Document under Review: P802.16e/D7 **Ballot Number:** 0001037 **Comment Date**

Comment # 4013 **Comment submitted by:** Rainer Ullmann Member 2005/04/28

Comment Type Technical, Binding **Starting Page #** 13 **Starting Line #** 54 **Fig/Table#** 4a **Section** 6.3.2.1

The acceptance of contribution C802.16-05/192r4 (Accepted-modified Comment #3070) lead to a more methodic and standardized way to describe MAC header types. However, the new table 4a describing MAC header HT/EC field encodings, contains a reference to "(DL only) compressed MAPS". This is misleading ! Compressed and reduced maps do not use MAC headers (see 8.3.6.6/8.3.6.7 private/reduced maps for OFDM, 8.4.5.6/8.4.5.8 Compressed/optional reduced AAS private maps) as this table would imply, but have a completely different structure. However, their construction is such, that the bit fields corresponding to the position of the HT/EC fields in a MAC header (i.e. the first two bits of the first data byte) represent a combination which identifies it as compressed/reduced maps. This should be specifically noted in text below the table.
The table also contains ?? as references to tables/figures within the standard
Editorial instruction to include Table 4a is wrong (6.3.21 instead of 6.3.2.1)

Suggested Remedy

Replace :
[Insert new table into 6.3.21 as follows:]
by:
[Insert new table into 6.3.2.1 as follows:]

Change last entry in Table 4a and add footnote below according to:

1	1	DL only: compressed/reduced private MAP *		189,251c,e,305,308a
		UL only: Feedback MAC Header	20b-f	7h,j ,k

* Note: compressed and reduced private maps do not use MAC headers as defined in 6.3.2.1, however, the first two bits of these maps overlay with HT/EC fields and are always set to 0b11 to identify them as such (see sections 8.3.6.3,8..6.7, 8.4.5.6 & 8.4.5.8).

Proposed Resolution **Recommendation:** Superceded **Recommendation by**

See 4011.

Reason for Recommendation

Resolution of Group **Decision of Group:** Superceded

See 4011.

Reason for Group's Decision/Resolution

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** I) none needed

Editor's Questions and Concerns

Editor's Action Items

Document under Review: P802.16e/D7 **Ballot Number:** 0001037 **Comment Date**

Comment # 4018 **Comment submitted by:** Tal Kaitz Member 2005/04/28

Comment Type Technical, Binding **Starting Page #** 17 **Starting Line #** **Fig/Table#** 7a **Section** 6.3.2.1.2.1

The UL-Tx-Power field is sometimes defined as 7 bits and sometimes as 8 bits, with conflicting definitions of quantization:

In PHY channel report header it is 7 bits
In table 7a it is UL-Tx-Power is 8 bits
In table 7d it is UL-Tx-Power is 7 bits
In figure 20a it is 8 bits.

In table 7a description, the defined quantization for the "8"-bit field is –16.0 dB to 47.5 dB in units of 0.5 dB, which is actually 7-bit quantization. However the same field also as reference to section 11.1.1 in the base document which truely defines 8-bit quantization (-64dbm...63.5dbm in steps of 0.5dB).

Suggested Remedy

Align the UL-Tx-Power fields and quantization with the base document:

1) figure 20d: change size of 'UL-Tx-Power' field in figure 20d to 8 bits, at the expense of 1 reserved bit.

2) table 7d:
- Increase length of 'UL-Tx-Power' field in table 7d from 7 to 8 bits, at the expense of 1 reserved bit..
- Replace description of the field with:
  "UL Tx power level in dBm, for the burst that carries this Header (see section 11.1.1) ~~, from +63 to -64 in dBm in 1 dB steps~~. The maximum value ~~is~~ shall be reported for the burst."

3) remove text on page 17, lines 35-39.
4) remove the reserved bit from table 7a so that the number of bits in the table is byte-aligned.

Proposed Resolution **Recommendation:** Accepted **Recommendation by**

Align the UL-Tx-Power fields and quantization with the base document:

1) figure 20d: change size of 'UL-Tx-Power' field in figure 20d to 8 bits, at the expense of 1 reserved bit.

2) table 7d:
- Increase length of 'UL-Tx-Power' field in table 7d from 7 to 8 bits, at the expense of 1 reserved bit..
- Replace description of the field with:
  "UL Tx power level in dBm, for the burst that carries this Header (see section 11.1.1) ~~, from +63 to -64 in dBm in 1 dB steps~~. The maximum value ~~is~~ shall be reported for the burst."

burst.

3) remove text on page 17, lines 35-39.
4) remove the reserved bit from table 7a so that the number of bits in the table is byte-aligned.

Reason for Recommendation

Resolution of Group **Decision of Group:** **Accepted**

Align the UL-Tx-Power fields and quantization with the base document:

1) figure 20d: change size of 'UL-Tx-Power' field in figure 20d to 8 bits, at the expense of 1 reserved bit.

2) table 7d:
- Increase length of 'UL-Tx-Power' field in table 7d from 7 to 8 bits, at the expense of 1 reserved bit..
- Replace description of the field with:
"UL Tx power level in dBm, for the burst that carries this Header (see section 11.1.1) ~~, from +63 to -64 in dBm in 1 dB steps~~. The maximum value ~~is~~ shall be reported for the burst."

3) remove text on page 17, lines 35-39.
4) remove the reserved bit from table 7a so that the number of bits in the table is byte-aligned.

Reason for Group's Decision/Resolution

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** k) done

This resolution is confusing. I think the commenter is actually talking about Figure 20a, but in that figure, UL Tx Power is 8 bits. Also, I think the table is actually 7a, and that part makes sense. I didn't change the figure, but I did make the table adjustments.

Editor's Questions and Concerns

Editor's Action Items

Document under Review: P802.16e/D7 Ballot Number: 0001037

Comment #	Comment submitted by:			Comment Date
4020	Rajesh	Bhalla	Member	2005/04/28

Comment Type	Starting Page #	Starting Line #	Fig/Table#	Section
Technical, Binding	17	37		6.3.2.1.2.1

UL Tx power unit should not be in dB, and the power range is too big for 8 bits

Suggested Remedy

This parameter indicates the UL Tx power in dBm, and it shall be interpreted as a single value from -16.0 dBm to 47.0 dBm in 0.5 dB steps.

Proposed Resolution **Recommendation:** Superceded **Recommendation by**

See comment 4018

Reason for Recommendation

Resolution of Group **Decision of Group:** Superceded

See comment 4018

Reason for Group's Decision/Resolution

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** l) none needed

Editor's Questions and Concerns

Editor's Action Items

Document under Review: P802.16e/D7 Ballot Number: 0001037

Comment #	Comment submitted by:			Comment Date
4024	Rajesh	Bhalla	Member	2005/04/28

Comment Type	Starting Page #	Starting Line #	Fig/Table#	Section
Technical, Binding	20	53		6.3.2.1.3

In Table 7d, the UL power range from -64dBm to 63dBm is not reasonable.

Suggested Remedy

This parameter indicates the UL Tx power in dBm, and it shall be interpreted as a single value from -16.0 dBm to 47.0 dBm in 0.5 dB steps.

Proposed Resolution **Recommendation:** Superceded **Recommendation by**

Reason for Recommendation

Resolution of Group **Decision of Group:** Superceded

See comment 4018.

Reason for Group's Decision/Resolution

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** l) none needed

Editor's Questions and Concerns

Editor's Action Items

Document under Review: P802.16e/D7 **Ballot Number:** 0001037 **Comment Date**

Comment # 4033 **Comment submitted by:** Rainer Ullmann Member 2005/04/28

Comment Type Technical, Binding **Starting Page #** 22 **Starting Line #** 60 **Fig/Table#** **Section** 6.3.2.1.5

As part of the contribution contribution C802.16-05/192r4 (Accepted-modified Comment #3070) a sentence to make sure that the first byte of any MAC header is not allowed to read 0xFF was accpeted but missed in the implementation.

Suggested Remedy

Change:

The coding of these fields is such that the first byte of a MAC header shall never have the value of 0xFX. This prevents false detection of the stuff byte.

to

The coding of these fields is such that the first byte of a MAC header shall never have the value of 0xFF. This prevents false detection of the stuff byte.

Proposed Resolution **Recommendation:** Superceded **Recommendation by**

See 4011.

Reason for Recommendation

Resolution of Group **Decision of Group:** Superceded

See 4011.

Reason for Group's Decision/Resolution

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** I) none needed

Editor's Questions and Concerns

Editor's Action Items

Document under Review: P802.16e/D7 **Ballot Number:** 0001037 **Comment Date**

Comment # 4040 **Comment submitted by:** Yigal Eliaspur Member 2005/04/28

Comment Type Technical, Binding **Starting Page #** 26 **Starting Line #** 58 **Fig/Table#** **Section** 6.3.2.1.6.2

[Editorial]

In the last sponsor ballot recirc the comment #3066 which was accepted was improperly implemented by the editor.

Suggested Remedy

1.
[Delete section 6.3.2.1.6.2] : Mini feedback header
[Delete entire section]

2.
[Insert new section 6.3.2.2.13]
6.3.2.2.13 Mini-Feedback Extended Subheader
The format of the mini-feedback extended subheader is shown in table 13h:

Table 13i - Mini-feedback Extended Subheader Format (UL)

Name	Length (bits)	Description
-Feedback Type	4	Type of feedback; see table 20c (Section 6.3.2.1.6.1)
-Feedback Content	12	

Proposed Resolution **Recommendation:** **Accepted-Modified** **Recommendation by**

Remedy 1 is included in C802.16e-05/210r2 (adopted under comment 4011).

For remedy 2, adopt the proposed text change in IEEE C80216e-05/236r0 "Clarification of MAC Extended Subheader".

Reason for Recommendation

Resolution of Group **Decision of Group:** **Accepted-Modified**

Remedy 1 is included in C802.16e-05/210r2 (adopted under comment 4011).

For remedy 2, adopt the proposed text change in IEEE C80216e-05/236r0 "Clarification of MAC Extended Subheader".

Reason for Group's Decision/Resolution

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** k) done

Adopted C802.16e-05/236r0.

Editor's Questions and Concerns

Editor's Action Items

Document under Review: **P802.16e/D7** **Ballot Number:** **0001037**

Comment # **4044** **Comment submitted by:** Rajesh Bhalla Member **Comment Date** 2005/04/28

Comment Type Technical, Binding **Starting Page #** 28 **Starting Line #** 10 **Fig/Table#** **Section** 6.3.2.1.6.1

Editorial fix needed

Suggested Remedy

In Figure 20e, field BPRI(1) is missing after SLPB(7). In Figure 20f,BPLI(2) should have been BPRI(2)

Proposed Resolution **Recommendation:** **Superceded** **Recommendation by**

See 4011.

Reason for Recommendation

Resolution of Group **Decision of Group:** **Superceded**

See 4011.

Reason for Group's Decision/Resolution

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** l) none needed

Editor's Questions and Concerns

Editor's Action Items

Document under Review: P802.16e/D7 **Ballot Number:** 0001037 **Comment Date**

Comment # 4054 **Comment submitted by:** Rajesh Bhalla Member 2005/04/28

Comment Type Technical, Binding **Starting Page #** 44 **Starting Line #** 1 **Fig/Table#** **Section** 6.3.2.3.8

Re: comment #3136

Security parameters (such as PKM version support , authorization policy support , MAC mode , PN window size) are negotiated in basic capability negotiation process . But because SBC-REQ/RSP message doesn't be integrity protected , attacker may juggle those security parameters , and reduce the security capability between MS and BS .

The contribution proposes to protect the security parameter of basic capability negotiation message. After authorization, MS sends REG-REQ message protected by OMAC or HMAC to BS. The REG-REQ message includes the security parameters which are identical to those in SBC-REQ message. When BS receives REG-REQ message, it should compare the security parameters between REG-REQ message and SBC-REQ message. If the security parameters are identical, BS can judge that the security parameters of SBC-REQ message have not been juggled by attacker.

Suggested Remedy

Adopt the resolution text in contribution IEEE C802.16e-05/207 or the latest version.

Proposed Resolution **Recommendation:** Withdrawn **Recommendation by**

Reason for Recommendation

Resolution of Group **Decision of Group:** Withdrawn

Reason for Group's Decision/Resolution

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** I) none needed

Editor's Questions and Concerns

Editor's Action Items

Document under Review: P802.16e/D7 **Ballot Number:** 0001037

Comment #	Comment submitted by:			Comment Date
4059	Yigal	Eliaspur	Member	2005/04/28

Comment Type Technical, Binding **Starting Page #** 45 **Starting Line #** 50 **Fig/Table#** **Section** 6.3.2.3.9.22

EAP start is missing from the PMK messages

Same resone for having EAPOL start for 802.1x state mashine.

Suggested Remedy

[Add and modify following entries to Table 26 PKM message codes]

Code	PKM message type	MAC Management message name
0-2	Reserved	-
3	SA Add	PKM-RSP
…		
24	EAP Start	PKM-REQ
~~24~~25-255	reserved	-

[Insert section 6.3.2.3.9.22]

6.3.2.3.9.23 EAP start

When an MSS has to initiate an authentication process with a BS, it sends an EAP start message.

Code: 24

This message has no attribute.

Proposed Resolution **Recommendation:** Accepted **Recommendation by**

[Add and modify following entries to Table 26 PKM message codes]

Code	PKM message type	hMAC Management message name
0-2	Reserved	-
3	SA Add	PKM-RSP
…		
24	EAP Start	PKM-REQ
~~24~~25-255	reserved	-

[Insert section 6.3.2.3.9.22]

6.3.2.3.9.23 EAP start

When an MSS has to initiate an authentication process with a BS, it sends an EAP start message.

Code: 24

This message has no attribute

This message has no attribute.

Reason for Recommendation

Resolution of Group **Decision of Group: Accepted**

[Add and modify following entries to Table 26 PKM message codes]

Code	PKM message type	hMAC Management message name
0-2	Reserved	-
3	SA Add	PKM-RSP
…		
24	EAP Start	PKM-REQ
~~24~~25-255	reserved	-

[Insert section 6.3.2.3.9.22]
6.3.2.3.9.23 EAP start
When an MSS has to initiate an authentication process with a BS, it sends an EAP start message.

Code: 24
This message has no attribute.

Reason for Group's Decision/Resolution

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** k) done

Inserted this one at the end, as many others have been added prior to this (previous contribution). New code is 29.

Editor's Questions and Concerns

Editor's Action Items

Document under Review: P802.16e/D7 **Ballot Number:** 0001037 **Comment Date**

Comment # 4062 **Comment submitted by:** Rajesh Bhalla Member 2005/04/28

Comment Type Technical, Binding **Starting Page #** 47 **Starting Line #** 20 **Fig/Table#** **Section** 6.3.2.3.9.12

I object to resolution of Comment #3116 . There are two issues in PKMv2 RSA authentication:
1. In PKMv2, There are different procedures of RSA authentication for different authorization policy. In authorization based on RSA authentication and EAP authentication, BS and MS do not negotiate SAs in RSA authentication. But in authorization based on RSA-only authentication, BS and MS need negotiate SAs in RSA authentication. This causes PKMv2 authorization flow disorder, it needs to uniform PKMv2 authorization flow. To uniform PKMv2 authorization flow, SAs should be negotiated through 3 way SA-TEK exchange in every authorization policy.
2. In PKMv1 RSA authentication, if BS fails to authenticate MS, BS will inform MS by sending Auth-reject message. But in PKMv2 RSA authentication, there doesn't define PKMv2 Auth-reject message.

Suggested Remedy

Adopt the resolution text in contribution IEEE C802.16e-05/208 or the latest version.

Proposed Resolution **Recommendation:** Superceded **Recommendation by**

Reason for Recommendation

Resolution of Group **Decision of Group:** Superceded

Reason for Group's Decision/Resolution

See comment 4064.

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** I) none needed

Editor's Questions and Concerns

Editor's Action Items

Document under Review: P802.16e/D7 **Ballot Number:** 0001037 **Comment Date**

Comment # 4066 **Comment submitted by:** Rajesh Bhalla Member 2005/04/28

Comment Type Technical, Binding **Starting Page #** 48 **Starting Line #** 15 **Fig/Table#** **Section** 6.3.2.3.9.13

I object to the resolution of Comment #3116 from session #36 because the corrections for the SA-TEK exchange are incomplete. There needs some supplements about AK lifetime in the SA-TEK exchange. The AK lifetime is the minimum between PAK lifetime and PMK lifetime in current 802.16e/D7. But there is not description about how the PMK lifetime is generated and the MS gets the PMK lifetime in this current specification. Since the EAP protocol does not provide for explicit key lifetime negotiation (seen RFC 3748, Page 51), the exchange of PMK lifetime needs to be added after the EAP authentication process in the EAP-based authorization. So it brings the additional exchange in the EAP-based authorization and modification of the EAP-based authorization flow. We suggest to enhance the AK lifetime in the SA-TEK exchange in order to remain the existing EAP-based authorization flow and successfully get the AK lifetime in both sides.

Suggested Remedy

Adopt the resolution text in contribution IEEE C802.16e-05/206 or the latest version.

Proposed Resolution **Recommendation:** Superceded **Recommendation by**

Reason for Recommendation

Resolution of Group **Decision of Group:** Superceded

Reason for Group's Decision/Resolution

See 4173.

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** I) none needed

Editor's Questions and Concerns

Editor's Action Items

Document under Review: P802.16e/D7 Ballot Number: 0001037 Comment Date

Comment # 4091 Comment submitted by: Rajesh Bhalla Member 2005/04/28

Comment Type Technical, Binding Starting Page # 87 Starting Line # Fig/Table# Section 6.3.2.3.46

FMT, short basic CID and Num_pos are referenced in the description text following table 108e, but, these parameters are not in table 108e

Suggested Remedy

Either remove the descriptions of those parameters or add them back to the table.

Proposed Resolution Recommendation: Superceded Recommendation by

Reason for Recommendation

Resolution of Group Decision of Group: Superceded

See comment 4092.

Reason for Group's Decision/Resolution

Group's Notes

Group's Action Items

Editor's Notes Editor's Actions I) none needed

Editor's Questions and Concerns

Editor's Action Items

Document under Review: P802.16e/D7 **Ballot Number:** 0001037 **Comment Date**

Comment # 4094 **Comment submitted by:** Phillip Barber Member 2005/04/28

Comment Type Technical, Binding **Starting Page #** 88 **Starting Line #** 47 **Fig/Table#** **Section** 6.3.2.3.47

I object to the resolution of comment 2095.

Resolution of comment 2095 removed reference and mechanics of the 'Neighbor Preference' from the Neighbor Advertisement (NBR-ADV) message. This feature had previously been added after substantial harmonization activity on NBR-ADV and reflected a perceived need by the group for BS broadcasting the NBR-ADV message to give a subjective/bias indication to MS receiving the message as to which Neighbor BS the Serving BS would prefer MS target for initial network entry as well as handover.

The reason that this mechanic was removed through the resolution of 2095 was because of a perceived lack of defined/structured mechanics for objective differentiation of the various selection responses. Specifically, how does a given BS know whether to declare one neighbor BS a 'Preferred BS' and another neighbor BS a 'Normal BS'. While I agree that no objective mechanics were defined, that rational for removal is flawed. It was always intended that selection of 'type' of Neighbor Preference would be entirely subjective; that this was a hook for different vendors to apply differing criteria in determining individual Neighbor Preference. For some networks, it might be based on some CINR threshold; on others it might be based on sector granularity for differently configured cells; for others it might be differentiating between pico, micro, and macro cells. The point is that it was entirely subjective, and there was nothing wrong with that. It would not interfere with interoperable performance to have this feature subjectively assigned, and inclusion provides a simple mechanism for networks to direct entering or re-entering MS toward neighbor BS that would in some way benefit the network; though the activity is not enforced through this mechanism.

Finally, through use of the new 'Skip-Optional-Fields bitmap' implementors of the standard need not use this feature, nor suffer the 1 byte transmission penalty, should they elect not to use this optional feature.

Suggested Remedy

In 6.3.2.3.47, Table 106d, page 91, line 16:
Insert before '}'
'reserved | 6 bits | Shall be set to zero
Neighbor Preference | 2 bits | 00 Normal
01 Preferred
10 Non-Preferred
11 Reserved'

In 6.3.2.3.47, page 93, line 14
Insert before '**DCD Configuration Change Count**'
' Neighbor Preference
The Neighbor Preference field is present only if bit #3 of Skip-Optional-Fields bitmap is ‘0’. It defines an implementation specific, subjective preference for MS network entry and handover to neighbor BS, as determined by the serving BS (see section 6.3.21.1.1.1)'

Add section 6.3.21.1.1, page 151, line 40:
Insert new section 6.3.21.1.1.1
' **6.3.21.1.1.1 Neighbor preference**
The message element “Neighbor Preference” in MOB_NBR-ADV MAC Management message defines a subjective assignment of handover priorities or preferences as determined and set by the serving base station. The serving BS may consider factors including, but not limited to, neighbor BS CINR service threshold, configuration including sectorization and service granularity support, coverage footprint, current loading, and QoS support in deciding to report a BS as a handover candidate, according to the rules specified by a handover policy management entity

out-of-scope of this standard. Neighbor Preference is a mechanism to permit a serving BS to influence MS decisions for network entry and handover. MS may use information obtained through Neighbor Preference to prejudice a decision on which BS to conduct initial network entry, or to construct and prioritize BS in a MOB_MSHO-REQ message.'

Proposed Resolution **Recommendation:** Accepted **Recommendation by**

In 6.3.2.3.47, Table 106d, page 91, line 16:
Insert before '}'
'reserved | 6 bits | Shall be set to zero
Neighbor Preference | 2 bits | 00 Normal
01 Preferred
10 Non-Preferred
11 Reserved'

In 6.3.2.3.47, page 93, line 14
Insert before '**DCD Configuration Change Count**'
' Neighbor Preference
The Neighbor Preference field is present only if bit #3 of Skip-Optional-Fields bitmap is '0'. It defines an implementation specific, subjective preference for MS network entry and handover to neighbor BS, as determined by the serving BS (see section 6.3.21.1.1.1)'

Add section 6.3.21.1.1, page 151, line 40:
Insert new section 6.3.21.1.1.1
' **6.3.21.1.1.1 Neighbor preference**
The message element "Neighbor Preference" in MOB_NBR-ADV MAC Management message defines a subjective assignment of handover priorities or preferences as determined and set by the serving base station. The serving BS may consider factors including, but not limited to, neighbor BS CINR service threshold, configuration including sectorization and service granularity support, coverage footprint, current loading, and QoS support in deciding to report a BS as a handover candidate, according to the rules specified by a handover policy management entity
out-of-scope of this standard. Neighbor Preference is a mechanism to permit a serving BS to influence MS decisions for network entry and handover. MS may use information obtained through Neighbor Preference to prejudice a decision on which BS to conduct initial network entry, or to construct and prioritize BS in a MOB_MSHO-REQ message.'

Reason for Recommendation

Resolution of Group **Decision of Group:** Rejected

Reason for Group's Decision/Resolution

Vote: 8-4
For handoff, this capability already exists since target BS list is sorted by preference. This capability provides no real benefit for initial entry as the MS would not yet have a serving BS.

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** l) none needed

Editor's Questions and Concerns

Editor's Action Items

Document under Review: P802.16e/D7 **Ballot Number:** 0001037 **Comment Date**

Comment # 4102 **Comment submitted by:** Rajesh Bhalla Member 2005/04/28

Comment Type Technical, Binding **Starting Page #** 98 **Starting Line #** **Fig/Table#** **Section** 6.3.2.3.50

Since autonomous neighbor scanning is added in the last session (section 8.4.13.1.3), scan report mechanism should be updated to allow reporting without scanning duration specified.

Suggested Remedy

Adopt the resolution text in contribution IEEE C802.16e-05/221r0 or the latest version.

Proposed Resolution **Recommendation:** Accepted-Modified **Recommendation by**

Adopt the resolution text in contribution IEEE C802.16e-05/221r1 with the following change:

In Table 108j:
N_current_BSs, Notes change (line 4):
"When FBSS/SHO is supported or the MS has an empty active... " to:
"When FBSS/SHO is not supported or the MS has an empty active... "

Reason for Recommendation

Resolution of Group **Decision of Group:** Accepted-Modified

Adopt the resolution text in contribution IEEE C802.16e-05/221r1 with the following change:

In Table 108j:
N_current_BSs, Notes change (line 4):
"When FBSS/SHO is supported or the MS has an empty active... " to:
"When FBSS/SHO is not supported or the MS has an empty active... "

Reason for Group's Decision/Resolution

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** k) done

Editor's Questions and Concerns

Editor's Action Items

Document under Review: P802.16e/D7 Ballot Number: 0001037 Comment Date

Comment # 4115 Comment submitted by: Yigal Eliaspur Member 2005/04/28

Comment Type Technical, Binding Starting Page # 119 Starting Line # 26 Fig/Table# 108t Section 6.3.2.3.56

MBS relevancy

Session 36 clarifies the use of Multi MAP MBS, how ever it makes significant realrtime / processing time requirment n the MSS size.

Suggested Remedy

Please adoupt contribution number C80216e-05_203

Proposed Resolution Recommendation: Accepted-Modified Recommendation by

Adopt contribution C802.16e-05/242r1.

Reason for Recommendation

Resolution of Group Decision of Group: Accepted-Modified

Adopt contribution C802.16e-05/242r1.

Reason for Group's Decision/Resolution

Group's Notes

Group's Action Items

Editor's Notes Editor's Actions k) done

Editor's Questions and Concerns

Editor's Action Items

Document under Review: P802.16e/D7 **Ballot Number:** 0001037 **Comment Date**

Comment # 4119 **Comment submitted by:** Tal Kaitz Member 2005/04/28

Comment Type Technical, Binding **Starting Page #** 124 **Starting Line #** **Fig/Table#** 108t **Section** 6.3.2.3.57

The 'power control mode change' field in PMC_REQ should include all three power control modes (closed loop, open loop active mode, open loop passive mode), as exists in the corresponding PCM_RSP message.

Suggested Remedy

[Modify table 108t (PMC_REQ) as follows:]

...

Power control mode change	~~1~~ 2	~~0: Closed loop power control mode~~ ~~1: Open loop power control mode~~ 0b00: Closed loop power control mode 0b01: Reserved 0b10: Open loop power control passive mode 0b11: Open loop power control active mode

...

...

Reserved	~~6~~ 5	shall be set to zero

...

...

Proposed Resolution **Recommendation:** Accepted **Recommendation by**

[Modify table 108t (PMC_REQ) as follows:]

...

Power control mode change	~~1~~ 2	~~0: Closed loop power control mode~~ ~~1: Open loop power control mode~~ 0b00: Closed loop power control mode 0b01: Reserved 0b10: Open loop power control passive mode 0b11: Open loop power control active mode

...

...

Reserved	~~6~~ 5	shall be set to zero

...

...

Reason for Recommendation

Resolution of Group **Decision of Group: Accepted**

[Modify table 108t (PMC_REQ) as follows:]

...

Power control mode change	~~1~~ 2	~~0: Closed loop power control mode~~ ~~1: Open loop power control mode~~ 0b00: Closed loop power control mode 0b01: Reserved 0b10: Open loop power control passive mode 0b11: Open loop power control active mode

...

...

Reserved	~~6~~ 5	shall be set to zero

...

...

Reason for Group's Decision/Resolution

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** k) done

Editor's Questions and Concerns

Editor's Action Items

Document under Review: P802.16e/D7 **Ballot Number:** 0001037 **Comment Date**

Comment # 4130 **Comment submitted by:** Vladimir Yanover Member 2005/04/28

Comment Type Technical, Binding **Starting Page #** 151 **Starting Line #** 3 **Fig/Table#** **Section** 6.3.21

I object text changes in the section 6.3.20 in 802.16e/D6 (section 6.3.21 in 802.16e/D7) that didn't take into account IEEE C802.16e-05/143 which was accepted as part of resolution to the comment #3206 but not implemented in D7.
I object also resolution of the comment #3208 which was incomplete
See the contribution IEEE C802.16e-05/214 "Clarification for HO section" by Vladimir Yanover et al

Suggested Remedy

According to the contribution IEEE C802.16e-05/214 "Clarification for HO section" by Vladimir Yanover et al

Proposed Resolution **Recommendation:** Accepted-Modified **Recommendation by**

Adopt contribution IEEE C802.16e-05/214r5 "Clarification for HO section"

Reason for Recommendation

Resolution of Group **Decision of Group:** Accepted-Modified

Adopt contribution IEEE C802.16e-05/214r5 "Clarification for HO section"

Reason for Group's Decision/Resolution

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** k) done

Editor's Questions and Concerns

Editor's Action Items

Document under Review: P802.16e/D7 **Ballot Number:** 0001037 **Comment Date**

Comment # 4133 **Comment submitted by:** Vladimir Yanover Member 2005/04/28

Comment Type Technical, Binding **Starting Page #** 157 **Starting Line #** 7 **Fig/Table#** **Section** 6.3.21.2.2

I object text changes in the section 6.3.20 in 802.16e/D6 (section 6.3.21 in 802.16e/D7) that didn't take into account IEEE C802.16e-05/143 which was accepted as part of resolution to the comment #3206 but not implemented in D7.
I object also resolution of the comment #3208 which was incomplete
See contribution IEEE C802.16e-05/212 "Network re-entry optimization" by V.Yanover et al.

Suggested Remedy

According to contribution IEEE C802.16e-05/212 "Network re-entry optimization" by V.Yanover et al.

Proposed Resolution **Recommendation:** Accepted-Modified **Recommendation by**

Adopt contribution IEEE C802.16e-05/212r8.

Reason for Recommendation

Resolution of Group **Decision of Group:** Accepted-Modified

Adopt contribution IEEE C802.16e-05/212r8.

Reason for Group's Decision/Resolution

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** k) done

Changes to 6.3.21.2.2 HO decision & initiation overlapped another contribution. I did my best to consolidate the changes.

Editor's Questions and Concerns

Editor's Action Items

Document under Review: P802.16e/D7 **Ballot Number:** 0001037 **Comment Date**

Comment # 4213 **Comment submitted by:** Rajesh Bhalla Member 2005/04/28

Comment Type Technical, Binding **Starting Page #** 232 **Starting Line #** 24 **Fig/Table#** **Section** 8.4.4.3

The current DL-MAP transmission structure for not providing STC option in the first PUSC zone. For deployments using STC zones, not providing STC in the first PUSC zone causes large MAC overhead in the DL-MAP and imbalance of cell coverage.

Suggested Remedy

Adopt contribution C80216e-05_29 or the latest revision.

Proposed Resolution **Recommendation:** **Recommendation by**

Reason for Recommendation

Resolution of Group **Decision of Group:** Rejected

Reason for Group's Decision/Resolution

Comment rejected at the request of the commenter.

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** l) none needed

Editor's Questions and Concerns

Editor's Action Items

Document under Review: P802.16e/D7 **Ballot Number:** 0001037 **Comment Date**

Comment # 4221 **Comment submitted by:** Tal Kaitz Member 2005/04/28

Comment Type Technical, Binding **Starting Page #** 246 **Starting Line #** **Fig/Table#** **Section** 8.4.5.3

In OFDMA, the DL subframe is comprised of multiple zones, each signaled using a zone-switch IE. Currently, the text does not address the possibility to specify multiple zone switch IEs that define zones that overlap, or partially overlap, in time.

Allowing overlapping zones is an attractive scheme for certain deployments utilizing SDMA, for the following reasons:

1) Such a scheme does not require special MSS demodulation capabilities or multiple antennas at the MSS; the SS is only required to demodulate the one zone in which its burst is located, and spatial processing at the BS ensures separation.

2) Each of the overlapping zones uses different zone IDcell values, leading to averaging of interference caused from imperfect spatial separation between transmission of overlapping zones. Interference averaging is achieved both through permutation and through different pilot scrambling (subcarrier randomization) sequences.

Additional restrictions are put on the definition to simplify MSS implementation:
- Zones shall not partially overlap.
- At most three zones may overlap another zone.
- All DL-MAP IEs describing bursts in overlapping zones shall include a CID.
- In any given frame, the BS shall not allocate bursts for any specific SS in more than one of the overlapping zones. This includes both unicasts and multicasts.

Suggested Remedy

Add new section 8.4.5.3.xx

8.4.5.3.xx Enhanced STC/Zone switch IE format for DL

The Enhanced STC/zone switch IE may be used to define zones that overlap an existing downlink zone defined using STC/zone switch IE (see section 8.4.5.3.4). Enhanced STC/Zone switch IEs shall be specified in the DL-MAP immediately following the STC/zone switch IE that refers to the zone over which they overlap.

Enhanced DL zones may overlap a DL zone under the following restrictions:
- At most three enhanced zones may be defined to overlap any single DL zone.
- All DL-MAP IEs describing bursts in overlapping zones shall include a CID.
- Zones shall not partially overlap.
- In any given frame, the BS shall not allocate bursts for any specific SS in more than one of the overlapping zones. This includes both unicast and multicast allocations.

The format of the Enhanced STC/Zone switch IE is the same as the format of the STC/zone switch IE defined in table 279, with the first two fields replaced by the following fields:

Extended-2 DIUC	4	Enhanced_STC_Zone_Switch = 0x0B
Length	8	

Modify the table in section 11.8.3.7.5, page 532, as follows:

...
...
Bit #4: TUSC2 support
Bit #5: Support for Enhanced DL zones
Bit #~~5~~ 6-7: Reserved, shall be set to zero
...
...

Proposed Resolution **Recommendation:** **Recommendation by**

Reason for Recommendation

Resolution of Group **Decision of Group:** **Rejected**

Reason for Group's Decision/Resolution

The comment is only applicable to the AAS case, which is already addressed by another comment (see 4226).

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** l) none needed

Editor's Questions and Concerns

Editor's Action Items

Document under Review: P802.16e/D7 **Ballot Number:** 0001037 **Comment Date**

Comment # 4223 **Comment submitted by:** Tal Kaitz Member 2005/04/28

Comment Type Technical, Binding **Starting Page #** 247 **Starting Line #** **Fig/Table#** 278 **Section** 8.4.5.3.3

AAS mode:
SDMA in AAS mode with pilot separation between users is defined for AMC and TUSC permutations, but is not defined for the PUSC permutation. In PUSC, pilots are not part of the burst but rather part of a major group; therefore the number of SDMA layers, which controls the pilot patterns used, should be configured in the AAS IE.

Suggested Remedy

[Modify the downlink AAS IE, table 278, as follows:]

...
...

	Num SDMA layers	2	Number of SDMA layers minus 1. Applicable only to PUSC permutation, ignored otherwise.
	Reserved	3 ~~5~~	

}
}

[Add the following text after table 278:]

Num SDMA layers

This field specifies the number of SDMA layers (or 'users') defined in the AAS zone. SDMA layer n uses the pilot pattern defined for antenna n in section 8.4.8. Allocation of bursts to layers is performed either using HARQ DL MAP IE and Dedicated DL control IE, or using AAS_SDMA_DL_IE. Only applicable to PUSC permutation.

Proposed Resolution **Recommendation:** **Recommendation by**

Reason for Recommendation

Resolution of Group **Decision of Group:** **Rejected**

Reason for Group's Decision/Resolution

The comment is only applicable to the AAS case, which is already addressed by another comment (see 4226).

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** l) none needed

Editor's Questions and Concerns

Editor's Action Items

Document under Review: P802.16e/D7 **Ballot Number:** 0001037 **Comment Date**

Comment # 4226 **Comment submitted by:** Tal Kaitz Member 2005/04/28

Comment Type Technical, Binding **Starting Page #** 249 **Starting Line #** **Fig/Table#** **Section** 8.4.5.3.4

SDMA operation using 'SDMA Control Info':

The separation of pilots to SDMA layers is defined per rectangular allocation (i.e. per HARQ MAP DL IE). This means that an MSS may receive one IE with 2 layers followed by another IE (in the same zone) with 1 layer. For the first IE, the pilots are SDMA pilots with pattern according to STC pilot mapping; for the second IE, the pilot pattern is the regular non-STC one. This leads to several problems:

1) With PUSC permutation: In PUSC the pilots are not specific to the rectangular allocation, but rather specific to a major group. Allowing two IEs to describe allocations in the same major group will break consistency.

2) AMC: pilot pattern for SDMA follows the STC definition and spans over 6 symbols; however an AMC slot may span only 3 symbol in time. If each of the above IEs describes a 3 symbol rectangular allocation and the two are consecutive in time - again pilot definition consistency is broken.

3) From MSS implementation point of view, it is important to know the pilot patterns before hand, i.e. from zone switch IE, and not from the burst IEs themselves. This is already the case in regular STC mode.

The proposed solution is as follows.
The number of layers should be defined in the zone switch IE and kept constant throughout the zone. This can be achieved by adding a new bit to the zone switch IE that turns on 'SDMA mode'. The number of layers can be obtained directly from the field that specifies the # of antennas. Note that this does n-o-t imply that all layers must be transmitted in all rectangular allocations.

Suggested Remedy

1. Modify table 279 as follows:

if length = 0x03 {		
Dedicated Pilots	1	0 = Pilot symbols are broadcast 1 = Pilot symbols are dedicated. An MS should use only pilots specific to its burst for channel estimation
SDMA_mode	1	
Syntax padding	Variable	Pad to byte boundary
}		

2. Add the following text to page 251, line 7

SDMA_mode

If set to '1', the zone operates in SDMA mode and the 'STC' field is interpreted as the number of SDMA layers rather than the number of antennas. The matrix indicator field is ignored. SDMA layer n uses the pilot pattern defined for antenna n in section 8.4.8. Allocation of bursts to layers is performed using HARQ DL MAP IE and Dedicated DL control IE. This mode shall only be used with the 'Dedicated Pilots' bit set to '1'.

3. Remove the following lines from table 285j:

~~If(SDMA Control Info Bit == 1){~~
~~Num SDMA layers 2 bits Number of SDMA layers minus 1~~
~~}~~

Proposed Resolution **Recommendation:** **Accepted-Modified** **Recommendation by**

[Add the following paragraph to section 8.4.5.3.21, page 269, line 53:]

For allocations specified in an AAS zone with PUSC permutation, the 'Num SDMA layers' value shall be identical in all Dedicated_DL_control_IEs that describe allocations in the same major group.

Reason for Recommendation

Resolution of Group **Decision of Group:** **Accepted-Modified**

[Add the following paragraph to section 8.4.5.3.21, page 269, line 53:]

For allocations specified in an AAS zone with PUSC permutation, the 'Num SDMA layers' value shall be identical in all Dedicated_DL_control_IEs that describe allocations in the same major group.

Reason for Group's Decision/Resolution

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** k) done

Editor's Questions and Concerns

Editor's Action Items

Document under Review: P802.16e/D7 **Ballot Number:** 0001037 **Comment Date**

Comment # 4241 **Comment submitted by:** Rajesh Bhalla Member 2005/04/28

Comment Type Technical, Binding **Starting Page #** 268 **Starting Line #** **Fig/Table#** **Section** 8.4.5.3.20

Fast Feedback Polling IE can be used to allocate a UL bandwidth for Fast feedback header periodically. It is not clear where does the UL allocation start when it's allocating for a future frame.

Suggested Remedy

Adopt the resolution text in contribution IEEE C802.16e-05/222r0 or the latest version.

Proposed Resolution **Recommendation:** Accepted-Modified **Recommendation by**

Adopt the resolution text in contribution IEEE C802.16e-05/222r1.
In the contribution, The table labeled 302s -- Feedback polling IE format has the following change:
Replace "A value of value of zero0/1 indicates the subsequent frame."
with:
"The start value of frame offset shall be 1."

Reason for Recommendation

Resolution of Group **Decision of Group:** Accepted-Modified

Adopt the resolution text in contribution IEEE C802.16e-05/222r1.
In the contribution, The table labeled 302s -- Feedback polling IE format has the following change:
Replace "A value of value of zero0/1 indicates the subsequent frame."
with:
"The start value of frame offset shall be 1."

Reason for Group's Decision/Resolution

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** k) done

Editor's Questions and Concerns

Editor's Action Items

Document under Review: P802.16e/D7 Ballot Number: 0001037 Comment Date

Comment # 4242 Comment submitted by: Tal Kaitz Member 2005/04/28

Comment Type Technical, Binding Starting Page # 268 Starting Line # Fig/Table# Section 8.4.5.3.20

1. The start offset of the persistent feedback allocation specified through Feedback Polling IE is undefined.
2. In which UL zone is it transmitted?
3. The duration field does not realy need 10 bits, which allows up to 1024 slots, or 6KB worth of feedback info at rate QPSK 1/2. 5 bits should suffice.

Suggested Remedy

Correct the feedback Polling IE.

Proposed Resolution Recommendation: Recommendation by

Reason for Recommendation

Resolution of Group Decision of Group: Superceded

See comment 4241.

Reason for Group's Decision/Resolution

Group's Notes

Group's Action Items

Editor's Notes Editor's Actions I) none needed

Editor's Questions and Concerns

Editor's Action Items

Document under Review: P802.16e/D7 **Ballot Number:** 0001037 **Comment Date**

Comment # 4258 **Comment submitted by:** Tal Kaitz Member 2005/04/28

Comment Type Technical, Binding **Starting Page #** 280 **Starting Line #** **Fig/Table#** 285r **Section** 8.4.5.3.24

The 'Enhanced DL-MAP IE' defines an efficient mechanism for specifying DL allocations through the use of a table of predefined region coordinates. However, this mechanism is not consistent with HARQ DL-MAP IEs and does not seem to support HARQ at all.

Suggested Remedy

Either
add support for HARQ and sub-bursts to the 'Enhanced DL-MAP IE
or
Merge the Enhanced DL-MAP IE capability into the HARQ DL-MAP IEs so that HARQ and sub-bursts are supported with allocations that are specified using predefined region coordinates.

Proposed Resolution **Recommendation:** **Recommendation by**

Reason for Recommendation

Resolution of Group **Decision of Group:** Rejected

Reason for Group's Decision/Resolution

No text provided.

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** I) none needed

Editor's Questions and Concerns

Editor's Action Items

Document under Review: P802.16e/D7 **Ballot Number:** 0001037 **Comment Date**

Comment # 4259 **Comment submitted by:** Yigal Eliaspur Member 2005/04/28

Comment Type Technical, Binding **Starting Page #** 281 **Starting Line #** **Fig/Table#** **Section** 8.4.5.4.11

[Editorial]

In the last sponsor ballot recirc the comment #3368 which was accepted was not implemented by the editor. See editors note in comment 3368 in database 802.16e-05 12r4 . "Substantial changes were made to this section, and this comment was inadvertantly not implemented. It is the editor's intent to correct this in the next draft."

Suggested Remedy

Editor should implement the comment as suggested in his editors notes in the database 802.16e-05 12r4

Proposed Resolution **Recommendation:** Accepted **Recommendation by**

From C80216-05/50r7, adopt remedy 1 (replace tables with text), retain 3 tables as informative examples. This contribution is from Session 36.

Reason for Recommendation

Resolution of Group **Decision of Group:** Accepted

From C80216-05/50r7, adopt remedy 1 (replace tables with text), retain 3 tables as informative examples. This contribution is from Session 36.

Reason for Group's Decision/Resolution

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** k) done

Editor's Questions and Concerns

Editor's Action Items

Document under Review: P802.16e/D7 **Ballot Number:** 0001037

Comment #	Comment submitted by:			Comment Date
4265	Rajesh	Bhalla	Member	2005/04/28

Comment Type Technical, Binding **Starting Page #** 290 **Starting Line #** 7 **Fig/Table#** **Section** 8.4.5.4.1

Extended UIUC 2 IE is missing from the Table 287 -OFDMA UL-MAP IE format.

Suggested Remedy

Insert the following text to Table 287

}else if (UIUC == 11) {	-	-
Extended UIUC 2 dependent IE	variable	See subclauses following 8.4.5.4.3

Proposed Resolution **Recommendation:** Accepted **Recommendation by**

Insert the following text to Table 287

}else if (UIUC == 11) {	-	-
Extended UIUC 2 dependent IE	variable	See subclauses following 8.4.5.4.3

Reason for Recommendation

Resolution of Group **Decision of Group:** Accepted

Insert the following text to Table 287

}else if (UIUC == 11) {	-	-
Extended UIUC 2 dependent IE	variable	See subclauses following 8.4.5.4.3

Reason for Group's Decision/Resolution

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** k) done

Editor's Questions and Concerns

Editor's Action Items

Document under Review: P802.16e/D7 **Ballot Number:** 0001037

Comment #	Comment submitted by:			Comment Date
4276	Tal	Kaitz	Member	2005/04/28

Comment Type	Starting Page #	Starting Line #	Fig/Table#	Section
Technical, Binding	354			8.4.5.4.15

CQICH type field was added to CQI Enhanced Allocation IE format.

1) The 4-bit CQI encoding defined in 802.16-2004 is missing from the list of types.

2) It is not clear what DIUC-CQI actually is. To which DIUC does this refer? even if that was known, what is modulated on the 48 subcarriers of the CQI channel and in what order ? None of this seems to be defined.

Suggested Remedy

1) Modify table 302a:
- replace '0b01 = DIUC-CQI' with '0b01 = 4-bit CQI (see section 8.4.5.4.10)'
- delete the last sentence in the 'CQICH Type' entry:
  ~~A DIUC-CQI is a CQI channel that uses a modulation and coding level derived from the DIUC.~~

2) Remove all references to DIUC-CQI from the standard.

Proposed Resolution **Recommendation:** Accepted **Recommendation by**

1) Modify table 302a:
- replace '0b01 = DIUC-CQI' with '0b01 = 4-bit CQI (see section 8.4.5.4.10)'
- delete the last sentence in the 'CQICH Type' entry:
  ~~A DIUC-CQI is a CQI channel that uses a modulation and coding level derived from the DIUC.~~

2) Remove all references to DIUC-CQI from the standard.

Reason for Recommendation

Resolution of Group **Decision of Group:** Rejected

Reason for Group's Decision/Resolution

DIUC-CQI has technical merit and should not be removed.

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** l) none needed

Editor's Questions and Concerns

Editor's Action Items

Document under Review: P802.16e/D7 **Ballot Number:** 0001037 **Comment Date**

Comment # 4279 **Comment submitted by:** Rajesh Bhalla Member 2005/04/28

Comment Type Technical, Binding **Starting Page #** 376 **Starting Line #** 6 **Fig/Table#** **Section** 8.4.6.1.1.1

In the current standard draft, it can only allow the Common SYNC symbol to be transmitted in every fourth downlink frame. It may introduce too much overhead for system of short frames and my not be frequent enough for system of long frames.

Suggested Remedy

Adopt the resolution text in contribution IEEE C802.16e-05/128 or the latest version.

Proposed Resolution **Recommendation:** **Recommendation by**

Reason for Recommendation

Resolution of Group **Decision of Group:** Rejected

Reason for Group's Decision/Resolution

Ruled out of scope.

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** l) none needed

Editor's Questions and Concerns

Editor's Action Items

Document under Review: P802.16e/D7 **Ballot Number:** 0001037 **Comment Date**

Comment # 4287 **Comment submitted by:** Tal Kaitz Member 2005/04/28

Comment Type Technical, Binding **Starting Page #** 403 **Starting Line #** 12 **Fig/Table#** **Section** 8.4.6.1.2.1.1

The 802.16e text (as well as Cor1 text) defines the values of 'IDcell' used for the two equations that define the PUSC permutation (cluster permutation defined in section 8.4.6.1.2.1.1 and 'inner permutation' defined in eq. (111)). For PUSC zones with zone-switch IE indicator 'use all SC=0', the cluster permutation is initialized with IDcell = 0. However for PUSC zones defined with 'use all SC=0', the IDcell value specified in the zone_switch_IE is the same one used for both the inner and cluster permutations. .

The coupling between inner and cluster permutations when 'use all SC=1' adds an unneeded restriction on the system design. For zones with 'use all SC=1', separate values should be used for the inner and cluster permutations of PUSC.

Decoupling these values has merit because PUSC permutation hit-ratio properties highly depend on the IDcell value used; hence better optimization of hit-ratio can be achieved by selecting distinct IDcell values for the different components of the permutation

The proposal is to add a DCD TLV that specifies an independent value for the PUSC cluster permutation, overriding the current definition. Backward compatibility since the default operation is left unchanged, and the BS can make sure not to allocate resources to legacy SSs in zones where the default was overriden.

This does not add any complexity to MSS design since it already needs to support all possible IDcell values for both inner and cluster permutation equations in PUSC

Suggested Remedy

[Add the following field to table 358 (DCD channel encodings):]

DL_ClusterPermBase	XXX	1	Value used in the clustering renumbering formula described in section 8.4.6.1.2.1.1, for PUSC zones for which the indicator 'use all SC' = 1.	OFDMA

[modify text on page 403, lines 12-15]

LogicalCluster = RenumberingSequence((PhysicalCluster+13*~~IDcell~~ DL_ClusterPermBase) mod Nclusters)
~~I~~n the first PUSC zone of the downlink (first downlink zone), the default used ~~IDcell~~ DL_ClusterPermBase is 0. When the 'Use all SC indicator=0' in the STC_DL_Zone_IE(), DL_ClusterPermBase is replaced with 0. For All other cases DL_ClusterPermBase parameter transmitted in the DCD message shall be used, or, if the parameter was not transmitted in a DCD message, the IDcell parameter in the STC_DL_Zone_IE() shall be used.

Proposed Resolution **Recommendation:** Accepted-Modified **Recommendation by**

Apply (inserting an appropriate value for 'XXX'):
[Add the following field to table 358 (DCD channel encodings):]

DL_ClusterPermBase	XXX	1	Value used in the clustering renumbering formula described in section 8.4.6.1.2.1.1, for PUSC zones for which the indicator	OFDMA

section 8.4.6.1.2.1.1.1, for PUSC zones for which the indicator 'use all SC' = 1.

[modify text on page 403, lines 12-15]

LogicalCluster = RenumberingSequence((PhysicalCluster+13*~~IDcell~~ DL_ClusterPermBase) mod Nclusters)
~~I~~n the first PUSC zone of the downlink (first downlink zone), the default used ~~IDcell~~ DL_ClusterPermBase is 0. When the 'Use all SC indicator=0' in the STC_DL_Zone_IE(), DL_ClusterPermBase is replaced with 0. For All other cases DL_ClusterPermBase parameter transmitted in the DCD message shall be used, or, if the parameter was not transmitted in a DCD message, the IDcell parameter in the STC_DL_Zone_IE() shall be used.

Reason for Recommendation

Resolution of Group **Decision of Group:** **Rejected**

Reason for Group's Decision/Resolution

Vote: 1-6
Unnecessary feature, and requires a change in Corr1

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** I) none needed

Editor's Questions and Concerns

Editor's Action Items

Document under Review: P802.16e/D7 **Ballot Number:** 0001037 **Comment Date**

Comment # 4290 **Comment submitted by:** Tal Kaitz Member 2005/04/28

Comment Type Technical, Binding **Starting Page #** 427 **Starting Line #** **Fig/Table#** 234 **Section** 8.4.6.3.3

The content of figure 234 is blank.

Suggested Remedy

The correct figure appears on page 8 of contribution 802.16e-05/084r6, which was (re)accepted in session #36.

Proposed Resolution **Recommendation:** Accepted **Recommendation by**

The correct figure appears on page 8 of contribution 802.16e-05/084r6, which was (re)accepted in session #36.

Reason for Recommendation

Resolution of Group **Decision of Group:** Accepted

The correct figure appears on page 8 of contribution 802.16e-05/084r6, which was (re)accepted in session #36.

Reason for Group's Decision/Resolution

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** k) done

Editor's Questions and Concerns

Editor's Action Items

Document under Review: P802.16e/D7 Ballot Number: 0001037 Comment Date

Comment # 4292 Comment submitted by: Tal Kaitz Member 2005/04/28

Comment Type Technical, Binding Starting Page # 430 Starting Line # Fig/Table# Section 8.4.7

802.16-2004 defines an initial ranging scheme that is based on transmitting either one or two CDMA codes over 6 subchannels (8 with optional PUSC).

However, these schemes do not work well when the deployment consists of a multiple-antenna BS (a supported configuration of 802.16-2004) and a power limited SS that requires either repetition or mini-subchannels for its operation. In such scenarios, the code misdetection rate can go as high as 25% for a 1% false alarm rate. With a single-antenna BS, detection performance is only marginal.

These results are obtained under optimistic assumptions: time offset is perfectly known, a single code hypothesis, no contention on the ranging slot.

Suggested Remedy

Consider and adopt contribution C802.16e-05/251.

Proposed Resolution Recommendation: Rejected Recommendation by

Reason for Recommendation

Resolution of Group Decision of Group: Rejected

Reason for Group's Decision/Resolution

Out of scope (new capability).

Group's Notes

Group's Action Items

Editor's Notes Editor's Actions I) none needed

Editor's Questions and Concerns

Editor's Action Items

Document under Review: P802.16e/D7 **Ballot Number:** 0001037 **Comment Date**

Comment # 4293 **Comment submitted by:** Vladimir Yanover Member 2005/04/28

Comment Type Technical, Binding **Starting Page #** 430 **Starting Line #** **Fig/Table#** **Section** 8.4.7

802.16-2004 defines an initial ranging scheme that is based on transmitting either one or two CDMA codes over 6 subchannels (8 with optional PUSC).

However, these schemes do not work well when the deployment consists of a multiple-antenna BS (a supported configuration of 802.16-2004) and a power limited SS that requires either repetition or mini-subchannels for its operation. In such scenarios, the code misdetection rate can go as high as 25% for a 1% false alarm rate. With a single-antenna BS, detection performance is only marginal.

These results are obtained under optimistic assumptions: time offset is perfectly known, a single code hypothesis, no contention on the ranging slot.

Suggested Remedy

Consider and adopt contribution C802.16e-05/251.

Proposed Resolution **Recommendation:** Withdrawn **Recommendation by**

Reason for Recommendation

Resolution of Group **Decision of Group:** Withdrawn

Reason for Group's Decision/Resolution

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** l) none needed

Editor's Questions and Concerns

Editor's Action Items

Document under Review: P802.16e/D7 **Ballot Number:** 0001037 **Comment Date**

Comment # 4300 **Comment submitted by:** Rajesh Bhalla Member 2005/04/28

Comment Type Technical, Binding **Starting Page #** 443 **Starting Line #** 9 **Fig/Table#** **Section** 8.4.9.2.5.0

The resolution of Comment 1605 in 80216-05_010r1.pdf is incomplete. In the current LDPC solution, the 5/6 coding rate is missing from the standard.

Suggested Remedy

Adopt the resolution text in contribution IEEE C802.16e-05/126 or the latest version.

Proposed Resolution **Recommendation:** Accepted **Recommendation by**

Adopt Contribution IEEE C802.16e-05/126r1

Reason for Recommendation

Resolution of Group **Decision of Group:** Rejected

Reason for Group's Decision/Resolution

Vote: 9-20.
The performance improvement between 3/4 and 5/6 is too small to justify any extra mode.
The resolution of Comment 1605 in 80216-05_010r1.pdf **is** complete. Contribution 802.16-05/010r1 did not include a 5/6 coding rate.

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** l) none needed

Editor's Questions and Concerns

Editor's Action Items

Document under Review: P802.16e/D7 **Ballot Number:** 0001037 **Comment Date**

Comment # 4317 **Comment submitted by:** Tal Kaitz Member 2005/04/28

Comment Type Technical, Binding **Starting Page #** 488 **Starting Line #** 16 **Fig/Table#** **Section** 8.4.10.3.2

The propagation loss component 'L' in open-loop power control is erroneously defined to not include Tx or Rx antenna gains.
However, the path loss is later defined as the difference between the BS_EIRP, which is the power after Tx antenna gain, and the RSSI which is the power after Rx antenna gain.

To correct the definition, the propagation loss should include Rx antenna gain but not Tx antenna gain.

Suggested Remedy

Change the text on page 488 line 16 as follows:

"L is the estimated average current UL propagation loss, including Rx antenna gain but not including Tx~~/Rx~~ antenna gain~~s~~ "

Proposed Resolution **Recommendation:** Accepted **Recommendation by**

Adopt Contribution C802.16e-05/263.

Reason for Recommendation

Resolution of Group **Decision of Group:** Accepted

Adopt Contribution C802.16e-05/263.

Reason for Group's Decision/Resolution

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** k) done

Editor's Questions and Concerns

Editor's Action Items

Document under Review: P802.16e/D7 **Ballot Number:** 0001037 **Comment Date**

Comment # 4319 **Comment submitted by:** Tal Kaitz Member 2005/04/28

Comment Type Technical, Binding **Starting Page #** 488 **Starting Line #** 54 **Fig/Table#** **Section** 8.4.10.3.2

Contribution 802.16e-05/137r1 was accepted during session #36, however some of the changes were not implemented.

Suggested Remedy

Implement the following changes that were accepted as part of contribution 802.16e-05/137r1:

1) Complete the sentence on page 488 line 54:

In passive Uplink open loop power control the SS will set Offset_SSperSS to zero and modify the TX power value only according to Offset_BSperSS.

2) Modify field 'BS EIRP' in table 358, as follows:

Name	Type	Length	Value (variable length)		PHY scope
BS EIRP	2	2	BS equivalent isotropic radiated power. Signed units of 1dbm. For OFDMA PHY, this is measured on the active subcarriers of the frame preamble.	All	

Proposed Resolution **Recommendation:** Accepted-Modified **Recommendation by**

1) Complete the sentence on page 488 line 54:

In passive Uplink open loop power control the SS will set Offset_SSperSS to zero and modify the TX power value using the Eq. (138b)

2) Modify field 'BS EIRP' in table 358, as follows:

Name	Type	Length	Value (variable length)		PHY scope
BS EIRP	2	2	BS equivalent isotropic radiated power. Signed units of 1dbm. For OFDMA PHY, this is measured on the active subcarriers of the frame preamble.	All	

Reason for Recommendation

Resolution of Group **Decision of Group:** Accepted

1) Complete the sentence on page 488 line 54:

In passive Uplink open loop power control the SS will set Offset_SSperSS to zero and modify the TX power value using the Eq. (138b)

2) Modify field 'BS EIRP' in table 358, as follows:

Name	Type	Length	Value (variable length)		PHY scope
BS EIRP	2	2	BS equivalent isotropic radiated power. Signed units of 1dbm. For OFDMA PHY, this is measured on the active subcarriers of the frame preamble.	All	

Reason for Group's Decision/Resolution

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** k) done

Editor's Questions and Concerns

Editor's Action Items

Document under Review: P802.16e/D7 **Ballot Number:** 0001037 **Comment Date**

Comment # 4320 **Comment submitted by:** Tal Kaitz Member 2005/04/28

Comment Type Technical, Binding **Starting Page #** 489 **Starting Line #** 30 **Fig/Table#** **Section** 8.4.11.3

The current 802.16e SINR reporting mechanism requires the MSS to report a straightforward CINR measurement. This mechanism does not provide the BS with any knowledge on the frequency selectivity of the channel and noise (especially prominent with partially loaded cells and with multipath). This knowledge is important since, contrary to the AWGN channel, in a frequency selective channel there is no 1 to 1 relation between amount of increase in power and amount of improvement in "effective SINR" . Furthermore, the relation is dependent on MCS level.
This results in larger fade margins, which translates directly to reduction in capacity.

In this contribution we propose a mechanism based on the "Exponential Effective SIR Mapping" (EESM) model that provides the BS with sufficient knowledge on the channel-dependent relationship between power increase, MCS change and improvement in effective SINR.

Suggested Remedy

Adopt contribution 802.16e-05/141r2 "CINR measurements using the EESM method"

Proposed Resolution **Recommendation:** Accepted **Recommendation by**

Adopt contribution 802.16e-05/141r3"CINR measurements using the EESM method"

Reason for Recommendation

Resolution of Group **Decision of Group:** Rejected

Reason for Group's Decision/Resolution

Vote: 9-16
Reason: Existing methods are sufficient, and this method adds overhead.

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** I) none needed

Editor's Questions and Concerns

Editor's Action Items

Document under Review: P802.16e/D7 **Ballot Number:** 0001037 **Comment Date**

Comment # 4321 **Comment submitted by:** Vladimir Yanover Member 2005/04/28

Comment Type Technical, Binding **Starting Page #** 489 **Starting Line #** 30 **Fig/Table#** **Section** 8.4.11.3

The current 802.16e SINR reporting mechanism requires the MSS to report a straightforward CINR measurement. This mechanism does not provide the BS with any knowledge on the frequency selectivity of the channel and noise (especially prominent with partially loaded cells and with multipath). This knowledge is important since, contrary to the AWGN channel, in a frequency selective channel there is no 1 to 1 relation between amount of increase in power and amount of improvement in "effective SINR" . Furthermore, the relation is dependent on MCS level.
This results in larger fade margins, which translates directly to reduction in capacity.

In this contribution we propose a mechanism based on the "Exponential Effective SIR Mapping" (EESM) model that provides the BS with sufficient knowledge on the channel-dependent relationship between power increase, MCS change and improvement in effective SINR.

Suggested Remedy

Adopt contribution 802.16e-05/141r2 "CINR measurements using the EESM method"

Proposed Resolution **Recommendation:** **Recommendation by**

Reason for Recommendation

Resolution of Group **Decision of Group:** **Rejected-Duplicate**

Reason for Group's Decision/Resolution

See comment 4320.

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** I) none needed

Editor's Questions and Concerns

Editor's Action Items

Document under Review: P802.16e/D7 **Ballot Number:** 0001037 **Comment Date**

Comment # 4332 **Comment submitted by:** Tal Kaitz Member 2005/04/28

Comment Type Technical, Binding **Starting Page #** 508 **Starting Line #** **Fig/Table#** 353a **Section** 11.3.1

Section 8.4.10.3.1 defines a new triggering mechanism for UL Tx power and headroom report by the MSS. The text spefically defines the messages used for automatic transmission of these reports.

The last sentence states:
"In UCD, there are sets of those parameters sets: Depending on the allocation CQICH to SS, the corresponding parameter set shall be used."

Additional references to CQICH appear in table 353a, 'Tx power report' entry.

This is not clear:
1) In UCD the parameter themselves are defined, not 'sets of parameter sets'.
2) Why and how is this mechanism related to CQICH? no clear specification or explanation is given.

Suggested Remedy

Clarify the text in section 8.4.10.3.1 and in table 353a, type 185 ('Tx power report').

Proposed Resolution **Recommendation:** **Recommendation by**

Reason for Recommendation

Resolution of Group **Decision of Group:** **Rejected**

Reason for Group's Decision/Resolution

Lack of specific text.

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** I) none needed

Editor's Questions and Concerns

Editor's Action Items

Document under Review: P802.16e/D7 **Ballot Number:** 0001037 **Comment Date**

Comment # 4353 **Comment submitted by:** Rajesh Bhalla Member 2005/04/28

Comment Type Technical, Binding **Starting Page #** 527 **Starting Line #** 30 **Fig/Table#** **Section** 12.4

The Comment #1851,#1859,#1860,#1861 in 80216-05_010r1.pdf did not provide specific resolution. I believe that specific system profiles should be included in the standard for mobility operation.

Suggested Remedy

Adopt contribution C80216e-05_60r2 or the latest revision.

Proposed Resolution **Recommendation:** Accepted-Modified **Recommendation by**

Table 422d, change Operation mode from "TDD (licensed bands only)" to "TDD/FDD (licensed bands only)"

Under "12.4.2.2 Basic Packet PMP..." add the following:
-- Suppport for PKM v2

Reason for Recommendation

Resolution of Group **Decision of Group:** Rejected

Reason for Group's Decision/Resolution

Vote: 10-12
Reason: The proposed profile is incomplete.

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** l) none needed

Editor's Questions and Concerns

Editor's Action Items

Document under Review: P802.16e/D7 **Ballot Number:** 0001037 **Comment Date**

Comment # 4363 **Comment submitted by:** Rajesh Bhalla Member 2005/04/28

Comment Type Technical, Binding **Starting Page #** 538 **Starting Line #** 21 **Fig/Table#** **Section** 11.8.4.2

I object to the resolution of Comment #3136 from session #36 because the modification in the comment is not sutiable. The comment #3136 puts forward to negotiate the authorization policies for initial network entry and re-entry between MS and BS in SBC exchange. But the re-authorization policy is not negotiated between MS and BS in current specification. MS and BS need to execute re-authorization procedure during the re-entry network. But re-authorization procedure between MS and BS will be taken place in some other cases besides the re-entry. MS will execute the authorization procedure according to the authorization policy negotiated in SBC exchange when MS is in re-entry network, such as in handover or in the new connection with BS. What is the re-authorization policy and how to execute re-authorization when the AK lifetime is expired or H/OMAC_PN_U is overflowing or H/OMAC_PN_D is overflowing?

Suggested Remedy

Adopt the resolution text in contribution IEEE C802.16e-05/205 or the latest version.

Proposed Resolution **Recommendation:** Accepted-Modified **Recommendation by**

Adopt the resolution text in contribution IEEE C802.16e-05/205r2

Reason for Recommendation

Resolution of Group **Decision of Group:** Accepted-Modified

Adopt the resolution text in contribution IEEE C802.16e-05/205r2

Reason for Group's Decision/Resolution

Vote: 31-3

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** k) done

Text in table under 11.8.4.2 was not as illustrated in the contribution. "re-entry" already existed, but "HO" was not there. I left the table as-is, because it's not clear to me that "HO" needs to be in there. However, new text was added per the contribution.

Editor's Questions and Concerns

Editor's Action Items

Document under Review: P802.16e/D7 **Ballot Number:** 0001037 **Comment Date**

Comment # 4379 **Comment submitted by:** Brian Kiernan Member 2005/04/28

Comment Type Technical, Binding **Starting Page #** 573 **Starting Line #** 1 **Fig/Table#** **Section** 12

I object to the resolution of comments #3520 and #3521, both of which dealt with system profiles.

Without adoption of definitive system profiles 802.16e cannot, by any stretch of the imagination, be called a standard. It can't even be called a "cookbook". In reality it is more like a shopping list from which anybody can pick any combination of non-interoperable ingredients.

Definitive system profiles are absolutely required. Despite the shortcomings identified as the reason for their rejection, the system profiles proposed during the last recirc were at least a starting point in defining an interoperable set of parameters.

Suggested Remedy

Adopt contribution C80216e-05_60r2 or any subsequent updates or revisions to it.

Proposed Resolution **Recommendation:** **Recommendation by**

Reason for Recommendation

Resolution of Group **Decision of Group:** Superceded

Reason for Group's Decision/Resolution

See comment 4353.

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** I) none needed

Editor's Questions and Concerns

Editor's Action Items

Document under Review: P802.16e/D7 **Ballot Number:** 0001037 **Comment Date**

Comment # 4384 **Comment submitted by:** Jonathan Labs Member 2005/04/28

Comment Type Technical, Binding **Starting Page #** 999 **Starting Line #** 1 **Fig/Table#** **Section**

I object to the resolutions of comments 3034, 3233, 3269, 3474 and 3480 in IEEE 802.16-05/019 (or database IEEE 802.16-05/12r3). All these comments address the usage of SS versus MS versus FSS. The resolution of the group was: "Change all SS to MS in 802.16e draft for new text or modified text; do not change SS in unmodified/duplicated instances. Delete the definition of FS".

I feel this is a quick and not very careful attempt at solving a major problem with the ammendment. Here is just one example where this solution does not solve the problem: Look at page 52, line 19, section 6.3.2.3.23 which is titled in 802.16-2004 "SS Basic Capability Request (SBC-REQ) message", but is now titled in 16e/D7 as "MS basic capability request (SBC-REQ) message". To me this is telling me that with the changes from the amendment, SBC-REQ are now only defined for MS and not fixed SS.

I think it gets worse if one looks at the text changes in 6.3.2.3.26 De/Re-register command (DREG-CMD) message, specifically at Table 55--Action codes and actions. All action codes are now defined for MSs, not SSs. This tells me that there are now no action codes for a fixed SS.

In my mind an SS can be either a mobile SS or a fixed SS. MS is only a mobile SS.

These are just a few examples of the problem. There are many others. I provided an extensive list of modifications in the last ballot to clean this problem up, but I do not believe they were considered by the Ballot resolution committee. I will not provide "specific text" again, only to have it ignored.

This problem will slap you in the face when this ammendment is eventually integrated with 802.16-2004 to form a new revision.

Suggested Remedy

Fix up the usage of MS versus SS, such that the text does not break the operation of fixed systems. I would recommend reviewing again comments 3034, 3233, 3269, 3474 and 3480 in IEEE 802.16-05/019 as a starting guide.

Proposed Resolution **Recommendation:** **Recommendation by**

Reason for Recommendation

Resolution of Group **Decision of Group:** **Rejected**

Reason for Group's Decision/Resolution

Lack of specific text.

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** I) none needed

Editor's Questions and Concerns

Editor's Action Items

Document under Review: P802.16e/D7 **Ballot Number:** 0001037 **Comment Date**

Comment # 4385 **Comment submitted by:** Byoung-Jo Kim Member 2005/04/28

Comment Type Technical, Binding **Starting Page #** Gen. **Starting Line #** **Fig/Table#** **Section**

My earlier comment was regarding the use of the term MS. I am not satisfied with the resolution of the comment. 802.16e is an amendment to 802.16-2004 and is supposed to support combined fixed/mobile operation. I believe that some of the 802.16e enhancements were meant to apply to both fixed and mobile terminals. The resolution reflected in D7 was to remove FS and change all SS in 16e amendment into MS; this does not address the previous comment and may have made things worse in a sense. The text still seems to indicate that certain attractive features such as advanced security apply only to MS. See for example sections 7.1.2 and 7.2.2. A simple find and replace can create peculiar problems, e.g. section 6.3.9.10 in D7 has a phrase called "fixed MS" which is indeed an ambiguous term.%%The way MS is defined, it is not clear what relation it has to SS. In 802.16e/D7, the definition of MS (mobile station) is "A station in the mobile service intended to be used while in motion or during halts at unspecified points". The definition of MS is in stark contrast to the 802.16-2004 definition of a subscriber station (SS), which is "A generalized equipment set providing connectivity between subscriber equipment and a base station (BS)". The MS definition is incomplete and also leads to incorrect text the way the term is used. It is not clear what "a station in the mobile service" is. It is not clear if the MS is a variant of SS, or if the SS is a variant of MS, or if there is any connection between the two. The mobile station may even be a moving base station the way the definition is written, although common sense would indicate otherwise. Also, "halts at unspecified points" clearly excludes fixed stations, which creates the problem.

Suggested Remedy

There are couple of acceptable solutions:%%1. Change all MS to SS, do not use MS, and amend the definition of SS to allow the SS to be either fixed, stationary or in motion.%%2. Amend the definition of MS to be a superset of SS by defining it as "A subscriber station that can be fixed, stationary or in motion". %%During the discussions of variations of this suggested definitions, please note that the notion of "mobile service" is inconsistent with the spirit of option 2. Also, it is important to cover the case where the MS can be a stationary/fixed terminal. Note that SS cannot be a superset of MS the way the text is written across the document.

Proposed Resolution **Recommendation:** **Recommendation by**

Reason for Recommendation

Resolution of Group **Decision of Group:** Rejected

Reason for Group's Decision/Resolution

Lack of specific text.

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** I) none needed

Editor's Questions and Concerns

Editor's Action Items

Document under Review: P802.16e/D7 **Ballot Number:** 0001037 **Comment Date**

Comment # 4387 **Comment submitted by:** Remi Chayer Member 2005/04/28

Comment Type Technical, Binding **Starting Page #** 999 **Starting Line #** **Fig/Table#** **Section**

I object to the resolution of Comment 3250 in 80216-05_12r3 (which was related to comments #1850, #1859, #1861 and #1864 in 80216-05_010). It is important to include complete profiles in the document. Contribution C80216e-05_60r2 was a start.

Suggested Remedy

The working group should start developing complete profiles based on the input from the participants.

Proposed Resolution **Recommendation:** **Recommendation by**

Reason for Recommendation

Resolution of Group **Decision of Group:** Rejected-Duplicate

Reason for Group's Decision/Resolution

See 4353

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** l) none needed

Editor's Questions and Concerns

Editor's Action Items

Document under Review: P802.16e/D7 **Ballot Number:** 0001037 **Comment Date**

Comment # 4420L **Comment submitted by:** Mark Cudak Member 2005/04/29

Comment Type Technical, Binding **Starting Page #** 40 **Starting Line #** 53 **Fig/Table#** **Section** 6.3.2.3.5

Iobject to using the AAA key derived using EAP as master key unless there is a cryptographic separation between the master key (longer term keys) and HMAC, OMAC, KEK(short term key) and a freshness guarantee. It is insecure to use the longer term key in deriving the other short term keys that are used much more frequently for securing message transmission and can lead to domino effect and replay attacks. This is explicitly required as is stated in RFC 4017, so called Housely criteria used by IETF EAP working group as a method to gauge the appropriateness

Suggested Remedy

Adoption of the contribution C80216e-05_220

Proposed Resolution **Recommendation:** **Recommendation by**

Reason for Recommendation

Resolution of Group **Decision of Group:** **Rejected**

Reason for Group's Decision/Resolution

vote 1-6

The MAC keys have the same lifetime as the AK, and there appears to be no need to refresh them independently.

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** I) none needed

Editor's Questions and Concerns

Editor's Action Items

Document under Review: P802.16e/D7 **Ballot Number:** 0001037 **Comment Date**

Comment # 4443L **Comment submitted by:** Mark Cudak Member 2005/04/29

Comment Type Technical, Binding **Starting Page #** 490 **Starting Line #** 45 **Fig/Table#** **Section** 8.4.13.1.3

I object to the resolution approved in P802.16e/D7 in response to Comment #3473 which identified deficiencies in PHY performance requirement related to mobile handoffs. The prior resolution did not address requirements for measurement and trigger mechanisms needed to support mobile handoffs and did not provide required fields within the appropriate MAC messages for these procedures. The prior resolution also neglected to establish requirements for scanning of specific BS candidates to which handoff would be preferred within the complete neighbor BS set.

Suggested Remedy

Adopt C80216e-05/219 which specifies measurements and triggers obtained from the PHY during neighbor BS scanning mechanisms, and modifies existing messages of the MAC, to define appropriate requirements in support of mobile handoff procedures.

Proposed Resolution **Recommendation:** Rejected **Recommendation by**

Reason for Recommendation

Resolution of Group **Decision of Group:** Rejected

Reason for Group's Decision/Resolution

Commenter asked to have the comment rejected.

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** I) none needed

Editor's Questions and Concerns

Editor's Action Items