilitate interference resolution.

Cl 03 SC 3.y3 P2 L 10 # 1034  
 "Ecclesine, Peter"

Comment Type TR Comment Status D

Comment from Scott Blue: "The term enabling AP is not appropriate. By definition an AP provides a DSTA access to a DS over the air (for purposes including association). This device broadcasts information over the air that a dependant STAs needs in order to gain and retain permission to access to access a channel."

SuggestedRemedy

1) Use the ITU term for this kind of function - Control (or Controlling) STA 2) Remove the word 'associated' from the current definition 3) Properly articulate the channel permissioning mechanism using a subset of existing association procedures.

Proposed Response Response Status W

PROPOSED REJECT. Reject: based on discussion and editorial instructions in 07/0801r0

Cl 03 SC 3.y3 P9 L 19 # 427  
 "Palm, Stephen"

Comment Type TR Comment Status D

What does "publicly registered" mean?

SuggestedRemedy

explain

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE. Replaced with 'registered STA', meaning there is a registration system than can be used to facilitate interference resolution.

Cl 03 SC 3.y4 P9 L 22 # 428  
 "Palm, Stephen"

Comment Type TR Comment Status D

"some regulatory domains" contradicts the title that states "in USA". USA has only a single regulatory domain

SuggestedRemedy

correct title or definition to be consistant

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 05 SC 5.2.7 P10 L 10 # 430  
 "Palm, Stephen"

Comment Type TR Comment Status D

What is the definie of "cognitive radio"?

SuggestedRemedy

define

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE. The sentence being commented on is removed in the rewrite of 5.2.7, now Annex J.2 (07/0271).

Cl 05 SC 5.2.7 P10 L 15 # 431  
 "Palm, Stephen"

Comment Type TR Comment Status D

Is "US" the same as "USA"? If so, the usage should be consistant

SuggestedRemedy

Change "US" to "USA"

Proposed Response Response Status W

PROPOSED ACCEPT. The comment is applied to Annex J.2 (07/0271).

Cl 05 SC 5.2.7 P10 L 26 # 432  
 "Palm, Stephen"

Comment Type TR Comment Status D

"leading us". Is "us" colloquial or "USA?"

SuggestedRemedy

correct title or definition to be consistant

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE. The sentence being commented on is removed in the rewrite of 5.2.7, now Annex J.2 (07/0271).

Cl 05 SC 5.2.7 P 10 L 32 # 433  
 "Palm, Stephen"  
 Comment Type TR Comment Status D  
 Is the implication of the last clause that \*only\* 5MHz channels may be used or the 5 MHz may \*also\* be used?  
 SuggestedRemedy  
 clarify  
 Proposed Response Response Status W  
 PROPOSED ACCEPT. The 'shalls' in 5.2.7 are being moved to Annex J.2 defining operation in US 3650 MHz band.

Cl 05 SC 5.2.7 P 10 L 9 # 429  
 "Palm, Stephen"  
 Comment Type TR Comment Status D  
 "should have" - is that a recommendation or requirement?  
 SuggestedRemedy  
 clarify  
 Proposed Response Response Status W  
 PROPOSED ACCEPT IN PRINCIPLE. The sentence being commented on is removed in the rewrite of 5.2.7, now Annex J.2 (07/0271).

Cl 05 SC 5.2.7 P 4 L 23 # 258  
 "Kwak, Joe"  
 Comment Type TR Comment Status D  
 New FCC rules emphasize cognitive radio features, listen-before-talk, listening enhancements and other radio-aware features for licensed use. These capabilities imply the need for objective radio measurements and thus require the radio measurement capability specified in TGk amendment. This is especially true for use of a new standardized ED mechanism which cannot rely on RSSI which is not quantitatively specified and has no accuracy requirement. RCPI is needed for uniform ED operation within a DSE BSA.  
 SuggestedRemedy  
 P4L23, change ",Regulatory" to ", Radio Measurement capability (dot11RadioMeasurementEnabled true), Regulatory"  
 Proposed Response Response Status W  
 PROPOSED REJECT. The 'shalls' in 5.2.7 are being moved to a subclause defining operation in US 3650 MHz band. The baseline for Tgy includes TGk and TGr, so the measurements described in the comment will be available via the 802.11k amendment.

Cl 07 SC 7.2.3.1 P 3 L 19 # 2043  
 Myles, Andrew  
 Comment Type ER Comment Status X  
 The text uses "DSE registered location"  
 However, it would be clearer if it used "DSE Registered Location"  
 SuggestedRemedy  
 Fix  
 A similar comment applies to 7.2.3.5, 7.2.3.7, 7.2.3.9, 7.3.2  
 Proposed Response Response Status W  
 PROPOSED REJECT. Use is consistent with base standard. See IEEE Standards Style Manual, Jan 2007, clause 13.8 on capitalization.

Cl 07 SC 7.2.3.1 P 3 L 20 # 2021  
 Ecclesine, Peter  
 Comment Type TR Comment Status X  
 The Notes for DSE registered location here and elsewhere in Clauses 7 and 10 refer to 'if dot11DSERequired is true or dot11RegLocRequired is true', when dot11LCIDSERequired is true when either of these is true. The quoted text should be replaced by 'if dot11LCIDSERequired is true' everywhere it occurs.  
 SuggestedRemedy  
 Per comment  
 Proposed Response Response Status W  
 PROPOSED ACCEPT IN PRINCIPLE. also replace 'if dot11RegLocRequired is true or dot11DSERequired is true'.

Cl 07 SC 7.2.3.1 P3 L 20 # 2022  
 Ecclesine, Peter

Comment Type ER Comment Status D

If a description of how a dependent STA comes under the control of an enabling AP is created (maybe in response to other unsatisfied comments, e.g. LB104 1034 or 1101), then the variable dot11LCIDSERequired should be renamed globally to something more descriptive of enablement.

SuggestedRemedy

Per comment

Proposed Response Response Status W

PROPOSED REJECT. LCIDSE conveys location-based dependent STA enablement in six letters of a 19 letter name. LCI is used in IETF geopriv and related areas like emergency services, and DSE is widely used in P802.11y D3.0. Fifty-two letters is about the length of a line of DESCRIPTION in a MIB."

Cl 07 SC 7.2.3.1 P3 L 24 # 2072  
 Trainin, Solomon

Comment Type TR Comment Status X

As it is stated in the subclause 11.9 of the basic spec "STAs shall use the DFS procedures defined in this subclause if dot11SpectrumManagementRequired is true." The Extended Channel switch functionality is part of the 11.9 definition, so both attributes dot11SpectrumManagementRequiredshoud and dot11ExtendedChannelSwitchImplemented should be mentioned as requirement for the Extended Channel Switch Announcement information element presence. The same comment applies to any appearance of the Extended Channel Switch Announcement in 7.2.3.4 - 7.2.3.9

SuggestedRemedy

The attribute dot11SpectrumManagementRequired enables wide range of features. In the current spec there is no way to separately declare support of them. Clear specification should be provided to allow or disallow separate use of the extended channel switching

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE. Commenter writes "I would see that the text at the line 24 on page 3 should be changed this way:  
 The Extended Channel Switch Announcement information element may be present only if dot11ExtendedChannelSwitchImplemented, dot11SpectrumManagementRequired and dot11RegulatoryClassesRequired are true." Will add a normative statement in 11.9.7 "When dot11ExtendedChannelSwitchImplemented is true, dot11MultiDomainCapabilityEnabled, dot11SpectrumManagementReqired and dot11RegulatoryClassesRequired shall be true."

Cl 07 SC 7.2.3.1 P3 L 27 # 2073  
 Trainin, Solomon

Comment Type TR Comment Status X

As it is stated in the subclause 11.9 of the basic spec "STAs shall use the DFS procedures defined in this subclause if dot11SpectrumManagementRequired is true." The Supported Regulatory Classes functionality is part of the 11.9 definition, so both attributes dot11SpectrumManagementRequiredshoud and dot11ExtendedChannelSwitchImplemented should be mentioned as requirement for the Supported Regulatory Classes information element presence. The same comment applies to any appearance of the Supported Regulatory Classes in 7.2.3.4 - 7.2.3.9

SuggestedRemedy

The attribute dot11SpectrumManagementRequired enables wide range of features. In the current spec there is no way to separately declare support of them. Clear specification should be provided to allow or disallow separate use of the Supported Regulatory Classes information element.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE. Commenter writes "I would see that the text at the line 24 on page 3 should be changed this way:  
 The Extended Channel Switch Announcement information element may be present only if dot11ExtendedChannelSwitchImplemented, dot11SpectrumManagementRequired and dot11RegulatoryClassesRequired are true." Will add a normative statement in 11.9.7 "When dot11ExtendedChannelSwitchImplemented is true, dot11MultiDomainCapabilityEnabled, dot11SpectrumManagementRequired and dot11RegulatoryClassesRequired shall be true."

Cl 07 SC 7.2.3.9 P5 L 10 # 2046  
 Myles, Andrew

Comment Type ER Comment Status X

Text defines when element is required using "is"

However, in 7.2.3.1 used language with "shall"

SuggestedRemedy

Change language to be consistent

Note: I admit the base standard is not consistent but each amendment should be

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE. commenter mixes Beacon frame elements with Probe Response frame elements, and many persistent Beacon frame elements (11, 14, 17, 18, 21) are Noted as "shall be present". Few Probe Response frame elements (13, 16, 17) use "shall be present", most (6, 7, 8, 9, 18, 19, 20, 21, 22) use "is present".

CI 07 SC 7.2.3.9 P5 L17 # 2045

Myles, Andrew

Comment Type TR Comment Status X

The Supported Regulatory Classes element in Probe Response "is present if . is true"

However, a Supported Regulatory Classes element in a Beacon (see 7.2.3.1) "may be present if . is true"

SuggestedRemedy

Claiify why is there a difference, and correct as appropriate.

Proposed Response Response Status W

PROPOSED ACCEPT. Many persistent Beacon frame elements (11, 14, 17, 18, 21) are Noted as "shall be present". Few Probe Response frame elements (13, 16, 17) use "shall be present", most (6, 7, 8, 9, 18, 19, 20, 21, 22) use "is present." Will change change Supported Regulatory Classes element Notes in Beacon to "shall be present" and delete "only."

CI 07 SC 7.3.2.21.11 P6 L39 # 2054

Myles, Andrew

Comment Type TR Comment Status X

The text refers to the AP with which the STA is associated.

However, it is unclear if this is the enabling AP (with which it is registered) or the local AP (with which it is associated - in 802.11 speak)

SuggestedRemedy

Clarify to which AP the clause applies.

If it is the enabling AP, how does the STA return the report if it cannot actually communicate directly with the enabling AP

Proposed Response Response Status W

PROPOSED ACCEPT. It is mandatory to generate a report in response to a request from either the enabling AP or the AP with which it is associated.

CI 07 SC 7.3.2.22.11 P7 L24 # 2053

Myles, Andrew

Comment Type TR Comment Status X

The text states that it is mandatory for a STA to support the generation of a DSE report if dot11LCIDSERequired is true.

However, the next sentence says it is always optional

SuggestedRemedy

Remove contradiction

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 07 SC 7.3.2.36 P10 L10 # 288

"Levy, Joseph"

Comment Type TR Comment Status D

I assume Meters means meters above sea level - is this correct?

SuggestedRemedy

Please define accordingly.

Proposed Response Response Status W

PROPOSED REJECT. IETF RFC 3825 is the normative reference, and Meters is defined with respect to Datum therein. The definition in IETF RFC 3825 is unchanged by 802.11y, therefore the definition is removed.

Cl 07 SC 7.3.2.36 P 10 L 11 # 6

"Amann, Keith"

Comment Type TR Comment Status D

This draft appears to be referencing the same RFC as the 802.11k draft, but appears to be using it differently.

SuggestedRemedy

Resolve the differences between this draft and the 802.11k draft to utilize a single location method, or provide a detailed explanation of why these are both required. It also seems like there should be some coordination between 802.11y and 802.11k regarding the addition of this information if they are going to both rely on the use of it.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE. Both LCI elements were contributed by the same author (refer to 11-05/517r0), who has processed all TGk LCI comments, and is editor of TGy. The coordination is close ;- ) TGk's LCI measurement report element's use is via Measurement Request and Response, while TGy DSE LCI IE is entered administratively in Registered STAs and only the Dependent Enablement Identifier changes. The TGk LCI is not an Element with an ID listed in Table 26, however it is listed in Table 29 Measurement Type Definitions.

Cl 07 SC 7.3.2.36 P 10 L 11 # 289

"Levy, Joseph"

Comment Type TR Comment Status D

I assume Floors refers to the number of floors above ground level - is this correct?

SuggestedRemedy

Please define accordingly.

Proposed Response Response Status W

PROPOSED REJECT. IETF RFC 3825 is the normative reference, and Floors is defined with respect to Datum therein. The definition in IETF RFC 3825 is unchanged by 802.11y, therefore the definition is removed.

Cl 07 SC 7.3.2.36 P 10 L 2 # 259

"Kwak, Joe"

Comment Type TR Comment Status D

Figure y112A (the only figure in this clause) should be titled to define the format of the DSE registered location element.

SuggestedRemedy

Retitle Figure y112A to "DSE Egistered Location Element Format", consistent with baseline. Furthermore rewrite clause to eleimiate term DSE Location Configuration Information, but indicate that DSE Registered Location Element contains LCI information.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE. Will add a figure for the DSE Registered Location element format, and remove this figure.

Cl 07 SC 7.3.2.36 P 11 L 3 # 263

"Kwak, Joe"

Comment Type TR Comment Status D

From the description given for DSE LCI and DEI, it is not clear if the DEI is unique to a single STA or unique to a broadly defined location or unique among national licensees. Can two enabling STAs use the same DEI? If so under what conditions? Can the LCI resolution be broad enough to cover a campus? a town? a state? Can two or more enabling STAs operate at the same registered location? Does the DEI need to be registered in the FCC database for registered fixed STAs? Can enabling STAs be mobile or portable within a broad registered location? How can operation within the rules occur indoors? Can indoor (shielded from outdoor transmissions from enabling STA) operation in an entire building be permitted if at least one indoor STA is enabled by the distant registered fixed STA and can relay the information to other indoor STAs? Can a DSE enabled STA enable nearby STAs which cannot receive the direct transmission from the distant fixed registered STA, for instance mobile STAs in cars which enter a town and are shielded by buildings along the street from the horizon. Can a STA be enabled by being in radio range of a STA that can directly receive beacons from a fixed registered STA? If a STA is enabled on chan A, can it transmit on channel B while continuing to monitor for enabling beacons on channel A once each minute?

SuggestedRemedy

Please answer these questions and clarify text where needed. BTW: This is great work in a fairly short time period by a very dedicated and skilled task group! KUDOS! Your use and explanation of known draft defects and ongoing efforts in editorial notes on page vii should be a model for all drafts.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE. The questions should be answered in the rewrite of clause 11 DSE procedures, rather than clause 7 field descriptions. It should be noted that FCC registration requires the location be stated to within one meter, therefore two registered stations will not have the same LCI.

Cl 07 SC 7.3.2.36 P11 L3 # 260

"Kwak, Joe"

Comment Type TR Comment Status D

Field description not clear. Clarify as shown.

SuggestedRemedy

P11L3 Replace "value set by the enabling station" with "value. If Dependant STA bit is zero, the Dependant Enablement Identifier contains the ID of the enabling station which transmitted this IE. Otherwise the Dependant Enablement Identifier conatins the ID of the enabling STA which has enabled transmissions for the dependant STA which is transmitting this IE." Or use similar equivalent wording.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE. Sentence changed to "Dependent Enablement Identifier is a 16-bit field with a value set by the enabling station via the DSE registered location element in the (re)association response, or zero." Description of setting shall be in clause 11 DSE procedures, not in clause 7.

Cl 07 SC 7.3.2.36 P16 L10 # 437

"Palm, Stephen"

Comment Type TR Comment Status D

As this line is not a sentence, "meter" shall not be capitalized. See [http://www.bipm.fr/en/si/si\\_brochure/chapter5/5-2.html](http://www.bipm.fr/en/si/si_brochure/chapter5/5-2.html)

SuggestedRemedy

Fix capitalization

Proposed Response Response Status W

PROPOSED ACCEPT. The definition in IETF RFC 3825 is unchanged by 802.11y, therefore this line is deleted.

Cl 07 SC 7.3.2.36 P16 L11 # 436

"Palm, Stephen"

Comment Type TR Comment Status D

What are "floors"?

SuggestedRemedy

Define

Proposed Response Response Status W

PROPOSED REJECT. IETF RFC 3825 is the normative reference, and Floors is defined with respect to Datum therein. The definition in IETF RFC 3825 is unchanged by 802.11y, therefore the definition is removed.

Cl 07 SC 7.3.2.36 P16 L12 # 438

"Palm, Stephen"

Comment Type TR Comment Status D

As the word is not at the beginning of a sentence, "meter" shall not be capitalized. See [http://www.bipm.fr/en/si/si\\_brochure/chapter5/5-2.html](http://www.bipm.fr/en/si/si_brochure/chapter5/5-2.html)

SuggestedRemedy

Fix capitalization

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 07 SC 7.3.2.36 P16 L6 # 435

"Palm, Stephen"

Comment Type TR Comment Status D

Which one has the definitions, the reference or this document.

SuggestedRemedy

Clarify

Proposed Response Response Status W

PROPOSED ACCEPT. Clause 2 states Normative Reference for RFC 3825, and will change "2.1 or as" to "2.1 except as".

Cl 07 SC 7.3.2.37 P11 L6 # 439

"Parameswaran, Subra"

Comment Type TR Comment Status D

Extended channel switch announcement information element has only one more field (i.e., new regulatory class) than the existing channel switch announcement IE, so why not use only the new regulatory class as the content of this new IE? When needed, both the existing CSA IE and the new IE can be sent.

SuggestedRemedy

Redefine the extended channel switch announcement IE so that it contains only new information that is not in the existing channel switch announcement IE.

Proposed Response Response Status W

PROPOSED REJECT. The ECSA is six octets, fewer than any alternative in US 3650 MHz band. We do the same as TGn D2.0.

Cl 07 SC 7.3.2.50 P10 L 63-6 # 2039

Hiertz, Guido

Comment Type TR Comment Status X

A zero value for the Channel Switch Count field to indicate ". that the switch occurs anytime after the frame containing the element is transmitted." seems to be useless. If the transition occurs arbitrarily, there is no use in telling other STAs.

SuggestedRemedy

Delete sentence and reword previous sentence to become "A value of 0 indicates that the switch occurs immediately before the next TBTT."

Proposed Response Response Status W

PROPOSED REJECT. Text is identical to 7.3.2.20 CSA, and works identically. The AP says "I am leaving this channel", and the receiving STAs know not to wait TBTT before tuning to another frequency.

Cl 07 SC 7.3.2.50 P7 L 5 # 1002

"Amann, Keith"

Comment Type TR Comment Status D

There is a 1 octet field defined in the Extended Channel Switch Announcement Information Element called "Channel Switch Count" with no text describing what it is, or how it is used.

SuggestedRemedy

In the previous version of the draft there was text that described what this field was, and what values it could contain. It appears to have been stricken in this version of the draft, and in reviewing the comment resolutions I think I've discovered why. Although I understand the original commenter's concern (CID 359 on previous ballot), I don't agree that this text should have been moved, and would recommend that it be moved back here.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE. "Accept in Principle based on discussion and editorial instructions in 07/0673: ætext from 7.3.2.20 will be used, replacing "shall be set to" with "indicates", replacing "shall be set to zero" with "or zero" and "shall occur" with "occurs". "

Cl 07 SC 7.3.2.x P9 L 1 # 264

"Kwak, Joe"

Comment Type TR Comment Status D

Modify TGk's Neighbor Report Element for this band so that the DSE Registered Location element may be included for each AP in the neighbor list. The new element would be an optional neighbor report subelement which would be required when operating in this 3650-3700 band. This would provide a neighbor report listing all the registered fixed STAs for a licensee (and optionally for competitors) and would provide a geographical layout of the network which would greatly facilitate roaming for mobile STA in cars on rural roadways which have knowledge of position, velocity and direction.

SuggestedRemedy

Add new clause copied from TGk as suggested.

Proposed Response Response Status W

PROPOSED REJECT. As TGk is part of the baseline for Tgy, the Neighbor Report Element will be present. Additionally, Tgy has no requirement to roam, so the basis for 'Neighbor' a 'validated AP' is not present.

Cl 07 SC 7.4 P11 L 23 # 2020

Ecclesine, Peter

Comment Type TR Comment Status D

If a description of how a dependent STA comes under the control of an enabling AP is created (maybe in response to other unsatisfied comments, e.g. LB104 1034 or 1101), and other Action frames are defined, then DSERegisteredLocationAnnouncement should be moved from Spectrum management into a new category of Action frames that involve dependent stations.

SuggestedRemedy

Per comment

Proposed Response Response Status W

PROPOSED REJECT. Creating a new category of Action frames for three Actions involving dependent stations does not appear worth the effort. Keeping them together with Spectrum Management Action frames will lead to broader use in 802.11.

CI 07 SC 7.4.1.6 P 13 L 4 # 655  
 "Trainin, Solomon"

Comment Type TR Comment Status D

There is no need for additional Extended Channel Switch Announcement frame. The new Extended Channel Switch Information Element may be contained in the existent Channel Switch Announcement frame

SuggestedRemedy

Remove the Extended Channel Switch Announcement frame.

Proposed Response Response Status W

PROPOSED REJECT. The REV-ma Channel Switch Announcement element has a length of 5 octets, and legacy stations would have unspecified behavior if the element indicated a length other than 3. There is no backward compatibility with TGh stations in this band, and only the ECSA is used.

CI 07 SC 7.4.1.6 P 13 L 4 # 440  
 "Parameswaran, Subra"

Comment Type TR Comment Status D

To maintain backwards compatibility, the existing CSA frame needs to be sent anyway, so it is more efficient to append new information to the existing CSA frame than define new channel switch related frame.

SuggestedRemedy

Remove this newly defined channel switch announcement related frame.

Proposed Response Response Status W

PROPOSED REJECT. The REV-ma Channel Switch Announcement element has a length of 5 octets, and legacy stations would have unspecified behavior if the element indicated a length other than 3. There is no backward compatibility with TGh stations in this band, and only the ECSA is used.

CI 07 SC 7.4.1.7 P 12 L 38 # 2006  
 Cypher, David

Comment Type TR Comment Status X

There is no Action Value field in Figure 117b. There is only an Action field.

SuggestedRemedy

For consistency add value after Action in the Figure. NOTE: This inconsistency also exists for Figure 117a and 7.4.1.6 (however it was not commented on in a previous ballot.)

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 09 SC 9.8.3 P 13 L 12 # 2013  
 Ecclesine, Peter

Comment Type TR Comment Status X

The 802.11-2007 standard is silent about parsing the Country Information element information, and the statements should apply to any station when dot11RegulatoryClassesImplemented is true.

SuggestedRemedy

Remove "and dot11LCIDSERequired is true" from the first sentence, and add a PICS capability tests about Clause 9.8.3 to A.4.12.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE. Will Remove "and dot11LCIDSERequired is true" from the first sentence, and add a PICS capability tests about Clause 9.8.3 to A.4.10.

CI 09 SC 9.8.3 P 13 L 12 # 2074  
 Trainin, Solomon

Comment Type TR Comment Status X

As it is stated in "When dot11RegulatoryClassesImplemented is true and dot11LCIDSERequired is true, the following statements apply:" the defined rules applies to the STA that enables the Dependent Station Enablement procedures only. It seems that the rules may be useful for any station that operates with regulatory classes

SuggestedRemedy

Extend the rules for any station that operates with regulatory classes

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 09 SC 9.8.4 P 13 L 42 # 2015  
 Ecclesine, Peter

Comment Type TR Comment Status X

The 802.11-2007 standard is silent about resolving situations where the Country Information element is received by an unassociated station, and the statement should apply to any station when dot11RegulatoryClassesImplemented is true.

SuggestedRemedy

Remove "and dot11LCIDSERequired is true" from the sentence, and change PICS A.4.13 RC5 accordingly.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE. Will Remove "and dot11LCIDSERequired" from the fourth sentence, "and dot11LCIDSERequired is true" from the sixth sentence, and change PICS capability tests about Clause 9.8.4 in A.4.13.

Cl 09 SC 9.8.4 P 13 L 48 # 2014  
Ecclesine, Peter

Comment Type TR Comment Status X

The 802.11-2007 standard is silent about resolving situations where the received Max Transmit Power Level differs from the Transmit Power limit indicated by the Regulatory Class, and the statement should apply to any station when dot11RegulatoryClassesImplemented is true.

SuggestedRemedy

Remove "and dot11LCIDSERequired is true" from the sentence, and change PICS A.4.13 RC6 and RC7 accordingly.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE. Will Remove "and dot11LCIDSERequired" from the fourth sentence, "and dot11LCIDSERequired is true" from the sixth sentence, and change PICS capability tests about Clause 9.8.4 in A.4.13.

Cl 09 SC 9.8.4 P 13 L 49 # 2012  
Ecclesine, Peter

Comment Type ER Comment Status D

Typo 'dot11LCSDSERequired' should be 'dot11LCIDSERequired'

SuggestedRemedy

Per comment

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 10 SC 10.3.10.1.2 P 20 L 15 # 2009  
Ecclesine, Peter

Comment Type ER Comment Status D

All Type of other entries in the parameter table are textual, while the Valid range entries point to definition clauses. For consistency with the other entries, change the Type to 'As defined in the DSE registered location element.'

SuggestedRemedy

Per comment

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 10 SC 10.3.10.1.2 P 20 L 15 # 2019  
Ecclesine, Peter

Comment Type ER Comment Status D

The verb in the MLME-START.request was wrong in D2.0, and should be 'for', not 'from'

SuggestedRemedy

Per comment

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 10 SC 10.3.10.1.2 P 20 L 16 # 2005  
Cypher, David

Comment Type ER Comment Status X

Why is there a lack of consistency with the entries under Type and Valid range for this item that use specific subclause references, while in all previous similar items, generic descriptive text is used instead?

SuggestedRemedy

Either correctly point (link/reference) these items in all 10.3.XXX by using subclause references, or replace this single instance with the generic non-descriptive text. For clarity the former is requested.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE. Will change Type to 'As defined in the DSE registered location element', and Valid range to 'As defined in 7.3.2.49' in all the other Clause 10 entries for DSE registered location and 7.3.2.51 for SupportedRegulatoryClasses.

Cl 11 SC 11.1 P 26 L 1 # 293  
"Levy, Joseph"

Comment Type TR Comment Status A

This section redefines the meaning of BSA to be a geographically defined service area corresponding to the regulatory requirements. I do not believe that this was the original intent of the term and this new definition will confuse the meaning of the original term. Therefore a new term should be introduced to define the geographic service area enabled by an enabling station.

SuggestedRemedy

I suggest DSE-SA

Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE. As the term is not used outside this subclause, there is no need to create a new one. We spell out DSE Service Area in the title and sentences of the subclause.

Cl 11 SC 11.10.3 P 26 L 37-3 # 9

"Amann, Keith"

Comment Type TR Comment Status D

The implication of this poorly worded statement implies that every station will respond to a probe request containing a DSE registered location element with a Probe Response. Based on my somewhat limited understanding of this standard it appears that enabling and fixed stations are the equivalent of an access point. If this is true then this requirement appears to conflict with the "implied" requirement of clause 11.1.3.2.1 (802.11ma-D9.0, Sending a probe response) that the AP is the only device to respond to a probe request in a BSS.

SuggestedRemedy

Add appropriate clarifying text to the statement which differentiates the appropriate behavior which should occur for each of the different types of environments that a dependent device could find itself in.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE. The rewritten clause will not mention Probe Request nor Probe Response

Cl 11 SC 11.10.3 P 26 L 44 # 265

"Kwak, Joe"

Comment Type TR Comment Status D

Requiring a dependent STA to transmit to self a Probe response after each transmission is ridiculous. Perhaps it would be better to transmit such a Probe response every 256 transmissions or receptions. Where does this "requirement" come from? I find no FCC rule requiring DSE enabled STAs to broadcast the source of their enablement.

SuggestedRemedy

P26L44 change "whenever the sum modulo [256] changes" to "whenever the sum modulo [256] decreases indicating count rollover". This makes more sense, but still might be excessive.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE. The rewritten clause will not mention Probe Request nor Probe Response. The three counters increment when ACKs or frames or fragments are transmitted, allowing the scheduling of DSE registered location frames in relation to the number of transmissions, rather than as a function of time. Text changed to "and schedule this Action frame to be sent to the broadcast address using normal frame transmission rules, whenever the sum modulo dot11DSETransmitDivisor has a remainder of zero."

Cl 11 SC 11.14 P 25 L 35 # 2052

Myles, Andrew

Comment Type TR Comment Status X

This is similar comment to one I made in the last LB that was not addressed because I accidently marked it as not required

My understanding of the intent of 11y is as follows:

- \* Dependent AP hears enabling AP
- \* Dependent AP registers with enabling AP, either over the air or via wire (noting the dependent AP may be a low power device unable to communicate with the enabling AP)
- \* Enabling AP accepts registration from dependent AP and allocates unique identity to dependent AP
- \* Dependent STA hears enabling AP, either over the air or via wire
- \* Dependent STA registers with enabling AP, either over the air or via wire (noting the dependent AP may be a low power device unable to communicate with the enabling AP)
- \* Enabling AP accepts registration from dependent STA and allocates unique identity to dependent STA
- \* Both the dependent AP and the dependent STA may operate normally while they regularly hear the enabling AP

However, if this understanding is correct then there are lots of unanswered questions in the draft

- \* Where is all this described in the text?
- \* What protocol is used for a dependent STA or a dependent AP to communicate with the enabling AP, over the wire (possibly in a different subnet) or over the air?
- \* Is the dependent STA allowed to associate with the dependent AP for the purpose of registering over the wire with the enabling AP? The text in 11.14.3 implies not.
- \* ...

SuggestedRemedy

The text needs to be completely rewritten to describe intent completely

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE. Will rewrite to remove concurrent associations.

Cl 11 SC 11.14 P 25 L 50 # 2056  
Myles, Andrew

Comment Type **TR** Comment Status **X**  
The text refers to "frequency band"

However, "frequency band" is not defined

*SuggestedRemedy*

Define "frequency band" in this context

Proposed Response Response Status **W**

PROPOSED ACCEPT IN PRINCIPLE. Frequency bands is undefined in the base standard and appears 18 times. Will rewrite 11.14 text being commented on to remove it.

Cl 11 SC 11.14 P 25 L 50 # 2057  
Myles, Andrew

Comment Type **TR** Comment Status **X**  
The text defines various parameters indexed by frequency band

However they do not seem to be indexed by frequency band in the MIB.

*SuggestedRemedy*

Fix, or explain why not

Proposed Response Response Status **W**

PROPOSED ACCEPT. Will rewrite to remove apparent MIB indexing.

Cl 11 SC 11.14 P 25 L 64 # 2055  
Myles, Andrew

Comment Type **TR** Comment Status **X**  
Page 40 says the DSE procedures (defined in 11.14) are only used when dot11DSERequired is true

However, line 64 covers the case when dot11DSERequired is false

*SuggestedRemedy*

Remove reference to dot11DSERequired when false

Proposed Response Response Status **W**

PROPOSED ACCEPT.

Cl 11 SC 11.14 P 26 L 32 # 2058  
Myles, Andrew

Comment Type **TR** Comment Status **X**  
The draft seems to define measurement requests and responses.

However, there is no description in 11.14 on how this should occur

*SuggestedRemedy*

Provide a description in 11.14 on how the measurements are intended to be used

Proposed Response Response Status **W**

PROPOSED ACCEPT IN PRINCIPLE. Will put usage overview description in 11.14.1.

Cl 11 SC 11.14.1 P 23 L 11 # 1144  
"Nanda, Sanjiv"

Comment Type **TR** Comment Status **D**  
There is a problem with the concept of a STA associating with an enabling AP for "enablement" and with another local AP's BSS. The need for this use case is clear since we want to enable communications with the local AP by providing a signal from the enabling AP.

*SuggestedRemedy*

Define a separate management mechanism called enablement that is provided by an Enablement Server, akin to AAA. Only the "beacon" from the Enablement Server needs to be heard over the air. The Enablement message exchange occurs through the local AP, but the connection between the local AP and the enablement server can use either 11y MAC/PHY or any other medium? The enablement procedure needs new management frames, specification, as well as clarification whether the AP to Enablement Server communication can occur over non-11y channels.

Proposed Response Response Status **W**

PROPOSED REJECT. Reject: based on discussion and editorial instructions in 07/0801r0; "Commenter is encouraged to propose text that would satisfy comment"

Cl 11 SC 11.14.3 P 27 L 1 # 2059  
 Myles, Andrew

Comment Type **TR** Comment Status **X**  
 The text provides a picture of a "typical" state machine.  
 Why does the draft need a "typical" state machine?

SuggestedRemedy  
 Remove diagram or provide better context

Proposed Response Response Status **W**  
 PROPOSED ACCEPT IN PRINCIPLE. a picture is sometimes worth 1000 words, and 802.11-2007 Figures 15.7, 15.9, 17.15, 17.7, 18.8 and 18.10 show typical state machines. The state machine diagram clarifies the decision to change states, and its consequences.

Cl 11 SC 11.14.3 P 27 L 42-4 # 2040  
 Hiertz, Guido

Comment Type **TR** Comment Status **X**  
 A station can use active or passive scanning. With passive scanning, a STA does not transmit any frames. It solely seeks for beacon frames. With active scanning, a STA transmits probe request frames after some period the WM is detected as idle.  
 "The current text reads "For DSE, the following statements apply: A STA with dot11DSERequired set to true shall not operate in an infrastructure BSS or IBSS unless it has received a Beacon frame or Probe Response frame from an enabling AP with the Spectrum Management bit set to 1 in the Capability Information field, and with the RegLocDSE bit set to 1 in the DSE registered location element."

To receive a Probe Response the STA needs to transmit a Probe Request. Once it has transmitted a Probe Request in search of an AP it may have already violated the regulatory limitations.

SuggestedRemedy  
 Do not allow active scanning when the STA is known to operate in a frequency band that requires an enabling AP to be allowed to transmit.

Therefore, change the text accordingly to not to allow a station to search for APs using Probe Request frames.

Proposed Response Response Status **W**  
 PROPOSED ACCEPT IN PRINCIPLE. will remove Probe Response from unenabled state, but retain Probe Request/Probe Response in enabled state, for use when dot11DSERenewalTime limit approaches.

Cl 11 SC 11.14.3 P 28 L 7 # 2060  
 Myles, Andrew

Comment Type **TR** Comment Status **X**  
 The text includes "count the sum"  
 This makes no sense

SuggestedRemedy  
 Recast sentence to remove "count the sum"

Proposed Response Response Status **W**  
 PROPOSED ACCEPT.

Cl 11 SC 11.14.3 P 35 L 49 # 1003  
 "Amann, Keith"

Comment Type **TR** Comment Status **D**  
 The paragraph states that "A STA with dot11DSERequired set to true shall not operation in an infrastructure BSS or IBSS unless it has received a Beacon frame or Probe Response frame from an enabling AP...". The following paragraph goes on to state that an STA that is not associated with an enabling AP shall not transmit except to authenticate and associate. So, how does a STA with dot11DSERequired set to true operating in an IBSS start an IBSS? According to this text it isn't allowed to transmit until is has received a Beacon from an enabling AP, but in an IBSS there is no AP. Furthermore, these two paragraphs would imply that the STA is also not able to send probe request messages because they don't fall into the category of authentication or association, so if it is not currently hearing beacons it is also unable to probe to locate service.

SuggestedRemedy  
 Clarify the text as to how an STA can start an IBSS by indicating that it is permissible for the STA to start the IBSS if it is either configured for that mode, or has fallen back to IBSS mode after attempting to find an enabling AP, and in this case that it is permissible for the STA to transmit an IBSS beacon. Further clarify the text to state whether it is permissible for the STA to send probe requests or not when attempting to locate an enabling AP.

Proposed Response Response Status **W**  
 PROPOSED REJECT. Reject: based on discussion and editorial instructions in 07/0801r0; "The first suggested remedy is illegal in US 3650 MHz band, as all dependent stations must directly receive and decode an enabling signal before first transmission, as stated in next entry in dashed list."

Cl 11 SC 11.9.7.1 P 24 L 12 to # 441

"Parameswaran, Subra"

Comment Type TR Comment Status D

Regulatory class -unaware legacy devices can not switch to the new channel properly according to these defined rules.

*SuggestedRemedy*

CSA frame should always be sent to ensure the proper channel switch of legacy devices. When a new regulatory class information needs to be communicated, it can be appended to the existing CSA frame in the format of a new information IE.

Proposed Response Response Status W

PROPOSED REJECT. There are no legacy devices that support CSA that perform 'proper channel switch' as it was undefined in the base standard or amendment h. We adopt the TGn D2 variable dot11ExtendedChannelSwitchImplemented.

Cl 11 SC 11.9.7.1 P 24 L 23 # 2075

Trainin, Solomon

Comment Type TR Comment Status X

Using of an Extended Channel Switch Announcement element and frame and a Channel Switch Announcement element and frame actually will present the same information so it is not clear why the use of the Extended Channel Switch Announcement element and frame is mandated. The same comment applies to 11.9.7.2

*SuggestedRemedy*

Explain clearly when each of the information elements and frames should be used and why

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE. The change in regulatory class is the information that differs between ECSA and CSA. The only cases where regulatory class is changed and both ECSA and CSA are sent, are when the requirements signified by the new regulatory class are met by all STAs that act on the Channel Switch Announcement.

Cl 11 SC 11.9.7.1 P 24 L 32 # 2077

Wang, Qi

Comment Type TR Comment Status X

"If dot11ExtendedChannelSwitchImplemented is false, the AP shall send the Channel Switch Announcement and frame, or both the Extended Channel Switch Announcement and the Channel Switch Announcement elements and frames."

*SuggestedRemedy*

If doc11ExtendedChannelSwitchImplemented is false, how can an AP send both Extended Channel Switch Announcement and the Channel Switch Announcements and frames since the AP does not have the Extended Channel Switch capability? Section 11.9.7.1 is under clause 11 for DFS in 5Ghz band, do the rules specified here also apply to the operation in other bands (e.g. 2.4Ghz and 3.65Ghz)? Clarify.

Proposed Response Response Status W

PROPOSED REJECT. No further clarification needed. The fourth sentence of 11.9 allows DFS procedures to be used in other bands. Other text makes their use mandatory for operation in other bands.

\* The STA may choose to implement ECSA without setting dot11ExtendedChannelSwitchImplemented to true  
 \* 802.11n specifies in 11.9.8 that dot11ExtendedChannelSwitchImplemented shall be true for HT STAs operating in either or both of the 2.4 and 5 GHz bands. The 3.65 band is covered by TGy. Comment lacks specific objections with proposed resolution in sufficient detail so that the specific wording of the changes that will cause the negative voter to change his or her vote to "approve" can readily be determined.

Cl 11 SC 11.9.7.1 P 24 L 38 # 2076

Trainin, Solomon

Comment Type TR Comment Status X

Paragraph that starts at line 38 does not define behavior of the Extended Channel Switch Announcement element

*SuggestedRemedy*

Define behavior for the Extended Channel Switch Announcement element

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE. Will change initial text of second paragraph to "In the following text:" and make corresponding change to 11.9.7.2. Commenter writes "add the following text before paragraph the starts with "An AP shall inform associated STAs":

In the following text, wherever Channel Switch Announcement is referred to both the Extended Channel Switch Announcement and Channel Switch Announcement should be used as defined in 1) and 2)".

Cl 11 SC 11.9.7.2 P 24 L 64 # 2078

Wang, Qi

Comment Type **TR** Comment Status **X**

"If dot11ExtendedChannelSwitchImplemented is false, the DFS shall send the Channel Switch Announcement and frame, or both the Extended Channel Switch Announcement and the Channel Switch Announcement elements and frames."

*SuggestedRemedy*

If doc11ExtendedChannelSwitchImplemented is false, how can a DFS owner send both Extended Channel Switch Announcement and the Channel Switch Announcements and frames since the DFS owner does not have the Extended Channel Switch capability? Section 11.9.7.2 is under clause 11 for DFS in 5Ghz band, do the rules specified here also apply to the operation in other bands (e.g. 2.4Ghz and 3.65Ghz)? Clarify.

Proposed Response Response Status **W**

PROPOSED REJECT. No further clarification needed. The fourth sentence of 11.9 allows DFS procedures to be used in other bands. Other text makes their use mandatory for operation in other bands.

\* The STA may choose to implement ECSA without setting dot11ExtendedChannelSwitchImplemented to true

\* 802.11n specifies in 11.9.8 that dot11ExtendedChannelSwitchImplemented shall be true for HT STAs operating in either or both of the 2.4 and 5 GHz bands. The 3.65 band is covered by TGy. Comment lacks specific objections with proposed resolution in sufficient detail so that the specific wording of the changes that will cause the negative voter to change his or her vote to "approve" can readily be determined.

Cl 11 SC 11.9.7.2 P 25 L 42 # 442

"Parameswaran, Subra"

Comment Type **TR** Comment Status **D**

Legacy devices that are regulatory class -unaware can not switch to the new channel properly according to these defined rules.

*SuggestedRemedy*

CSA frame should always be sent to ensure the proper channel switch of legacy devices. When a new regulatory class information needs to be communicated, it can be appended to the existing CSA frame in the format of a new information IE.

Proposed Response Response Status **W**

PROPOSED REJECT. There are no legacy devices that support CSA that perform 'proper channel switch' as it was undefined in the base standard or amendment h. We adopt the TGn D2 variable dot11ExtendedChannelSwitchImplemented.

Cl 11 SC 11.9.7.3 P 22 L 25 # 1020

"Chaplin, Clint"

Comment Type **TR** Comment Status **D**

"this Country." What is "this" country?

*SuggestedRemedy*

Please specify which, or what, "this" country is.

Proposed Response Response Status **W**

PROPOSED ACCEPT IN PRINCIPLE. Accept in Principle based on discussion in 07/0674: 'operating with, for this Country (7.3.2.9)'.

Cl 11 SC 11.9.7.3 P 26 L 16 # 2002

Chaplin, Clint

Comment Type **TR** Comment Status **X**

"The List of Regulatory Class(es) field shall list in ascending order all Regulatory Classes that the STA is capable of operating with, for this Country (7.3.2.9)." "Country" is still not defined to my satisfaction.

*SuggestedRemedy*

"The List of Regulatory Class(es) field shall list in ascending order all Regulatory Classes that the STA is capable of operating with, for the Country that is specified in the Country information element (7.3.2.9)."

Proposed Response Response Status **W**

PROPOSED ACCEPT.

Cl 17 SC 17.1 P 27 L 12 # 13

"Amann, Keith"

Comment Type **TR** Comment Status **D**

Clause 19 contains references that point back to clause 17 for purposes of defining OFDM operation at 2.4GHz. The proposed addition of the statement "This OFDM system shall not be operated in the 2.4 GHz frequency band" creates a conflict with the statements in clause 19 that refer to clause 17, which now states that none of this applies (thus creating a conflict within the standard).

*SuggestedRemedy*

Remove the statement regarding operation on the 2.4GHz band, or change the statement to indicate that specific details for the use of OFDM are in clause 19, and that it should be referenced first when examining 2.4GHz operation.

Proposed Response Response Status **W**

PROPOSED ACCEPT.

Cl 17 SC 17.3.10.5 P 31 L 10-1 # 443

"Parameswaran, Subra"

Comment Type TR Comment Status D

The definition of the threshold is not quite correct.

*SuggestedRemedy*

Change the sentence to: ""If the preamble portion was missed, the receiver shall hold the CS signal busy for any signal 20 dB or more above the minimum modulation and coding rate sensitivity (greater or equal than -62 dBm for 20 MHz channel spacing, greater or equal than -65 dBm for 10 MHz channel spacing, and greater or equal than -68 dBm for 5 MHz channel spacing).

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE. Annex I will refer to 10 Db more restrictive ED\_THRESHOLD.

Cl 17 SC 17.3.10.5 P 32 L 32-4 # 2026

Erceg, Vinko

Comment Type TR Comment Status D

"For the optional CCA-ED, the OFDM PHY shall provide the additional capability to perform CCA-ED. The CCA shall indicate BUSY if there is any energy above the ED threshold or CS." In these sentence there is a "shall" statement for "optional". If something is "optional" then usage of "shall" seems to be incorrect.

*SuggestedRemedy*

Change the sentence to: "For the optional CCA-ED, the OFDM PHY provides the additional capability to perform CCA-ED. The CCA indicates BUSY if there is any energy above the ED threshold or CS."

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Cl 17 SC 17.3.12 P 32 L 9 # 266

"Kwak, Joe"

Comment Type TR Comment Status D

A standardized ED mechanism cannot rely on RSSI which is not quantitatively specified and has no accuracy requirement. RCPI is needed for uniform ED operation within a DSE BSA

*SuggestedRemedy*

P32L9 change "RSSI" to "RCPI".

Proposed Response Response Status W

PROPOSED REJECT. RSSI is currently used in clause 17 for CCA. 11y D1.0 maintains this approach.

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general

COMMENT STATUS: D/dispatched A/accepted R/rejected RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn

SORT ORDER: Clause, Subclause, page, line

Cl 17 SC 17.3.6 P 29 L 58-6 # 2024

Erceg, Vinko

Comment Type TR Comment Status D

"For improved spectrum sharing in some bands, an optional Clear Channel Assessment-Energy Detect (CCAED) may be used. The behavior class indicating CCA-ED is given in Table 1.3. The regulatory classes requiring the corresponding CCA-ED behavior class are given in Annex J." In this paragraph optional CCA-ED is defined that actually becomes mandatory for the 3.65 GHz band in Annex I and J. I don't think that this is a good way of writing a spec: optional that is actually mandatory is very confusing.

*SuggestedRemedy*

In some way relate CCA-ED to only regulatory classes in Annex I and J that are required to have CCA-ED, i.e. 3.65 GHz band. Wording "optional CCA-ED" is very confusing. Avoid using optional in the text. I understand that this may be a tricky task but I believe that it has to be done.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Cl 17 SC 17.3.9.2 P 26 L 62 # 1006

"Amann, Keith"

Comment Type TR Comment Status D

The text calls states that at 15MHz frequency offset the transmit spectrum will have a -40dBr bandwidth when using 20MHz channel spacing. Figure y254a (next page) appears to indicate that this is -45 dBr.

*SuggestedRemedy*

Correct either the text or the figure as required to ensure that the text and the figure are consistent with regard to the bandwidth number in this case.

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 17 SC 17.3.9.2 P 29-30 L 11 # 12

"Amann, Keith"

Comment Type TR Comment Status D

It appears that the task group felt it necessary to duplicate information which was contained in Annex I related to spectral mask. Based on some reasonable comparison of these two sections it appears to simply be a duplication of information.

SuggestedRemedy

Remove the additional changes made to clause 17.3.9.2. If there is some distinction made with these changes then I suggest incorporating them into Annex I rather than creating what appears to be a duplication of information that is subject to synchronization issues in the future.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE. CID 444 removes them from Annex I, (informative) which should be requirements from regulation, not default PHY behavior. Default PHY requirements should be specified uniquely in PHY clauses.

Cl 17 SC 17.3.9.2 P 30 L 25 # 2071

Stephens, Adrian

Comment Type TR Comment Status X

I remember the discussion in the group about what "more stringent" means. As I remember it, the intent of the resolution was to require the actual mask to be the more stringent of regulatory and default masks at all frequency points.

The outcome in D3.0 is different. Provided that one of the regulatory mask points is more stringent than the default, the entire regulatory mask will be used, even if all its other points are more relaxed.

SuggestedRemedy

Replace with something like: "In the absence of a regulatory mask, use the mask defined here. In presence of a regulatory mask, the device shall meet both the requirements of the regulatory mask and the mask defined here -i.e., its emissions shall be no higher at any frequency offset than the minimum of the values specified in the regulatory and default masks."

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Cl 17 SC 17.4.1 P 33 L 16 # 2017

Ecclesine, Peter

Comment Type ER Comment Status D

Table 146 heading is partially underlined, and should not be

SuggestedRemedy

Per comment

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 17 SC 17.5.5.9.1 P 35 L 19 # 269

"Kwak, Joe"

Comment Type TR Comment Status D

A standardized ED mechanism cannot rely on RSSI which is not quantitatively specified and has no accuracy requirement. RCPI is needed for uniform ED operation within a DSE BSA

SuggestedRemedy

Change "RSSI" to "RCPI".

Proposed Response Response Status W

PROPOSED REJECT. RSSI is currently used in clause 17 for CCA. 11y D1.0 maintains this approach.

Cl 17 SC 17.5.5.9.2 P 36 L 1 & 1 # 267

"Kwak, Joe"

Comment Type TR Comment Status D

A standardized ED mechanism cannot rely on RSSI which is not quantitatively specified and has no accuracy requirement. RCPI is needed for uniform ED operation within a DSE BSA

SuggestedRemedy

Change "RSSI" to "RCPI", 3 places in table at line 1 and two places in table at line 16.

Proposed Response Response Status W

PROPOSED REJECT. RSSI is currently used in clause 17 for CCA. 11y D1.0 maintains this approach.

Cl A SC A.4.10 P 35 L 54 # 2003

Chaplin, Clint

Comment Type TR Comment Status X

There is an editor's instruction here to add entries into a table. However, the text here does not contain any entries to be added.

SuggestedRemedy

If there are entries to be added, put those entries into the draft. If there are no entries to be added, delete the editor's instruction.

Proposed Response Response Status W

PROPOSED REJECT. Frontmatter Page v, Editorial Note 3 says that tables may "float" (this one floated to page 36, line 2), and "Please do not report it as a defect in the draft."

Cl A SC A.4.17 P 48 L 5 # 434

"Palm, Stephen"

Comment Type TR Comment Status D

This clause does not have explanatory text

SuggestedRemedy

Add text to introduce the clause

Proposed Response Response Status W

PROPOSED REJECT. In REV-ma Annex A.4, none of the prior clauses have explanatory text.

Cl A SC A.4.8 P 35 L 15 # 2027

Erceg, Vinko

Comment Type TR Comment Status D

Is "CCA-ED energy detect with OFDM CS" needed?

SuggestedRemedy

If not required, please remove "CCA-ED energy detect with OFDM CS" from the table.

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl Annex SC A.4.17 P 37 L 57 # 2023

Ecclesine, Peter

Comment Type TR Comment Status X

PICS A.4.17 DSE4, Extended Channel Switch procedure, should be part of A.4.12, after SM20, and depending on CF10.

SuggestedRemedy

Per comment

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE. CF15 requires CF10, so CF10 does not need to be in the Status field when DSE4 is moved to A.4.12.

Cl Annex SC Annex D P 40 L 12 # 2044

Myles, Andrew

Comment Type TR Comment Status X

The definitions of various parameters uses the clause "The capability is disabled otherwise"

However, the definition provides semantics rather than describing a capability and so the "The capability is disabled otherwise" makes no sense

SuggestedRemedy

In each case, properly define the semantics in the "otherwise case"

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE. Of the four occurrences of the phrase in Annex D text, two indicate capabilities and two are indications of requirements. The description text of dot11RegLocRequired and dot11DSERequired will be changed, and commas will be added after "disabled" in all occurrences.

Cl Annex SC Annex D P 40 L 19 # 2016

Ecclesine, Peter

Comment Type TR Comment Status X

All the dot11StationConfigTable elements and dot11LCIDSE Table entries should be read-only, as they can only be changed from their default values by a licensed operator.

SuggestedRemedy

Change dot11LCIDSERequired, dot11DSERequired and all accessible parts of dot11LCIDSETable from read-write to read-only.

Proposed Response Response Status W

PROPOSED ACCEPT.

**Cl Annex SC Annex D P 40 L 28 # 2041**  
 Myles, Andrew  
**Comment Type ER Comment Status X**  
 dot11RecLocRequired should be dot11RegLocRequired  
**SuggestedRemedy**  
 Fix  
**Proposed Response Response Status W**  
 PROPOSED ACCEPT.

**Cl Annex SC Annex D P 40 L 28 # 2047**  
 Myles, Andrew  
**Comment Type TR Comment Status X**  
 The name of "dot11RgLocRequired" suggests that something is required.  
 However the definition provides no hint as to what is required  
**SuggestedRemedy**  
 Change the definition so that it is clear what is required  
**Proposed Response Response Status W**  
 PROPOSED ACCEPT IN PRINCIPLE. the description text will be clarified or deleted

**Cl Annex SC Annex D P 40 L 40 # 2048**  
 Myles, Andrew  
**Comment Type TR Comment Status X**  
 The name of "dot11DSERequired" suggests that something is required.  
 However the definition only hints that the station is required to be enabled by an "enabling AP"  
**SuggestedRemedy**  
 Change the definition so that it is clearer what is required  
**Proposed Response Response Status W**  
 PROPOSED ACCEPT IN PRINCIPLE. the description text will be clarified

**Cl Annex SC Annex D P 41 L 57 # 2007**  
 Ecclesine, Peter  
**Comment Type ER Comment Status D**  
 LB104 accepted comment 1085 asked that RFC-4181 best practices be followed in Annex D, yet dot11RegLocAgreement, dot11RegLocDSE and dot11DependentSTA are type INTEGER, when they should be TruthValues per RFC-4181 4.6.1.9  
**SuggestedRemedy**  
 Change to TruthValues, and revise DESCRIPTIONs accordingly  
**Proposed Response Response Status W**  
 PROPOSED ACCEPT.

**Cl Annex SC Annex D P 42 L 34 # 2008**  
 Ecclesine, Peter  
**Comment Type TR Comment Status X**  
 dot11LCIDSETable elements that are defined in RFC-3825 should be stored in the MIB big-endian, and the DESCRIPTIONs changed to say they are big-endian.  
**SuggestedRemedy**  
 Alter DESCRIPTIONs of dot11LCIDSELatitudeResolution, dot11LCIDSELatitudeInteger, dot11LCIDSELatitudeFraction, dot11LCIDSELongitudeResolution, dot11LCIDSELongitudeInteger, dot11LCIDSELongitudeFraction, dot11LCIDSEAltitudeType, dot11LCIDSEAltitudeResolution, dot11LCIDSEAltitudeInteger, dot11LCIDSEAltitudeFraction, and dot11LCIDSEDatum per comment.  
**Proposed Response Response Status W**  
 PROPOSED ACCEPT.

**Cl Annex SC Annex D P 44 L 48 # 2018**  
 Ecclesine, Peter  
**Comment Type ER Comment Status D**  
 dot11RegLocAgreement and dot11RegLocDSE DESCRIPTIONs refer to RegLoc STA, but should refer to Enabling AP  
**SuggestedRemedy**  
 Change RegLoc STA's to Enabling AP's in both descriptions  
**Proposed Response Response Status W**  
 PROPOSED ACCEPT.

Cl Annex I SC Annex I P 60 L 1 # 272  
"Kwak, Joe"

Comment Type TR Comment Status D  
Cannot delete "base" from 5th row of table. Baseline spec uses term licensed here. Base station in 7 is directly related to mobile STA in 8.

SuggestedRemedy  
Change 5th row of Table I.3 from "enabling station" to "licensed base/enabling station".

Proposed Response Response Status W  
PROPOSED ACCEPT IN PRINCIPLE. Will use Tgy terms on new rows for ' Fixed STA and Enabling AP' and 'Dependent STA'

Cl Annex I SC Annex I P 60 L 1 # 271  
"Kwak, Joe"

Comment Type TR Comment Status D  
New rule 90.1333 does not prohibit IBSS operation, but merely defines restrictions on mobile to mobile communications.

SuggestedRemedy  
Change 3rd row of Table I.3 from "(IBSS) prohibited" to "(IBSS) restrictions".

Proposed Response Response Status W  
PROPOSED ACCEPT.

Cl Annex I SC Annex I P 60 L 1 # 273  
"Kwak, Joe"

Comment Type TR Comment Status D  
DSE STAs may be mobile or portable.

SuggestedRemedy  
Change 6th row of Table I.3 from "dependent mobile station" to "dependent mobile/portable station".

Proposed Response Response Status W  
PROPOSED ACCEPT IN PRINCIPLE. Will use Tgy terms on new rows for ' Fixed STA and Enabling AP' and 'Dependent STA'

Cl Annex I SC Annex I P 60 L 1 # 274  
"Kwak, Joe"

Comment Type TR Comment Status D  
Table I.3 modifications require change to last reserved row.

SuggestedRemedy  
Modify last row of table to reserve values 11-255.

Proposed Response Response Status W  
PROPOSED ACCEPT. Really 14-255 after 11k and CIDs 272 and 500.

Cl Annex J SC Annex J P 62 L # 11  
"Amann, Keith"

Comment Type ER Comment Status D  
The title of table J.1 was undated to reflect the addition of the new frequency, but there is an additional statement within the text of Annex J that states "The regulatory classes specified for 4.9 GHz and 5 GHz operation in the USA are enumerated in Table J.1" (802.11ma-D9.0, Annex J, Page 1151, line 34) which was not updated to correspond to the change. Although this statement is technically correct even with the 802.11y draft change, it becomes confusing that the new rows exist without a corresponding change here as well.

SuggestedRemedy  
Add additional editing instructions to update this statement in the base draft to reflect the addition of the new frequency band.

Proposed Response Response Status W  
PROPOSED ACCEPT.

Cl D SC D P 44 L 29 # 2004  
Cypher, David

Comment Type TR Comment Status X  
The Datum field in the DSE LCI from figure 85q, the DSE registered location from Figure 112z, and the text of 7.3.2.49 all indicate that this is a 3-bit field rather than the 8-bit field defined in RFC 3825. A previous comment 1206 from LB #104 was rejected when it was proposed to expand it to 8-bits, so that 802.11y would use without modification to RFC 3825. From 11-07-673r3 (page 12), the approved change for this item did not include changing the three-bit to 8-bit nor did it change the values from (0..7) to (0..255).

SuggestedRemedy  
Change 8-bit to three-bit and change (0..255) to (0.7) Thus reflecting the fact that the datum is using only 3-bits (thus 8 possible values (0..7)).

Proposed Response Response Status W  
PROPOSED ACCEPT IN PRINCIPLE. Commenter's email says "the simple fix is to change (0..255) to (1..3) after the INTEGER for the Datum MIB element"

Cl **General** SC **General** P1 L 0 # 1005  
 "Amann, Keith"

Comment Type **ER** Comment Status **D**

There seems to be an inconsistent use of TRUE/FALSE nomenclature. There are several locations in the document that previously read "true" that have been changed to "1", and similarly for "false" and "0", but not all of them were changed, and there doesn't appear to any good reason for which ones changed and which ones didn't.

SuggestedRemedy

Make the use of "true/false", or "1/0", consistent throughout the document.

Proposed Response Response Status **W**

PROPOSED ACCEPT IN PRINCIPLE. Accepted in Principle based on discussion in 07/0674r2

Cl **General** SC **General** P25 L 32 # 2061  
 Myles, Andrew

Comment Type **TR** Comment Status **X**

The description of the DSE procedures need a rewrite to make them much clearer and match the intent of the TG

SuggestedRemedy

It is hard to know how to rewrite the procedures until the intent of the TG is more obvious

Proposed Response Response Status **W**

PROPOSED ACCEPT IN PRINCIPLE. Comment appears to be a generalization of Comment 2052 by same commenter, which only addresses 11.14. Accepting 2052 and doing the supporting message formats causes changes to other clauses.

Cl **General** SC **General** P27 L 19 # 2042  
 Myles, Andrew

Comment Type **ER** Comment Status **D**

dot11AssociateFailHoldTime is used three times in the document.

It should be dot11DSEAssociateFailHoldTime'.

SuggestedRemedy

Fix

Proposed Response Response Status **W**

PROPOSED ACCEPT.

Cl **General** SC **General** P3 L 32 # 2011  
 Ecclesine, Peter

Comment Type **ER** Comment Status **D**

Editorial notes in the body of the clean draft should be removed, as they will not be in the draft forwarded to Sponsor Ballot, but can remain in the redlined version of the draft.

SuggestedRemedy

Remove EDITORIAL NOTEs from the body of the clean draft.

Proposed Response Response Status **W**

PROPOSED ACCEPT.

Cl **Table of** SC **Table of Contents** Px L 11 # 2010  
 Ecclesine, Peter

Comment Type **ER** Comment Status **D**

The 802.11-2007 standard does not list the tables in Clause 10, so delete them from P802.11y.

SuggestedRemedy

Per comment

Proposed Response Response Status **W**

PROPOSED ACCEPT.