IEEE P802.11
Wireless LANs

Resolutions of Consolidated Comments Received on the 802.11rev/D4 Ballot

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1.	intro	hvr	E		The Chairman forgot to give us credit for the hard work by not adding the list of voters at the March meeting time frame	Empower him to do so	Accepted.
2.	5.1.1	hvr	E		For the ISO version, the standard needs to have the following addition, under qualification that is only for the ISO version: Some countries impose specific requirements for radio equipment in addition to what is specified in this standard (e.g. Japan in MPT notice No. 759,1992 for the content for identification signals as meant in article 25 of the ITU Radio Regulations).	Empower the ISO editor to negotiate with the Japanese delegation to remove this qualification , because their law has changed. If the result is negative, empower the IEEE to use the sentence without international qualification.	Accepted.
3.	14.6. 15.7	hvr	E		For the ISO version, the standard needs to have the following addition, under qualification that is only for the ISO version: The FHSS PHY shall conform with out-of-band spurious emissions by regulatory bodies.	Empower the ISO editor to negotiate with the Japanese delegation to remove this qualification , because their law has changed. If the result is negative, empower the IEEE to use the sentence without international qualification.	Accepted.
4.	gener al	hvr	E		This draft needs to be brought in line with the ISO version.	Include the ISO comments in this comment as soon as available	Accepted.
5.	gener al	hvr	E		Some people do not realize they have to adhere to 802.1h	consider to remedy this observation	Declined. This standard is not the appropriate location to discuss this topic.

5.	gener al	hvr	E		At the interoperability lab the the need for specific definitions of CTSTimeout, ACKTimeout, CFPMaxduration, or MaxMPDUTime was identified. A value of zero should probably be reserved for listen interval and beacon interval since it is a meaningless value. (I've seen this being transmitted in beacon frames.)	consider to remedy this observation	Accepted,. The state machine defines the calculations for the timeouts required (CTSTimeout and ACKTimeout) in the Process Tx_Coordination_sta. The CFPMaxDuration is defined in a calculation in clause 9.3.3.3. The definition of MaxMPDUTime was inadvertently removed in an earlier draft. As an editorial correction, the following text will be added to 9.3.3.3: "MaxMPDUTime is the time to transmit the maximum-sized MAC frame, expanded by WEP, plus the time to transmit any PHY preamble, header, trailer, and expansion bits, if any." Note that this change does not affect interoperability.
7.	Annex D	mrr	t	N	Consistency with individual PHY sections.	Page 40 of D4. Line 20 specifies that the default value for "aMPDUMaximumLength is 2346. "This value is defined per PHY in the various PHY sections. Change text to read: "The default value for aMPDUMaximumLength is defined individually for each PHY.	Accepted. Appropriate changes have been made to the text.
8.	N/A	Mgr	E		The copyright diatribe does not fit in the box.	Edit it.	Accepted. This will be handled by the IEEE editor.

9.	14.3.3.2.1 of 802.11	orr	T		Figure 77 is missing an arrow returning from the uppermost "dot" on the right hand side to the "Start CS/CCA Procedure" box	Add the arrow	Accepted.
10.	Item 101, pg 49, line 16	orr	e			replace "Dot11ent" with "agent"	Accepted.
11.	Item 101, pg 38, line 15	orr	T		dot11Disassociate object ID must be changed to { dot11SMTnotification 0 1 }. See RFC 1908: 2.2 (5) The value of an invocation of the NOTIFICATION-TYPE macro is an OBJECT IDENTIFIER, not an INTEGER, and must be changed accordingly. Specifically, if the value of the ENTERPRISE clause is not 'snmp' then the value of the invocation is the value of the ENTERPRISE clause extended with two sub-identifiers, the first of which has the value 0, and the second has the value of the invocation of the TRAP-TYPE. Also see RFC 1902: 8.5. Mapping of the NOTIFICATION-TYPE value The value of an invocation of the NOTIFICATION-TYPE macro is the name of the notification, which is an OBJECT IDENTIFIER, an administratively assigned name. In order to achieve compatibility with the procedures employed by proxy agents (see Section 3.1.2 of [7]), the next to last sub-identifier in the name of any newly-defined notification must have the value zero.	Replace { dot11SMTnotification 1 } with { dot11SMTnotification 0 1 }	Accepted.
12.	14.6.8 of 802.11	orr	e		The equation for hopping sequence should use "I" in lower case	replace "$f_x(I)$" with "$f_x(i)$"	Accepted.

3.	Item 101, pg 40, line 19-20	orr	T		Only a single default value can be specified for the fragmentation threshold.	Delete the last sentence in this definition.	Accepted, alternative solution chosen.
4.	Item 34. pg 11, line 33	orr	E		Name does not match current Annex D identification	replace "dot11PhyOperationGroup" with "dot11PhyOperationComplianceGroup"	Accepted.
5.	Item 34. pg 11, line 34	orr	E		Name does not match current Annex D identification	replace "dot11SupportedDataRatesGroup" with "dot11PhyRateGroup"	Accepted.
6.	Item 34. pg 11, line 35	orr	E		Name does not match current Annex D identification	replace "dot11PhyAntennaGroup" with "dot11PhyAntennaCompliance Group"	Accepted.
7.	Item 34. pg 11, line 36	orr	E		Name does not match current Annex D identification	replace "dot11PhyTxPowerGroup" with "dot11PhyTxPowerCompliance Group"	Accepted.
8.	Item 34. Pg 11, line 37	orr	E		Name does not match current Annex D identification	replace "dot11PhyDSSSGroup" with "dot11PhyDSSSComplianceGroup"	Accepted.
9.	Item 101, Pg 26, line 17	orr	E		The "LAST-UPDATED" field must be changed to reflect the date of the latest changes to the MIB	Replace "9801300000Z" with "9805050000Z"	Accepted.
20.	Item 101, Pg 65, line, 7	orr	E		The wrong PHY is described here.	Replace "DSSS" with "IR baseband PHY"	Accepted.

21.	Item 101, Pg 62, line 10	orr	e		misspelling	Replace "exlusive" with "exclusive"	Accepted.
22.	Item 101, Pg 62, line 17	orr	e		misspelling	Replace "exlusive" with "exclusive"	Accepted.
23.	Item 101, Pg 62, line 25	orr	e		misspelling	Replace "exlusive" with "exclusive"	Accepted.
24.	Item 101, Pg 30, line 46	orr	e		misspelling	Replace "Repsonse" with "Response"	Accepted.
25.	Item 101, Pg 32, line 40	orr	e		misspellings	Replace "auxillary" with "auxiliary" and "indentify" with "identify"	Accepted.
26.	Item 101, Pg 34, line 14	orr	e		misspellings	Replace "auxillary" with "auxiliary" and "indentify" with "identify"	Accepted.
27.	Item 101, Pg 35, line 18	orr	e		misspellings	Replace "auxillary" with "auxiliary" and "indentify" with "identify"	Accepted.
28.	Item 101, Pg 45, line 31	orr	e		misspellings	Replace "auxillary" with "auxiliary" and "indentify" with "identify"	Accepted.

9.	Item 101, Pg 57, line 48	orr	e		misspellings	Replace "auxillary" with "auxiliary" and "indentify" with "identify"	Accepted.
0.	Item 101, Pg 49, line 15	orr	e		misspelling	Replace "mulitple" with "multiple"	Accepted.
1.	Item 101, Pg 50, line 37	orr	e		misspelling	Replace "mulitple" with "multiple"	Accepted.
2.	Item 101, Pg 52, line 47	orr	e		misspelling	Replace "mulitple" with "multiple"	Accepted.
3.	Item 101, Pg 54, line 33	orr	e		misspelling	Replace "mulitple" with "multiple"	Accepted.
4.	Item 101, Pg 55, line 54	orr	e		misspelling	Replace "mulitple" with "multiple"	Accepted.
5.	Item 101, Pg 50, line 6	orr	e		misspelling	Replace "aDiversitySelectionRx" with "dot11DiversitySelectionRx"	Accepted.
6.	Item 19, Pg 7, line 8	orr	e		Text does not appear in standard	delete " MIB attribute"	Accepted.

37.	Item 19, Pg 7, line 8	orr	e		Instruction needs to be modified, slightly	add "the first occurrence of" after "replace". Add "Replace the second occurrence of "aListenInterval" in 11.2.1.9 with "ListenInterval".	Accepted.
38.	8.2.3	orr	T		The functional description of the WEP algorithm calls for the concatenation of the IV with the secret key. Neither the bit ordering nor the relative significance of the operands in this operation are described.	The relative significance and bit ordering of the operands to the concatenation operation should be described and a figure included to eliminate the possibility of any ambiguity.	Accepted.
39.	Annex D	tmr	e		The MIB description for dot11TempType must be updated to reflect that only TWO types exist instead of the three as stated	Type 1 = 0-40C Type 2 = -30 - 70C	Accepted.
40.	16.3.2.4	tmr	E		PHY MIB consistency	For FHSS and DSSS, both temp types are specified. For IR, this variable is not defined but there is mention of operation over a range of 0-40C. Unless there is reason, the IR section should be ammended to use the same two ranges or at the least the variable should be defined and specified as Type 1.	Accepted.
41.	Annex D	tmr+	t		"INDEX {ifIndex}", but "ifIndex" is not within this Conceptual Row. Is this legal in a MIB? Does each Conceptual Row need a true INDEX within it (the old MIB did), or can an INDEX in an entirely separate portion of the SNMP MIB be utilized (in this case, the "interfaces" table)? If this is a problem, it applies to all "*Table" constructs in this MIB.	Declare whether or not this MIB requires explicit "ifIndex" and "rowstatus" per conceptual row Note: the previous MIB DID HAVE explicit ifIndex and rowstatus !	Declined. This structure for the MIB is common for MAC/PHY MIBs.

| 2. | Annex D | tmr+ | T | | There could be several places where MIB "Conceptual Rows" contain both "constant" data and "variable" data. This makes the *RowStatus invalid, because "constant" data is available as soon as the interface is initialized, and may in fact be necessary for its full configuration, while the "variable" data is transient and might not be available until after full configuration of the interface. Thus, *RowStatus must be AVAILABLE to read the"constant" data, but should be UNAVAILABLE whenever "variable" data does not yet have well-defined values. *RowStatus can't be both at the same time. | Depending upon result of the previous issue, this comment becomes relavent | Accepted. This problem appears to occur in the 802.11 MIB only in the dot11AuthenticationAlgorithmsTable. This has been corrected by removing the RowStatus object from this table. |

43.	Annex D	tmr+	T		There are many places where range limits or sizes are not specified within the MIB. This makes automatic generation of SNMP-set validation code impossible.	The following do not have ranges or sizes specifed: dot11MediumOccupancyLimit dot11CFPPeriod dot11CFPMaxDuration dot11AuthenticationResponseTimeOut dot11BeaconPeriod dot11AssociationResponseTimeOut dot11RTSThreshold dot11ShortRetryLimit dot11LongRetryLimit dot11FragmentationThreshold dot11MaxTransmitMSDULifetime dot11MaxReceiveLifetime dot11manufacturerOUI dot11TxPowerLevel* dot11HopTime dot11CurrentChannelNumber dot11MaxDwellTime dot11CurrentDwellTime dot11CurrentSet dot11CurrentPattern dot11CurrentIndex dot11CurrentChannel dot11CCAModeSupported dot11CurrentCCAMode dot11EDThreshold dot11CCAWatchdogTimerMax dot11CCAWatchdogCountMax dot11CCAWatchdogTimerMin dot11CCAWatchdogCountMin maximum sizes are not specified: dot11manufacturerName dot11manufacturerProductName dot11manufacturerProductVersion	Accepted. All attributes requiring ranges and sizes are now specified. Note that Integer32 type includes a range in its definition.

4.	Annex D	tmr+	t		There is some concern about the portability of mixing non-size-specific INTEGER data and size-specific Integer32 data. The standard needs to be carefully reviewed to make sure that anything declared INTEGER can truly fit in 16 (or 8?) bits.	After filling in the above ranges, perform a value/range check against minimum INTEGER size	Accepted.
5.			E		There appears to be a convention of using an identifier starting in lowercase as an "instance" and the same identifier starting in uppercase as a "type". Though legal in C, this utter dependence on case-sensitivity is NOT legal in many languages, will probably not be legal in many MIB compilers, and is considered poor programming practice by many to have utterly different things which can not be pronounced differently. The old MIB used the word "Type" as an identifier prefix in such cases; there are many situations in both the old and new MIBs where the word "Type" is used as an identifier suffix in such cases. Many common conventionsuse the "Type" suffix (though the ANSI C and Ada commitees prefer "_t", which is not syntactically legal in a MIB). Stick to using "Type" as a suffix and don't risk problems from capitalization.	Dot11CountersEntryType Dot11OperationEntryType Dot11PrivacyEntryType Dot11WEPKeyMappingsEntryType Dot11WEPDefaultKeysEntryType Dot11AuthenticationAlgorithmsEntryType Dot11StationConfigEntryType Dot11PhyTxPowerEntryType Dot11PhyFHSSEntryType Dot11PhyDSSSEntryType Dot11PhyIREntryType Dot11RegDomainsSupportEntryType Dot11AntennasListEntryType Dot11SupportedDataRatesTxEntryType Dot11SupportedDataRatesRxEntryType Dot11GroupAddressesEntryType Dot11ResourceInfoEntryType Dot11PhyOperationEntryType Dot11PhyAntennaEntryType	Declined. This is a common convention in SMI.
6.	Annex D	tmr+	e		There are misspellings "mulitple" and "Dot11ent"		Accepted.
7.	Annex D	tmr+	e		Capitalization .	"Station ManagemenT" -> "Station Management"	Declined. The capitalization used is deliberate to make sense of the abbreviation (SMT).
8.	Annex D	tmr+	e		Wrong names used	"dot11StationConfiggrp Table" -> "dot11StationConfigTable" "dot11Privacygrp TABLE" -> "dot11Privacy TABLE"	Accepted.

49.	Annex D	tmr+	t		"dot11OperationalRateSet" : size not specified in SYNTAX. Is this variable length, always 8 octets, "0x00"-terminated always, "0x00"-terminated only if not all 8 entries are used, etc.? In other words, how does one specify the value!?	Fully specify the encoding of this field	Accepted. The octet string contains only a set of the values corresponding to the rates supported.
50.	Annex D	tmr+	e		Don't specify the Textual Convention again within the "dot11WEPDefaultKeyValue" DESCRIPTION. Don't specify the Textual Convention again within the "dot11WEPKeyMappingWEPkey"	Delete both text	Accepted.
51.	Annex D	tmr+	E		Suggest "dot11WEPKeyMappingWEPkey" -> "dot11WEPKeyMappingValue", for consistency.	Rename variable	Accepted.
52.	Annex D	tmr+	E		"dot11WEPDefaultKeyID" : range "(0..3)" -> "(1..4)" to correspond directly to "dot11WEPDefaultKeyIndex".	Change range	Declined. The dot11WEPDefaultKeyID is defined to match the KeyID field of the IV.
53.	Annex D	tmr+	E		There is a pre-defined Textual Convention "TruthValue" which should globally be used instead of "INTEGER {true(1), false(2) }".	Rename to TruthValue	Accepted.
54.	Annex D	tmr+	e		"dot11CurrentTxAntenna" : "dot11SupportedTx-Antennas" -> "dot11SupportedTxAntenna"	Remove dash and the ending 's'	Accepted.
55.	Annex D	tmr+	e		What is "time in TU"?	Add the definition of TU which appears to be Kusec	Declined. This is defined where the definitions are, in clauses 3.45 and 4.
56.	Annex D	tmr+	t		There needs to be an addition to the RFC1213 "ifType" enumerations to specify "iso80211-wireless" (or some name like that). THIS IS IMPORTANT for network management stations to identify when there will be a corresponding 802.11 MIB structure for a given "ifEntry".	Register a new ifType with the ISO controlling body	Declined. This is a procedural action that the 802.11 group must take. It can not be done in this document.

7.	Annex D	tmr+	t		Not sure why "dot11StationID" is necessary, especially as a MacAddress. If you need the MAC address, use the standard "ifEntry.ifPhysAddress". If you want something equivalent to a Company System Name, a 6-octet field is far too restrictive; one should have a much larger field. The "dot11StationID", as defined, is confusing and of very little use. In fact, why not use the standard SNMP "system.sysName" instead of creating yet another data element?	Delete dot11StationID	Accepted, in spirit. Because implementations may exist with this attribute and deleting it would change the registration of all subsequent attributes, the status of this attribute is changed to deprecated.
8.	Annex D	tmr+	Q		What happened to "aReceiveDTIMs"? Why was it removed?		This attribute has been gone for a long time. It is now in the MLME-PowerMgt.request primitive.
9.	Annex D	tmr+	Q		What happened to "aAuthenticationType"? Why was it removed? It is useful to know how a Station was Authenticated. The "dot11AuthenticationAlgorithmsEnable" field (page 33) indicates which algorithms are allowed/supported, but not which was actually used.		This attribute never had the semantics of indicating what type of authentication was used for any particular instance of authentication. The attribute was changed to dot11AuthenticationAlgorithmsEnable to allow more than a single algorithm to be active at one time.
0.	Annex D	tmr+	t		Move "dot11WEPICVErrorCount" and "dot11WEPExcludedCount" to dot11CountersTable" (same as "dot11WEPUndecryptableCount")	Move count values to the table	Declined. These counters are where they are because the counters table is mandatory and these counters only need to be present when WEP is implemented.
1.	Annex D	tmr+	t		Pass the "Reason Code" in the "dot11Disassociate" notification, also.	Add to notification	Accepted.
2.	Annex D	tmr+	t		Add a "dot11Deauthenticate" notification, as well.	Add notification	Accepted.

63.	Annex D	tmr+	t		"dot11MACAddress" : Another MAC address! Again, why the apparent duplication of "ifEntry.ifPhysAddress"?	Remove "dott11MACAddress"	Declined. 802.11 can not mandate that MIB II is implemented.
64.	Annex D	tmr+	t		"dot11ManufacturerID" as well as the apparently more-standard "dot11manufacturerName" (page 48)? Both of these have some duplication of information with the "ifEntry.ifDescr" field	Remove "dot11ManufacturerID"	Declined. The dot11ManufacturerID is not necessarily the same as the dot11ManufacturerName. One refers specifically to the MAC and the other to the network interface, e.g., an AMP MAC may be present in an Aironet WLAN card.
65.	Annex D	tmr+	t		Why "dot11ProductID" as well as the apparently more-standard "dot11manufacturerProductName" (page 48)?	Remove "dot11Product ID"	Declined. For the same reasons as given above.
66.	Annex D	tmr+	Q		Where did "dot11ReceivedFrameCount" go?		This is now dot11Received FragmentCount.
67.	Annex D	tmr+	t		"dot11PhyOperationTable" comment says indexed by Station ID. Everything else (including "dot11PhyOperationEntry") says indexed by "ifIndex".	Change index	Accepted.
68.	Annex D	tmr+	t		Enumeration names within "dot11TempType" are poorly chosen. Use "TempType*" instead of "type*".	Rename to TempType*	Accepted.
69.	Annex D	tmr+	Q		Why have "dot11CCATime" and "dot11MACProcessingDelay" been removed?		These attributes have been moved to PHY characteristics in each PHY clause.
70.	Item 38, Pg. 13-14	mwdc	t	no	"0 us" stated in IR PHY char. Table irrational though is ns values not zero. Note Tx PLCPD & RFD statement: "Meet RxTx turnaround time"	Insert correct (non-zero absolute) numeric quantity four places in table/ correct ref. In PLCPDelay "Value" statement (not zero)	Declined. Zero is not an error in representing a very small value. It is a logical value representing the physical possibility of real implementations. The standard requirement is on the combination of these zero values with other values in the table.