

Sunday, May 02, 1999 17:54:59

P802.11b Draft 5.0 Comments

CI XX SC P L # 178

Bob O'Hara Informed Technology,

Comment Type T Comment Status X

SuggestedRemedy

Proposed Response Response Status O

CI XX SC P 0 L ? # 179

Stanley Reible MICRILOR, Inc

Comment Type E Comment Status X

Introduction, Participants: Officer and participants names are not present.

SuggestedRemedy

Officer and participant names should be present in document so that voters can review entire document when they are casting their ballot.

Proposed Response Response Status O

CI XX SC P 1 L # 180

Roger Marks NIST

Comment Type E Comment Status X

Regarding the Participants:

"At the time of the making of this draft, the committee had the following members:"

Since the draft standard is in Sponsor Ballot, this information should be provided. Also, it should explicitly name the committee.

SuggestedRemedy

Proposed Response Response Status O

CI XX SC 10.3.1 P L # 181

Mike Trompower Telxon Corporation

Comment Type T Comment Status X

PLME\_start should be updated to reflect that more than one PHY parameter set may be present.

Additional information may be needed to declare the 'mandatory' status of the new options within the BSS.

SuggestedRemedy

Proposed Response Response Status O

CI XX SC 10.3.2.2 P L # 182

Mike Trompower Telxon Corporation

Comment Type T Comment Status X

PLME\_scan.confirm should be updated to reflect that more than one PHY parameter set may be present.

Additional information may be needed to declare the 'mandatory' status of the new options within the BSS.

SuggestedRemedy

Proposed Response Response Status O

CI XX SC 10.3.3.1 P L # 183

Mike Trompower Telxon Corporation

Comment Type T Comment Status X

PLME\_join should be updated to reflect the station's support for the new options.

SuggestedRemedy

Proposed Response Response Status O

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CI XX SC 10.4.2 P L # 184

Mike Trompower Telxon Corporation

Comment Type T Comment Status X

PLME\_characteristic should be updated with additional information for 'short', 'pbcc', and 'agile' functionality

If the intent is to mix and match operation of these options, then this SAP should also report multiple plcp preamble lengths, multiple values of CWMin and CWMAx as appropriate.

SuggestedRemedy

Proposed Response Response Status O

CI XX SC 10.4.4 P L # 185

Mike Trompower Telxon Corporation

Comment Type T Comment Status X

PLME\_DSSSTESTMODE should be updated to add switches for the new options. The datarate range should include 5.5 and 11 values.

What are the three data patterns defined by DATA\_TYPE ?? where are these defined?

SuggestedRemedy

Proposed Response Response Status O

CI XX SC 18 P 10 L 0 # 186

Vic Hayes Lucent Technologies

Comment Type E Comment Status X

There is no way a reader understands that he has to add the complete clause 18.

SuggestedRemedy

Add in bold an italics "Insert new clause 18."

Proposed Response Response Status O

CI XX SC 18.1 P L # 187

Mike Trompower Telxon Corporation

Comment Type E Comment Status X

Second paragraph capitalization mistakes

SuggestedRemedy

6th line, capitalize ...Spread... last line, change BSSS to BSS

Proposed Response Response Status O

CI XX SC 18.1 P L # 188

Mike Trompower Telxon Corporation

Comment Type TR Comment Status X

Last paragraph of this section.

We are under NO restrictions to make a high rate phy which interoperable with current FH PHY.

This statement implies many characteristics which are not defined in the current text.

SuggestedRemedy

Change the paragraph to the following:

Capability for identifying a channel agile mode is also provided. However, management of this function is outside the scope of this standard.

Proposed Response Response Status O

CI XX SC 18.1.1 P 10 L 38 # 189

Satoshi Obara Fujitsu

Comment Type E Comment Status X

"supplement" is wrong word.

SuggestedRemedy

The "supplement" should be change "clause".

Proposed Response Response Status O

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CI XX SC 18.1.2 P L # 190

Mike Trompower Telxon Corporation

Comment Type TR Comment Status X

Strike the last sentence. The sentence creates many ambiguities - such as, do Cwmin, Cwmax, slottime, turnaround times, etc. default to those provided in the high rate PHY mib, or should the MAC be made aware of those currently used by the FH PHY.

SuggestedRemedy

Delete the last sentence

Proposed Response Response Status O

CI XX SC 18.1.2 P 11 L 8 # 191

Bob O'Hara Informed Technology,

Comment Type T Comment Status X

The last two sentences of this paragraph conflict when Frequency agility is enabled. One say that the PHY is both DS and FH. The other says it is FH.

SuggestedRemedy

Correct this conflict.

Proposed Response Response Status O

CI XX SC 18.2.1 P L # 192

Mike Trompower Telxon Corporation

Comment Type TR Comment Status X

This section creates ambiguity. It says that the long preamble is mandatory. Which means that it must always be supported. It then implies that the short preamble is intended for exclusive use; ie. a BSS will use only the short preamble.

In order to have the exclusive case, additional parameters must be added to the MIB and MAC which allow this mode.

If exclusivity is the intent of the PBCC and agility as well, then variables must be added for these as well.

In other words, will the PHY chips be created so that they can recognize on the fly which preamble is being used, or will they operate in one mode (long or short) only in order to demodulate the packet?

Will the PHY chips be created so that they can recognize on the fly whether or not PBCC is used and correctly demodulate the packet?

Likewise with the other combinations !!

SuggestedRemedy

Proposed Response Response Status O

CI XX SC 18.2.1 P 11 L 53 # 193

Bob O'Hara Informed Technology,

Comment Type E Comment Status X

Some words are missing in this sentence.

SuggestedRemedy

Insert "and" between "IEEE Std 802.11-1997," and "an optional short preamble and header."

Proposed Response Response Status O

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CI **XX** SC **18.2.2.2** P **12** L **42,43** # **194**  
 Bob O'Hara Informed Technology,  
 Comment Type **T** Comment Status **X**  
 Use the proper standard language to define options.  
 SuggestedRemedy  
 Delete the first sentence. Replace "can" with "may".  
 Proposed Response Response Status **O**

CI **XX** SC **18.2.3.1** P **13** L **39** # **197**  
 Mark Webster Harris Semiconductor  
 Comment Type **E** Comment Status **X**  
 What does "MSB-1" mean? Does it mean the MSB is a 1?  
 SuggestedRemedy  
 Clarify.  
 Proposed Response Response Status **O**

CI **XX** SC **18.2.2.2** P **13** L **24** # **195**  
 Bob O'Hara Informed Technology,  
 Comment Type **T** Comment Status **X**  
 Use the proper standard language to define normative requirements.  
 SuggestedRemedy  
 Replace "must" with "shall".  
 Proposed Response Response Status **O**

CI **XX** SC **18.2.3.10** P L # **198**  
 Mike Trompower Telxon Corporation  
 Comment Type **E** Comment Status **X**  
 Change numbering to a), b), c)  
 SuggestedRemedy  
 Proposed Response Response Status **O**

CI **XX** SC **18.2.3.1** P **13** L **39** # **196**  
 Bob O'Hara Informed Technology,  
 Comment Type **T** Comment Status **X**  
 This field has no numeric value and, thus, can not be described using bit significance.  
 SuggestedRemedy  
 Replace the use of "MSB" and "LSB" with bit numberings. Define the correct bit numberings.  
 Proposed Response Response Status **O**

CI **XX** SC **18.2.3.10** P **18** L **47** # **199**  
 Bob O'Hara Informed Technology,  
 Comment Type **T** Comment Status **X**  
 This clause talks about the field identifying the modulation used, but assigns data rates to the values of the field.  
 SuggestedRemedy  
 Either say it defines the data rates or assign modulations to the values.  
 Proposed Response Response Status **O**

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CI **XX** SC **18.2.3.10** P **18** L **52-54** # **200**  
 Vic Hayes Lucent Technologies  
 Comment Type **T** Comment Status **X**  
 The hexadecimal notation is not elegant  
 SuggestedRemedy  
 Adopt the method for commenters comment on 18.2.3.9.  
 Proposed Response Response Status **O**

CI **XX** SC **18.2.3.3** P **14** L **1** # **204**  
 Bob O'Hara Informed Technology,  
 Comment Type **E** Comment Status **X**  
 Bad break between pages.  
 SuggestedRemedy  
 Ensure that "kbit/s" does not break between pages.  
 Proposed Response Response Status **O**

CI **XX** SC **18.2.3.10** P **18** L **52-55** # **201**  
 Bob O'Hara Informed Technology,  
 Comment Type **T** Comment Status **X**  
 This field has no numeric value and, thus, can not be described using bit significance.  
 SuggestedRemedy  
 Replace the use of "MSB" and "LSB" with bit numberings. Define the correct bit numberings.  
 Proposed Response Response Status **O**

CI **XX** SC **18.2.3.3** P **14** L **1** # **203**  
 Bob O'Hara Informed Technology,  
 Comment Type **E** Comment Status **X**  
 Bad break between pages.  
 SuggestedRemedy  
 Ensure that "kbit/s" does not break between pages.  
 Proposed Response Response Status **O**

CI **XX** SC **18.2.3.2** P **13** L **49** # **202**  
 Vic Hayes Lucent Technologies  
 Comment Type **T** Comment Status **X**  
 The specification of the contents of the field is ambiguous. Is it meant to describe that the 16 bit field should be sent LSB to MSB first?  
 Or that first the X'F3' with its LSB first is to be transmitted like we do with the MAC protocol data unit?  
 SuggestedRemedy  
 Change into an unambiguous manner, like showing the bit pattern with bit numbers and specifying which bit goes out first.  
 Proposed Response Response Status **O**

CI **XX** SC **18.2.3.3** P **14** L **4-8** # **205**  
 Vic Hayes Lucent Technologies  
 Comment Type **T** Comment Status **X**  
 Are the bits in hexadecimal notation have a weight? I contend that they are just bitsequences without a weight.  
 SuggestedRemedy  
 Change into a bitsequence with bitnumbers and specify which bit to transmit first.  
 Proposed Response Response Status **O**

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CI **XX** SC **18.2.3.4** P **14** L **15-21** # **206**  
 Bob O'Hara Informed Technology,  
 Comment Type **T** Comment Status **X**  
 This field has no numeric value and, thus, can not be described using bit significance.  
 SuggestedRemedy  
 Replace the use of "MSB" and "LSB" with bit numberings. Define the correct bit numberings.  
 Proposed Response Response Status **O**

CI **XX** SC **18.2.3.5** P L # **209**  
 Mike Trompower Telxon Corporation  
 Comment Type **E** Comment Status **X**  
 Capitalize the last sentence, next to last paragraph and grammar  
 SuggestedRemedy  
 Capitalize and Change "is" to "in".  
 The length in microseconds ...  
 Proposed Response Response Status **O**

CI **XX** SC **18.2.3.4** P **14** L **29** # **207**  
 Vic Hayes Lucent Technologies  
 Comment Type **T** Comment Status **X**  
 It is unclear what the meaning is of Locked Clocks Bit equal 0.  
 SuggestedRemedy  
 Change "not" into "not locked"  
 Proposed Response Response Status **O**

CI **XX** SC **18.2.3.7** P **16** L **54** # **210**  
 Vic Hayes Lucent Technologies  
 Comment Type **E** Comment Status **X**  
 A Term has been broken as if it were an English word, which make the reader confused.  
 SuggestedRemedy  
 Remove the hyphen and lock word-breaking on terms.  
 Proposed Response Response Status **O**

CI **XX** SC **18.2.3.4** P **14** L **35** # **208**  
 Vic Hayes Lucent Technologies  
 Comment Type **T** Comment Status **X**  
 "being" is a non-compulsory term, where a compulsory term is needed.  
 SuggestedRemedy  
 Change "being" into "shall be"  
 Proposed Response Response Status **O**

CI **XX** SC **18.2.3.8** P **17** L **52,53** # **211**  
 Bob O'Hara Informed Technology,  
 Comment Type **T** Comment Status **X**  
 This field has no numeric value and, thus, can not be described using bit significance.  
 SuggestedRemedy  
 Replace the use of "MSB" and "LSB" with bit numberings. Define the correct bit numberings.  
 Proposed Response Response Status **O**

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CI XX SC 18.2.3.8 P 17 L 53 # 212

Vic Hayes Lucent Technologies

Comment Type E Comment Status X

MSB in capitals, where msb is used in other parts of this draft.

SuggestedRemedy

Use the method as given in subclause 18.2.4 with a bit string.

Proposed Response Response Status O

CI XX SC 18.2.3.8 P 17 L 54 # 213

Mark Webster Harris Semiconductor

Comment Type E Comment Status X

What does "MSB-1" mean? Does it mean the MSB is a 1? If this is the case, this wrong. The MSB is a 0. The shortSYNC seed is the bit reversed version of the longSYNC seed.

SuggestedRemedy

Clarify.

Proposed Response Response Status O

CI XX SC 18.2.3.8 P 18 L 38 - 43 # 214

Vic Hayes Lucent Technologies

Comment Type T Comment Status X

"shortSFD" differs from the term in Figure 2. The contents is not specified in the compulsory way. Here the contents is described two in 2 ways. This commenter prefers the second way, but then written in a figure.

SuggestedRemedy

Replace "shortSFD" by SHORT SFD field".  
 Replace the description of the contents of the field by a specification.  
 The SHORT SFD field shall contain the pattern specified in the following figure.  
 Insert the figure:  
 b16 b15 b14 b13 b12 b11 b10 b9 b8 b7 b6 b5 b4 b3 b2 b1  
 0 0 0 0 0 1 0 1 1 1 0 0 1 1 1 1  
 bit b1 is transmitted first

and use this convention throughout the draft.

Proposed Response Response Status O

CI XX SC 18.2.3.9 P L # 215

Mike Trompower Telxon Corporation

Comment Type TR Comment Status X

Confusion added - as stated in previous comments --

This section says ..."A receiver not configured to receive the high rate signals will not detect this SFD."

The implication is that the high rate PHY will be able automatically detect (at all times) between long and short preamble usage.

SuggestedRemedy

Clarify that this statement is correct or that the intended use is one or the other (long or short preamble) per BSS.

Proposed Response Response Status O

CI XX SC 18.2.3.9 P 18 L 39-43 # 216

Bob O'Hara Informed Technology,

Comment Type T Comment Status X

This field has no numeric value and, thus, can not be described using bit significance.

SuggestedRemedy

Replace the use of "MSB" and "LSB" with bit numberings. Define the correct bit numberings.

Proposed Response Response Status O

CI XX SC 18.2.4 P 18 L 36-39 # 217

Vic Hayes Lucent Technologies

Comment Type T Comment Status X

For the long preamble, the initialization is done double, fo rthe short preamble the initialization is only in the not-preferred method.  
 Also, the contents is already specified in two other subclause.

SuggestedRemedy

Replace the paragraph along the following lines:  
 "The scrambler shall be initialized as specified in subclause 18.2.3.8 for the short PLCP and subclause 18.2.3.1 for the long PLCP."

Proposed Response Response Status O

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CI **XX** SC **18.2.5** P **20** L **24** # **218**  
 Bob O'Hara Informed Technology,  
 Comment Type **E** Comment Status **X**  
 Awkward word choice.  
 SuggestedRemedy  
 Replace "for using" with "to use".  
 Proposed Response Response Status **O**

CI **XX** SC **18.2.5** P **20** L **50-51** # **219**  
 Bob O'Hara Informed Technology,  
 Comment Type **E** Comment Status **X**  
 Is the PLCP procedural definition the place for a PMD implementation recommendation?  
 SuggestedRemedy  
 Move this sentece to a more appropriate spot.  
 Proposed Response Response Status **O**

CI **XX** SC **18.2.6** P L # **221**  
 Mike Trompower Telxon Corporation  
 Comment Type **E** Comment Status **X**  
 Add a period to end of first paragraph  
 SuggestedRemedy  
 Proposed Response Response Status **O**

CI **XX** SC **18.2.6** P L # **220**  
 Mike Trompower Telxon Corporation  
 Comment Type **E** Comment Status **X**  
 The transmit state machine Figure incorrectly shows that a short preamble consists of 64 zeros  
 SuggestedRemedy  
 The correct number is 56 zeros  
 Proposed Response Response Status **O**

CI **XX** SC **18.3.3** P L # **222**  
 Mike Trompower Telxon Corporation  
 Comment Type **TR** Comment Status **X**  
 This section also adds to the confusion about intended operation.  
 Reporting a single value, implies that the intent is to have exclusive operation.  
 Reported values for Preamble Length, Cwmin and Cwmax should be changed to report all valid values in a "mix and match" environment.  
 The fact that a mix and match mode MAC will be UNDULY BIASED towards stations using short preamble - better access because of shorter Cwmin, suggests that the intent is to have exclusive operation  
 SuggestedRemedy  
 I believe the intent is to have "mix and match", therefore, reporting Cwmin and Cwmax consistent with legacy systems is correct.  
 If the hooks are added to allow for exclusive BSS use of some options, shortening of CWMin andMax would be OK  
 This points out that there is a hole in the system, which says that the BSS ought to report the current Cwmin and Cwmax times in the BEACON and PROBE frames.  
 Also points out that statements ought to be added to the standard which specifies which values a station uses.  
 Should the station use values reported by its PHY, or should it adopt those values presented in the BEACON and PROBES  
 Or remove all doubt, the high rate PHY uses same values as legacyDS PHY, regardless of mode of operation. However, this leaves a bias towards DS vs FH which "combo vendors" will have to address.  
 Proposed Response Response Status **O**

TYPE: TR/technical required T/technical E/editorial COMMENT STATUS: D/dispatched A/accepted R/rejected SORT ORDER: Clause, Subclause, page, line  
 RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn

CI **XX** SC **18.3.3**

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CI **XX** SC **18.4.2** P **29** L **42** # **223**  
 Bob O'Hara Informed Technology,  
 Comment Type **E** Comment Status **X**  
 This is not specifying a normative requirement, but simply describing a capability.  
 SuggestedRemedy  
 Replace "shall be" with "is".  
 Proposed Response Response Status **O**

CI **XX** SC **18.4.5.1.2** P **31** L **11** # **226**  
 Bob O'Hara Informed Technology,  
 Comment Type **E** Comment Status **X**  
 This is describing a parameter upon which the PMD acts.  
 SuggestedRemedy  
 Replace "PHY" with "PMD" in the Description column.  
 Proposed Response Response Status **O**

CI **XX** SC **18.4.2** P **29** L **44-45** # **224**  
 Bob O'Hara Informed Technology,  
 Comment Type **E** Comment Status **X**  
 Doesn't the previous sentence already describe a "data stream"? Why is the last sentence in this paragraph at all?  
 SuggestedRemedy  
 Delete the last sentence.  
 Proposed Response Response Status **O**

CI **XX** SC **18.4.5.1.2** P **31** L **14** # **227**  
 Vic Hayes Lucent Technologies  
 Comment Type **T** Comment Status **X**  
 It is unconventional to specify mandatory items into primitives and their parameters.  
 SuggestedRemedy  
 Remove the "shall" in the description and make sure the spreading is unambiguously specified in the formatting or protocol specification of the draft.  
 Proposed Response Response Status **O**

CI **XX** SC **18.4.4.2** P L # **225**  
 Mike Trompower Telxon Corporation  
 Comment Type **TR** Comment Status **X**  
 Add 'X' to table for PMD\_CS.request  
 Add new section (18.4.5.xx) for PMD\_CS.request which states the method for setting the CS\_THRESHOLD according to the text  
 SuggestedRemedy  
 Proposed Response Response Status **O**

CI **XX** SC **18.4.5.1.2** P **31** L **8-11** # **228**  
 Bob O'Hara Informed Technology,  
 Comment Type **T** Comment Status **X**  
 Why are two of the value combinations represented as modulations and tow others as data rates?  
 SuggestedRemedy  
 Make the representation of the values consistent, either all modulations or all data rates.  
 Proposed Response Response Status **O**

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CI **XX** SC **18.4.5.1.2** P **31** L **9-11** # **229**

Vic Hayes Lucent Technologies

Comment Type **T** Comment Status **X**

1. We use 2 methods for specifying the contents: first bitstrings, the hexadecimal strings.
2. The hexadecimal strings are specified in a new way (with and h) rather than the method with X' ".
3. It is unclear what is meant by the notation for 5.5 and 11 Mbit/s. apparently one os free to pick a value between X'00" and X0F" for 5.5 Mbit/s and between X'00" to X'FF" for 11 Mbit/s.

SuggestedRemedy

Use the bit string method for specification and ,ake sure the range of values is unambiguously specified.

Proposed Response Response Status **O**

CI **XX** SC **18.4.5.10.2** P **37** L **8-11** # **230**

Bob O'Hara Informed Technology,

Comment Type **E** Comment Status **X**

Why do two of the rates also have modulations attached?

SuggestedRemedy

Delete the modulations.

Proposed Response Response Status **O**

CI **XX** SC **18.4.5.11.1** P **37** L **39** # **231**

Bob O'Hara Informed Technology,

Comment Type **E** Comment Status **X**

State this in the proper "standard" way.

SuggestedRemedy

Delete the sentence and replace with "This primitive may be generated by the PMD to provide the received signal strength to the PLCP."

Proposed Response Response Status **O**

CI **XX** SC **18.4.5.11.3** P **38** L **3-4** # **232**

Bob O'Hara Informed Technology,

Comment Type **E** Comment Status **X**

Since this is optional, the use of "shall" is not appropriate, here.

SuggestedRemedy

Replace "shall" with "may" in two locations.

Proposed Response Response Status **O**

CI **XX** SC **18.4.5.12.1** P **38** L **16-17** # **233**

Bob O'Hara Informed Technology,

Comment Type **E** Comment Status **X**

State this in the proper "standard" way.

SuggestedRemedy

Delete the sentence and replace with "This primitive may be generated by the PMD to provide an indication of the signal quality (SQ) of the High Rate PHY PN code correlation to the PLCP."

Proposed Response Response Status **O**

CI **XX** SC **18.4.5.12.3** P **38** L **36-37** # **234**

Bob O'Hara Informed Technology,

Comment Type **E** Comment Status **X**

Since this is optional, the use of "shall" is not appropriate, here.

SuggestedRemedy

Replace "shall" with "may" in two locations.

Proposed Response Response Status **O**

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CI XX SC 18.4.5.13.3 P 39 L 37 # 235  
 Bob O'Hara Informed Technology,  
 Comment Type E Comment Status X  
 This is generated by the PMD, not PHY.  
 SuggestedRemedy  
 Replace "PHY" with "PMD".  
 Proposed Response Response Status O

CI XX SC 18.4.5.15.1 P 40 L 45-46 # 238  
 Bob O'Hara Informed Technology,  
 Comment Type E Comment Status X  
 State this in the proper "standard" way.  
 SuggestedRemedy  
 Delete the sentence and replace with "This primitive may be generated by the PLCP to set a set a value for the energy detect ED THRESHOLD."  
 Proposed Response Response Status O

CI XX SC 18.4.5.14.1 P 39 L 53-54 # 236  
 Bob O'Hara Informed Technology,  
 Comment Type E Comment Status X  
 State this in the proper "standard" way.  
 SuggestedRemedy  
 Delete the sentence and replace with "This primitive may be generated by the PMD to provide an indication that the receiver has detected RF energy indicated by the PMD\_RSSI primitive that is above a predefined threshold."  
 Proposed Response Response Status O

CI XX SC 18.4.5.15.2 P 41 L 8-9 # 239  
 Bob O'Hara Informed Technology,  
 Comment Type T Comment Status X  
 The values stated for the parameter appear to enable or disable the use of ED. This conflicts with the description of the primitive that claims to set a value for the threshold.  
 SuggestedRemedy  
 Correct this conflict.  
 Proposed Response Response Status O

CI XX SC 18.4.5.14.3 P 40 L 31 # 237  
 Bob O'Hara Informed Technology,  
 Comment Type E Comment Status X  
 Since this is optional, the use of "shall" is not appropriate, here.  
 SuggestedRemedy  
 Replace "shall" with "may".  
 Proposed Response Response Status O

CI XX SC 18.4.5.2.2 P 31 L 44-48 # 240  
 Bob O'Hara Informed Technology,  
 Comment Type T Comment Status X  
 Why are two of the value combinations represented as modulations and tow others as data rates?  
 SuggestedRemedy  
 Make the representation of the values consistent, either all modulations or all data rates.  
 Proposed Response Response Status O

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CI **XX** SC **18.4.5.2.2** P **31** L **45-47** # **241**  
 Vic Hayes Lucent Technologies  
 Comment Type **T** Comment Status **X**  
 Same comments as for 18.4.5.1.2  
 SuggestedRemedy  
 Same remedy as for 18.4.5.1.2.  
 Proposed Response Response Status **O**

CI **XX** SC **18.4.5.6.2** P **34** L **41** # **244**  
 Bob O'Hara Informed Technology,  
 Comment Type **E** Comment Status **X**  
 Since this primitive has no parameters, state this.  
 SuggestedRemedy  
 Delete the sentence and replace with "This primitive has not parameters."  
 Proposed Response Response Status **O**

CI **XX** SC **18.4.5.3.2** P **32** L **21-22** # **242**  
 Bob O'Hara Informed Technology,  
 Comment Type **T** Comment Status **X**  
 This primitive allows only PBCC or CCK to be chosen as modulation methods. Yet, the PMD\_Data.request primitive clearly allows single and dibit combinations to be passed to the PMD. How are DBPSK and DQPSK modulation methods chosen?  
 SuggestedRemedy  
 Add DBPSK and DQPSK as selectable modulation methods.  
 Proposed Response Response Status **O**

CI **XX** SC **18.4.5.7.2** P **35** L **9** # **245**  
 Bob O'Hara Informed Technology,  
 Comment Type **E** Comment Status **X**  
 Since this primitive has no parameters, state this.  
 SuggestedRemedy  
 Delete the sentence and replace with "This primitive has not parameters."  
 Proposed Response Response Status **O**

CI **XX** SC **18.4.5.4.4** P **33** L **30** # **243**  
 Bob O'Hara Informed Technology,  
 Comment Type **T** Comment Status **X**  
 This clause indicates that the primitive is generated by the PMD. The previous clause clearly states that it is generated by the PLCP.  
 SuggestedRemedy  
 Correct this conflict.  
 Proposed Response Response Status **O**

CI **XX** SC **18.4.5.9.2** P L # **246**  
 Mike Trompower Telxon Corporation  
 Comment Type **T** Comment Status **X**  
 Why does this section state a maximum of 4 levels? The mib 18.3.2 states that 8 levels are allowed. The parameter dot11NumbersupportedPowerLevels is declared implementation dependent and can be set by vendors to 4 should that be a restriction.  
 SuggestedRemedy  
 Remove the limit of 4 from these two sections  
 Proposed Response Response Status **O**

Sunday, May 02, 1999 17:55:05

P802.11b Draft 5.0 Comments

CI **XX** SC **18.4.6.12** P L # **247**

Mike Trompower Telxon Corporation

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

The TBD must be resolved.

More accurately, this section ought to specify an exact hop time. If one system hops in 100usec and begins transmitting, the 224usec station (while compliant) is at a disadvantage or worse the two won't interoperate.

*SuggestedRemedy*

Resolve the TBD

Specify an exact hop time specification or put a statement that no transmission will occur until after the time specified here.

Proposed Response Response Status **O**

CI **XX** SC **18.4.6.12** P **48** L **17** # **248**

Vic Hayes Lucent Technologies

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

This subclause contains a "TBD". It supports commenters view (subclause 18.4.6.7) that the whole frequency agility option is not tested nor simulated. By the time a draft is in sponsor ballot this type of specification should not occur

*SuggestedRemedy*

Remove the channel agility option by removing subclauses 18.4.6.7, 18.4.6.12 and the annex F.

Proposed Response Response Status **O**

CI **XX** SC **18.4.6.12** P **49** L **18** # **249**

Mark Webster Harris Semiconductor

Comment Type **T** Comment Status **X**

A TBD is present.

*SuggestedRemedy*

Replace the TBD with a quantity.

Proposed Response Response Status **O**

CI **XX** SC **18.4.6.14** P L # **250**

Mike Trompower Telxon Corporation

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

The PICS (Annex A4.3) references two temperature types, the text references three.

*SuggestedRemedy*

Change 18.4.6.14 to reflect two temperature ranges.

Proposed Response Response Status **O**

CI **XX** SC **18.4.6.5** P **43** L **49,54** # **251**

Bob O'Hara Informed Technology,

Comment Type **T** Comment Status **X**

The complex chips do not have a numeric value and, thus, the bits of the chips can not have "significance".

*SuggestedRemedy*

Eliminate the use of msb and lsb throughout this clause and replace with a clearly described and/or illustrated bit numbering scheme.

Proposed Response Response Status **O**

CI **XX** SC **18.4.6.5.2** P **44** L **21** # **252**

Mark Webster Harris Semiconductor

Comment Type **E** Comment Status **X**

The FONT is wrong on jw.

*SuggestedRemedy*

The w in jw should be cast as the SYMBOL FONT.

Proposed Response Response Status **O**

Sunday, May 02, 1999 17:55:06

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CI **XX** SC **18.4.6.5.2** P **44** L **28-30** # **253**  
 Bob O'Hara Informed Technology,  
 Comment Type **E** Comment Status **X**  
 The PSDU does not have symbols, but octets.  
 SuggestedRemedy  
 Replace "PSDU" with the correct term.  
 Proposed Response Response Status **O**

CI **XX** SC **18.4.6.5.2** P **45** L **3** # **254**  
 Bob O'Hara Informed Technology,  
 Comment Type **T** Comment Status **X**  
 The complex chips do not have a numeric value and, thus, the bits of the chips can not have "significance".  
 SuggestedRemedy  
 Eliminate the use of msb and lsb throughout this clause and replace with a clearly described and/or illustrated bit numbering scheme.  
 Proposed Response Response Status **O**

CI **XX** SC **18.4.6.7** P L # **255**  
 Mike Trompower Telxon Corporation  
 Comment Type **TR** Comment Status **X**  
 We are under NO restrictions to make a high rate phy which is interoperable with current FH PHY.  
 The agility option enables a form of tolerance and coexistence, but not interoperability with current FH phys.  
 The statement referencing "shall meet requirements of ..." opens a can of inconsistency worms as described above.  
 SuggestedRemedy  
 Change text to following:  
 The channel agility option gives a high rate phy implementation the flexibility to move about the band. The management (determination of when and where to hop) of this option is outside the scope of this standard. When the channel agility option is enabled, the implementer may make use of both FH and DS parameter sets in BEACON and PROBE frames.  
 Proposed Response Response Status **O**

CI **XX** SC **18.4.6.7** P **48** L **32** # **257**  
 Dean Kawaguchi Symbol Technologies,  
 Comment Type **T** Comment Status **X**  
 The editorial change at the last meeting of moving the requirements from this section into the informative annex had two problems. First, the editorial change was contrary to the technical resolution made in the January 1999 meeting. Second, requirements are now placed in an informative annex. This is an awkward and undesirable way of specifying requirements. There are numerous instances of optional requirements within the approved 802.11 main standard so there should be no reason optional requirements cannot be included within clause 18.  
 SuggestedRemedy  
 Move the requirements from clauses F.1, F.2, F.3, and F.4 back into 18.4.6.7.  
 Proposed Response Response Status **O**

Sunday, May 02, 1999 17:55:06

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CI **XX** SC **18.4.6.7** P **48** L **32** # **256**

Bob O'Hara Informed Technology,

Comment Type **T** Comment Status **X**

There is not enough normative information to allow FH compatible systems to be built upon the HR PHY.

*SuggestedRemedy*

Move the following from Annex F to this clause and make it normative:  
F.1, F.2, F.3, and F.4.

Proposed Response Response Status **O**

CI **XX** SC **18.4.6.7** P **48** L **34** # **259**

Vic Hayes Lucent Technologies

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

1. The channel agility option is a method that has not been tested.
2. The committee has not seen any simulations of how this option would behave.
3. Commenter fears that this option, when implemented in a carefully planned system will disrupt the whole operation because it would confuse the whole carefully planned frequency plan.
4. From feedback from the field, commenters knows that the option confuses the whole market.
5. The present subclause makes an informal annex all of a sudden a formal one by the use of the word "shall" and supports commenters view that the option has not been simulated nor tested by stating "the expected behaviour".

*SuggestedRemedy*

Remove the channel agility option by removing subclauses 18.4.6.7, 18.4.6.12 and the annex F.

Proposed Response Response Status **O**

CI **XX** SC **18.4.6.7** P **48** L **34** # **258**

Vic Hayes Lucent Technologies

Comment Type **E** Comment Status **X**

The word "interoperability" is misused here. A 5.5 or 11 Mbit/s can not interoperate with a 1 or 2 Mbit/s system. Apparently the writer meant to say here "co-existence".

*SuggestedRemedy*

Replace "interoperability" into "co-existence".

Proposed Response Response Status **O**

CI **XX** SC **18.4.6.8** P **48** L **43** # **260**

Bob O'Hara Informed Technology,

Comment Type **E** Comment Status **X**

This standard also specifies operation in Japan. The relevant document for Japan should also be cited.

*SuggestedRemedy*

Add the Japanese citation.

Proposed Response Response Status **O**

CI **XX** SC **18.4.7.2** P **49** L **54** # **261**

Bob O'Hara Informed Technology,

Comment Type **T** Comment Status **X**

Why is a minimum transmit power specified? Is it the intent to disallow very low power operation, i.e., personal area networks?

*SuggestedRemedy*

Remove this requirement.

Proposed Response Response Status **O**

CI **XX** SC **18.4.7.2** P **49** L **54** # **262**

Bob O'Hara Informed Technology,

Comment Type **T** Comment Status **X**

Why is a minimum transmit power specified? Is it the intent to disallow very low power operation, i.e., personal area networks?

*SuggestedRemedy*

Remove this requirement.

Proposed Response Response Status **O**

CI XX SC 18.4.7.3 P L # 263

Mike Trompower Telxon Corporation

Comment Type T Comment Status X

Why does this section state a maximum of 4 levels? The mib 18.3.2 states that 8 levels are allowed. The parameter dot11NumbersupportedPowerLevels is declared implementation dependent and can be set by vendors to 4 should that be a restriction.

SuggestedRemedy

Remove the limit of 4 from these two sections

Proposed Response Response Status O

CI XX SC 18.4.7.6 P 50 L 40 # 264

Mark Webster Harris Semiconductor

Comment Type E Comment Status X

The wording could be improved regarding the derivation of the symbol-rate clock and carrier-frequency clock from the same reference.

SuggestedRemedy

The wording is paragraph 18.2.3.4 is somewhat clearer.

Proposed Response Response Status O

CI XX SC 18.4.8.1 P L # 265

Mike Trompower Telxon Corporation

Comment Type TR Comment Status X

These sections should specify as to whether this performance is achieved with or without or regardless of the "LOCKED" bit. If different performance expectations are anticipated, so state.

SuggestedRemedy

Proposed Response Response Status O

CI XX SC 18.4.8.1 P L # 266

Mike Trompower Telxon Corporation

Comment Type TR Comment Status X

These sections should specify as to whether this performance is achieved with or without or regardless of the "LOCKED" bit. If different performance expectations are anticipated, so state.

SuggestedRemedy

Proposed Response Response Status O

CI XX SC 18.4.8.1 P 54 L 16 # 267

Stan Reible MICRILOR, Inc

Comment Type T Comment Status X

We need to select a transmit modulation approach which can provide better receiver input level sensitivities in fielded equipment.

SuggestedRemedy

Place a tighter sensitivty constaints on the equipment (and emerging chip designs)implementing the proposed standard.

Proposed Response Response Status O

CI XX SC 18.4.8.2 P L # 268

Mike Trompower Telxon Corporation

Comment Type TR Comment Status X

These sections should specify as to whether this performance is achieved with or without or regardless of the "LOCKED" bit. If different performance expectations are anticipated, so state.

SuggestedRemedy

Proposed Response Response Status O

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CI XX SC 18.4.8.4 P L # 269

Mike Trompower Telxon Corporation

Comment Type TR Comment Status X

If the timer is not removed, then
The algorithms for CCA should have different numbering from those used in section 15.
The MIB should reflect the additional modes as well.
The algorithms using a timer are not the same as those which do not.

SuggestedRemedy

Mode 2 should become new mode 4
Mode 3 should become new mode 5

Change in 18.4.8.4 and in PICS HRDS11

Proposed Response Response Status O

CI XX SC 18.4.8.4 P L # 270

Mike Trompower Telxon Corporation

Comment Type TR Comment Status X

Remove the reference to a timer in CCA mode 2.
The mode says report busy upon detection of signal by carrier sense, therefore, the timer
is not necessary.

I take this to mean that a high rate PHY must recognize and determine carrier sense for
BOTH barker and CCK modulation.
This means that a high rate PHY which does not implement or recognize the

SuggestedRemedy

Delete reference to timer in mode 2.

Proposed Response Response Status O

CI XX SC 18.4.8.4 P 55 L 15 # 271

Stan Reible MICRILOR, Inc.

Comment Type T Comment Status X

While lower-transmit-level equipment is likely to be of a lower performance nature,
dropping the energy detection threshold levels for such equipment by 10 dB does not
appear to be full justifiable.

SuggestedRemedy

Consider a 4-6 dB lowering of the energy detection threshold levels for lower performance
equipment.

Proposed Response Response Status O

CI XX SC 184.6.7 & Annex F P L # 272

Bob Ward

Comment Type T Comment Status X

FH interoperability requirements, should be specified as requirements
rather than in an "informative" annex. "Informative" would suggest
being not required.

SuggestedRemedy

Include FH requirements in main body of Spec.

Proposed Response Response Status O

CI XX SC 7.3.1.4 P L # 273

Mike Trompower Telxon Corporation

Comment Type E Comment Status X

Wording should be APs (as well as STAs in IBSSs) shall ...

SuggestedRemedy

Make change in two new paragraphs for short preamble and PBCC

Proposed Response Response Status O

CI **XX** SC **7.3.1.4** P **5** L **18** # **274**  
 Stanley Reible MICRILOR, Inc

Comment Type **T** Comment Status **X**

Channel Agility is not a requirement for high rate DS nor does it insure backward compatibility with devices implementing the existing standard. The options of short preamble, PBCC, and channel agility will combine to introduce a Multi-Standard Product

*SuggestedRemedy*

Eliminate the option for channel agility. Greatly shorten the long preamble to eliminate a need for the optional short preamble.

Proposed Response Response Status

CI **XX** SC **7.3.1.4** P **6** L **7** # **275**  
 Bob O'Hara Informed Technology,

Comment Type **T** Comment Status **X**

What is the internal indication that channel agility is in use? These seems to be no way to determine how to set this bit.

*SuggestedRemedy*

Include appropriate MIB attributes or SAP parameters to determine when this bit shall be set.

Proposed Response Response Status

CI **XX** SC **7.3.1.9** P L # **276**  
 Mike Trompower Telxon Corporation

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

The three new reason codes are not supported by stations which are compliant to the current (1997) standard. The existing products, "should" ignore the three new capabilities bit definitions established in 7.3.1.4, however, the 1997 spec says they are defined to be always zero - it does not say what is proper course to take when a '1' bit is received. Since the current systems cannot interpret these bits and are not aware of these new reason codes, there is no way for them to determine the reason for denied association.

Section 18 states that the long preamble is MANDATORY. Section 18.2.3.9 implies that long and short are used together. Section 18.2.5 states that the decision for using long or short is a management decision and implies packet by packet basis. To me this means "mix and match" is the intended operation.

Section 18 states that these new capabilities are optional. Section 7.3.1.4, when defining these new capabilities, implies that these features may be used (or not) on an individual packet by packet basis.

If the intent is to define the use of these new options as exclusive use and mandatory to join a BSS when enabled, then the station must know in advance (PHY bits) how to decode the frame and whether to recognize the short preamble.

*SuggestedRemedy*

I believe the intent was to allow mix and match operation. Therefore, no station can be denied access to the BSS based on non-support and these reason codes will never be used and should be deleted.

IF the intent is to give a vendor the ability to selectively discriminate against stations not supporting a particular optional mode, additional MIB parameters should be defined which allow configuration of the use as mandatory or optional within a BSS. - then the reason codes can be kept, although only recognized by stations compliant to this newer version of the draft.

Proposed Response Response Status

Sunday, May 02, 1999 17:55:08

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CI **XX** SC **7.3.2.2, et. al.** P **6** L **29** # **177**

Valerie E. Zelenty IEEE Standards Dept.

Comment Type **E** Comment Status **X**

There are no editorial instructions for subclause 7.3.2.2 on page 6, nor for Clause 18 on page 10.

*SuggestedRemedy*

Add editorial instructions.

Proposed Response Response Status **O**

CI **XX** SC **9.6** P L # **277**

Mike Trompower Telxon Corporation

Comment Type **T** Comment Status **X**

Follow on comment #2 above.  
This section should be expanded to include verbage about the new phy options - use of / not use during certain frame exchanges.  
This becomes simpler if the intended use of the options is to be 'all or nothing'.

*SuggestedRemedy*

I believe the intent of the new phy options is to allow mix and match operation, therefore, this section should be updated.

Proposed Response Response Status **O**

CI **XX** SC **A.4.9** P **59** L **none** # **278**

Bob O'Hara Informed Technology,

Comment Type **T** Comment Status **X**

There is no PICS entry for channel settling time.

*SuggestedRemedy*

Add the appropriate entry for channel settling time.

Proposed Response Response Status **O**

CI **XX** SC **all area** P **all area** L # **279**

Satoshi Obara Fujitsu

Comment Type **E** Comment Status **X**

All figure numbers and table numbers should be adjusted to base document.

*SuggestedRemedy*

If possible, it should be "clause number - figure(table) number". For example, if it is figure 1 in clause 18, it is "Figure 18-1".

(Similarly, the change of base document may be needed ?)

In case of existing many figures and tables, it is easy for readers to understand the 802.11.  
And, other 802 standards use the above format.

Proposed Response Response Status **O**

CI **XX** SC **Annex A.4** P L # **280**

Mike Trompower Telxon Corporation

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

HRDS8 - states that hop sequences are MANDATORY when agility is present.  
First, this line item is not given a text reference.

Second, this feature falls outside the scope of 802.11. It must be controlled by an outside management entity, and therefore is outside the bounds of 802.

There are many 'desirable' methods which could be employed to decide when and where to hop. Unless ALL methods are provided for (and defined) this spec should not define a specific method. Besides, it is 'legally' outside the scope of 802.

*SuggestedRemedy*

Delete this check box from the spec.

Proposed Response Response Status **O**

CI **XX** SC **Annex A4.3** P L # **281**  
 Mike Trompower Telxon Corporation  
 Comment Type **TR** Comment Status **X**  
 If the timer is not removed, then  
 The algorithms for CCA should have different numbering from those used in section 15.  
 The MIB should reflect the additional modes as well.  
 The algorithms using a timer are not the same as those which do not.  
*SuggestedRemedy*  
 Mode 2 should become new mode 4  
 Mode 3 should become new mode 5  
 Change in 18.4.8.4 and in PICS HRDS11  
 Proposed Response Response Status **O**

CI **XX** SC **Annex D** P **60** L **4** # **283**  
 Bob O'Hara Informed Technology,  
 Comment Type **T** Comment Status **X**  
 It seems that there are more MIB entries than are listed in this  
 addition to the Annex D, since the two attributes listed have  
 registration numbers 6 and 7. Also the value of dot11PhyHRDSSSEntry is  
 not defined.  
*SuggestedRemedy*  
 Either number the attributes from 1 or insert all of the attributes that  
 precede these two. Also define the value of dot11PhyHRDSSSEntry.  
 Proposed Response Response Status **O**

CI **XX** SC **Annex D** P **60** L **4** # **282**  
 Bob O'Hara Informed Technology,  
 Comment Type **T** Comment Status **X**  
 There are no additions to the PHY compliance groups to cover the  
 additional attributes.  
*SuggestedRemedy*  
 Expand the compliance groups to include the additional attributes.  
 Proposed Response Response Status **O**

CI **XX** SC **Annex F** P L # **284**  
 Mike Trompower Telxon Corporation  
 Comment Type **TR** Comment Status **X**  
 Delete this entire annex and all references to it. The information in this annex is outside  
 the scope of 802.  
 This information (and many pointers to it in the text) alludes to the creation of a NEW  
 PHY. This phy must be capable of receiving both FH and DS preambles. AS A SPECIFIC  
 REFERENCE, the first sentence of annex f states that this option creates an  
 "INTEROPERABLE" FH and DS PHY. This new PHY is not a part of the PAR.  
 If you attempt to use two radio devices, the mechanism for transferring the information  
 between the two radios is not defined (and is outside the scope of 802) and will likely NOT  
 Result in an "interoperable" solution as stated.  
 Further, the CCA mechanism which is referenced, is new functionality, not part of the main  
 spec. no provisions have been provided in other parts of the spec (MIB and PICS)  
*SuggestedRemedy*  
 Delete this entire annex - do not any of this information into section 18.  
 Proposed Response Response Status **O**

CI **XX** SC **Annex F - Frequency H** P **60** L **51** # **285**  
 Stanley Reible MICRILOR, Inc  
 Comment Type **T** Comment Status **X**  
 The option for FH interoperability introduces unnecessary system complexity without  
 enhancing high data system capability. The ability for users to readily switch operating  
 channels will make it very difficult for high rate DS uses to find and effectively use any  
 clear channels in environments such as office and industrial parks. In such environments  
 there can be many small company users, each with different equipment and widely varying  
 MIS and networking management approaches. This will be made more serious by the fact  
 that some of these small companies will have multiple offices and sites within the same  
 office parks which need connectivity. Yet htis is exactly the environment where wireless  
 data links may be most needed.  
*SuggestedRemedy*  
 Discourage the use of the channel agility option by striking it from the high rate standard.  
 Proposed Response Response Status **O**

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CI **XX** SC **F.2 Operating Channel** P **63** L **7** # **286**  
Stanley Reible MICRILOR, Inc.  
Comment Type **E** Comment Status **X**  
The channel frequency of 247 MHz2 must be the trick entry. (Are we looking)  
SuggestedRemedy  
Try 2472 MHz  
Proposed Response Response Status **O**

CI **XX** SC **various** P **Many** L **various** # **289**  
Bob O'Hara Informed Technology,  
Comment Type **E** Comment Status **X**  
All table and figure numbers are incorrect for placement into the standard in proper order.  
SuggestedRemedy  
Renummer all tables and figures for proper ordering in the standard.  
Proposed Response Response Status **O**

CI **XX** SC **Participants** P **1** L **-** # **287**  
Bob O'Hara Informed Technology,  
Comment Type **E** Comment Status **X**  
There are no officers, WG members or sponsor pool members listed.  
SuggestedRemedy  
Add the correct lists  
Proposed Response Response Status **O**

CI **XX** SC **various** P **Many** L **various** # **288**  
Bob O'Hara Informed Technology,  
Comment Type **E** Comment Status **X**  
The wrong version of the standard is cited throughout the document.  
SuggestedRemedy  
Replace all occurences of "802.11-1997" with 802.11-1999".  
Proposed Response Response Status **O**

CI **XX** SC **various** P **Many** L **various** # **290**  
Bob O'Hara Informed Technology,  
Comment Type **E** Comment Status **X**  
There is no need for "IEEE 802.11" to be used throughout the document when referring to fields and other items. What else would we be talking about? See clauses 18.2.2.1, 18.2.3.3, 18.2.3.4  
SuggestedRemedy  
Delete all occurrences of "IEEE 802.11" in clause titels, field definitions and descriptions.  
Proposed Response Response Status **O**