IEEE P802.11
Wireless LANs

802.11y Nov Conditional Sponsor Ballot Report

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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 IIEEE 802.11y to Sponsor Ballot.

1. <u>Introduction and Summary</u>

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 257-11-59, for an approval percentage of 95.9%, a return percentage of 94.2%, and an abstain percentage of 18.04%.

There are 87 outstanding negative comments from seven remaining negative voters; 21 of these outstanding negative comments are from the latest latter ballot and the remaining 66 outstanding negative comments are previously recirculated unresolved negative comments from previous letter ballots.

In addition, there is one remaining negative voter without comments.

2 negative comments were ruled invalid, of these 1 was from a remaining negative voter.

The 21 negative comments from the latest letter ballot are from four different negative voters.

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

Letter Ballot 106 was a recirculation vote on Draft 3.0 and resolutions recorded in 11-07-2019-06, 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

Letter Ballot 109 was a recirculation vote on Draft 4.0 and resolutions recorded in 11-07-2333-07, and ran for 15 days from 6 August 2007 until 21 August 2007.
327 voted, 250 yes, 17 no, 60 abstained, 94.2% approval rate

Letter Ballot 112 was a recirculation vote on Draft 5.0 and resolutions recorded in 11-07-2623-03, and ran for 15 days from 28 September 2007 until 13 October 2007.
327 voted, 257 yes, 11 no, 59 abstained, 95.9% approval rate

At this time there are 7 Negative voters with comments recorded in the comment database.

Note that the resolutions for LB 112 comments have not yet been approved by the WG.

Of the total 87 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:
13 Required Comments on Draft 1.0 with no subsequent Negative voter participation. They mainly had an issue related with TGn timelines: the Channel Switch Announcment 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 3.0 adopted the TGy language. If the WG approves the proposed LB 112 comment resolutions, there will be just one Channel Switch Announcment comment that remains rejected.
26 Required Comments on Dependent Station Enablement, mostly on the messaging protocol. If the WG approves the proposed LB 112 comment resolutions, there will be just three enablement comments that remain rejected.

LB	Comment	Accept	Accept in Principle	Reject
94	Technical Required	6	5	3
104	General Required	0	0	1
106	Technical Required	7	13	1
106	Editorial Required	3	1	1
109		10	14	1
112		7	9	5
	Total	33	42	12

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. The WG agreed it is out of scope, and 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*   **R**
     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.

Response   *Response Status*   **W**
     REJECT. Out of Scope

Cl **00**   *SC* **General**   *P* **38**   *L*   # 3135
Myles, Andrew

Comment Type   **TR**   *Comment Status*   **X**
     Previously the draft seemed to have a concept of over the wire enablement

     Does this stil exist and, if so, where is it defined? If not, how does a low power device get
     enabled by a high power device at a great distance?

SuggestedRemedy
     Clarify

Proposed Response   *Response Status*   **W**
     PROPOSE ACCEPT IN PRINCIPLE. Yes the enablement can involve messages outside
     the DS. Per CID 3061, adding Public Action frames.

Cl **03**   *SC* **3.34a**   *P* **1**   *L* **54**   # 2051
Myles, Andrew

Comment Type   **TR**   *Comment Status*   **R**
     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"

Response   *Response Status*   **W**
     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**   *P* **1**   *L* **59**   # 2049
Myles, Andrew

Comment Type   **TR**   *Comment Status*   **A**
     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"

Response   *Response Status*   **W**
     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**   *P* **1**   *L* **65**   # 2050
Myles, Andrew

Comment Type   **ER**   *Comment Status*   **A**
     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

Response   *Response Status*   **W**
     ACCEPT.

Cl **03**   *SC* **3.y1**   *P* **9**   *L* **12**   # 426
"Palm, Stephen"

Comment Type   **TR**   *Comment Status*   **A**
     What does "publicly registered" mean?

SuggestedRemedy
     explain

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

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:
Submission

Comment ID #   **426**

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Peter Ecclesine, Cisco Systems

Cl **03**   *SC* **3.y3**   *P* **9**   *L* **19**   # 427
"Palm, Stephen"

Comment Type   **TR**   *Comment Status*   **A**
What does "publicly registered" mean?

SuggestedRemedy
explain

Response   *Response Status*   **W**
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**   *P* **9**   *L* **22**   # 428
"Palm, Stephen"

Comment Type   **TR**   *Comment Status*   **A**
"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

Response   *Response Status*   **W**
ACCEPT.

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

Comment Type   **TR**   *Comment Status*   **A**
What is the definie of "cognative radio"?

SuggestedRemedy
define

Response   *Response Status*   **W**
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* **15**   # 431
"Palm, Stephen"

Comment Type   **TR**   *Comment Status*   **A**
Is"US" the same as "USA"? If so, the usage should be consistant

SuggestedRemedy
Change "US" to "USA"

Response   *Response Status*   **W**
ACCEPT. The comment is applied to Annex J.2 (07/0271).

Cl **05**   *SC* **5.2.7**   *P* **10**   *L* **26**   # 432
"Palm, Stephen"

Comment Type   **TR**   *Comment Status*   **A**
"leading us". Is "us" collequial or "USA?"

SuggestedRemedy
correct title or definition to be consistant

Response   *Response Status*   **W**
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*   **A**
Is the implication of the last clause that *only* 5MHz channels may be used or the 5 MHz may *also* be used?

SuggestedRemedy
clarify

Response   *Response Status*   **W**
ACCEPT. The 'shalls' in 5.2.7 are being moved to Annex J.2 defining operation in US 3650 MHz band.

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:
Submission

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Comment ID #   **433**   11/7/2007 7:05:5⁊

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Cl **05**   *SC* **5.2.7**   *P* **10**   *L* **9**   # 429
"Palm, Stephen"

Comment Type   **TR**   *Comment Status*   **A**

"should have" - is that a recommendation or requirement?

SuggestedRemedy

clariy

Response   *Response Status*   **W**

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

Cl **07**   *SC* **7.2.3.1**   *P* **3**   *L* **19**   # 2043
Myles, Andrew

Comment Type   **ER**   *Comment Status*   **R**

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

Response   *Response Status*   **W**

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* **24**   # 2072
Trainin, Solomon

Comment Type   **TR**   *Comment Status*   **A**

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

Response   *Response Status*   **W**

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."

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:

Submission

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Comment ID # **2072**   11/7/2007 7:05:5

Peter Ecclesine, Cisco Systems

Cl **07**   *SC* **7.2.3.1**   *P* **3**   *L* **27**   # 2073
Trainin, Solomon

Comment Type   **TR**   *Comment Status*   **A**

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.

Response   *Response Status*   **W**

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* **7.2.3.9**   *P* **5**   *L* **10**   # 2046
Myles, Andrew

Comment Type   **ER**   *Comment Status*   **A**

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

Response   *Response Status*   **W**

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".

Cl **07**   *SC* **7.2.3.9**   *P* **5**   *L* **17**   # 2045
Myles, Andrew

Comment Type   **TR**   *Comment Status*   **A**

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

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

Response   *Response Status*   **W**

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."

Cl **07**   *SC* **7.3.2.21.11**   *P* **6**   *L* **39**   # 2054
Myles, Andrew

Comment Type   **TR**   *Comment Status*   **A**

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

Response   *Response Status*   **W**

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.

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:

Submission

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Comment ID # **2054**   11/7/2007 7:05:5

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Cl **07**   *SC* **7.3.2.22.11**   *P* **7**   *L* **24**   # 2053
Myles, Andrew

Comment Type   **TR**   *Comment Status*   **A**
   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

Response   *Response Status*   **W**
   ACCEPT.

Cl **07**   *SC* **7.3.2.27**   *P* **8**   *L* **24**   # 4019
Fischer, Matthew

Comment Type   **TR**   *Comment Status*   **X**
   There is normative text here which competes with the normative text provided in 11.9a. 11.9a is the more apprpriate location for the normative text.

SuggestedRemedy
   Change the text in 7.3.2.27 to be descriptive, but not normative - i.e. change "shall be" to "is" at the two places where it occurs within 7.3.2.27.

Proposed Response   *Response Status*   **W**
   PROPOSE ACCEPT. Changed here and in 11.9a.

Cl **07**   *SC* **7.3.2.36**   *P* **16**   *L* **10**   # 437
"Palm, Stephen"

Comment Type   **TR**   *Comment Status*   **A**
   As this line is not a sentence, "meter" shall not be capitialized. See http://www.bipm.fr/en/si/si_brochure/chapter5/5-2.html

SuggestedRemedy
   Fix capitalization

Response   *Response Status*   **W**
   ACCEPT. The definition in IETF RFC 3825 is unchanged by 802.11y, therefore this line is deleted.

Cl **07**   *SC* **7.3.2.36**   *P* **16**   *L* **11**   # 436
"Palm, Stephen"

Comment Type   **TR**   *Comment Status*   **R**
   What are "floors"?

SuggestedRemedy
   Define

Response   *Response Status*   **W**
   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* **16**   *L* **12**   # 438
"Palm, Stephen"

Comment Type   **TR**   *Comment Status*   **A**
   As the word is not at the beginning of a sentence, "meter" shall not be capitialized. See http://www.bipm.fr/en/si/si_brochure/chapter5/5-2.html

SuggestedRemedy
   Fix capitalization

Response   *Response Status*   **W**
   ACCEPT.

Cl **07**   *SC* **7.3.2.36**   *P* **16**   *L* **6**   # 435
"Palm, Stephen"

Comment Type   **TR**   *Comment Status*   **A**
   Which one has the definitions, the reference or this document.

SuggestedRemedy
   Clarify

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

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:
   Submission

Comment ID #   **435**

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Peter Ecclesine, Cisco Systems

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

Comment Type   **TR**   *Comment Status*   **R**

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.

Response   *Response Status*   **W**

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.

Cl **07**   *SC* **7.4.1a.4**   *P* **14**   *L* **43**   # 4022
Fischer, Matthew

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

In the diagram for the DSE reg loc ann frame format, there is a field with the name "DSE reg loc ann element fields" - this seems to suggest that there is a "DSE reg loc ann element" but the element is named "DSE reg loc element" - I would suggest change the field name to "DSE reg loc element body field"

SuggestedRemedy

Change the name of the field "DSE reg loc ann element fields" to "DSE reg loc element body field" - everywhere it occurs in the document

Proposed Response   *Response Status*   **W**

PROPOSE ACCEPT IN PRINCIPLE. will move figure 7-101fg to 7.3.2.49, and name it DSE reg loc element body field, then refer to it here and 7.4.7a.7 DSE measurement report frame.

Cl **07**   *SC* **7.4.1a.4**   *P* **14**   *L* **43**   # 4021
Fischer, Matthew

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

The text here says: "The DSE Registered Location Announcement frame is transmitted by a dependent STA to advertise the registered location of its enabling STA." But I cannot find any description of the requirements for this behavior in clause 11.

SuggestedRemedy

You need to describe how often and for what reason a dependent STA sends the DSE registered location action frame and using what RA value. And is this the only mechanism to do this? I.e. are there are other frame choices? This should probably appear in 11.14.4. Another question - can a dependent STA advertise an enabling STA's information on more than one channnel?

Proposed Response   *Response Status*   **W**

PROPOSE REJECT. the last sentence of 11.14.4 describes the sending of the DSE reg loc ann to the broadcast address (D5.0 p47 lines 14-18). A dependent STA is required to advertise the enabling STA's information on whatever U.S. 3650 MHz band channel(s) the dependent STA is operating on.

Cl **07**   *SC* **7.4.7a.6**   *P* **16**   *L* **36**   # 4028
Fischer, Matthew

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

Carrying rejected CID 3084 from LB109: This description suggests that the Actual Measurement Start Time can be 32us off from the measuring STA's TSF timer. Why is there a +/-32us tolerance allowed in 11y? This is more stringent than most applications that I can think of. What's the use case scenario for this stringent timing tolerance? Note that the ôActual Measurement Start Timeö used in 11k-related measurement report fields does not have this +/- 32us requirement (a +/- 1 TU timing error is used) -- the resolution was rejected as follows: Basic Request 7.3.2.21.1, CCA Request 7.3.2.21.2 and RPI Histogram Request 7.3.2.21.3 make this accuracy requirement. -- My response is: if everyone else jumps off of the bridge without a bungee cord or a parachute, does that mean that it is a good thing to do?"

SuggestedRemedy

Be a man: Change the tolerance to +/- 1 TU.

Proposed Response   *Response Status*   **W**

PROPOSE ACCEPT IN PRINCIPLE. will change request start time tolerance to +/- 1 TU and also reported Actual Measurement Start Time.

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:

Submission

Comment ID #   **4028**

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Peter Ecclesine, Cisco Systems

Cl **07**   *SC* **7.4.7a.6**   *P* **16**   *L* **36**   # 4023

Fischer, Matthew

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

Measurement Start Time field - refers to a TSF value - but the requestor is the enabling STA, which is not necessarily the AP with which the STA is associated (alternatively, the enabling STA could be sending this request to an AP!), so there is no defined coordination of TSF between the enabling STA and the dependent STA or AP. I note that in 7.4.7a.7, there is mention that the reporting STA uses its own TSF value as a reference for the measurement time, so the assumption is that the requesting STA would be referring to the TSF of the requestee STA - this should be made explicit in the description of the start time field in the request frame subclause Also, clause 11 does not really explain the TSF value, but it should make it clear that the TSF belongs to the reporting STA with a normative statement. Interestingly enough, this might be a problem, since a STA associated with an AP will not provide any TSF information to the enabler, so how would the enabler know what is a valid TSF start value for that STA? I suppose that it must be true that in all situations, a STA in infrastructure that needs enablement will always deal with an AP that also needs enablement, so it can be guessed that the enabler knows the TSF from the beacons of the AP that it has enabled. Altneratively again, since the enabling STAs must all send beacons out, they too, would have a TSF value, and the enabled STA could relate the measurements to the TSF of the enabler, if it were stated so in the draft - a STA could do this through simply determining an offset between its local TSF and the enabler's TSF. But again, the report seems to suggest that this is not the intended arrangement."

SuggestedRemedy

Choose something that works in providing the answer to the question of "whose TSF" and make it explicit in clause 7 and normative in clause 11."

Proposed Response   *Response Status*   **W**

PROPOSE REJECT. The comment notes there is no TSF synchronization between the enabling STA and dependent STAs, including dependent APs. The TSF is of the receiving STA, regardless of authentication or association. The enabling STA can use a value of 0, or if it knows the TSF offset of a dependent AP, it could use that information to create a Measurement Start Time for that AP or any dependent STAs in that BSS.

Cl **09**   *SC* **9.8.1**   *P* **18**   *L* **16**   # 3162

Stephens, Adrian

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

9.8.1: "Optionally, the Beacon frame may also include, on a periodic basis, the regulatory information that would be returned in a Probe Response frame."

7.2.3.1: "The Supported Regulatory Classes information element shall be present if dot11ExtendedChannelSwitchImplemented is dot11ExtendedChannelSwitchImplemented, dot11SpectrumManagementRequired and dot11RegulatoryClassesRequired are true."

It is not clear how the "optionally" in 9.8.1 ties in with the "shall" in 7.2.3.1.

SuggestedRemedy

Modify one of them so that these two subclauses are consistent.

Proposed Response   *Response Status*   **W**

PROPOSE ACCEPT. Will rewrite part of 9.8.1 to indicate that optionality refers to the Country Information element fields, not the presence of Supported Regulatory Classes, and will change second statement in 9.8.3 accordingly.

Cl **09**   *SC* **9.8.3**   *P* **13**   *L* **12**   # 2074

Trainin, Solomon

Comment Type   **TR**   *Comment Status*   **A**

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

Response   *Response Status*   **W**

ACCEPT.

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:

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Comment ID #   **2074**   11/7/2007   7:05:5...

Peter Ecclesine, Cisco Systems

Cl **09**   *SC* **9.8.3**   *P* **18**   *L* **45**   # 3180
Trainin, Solomon

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

The rule that mandates including the Country Information and SupportedRegulatoryClasses elements in Association and Re-association frames when dot11RegulatoryClassesRequired is true contradicts the basic IEEE 802.11-2007 spec. This rule makes incompliant the legacy STAs that are compliant with the IEEE 802.11-2007 spec. This change breaks backward compatibility of the specification.

SuggestedRemedy

Remove the paragraph:
"When dot11RegulatoryClassesRequired is true and a STA is capable of operating as specified in more than one Regulatory Class, the STA shall include the Country Information and SupportedRegulatoryClasses elements in Association frames and Reassociation frames;"

Proposed Response   *Response Status* **W**

PROPOSE ACCEPT IN PRINCIPLE. Will delete 'Country Information and' from the third statement of 9.8.3.

Cl **09**   *SC* **9.8.3**   *P* **19**   *L* **46**   # 4043
Trainin, Solomon

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

The rule that mandates including the SupportedRegulatoryClasses elements in Association and Re-association frames when dot11RegulatoryClassesRequired is true contradicts the basic IEEE 802.11-2007 spec. This rule makes incompliant the legacy STAs that are compliant with the IEEE 802.11-2007 spec. This change breaks backward compatibility of the specification.

SuggestedRemedy

Add other qualifier like support of ECSA as a condition to include the SupportedRegulatoryClasses elements in Association frames and Reassociation frames

OR

make the condition of including the SupportedRegulatoryClasses elements in Association frames and Reassociation frames dependent on the support of ECSA only

Proposed Response   *Response Status* **W**

PROPOSE ACCEPT. Will rewrite third rule of 9.8.3 and rules of 9.8.4 to include condition that dot11ExtendedChannelSwitchEnabled is true.

Cl **11**   *SC* **11.14**   *P*   *L*   # 2058
Myles, Andrew

Comment Type   **TR**   *Comment Status* **A**

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

Response   *Response Status* **W**

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

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:
Submission

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Comment ID # **2058**
11/7/2007 7:05:57

Peter Ecclesine, Cisco Systems

Cl **11**   *SC* **11.14**   *P*   *L*   # 2052
Myles, Andrew

Comment Type   **TR**   *Comment Status*   **A**

This is similar comment to one I made in the last LB that was not addressed because I acidently 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 indentity 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 indentity to dependent STA
* Both the dependent AP and the dependent STA may operate normally while they regularly hear the enabling AP

However, if this underdstanding 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

Response   *Response Status*   **W**

ACCEPT IN PRINCIPLE. Will rewrite to remove concurrent associations.

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

Comment Type   **TR**   *Comment Status*   **A**

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

Response   *Response Status*   **W**

ACCEPT. Will rewrite to remove apparent MIB indexing.

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

Comment Type   **TR**   *Comment Status*   **A**

The text refers to "frequency band"

However, "frequency band" is not defined

SuggestedRemedy

Define "frequency band" in this context

Response   *Response Status*   **W**

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* **64**   # 2055
Myles, Andrew

Comment Type   **TR**   *Comment Status*   **A**

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

Response   *Response Status*   **W**

ACCEPT.

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:
Submission

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Comment ID # **2055**   11/7/2007 7:05:57

Peter Ecclesine, Cisco Systems

Cl **11**　　　*SC* **11.14**　　　　　*P* **38**　　　*L* **13**　　　# 3117
Myles, Andrew

Comment Type　　**ER**　　*Comment Status*　**X**
　　The text suggests the existence of a location and an identifier remedies interference issues.

　　More accurately these things assist the resolution of interference issues.

SuggestedRemedy
　　Change text to say the location and identifier assist in the resolution of interference issues.

Proposed Response　　　　*Response Status*　**W**
　　PROPOSE ACCEPT. "STA, and unique identifiers to assist in the resolution of interference issues."

Cl **11**　　　*SC* **11.14**　　　　　*P* **38**　　　*L* **17**　　　# 3118
Myles, Andrew

Comment Type　　**TR**　　*Comment Status*　**X**
　　The text in 11.14 says a STA shall use the DSE procedures if dot11LCIDSERequired is true.

　　However, the definition in Annex D says "if and only if"

SuggestedRemedy
　　Correct the inconsistency

Proposed Response　　　　*Response Status*　**W**
　　PROPOSE ACCEPT IN PRINCIPLE. Will change Annex D

Cl **11**　　　*SC* **11.14**　　　　　*P* **38**　　　*L* **19**　　　# 3119
Myles, Andrew

Comment Type　　**TR**　　*Comment Status*　**X**
　　The text states dot11DSERequired "may be set to false to configure STAs to operate as registered STAs"

　　Why would a registered STA ever want to use the DSE procedures?"

SuggestedRemedy
　　If the answer is never, then change may to shall

Proposed Response　　　　*Response Status*　**W**
　　PROPOSE ACCEPT IN PRINCIPLE. Per CID 3103, merging the two sentences. An enabling STA is a registered STA that uses the DSE procedures.

Cl **11**　　　*SC* **11.14**　　　　　*P* **38**　　　*L* **9**　　　# 3116
Myles, Andrew

Comment Type　　**ER**　　*Comment Status*　**X**
　　The text uses "fixed station" whereas the term defined in 3.54a is "fixed STA"

SuggestedRemedy
　　Change "fixed station" to "fixed STA"

Proposed Response　　　　*Response Status*　**W**
　　PROPOSE ACCEPT.

Cl **11**　　　*SC* **11.14**　　　　　*P* **41**　　　*L* **22**　　　# 4020
Fischer, Matthew

Comment Type　　**TR**　　*Comment Status*　**X**
　　Love that table!

SuggestedRemedy
　　Thanks.

Proposed Response　　　　*Response Status*　**W**
　　PROPOSE REJECT. Out of Scope

Cl **11**　　　*SC* **11.14.1.1**　　　　　*P* **38**　　　*L* **37**　　　# 3125
Myles, Andrew

Comment Type　　**ER**　　*Comment Status*　**X**
　　The text says the originating STA "shall" become enabled using the procedure

　　However, the language presupposes the result

SuggestedRemedy
　　Change to "...the originating STA shall attempt to become enabled using …"

Proposed Response　　　　*Response Status*　**W**
　　PROPOSE ACCEPT IN PRINCIPLE. CID 3166 provided the wording change.

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:
　Submission

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Comment ID # **3125**
11/7/2007 7:05:5

Peter Ecclesine, Cisco Systems

Cl **11**   *SC* **11.14.1.1**   *P* **38**   *L* **56**   # 3120

Myles, Andrew

Comment Type   **ER**   *Comment Status*   **X**

The bullets are indented incorrectly

SuggestedRemedy

Fix

Proposed Response   *Response Status*   **W**

PROPOSE ACCEPT.

Cl **11**   *SC* **11.14.1.1**   *P* **39**   *L* **11**   # 3121

Myles, Andrew

Comment Type   **ER**   *Comment Status*   **X**

The bullets are indented incorrectly

SuggestedRemedy

Fix

Proposed Response   *Response Status*   **W**

PROPOSE ACCEPT.

Cl **11**   *SC* **11.14.1.1**   *P* **39**   *L* **16**   # 3123

Myles, Andrew

Comment Type   **ER**   *Comment Status*   **X**

On page 39 the order of the fields is enablement identifier and then result code

However, on page 38 it is result code and then enablement identifier

SuggestedRemedy

Correct the inconsistency

Proposed Response   *Response Status*   **W**

PROPOSE ACCEPT. Will move identifier after result code.

Cl **11**   *SC* **11.14.1.1**   *P* **39**   *L* **19**   # 3122

Myles, Andrew

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

The text refers to 7.1.4.7

However, I could not find it

SuggestedRemedy

Where is this clause?

Proposed Response   *Response Status*   **W**

PROPOSE ACCEPT. 7.4.1.8 per CID 3047.

Cl **11**   *SC* **11.14.1.1**   *P* **39**   *L* **24**   # 3124

Myles, Andrew

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

The text states that a successful enablement puts the STA into state 2.

Presumably this is the state 2 defined in 11.3. What has enablement got to do with the state in 11.3, given that the STA is not really authenticated?

SuggestedRemedy

Define DSE independently of the authentication and association states

A similar comment applies to line 61 on pp 39

Proposed Response   *Response Status*   **W**

PROPOSE ACCEPT IN PRINCIPLE. Will Create Enablement state variable for each STA with which enablement communication is needed, having two states: unenabled and enabled.

Cl **11**   *SC* **11.14.1.1.2**   *P* **42**   *L* **37**   # 4011

Cole, Terry

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

There are no normative statemtns beofre the bullet points. I cannot tell what to do with these bullets and statemetns. Also the list starts with b.

SuggestedRemedy

Remove this entire sub-clasue or change it to make it include a statement that specifies something.

Proposed Response   *Response Status*   **W**

PROPOSE ACCEPT. Will change sub-clause to include a statement that specifies something.

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:

Submission

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Comment ID # **4011**
11/7/2007 7:05:5

Peter Ecclesine, Cisco Systems

Cl **11** *SC* **11.14.1.2**   *P* **39**   *L* **34**   # 3127
Myles, Andrew

Comment Type **ER** *Comment Status* **X**
 The text refers to the "destination STA"

 However, the STA is more consistently described as the "Responder STA"

SuggestedRemedy
 Change "destination STA" to "responder STA"

Proposed Response *Response Status* **W**
 PROPOSE ACCEPT IN PRINCIPLE.

Cl **11** *SC* **11.14.1.2**   *P* **39**   *L* **34**   # 3126
Myles, Andrew

Comment Type **ER** *Comment Status* **X**
 The text says the destination STA "shall" enable the requesting

 However, the language presupposes the result

SuggestedRemedy
 "Use "may enable"

Proposed Response *Response Status* **W**
 PROPOSE ACCEPT.

Cl **11** *SC* **11.14.1.2**   *P* **39**   *L* **61**   # 3128
Myles, Andrew

Comment Type **TR** *Comment Status* **X**
 The text implies the responder STA keeps track of the state for the "indicated STA".

 However, the state is actually for the "responder STA" when communicating with the "requester STA"

SuggestedRemedy
 Change "indicated STA" to make it clear what is in state 2; it is really a link rather than a STA

 A similar issue exists on line 24 on pp 39

Proposed Response *Response Status* **W**
 PROPOSE ACCEPT IN PRINCIPLE. Per CID 3124 creating Enablement State per station.

Cl **11** *SC* **11.14.1.2.2** *P* **43**   *L* **15**   # 4012
Cole, Terry

Comment Type **TR** *Comment Status* **X**
 There are no normative statemtns beofre the bullet points. I cannot tell what to do with these bullets and statemetns. Also the list starts with b.

SuggestedRemedy
 Remove this entire sub-clasue or change it to make it include a statement that specifies something.

Proposed Response *Response Status* **W**
 PROPOSE ACCEPT. Will change sub-clause to include a statement that specifies something.

Cl **11** *SC* **11.14.1.3**   *P* **40**   *L* **11**   # 3129
Myles, Andrew

Comment Type **TR** *Comment Status* **X**
 Disenablement is defined as putting the STA into state 1

 However this transition is not shown in 11.3

SuggestedRemedy
 Consider showing the transition in the diagram in 11.3

Proposed Response *Response Status* **W**
 PROPOSE REJECT. Per CID 3124, creating Enablement State, independent of 11.3.

Cl **11** *SC* **11.14.1.3**   *P* **40**   *L* **9**   # 3130
Myles, Andrew

Comment Type **ER** *Comment Status* **X**
 The text refers to the "indicated STA"

 However, it is unclear what the "indicated STA" is"

SuggestedRemedy
 Specify the "indicated STA" by referring to a field in the request primitive

 A similar comment applies to 11.14.1.4

Proposed Response *Response Status* **W**
 PROPOSE ACCEPT IN PRINCIPLE. Per CID 3128 will clarify deenablement requester.

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:
 Submission

Comment ID # **3130**

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11/7/2007 7:05:5

Peter Ecclesine, Cisco Systems

Cl **11**   *SC* **11.14.1.3.2**   *P* **44**   *L* **8**   # 4013
Cole, Terry

Comment Type   **TR**   *Comment Status*   **X**
    There are no normative statemtns beofre the bullet points. I cannot tell what to do with
    these bullets and statemetns. Also the list starts with b.

SuggestedRemedy
    Remove this entire sub-clasue or change it to make it include a statement that specifies
    something.

Proposed Response   *Response Status*   **W**
    PROPOSE ACCEPT. Will change sub-clause to include a statement that specifies
    something.

Cl **11**   *SC* **11.14.2**   *P* **40**   *L* **52**   # 3131
Myles, Andrew

Comment Type   **ER**   *Comment Status*   **X**
    The text states "Reported DSE LCI elements are to any destination address …"

    However, it appears the text should say "Reported DSE LCI elements may refer to any
    destination address …"

SuggestedRemedy
    Clarify and fix

Proposed Response   *Response Status*   **W**
    PROPOSE ACCEPT IN PRINCIPLE.

Cl **11**   *SC* **11.14.2**   *P* **44**   *L* **31**   # 4025
Fischer, Matthew

Comment Type   **TR**   *Comment Status*   **X**
    Maybe I missed it - the added table is nice, since it does give a nice logical separation
    using MIB variables among the various Tgy STA types. However, I notice a certain lack of
    subsequent behavioral description for the enabling STA, well, at least for one part of
    enabling STA behavior, which is the beaconing - i cannot determine how a requesting STA
    could distinguish a fixed STA from an enabling STA. Are both of them required to beacon?
    If so, what is different in the beacons between the two types that I can distinguish? Is there
    a bit in a frame somewhere? What is different, signaling-wise?"

SuggestedRemedy
    Please describe the difference between the fixed STA and enabling STA in terms of
    observable signaling behavior. Not sure if fixed STA beaconing is actually mentioned
    anywhere.

Proposed Response   *Response Status*   **W**
    PROPOSE ACCEPT IN PRINCIPLE. Will add a statement in 11.14.2 about fixed STA and
    RegLoc DSE bit being 0 to signify that it is not creating a DSE service area.

Cl **11**   *SC* **11.14.2**   *P* **44**   *L* **31**   # 4027
Fischer, Matthew

Comment Type   **TR**   *Comment Status*   **X**
    What good is a fixed STA? So it can operate, but it cannot enable. And this serves what
    purpose? It could use legal spectrum to maybe talk to itself! But it cannot allow anyone
    else to communicate. A fixed STA is worthless without an enabling STA. So why bother
    even having an entity that is a fixed STA? Maybe it could talk to other fixed STA, assuming
    they were present. Is that the intent?"

SuggestedRemedy
    Justify the inclusion of the fixed STA, or did I guess it at the end?

Proposed Response   *Response Status*   **W**
    PROPOSE REJECT. Not a valid recirculation comment. Fixed STAs by regulation can
    operate with higher transmit power than dependent STAs. Fixed STAs can bridge, can form
    a BSS or IBSS among fixed STAs and with dependent STAs that are enabled by others,
    and in general operate over greater distances than dependent STAs can.

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:
Submission

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Comment ID # **4027**
11/7/2007 7:05:58

Peter Ecclesine, Cisco Systems

Cl **11**   *SC* **11.14.3**   *P*   *L*   # 4041

Stephens, Adrian

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

"An enabling STA may request its dependent STAs perform DSE measurement requests and make DSE reports over the DS. How information is exchanged over a DS is beyond the scope of this standard."
This is a normative statement ("may") which says it's outside the scope of the standard.

SuggestedRemedy

Turn into an informative note (may->can) or define this communications necessary to achieve this and make it within the scope of the standard.

Proposed Response   *Response Status* **W**

PROPOSE ACCEPT IN PRINCIPLE. will rewrite into an informative note.

Cl **11**   *SC* **11.14.3**   *P* **27**   *L* **1**   # 2059

Myles, Andrew

Comment Type **TR**   *Comment Status* **A**

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

Response   *Response Status* **W**

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* **28**   *L* **7**   # 2060

Myles, Andrew

Comment Type **TR**   *Comment Status* **A**

The text includes "count the sum"

This makes no sense

SuggestedRemedy

Recast sentence to remove "count the sum"

Response   *Response Status* **W**

ACCEPT.

Cl **11**   *SC* **11.14.3**   *P* **44**   *L* **62**   # 4026

Fischer, Matthew

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

There is behavior that is missing/not specified here. Where is the description of the advertisement of the enablement service? What frames are sent at what phy rate, and how frequently? And on which channels? How many different channels is an enabler allowed to service? And using what RA value? And again, how can I tell if the sending STA is an enabler or just a fixed STA that is not an enabler? What is different in a frame that would allow a dependent STA to detect the difference?"

SuggestedRemedy

You need to describe how often and using what frames an enabling STA sends to announce its presence and its willingness to be an enabler. Only beacons? Or are other frames allowed? What RA values are appropriate? And how many channels can one enabler service at a time? This should probably appear in 11.14.3, and the name of that subclause might need to change to something on the order of "Enabling STA operation to create a DSE service area for dependent station operation"

Proposed Response   *Response Status* **W**

PROPOSE ACCEPT IN PRINCIPLE. Will retitle clause to 'Enabling STA operation with DSE'.

Cl **11**   *SC* **11.14.4**   *P* **41**   *L* **56**   # 3132

Myles, Andrew

Comment Type **ER**   *Comment Status* **X**

"a enabling" should be "an enabling"

SuggestedRemedy

Fix

Proposed Response   *Response Status* **W**

PROPOSE ACCEPT.

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:
Submission

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Comment ID # **3132**   11/7/2007 7:05:5

Peter Ecclesine, Cisco Systems

Cl **11**   *SC* **11.14.4**   *P* **42**   *L* **22**   # 3134

Myles, Andrew

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

The text refers to a value modulo another value having a remainder of zero

However, modulo arithmetic does not have remainders

SuggestedRemedy

Fix

Proposed Response   *Response Status*   **W**

PROPOSE ACCEPT. modulo dot11DSETransmitDivisor equals zero,.

Cl **11**   *SC* **11.9.7**   *P* **36**   *L* **34**   # 3177

Trainin, Solomon

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

"When dot11ExtendedChannelSwitchImplemented is true,
dot11MultiDomainCapabilityEnabled, dot11SpectrumManagementRequired and
dot11RegulatoryClassesRequired shall be true"
The current solution mandates that STA that wants to support the ECSA shall support the
entire TPC and DFS. In case there is no need to follow the regulations for example in
2.4GHz band the channel switching may be still important as in .11n. The definition of
ECSA should allow using it separately and as an extension of DFS as well.

SuggestedRemedy

Separate the definition of ECSA from the DFS. Define rules of use it separately w/o
support of the Spectrum management. Define rules to allow using ECSA together with
Spectrum management

Proposed Response   *Response Status*   **W**

PROPOSE ACCEPT IN PRINCIPLE. Text will be rewritten to have implicit use of ECSA in
US 3650 band, regardless of association, and explicit and advertised in the Extended
Capabilities IE, independent of dot11SpectrumManagementRequired. The rules will make
no distinction whether dot11SpectrumManagementImplemented is true or false.

Cl **11**   *SC* **11.9.7.1**   *P* **24**   *L* **23**   # 2075

Trainin, Solomon

Comment Type   **TR**   *Comment Status*   **A**

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 infromation elements and frames should be used and why

Response   *Response Status*   **W**

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* **38**   # 2076

Trainin, Solomon

Comment Type   **TR**   *Comment Status*   **A**

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

Response   *Response Status*   **W**

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)"."

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general
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Comment ID # **2076**   11/7/2007 7:05:58

Peter Ecclesine, Cisco Systems

Cl **11**   *SC* **11.9.7.1**   *P* **36**   *L* **53**   # 3176

Trainin, Solomon

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

The CSA is not optimized and contains substantial limitation for switching between regulatory classes. Due to support of ECSA is important for legacy stations that are associated in BSS that uses ECSA. For example the .11n compliant BSS may associate non .11n compliant STA as well. Support of Extended Channel Switching may be implemented as SW upgrade in the legacy STA. To make the support of ECSA in the legacy STA visible to other STA the ECSA capability should be signaled.

This comment is relevant for behavior of DFS owner in 11.9.7.2 as well

SuggestedRemedy

Add the ECSA capability field to the Extended Capabilities information element

Proposed Response   *Response Status* **W**

PROPOSE ACCEPT IN PRINCIPLE. Extended Capabilities text will be based on 07/2326r2 7.3.2.27, pages 9 and 10, modified to meet 11y baseline, which excludes HT.

Cl **11**   *SC* **11.9.7.1**   *P* **36**   *L* **53**   # 3178

Trainin, Solomon

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

The definition is contradictional: If the CSA cannot be used for switching to new channel in a different regulatory class how to use both. If the CSA can be used for switching to a new channel there is no need to mandate the ECSA. If the CSA cannot be used the ECSA shall be used instead. So the problem is how to know that the ECSA is supported in the cases the CSA cannot be used.
This comment is relevant for behavior of DFS owner in 11.9.7.2 as well

SuggestedRemedy

Define use of ECSA as function of the ECSA capability. Define this capability as implicit in some kind of networks like TGn or explicit and advertised in ECSA capability field

Proposed Response   *Response Status* **W**

PROPOSE ACCEPT IN PRINCIPLE. Text will be rewritten to have implicit use of ECSA in US 3650 band, regardless of association, and explicit and advertised in the Extended Capabilities IE. CSA cannot be used when changing Regulatory Class unless all STAs that act on the CSA meet the requirements signified by the new Regulatory Class. There is no contradiction, the AP knows from (re)Association frames whether STAs can do ECSA, and may attempt to switch channels with both ECSA and CSA if the AP expects the legacy STAs to be able to operate on the new channel and RC.

Cl **11**   *SC* **11.9.7.1**   *P* **36**   *L* **58**   # 3179

Trainin, Solomon

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

The AP knows dot11ExtendedChannelSwitchImplemented value of itself, but no means are defined to know state of the dot11ExtendedChannelSwitchImplemented of other stations. It may happen that no one of the associated stations does support the Extended Channel switching.
This comment is relevant for behavior of DFS owner in 11.9.7.2 as well

SuggestedRemedy

Define advertising of the Extended Channel switching support. Define ECSA capability field to allow upgrade of the legacy stations to support ECSA. Define the AP behavior to cover associated stations that part of them supports and part does not support ECSA.

Proposed Response   *Response Status* **W**

PROPOSE ACCEPT IN PRINCIPLE. The AP knows from (re)Association frames whether STAs support ECSA and Supported Regulatory Classes. We define advertising ECSA via Supported Regulatory Classes and will add an Extended Capabilities indication field.

Cl **11**   *SC* **11.9a**   *P*   *L*   # 4032

Stephens, Adrian

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

"... shall not take alternative action."

There are two problems with this. Firstly there is no normative definition of "alternative action". Secondly, I don't believe you can or should stop the STA attempting to achieve enablement with some other enabling AP.

SuggestedRemedy

Remove: "If dot11DSERequired is true, STAs shall perform ECS procedures so as to switch at the time indicated by the Channel Switch Count, and shall not take alternative action.", or rewrite indicating what alternate actions are not allowed."

Proposed Response   *Response Status* **W**

PROPOSE ACCEPT IN PRINCIPLE. A dependent STA receiving ECS commands from its enabling STA shall perform them or change Enablement state to unenabled. Sentence changed to ôIf dot11DSERequired is true, STAs shall perform ECS procedures so as to switch at the time indicated by the Channel Switch Count, or change the Enablement state for the enabling STA to unenabled."

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
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Comment ID # **4032**   11/7/2007 7:05:58

Peter Ecclesine, Cisco Systems

Cl **11**   *SC* **11.9a**   *P*   *L*   # 4031
Stephens, Adrian

Comment Type   **TR**   *Comment Status*   **X**
"If dot11ExtendedChannelSwitchEnabled and dot11LCIDSERequired are true, only
Extended Channel Switch Announcement elements shall be transmitted."

Way too broad. A beacon containing only this element won't be very useful!

SuggestedRemedy
Is this trying to limit use of other switching mechanisms? If so indicate that they shall not
be used in this case - i.e., list the disallowed mechanisms.

Proposed Response   *Response Status*   **W**
PROPOSE ACCEPT IN PRINCIPLE. If dot11ExtendedChannelSwitchEnabled and
dot11LCIDSERequired are true, frames containing Channel

Cl **11**   *SC* **11.9a.1**   *P*   *L*   # 4034
Stephens, Adrian

Comment Type   **TR**   *Comment Status*   **X**
I see there has been a move to remove "shall" from the management frame list of
elements tables.   As I see it, regardless of lack of shalls, the entire clause 7 is
normative.   So saying that an element is present under certain conditions in clause 7
suffices. Therefore "When dot11ExtendedChannelSwitchEnabled is true, the Supported
Regulatory Classes element shall be included in Beacon frames, as described in 7.2.3.1,
Association Request frames, as described in 7.2.3.4, Reassociation Request frames, as
described in 7.2.3.6, Probe Request frames, as described in 7.2.3.8 and Probe Response
frames, as described in 7.2.3.9." is unnecessary.
I would rather have the definition of conditions when something is present or not in one
place (clause 7) than distributed throughout clause 11.

SuggestedRemedy
Remove cited text.

Proposed Response   *Response Status*   **W**
PROPOSE ACCEPT.

Cl **11**   *SC* **11.9a.3.1**   *P*   *L*   # 4038
Stephens, Adrian

Comment Type   **TR**   *Comment Status*   **X**
"When a STA with dot11DSERequired false receives an Extended Channel Switch
Announcement element, it may choose not to perform the specified switch, but to take
alternative action."
" a sta ... may take alternative action" is a normative statement with an undefined action.

SuggestedRemedy
Either define what alternative actions are permitted or remove the cited sentence.

Proposed Response   *Response Status*   **W**
PROPOSE ACCEPT IN PRINCIPLE. Added reference to CSA text ", as described in
11.9.7.1."

Cl **11**   *SC* **11.9a.3.1**   *P*   *L*   # 4037
Stephens, Adrian

Comment Type   **TR**   *Comment Status*   **X**
"The decision to switch to a new operating channel in an infrastructure BSS shall be made
only by the AP."

Shalls relate to observable behaviour. You cannot observe a decision.

SuggestedRemedy
Remove the cited text, or turn it into an informative note.

Proposed Response   *Response Status*   **W**
PROPOSE ACCEPT IN PRINCIPLE. Changed "shall be made only" to "is made".

Cl **11**   *SC* **11.9a.3.1**   *P* **39**   *L* **49**   # 4010
Cole, Terry

Comment Type   **TR**   *Comment Status*   **X**
I am unable to parse the startments in this sub-clause beginning with "In the following
paragraph."

SuggestedRemedy
Remove this and the subsequent paragraphs or make other changes to make it a complete
sentence that specifies something.

Proposed Response   *Response Status*   **W**
PROPOSE ACCEPT.

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
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Comment ID # **4010**   11/7/2007 7:05:5{

Peter Ecclesine, Cisco Systems

Cl **-9**   *SC* **9.8.1**   *P* **19**   *L* **1**   # 4024
Fischer, Matthew

Comment Type   **TR**   *Comment Status*   **X**
Not that it was originally your problem, but how does any of this work for IBSS?"

SuggestedRemedy
How does a STA wishing to start an IBSS figure out which channels are legal to use? Is it that you can only set up an IBSS in the vicinity of a detected AP?

Proposed Response   *Response Status*   **W**
PROPOSE REJECT. Clause 9.8.1 specifies passive scanning to learn the channels that may be used, from Beacon frames sent by the enabling STA. 11.14.4 (p45 line 43) first dashed item specifies that all dependent STAs must receive Beacon frames from the enabling STA before any transmission is attempted.

Cl **A**   *SC* **A.4.17**   *P* **48**   *L* **5**   # 434
"Palm, Stephen"

Comment Type   **TR**   *Comment Status*   **R**
This clause does not have explanatory text

SuggestedRemedy
Add text to introudce the clause

Response   *Response Status*   **W**
REJECT. In REV-ma Annex A.4, none of the prior clauses have explanatory text.

Cl **Annex**   *SC* **Annex D**   *P*   *L*   # 2044
Myles, Andrew

Comment Type   **TR**   *Comment Status*   **A**
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"

Response   *Response Status*   **W**
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* **28**   # 2041
Myles, Andrew

Comment Type   **ER**   *Comment Status*   **A**
dot11RecLocRequired should be dot11RegLocRequired

SuggestedRemedy
Fix

Response   *Response Status*   **W**
ACCEPT.

Cl **Annex**   *SC* **Annex D**   *P* **40**   *L* **28**   # 2047
Myles, Andrew

Comment Type   **TR**   *Comment Status*   **A**
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

Response   *Response Status*   **W**
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*   **A**
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

Response   *Response Status*   **W**
ACCEPT IN PRINCIPLE. the description text will be clarified

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general
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Comment ID # **2048**
11/7/2007 7:05:58

Peter Ecclesine, Cisco Systems

Cl **General** *SC* **General** *P* *L* # 2061

Myles, Andrew

Comment Type **TR** *Comment Status* **A**

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

Response *Response Status* **W**

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** *P* *L* # 2042

Myles, Andrew

Comment Type **ER** *Comment Status* **A**

dot11AssociateFailHoldTime is used three times in the document.

It should be dot11DSEAssociateFailHoldTime'.

SuggestedRemedy

Fix

Response *Response Status* **W**

ACCEPT.

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
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11/7/2007 7:05:58

Peter Ecclesine, Cisco Systems