Document under Review: P802.16e/D5 **Ballot Number:** 0000754 **Comment Date**

Comment # 0033 **Comment submitted by:** Carl Eklund Member 2004-11-04

Comment Type Technical, Binding **Starting Page #** 4 **Starting Line #** **Fig/Table#** **Section** 6.3.21.1

Several issues:

The reference model does not include an entitiy called the Paging Controller which is as it should be. Therefore no reference should be made to such an entity. Additionally the retention of information in the network after a MSS enters Idle mode is totally up to the configuration of the network. There is no need to negotiate it between MSS and BS. Additionally the parameters mentioned in the text are currently not allowed parameters for the DREG-REQ and DREG-CMD messages which again is the things should be.

Suggested Remedy

Change lines 4-27 to :

The MSS shall maintain an Idle Mode Timer to prompt MSS Idle Mode Location Update activity
and demonstrate MSS continued network presence
Idle Mode Timer and Idle Mode System Timer shall start on Serving BS transmission
of DREG-CMD directing MSS transition to Idle Mode. Idle Mode Timer and Idle Mode System

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

Reason for Recommendation

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

Motion from the floor to create a definition for Paging controller and add to section 3:
"Paging Controller: the Serving BS or other network entity administering Idle Mode activity for the MSS"

Reason for Group's Decision/Resolution

The vote on the motion from the floor to add a Paging Controller definition failed: For - 1 Against - 9
While the group agrees that the Paging controller is not defined, the proposed remedy deletes too much other material to be considered acceptable.

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/D5 **Ballot Number:** 0000754 **Comment Date**

Comment # 0034 **Comment submitted by:** Carl Eklund Member 2004-11-04

Comment Type Technical, Binding **Starting Page #** 4 **Starting Line #** 1 **Fig/Table#** **Section** 1.4.3.1

The current reference model does not support soft hand over. It is not clear where protocols are terminated, especially on the control plane and what happens in potential race conditions.

This comment does not contest or affirm the usefulness of the concept in the standard. The point is that the group should not introduce insufficiently defined features. If it is included it should be defined in a way that a) fits the reference model, b) offers the protocol to deal with new events that will occur as a result of this added feature.

Suggested Remedy

Delete everything that has to do with soft hand over or rewrite the reference model in such a way that is supports it witout breaking the legacy protocol.

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

Reason for Recommendation

The commenter has not provided sufficient text to determine exactly what needs to be changed.

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

Reason for Group's Decision/Resolution

The commenter has not provided sufficient text to determine exactly what needs to be changed.

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/D5 **Ballot Number:** 0000754 **Comment Date**

Comment # 0105 **Comment submitted by:** John Barr Member 2004-11-04

Comment Type Technical, Binding **Starting Page #** 13 **Starting Line #** 1 **Fig/Table#** **Section** 6

[Identical comment submitted by John Barr[satisfied], Mark Cudak, Lester Eastwood[satisfied], Colin Frank[satisfied], Qiang Guo[satisfied], Scott Migaldi[satisfied], Nat Natarajan, Huaiyuan Wang[satisfied].]
The combination of wide channel bandwidths (up to 20 MHz or more) and practical constraints on the output power of portable, battery operated devices leads to severe link budget imbalance between the downlink and uplink. In addition, the economics of cellular deployments favor larger cell sizes (e.g. at least 2 km). As a result, the larger power-amp (PA) at the base station. allows the downlink to achieve much higher throughput rates than the uplink. In addition, the variety of data-rate enhancing techniques such as MIMO server to exacerbate this problem. Techniques to aid the uplink data-rate are need to support all possible cellular deployments. A solution enabling low-cost relays would prove useful in systems that don't

Suggested Remedy

Provide a solution to enable low-cost relays. Adopt the transparent relay in contribution IEEE C802.16e-04/417

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

Voted 11-13

Reason for Recommendation

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

Reason for Group's Decision/Resolution

There are several reasons for the rejection of this comment. They are enumerated below:
1) The magnitude of this problem has not been adequately quantified, so it is unclear if the complexity of this solution is justified.
2) The uplink delay due to relays may cause problems in H-ARQ operation.
3) This comment proposes a substantial change in air interface structure without adequate justification. The contribution is incomplete, glossing over issues of synchronization, UL frame re-transmission latency, and security to name only a few. Substantially more diligence needs to be done before the group should adopt such an enhancement. It may be better to add this as a feature in a future 'enhanced' mobility project.

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/D5 **Ballot Number:** 0000754 **Comment Date**

Comment # 0107 **Comment submitted by:** Richard Pace Member 2004-11-04

Comment Type Technical, Binding **Starting Page #** 13 **Starting Line #** 1 **Fig/Table#** **Section** 6.3.1

Several different prefixes are used to qualify the Connection ID (CID). For example, there are the Basic CID, Short Basic CID, the Primary CID, the Management CID, Secondary Management CID, Multicast CID and the reduced CID. The problems are: 1)The description of CID functions are scattered throughout the document, and 2) it is difficult to quickly discern the relevance and purpose of each CID. 3), it is unclear why so many different CID's are necessary and likely that several CIDs could be consolidated.

Suggested Remedy

Address the taxonomy of all CIDs in the introductory section on addressing in 6.3.1.

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

Reason for Recommendation

While the commentor makes a valid point that the CID language could use some clean-up, the overall assertion that many of the CIDs presented in the document could be consolidated into fewer is unsupported. Which CIDs would the commenter suggest be combined? Which ones would the commenter suggest be eliminated?

The comment is rejected due to a lack of specific text.

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

Reason for Group's Decision/Resolution

While the commentor makes a valid point that the CID language could use some clean-up, the overall assertion that many of the CIDs presented in the document could be consolidated into fewer is unsupported. Which CIDs would the commenter suggest be combined? Which ones would the commenter suggest be eliminated?

The comment is rejected due to a lack of specific text.

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/D5 **Ballot Number:** 0000754 **Comment Date**

Comment # 0128 **Comment submitted by:** Jonathan Labs Member 2004-11-04

Comment Type Technical, Binding **Starting Page #** 14 **Starting Line #** 16 **Fig/Table#** **Section** 6.3.2.1

I believe there is a backward compatibility issue with respect to the MAC header formats. In P802.16-REVd/D5, p. 35, line 51 it states:

"Two MAC header formats are defined. The first is the generic MAC header that begins each MAC PDU containing either MAC management messages or CS data. The second is the bandwidth request header used to request additional bandwidth. The single-bit Header Type (HT) field distinguishes the generic MAC header and bandwidth request header formats. The HT field shall be set to zero for the Generic Header and to one for a bandwidth request header."

Suggested Remedy

Delete Sections 6.3.2.1.3, 6.3.2.1.4, and 6.3.2.1.5.

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

Delete Sections 6.3.2.1.3, 6.3.2.1.4, and 6.3.2.1.5.

Reason for Recommendation

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

Reason for Group's Decision/Resolution

The commenter is incorrect. There is no backward compatibility issue, therefore these changes are not required.

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/D5 **Ballot Number:** 0000754 **Comment Date**

Comment # 0173 **Comment submitted by:** Mark Cudak Member 2004-11-04

Comment Type Technical, Binding **Starting Page #** 18 **Starting Line #** 32 **Fig/Table#** **Section** 6.3.2.2.7

Table 340a is a wholy inappropriate reference. This table does not having anything to do with MIMO feedback

Suggested Remedy

Reconcile field size and select Figure 231c as the reference

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

Reason for Recommendation

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

Change table reference to 296a.

Reason for Group's Decision/Resolution

The table reference is incorrect. However, the field size is correct.

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/D5 **Ballot Number:** 0000754 **Comment Date**

Comment # 0225 **Comment submitted by:** John Barr Member 2004-11-04

Comment Type Technical, Binding **Starting Page #** 22 **Starting Line #** 48 **Fig/Table#** **Section** 6.3.2.3.7

[Identical comment submitted by John Barr, Mark Cudak, Lester Eastwood, Colin Frank, Qiang Guo, Scott Migaldi, Nat Natarajan, Huaiyuan Wang.] Successive interference cancellation (SIC) receivers providing significant performance gains when used in conjunction with MIMO transmission. Subscriber stations with this receiver design can provide a considerable system capacity gain provided that base station schedulers are aware of this capability. IA base station must adjust the modulation and coding rate assigned to take advantage of the superior performance. As a result, a SIC receiver capability should be included as part of a subscriber station profile and exchanged during the system registration process.

Suggested Remedy

Provide a SIC receiver capability as part of a subscriber stations capabilities. Adopt contribution number IEEE C802.16e-04/419

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

Reason for Recommendation

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

Reason for Group's Decision/Resolution

During comment resolution, the author of contribution 04/419 withdrew the contribution, however the commenters did not withdraw this related comment, therefore the comment resolution group was forced to reject this comment for lack of a proposed remedy.

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/D5 **Ballot Number:** 0000754 **Comment Date**

Comment # 0226 **Comment submitted by:** Richard Pace Member 2004-11-04

Comment Type Technical, Binding **Starting Page #** 22 **Starting Line #** 48 **Fig/Table#** **Section** 6.3.2.3.7

Successive interference cancellation (SIC) receivers provide significant performance gains when used in conjunction with MIMO transmission. Subscriber stations (SS) with this receiver design can provide considerable system capacity gain provided that base station schedulers are aware of the SS's capability. A base station must adjust the modulation and coding rate assigned to take advantage of the superior performance. As a result, a SIC receiver capability should be included as part of the SS profile and exchanged during the system registration process.

Suggested Remedy

Provide a SIC receiver capability as part of a subscriber stations capabilities. Adopt contribution number IEEE C802.16e-04/419

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

Reason for Recommendation

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

Reason for Group's Decision/Resolution

This comment is identical to comment #225 from John Barr, the resolution of which is repeated below:

During comment resolution, the author of contribution IEEE C802.16e-04/419 withdrew the contribution, however the commenter did not withdraw this comment, therefore the group was forced to reject this comment for lack of 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/D5 **Ballot Number:** 0000754 **Comment Date**

Comment # 0280 **Comment submitted by:** Carl Eklund Member 2004-11-04

Comment Type Technical, Binding **Starting Page #** 29 **Starting Line #** 21 **Fig/Table#** 55a **Section** 6.3.2.3.26

The editorial instruction is totally wrong. Not all changes are shown with revision marks. Also the proposed change breaks the fixed standard. A MSS is a SS but the reverse is not true.

Suggested Remedy

Fix the editorial instruction and the content of the table.

Proposed Resolution **Recommendation:** Accepted **Recommendation by** Phil Barber

Adopt text in contribution 568.

Reason for Recommendation

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

Accept the changes in contribution IEEE C802.16e-04/568.

Reason for Group's Decision/Resolution

The accepted contribution provides the requested editorial instruction changes.

Group's Notes

Group's Action Items

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

Editor's Questions and Concerns

Are these new entries? Or have they been modified? Require contribution 568 details.

Editor's Action Items

Document under Review: P802.16e/D5 **Ballot Number:** 0000754 **Comment Date**

Comment # 0294 **Comment submitted by:** Richard Pace Member 2004-11-04

Comment Type Technical, Binding **Starting Page #** 31 **Starting Line #** 4 **Fig/Table#** **Section** 6.3.2.3.43.1

Several methods are defined for allocating resource for the IEEE 802.16 PHY in the OFDMA PHY. For example, the DL_MAP, compressed DL_MAP, the HARQ_MAP and the AAS_MAP. An AAS_MAP is required to provide additional link margin when using adaptive antenna technology as a range extension technique. It is not clear why three alternate MAPs are defined to provide similar functionality. Commonality and duplication exist between the DL_MAP, compressed DL_MAP and HARQ_MAP: 1) all allocate resources in the adjacent subcarrier mode, fully utilized subcarrier mode and partially used subcarrier mode, 2) all allocate resources on the uplink and downlink, 3) all provision to support STC and MIMO. This duplication unecessarily fragments the specification and hinders interoperability. Most importantly, all three maps are very verbose raising the concern that significant system resources may be required to guarantee reliable distribution of the allocation IEs. The DL MAPs

Suggested Remedy

The functionality in the OFDMA DL_MAP, compressed DL_MAP and HARQ_MAP should be consolidated into a single comprehensive map having reduced overhead.

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

Reason for Recommendation

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

Accept the changes proposed by contributions IEEE C802.16e-04/023r5 and IEEE C802.16e-05/038r1.

Reason for Group's Decision/Resolution

This comment proposes consolidating the functionality in the OFDMA DL_MAP, compressed DL_MAP and HARQ_MAP into a single comprehensive map. During comment resolution, an extension to the normal MAP was made for H-ARQ for both MIMO and non-MIMO cases using the above referenced contributions, effectively creating a single consolidated MAP

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/D5 **Ballot Number:** 0000754 **Comment Date**

Comment # 0303 **Comment submitted by:** Yigal Leiba Member 2004-11-04

Comment Type Technical, Binding **Starting Page #** 34 **Starting Line #** 24 **Fig/Table#** 94 **Section** 6.3.2.3.43.6.1

The H-ARQ mode = “Generic” is not backwards compatible with 802.16-2004, and will cause an H-ARQ supporting 802.16-2004 compliant MSS operate improperly

Suggested Remedy

Undo ALL the changes made to sections:
6.3.2.3.43.6.1
6.3.2.3.43.6.2
6.3.2.3.43.6.3
6.3.2.3.43.6.8
6.3.2.3.43.7.1
6.3.2.3.43.7.2

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

Adopt C802.16e-04_545r1.

Reason for Recommendation

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

Accept the changes proposed in contributions IEEE C80216e-04/23r5 and IEEE C80216e-05/38r1.
Incorporate changes documented in contribution IEEE C802.16e-05/022r1 with the following changes:
8.4.5.4.x: "a UIUC value of ~~15~~11"
8.4.5.3.x: "~~15~~14"
8.4.5.3.1: ~~UIUC~~DIUC

Reason for Group's Decision/Resolution

This comment proposes changes to the H-ARQ MAP. During comment resolution, an extension to the normal MAP was made for H-ARQ for both MIMO and non-MIMO cases using the above referenced contributions.

The text in contribution IEEEE C802.16e-05/22r1, accepted during comment resolution, specifically addresses the backward compatibility issue raised by the commenter.

Group's Notes

PHY

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/D5 **Ballot Number:** 0000754 **Comment Date**

Comment # 0319 **Comment submitted by:** Mark Cudak Member 2004-11-04

Comment Type Technical, Binding **Starting Page #** 40 **Starting Line #** 30 **Fig/Table#** **Section** 6.3.2.3.43.6.6.1

It is unclear how the TimeDiversity_MBS_DL-MAP_IE alloations interacts with the other allocations in the H-ARQ map because it uses a "Subchannel Offset" while all the other messages do not.

Suggested Remedy

This IE should either be clarified or removed.

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

Reason for Recommendation

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

Remove this IE from the amendment text

Reason for Group's Decision/Resolution

The TimeDiversity_MBS_DL-MAP_IE has been removed as a consequence of accepting Contribution IEEE C802.16e-04/442r3 and the deletion of section 6.3.2.3.43.6.6.1.

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/D5 **Ballot Number:** 0000754 **Comment Date**

Comment # 0320 **Comment submitted by:** Yigal Leiba Member 2004-11-04

Comment Type Technical, Binding **Starting Page #** 40 **Starting Line #** 55 **Fig/Table#** **Section** 6.3.2.3.43.6.7

Not clear how a non-MIMO MSS, or an 802.16-2004 MSS are going to handle the MIMO portion of the H-ARQ MAP

Suggested Remedy

Either clarify how the compatibility (both backwards, and for non MIMO MSS) is maintained, or remove sections 6.3.2.3.43.6.7 and 6.3.2.3.43.7.8

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

Reason for Recommendation

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

Accept the changes proposed by contributions IEEE C80216e-04/023r5 and C80216e-05/038r1.

Reason for Group's Decision/Resolution

This comment proposes fixing the H-ARQ MAP. During comment resolution, an extension to the normal MAP was made for H-ARQ for both MIMO and non-MIMO cases using the above referenced contributions.

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/D5 **Ballot Number:** 0000754 **Comment Date**

Comment # 0327 **Comment submitted by:** Mark Cudak Member 2004-11-04

Comment Type Technical, Binding **Starting Page #** 42 **Starting Line #** 5 **Fig/Table#** **Section** 6.3.2.3.43.6.7

The HARQ MAP supports MIMO allocation and STC allocations, however, there is no way to allocate spatial multiplexed users. It is impossible for two HARQ_MAP allocations to overlap in the time-frequency space due to the inherent cumulative nature of the HARQ_MAP assignments. To remedy this problem, a solution similar to that employed for MIMO HARQ can be used to enable spatial multiplexing.

Suggested Remedy

Adopt contribution number IEEE C802.16e-04/473

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

Accept the changes in contribution IEEE C802.16e-04/473r2

Reason for Recommendation

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

Accept the changes in contribution IEEE C802.16e-04/473r5

After the table, add the sentence: "The CQI control information and H-ARQ control information shall be provided by the preceding compact DL MAP IE."
For each Padding entry in the table, in the notes, define the padding to be "Shall be set to zero".

Accept the changes in contribution IEEE C80216e-05/084r4.

Reason for Group's Decision/Resolution

This comment was initially rejected, however during comment resolution, the contribution cited in the suggested remedy was updated and ultimately accepted with modifications.

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/D5 **Ballot Number:** 0000754 **Comment Date**

Comment # 0331 **Comment submitted by:** Mark Cudak Member 2004-11-04

Comment Type Technical, Binding **Starting Page #** 42 **Starting Line #** 48 **Fig/Table#** **Section** 6.3.2.3.43.6.7

In the Table 97a—MIMO Compact DL-MAP IE, the CQICH_Num field allows one to allocate 1 to 4 CQI channels. However, when uplink channel sounding techniques are employed in a TDD deployment no CQI channels are necessary. This message must be updated to allow for the case where zero CQI channels are allocated.

Suggested Remedy

In Table 97a, increase the field size fo the CQICH_Num field from 3 bits to 2 bits. Replace the note text , "Total number of CQICHs assigned to this MSS is (CQICH_Num +1)" with "Total number of CQICHs assigned"

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

Reason for Recommendation

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

Delete: "Total number of CQICHs assigned to this MSS is (CQICH_Num +1)"

Reason for Group's Decision/Resolution

This is a simpler remedy.

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/D5 **Ballot Number:** 0000754 **Comment Date**

Comment # 0343 **Comment submitted by:** Yigal Leiba Member 2004-11-04

Comment Type Technical, Binding **Starting Page #** 44 **Starting Line #** 9 **Fig/Table#** **Section** 6.3.2.3.43.6.9

Two issues with this section:
1. Not clear what is it doing, and what benefit is gained by all this complexity
2. Not clear how is it bacwrds compatible to 802.16-2004

Suggested Remedy

Either provide a very convincing explanation as to the benefit and compatibilty, or delete sections 6.3.2.3.43.6.9 and 6.3.2.3.43.6.10.

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

This comment is the same as commment #331

Reason for Recommendation

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

An explanation has been provided as follows. . .

H-ARQ Compact MBS MAP IE is for MBS service only for MSS's supporting H-ARQ.
Like MBS MAP IE in DL_MAP, H-ARQ Comapct MBS MAP IE support single BS MBS and multi BS MBS.
And when usage of H-ARQ Compact MBS MAP IE will enhance coverage of MBS service with time diversity and macro diversity.
And it is marked that it is used only when there is MBS service for H-ARQ enabled MSS. Therefore, it does not invoke any compatibility problem.
The only remaining issue is that 6.3.2.3.43.6.4 is duplicated with 6.3.2.3.43.6.9, therefore 6.3.2.3.43.6.4 should be deleted.

Reason for Group's Decision/Resolution

The group has provided an explanation as requested by the commenter. The explanation is provided above. No changes are required to the document.

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/D5 **Ballot Number:** 0000754 **Comment Date**

Comment # 0349 **Comment submitted by:** Mark Cudak Member 2004-11-04

Comment Type Technical, Binding **Starting Page #** 44 **Starting Line #** 44 **Fig/Table#** **Section** 6.3.2.3.43.6.9

Multi-frame transmission IE's in subclauses 6.3.2.3.43.6.9 and 6.3.2.3.43.6.10 are not defined sufficiently. No normative text describing the operation of the multi-frame transmission exists.

Suggested Remedy

A disccussion of multi-frame transmissions should be added to the specification or the IE's should be removed.

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

This comment is superceded by comment #338

Reason for Recommendation

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

This comment is superceded by comment #338

Reason for Group's Decision/Resolution

The commenter has provided no specific text, however, one of the suggested remedies is accomplished by the resolution of comment #338 which removes these sections.

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/D5 **Ballot Number:** 0000754 **Comment Date**

Comment # 0424 **Comment submitted by:** Ron Murias Member 2004-11-04

Comment Type Technical, Binding **Starting Page #** 65 **Starting Line #** **Fig/Table#** **Section** 6.3.2.3.47

Several messages are not sufficiently defined for the OFDM PHY. An example is the Neighbor Advertisement message (MOB_NBR-ADV). Specifically the definition is missing from Page 65, line 57, Table 106e, and Table 106f.

Suggested Remedy

Modify the relevant definitions in Section 6.3.2.47 and other sections as required to include the OFDM PHY.

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

Refer to comment #430

Reason for Recommendation

Comment #430 accepted the changes proposed by contribution IEEE C802.16e-04/520

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

Reason for Group's Decision/Resolution

Comment #430, which accepted the changes proposed by contribution IEEE C802.16e-04/520, provides the suggested remedy.

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/D5 **Ballot Number:** 0000754 **Comment Date**

Comment # 0588 **Comment submitted by:** Jonathan Labs Member 2004-11-04

Comment Type Technical, Binding **Starting Page #** 94 **Starting Line #** 59 **Fig/Table#** **Section** 6.3.13.1.4

A mechanism for MBS support is needed for the OFDM PHY.

Suggested Remedy

1) On p. 92, line 24, insert the following:

6.3.7.5 Map relevance and synchronization

[Modify the second paragraph in Section 6.3.7.5 to:]

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

Reason for Recommendation

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

Reason for Group's Decision/Resolution

The commenter's proposed remedy is only a partial solution for MBS for OFDM. Other areas, such as security, are not addressed.

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/D5 **Ballot Number:** 0000754 **Comment Date**

Comment # 0619 **Comment submitted by:** Carl Eklund Member 2004-11-04

Comment Type Technical, Binding **Starting Page #** 98 **Starting Line #** 48 **Fig/Table#** **Section** 6.3.17

The fundamental mistake was already done in 802.16-2004 but since most of the text is going to change we could correct the problem now.

The problem is that H-ARQ is not a MAC layer function. This is stated clearly on line 57. ' ... and an H-ARQ packet formed by adding a CRC to the PHY PDU' .

Suggested Remedy

Move the text on H-ARQ to the appropriate PHY section. Even better define a H-ARQ sublayer.
Also move 6.3.17.1

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

Reason for Recommendation

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

Reason for Group's Decision/Resolution

Although the comment has merit, the current text specifically states that "H-ARQ may be supported only for the OFDMA PHY" (See section 6.3.17, paragraph 1), therefore there is no technical error requiring a change in the draft.

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/D5 **Ballot Number:** 0000754 **Comment Date**

Comment # 0802 **Comment submitted by:** Vladimir Yanover Member 2004-11-04

Comment Type Technical, Binding **Starting Page #** 119 **Starting Line #** 57 **Fig/Table#** **Section** 6.3.20.2.6

There are many ambiguous and incomsistent elements in specification of SHO and FBSS.
The following is a list of issues

1. There is a need in detailed specification of PHY scenarios for SHO/FBS [similar to "SHO Based Macro-Diversity Transmission Scenarios" in IEEE C802.16e-04/170r1]. For MAC operations there is a big difference between RF level combining, soft combining and selection diversity.

2. The assumption of SHO is that state machines of MAC [of specific connections] at all BSs from Active Set are tightly synchronized. At SHO two

Suggested Remedy

Either modify text to fix mentioned problems or delete sections 6.3.20.2.6

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

Reason for Recommendation

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

During comment resolution the following remedies were adopted:

Remedy 1: In section 6.3.20.1.1.1 page 128.
Delete section 6.3.20.1.1.1 "Neighbor preference"
Change in Table 106d "Hand Off Neighbor Preference" field to reserved bits
Delete text at p. 80
"Handoff Neighbor Preference
Defines the logical preference for handing off to a neighbor base stations as determined by the serving base station (see section 6.3.20.1.1.1)"

Remedy 2: Accept the changes proposed in contribution IEEE C802.16e-05/003r3.

Reason for Group's Decision/Resolution

The text was modified to conform with an updated contribution (IEEE C802.16e-05/003r3) provided by the commenter.

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/D5 **Ballot Number:** 0000754

Comment #	Comment submitted by:			Comment Date
0882	Carl	Eklund	Member	2004-11-04

Comment Type Technical, Binding **Starting Page #** 129 **Starting Line #** 60 **Fig/Table#** **Section** 6.3.21

This is a standard, not marketing material!

Suggested Remedy

Delete lines 60-64

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

Reason for Recommendation

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

Reason for Group's Decision/Resolution

The text in question is considered beneficial to the propoer understanding of idle mode.

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/D5 **Ballot Number:** 0000754 **Comment Date**

Comment # 0883 **Comment submitted by:** Carl Eklund Member 2004-11-04

Comment Type Technical, Binding **Starting Page #** 130 **Starting Line #** 1 **Fig/Table#** **Section** 6.3.21

The text on BS paging groups is irrelevant to the MSS Idle Mode as the heading of 6.3.21 idle mode is local to the MSS. The text contains mostly speculation, and speculation should not be included in a standards document.

Suggested Remedy

Delete text from lines 1 to 53.

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

Reason for Recommendation

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

Reason for Group's Decision/Resolution

The text in question is beneficial to the proper understanding of idle mode.

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/D5 **Ballot Number:** 0000754 **Comment Date**

Comment # 1007 **Comment submitted by:** Tal Kaitz Member 2004-11-04

Comment Type Technical, Binding **Starting Page #** 147 **Starting Line #** **Fig/Table#** 309 **Section** 8.4.6.1.2.2

[on behalf of Ran Yaniv]

There are several errors in the FUSC subcarrier allocation tables 309a-c and related text:

1) In table 309a-c - number of pilots in each set is wrong..

2) The number of used subcarriers in FUSC for FFT-512 and FFT-128 (tables 309c and 309d respectively) leads to an assymetric frequency

Suggested Remedy

Apply the following corrections:

1) Table 309a:
[Apply the following changes to existing table entries:]

VariabeSet #0	~~12~~ **36**	
ConstantSet #0	~~2~~ **6**	39,~~330~~ **333**,351,645,~~726~~ **729**,850

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

Reason for Recommendation

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

This comment is superseded by comment #1341, the resolution of which is repeated below

Accept the changes in contribution IEEE C802.16e-04/410r1

Reason for Group's Decision/Resolution

The accepted contribution makes corrections to the symbol structure in scalable OFDMA modes

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/D5 **Ballot Number:** 0000754

Comment #	Comment submitted by:			Comment Date
1010	James	Gilb	Member	2004-11-04

Comment Type Technical, Binding **Starting Page #** 147 **Starting Line #** 25 **Fig/Table#** **Section** 7.8.1.2.2

The cross refernces (See 7.x.x.x) are missing the subclause numbers.

Suggested Remedy

Provide the correct subclause numbers here and throughout the draft, e.g., search for x.x.

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

Reason for Recommendation

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

Provide the correct subclause numbers here and throughout the draft, e.g., search for x.x.

Reason for Group's Decision/Resolution

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** c) instructions unclear

Editor's Questions and Concerns

What are the correct subclauses that are supposed to go in here?

Editor's Action Items

Document under Review: P802.16e/D5 **Ballot Number:** 0000754 **Comment Date**

Comment # 1038 **Comment submitted by:** Ron Murias Member 2004-11-04

Comment Type Technical, Binding **Starting Page #** 153 **Starting Line #** **Fig/Table#** **Section** 8.3

Section 8.3 is mis-named. This naming convention dates back to 802.16a and is no longer relevant and is creating confusion in the standard and public perception.
In view of the changes included in 802.16d and e with respect to uplink and downlink sub-channelization this section should be renamed from "Wireless MAN-OFDM PHY" to "Wireless MAN OFDMA- 256 PHY".

Suggested Remedy

Rename Section 8.3 from "Wireless MAN-OFDM PHY" to "Wireless MAN OFDMA- 256 PHY".

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

Voted 3- 10 to keep the name the same

Reason for Recommendation

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

This comment is similar to comment #1037.
Voted 3- 10 to keep the name the same.

Reason for Group's Decision/Resolution

Sections 8.3 and 8.4 are different PHY specifications. The renaming of section 8.3 in the "802.16e" Amendment is inconsistent with the organization and technical content of the base standard, IEEE 802.16-2004. For example: In section 8.3, the sub channelization is optional on both uplink and downlink and is technically distinct from the mandatory subchannelization in section 8.4

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/D5 **Ballot Number:** 0000754 **Comment Date**

Comment # 1107 **Comment submitted by:** Tal Kaitz Member 2004-11-04

Comment Type Technical, Binding **Starting Page #** 161 **Starting Line #** 48 **Fig/Table#** **Section** 8.4.4.6.3

The definition of the AAS Downlink preamble is not clear.
It is not clear what is the sector number (s= 0~3) and what n signifies.
It is not clear what is the boosting to implied The value of 9dB, as in the frame preamble, is too high. Unlike the frame preamble, this preamble does not provide low PAPR, and all its subcarriers are modulated.

Suggested Remedy

Clarify or replace text

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

Reason for Recommendation

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

Remove lines 37-41 and lines 45-60.

Reason for Group's Decision/Resolution

This clarifies the 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/D5 **Ballot Number:** 0000754 **Comment Date**

Comment # 1110 **Comment submitted by:** Tal Kaitz Member 2004-11-04

Comment Type Technical, Binding **Starting Page #** 162 **Starting Line #** **Fig/Table#** **Section** 8.4.5.3.2, 8.4.5.4.4

[on behalf of Ran Yaniv]

There are several duplicate extended DIUCs in use throughout section 8.4.5.3. As a result, a total of 18 extended DL IEs are defined while there are only 16 available extended DIUCs.

Suggested Remedy

Define a second layer of extended DIUCs and UIUCs

---

1. Add the following text before the end of section 8.4.5.3.2

In addition, a BS may transmit DIUC=15 with extended DIUC=15 to indicate that the extended IE conforms to the structure shown in table 275a. A station shall ignore an extended IE entry with an extended[2] DIUC value for which the station has no knowledge. In the case of a known extended[2]

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

Accept the changes in contribution IEEE C802.16e-05/088.

Reason for Recommendation

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

Accept the changes in contribution IEEE C802.16e-05/088.

Reason for Group's Decision/Resolution

This comment was originally rejected, however, during comment resolution, the cited contribution, which corrects and clarifies the extended DIUC and UIUC text, was accepted.

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/D5 **Ballot Number:** 0000754 **Comment Date**

Comment # 1113 **Comment submitted by:** John Barr Member 2004-11-04

Comment Type Technical, Binding **Starting Page #** 162 **Starting Line #** 23 **Fig/Table#** **Section** 8.4.5.3.4

[Identical comment submitted by John Barr[satisfied], Mark Cudak, Lester Eastwood[satisfied], Colin Frank[satisfied], Qiang Guo[satisfied],, Scott Migaldi[satisfied], Nat Natarajan, Huaiyuan Wang[satisfied].]
The current draft does not allow a base to "beam form" the pilots in non-AAS configurations. Beam formed pilots can provide a significant system capacity gain with virtually no added complexity to the subscriber station. With beam-formed pilots, a base station may pre-code the both the data and pilot with the same complex weights. This weighting is compatible with conventional subscriber implementations since the weights are indistinguishable from the channel response. These pilot pre-coding techniques are applicable to SDMA, Beam Steering, TXAA and MIMO techniques.

Suggested Remedy

Enhance the STC zone to allow for beam formed pilots. Adopt contribution number IEEE C802.16e-04/416.

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

Accept the changes in contribution IEEE C802.16e-04/416r2.
Modify text to substitute "optional FUSC" for "O-FUSC" in the text.

Reason for Recommendation

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

Accept the changes in contribution IEEE C802.16e-04/416r2.
Modify text to substitute "optional FUSC" for "O-FUSC" in the text.

Reason for Group's Decision/Resolution

During comment resolution, an updated contribution was presented and accepted with changes. Vote: 43-7

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** i) to do

Editor's Questions and Concerns

Editor's Action Items

Document under Review: P802.16e/D5 **Ballot Number:** 0000754 **Comment Date**

Comment # 1133 **Comment submitted by:** Tal Kaitz Member 2004-11-04

Comment Type Technical, Binding **Starting Page #** 165 **Starting Line #** **Fig/Table#** 281a **Section** 8.4.5.3.8

[on behalf of Ran Yaniv]

The encoding of the bits in the 'STC' field of the DL zone switch IE has been changed in the previous meeting. This change should be reflected in MIMO_DL_Basic_IE and MIMO_DL_Enhanced_IE.

Suggested Remedy

1. [Modify table 281a as follows:]

Matrix_indicator	2	STC matrix (see 8.4.8.1.4) STC = STC mode indicated in the latest STC_Zone_IE(). Ant23 = '2/3 antennas select' as indicated in the latest STC_Zone_IE(). if (STC == 0b~~00~~**01 and Ant23 == 0**) { 00 = Matrix A

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

Reason for Recommendation

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

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/D5 **Ballot Number:** 0000754 **Comment Date**

Comment # 1135 **Comment submitted by:** John Barr Member 2004-11-04

Comment Type Technical, Binding **Starting Page #** 165 **Starting Line #** 1 **Fig/Table#** **Section** 8.4.5.3.8

[Identical comment submitted by John Barr, Mark Cudak, Lester Eastwood, Colin Frank, Qiang Guo, Scott Migaldi, Nat Natarajan, Huaiyuan Wang.]
MIMO transmission can greatly increase the capacity of the system especially when combined with receivers implementing successive cancellation. However, the decoded BER performance of successive cancellation receivers is limited by the performance of the stream with the highest mean squared error. The decoded BER performance of a successive cancellation receiver can be greatly improved by applying a different power weighting to each MIMO stream in a frequency-selective communications channel.
Moreover, it is possible to further simply the receiver by predetermining the successive cancellation decoding order. Unequal power weighting on MIMO streams can provide a 5.0 dB improvement in frequency-selective channels over MIMO with equal power on each stream.

Suggested Remedy

Adopt contribution number IEEE C802.16e-04/420

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

Reason for Recommendation

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

Reason for Group's Decision/Resolution

During comment resolution, the author of contribution 04/420 withdrew the cited contribution, however the commenters did not withdraw this related comment, therefore the comment resolution group was forced to reject this comment for lack of a proposed remedy.

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/D5 **Ballot Number:** 0000754 **Comment Date**

Comment # 1157 **Comment submitted by:** Yigal Leiba Member 2004-11-04

Comment Type Technical, Binding **Starting Page #** 167 **Starting Line #** 48 **Fig/Table#** **Section** 8.4.5.3.12

This extended IE seems like a duplication of the "Data location in another BS IE"

Suggested Remedy

Remove section 8.4.5.3.12

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

Reason for Recommendation

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

Reason for Group's Decision/Resolution

This extended IE is not a duplication of the "Data location in another BS IE". The commenter is incorrect.

"DL PUSC Burst Alloaction in Other Segment IE" can be used in stand-alone way, but "Data location in another BS IE" shall be coupled with the normal MAP IE. Moreover, "Data location in another BS IE" does not include DIUC and CID, so it can not provide the same function as "DL PUSC Burst Alloaction in Other Segment IE" does.

Group's Notes

PHY

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/D5 **Ballot Number:** 0000754 **Comment Date**

Comment # 1217 **Comment submitted by:** Yigal Leiba Member 2004-11-04

Comment Type Technical, Binding **Starting Page #** 177 **Starting Line #** 43 **Fig/Table#** **Section** 8.4.5.4.2

'No. subchannels' cannot be deleted because backwards compatibility with 802.16-2004 is to be maintained

Suggested Remedy

Undo the deletion of 'No. subchannels' field

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

Reason for Recommendation

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

Reason for Group's Decision/Resolution

This comment was satisfied by the resolution of comment 1218, the pertinent portion of which is repeated below:

Put the No. of subchannels row back into the table (i.e. remove strikeout instructions for "No. subchannels" field)

Group's Notes

PHY

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/D5 **Ballot Number:** 0000754 **Comment Date**

Comment # 1255 **Comment submitted by:** Tal Kaitz Member 2004-11-04

Comment Type Technical, Binding **Starting Page #** 188 **Starting Line #** **Fig/Table#** **Section** 8.4.5.4.14

[on behalf of Ran Yaniv]

The UL PHY modifier IE is defined for the purpose of allowing to distinct between multiple overlapping AAS preambles in SDMA transmissions. However, the UL allocation method does not allow such overlapping allocations: the starting slot of each allocation IE is the slot following the last slot of the previous allocation IE.

Suggested Remedy

Define a new IE AAS_UL_Basic_IE( ) similar in concept to the MIMO_UL_Basic_IE( ):

Section 8.4.5.4.22 AAS UL Basic IE Format

In the UL-MAP, an AAS-enabled BS may transmit UIUC=15 with the AAS_UL_Basic_IE() to describe uplink allocations assigned to AAS-enabled SSs in an AAS zone. The MIMO mode and preamble parameters indicated in the AAS_UL_Basic_IE() shall only apply to the

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

Define a new IE AAS_UL_Basic_IE( ) similar in concept to the MIMO_UL_Basic_IE( ):

Section 8.4.5.4.22 AAS UL Basic IE Format

In the UL-MAP, an AAS-enabled BS may transmit UIUC=15 with the AAS_UL_Basic_IE() to describe uplink allocations assigned to AAS-enabled SSs in an AAS zone. The MIMO mode and preamble parameters indicated in the AAS_UL_Basic_IE() shall only apply to the

Reason for Recommendation

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

Accept the changes proposed in contribution IEEE C802.16e-05/084r4.

Reason for Group's Decision/Resolution

This comment was originally rejected, however, during comment resolution, the harmonized contribution, to which the commenter is a co-author, containing revisions to both the UL and DL AAS IEs, was accepted.

Group's Notes

PHY

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/D5 Ballot Number: 0000754 Comment Date

Comment # 1315 Comment submitted by: Tal Kaitz Member 2004-11-04

Comment Type Technical, Binding Starting Page # 199 Starting Line # Fig/Table# Section 8.4.6

[on behalf of Ran Yaniv]

In AAS systems, it is advantageous to use the same subcarriers in the DL and UL for transmission to an SS. This facilitates obtaining the channel response from the UL transmission by taking advantage of channel reciprocity.

Of the permutations currently defined for the DL channel, only the AMC permutation in the AAS mode supports such symmetric allocations along with assigning training pilots to specific user subchannels. However, this permutation lacks frequency diversity and does not provide ample training

Suggested Remedy

Adopt contribution C80216e-04/467 ("Symmetric UL/DL diversity permutations for OFDMA PHY").

Proposed Resolution Recommendation: Recommendation by

Reason for Recommendation

Resolution of Group Decision of Group: Superceded

Superseded by comment #1314

Reason for Group's Decision/Resolution

This comment is superseded by comment #1314, which accepted updated contribution IEEE C802.16e_04/467r8.

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/D5 **Ballot Number:** 0000754 **Comment Date**

Comment # 1327 **Comment submitted by:** John Barr Member 2004-11-04

Comment Type Technical, Binding **Starting Page #** 212 **Starting Line #** 28 **Fig/Table#** **Section** 8.4.6.1.1.1

[Identical comment submitted by John Barr[satisfied], Mark Cudak, Lester Eastwood[satisfied], Colin Frank[satisfied], Qiang Guo[satisfied], Scott Migaldi[satisfied], Nat Natarajan, Huaiyuan Wang[satisfied].]
The offset, in symbols, between the optional common sync symbol and the beginning of the frame is variable. A subscriber station making use of the common sync symbol has no simple means of identifying the beginning of the frame without performing an exhaustive search for pre-amble symbol. As a result, it is unclear how the subscriber station benefits from the common sync symbol. With or without the common sync symbol, the subscriber station must perform an exhaustive search to find the beginning of the frame.

Suggested Remedy
Adopt contribution number IEEE C802.16e-04/418

Proposed Resolution **Recommendation:** Accepted **Recommendation by**
Vote failed: 20-14

Reason for Recommendation

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

Reason for Group's Decision/Resolution
Originally rejected, during comment resolution, the author of contribution IEEE C802.16e-04/418 requested the contribution be rejected, however the commenters did not withdraw this related comment, therefore the group was forced to reject this comment for lack of a proposed remedy.

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/D5 **Ballot Number:** 0000754 **Comment Date**

Comment # 1445 **Comment submitted by:** John Barr Member 2004-11-04

Comment Type Technical, Binding **Starting Page #** 225 **Starting Line #** 33 **Fig/Table#** **Section** 8.4.6.2.7

[Identical comment submitted by John Barr, Mark Cudak, Lester Eastwood, Colin Frank, Qiang Guo, Scott Migaldi, Richard Pace, Nat Natarajan, Huaiyuan Wang.]
Section 8.4.6.2.7 of IEEE P802.16e/D5 provides an efficient and flexible means for the BS to estimate the downlink complex channel responses between the BS antennas and an SS, for systems where the channel is reciprocal and the BS antenna/RF system is calibrated. The number of subcarriers that are estimated is selectable from narrowband all the way up to the entire channel bandwidth.

Since Section 8.4.6.2.7 only covers the case of TDD with calibrated antenna/RF system, it must be modified to enable the same capabilities for the

Suggested Remedy
Adopt contribution number IEEE C802.16e-04/422

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

Reason for Recommendation

Resolution of Group **Decision of Group:** Accepted-Modified
Accept the changes in contributions IEEE C802.16e-04/552r7, C802.16e-04/554r4, C802.16e-04/422r4.

Reason for Group's Decision/Resolution
During comment resolution, the original contribution and others addressing this issue were updated and submitted. These revised contributions were accepted.

Group's Notes
During comment resolution:
Contribution C802.16e-04/552r7 will be provided by Jose Puthenkulam in FrameMaker format.
There is a note to the editor to change text/equations into a table. This will be provided by the coauthors of this contribution.

Group's Action Items

Editor's Notes **Editor's Actions** i) to do

Editor's Questions and Concerns

Editor's Action Items

Document under Review: P802.16e/D5 **Ballot Number:** 0000754 **Comment Date**

Comment # 1495 **Comment submitted by:** Yigal Leiba Member 2004-11-04

Comment Type Technical, Binding **Starting Page #** 234 **Starting Line #** 7 **Fig/Table#** **Section** 8.4.6.3

The requirement that 'types, the index of the subchannels in a band is increased along bins and then symbols' is not consistent with 802.16-2004. AMC is mapped like any other permutation.
In addition, this rule has devestating effects in terms of memory required in the MSS for implementation.

Suggested Remedy

Remove the sentence "In all the types, the index of the subchannels in a band is increased along bins and then symbols."
instead add the sentence '
'In all the types, data mapping follows section 8.4.3.4"

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

~~In all the types, the index of the subchannels in a band is increased along bins and then symbols.~~ In all the types, data mapping follows section 8.4.3.4 except for region mapped according to section 6.3.2.3.43. Slots for downlink AMC zone in a region mapped according to section 6.3.2.3.43 are allocated along the subchannel index first within a band. The direction of data mapping for downlink AMC slots shall be frequency first (across bands when multiple bands are allocated).
Slots for uplink AMC zone in a region mapped according to section 6.3.2.3.43 are allocated along the symbol index first within a band. The direction of data mapping for uplink AMC slots shall be frequency first (across bands when multiple bands are allocated).

Reason for Recommendation

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

~~In all the types, the index of the subchannels in a band is increased along bins and then symbols.~~ In all the types, data mapping follows section 8.4.3.4 except for region mapped according to section 6.3.2.3.43. Slots for downlink AMC zone in a region mapped according to section 6.3.2.3.43 are allocated along the subchannel index first within a band. The direction of data mapping for downlink AMC slots shall be frequency first (across bands when multiple bands are allocated).
Slots for uplink AMC zone in a region mapped according to section 6.3.2.3.43 are allocated along the symbol index first within a band. The direction of data mapping for uplink AMC slots shall be frequency first (across bands when multiple bands are allocated).

Reason for Group's Decision/Resolution

The H-ARQ MAP operation necessitates an exception to the proposed change.

Group's Notes

PHY

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/D5 **Ballot Number:** 0000754 **Comment Date**

Comment # 1532 **Comment submitted by:** Tal Kaitz Member 2004-11-04

Comment Type Technical, Binding **Starting Page #** 239 **Starting Line #** 34 **Fig/Table#** **Section** 8.4.8.3.4

The definition of 3 antennas STC is not clear. It is not clear how the 3x4 matrices map to two OFDMA symbols and two subcarriers.
Also it not clear what is a 'logical -data-subcarrier_number_for_first_tone_of-code' and how it is related to the Bin structure defined in 8.4.6.3.

Suggested Remedy

Clarify or delete

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

Reason for Recommendation

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

Accept the changes proposed in contribution IEEE C802.16e-04/557r5

Reason for Group's Decision/Resolution

The accepted contribution clarifies the text referred to in the comment.

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/D5 **Ballot Number:** 0000754 **Comment Date**

Comment # 1550 **Comment submitted by:** Tal Kaitz Member 2004-11-04

Comment Type Technical, Binding **Starting Page #** 242 **Starting Line #** 29 **Fig/Table#** **Section** 8.4.8.3.6

It is not clear how the weight coefficients w are mapped to fast-feedback message. Section 8.4.5.4.10.2 and its enhanced counterpart 8.4.5.4.10.6 only define the physical mapping of a single coefficient. It is not clear how to map a matrix of coefficients.

Suggested Remedy

Clarify. It is worth clarifying also for the vector w case. (8.4.8.3.5 etc.)

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

Reason for Recommendation

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

Accept the changes proposed in contribution IEEE C802.16e-04/552r7, section 8.4.5.4.10.6

Reason for Group's Decision/Resolution

The accepted contribution clarifies the text cited in the comment.

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/D5 **Ballot Number:** 0000754 **Comment Date**

Comment # 1582 **Comment submitted by:** Nico van Waes Member 2004-11-04

Comment Type Technical, Binding **Starting Page #** 259 **Starting Line #** **Fig/Table#** **Section** 8.4.8.9

[Identical comment submitted by Nico van Waes and Victor Stolpman.]
In Table 314m, the STC subpacket combining is defined for the 4 transmit antenna case. However, it only includes the case where the initial transmission is of spatial rate of 4 symbols/channel use (spatial multiplexing, matrix C).

Suggested Remedy
Adopt text in contribution C80216e-04/477, in which the method currently in the spec is extended to allow the case where the initial transmission has a spatial rate of 2 symbols/channel use.

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

voted 12-7, rejecting contribtion IEEE C802.16e-04/477r1

Reason for Recommendation

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

Reason for Group's Decision/Resolution
This contribution needs more clarification. It is not clear how the second packet is combined with the first packet.
It is also not shown in the document that the proposed scheme is the optimal given the channel condition; for example, the gain is acheived in PER regions that a SS would not normally operate in.

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/D5 **Ballot Number:** 0000754 **Comment Date**

Comment # 1589 **Comment submitted by:** Mark Cudak Member 2004-11-04

Comment Type Technical, Binding **Starting Page #** 260 **Starting Line #** 8 **Fig/Table#** **Section** 8.4.9

CTC IR has poor performance or error floor for some block sizes (e.g., 120 byte info size all code rates floor about 1e-3)

Suggested Remedy

Fix the turbo code.

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

Reason for Recommendation

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

Reason for Group's Decision/Resolution

The commenter has provided no specific text, however, proposed text was submitted under comment #1593 (contribution IEEE C802.16e-04/484r2), as well as later comments and contributions (IEEE C802.16e-04/484r4, -05/007r1 and others). During comment resolution, consensus on an acceptable method to fix the turbo code without breaking backwards compatibilty with the base standard could not be reached.

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/D5 **Ballot Number:** 0000754 **Comment Date**

Comment # 1590 **Comment submitted by:** David Castelow Member 2004-11-04

Comment Type Technical, Binding **Starting Page #** 260 **Starting Line #** 10 **Fig/Table#** 254a **Section** 8.4.9.1

As defined, the randomiser seed may be all zeros: not a good idea.

DAC45

Suggested Remedy

Page 260, line 20, Make initializer for B5 = 1.

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

Reason for Recommendation

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

This comment was originally rejected. As a result of further comment resolution, it was accepted modified as follows:

Page 362, line 49, Make initializer ([MSB] 0 1 1 0 1 1 1 0 0 0 1 0 1 0 1 [LSB])

Reason for Group's Decision/Resolution

During comment resolution, a different solution was developed and accepted.

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** i) to do

pg & line #

Editor's Questions and Concerns

Editor's Action Items

Document under Review: P802.16e/D5 **Ballot Number:** 0000754 **Comment Date**

Comment # 1599 **Comment submitted by:** John Barr Member 2004-11-04

Comment Type Technical, Binding **Starting Page #** 261 **Starting Line #** 1 **Fig/Table#** **Section** 8.4.9.2.1.2

[Identical comment submitted by John Barr[satisfied], Mark Cudak, Lester Eastwood[satisfied], Colin Frank[satisfied], Qiang Guo[satisfied], Scott Migaldi[satisfied], Nat Natarajan, Huaiyuan Wang[satisfied].]
Contributions IEEE C802.16e-04/136r2 and IEEE C802.16e-04/246r3 in Seoul enabling a generic chase H-ARQ for all LDPC coding modes and incremental redundancy for convolutional coding. However, the editing instructions were applied incorrectly and the current specification is inconsistent. Generic chase H-ARQ is critical feature for the system and should be enabled as specified.

Suggested Remedy
Reapply the changes a specified in contributions IEEE C802.16e-04/136r2 and IEEE C802.16e-04/246r3.

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

Reason for Recommendation

Resolution of Group **Decision of Group:** **Accepted-Modified**
Accept the changes in contribution IEEE C802.16e-05/046

Reason for Group's Decision/Resolution
During comment resolution, Contribution IEEE C802.16e-05/046 was proposed and accepted as a remedy for this comment.

Group's Notes
This comment was originally superseded to comment 913 which is not a channel coding issue and is also a non-binding comment. This was an error. This binding comment is for channel coding only. During ballot comment resolution, two comments referred to this comment , #2136 which is security related and not germane to this binding comment, and #2289 which is a channel coding issue. Comment #2289, which recommended

Group's Action Items

Editor's Notes **Editor's Actions** i) to do

Editor's Questions and Concerns

Editor's Action Items

Document under Review: P802.16e/D5 **Ballot Number:** 0000754 **Comment Date**

Comment # 1605 **Comment submitted by:** Mark Cudak Member 2004-11-04

Comment Type Technical, Binding **Starting Page #** 261 **Starting Line #** 44 **Fig/Table#** **Section** 8.4.9.2.5

LDPC codes can provide significant capacity gain. Unfortunately, the LDPC text is incomplete.

Suggested Remedy

Adopt the contribution number IEEE C802.16e-04/526 which is an output from the LDPC collaboration group

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

Accept the changes in contribution IEEE C802.16e-04/526r1

Reason for Recommendation

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

Accept the changes in harmonized contributions IEEE C802.16e-04/526r1 and IEEE C802.16e-05/066r3.

Reason for Group's Decision/Resolution

This comment is essentially the same as comments #1604 and #1606. Originally accepted, during comment resolution updated LDPC contributions, IEEE C802.16e-04/526r1 and IEEE C802.16e-05/066r3, were submitted and accepted.

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** c) instructions unclear

Editor's Questions and Concerns

Editor's Action Items

Document under Review: P802.16e/D5 **Ballot Number:** 0000754 **Comment Date**

Comment # 1640 **Comment submitted by:** David Castelow Member 2004-11-04

Comment Type Technical, Binding **Starting Page #** 274 **Starting Line #** 48 **Fig/Table#** 343 **Section**

Remove the explicit mention of Multicast CIDs. There is no need to distinguish these from other Transport CIDs and certainly the limit of 95 is too small.

Note also that if this change is rejected, the change in line 45 to the CID range will need highlighting as a change.
DAC50

Suggested Remedy

Delete Page 274, lines 48 and 49.
As this is the only change in the table, delete the table in its entirety.
Delete Page 274, lines 33-62.
Then, as the comment following the table is orphaned, add at Page 274, line 63:
[Add at the end of section 10.4:]

If it is felt necessary, adjust the text at page 274, line 64 to the effect

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

Reason for Recommendation

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

Reason for Group's Decision/Resolution

There is a need for an idle MS to distinguish Multicast CIDs from normal Transport CIDs for purposes of power savings and traffic management.

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/D5 **Ballot Number:** 0000754 **Comment Date**

Comment # 1643 **Comment submitted by:** Jonathan Labs Member 2004-11-04

Comment Type Technical, Binding **Starting Page #** 277 **Starting Line #** 1 **Fig/Table#** **Section** 11

Blanks, X's and nn's are not valid values for Type in a TLV.

Suggested Remedy

Specify type values for:

--p. 278, line 8: OMAC Tuple definition
--p. 278, line 47: DCD_settings
--p. 278, line 57: UCD_settings
--p. 280, line 18: Allow AAS Beam Select Messages
--p. 280, line 27: Use CQICH indication flag

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

Reason for Recommendation

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

Reason for Group's Decision/Resolution

No specific text was provided by the commenter.

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/D5 **Ballot Number:** 0000754 **Comment Date**

Comment # 1726 **Comment submitted by:** Mark Cudak Member 2004-11-04

Comment Type Technical, Binding **Starting Page #** 287 **Starting Line #** 26 **Fig/Table#** **Section** 11.7.8

AAS capable mobiles may be configured with different numbers of transmit and receive antennas. This configuration must be communicated to the base station so that the appropriate AAS modes may be employed.

Suggested Remedy

Adopt contribution IEEE C802.16e-04/536

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

Reason for Recommendation

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

Reason for Group's Decision/Resolution

This comment is considered out of scope of the 802.16e project as it requires a non-backward compatible change to the fixed operation defined in the base standard.

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/D5 **Ballot Number:** 0000754 **Comment Date**

Comment # 1851 **Comment submitted by:** Carl Eklund Member 2004-11-04

Comment Type Technical, Binding **Starting Page #** 311 **Starting Line #** **Fig/Table#** **Section** 12

There are no system profiles defined for mobile operation.
The current transmitter EVM requirements defined for the fixed OFDMA SS are not realistic for a MSS. The MSS power amplifier efficiency becomes too low when trying to meet the higher order modulations. For 16 QAM in .16 the efficiency is comparable to 64 QAM in .11 due to constellation error requirements.

Suggested Remedy

Add a system profile
Make 16 QAM optional for a MSS in the uplink.

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

Reason for Recommendation

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

Reason for Group's Decision/Resolution

During comment resolution, the working group did consider additional profiles. However, consensus could not be reached on acceptable 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/D5 **Ballot Number:** 0000754 **Comment Date**

Comment # 1858 **Comment submitted by:** Mark Cudak Member 2004-11-04

Comment Type Technical, Binding **Starting Page #** 311 **Starting Line #** 25 **Fig/Table#** **Section** 12.4

Many alternatives for authentication and security are enabled by the standards. However, none of these are addressed in the OFDMA PHY profiles.

Suggested Remedy

A set of security profiles defining the algorithms and options employed for authentication should be added to the standard.

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

Reason for Recommendation

The commenter has provided no text.

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

Reason for Group's Decision/Resolution

Although the commenter provided no specific text, the working group did consider additional profiles. However, during comment resolution, consensus on acceptable text could not be reached

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/D5 **Ballot Number:** 0000754 **Comment Date**

Comment # 1859 **Comment submitted by:** Mark Cudak Member 2004-11-04

Comment Type Technical, Binding **Starting Page #** 311 **Starting Line #** 25 **Fig/Table#** **Section** 12.4.2

The 802.16e has enhance the MAC layer significantly with support for handoff, sleep mode, idle mode etc. However, the profiles have not been updated to reflect this new functionality. Profiles should exist calling out the minimum mobility functions in order to build interoperable systems

Suggested Remedy

The MAC profiles should be updated to address the new MAC layer profiles so that interoperable mobile equipment may be constructed.

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

Reason for Recommendation

The commenter has provided no text.

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

Reason for Group's Decision/Resolution

Although the commenter provided no specific text, additional profiles were considered by the group during comment resolution. However, consensus could not be reached on acceptable 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/D5 **Ballot Number:** 0000754 **Comment Date**

Comment # 1860 **Comment submitted by:** Mark Cudak Member 2004-11-04

Comment Type Technical, Binding **Starting Page #** 311 **Starting Line #** 25 **Fig/Table#** **Section** 12.4.3

In July 2004, the United States Federal Communication Commission restructured the 2495-2690 MHz creating allocations for the Broadband Radio Service (BRS). The BRS allocates licensed spectrum in blocks of 6 and 16.5 MHz. The current specification through reference to IEEE 802.16-2004 only defines licensed bands of 1.25, 3.5, 7, 8.75, 14, 17.5 and 28 MHz. None of these allocations are appropriate for the blocks allocated.

Suggested Remedy

It is proposed that 802.16e include license profiles appropriate for the BRS band. The working group should consider license bands of 5, 10 and 15 MHz

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

Reason for Recommendation

The commenter has provided no text.

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

Reason for Group's Decision/Resolution

Although the commenter provided no specific text, additional profiles were considered by the group. However during comment resolution, consensus could not be reached on acceptable 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/D5 **Ballot Number:** 0000754 **Comment Date**

Comment # 1861 **Comment submitted by:** Mark Cudak Member 2004-11-04

Comment Type Technical, Binding **Starting Page #** 311 **Starting Line #** 25 **Fig/Table#** **Section** 12.4.3

The 802.16e OFDMA PHY has added considerable functionality to support mobility. Features, such as MIMO, feedback modification, new FFT sizes have been added. However, the OFDMA profiles have not been updated since IEEE 802.16-2004. Updated OFDMA profiles should exist calling out the minimum mobility functions in order to build interoperable systems for various new features.

Suggested Remedy

The OFDMA PHY profiles should be updated to address the new features of the PHY.

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

Reason for Recommendation

The commenter has provided no text.

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

Reason for Group's Decision/Resolution

Although the commenter provided no specific text, the working group did consider additional profiles. However during comment resolution, consensus on acceptable text could not be reached

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/D5 **Ballot Number:** 0000754 **Comment Date**

Comment # 1864 **Comment submitted by:** Mark Cudak Member 2004-11-04

Comment Type Technical, Binding **Starting Page #** 311 **Starting Line #** 25 **Fig/Table#** **Section** 12.4.4

The current specification incorporates through reference only the RF profiles in IEEE 802.16-2004. These profiles do not address a channelization plan for the Broadband Radio Service (BRS) in the United States.

Suggested Remedy

A set of RF profiles appropriate for the BRS in the U.S.A should be added to the specification.

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

Reason for Recommendation

The commenter has provided no text.

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

Reason for Group's Decision/Resolution

This comment is virtually identical to comment #1860 from the same commenter. Although the commenter provided no specific text, additional profiles were considered by the group. However during comment resolution, consensus could not be reached on acceptable 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/D5 **Ballot Number:** 0000754 **Comment Date**

Comment # 1867 **Comment submitted by:** James Gilb Member 2004-11-04

Comment Type Technical, Binding **Starting Page #** 319 **Starting Line #** **Fig/Table#** **Section** C

[Page 319-332; various lines]
The following commands are in the figure, but not the document: HO-notification-*, HO-pre-*. Are they defined in 802.16-2004?

Suggested Remedy
If they are not defined in 802.16-2004, these need to be replaced with the actual command name that is passed over the air.

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

Reason for Recommendation

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

Reason for Group's Decision/Resolution
These messages are backbone messages which are not passed over the air. Appendix C is purely informative text. It is expected that these messages will be defined further in P802.16g.

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/D5 **Ballot Number:** 0000754 **Comment Date**

Comment # 1874 **Comment submitted by:** James Gilb Member 2004-11-04

Comment Type Technical, Binding **Starting Page #** 332 **Starting Line #** vario **Fig/Table#** **Section** C

The MSC references 2 commands, I-am-host-of and MSS-info-req, that do not appear in this document or in 802.16-2001, are they defined in 802.16-2004?

Suggested Remedy

If they are not defined in 802.16-2004, these need to be replaced with the actual command name that is passed over the air.

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

Reason for Recommendation

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

Reason for Group's Decision/Resolution

These messages are backbone messages which are not passed over the air. Appendix C is purely informative text. It is expected that these messages will be defined further in P802.16g.

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/D5 **Ballot Number:** 0000754 **Comment Date**

Comment # 1902 **Comment submitted by:** James Gilb Member 2004-11-04

Comment Type Technical, Binding **Starting Page #** 339 **Starting Line #** 14 **Fig/Table#** **Section** E

This annex has empty subclauses, e.g., E.1.1

Suggested Remedy

Either delete the subclause or provide the missing information for all of the empty subclauses.

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

Reason for Recommendation

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

Reason for Group's Decision/Resolution

This comment was rejected due to the comment's lack of specific text for the empty subclauses, however, it is recognized that such text is needed and it is currently under development by members of the working group.

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** i) to do

Remove undefined clauses E.1.1 and E.1.2?

Editor's Questions and Concerns

Editor's Action Items

Document under Review: P802.16e/D5 **Ballot Number:** 0000754 **Comment Date**

Comment # 1930 **Comment submitted by:** Tal Kaitz Member 2004-11-04

Comment Type Technical, Binding **Starting Page #** 501 **Starting Line #** **Fig/Table#** **Section** 8.4.4

[on behalf of Ran Yaniv]

In the current IEEE P802.16-2004 specification, a frame contains a single DL-MAP and UL-MAP, each transmitted at a single rate. This constraint leads to large map overheads, especially in AA (Adaptive Antenna) systems where the single broadcast map must be transmitted at a very robust rate in order to bridge the gap between AAS transmissions and broadcast transmissions.

Multiple broadcast maps at varying rates can aid to reduce the resulting map overheads.

Suggested Remedy

Adopt contribution C80216e-04/468 ("Multiple Broadcast Maps for OFDMA PHY").

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

Reason for Recommendation

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

Accept the changes proposed in contribution IEEE C802.16e-05/023r5

Reason for Group's Decision/Resolution

During comment resolution, contribution IEEE C802.16e-05/023r5 was proposed and accepted. The commenter (Ran Yaniv), who had submitted a revised contribution, IEEE C802.16e-04/468r3, withdrew his comment and the associated contribution.

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/D5 **Ballot Number:** 0000754 **Comment Date**

Comment # 1945 **Comment submitted by:** Jonathan Labs Member 2004-11-04

Comment Type Technical, Binding **Starting Page #** 865 **Starting Line #** 65 **Fig/Table#** **Section**

I do not like the way the acronym MSS has been used to replace SS in text that has been pulled from the base document. For example, comparing Table 55--Action Codes and Actions in the P802.16-REVd/D5 (p. 78, line 42) with Table 55a in P802.16e/D5 (p. 29, line 20), one can see that the 'SS' acronym has been replaced by the 'MSS' acronym in the description of the Actions. Such a change tells me that those Action Codes now only apply to mobile SS's and not SS's in general, whether they are fixed or mobile.

(On a side note, the definition of Action Code 0x00 is being redefined in 16e, which I think breaks backward compatibility.)

Suggested Remedy

Throughout the document, use 'SS' when the function can apply to both fixed and mobile SS's and use 'MSS' when the function only applies to mobile SS's.

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

Reason for Recommendation

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

This comment has been superseded by comment #71.

Reason for Group's Decision/Resolution

This comment has been superseded by comment #71 which changes the usage of MSS and SS.

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