

Seq. #	Clause number	your voter's ID code	Cmnt type E, e, T, t	Part of NO vote	Comment/Rationale	Recommended change	Disposition/Rebuttal
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Results of LMSC Ballot on Draft Standard 802.11 D5.0

Resolutions for Comments on Clause 6

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1	6.1.2 5.4.3.3 8.x.x.x	MT	t		<p>ref: MT_8</p> <p>Clarification should be added to state what happens in the case of an access point which supports both 'clear mode' and WEP mode. Specifically:</p> <p>Can both modes be simultaneously supported? How are multicasts handled - sent twice once in the clear and again encrypted with WEP?</p>	<p>Both methods must be able to be simultaneously supported since WEP is optional and compliance criteria is in the clear.</p> <p>Therefore, in order to reduce overhead, the standard ought to state that all multicasts will be sent in the clear and that WEP stations must also receive and not reject these broadcasts based on WEP bit.</p>	<p>Cross-Section Issue Section -5 C5-33 Adopted by adding a WEP Capability bit. Proposed solution in Section 7 Mike Fischer</p>
2	6.1.2 5.4.3.3 8.x.x.x	MT	T		<p>ref: MT_9</p> <p>A potential security problem exists in the case where a station can support both/several authentication methods.</p> <p>Consider the 'obvious' case of a wireless access point operating as a repeater. In this situation, the repeater associates to an access point connected to the distribution system using the WEP authentication method. A mobile station associates to the repeater using the 'clear' method. If the repeater forwards the packets from the mobile station using the WEP encryption, then a possible network infringement exists. A similar scenario is two stations associated to the</p>	<p>It seems there should be a strong line formed which allows only a single authentication method allowed by the standard.</p> <p>-or-</p> <p>At the very least (referring back to the previous comment) the user ought to be informed whether the standard allows for authentication method translation and the standard should provide the hooks for enabling or disabling this translation via a MIB variable.</p> <p>-or-</p>	<p>Part of the solution as above Second part of solution declined since a Wireless repeater is not defined in the standard Section C5-34</p>

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					same ESS. One station uses 'clear' and the other uses WEP. If both associated to the same AP, the AP must perform the clear-WEP or WEP-clear translation providing a potential breach. The same situation exists when they are associated to different APs.	remove authentication from the standard.	
3	6.1.3 9.8 Annex A.4.4.1 PC8.2	GMG	T	Y	<p>The MSDU ordering provisions have been included in this standard to provide an optional alternative for those applications that do require strictly ordering service, for those cases where the type of frame reordering introduced by the Power Management buffering provisions will cause a problem.</p> <p>The intent of this provision was to have an alternative available, but it would be an option that would not affect the normal implementation. However the PICS does not list this provision as optional.</p> <p>Therefore these sections should be deleted, or it should be made clear in the text that this is optional and not mandatory functionality.</p>	<p>Delete sections 6.1.3, 9.8 and PC8.2 in Annex. A.</p> <p>OR</p> <p>Mark this functionality as optional.</p>	<p>Accept</p> <p>Add word "optional" in 6.1.3 "If a higher layer protocol using the Asynchronous Data Service cannot tolerate this possible reordering, the optional StrictlyOrdered Service class should be used"</p> <p>Change in PC8.2 to "O"</p> <p>Changes Done in C6</p>
4	6.1.3 9.8 Annex A.4.4.1	MAF	T	Y	<p>The strictly ordered service class was included in this standard to provide an alternative method to handle those cases where the type of frame reordering possible when using Power Management buffering might cause a problem for a higher layer protocol</p> <p>The intent of this provision was to provide a strictly ordered alternative for the applications which may require one, but not to make this facility mandatory for all implementations. Unfortunately the cited sections and the PICS do not list this facility as optional.</p>	<p>Change PC8.2 from status "M" to status "O". Add a sentence to 6.1.3 and 9.8 to indicate the strictly ordered service is optional.</p> <p>Note that, in 6.2.1.3, the transmission status of "unavailable service class" is already specified to be returned if strictly ordered service is requested but is not available.</p>	<p>Accept</p> <p>Add word "optional" in 6.1.3 "If a higher layer protocol using the Asynchronous Data Service cannot tolerate this possible reordering, the optional StrictlyOrdered Service class should be used"</p> <p>Change in PC8.2 to "O"</p> <p>Changes Done in C6</p>
5	6.1.3	JMZ	t		It is not at all clear to me that StrictlyOrdered service class precludes simultaneous use of power management.	Unless the group feels that having to buffer multideestination traffic longer is	<p>Open for discussion-</p> <p>The strictly ordered class was</p>

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					Since multideestination frames are buffered until the next DTIM, one implementation may push them ahead of directed MSDUs for a particular station, but it seems that multideestination traffic could always be deferred until after directed traffic has been delivered. Further, there is no way (in principle) for a STA to know whether it is going to <i>receive</i> StrictlyOrdered traffic so it can avoid the problem. Transmitting StrictlyOrdered frames is not troublesome.	too onerous a burden to place on an AP, delete the restriction that forbids Power Management in stations receiving Strictly Ordered service data.	introduced to avoid complexity
6	6.1.3 7.1.3.1. 10 9.8	MT	T		<p>ref: MT_14</p> <p>The strictly order service class does not accomplish the necessary goals. The current definition allows for a STA only to order its transmitted packets. The requirement is that the received packets maintain order. What is needed is a method for a station to identify to all other stations of this requirement.</p> <p>See also MT_15</p>	<p>During the AUTHENTICATION process (since authentication is common among infrastructure and IBSS networks, and association is not), additional information such as capability and requirements should be exchanged. At this time, a STA requiring that its incoming frames be in order, would identify this requirement. In this way, all frames from each communicating station will be in order.</p>	<p>Decline</p> <p>No receive request primitive to specify strictly ordered class at the MAC layer</p>
7	6.1.3 7.1.3.1. 10	MT	T		<p>ref: MT_14</p> <p>The strictly order service class does not accomplish the necessary goals. The current definition allows for a STA only to order its transmitted packets. The requirement is that the received packets maintain order. What is needed is a method for a station to identify to all other stations of this requirement.</p> <p>See also MT_15</p>	<p>During the AUTHENTICATION process (since authentication is common among infrastructure and IBSS networks, and association is not), additional information such as capability and requirements should be exchanged. At this time, a STA requiring that its incoming frames be in order, would identify this requirement. In this way, all frames from each communicating station will be in order.</p>	<p>Decline</p> <p>No receive request primitive to specify strictly ordered class at the Mac layer</p>
8	6.1.3 9.8 Annex A.4.4.1	WD	T	Y	The MSDU ordering provisions were included in this standard to provide an optional alternative method for those cases where the type of frame reordering introduced by the Power Management buffering	Delete sections 6.1.3, 9.8 and PC8.2 in Annex. A. OR Mark this functionality as optional.	<p>Accept</p> <p>Add word "optional" in 6.1.3 "If a higher layer protocol using</p>

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	PC8.2				<p>provisions would yield a problem. Partly this statement was meant to end discussions on the question whether the re-ordering characteristics would comply to 802 frame reordering requirements.</p> <p>The intend of this provision was to have an alternative available, but it would be an option that would not affect the normal implementation. However the subject sections and the PICS does not list this provision as optional.</p> <p>Last thing I heard was that 802 is changing its requirement in this respect. Therefore these sections should be deleted, or at least it should be made clear in the text that this is optional and not mandatory functionality.</p>		<p>the Asynchronous Data Service cannot tolerate this possible reordering, the <u>optional</u> StrictlyOrdered Service class should be used"</p> <p>Change in PC8.2 to "O"</p> <p>Changes done to C6</p>
9	6.1.3 9.8 Annex A.4.4.1	MAF	T	Y	<p>The strictly ordered service class was included in this standard to provide an alternative method to handle those cases where the type of frame reordering possible when using Power Management buffering might cause a problem for a higher layer protocol</p> <p>The intent of this provision was to provide a strictly ordered alternative for the applications which may require one, but not to make this facility mandatory for all implementations. Unfortunately, the cited sections and the PICS do not list this facility as optional.</p>	<p>Change PC8.2 from status "M" to status "O". Add a sentence to 6.1.3 and 9.8 to indicate the strictly ordered service is optional.</p> <p>Note that, in 6.2.1.3, the transmission status of "unavailable service class" is already specified to be returned if strictly ordered service is requested but is not available.</p>	<p>Accept</p> <p>Add word "optional" in 6.1.3 "If a higher layer protocol using the Asynchronous Data Service cannot tolerate this possible reordering, the <u>optional</u> StrictlyOrdered Service class should be used"</p> <p>Change in PC8.2 to "O"</p> <p>Changes done to C6</p>
10	6.2.1	TLP	e		There is no 6.2.2, so the tri-level 6.2.1 is unnecessary and misleading.	Remove the ".1" from the third level of each 6.2.1xxx reference.	Editorial - Decline
11	6.2.1.2	DLP	t		The reception status parameter indicates success or failure of the incoming frame(s). However, according to the "When Generated" section, frames are reported only when successful. What does failure mean?	Clarify the meaning of failure for the reception status parameter.	Clarification- could be used in promiscuous mode

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12	6.2.1.2	TLP	e		"incoming" refers to an active process, not an historic event. More to the point, it does not refer to an "already incomed" frame (to carry the English mis-use to its logical conclusion).	Change "incoming" to "received".	Editorial - Accepted Already done
13	6.2.1.3	DLP	e		The standard 802 nomenclature of MAUNITDATA.confirm is replaced by MAUNITDATASTATUS.indication. Was this intentional?	As I do not know the rationale for this choice, no change may be required.	Question
14	6.2.1.3	DLP	e		The last paragraph of this section is repeated twice.	Delete the repeated paragraph.	Editorial - Accepted Already Done
15	6.2.1.3	JMZ	e		Editing error	Delete extra copy of last paragraph	Editorial - Accepted Already done
16	6.2.1.3	TLP	t		The error occurs when the specified limit would otherwise be exceeded.	Change "is reached" to "would otherwise be exceeded".	Editorial - Accepted Already done
17	6.2.1.all	TLP	e		A uniform syntax should be adopted for enumeration constant values. In some places this standard uses concatenated words, each starting with a capital letter. In other places, sometimes in the same sentence, space-separated or hyphen-separated words without initial capitals are used. The same symbolic constant is sometimes referenced both ways.	Adopt a uniform representation for such symbolic enumeration constants. Concatenated words with an initial capital letter on each word and acronyms all in capital letters seems to be the dominant usage in this draft. Be consistent.	Editorial- Accepted Already Done