IEEE P802.15
Wireless Personal Area Networks

Project	IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs)
Title	**D00 running comment resolution**
Date Submitted	[14 March, 2005]
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Re:	[]
Abstract	[This document is a record of comment resolutions for draft D00 of 802.15.3b.]
Purpose	[To provide a record of the comment resolutions for draft D00 of 802.15.3b.]
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1. Comment resolution in Atlanta

1.1 Monday, 14 March 2005

Starting comments: 192 Technical, 155 Editorial, 347 total from 27 commenters. The commenters are 14 no voters and 13 yes voters.

Topics

Annex F (8) - 67, 224, 274, 275, 288, 291, 292, 321
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Dependent (3) - 262, 263, 345
DEV INFO (1) - 193
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Vendor Specific (1) - 178

Big and easy: Start, Stop, Scan, Multicast, Handover
Moderate: Stream, Annex F, SEC, Association, MAC SAP, Priority, SNAP
Hard: Implied-ACK, Relinquish, No PNC, Orphan, Mux, Guardtime, MLME, PM
Hard work: PAR, Scope
Rapid Fire: ASIE, Announce, BSID, CAP, Contributors, Dependent, DEV INFO, Disassociate, Dly-ACK, FCSL, Misc, PIB, Piconet Services, PLME, Reset

Tues AM1 - Start, Stop, Scan
Tues AM2 - Implied-ACK/Relinquish
Tues PM1 - Rapid Fire
Tues PM2 - Annex F, Association
Tues Eve - Ad-Hoc (left over from Tues)
Wed AM1 - No TG3b, Architecture instead, Ad Hoc possible

Wed AM2 - TG3a + plenary
Wed PM1 - Multicast, Handover
Wed PM2 - No PNC, Orphan
Thurs AM1 - No TG3b
Thurs AM2 - Guardtime, PM, Mux
Thurs PM1 - MLME, MAC SAP, SNAP
Thurs PM2 - Stream, Priority.

Resolutions:

CID 93: ACCEPT IN PRINCIPLE. Add the following contributors: Allen Heberling, Knut Odman, Bill Shvodian, John Sarallo, Dan Grossman, James Gilb, Charlie Mellone, Peter Johansson, John Barr, Mike Rudnick, Colleen McGinn, Mark Schrader, Karl Heubaum, Ian Gifford, Jim Allen, Larry Telle, Julian Hall

CID 185: ACCEPT IN PRINCIPLE. Resolve as indicated in CID 93.

1.2 Tuesday, 15 March, 2005 (Beware the Ides of March)

Called into order at 8:05 am, EST.

CID 300: ACCEPT IN PRINCIPLE. Add to 6.3.2.2 following "The primitve parameters …" this text "All of the piconets found during the scan will be reported in separate elements of the PiconetDescriptionSet, even if more than one piconet is found on a given channel."

CID 91: Withdrawn 3/15/05, this will be reported in Start, not Scan.

CID 209: Withdrawn 3/15/05, this will be reported in Start, not Scan.

CID 96: Should be with start, handle later.

CID 95: ACCEPT IN PRINCIPLE. Delete the two reason codes, Add MLME-SCAN.indication with the same parameters as MLME-SCAN.confirm but without ReasonCode or ResultCode.

CID 188: ACCEPT IN PRINCIPLE. Resolve as indicated in CID 95

CID 316: Withdrawn 3/15/05, this will be reported in Start, not Scan.

CID 175: ACCEPT IN PRINCIPLE. Add a MAC PIB value named "MACPIB_AllowedChannelSet", Octets is variable, Definition is "A set of channel indices, one for each channel that the MAC is allowed to use for scanning and starting piconets.", Access is "read/write"

CID 301: Withdrawn 3/15/05, this will be reported in Start, not Scan.

CID 317: Withdrawn 3/15/05, this will be reported in Start, not Scan.

CID 189: ACCEPT IN PRINCIPLE. Add a ReasonCode "NO_CHANNELS_AVAILABLE" to be returned when there aren't any clear channels to start a piconet. Delete "ALREADY_ASSOCIATED".

CID 203: ACCEPT IN PRINCIPLE. Add this to the editorial note

— PNCDesMode - In Table 33
— PNCCapable - Table 33
— MaxCTRqB - Table 33
— SupportedDataRates - Table 92, This is PHYPIB_DataRateVector

— PreferredFragmentSize - In Table 92 of draft, PHYPIB_PreferredFragmentSize

— ATP - Add MACPIB_DesiredATP to Table 34, Octets = 2, Definition = "The ATP value to send in an Association Request command", Access is "Read/Write".

— PNID - Add MACPIB_PNID to Table 34, Octets = 2, Definition = "If associated with a piconet, the PNID of that piconet."

— ChannelIndex - In Table 92, PHYPIB_CurrentChannel

— SECID - Set with MLME-MEMBERSHIP-UPDATE (Check that Clause 9 doesn't assume this is passed in the Start command.)

— CapData - Add to Table 33, MACPIB_CAPData, Octets = 1, Definition = "Indicates the initial setting of the CAP Data Allowed field in the beacon as described in 7.3.1.1. 0x00 = Data frames are not allowed in the CAP, 0x01 = Data frames are allowed in the CAP", Access = "Read/Write"

— CapCommand - Add to Table 33, MACPIB_CAPCommand, Octets = 1, Definition = "Indicates the initial setting of the CAP Commands Allowed field in the beacon as described in 7.3.1.1. 0x00 = Commands are not allowed in the CAP, 0x01 = Commands are allowed in the CAP", Access = "Read/Write"

— CapAssociation - Add to Table 33, MACPIB_CAPAssociation, Octets = 1, Definition = "Indicates the initial setting of the CAP Association Allowed field in the beacon as described in 7.3.1.1. 0x00 = Association commands are not allowed in the CAP, 0x01 = Association commands are allowed in the CAP", Access = "Read/Write"

— MaxTxPower - Add to Table 33, MACPIB_PiconetMaxTXPower, Octets = 1, Definition = "The maximum allowed power for transmission during certain times in the superframe as described in 7.3.1.1.", Access = "Read/Write"

— MCTAUsed - Add to Table 33, MACPIB_MCTAUsed, Octets = 1, Defintion = "The intial setting of the MCTA Used field as described in 7.3.1.1.", Access = "Read/Write"

— MCTAAllocationRate - Determined by the MAC.

CID 239: ACCEPT IN PRINCIPLE. Resolve as indicated in CID 189.

CID 302: ACCEPT IN PRINCIPLE. Resolve as indicated in CID 175.

CID 210: ACCEPT IN PRINCIPLE. Add the ReasonCode as indicated in CID 189, Add the sentence "If the MAC determines that no channels are available, it will respond with an MLME-START.confirm with a ResultCode of FAILURE and ReasonCode of NO_CHANNELS_AVAILABLE." to the end of the subclause.

CID 92: ACCEPT IN PRINCIPLE. Resolve as indicated in CID 210.

CID 177: ACCEPT IN PRINCIPLE. Resolve as indicated in CID 175.

Meeting recessed at 10:03 am EST.

Meeting called to order at 10:32 am EST.

CID 190: Withdrawn, 3/15/05

CID 240: ACCEPT IN PRINCIPLE. Add "HANDOVER_FAILED", this occurs with a ResultCode "FAILURE", see resolution of CID 261.

CID 261: ACCEPT IN PRINCIPLE. Replace:

"The FCSL initiates the handover process using MLME-STOP.request with RequestType set to "HANDOVER". This process is illustrated in Figure94a."

With:

"The FCSL initiates the handover process using MLME-STOP.request with RequestType set to HANDOVER. This process is illustrated in Figure94a. The FCSL can choose the target DEV or DEVs for the handover or allow the PNC to determine the target DEV as previously described. If the handover completes successfully the primitive MLME-STOP.confirm is generated with a Result-Code set to SUCCESS. If the handover does not successfully complete within the time period specified by the FCSL, the PNC shall perform the PNC shutdown process defined by [xref 8.2.7]. After completion of the shutdown process, the primitive MLME-STOP.confirm is generated with the ResultCode set to FAILURE and the ReasonCode set to HANDOVER_FAILED."

CID 214: ACCEPT IN PRINCIPLE.: Resolve as indicated in CID 261.

CID 264: Accept

Implied-ACK/Relinquish

Relinquish notes:

1. Relinquish becomes a bit in the header, the next owner is the DestID.

2. Can only relinquish to DEVs that are listening. At a minium, these are the DEVs that are the DestID of the CTA (including BcstID, McstID and McstGrpID).

3. A DEV that gets transmit control from the SrcID of a CTA can only relinquish it back to the SrcID of the CTA.

4. More Data bit in Imm-ACK indicates that a DEV has data to send in the reverse direction.

5. Add a Capability bit (somewhere) that indicates if a DEV supports this. Possibly could do relinquish only to a DEV that sets the More Data bit in an Imm-ACK frame.

6. Need to determine the timeout mCTASharingTimeout (possibly PHY dependent).

7. If the Target does not know the boundaries of the CTA, it shall not use the facility for that CTA and the time in the CTA is lost.

8. If the Target DEV with transmit control does not have data to send, it should relinquish the time? Perhaps Annex F text to describe how it is used?

Can the Target DEV respond with a Dly-ACK burst right away? We should consider this case.

Implied-ACK notes:

Do we allow implied ACK with third party under relinquish? If Implied-ACK is allowed, this should be allowed. (i.e. DEV-2 gets TX control and runs implied-ACK with DEV-3).

Do we allow third party implied-ACK?

Do we have implied-ACK at all?

Table until Wed. PM1, start now with Multicast

Multicast:

CID 172: ACCEPT IN PRINCIPLE. Add a crossreference to 7.1 here and add this to subclause 7.1, "An individual MAC address is a MAC address with the group bit set to zero as defined in IEEE Std. 802-2001.

CID 315: Withdrawn 3/15/05

CID 250: Accept.

Meeting receseed at 12:31 am EST.

Meeting called to order at 1:30 EST.

CID 268: changed to Technical. Accept.

CID 96: ACCEPT IN PRINCIPLE. See also CIDs 210 and 189

    PICONET_DETECTED - This becomes NO_CHANNELS_AVAILABLE
    ALREADY_STARTED - This is ALREADY_PNC
    CHANNEL_INTERFERENCE - This become NO_CHANNELS_AVAILABLE
    ALREADY_ASSOCIATED - Deleted as indicated in CID 189.

Various security: Do we do adequate duplicate detection to protect upper layers that do not do duplicate detection? The DEVs should use the SFC to assist them in detecting these. Add text to 9.3.6 that indicates that the device checks the SFC with a sliding window that is at least as large as Dly-ACK buffer. Is SFC per SECID? This needs to be clarified.

CID 125: Accept

CID 103: ACCEPT IN PRINCIPLE. Change to "This includes all of the regular DEVIDs, the PNCID and the NbrIDs but not the reserved IDs, the BcstID, McstID or the UnassocID, ..."

CID 308: ACCEPT IN PRINCIPLE. Add the Multicast Group IE to Tables 51 with PNC allowed to request - "Shall not Request" and DEV allowed to request "May request" and 52 with DEV receives request from DEV - "Shall ignore", DEV receives request from PNC - "Shall ignore" and PNC receives request from DEV - "Shall ignore", and to Table 53 with PNC able to send - "May send" and DEV able to send - "Shall not send"

Rapid Fire: ASIE, Announce, BSID, CAP, Contributors, Dependent, DEV INFO, Disassociate, Dly-ACK, FCSL, Misc, PIB, Piconet Services, PLME, Reset

CID 281: Table, JS and JPKG to work on text.

CID 156: REJECT. The ASIE Request and Response commands result in MAC behavior with a PNC that can optionally support. Because the behavior of the DEV and PNC with respect to these commands is defined in the standard, it is appropriate to include these as commands. The Vendor Specific commands do not have a defined behavior in the standard.

CID 332: REJECT. The ASIE Request and Response commands result in MAC behavior with a PNC that can optionally support. Because the behavior of the DEV and PNC with respect to these commands is defined in the standard, it is appropriate to include these as commands. The Vendor Specific commands do not have a defined behavior in the standard.

CID 254: ACCEPT. The ASIE Request and Response commands result in MAC behavior with a PNC that can optionally support. Because the behavior of the DEV and PNC with respect to these commands is

defined in the standard, it is appropriate to include these as commands. The Vendor Specific commands do not have a defined behavior in the standard.

CID 182: REJECT. The ASIE Request and Response commands result in MAC behavior with a PNC that can optionally support. Because the behavior of the DEV and PNC with respect to these commands is defined in the standard, it is appropriate to include these as commands. The Vendor Specific commands do not have a defined behavior in the standard.

CID 159: Check for text suggested from previous Sponsor ballot. One option is to restart the backoff counter at the beginning of each CAP without doubling the window.

Meeting recessed at 3:30 pm, EST.

Meeting called to order at 4:00 pm EST

Topics: Annex F, Association and then Rapid Fire as able.

CID 67: ACCEPT.

CID 224: ACCEPT IN PRINCIPLE. In F.1.2, Change "TU" to be "CTRq TU field" and add "as described in 7.5.6.1." to the first reference. Change "inter-CTA spacing" to be "MaxTransmitDelay" (in all of Annex F) and add "as described in 6.3.13." to the first reference. In Table F.3, change to 2 allocations with 4 TUs and 2 allocation with 3 TUs. In F.1.3, change MaxCTASpacing to be MaxTransmitDelay everywhere. Add to F.1.4 "The MaxCTASpacing calculated by the PNC will not always be equal to the MaxTransmitDelay desired by the DEV. However, the MaxCTASpacing will always be less than or equal to the MaxTransmitDelay desired by the DEV." In F.1.5, use "A SourceDataRate of 8 Mb/s." and "A DesiredDataRate 10 Mb/s" and "The MaxTransmitDelay is 5 ms", "A high precedence stream", "MaxRetries of 4" and a "MaxDataFrameSize of 1000 octets". Change to "ACK policy is Imm-ACK." (p. 142, l3). In F.1.6, change "Data Rate" to "AvailableDataRate" (or whatever ends up in the MLME).

CID 321: ACCEPT IN PRINCIPLE. Change the Annex to be Annex E.

CID 275: ACCEPT IN PRINCIPLE. Change to MaxDataFrameSize

CID 292: ACCEPT IN PRINCIPLE. Add the indicated text and also an ReasonCode "TRANSMIT_DELAY_UNSUPPORTED"

CID 288: ACCEPT IN PRINCIPLE. Delete "actual"

CID 291: ACCEPT.

CID 274: ACCEPT.

CID 216: ACCEPT.

CID 158: ACCEPT IN PRINCIPLE. Remove the second Association Response command. The second Association Request command is required for backward compatibility with 802.15.3-2003. (Note, JS and JPKG will provide more information to revisit this issue).

CID 217: ACCEPT (see comment on CID 158).

CID 334: ACCEPT IN PRINCIPLE. Remove the second Association Response command. The second Association Request command is required for backward compatibility with 802.15.3-2003.

CID 2: ACCEPT IN PRINCIPLE. Remove the second Association Response command. The second Association Request command is required for backward compatibility with 802.15.3-2003.

CID 241: ACCEPT.

Committee recessed at 6:01 pm EST.

1.3 Wednesday, 16 March, 2005

Called to order at 1:34 EST.

Schedule for the rest of the meeting.

Wed PM1 - Handover, Implied-ACK, and Rapid Fire as available.
Wed PM2 - No PNC, Orphan
Thurs AM1 - No TG3b
Thurs AM2 - Guardtime, PM, Mux
Thurs PM1 - MLME, MAC SAP, SNAP
Thurs PM2 - Stream, Priority.
Thurs Eve. - Whatever is left.

Announce (1) - 281
CAP (6) - 159, 3, 335, 86, 328, 8
Dependent (3) - 262, 263, 345
DEV INFO (1) - 193
Disassociate (2) - 77, 192
Dly-ACK (4) - 5, 340, 164, 7
FCSL (1) - 168
Guardtime (2) - 230, 90
Handover (8) - 11, 211, 212, 213, 243, 256, 261, 318
Implied-ACK (15) - 6, 69, 85, 155, 225, 226, 227, 228, 229, 271, 314, 322, 324, 325, 331
MAC SAP (8) - 83, 204, 205, 206, 207, 286, 287, 311
Misc (10) - 218, 222, 258, 267, 278, 280, 293, 296, 299, 312
MLME (13) - 13, 14, 23, 29, 94, 154, 157, 186, 195, 237, 327, 330, 333
Mux (4) - 233, 66, 298, 236
No PNC (6) - 166, 1, 295, 234, 64, 231
Orphan (5) - 294, 65, 235, 232, 27
PAR (3) - 26, 30, 184
PIB (1) - 310
Piconet Services (2) - 21, 181
PLME (1) - 309
PM (3) - 202, 273, 306
Priority (3) - 24, 84, 304
Relinquish (6) - 161, 208, 219, 323, 329, 337
Reset (1) - 170
Scope (3) - 9, 10, 28
SEC (8) - 81, 165, 179, 180, 223, 265, 303, 341
SNAP (3) - 76, 183, 305
Stream (21) - 78, 79, 80, 82, 87, 88, 89, 194, 196, 197, 198, 199, 200, 220, 221, 247, 248, 249, 284, 285, 289, 290
Vendor Specific (1) - 178

CID 178: ACCEPT IN PRINCIPLE. Add a PIB entry to table 32, MACPIB_AssocVendorSpecificIE, octets = variable, Description = "A Vendor Specific IE, as described in 7.4.17, that is sent in the Association Response command, as described in 7.5.1.2, when DEV is acting as PNC."

CID 212: ACCEPT IN PRINCIPLE. Copy Figure 94 to Figure 94a and add an MLME-STOP.cfm just prior to the MLME-NEW-PNC.ind.

CID 11: ACCEPT IN PRINCIPLE. Add NumHandoverTargetDEV to Table 3f with type integer, Valid range 0-mMaxNumValidDEVs, Description "The number of DEVs in the HandoverTargetList."

CID 211: ACCEPT IN PRINCIPLE. Change "shall" to "may" on page 152 and either add back in all the old commands as well as the Multicast Group IE exchange or create a new MSC that has all of these and reference it here. Change the bubble that was FCSL-FCSL optional handover to be "Optional security information transfer", Delete Figure 149 and associated text as this is covered by Figure 148 and the Handover MSC.

CID 213: ACCEPT IN PRINCIPLE. Refer to a new MSC that has the optional and mandatory handover items shown. See CID 211.

CID 243: ACCEPT.

CID 256: ACCEPT IN PRINCIPLE. Resolve as indicated in CID 211.

CID 318: ACCEPT IN PRINCIPLE. Add "PNC_BUSY" to Association response, Stream response, Multicast Configuration response and SPS Configuration response primitves.

Implied-ACK notes:

Do we allow implied ACK with third party under relinquish? If Implied-ACK is allowed, this should be allowed. (i.e. DEV-2 gets TX control and runs implied-ACK with DEV-3).

Do we allow third party implied-ACK? With the new relinquish, this isn't really necessary, so we can delete it.

Do we have implied-ACK at all? If we have it, it would be optional. Implied ACK doesn't require a capability field because the DEV will just ACK back.

Summary:

Relinquish is in, optional with a capability bit.

Implied ACK is between two DEVs only, it is optional without a capability bit.

Rapid Fire: ASIE, Announce, BSID, CAP, Contributors, Dependent, DEV INFO, Disassociate, Dly-ACK, FCSL, Misc, PIB, Piconet Services, PLME, Reset

CID 86: Withdraw 3/16/05

CID 263: ACCEPT.

CID 262: ACCEPT.

Meeting recessed at 3:30 pm EST for book signing

Meeting called to order at 4:20 pm EST.

CID 345: ACCEPT IN PRINCIPLE. Add three new parameters, MinDependentSuperframePercent, type Integer, range 1-100, Definition "The minimum percent of the superframe requested as a CTA for the dependent piconet, as described in 8.2.5 and 8.2.6. This parameter is ignored if the DEV is starting an independent piconet." DesiredDependentSuperframePercent, type Integer, range 1-100, Definition "The desired percent of the superframe requested as a CTA for the dependent piconet, as described in 8.2.5 and 8.2.6. This param-

eter is ignored if the DEV is starting an independent piconet." and AllocatedSuperframePercent, type integer, range 0-100, defintion "The percent of the superframe allocated to the new dependent piconet. If the channel time request was rejected, the value shall be set to zero. This parameter is ignored if the DEV is starting and independent piconet." Add the first to MLME-START.request and the second to MLME-START.confirm. Add a paragraph to the beginning of subclause 6.3 that "The MLME interface models a single piconet environment; support for multiple piconets is implementation-dependent."

CID 193: ACCEPT IN PRINCIPLE. Delete RequestType parameter and "the BcstID" from QueriedDEVID. Also make this edit to Security-Info-Request.

CID 77: ACCEPT IN PRINCIPLE. Add it back in with two parameters, ResultCode, SUCCESS, FAILURE and ReasonCode REQUEST_TIMEOUT, CURRENTLY_PNC, NOT_ASSOCIATED.

Also, put in MLME-MEMBERSHIP-UPDATE.confirm with two parameters, ResultCode, SUCCESS, FAILURE and ReasonCode NOT_ASSOCIATED, TARGET_UNAVAILABLE.

Add SECURITY-MESSAGE.confirm with two parameters, ResultCode, SUCCESS, FAILURE and ReasonCode NOT_ASSOCIATED, TARGET_UNAVAILABLE, REQUEST_TIMEOUT.

Add MULTICAST-RX-SETUP.confirm with two parameters, ResultCode, SUCCESS, FAILURE and ReasonCode NOT_ASSOCIATED, RESOURCES_UNAVAILABLE, REQUEST_TIMEOUT, SOURCE_UNAVAILABLE, UNKNOWN_STREAM.

CID 192: ACCEPT IN PRINCIPLE. Resolve as indicated in CID 77.

CID 164: ACCEPT IN PRINCIPLE. After the fifth paragraph, add the following note: "A DEV shall not send a Dly-ACK frame in response to a frame with the ACK Policy set to Dly-ACK request for which the FCS check fails." See also CID 5, 7, 164, 340.

CID 7: ACCEPT IN PRINCIPLE. After the fifth paragraph, add the following note: "A DEV shall not send a Dly-ACK frame in response to a frame with the ACK Policy set to Dly-ACK request for which the FCS check fails." See also CID 5, 7, 164, 340.

CID 5: ACCEPT IN PRINCIPLE. After the fifth paragraph, add the following note: "A DEV shall not send a Dly-ACK frame in response to a frame with the ACK Policy set to Dly-ACK request for which the FCS check fails." See also CID 5, 7, 164, 340.

CID 340: ACCEPT IN PRINCIPLE. After the fifth paragraph, add the following note: "A DEV shall not send a Dly-ACK frame in response to a frame with the ACK Policy set to Dly-ACK request for which the FCS check fails." See also CID 5, 7, 164, 340.

Totals comments left: Technical 124, Editorial 150.

Meeting recessed at 6:11 pm EST.

1.4 Thursday, 17 March, 2005

Meeting called to order at 10:30 am EST.

Orphan (5) - 294, 65, 235, 232, 27

CID 294: ACCEPT IN PRINCIPLE. This would be better answered in the context of Mesh networking, so the task group will take this to TG5 as an issue to be solved with meshing. Dan Grossman will start confer-

ence calls bi-weekly to discuss how to put all of the 802.15.3 issues into an appropriate Mesh solution that does solve this issue. TG3b will also have at least one 2 hour session joint with TG5 for the purpose of discussing these issues.

CID 65: ACCEPT IN PRINCIPLE. Resolve as indicated in CID 294

CID 235: ACCEPT IN PRINCIPLE. Resolve as indicated in CID 294.

CID 232: ACCEPT IN PRINCIPLE. Resolve as indicated in CID 294.

CID 27: ACCEPT IN PRINCIPLE. Resolve as indicated in CID 294.

No PNC (6) - 166, 1, 295, 234, 64, 231

CID 295: ACCEPT IN PRINCIPLE. This would be better answered in the context of Mesh networking, so the task group will take this to TG5 as an issue to be solved with meshing. Dan Grossman will start conference calls bi-weekly to discuss how to put all of the 802.15.3 issues into an appropriate Mesh solution that does solve this issue. TG3b will also have at least one 2 hour session joint with TG5 for the purpose of discussing these issues.

CID 166: ACCEPT IN PRINCIPLE. Resolve as indicated in CID 295.

CID 1: ACCEPT IN PRINCIPLE. Resolve as indicated in CID 295.

CID 234: ACCEPT IN PRINCIPLE. Resolve as indicated in CID 295.

CID 64: ACCEPT IN PRINCIPLE. Resolve as indicated in CID 295.

CID 231: ACCEPT IN PRINCIPLE. Resolve as indicated in CID 295.

Thurs AM2 - Guardtime, PM, Mux
Thurs PM1 - MLME, MAC SAP, SNAP
Thurs PM2 - Stream, Priority.
Thurs Eve. - Whatever is left.

Motion to change the agenda: Do final report to 3:00 to 3:30 instead of the current time. The time currently allocated for the final report will replaces with comment resolution.

Moved by John Barr, second by Peter Johansson, No discussion, Motion carried by unanimous consent.

CID 230: REJECT. Although this would work for guard time, the standard specifies that only the PNC calculates and allows for guard time, so this proposal would violate backward compatibility.

CID 90: REJECT. Although this would work for guard time, the standard specifies that only the PNC calculates and allows for guard time, so this proposal would violate backward compatibility.

CID 273: ACCEPT IN PRINCIPLE. Option 1 with the following modifications. Add "NONE" for SUCCESS with no error code and add "DEV_IN_PS_MODE" which is given with SUCCESS for the ResultCode.

Meeting recessed at 12:35 pm EST.

Meeting called to order at 1:35 pm EST

Meeting recessed at 1:36 pm EST to allow time for TG4a confirmation vote.

Meeting called to order at 2:40 pm EST (following ice-cream break).

PM (3) - 202, 273, 306

CID 202: ACCEPT IN PRINCIPLE. Add text similar to what was in Clause 6 that describes the use of the MLME-PM-MODE-CHANGE.indication with regards to stream creation. 8.5.1.1 may be the best place for this or it may be 8.13.2.?.

CID 306: ACCEPT IN PRINCIPLE. Add a note that the MAC divides this number by the superframe duration and rounds it down to the next integer.

Mux (4) - 233, 66, 298, 236

CID 233: ACCEPT. Clause 6 will be clarified to indicate that the MAC SAP and MLME SAP model a single instance of a piconet and PAL, interfacing multiple subsytems is implementation-dependent in a layer above the MAC.

CID 66: ACCEPT. Clause 6 will be clarified to indicate that the MAC SAP and MLME SAP model a single instance of a piconet and PAL, interfacing multiple subsytems is implementation-dependent in a layer above the MAC.

CID 298: ACCEPT. Clause 6 will be clarified to indicate that the MAC SAP and MLME SAP model a single instance of a piconet and PAL, interfacing multiple subsytems is implementation-dependent in a layer above the MAC.

CID 236: ACCEPT. Clause 6 will be clarified to indicate that the MAC SAP and MLME SAP model a single instance of a piconet and PAL, interfacing multiple subsytems is implementation-dependent in a layer above the MAC.

Thurs PM1 - MLME, MAC SAP, SNAP
Thurs PM2 - Stream, Priority.

CID 157: ACCEPT IN PRINCIPLE. Clause 8 has the functional description over the air commands and the use of the MLME-SAP. The new description of the MLME-SAP is only the interface and not the functionality. Because of this, the MSCs work best in Clause 8. The resolution of other comments will place more description of the SAP usage in Clause 8, for example: CID 261 a nd CID 210.

CID 333: ACCEPT IN PRINCIPLE. Clause 8 has the functional description over the air commands and the use of the MLME-SAP. The new description of the MLME-SAP is only the interface and not the functionality. Because of this, the MSCs work best in Clause 8. The resolution of other comments will place more description of the SAP usage in Clause 8, for example: CID 261 a nd CID 210.

CID 186: ACCEPT IN PRINCIPLE. Move the paragraphs that make sense into Clause 8, keep text that is required in Clause 6.

CID 94: ACCEPT IN PRINCIPLE. Move the paragraphs that make sense into Clause 8, keep text that is required in Clause 6.

Comment resolution halted at 3:05 pm EST.
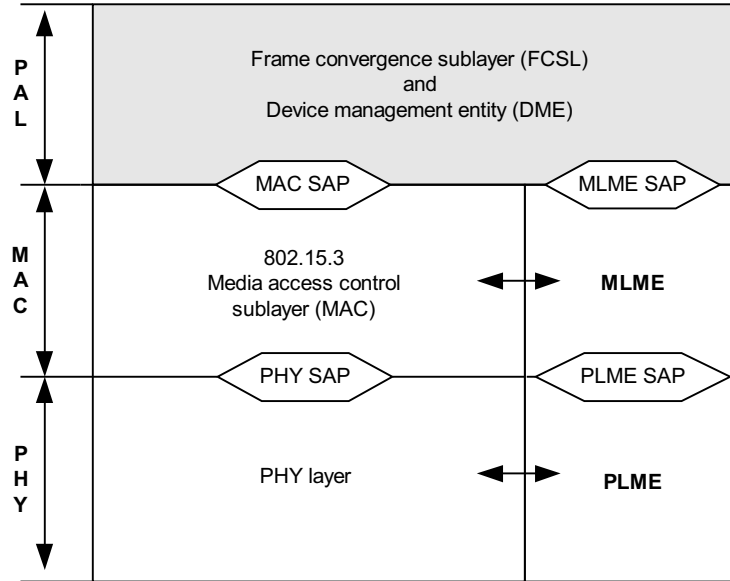
Meeting recessed at 3:48 pm EST.

Meeting called to order at 5:30 pm EST.

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Thurs PM1 - MLME, MAC SAP, SNAP
Thurs PM2 - Stream, Priority.

CID 154: ACCEPT IN PRINCIPLE. Replace the current model with the picture in 15-05-0151-04.

CID 29: ACCEPT IN PRINCIPLE. Replace the current model with the picture in 15-05-0151-04. Also, editorial text will be added to explain the changes and the reasons for them changes.

CID 23: ACCEPT IN PRINCIPLE. The original MLME interface was broken because the information that was required was not always kept in the same location for the primitives. In some primitive, it was assumed that the information was in the DME, in others the same information was assumed to be kept by the MLME. Modeling the SAP with SDL proved these deficiencies. However, it wasn't clear to the reader that this was the motivation for the change. New text will be added to the editorial instructions to describe the changes and the motivation for the changes. The entire subclause was deleted because attempting to provide editing instructions for the existing subclause would have made the resulting text un-readable.

CID 330: ACCEPT IN PRINCIPLE. Replace the current model with the picture in 15-05-0151-04.

CID 13: ACCEPT.

Meeting recessed at 6:07 pm EST.

Meeting called to order at 7:41 pm EST.

CID 237: ACCEPT IN PRINCIPLE. Delete "or exposed interface."

CID 195: KO will find example of 802 or OSI abstract interface that uses timers.

CID 184: Reject, the PAR doesn't require us to wait and we are not doing PHY specific modifications.

CID 26: Reject, the PAR doesn't require us to wait and we are not doing PHY specific modifications. 1

CID 286: ACCEPT IN PRINCIPLE. Replace "0-65 535", with "0-pMaxTransferUnitSize" 3

CID 287: JS to submit suggestion before Schaumburg. This is a first cut at the MLME. 5

```
MLME-ASYNC-ALLOCATE.request    (
                               RequestID,
                               TrgtID,
                               Precedence,
                               ACKPolicy,
                               MaxFrameSize,
                               KBytesRequested (2 bytes of encoding)
                               )

MLME-ASYNC-ALLOCATE.confirm    (
                               RequestID,
                               ResultCode, (SUCCESS, FAILURE)
                               ReasonCode
                               )

MLME-ASYNC-TERMINATE.request (
                               RequestID,
                               TrgtID
                               )

MLME-ASYNC-TERMINATE.confirm (
                               RequestID,
                               ResultCode, (SUCCESS, FAILURE)
                               ReasonCode
                               )
```

CID 204: ACCEPT IN PRINCIPLE. Change ConfirmTransmission to be ACKRequested. 34

CID 206: ACCEPT IN PRINCIPLE. Change ConfirmTransmission to be ACKRequested. 36

CID 207: ACCEPT IN PRINCIPLE. Change "for transmitting the MSDU .." to be "from when the MSDU is presented to the MAC SAP until the frame has finished transmission and the acknowledgement, if required, has been successfully received. If the transmission fails due to timeout, this field shall be set to the Transmit-Timeout value for this frame." and change the definition of TransmitTimeout to use the more precise definition. 38

CID 83: ACCEPT IN PRINCIPLE. Change ConfirmTransmission to be ACKRequested. 44

CID 311: ACCEPT IN PRINCIPLE. Resolve as indicated in CID 83. 46

CID 205: ACCEPT IN PRINCIPLE. Add UserPriority and reference Annex A.1. 48

Totals: Technical 83 left, Editorial 122 left. 50

Meeting adjourned at 9:30 pm, EST. 52