IEEE 802.16.1: Comments for Session #11

Comment # 11-01 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 5 **Starting Line Number** 61 **Section** TOC

Suggested Change: **Editor** Marks

Change "Sub-layer" to "Sublayer" and similar incidences throughout the document (e.g., page 7, line 12).

Reason:

In the document, "Sub-layer" is used in some places and "Sublayer" is used in others. Make them consistent.

Comment # 11-02 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 16 **Starting Line Number** 10 **Section** 1.3

Suggested Change: **Editor** Marks

To supress from the text the suffix ".1" to "802.16", as well as from the figure title.
To include the text "[1,3..]" in the figure for remarking the distinct possible flavors of Physical 802.16 layer.

Reason:

To maintain coherence with the generic protocol relationship intended to be shown with the figure.

Comment # 11-03 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 17 **Starting Line Number** 3 **Section** 1.3

Suggested Change: **Editor** Marks

To include in the standards enummeration the following ones:
- ANSI/IEEE Std 802.5
- ANSI/IEEE Std 802.6

Reason:

To complete the list of the all technologies appearing in the figure 1 on page 16.

Comment # 11-04 **Comment submitted by:** Antonis Karvelas Neither

Type Technical **Starting Page Number** 19 **Starting Line Number** 35 **Section** 3

Suggested Change: **Editor** Costa

You must add the downstream in the definition of the burst profile. Add the word downstream in the sentence "Set of parameters that describe the upstream transmission..". The correct is "Set of parameters that describe the upstream and downstream transmission ..".

Reason:

The term "burst profile" is used not only for upstream but also for downstream.

Comment # 11-05 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 19 **Starting Line Number** 35 **Section** 3

Suggested Change: **Editor** Costa

To delete "upstream" from the sentence "Burst Profile: Set of parameters that describe upstream transmission properties.."

Reason:

The definition of Burst Profile is generic to bith upstream and downstream.

Comment # 11-06 **Comment submitted by:** Kenneth Stanwood Member

Type Technical **Starting Page Number** 19 **Starting Line Number** 41 **Section** 3 Definitions

Suggested Change: **Editor** Costa

See IEEE 802.16.1c-01/04r0 for description of changes for packing multiple SDUs into a single PDU in presence of fragmentation and of higher layer protocol type.

Reason:

See IEEE 802.16.1c-01/04r0 for explanation of need for packing multiple SDUs into a single PDU in presence of fragmentation and of higher layer protocol type.

Comment # 11-07 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 19 **Starting Line Number** 64 **Section** 3.11

Suggested Change: **Editor** Costa

Change "a SS" to "an SS" and all similar incidences throughout the document (e.g., page 20, line 14).

Reason:

Grammatical error.

Comment # 11-08 **Comment submitted by:** Coleman Hum Member

Type Editorial **Starting Page Number** 20 **Starting Line Number** 23 **Section** 3.18

Suggested Change: **Editor** Costa

move Section 3.18 before 3.15

Reason:

Alphabetical ordering

Comment # 11-09 **Comment submitted by:** Coleman Hum Member

Type Editorial **Starting Page Number** 20 **Starting Line Number** 26 **Section** 3.19

Suggested Change: **Editor** Costa

move Section 3.19 before 3.15

Reason:

Alphabetical ordering

Comment # 11-10 **Comment submitted by:** Stanley Wang Neither

Type Technical, Binding **Starting Page Number** 20 **Starting Line Number** 38 **Section** 3.22

Suggested Change: **Editor** Costa

Add the following definition after "Management Connection":
"Message Integrity Check (MIC): A digest which ensures that the data sent from the provisioning server were not modified en route.

Reason:

MIC is a very important part of the registration process and should have been defined.

Comment # 11-11 **Comment submitted by:** Vicente Quilez Observer

Type Technical, Binding **Starting Page Number** 20 **Starting Line Number** 39 **Section** 3.22

Suggested Change: **Editor** Costa

To clarify whether the mini-slot concept is also valid for the downstream in the mini-slot defintion included in section 3.

Reason:

Along the current standard content is not clear whether the mini-slot concept is applicable for the downstream subframe.

Comment # 11-12 **Comment submitted by:** Robert Johnson Neither

Type Technical **Starting Page Number** 20 **Starting Line Number** 44 **Section** 3.24

Suggested Change: **Editor** Costa

Add the following definitions:
"Payload Header Suppression (PHS): The process of suppressing the repetitive portion of payload headers at the sender and restoring the headers at the receiver."
"Payload Header Suppression Field (PHSF): A string of bytes representing the header portion of a PSU in which one or more bytes will be suppressed (i.e. a snapshot of the uncompressed PDU header inclusive of suppressed and unsuppressed bytes)."
"Payload Header Suppression Index (PHSI): An 8-bit mask that indicates which bytes in the PHSF to suppress, and which bytes to not suppress."
"Payload Header Suppression Rule (PHSR): A ser of TLV's that apply to a specific PHS Index."
"Payload Header Suppression Size (PHSS): The length of the Suppressed Field in bytes. This value is equivalent to the number of bytes in the PHSF and also the number of valid bits in the PHSM."
"Payload Header Suppression Valid (PHSV): A flag that tells the sending entity to verify all bytes that are to be suppressed."
"Protocol Data Unit (PDU): A data unit generated by a particular protocol layer for its next lower layer."

Reason:

These definitions are used in support of IEEE 802.16.1c-01/02, a proposed specification for Convergence Sublayer supporting variable-length, packet-based high-layer protocols. Note that the definition for PDU is per ISO/IEC 7498 standard.

Comment # 11-13 **Comment submitted by:** Stanley Wang Neither

Type Technical **Starting Page Number** 20 **Starting Line Number** 44 **Section** 3.24

Suggested Change: **Editor** Costa

Add the following definition:
"Payload Header Suppression (PHS): The process of suppressing the repetitive portion of payload headers at the sender and restoring the headers at the receiver."

Reason:

This definition is used in support of IEEE 802.16.1c-01/01, a proposed specification for ATM Convergence Sublayer.

Comment # 11-14 **Comment submitted by:** Stanley Wang Neither

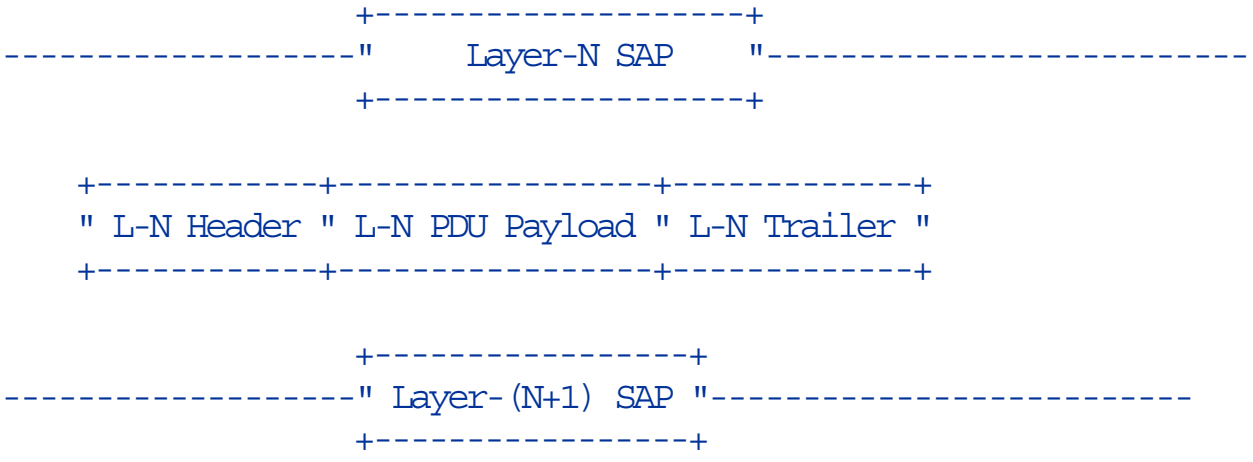
Type Technical, Binding **Starting Page Number** 20 **Starting Line Number** 52 **Section** 3.26

Suggested Change: **Editor** Costa

Add the following definition:
Protocol Data Unit (PDU): A data unit generated by a particular protocol layer for its next lower layer.

Reason:

Per ISO /IEC 7498-1:1994, the term "PDU" and "SDU" are clearly defined and should be followed in this draft standard to avoid unnecessary confusion. For example, CS PDU means the data unit generate and handed by the CS layer to the MAC layer.
The following picture shows the architecture of a typical protocol layer and the structure its PDU.



Comment # 11-15 **Comment submitted by:** Stanley Wang Neither

Type Technical, Binding **Starting Page Number** 20 **Starting Line Number** 53 **Section** 3.26

Suggested Change: **Editor** Costa

Add the following definition after the definition for "Privacy Key Mamagement Protocol":
"Ranging: The process of acquiring the correct timing offset such that the subscriber stations are aligned to a symbol that marks the begining of a mini-slot boundary."

Reason:

"Ranging" is an important step of the entire process and should have been defined.

Comment # 11-16 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 20 **Starting Line Number** 62 **Section** 3

Suggested Change: **Editor** Costa

To align the defined term and the corresponding definition.

Reason:

Attending to the given definition, the term defined is the MAC Service Access Point. If the aim is to define the term Service Access Point, any reference to MAC layer should be deleted from the definition. If the aim is to define The MAC Service Access Point, other Service Access Points should be defined as well (e.g. PHY Service Access Point)

Comment # 11-17 **Comment submitted by:** Stanley Wang Neither

Type Technical, Binding **Starting Page Number** 20 **Starting Line Number** 62 **Section** 3.28

Suggested Change: **Editor** Costa

Change the definition for "Service Access Point" to read:
"Service Access Point (SAP): The point in a protocol stack where the services of a lower layer are available to its next higher layer."

Reason:

SAP is a general term for all protocol layers not just the MAC layer. The original definition suggests otherwise.

Comment # 11-18 **Comment submitted by:** Robert Johnson Neither

Type Technical, Binding **Starting Page Number** 21 **Starting Line Number** 1 **Section** 3.29

Suggested Change: **Editor** Costa

Add the following definition:
"Service Data Unit (SDU): A data unit handed to a particular protocol layer from the layer above it."

Reason:

This definition is used in support of IEEE 802.16.1c-01/02, a proposed specification for Convergence Sublayer supporting variable-length, packet-based high-layer protocols. Note that the definition for SDU is per ISO/IEC 7498 standard.

Comment # 11-19 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 21 **Starting Line Number** 1 **Section** 3.29

Suggested Change: **Editor** Costa

Change the end of the line to read "that provides a" instead of "that is provided a"

Reason:

Grammatical error.

Comment # 11-20 **Comment submitted by:** Stanley Wang Neither

Type Technical, Binding **Starting Page Number** 21 **Starting Line Number** 1 **Section** 3.29

Suggested Change: **Editor** Costa

Add the following definition:
Service Data Unit (SDU): A data unit handed to a particular protocol layer from the layer above it.

Reason:

Per ISO /IEC 7498-1:1994, the term "PDU" and "SDU" are clearly defined and should be followed in this draft standard to avoid unnecessary confusion. For example, MAC SDU means the data unit received by the MAC layer from the CS layer.

The SDU of a particular protocol layer could be its entire PDU Payload, if the protocol layer does not process the SDU and simply adds its protocol header and trailer to the SDU.

Comment # 11-21 **Comment submitted by:** Stanley Wang Neither

Type Technical, Binding **Starting Page Number** 21 **Starting Line Number** 36 **Section** 3.39

Suggested Change: **Editor** Costa

Change the definition for "Uplink" to read:
"Uplink (UL): A flow of information that exists in the upstream."

Reason:

Like "downlink", the word "uplink" refers to a flow not a direction. The word "upstream" is used to indicate the direction.

Comment # 11-22 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 21 **Starting Line Number** 52 **Section** 4

Suggested Change: **Editor** Costa

To insert the following missing abbreviations:
- PKM (Privacy Key Management)
- BNI (Base Station Network Interface)
- SNI (Subscriber Station Network Interface)
- FBWA (Fixed Broadband Wireless Access)
- TEK (Traffic Encryption Key)
- SA (Security Association)
- SAID (Security Association IDentifier)
- PMD (Physical Media Dependant)
- HMAC (Keyed-Hashing for Message Authentication)

Reason:

To complete abbreviations chapter

Comment # 11-23 **Comment submitted by:** Stanley Wang Neither

Type Technical, Binding **Starting Page Number** 21 **Starting Line Number** 59 **Section** 4

Suggested Change: **Editor** Costa

Add the following acronym:
"CCS Common Channel Signaling"

Reason:

This acronym is used in support of IEEE 802.16.1c-01/01, a proposed specification for ATM Convergence Sublayer.

Comment # 11-24 **Comment submitted by:** Robert Johnson Neither

Type Technical, Binding **Starting Page Number** 21 **Starting Line Number** 62 **Section** 4

Suggested Change: **Editor** Costa

Add the following acronyms:
"CPS Common Part Sublayer"
"CPT CS Pass Through"

Reason:

These acronyms are used in support of IEEE 802.16.1c-01/02, a proposed specification for Convergence Sublayer supporting variable-length, packet-based high-layer protocols.

Comment # 11-25 **Comment submitted by:** Stanley Wang Neither

Type Technical, Binding **Starting Page Number** 21 **Starting Line Number** 62 **Section** 4

Suggested Change: **Editor** Costa

Add the following acronym:
"CLP Cell Loss Priority"

Reason:

This acronym is used in support of IEEE 802.16.1c-01/01, a proposed specification for ATM Convergence Sublayer.

Comment # 11-26 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 22 **Starting Line Number** 3 **Section** 4

Suggested Change: **Editor** Costa

Move "DL Down Link" to page 22, line 5 after "DIUC Downlink Interval Usage Code"

Reason:

Out of order

Comment # 11-27 **Comment submitted by:** Roger Marks Member

Type Editorial **Starting Page Number** 22 **Starting Line Number** 21 **Section** 4

Suggested Change: **Editor** Costa

Delete "H-FDD Half-duplex FDD"

Reason:

Term appears nowhere else in current draft.

Comment # 11-28 **Comment submitted by:** Stanley Wang Neither

Type Technical, Binding **Starting Page Number** 22 **Starting Line Number** 21 **Section** 4

Suggested Change: **Editor** Costa

Add the following acronym:
"HEC Header Error Check"

Reason:

This acronym is used in support of IEEE 802.16.1c-01/01, a proposed specification for ATM Convergence Sublayer.

Comment # 11-29 **Comment submitted by:** Stanley Wang Neither

Type Technical, Binding **Starting Page Number** 22 **Starting Line Number** 28 **Section** 4

Suggested Change: **Editor** Costa

Add the following acronym:
"IWF InterWorking Function"

Reason:

This acronym is used in support of IEEE 802.16.1c-01/01, a proposed specification for ATM Convergence Sublayer.

Comment # 11-30 **Comment submitted by:** Robert Johnson Neither

Type Technical, Binding **Starting Page Number** 22 **Starting Line Number** 42 **Section** 4

Suggested Change: **Editor** Costa

Add the following acronym:
"PCI Protocol Control Information"

Reason:

This acronym is used in support of IEEE 802.16.1c-01/02, a proposed specification for Convergence Sublayer supporting variable-length, packet-based high-layer protocols.

Comment # 11-31 **Comment submitted by:** Stanley Wang Neither

Type Technical, Binding **Starting Page Number** 22 **Starting Line Number** 42 **Section** 4

Suggested Change: **Editor** Costa

Add the following acronym:
"NNI Network to Network Interface (or Network Node Interface)"

Reason:

This acronym is used in support of IEEE 802.16.1c-01/01, a proposed specification for ATM Convergence Sublayer.

Comment # 11-32 **Comment submitted by:** Stanley Wang Neither

Type Technical, Binding **Starting Page Number** 22 **Starting Line Number** 43 **Section** 4

Suggested Change: **Editor** Costa

Add the following acronym:
"PCI Protocol Control Information"

Reason:

This acronym is used in support of IEEE 802.16.1c-01/01, a proposed specification for ATM Convergence Sublayer.

Comment # 11-33 **Comment submitted by:** Robert Johnson Neither

Type Technical, Binding **Starting Page Number** 22 **Starting Line Number** 45 **Section** 4

Suggested Change: **Editor** Costa

Add the following acronyms:
"PHS Payload Header Suppression"
"PHSF Payload Header Suppression Field"
"PHSI Payload Header Suppression Index"
"PHSM Payload Header Suppression Mask"
"PHSS Payload Header Suppression Size"
"PHSR Payload Header Suppression Rule"
"PHSV Payload Header Suppression Verify"

Reason:

These acronyms are used in support of IEEE 802.16.1c-01/02, a proposed specification for Convergence Sublayer supporting variable-length, packet-based high-layer protocols.

Comment # 11-34 **Comment submitted by:** Stanley Wang Neither

Type Technical, Binding **Starting Page Number** 22 **Starting Line Number** 45 **Section** 4

Suggested Change: **Editor** Costa

Add the following acronym:
"PHS Payload Header Suppression"

Reason:

This acronym is used in support of IEEE 802.16.1c-01/01, a proposed specification for ATM Convergence Sublayer.

Comment # 11-35 **Comment submitted by:** Robert Johnson Neither

Type Technical, Binding **Starting Page Number** 22 **Starting Line Number** 50 **Section** 4

Suggested Change: **Editor** Costa

Add the following acronym:
"PPP Point-to-Point Protocol"

Reason:

This acronym is used in support of IEEE 802.16.1c-01/02, a proposed specification for Convergence Sublayer supporting variable-length, packet-based high-layer protocols.

Comment # 11-36 **Comment submitted by:** Stanley Wang Neither

Type Technical, Binding **Starting Page Number** 22 **Starting Line Number** 51 **Section** 4

Suggested Change: **Editor** Costa

Add the following acronyms:
"PTI Payload Type Indicator"
"PVC Permanent Virtual Connection"

Reason:

These acronyms are used in support of IEEE 802.16.1c-01/01, a proposed specification for ATM Convergence Sublayer.

Comment # 11-37 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 22 **Starting Line Number** 54 **Section** 4

Suggested Change: **Editor** Costa

Add "SA Security Association"

Reason:

Per page 20, line 54, the definition of SA.

Comment # 11-38 **Comment submitted by:** Robert Johnson Neither

Type Technical, Binding **Starting Page Number** 22 **Starting Line Number** 58 **Section** 4

Suggested Change: **Editor** Costa

Add the following acronym:
"SF Service Flow"

Reason:

This acronym is used in support of IEEE 802.16.1c-01/02, a proposed specification for Convergence Sublayer supporting variable-length, packet-based high-layer protocols.

Comment # 11-39 **Comment submitted by:** Stanley Wang Neither

Type Technical, Binding **Starting Page Number** 22 **Starting Line Number** 61 **Section** 4

Suggested Change: **Editor** Costa

Add the following acronym:
"SVC Switched Virtual Connection"

Reason:

This acronym is used in support of IEEE 802.16.1c-01/01, a proposed specification for ATM Convergence Sublayer.

Comment # 11-40 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 23 **Starting Line Number** 5 **Section** 4

Suggested Change: **Editor** Costa

To correct the abbreviation "TRGTTG" with the abbreviation "TTG", and to include the abbreviation "RTG" standing for "Rx/Tx Transmission Gap"

Reason:

"TRGTTG" does not correspond to any abbreviation in the text neither to the proposed definition. The proposed definition corresponds to the abbreviation "TTG" .
Furthermore, the counterpart to "TTG", i.e. "RTG" is not listed.

Comment # 11-41 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 23 **Starting Line Number** 6 **Section** 4

Suggested Change: **Editor** Costa

Move "UIUC Uplink Interval Usage Code" to page 23, line 11 after "UGS-AD Unsolicited Grant Service with Activity Detection"

Reason:

Out of order

Comment # 11-42 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 23 **Starting Line Number** 7 **Section** 4

Suggested Change: **Editor** Costa

Delete "DIUC Downlink Interval Usage Code"

Reason:

Already defined on page 22, line 5.

Comment # 11-43 **Comment submitted by:** Stanley Wang Neither

Type Technical **Starting Page Number** 23 **Starting Line Number** 13 **Section** 4

Suggested Change: **Editor** Costa

Add the following acronyms:
"UNI User to Network Interface"
"VC Virtual Channel"
"VCI Virtual Channel Identifier"
"VP Virtual Path"
"VPI Virtual Path Identifier"

Reason:

These acronyms are used in support of IEEE 802.16.1c-01/01, a proposed specification for ATM Convergence Sublayer.

Comment # 11-44 **Comment submitted by:** Stanley Wang Neither

Type Technical, Binding **Starting Page Number** 24 **Starting Line Number** 1 **Section** 5.1

Suggested Change: **Editor** Stanwood

Replace section 5.1 of IEEE 802.16.1/D1-2000 with section 6 of IEEE 802.16.1c-01/01. Renumber the section and subsection numbers accordingly.

Reason:

These changes are included in support of IEEE 802.16.1c-01/01, a proposed specification for ATM Convergence Sublayer.

Comment # 11-45 **Comment submitted by:** Robert Johnson Neither

Type Technical, Binding **Starting Page Number** 24 **Starting Line Number** 23 **Section** 5.2

Suggested Change: **Editor** Sater

Replace sections 5.2 and 5.3 with the content from this Packet CS contribution (IEEE 802.16.1c-01/02) starting with the section labeled "Reference Model" (on page 7) and ending with the section labeled "Common Sublayer" (on page 18, which end on page 21 before the section labeled "TLV Encodings".

Reason:

These changes are included in support of IEEE 802.16.1c-01/02, a proposed specification for Convergence Sublayer supporting variable-length, packet-based high-layer protocols.

Comment # 11-46 **Comment submitted by:** Carl Eklund Member

Type Technical **Starting Page Number** 25 **Starting Line Number** 31 **Section** 6

Suggested Change: **Editor** Stanwood

Replace "minimizes contention" with "allocates capacity"

Reason:

The protocol does not minimize contention.

Comment # 11-47 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 25 **Starting Line Number** 60 **Section** 6

Suggested Change: **Editor** Stanwood

Change "A SS" to "An SS" and similar incidences throughout the document (e.g., page 38, line 42).

Reason:

Grammatical error.

Comment # 11-48 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 27 **Starting Line Number** 39 **Section** 6.1.1

Suggested Change: **Editor** Stanwood

To insert the word "MAC" in the sentence just before "Service Access Point", thus getting the new sentence: "The IEEE 802.16 Medium Access Control layer supports the following primitives at the MAC Service Access Point".

Reason:

As there are several SAPs it is necessary to undoubtly determine which is the one supporting the listed primitives.

Comment # 11-49 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 27 **Starting Line Number** 43 **Section** 6.1.1

Suggested Change: **Editor** Stanwood

Change "MAC-CREATE-CONNECTION" to "MAC_CREATE_CONNECTION" and similar incidences throughout the document (e.g., page 27, line 44).

Reason:

Naming of SAP service primitives should be consistent. PHY SAP uses "_" and MAC SAP uses "-". In addition, due to automatic hyphenation by most word processing software, using "-" can cause confusion.

Comment # 11-50 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 27 **Starting Line Number** 49 **Section** 6.1.1

Suggested Change: **Editor** Stanwood

Change "MAC-CHANGE-CONNECTION" to "MAC_CHANGE_CONNECTION" and similar incidences throughout the document (e.g., page 27, line 50).

Reason:

Naming of SAP service primitives should be consistent. PHY SAP uses "_" and MAC SAP uses "-". In addition, due to automatic hyphenation by most word processing software, using "-" can cause confusion.

Comment # 11-51 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 27 **Starting Line Number** 55 **Section** 6.1.1

Suggested Change: **Editor** Stanwood

Change "MAC-TERMINATE-CONNECTION" to "MAC_TERMINATE_CONNECTION" and similar incidences throughout the document (e.g., page 27, line 56).

Reason:

Naming of SAP service primitives should be consistent. PHY SAP uses "_" and MAC SAP uses "-". In addition, due to automatic hyphenation by most word processing software, using "-" can cause confusion.

Comment # 11-52 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 27 **Starting Line Number** 61 **Section** 6.1.1

Suggested Change: **Editor** Stanwood

Change "MAC-DATA" to "MAC_DATA" and similar incidences throughout the document (e.g., page 27, line 62).

Reason:

Naming of SAP service primitives should be consistent. PHY SAP uses "_" and MAC SAP uses "-". In addition, due to automatic hyphenation by most word processing software, using "-" can cause confusion.

Comment # 11-53 **Comment submitted by:** Robert Johnson Neither

Type Technical, Binding **Starting Page Number** 28 **Starting Line Number** 59 **Section** 6.1.1.1.2

Suggested Change: **Editor** Stanwood

Replace "traffic parameters" with "service flow parameters"

Reason:

This change is included in support of IEEE 802.16.1c-01/02, a proposed specification for Convergence Sublayer supporting variable-length, packet-based high-layer protocols.

Comment # 11-54 **Comment submitted by:** Robert Johnson Neither

Type Technical, Binding **Starting Page Number** 28 **Starting Line Number** 60 **Section** 6.1.1.1.2

Suggested Change: **Editor** Stanwood

Add the following lines:
"packing indicator,"
"length indicator,"
"fixed SDU length,"

Reason:

These changes are included in support of IEEE 802.16.1c-01/02, a proposed specification for Convergence Sublayer supporting variable-length, packet-based high-layer protocols.

Comment # 11-55 **Comment submitted by:** Stanley Wang Neither

Type Technical, Binding **Starting Page Number** 28 **Starting Line Number** 60 **Section** 6.1.1.2

Suggested Change: **Editor** Stanwood

Add the following lines:
"payload header suppression indicator,"
"length indicator,"
"SDU length,"

Reason:

These changes are included in support of IEEE 802.16.1c-01/01, a proposed specification for ATM Convergence Sublayer.

Comment # 11-56 **Comment submitted by:** Coleman Hum Member

Type Technical **Starting Page Number** 28 **Starting Line Number** 65 **Section** 6.1.1.1.2

Suggested Change: **Editor** Stanwood

ARQ parameters (optional)

Reason:

ARQ is optional.

Comment # 11-57 **Comment submitted by:** Robert Johnson Neither

Type Technical, Binding **Starting Page Number** 29 **Starting Line Number** 16 **Section** 6.1.1.1.2

Suggested Change: **Editor** Stanwood

Add the following paragraphs:
"The packing indicator specifies whether packing is on/off for a given Service Flow."
"The length indicator specifies whether the SDUs on the Service Flow are fixed length or variable length."
"The fixed SDU length specifies the length of the SDU for a fixed-length SDU Service Flow."

Reason:

These changes are included in support of IEEE 802.16.1c-01/02, a proposed specification for Convergence Sublayer supporting variable-length, packet-based high-layer protocols.

Comment # 11-58 **Comment submitted by:** Stanley Wang Neither

Type Technical, Binding **Starting Page Number** 29 **Starting Line Number** 16 **Section** 6.1.1.2

Suggested Change: **Editor** Stanwood

Add the following three paragraphs:
"The payload header suppression indicator specifies whether the SDUs on the Service Flow should have their headers suppressed."
"The length indicator specifies whether the SDUs on the Service Flow are fixed length or variable length."
"The SDU length specifies the length of the SDU for a fixed-length SDU Service Flow."

Reason:

These changes are included in support of IEEE 802.16.1c-01/01, a proposed specification for ATM Convergence Sublayer.

Comment # 11-59 **Comment submitted by:** Carl Eklund Member

Type Technical **Starting Page Number** 29 **Starting Line Number** 20 **Section** 6.1.1.1.2

Suggested Change: **Editor** Stanwood

Change the sentence beginnin "CRC request.." to "CRC request, if ON, requests that the MSDUs delivered over this connection are transported in MPDUs with a CRC added."

Reason:

Current text is in contradiction to what has been agreed

Comment # 11-60 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 29 **Starting Line Number** 20 **Section** 6.1.1.1.2

Suggested Change: **Editor** Stanwood

To clarify if the CRC is added to MSDUs or to MPDUs.

Reason:

There is an inconsistency regarding the addition of CRC along the text. On page 29, line 20, it is mentioned that the CRC is added to MSDUs, whereas on page 36, line 23, it is mentioned that the addition is done to each MAC PDU. It is necessary to clarify this inconsistency.

Comment # 11-61 **Comment submitted by:** Yigal Leiba Member

Type Editorial **Starting Page Number** 29 **Starting Line Number** 24 **Section** 6.1.1.1.2

Suggested Change: **Editor** Stanwood

Add explenation for the ARQ-parameters field in the MAC-CREATE-CONNECTION.request message. The explenation appears for the same field in the MAC-CREATE-CONNECTION.response, and states (page 30, lines 63-65), 'The ARQ parameters are: whether ARQ is used or not for the connection, maximum re-transmission limit and acknowledgment window size.'.

Reason:

Missing (or misplaced) explenation for one of the MAC-CREATE-CONNECTION.request message fields.

Comment # 11-62 **Comment submitted by:** Coleman Hum Member

Type Technical **Starting Page Number** 29 **Starting Line Number** 25 **Section** 6.1.1.1.2

Suggested Change: **Editor** Stanwood

The ARQ parameters are optional. When it is used the parameters include window size, max number of retransmissions, and acknowledgement timeout.

Reason:

Missing description of ARQ. Need a section describing ARQ in more detail.

Comment # 11-63 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 29 **Starting Line Number** 25 **Section** 6.1.1.1.2

Suggested Change: **Editor** Stanwood

To include a description of the "ARQ parameters" carried by the primitive. The description to be include is the one appearing on page 30, lines 64-65.

Reason:

All other parameters are described.

Comment # 11-64 **Comment submitted by:** Robert Johnson Neither

Type Technical **Starting Page Number** 30 **Starting Line Number** 1 **Section** 6.1.1.2.2

Suggested Change: **Editor** Stanwood

Replace "traffic parameters" with "service flow parameters"

Reason:

This change is included in support of IEEE 802.16.1c-01/02, a proposed specification for Convergence Sublayer supporting variable-length, packet-based high-layer protocols.

Comment # 11-65 **Comment submitted by:** Coleman Hum Member

Type Technical **Starting Page Number** 30 **Starting Line Number** 8 **Section** 6.1.1.2.2

Suggested Change: **Editor** Stanwood

ARQ parameters (optional)

Reason:

ARQ is also not returned.

Comment # 11-66 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 30 **Starting Line Number** 20 **Section** 6.1.1.2.4

Suggested Change: **Editor** Stanwood

Change ".RESPONSE primitive" to ".response primitive"

Reason:

Consistency issue (per its original definition on page 27, line 45)

Comment # 11-67 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 30 **Starting Line Number** 34 **Section** 6.1.1.3.1

Suggested Change: **Editor** Stanwood

Change ".INDICATION" to ".indication"

Reason:

Consistency issue (per its original definition on page 27, line 44).

Comment # 11-68 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 31 **Starting Line Number** 20 **Section** 6.1.1.4.1

Suggested Change: **Editor** Stanwood

Change "fro" to "for"

Reason:

Typo

Comment # 11-69 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 31 **Starting Line Number** 37 **Section** 6.1.1.4.2

Suggested Change: **Editor** Stanwood

Change ".response" to ".response."

Reason:

Punctuation error. Missing "." at the end of the sentence.

Comment # 11-70 **Comment submitted by:** Coleman Hum Member

Type Editorial **Starting Page Number** 31 **Starting Line Number** 61 **Section** 6.1.1.5

Suggested Change: **Editor** Stanwood

Change AC to MAC

Reason:

Dropped Letter

Comment # 11-71 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 31 **Starting Line Number** 61 **Section** 6.1.1.5

Suggested Change: **Editor** Stanwood

To add a "M" to "AC-CHANGE-.." resulting on "MAC-CHANGE-.."

Reason:

A character is missing.

Comment # 11-72 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 33 **Starting Line Number** 39 **Section** 6.1.1.8.3

Suggested Change: **Editor** Stanwood

Change ".INDICATION" to ".indication"

Reason:

Consistency issue (per its original definition on page 27, line 44).

Comment # 11-73 **Comment submitted by:** Robert Johnson Neither

Type Technical, Binding **Starting Page Number** 34 **Starting Line Number** 38 **Section** 6.1.1.10.2

Suggested Change: **Editor** Stanwood

Add the following line:
"CS pass through,"

Reason:

This change is included in support of IEEE 802.16.1c-01/02, a proposed specification for Convergence Sublayer supporting variable-length, packet-based high-layer protocols.

Comment # 11-74 **Comment submitted by:** Stanley Wang Neither

Type Technical, Binding **Starting Page Number** 34 **Starting Line Number** 38 **Section** 6.1.1.10.2

Suggested Change: **Editor** Stanwood

Add the following line:
"CS pass through,"

Reason:

This change is included in support of IEEE 802.16.1c-01/01, a proposed specification for ATM Convergence Sublayer.

Comment # 11-75 **Comment submitted by:** Carl Eklund Member

Type Technical **Starting Page Number** 34 **Starting Line Number** 49 **Section** 6.1.1.10.2

Suggested Change: **Editor** Stanwood

Delete sentence "The length .."

Reason:

There is no need for limiting the size of the MSDU as fragmentation exists.

Comment # 11-76 **Comment submitted by:** Robert Johnson Neither

Type Technical, Binding **Starting Page Number** 34 **Starting Line Number** 52 **Section** 6.1.1.10.2

Suggested Change: **Editor** Stanwood

Add the following paragraph:
"The CS pass through specifies the 3-bit information passed by the CS. It is to be placed in the CPT field of the MAC-CPS PDU header."

Reason:

This change is included in support of IEEE 802.16.1c-01/02, a proposed specification for Convergence Sublayer supporting variable-length, packet-based high-layer protocols.

Comment # 11-77 **Comment submitted by:** Stanley Wang Neither

Type Technical, Binding **Starting Page Number** 34 **Starting Line Number** 52 **Section** 6.1.1.10.2

Suggested Change: **Editor** Stanwood

Add the following paragraph:
"The CS pass through specifies the 3-bit information passed by the CS. It is to be placed in the CPT field of the MAC-CPS PDU header."

Reason:

This change is included in support of IEEE 802.16.1c-01/01, a proposed specification for ATM Convergence Sublayer.

Comment # 11-78 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 35 **Starting Line Number** 1 **Section** 6.2.1

Suggested Change: **Editor** Sater

Change "sub-layer" to "sublayer" and similar incidences throughout the document (e.g., page 35, line 2).

Reason:

In the document, "sub-layer" is used in some places and "sublayer" is used in others. Make them consistent.

Comment # 11-79 **Comment submitted by:** Robert Johnson Neither

Type Technical, Binding **Starting Page Number** 35 **Starting Line Number** 29 **Section** 6.1.1.11.2

Suggested Change: **Editor** Stanwood

Add the following line:
"CS pass through,"

Reason:

This change is included in support of IEEE 802.16.1c-01/02, a proposed specification for Convergence Sublayer supporting variable-length, packet-based high-layer protocols.

Comment # 11-80 **Comment submitted by:** Stanley Wang Neither

Type Technical, Binding **Starting Page Number** 35 **Starting Line Number** 29 **Section** 6.1.1.11.2

Suggested Change: **Editor** Stanwood

Add the following line:
"CS pass through,"

Reason:

This change is included in support of IEEE 802.16.1c-01/01, a proposed specification for ATM Convergence Sublayer.

Comment #	11-81	**Comment submitted by:**	Kenneth	Stanwood		Member	
Type	Technical, Binding	**Starting Page Number**	35	**Starting Line Number**	59	**Section**	6.2 Data/Control
Suggested Change:						**Editor**	Sater

See Section 2 of IEEE 802.16.1c-01/03r0:

1. Insert a new section on page 35, line 59 by moving the text from page 286, line 51 through page 287, line 24:

6.2.1 Connections

Modify this moved text:
Page 286, line 60 change "registration" to "initial access".
Page 286, line 61 change "registration" to "initial access".
Page 286, line 62 add the following at the end of the paragraph: "The secondary management connection uses the Ethernet Convergence Sublayer."

2. On page 90, line 10 add the following section:

6.2.1.4.2 Fragmentation on Basic Connections

Fragmentation is allowed on basic connections, but only certain MAC Control messages are allowed to be fragmented. The MAC control messages that may be fragmented are shown in Table x. All other MAC Control messages shall not be fragmented. From a fragmentation point of view, fragmentable MAC Control messages and unfragmentable MAC Control messages shall be treated as if they are on separate connections. An unfragmentable MAC Control message may be transmitted between the fragments of a fragmentable MAC Control message.

Table x: MAC Control Messages Allowed to be Fragmented
REG-REQ
REG-RSP
REG-ACK
PKM-REQ
PKM-RSP
DSA-REQ
DSA-RSP
DSA-ACK
DSC-REQ
DSC-RSP
DSC-ACK
DSD-REQ

DSD-RSP
DCC-REQ
DCC-RSP

4. On page 117, line 8 add: "Establishment of IP connectivity shall be performed on the SS's secondary management connection."

5. On page 117, line 47 add "Establishment of time of day shall be performed on the SS's secondary management connection.

6. On page 118, line 8 after "TFTP" add "on the SS's secondary management channel".

7. On page 316, line 16 add the following sections:

11.4.5.6 PKM Flow Control
This field specifies the maximum number of concurrent PKM transactions that may be outstanding.

Type	Length	Value	Scope
5.16	1	0 indicates no limit1-255 indicate maximum concurrent transactionsdefault = 0	REG-REQREG-RSP

11.4.5.7 DSx Flow Control
This field specifies the maximum number of concurrent DSx transactions that may be outstanding.

Type	Length	Value	Scope
5.17	1	0 indicates no limit1-255 indicate maximum concurrent transactionsdefault = 0	REG-REQREG-RSP

11.4.5.8 MCA Flow Control
This field specifies the maximum number of concurrent MCA transactions that may be outstanding.

Type	Length	Value	Scope
5.18	1	0 indicates no limit1-255 indicate maximum concurrent transactionsdefault = 0	REG-REQREG-RSP

Reason:

See Section 2 of IEEE 802.16.1c-01/03r0:

1. The current air interface specification does not clarify what information is sent on basic connections and what information is sent on secondary management connections. The purpose of the secondary management connection is to allow management information that may be comprised of large, delay insensitive data to be reliably transmitted without blocking or impacting the QoS of real-time management and high QoS user data connections. To this end, the 802.16 specific MAC management messages defined in Table 2 on page 42 of the air interface specification should be transmitted only on basic connections (including the initial ranging and broadcast connections). Management that uses previously defined standards such as DHCP, TFTP, SNMP, and IP should be transmitted on the secondary

management connection. The secondary management connection should use the Ethernet convergence sublayer.

2. There are actions that are performed on the basic connections that can have multiple instances outstanding simultaneously. It would be useful to have flow control to allow the BS or the SSs to limit the number of simultaneously outstanding instances in which they are involved. Those management message types that fall into this category are:

- PKM
- DSx
- MCA

Each of these message types should be added to the SS capability negotiation that is performed via the REG-REQ and REG-RSP messages.

3. The basic connections actually have two different classes of messages from a QoS point of view. There are short messages that require quick response such as an unsolicited RNG-RSP. There are larger messages that are not quite as real-time in nature. These larger, less delay sensitive messages should not block or delay either the more real-time MAC management messages or USG traffic. But they should not be lumped in with the IP type traffic of the secondary management connection either. Which messages fall in which class is shown in the following table:

Message	Message Class
UCD	Short, real-time
DCD	Short, real-time
DL-MAP	Short, real-time
UL-MAP	Short, real-time
RNG-REQ	Short, real-time
RNG-RSP	Short, real-time
REG-REQ	Longer, more delay tolerant
REG-RSP	Longer, more delay tolerant
REG-ACK	Longer, more delay tolerant
PKM-REQ	Longer, more delay tolerant
PKM-RSP	Longer, more delay tolerant
DSA-REQ	Longer, more delay tolerant
DSA-RSP	Longer, more delay tolerant
DSA-ACK	Longer, more delay tolerant
DSC-REQ	Longer, more delay tolerant
DSC-RSP	Longer, more delay tolerant
DSC-ACK	Longer, more delay tolerant
DSD-REQ	Longer, more delay tolerant
DSD-RSP	Longer, more delay tolerant
DCC-REQ	Longer, more delay tolerant

DCC-RSP Longer, more delay tolerant
MCA-REQ Short, real-time
MCA-RSP Short, real-time
DBTC-REQ Short, real-time
DBTC-RSP (not in document, but should be) Short, real-time
ARQ-ACK Short, real-time
SBC-REQ Short, real-time
SBC-RSP Short, real-time

The short, real-time messages should never be fragmented. The longer, more delay tolerant messages should be allowed to be fragmented, but with slightly different rules than those used on a data or secondary management connection. The reason for fragmenting these is simple. A 500+ byte PKM message should not delay the transmission of USG data, for instance. The fragmentation rules need to be slightly different, however, to address the fact that there really are 2 different QoS of information on the basic connections.

For user data and secondary management connections, there is only one SDU in a state of fragmentation at a time. A new SDU may not be transmitted until the previous one is fully transmitted. If the receiving side receives a FIRST fragment or an UNFRAGMENTED SDU before receiving the END fragment of a fragmented SDU, the assumption is that the END fragment was lost and the fragmented SDU is discarded.

For basic connections, there would also be only one MAC management message in a state of fragmentation at a time. But, one of the short real-time MAC management messages may be sent UNFRAGMENTED in the middle of the fragmented message, as if they were actually on different connections - one with fragmentation allowed, and one with fragmentation disabled. This works because the two classes of MAC management messages are for completely separate protocols. So, within a protocol exchange, all messages are delivered in order.

Comment # 11-82 **Comment submitted by:** Stanley Wang Neither

Type Technical, Binding **Starting Page Number** 36 **Starting Line Number** 2 **Section** 6.2.1

Editor Sater

Suggested Change:

Change the following two sentences:
"The payload information is divided into a convergence sub-layer header and data portions. The definition and use of these message components is defined outside of the scope of the core MAC protocol."
to read as follows:
"The payload information is divided into CS header and CS payload. The definition and use of these fields are defined in 5."

Reason:

The definition and use of MAC PDU Payload are actually included in section 5 and are devided into subsections corresponding to different service-specific specifications.

Comment # 11-83 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 36 **Starting Line Number** 3 **Section** 6.2.1

Suggested Change: **Editor** Sater

Change the sentence to read ".. components are defined .." instead of ".. components is defined .."

Reason:

Grammatical error.

Comment # 11-84 **Comment submitted by:** Carl Eklund Member

Type Technical **Starting Page Number** 36 **Starting Line Number** 9 **Section** 6.2.1

Suggested Change: **Editor** Sater

Add sentence:"In the figures the bits are numbered starting from the msb with the msb being number 0"

Reason:

This is a source for endless confusion. As far as I understand it the the EC bit is the first to be transmitted.

Comment # 11-85 **Comment submitted by:** Carl Eklund Member

Type Technical **Starting Page Number** 36 **Starting Line Number** 23 **Section** 6.2.1

Suggested Change: **Editor** Sater

Change sentence "When a connection .." to read "When a connection is designated as quiring CRC every MPDU shall include a CRC-32 checksum as defined in <reference to ISO 8802-3>. Also add the reference to ISO-8803-3 in references section. "ISO/IEC 8802-3 8802-3 Standard for LAN CSMA/CD access methods and Physical layers"

Reason:

The present wording does not make it clear whether the CRC is included in the length field in the header. With the statement that the CRC is part of the MPDU this should be clear.

Comment # 11-86 **Comment submitted by:** Robert Johnson Neither

Type Technical, Binding **Starting Page Number** 37 **Starting Line Number** 13 **Section** 6.2.1

Suggested Change: **Editor** Sater

Change the uplink MAC header format to include a new 3-bit field. Label the new field "CPT" and place it after the "PDE" field. Reduce the length of "Reserved" field from 6 bits to 3 bits.

Reason:

These changes are included in support of IEEE 802.16.1c-01/02, a proposed specification for Convergence Sublayer supporting variable-length, packet-based high-layer protocols.

Comment # 11-87 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 37 **Starting Line Number** 13 **Section** 6.2.1

Suggested Change: **Editor** Sater

Shad the "Reserved" field in the figure for MAC Header Format (Figure 5)

Reason:

Consistency issue (all other reserved fields are shaded).

Comment # 11-88 **Comment submitted by:** Stanley Wang Neither

Type Technical, Binding **Starting Page Number** 37 **Starting Line Number** 13 **Section** 6.2.1

Suggested Change: **Editor** Sater

Change the uplink MAC header format to include a new 3-bit field. Label the new field "CPT" and place the new field after the existing "PDE" field. Reduce the length of "Reserved" field from 6 bits to 3 bits.

Reason:

These changes are included in support of IEEE 802.16.1c-01/01, a proposed specification for ATM Convergence Sublayer.

Comment # 11-89 **Comment submitted by:** Robert Johnson Neither

Type Technical, Binding **Starting Page Number** 37 **Starting Line Number** 56 **Section** 6.2.1

Suggested Change: **Editor** Sater

Change the downlink MAC header format to include a new 3-bit field. Label the new field "CPT" and place it after the "PDE" field. Reduce the length of "Reserved" field from 6 bits to 3 bits.

Reason:

These changes are included in support of IEEE 802.16.1c-01/02, a proposed specification for Convergence Sublayer supporting variable-length, packet-based high-layer protocols.

Comment # 11-90 **Comment submitted by:** Stanley Wang Neither

Type Technical, Binding **Starting Page Number** 37 **Starting Line Number** 56 **Section** 6.2.1

Suggested Change: **Editor** Sater

Change the downlink MAC header format to include a new 3-bit field. Label the new field "CPT" and place the new field after the existing "PDE" field. Reduce the length of "Reserved" field from 6 bits to 3 bits.

Reason:

These changes are included in support of IEEE 802.16.1c-01/01, a proposed specification for ATM Convergence Sublayer.

Comment # 11-91 **Comment submitted by:** Carl Eklund Member

Type Editorial **Starting Page Number** 38 **Starting Line Number** 6 **Section** 6.2.1

Suggested Change: **Editor** Sater

Change paragraph to read" The third header format is used for PDUs by which a SS request bandwidth. The Bandwidth Request PDUs must not have a payload and thus consist of a header alone. The format of the Bandwidth request header is given in Figure 7". The Bandwidth Request Header must adhere to the following:"

Delete sentences on lines 33&34. Replace sentence on line 43 with. "A SS receiving a PDU with a Bandwidth Request Header on the downlink must discerd the PDU.

Reason:

The bandwidth request is carried by a PDU having a header. The MAC does not communicate by means of headers. This comment is associated with comment for page 103

Comment # 11-92 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 39 **Starting Line Number** 8 **Section** 6.2.1

Suggested Change: **Editor** Sater

To add the Grant Management field description into the table.

Reason:

To completely define all the MAC Header Files the Grant Management field description should be included

Comment # 11-93 **Comment submitted by:** Kenneth Stanwood Member

Type Technical **Starting Page Number** 39 **Starting Line Number** 13 **Section** 6.2.1 Message

Suggested Change: **Editor** Sater

On page 39, line 13 add the following sentence to the Description for BR field:

"For GPT SS's, if the most significant bit of the Bandwidth request field is set to 1, the request is an aggregate request to reset the BS's perception of the connection's bandwidth needs.

Reason:

Per previous agreement and section "6.2.2.2.1 Requests", GPT SSs periodically make aggregate requests, but the mechanism for flagging a request as aggregate was left out.

Comment # 11-94 **Comment submitted by:** Robert Johnson Neither

Type Technical, Binding **Starting Page Number** 39 **Starting Line Number** 19 **Section** 6.2.1

Suggested Change: **Editor** Sater

Add the following new row to the table:

"CPT 1 This field allows the Convergence Sublayer to pass service specific information to the MAC-CPS."

Reason:

This change is included in support of IEEE 802.16.1c-01/02, a proposed specification for Convergence Sublayer supporting variable-length, packet-based high-layer protocols.

Comment # 11-95 **Comment submitted by:** Stanley Wang Neither

Type Technical, Binding **Starting Page Number** 39 **Starting Line Number** 19 **Section** 6.2.1

Suggested Change: **Editor** Sater

Add the following new row to the table:

"CPT 1 This field allows the Convergence Sublayer to pass service specific information to the MAC-CPS."

Reason:

These changes are included in support of IEEE 802.16.1c-01/01, a proposed specification for ATM Convergence Sublayer.

Comment # 11-96 **Comment submitted by:** Coleman Hum Member

Type Technical **Starting Page Number** 39 **Starting Line Number** 42 **Section** 6.2.1

Suggested Change: **Editor** Sater

The unsolicited grant size in bytes per interval required by a connection UGS with Activity Detection

Reason:

Need to define the units for a grant.

Comment # 11-97 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 40 **Starting Line Number** 18 **Section** 6.2.1

Suggested Change: **Editor** Sater

Move the entire row for "CI" to page 39, line 15 after the row for "BR"

Reason:

Out of order

Comment # 11-98 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 40 **Starting Line Number** 22 **Section** 6.2.1

Suggested Change: **Editor** Sater

Move the entire row for "PDE" to page 40, line 10 after the row for "PBR"

Reason:

Out of order

Comment # 11-99 **Comment submitted by:** Coleman Hum Member

Type Technical **Starting Page Number** 40 **Starting Line Number** 28 **Section** 39

Suggested Change: **Editor** Costa

Need ARQ proposal?

Reason:

Requires more detail on the mechanism such as how retransmits are requested, timeouts, etc. The MAC headers need to show the optional ARQ bytes.

Comment # 11-100 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 40 **Starting Line Number** 28 **Section** 6.2.1

Suggested Change: **Editor** Sater

To insert a more descriptive text and provide some explanation diagrams about the ARQ mechanism foreseen in the standard.

Reason:

The description contained in the text only take into account the behaviour of the transmitter side, but it is also necessary to describe the receiver side behaviour (e.g., behaviour when receiving wrong packets, etc)

Comment # 11-101 **Comment submitted by:** Carl Eklund Member

Type Technical **Starting Page Number** 40 **Starting Line Number** 30 **Section** 6.2.1

Suggested Change: **Editor** Sater

Delete or move paragraph elsewhere

Reason:

Although ARQ is envisioned for TG3 purposes nothing specific has been agreed to. I personally don't know the origin of this text. A clean solution would be to create a placeholder ARQ section with a reference to it.
This sectioin is about the only thing that mentions ARQ specifics in the document and as such is incomplete and adds some confusion.

Comment # 11-102 **Comment submitted by:** Vicente Quilez Observer

Type Technical, Binding **Starting Page Number** 40 **Starting Line Number** 30 **Section** 6.2.1

Suggested Change: **Editor** Sater

To clarify a possible inconsistency originated by prepending the ARQ control field bytes at the beginning of the packet.

Reason:

The ARQ control field bytes consists of 4 bit retry number and 12 bit sequence number. When these bytes are prepended at the beginning of the packet, the 4 bit retry number never could have the value 0xFF to prevent false detection on the stuff byte in Transmission Convergence Sublayer, and thus the retry number can not range up to 0xFF.

Comment # 11-103 **Comment submitted by:** Yigal Leiba Member

Type Editorial **Starting Page Number** 40 **Starting Line Number** 34 **Section** 6.2.1

Suggested Change: **Editor** Sater

After the sentences 'The ARQ control field is two bytes long and is prepended at the beginning of the packet. The control bit structure contains a 4-bit retry number and a 12 -bit sequence number.' add the sentence ' Bits 0-3 of the ARQ control field will form the 4-bit retry number, while bits 4-15 will form the sequence number.'

Reason:

Clarify the structure of the ARQ control field (maybe a figure should be inserted instead of the sentence I proposed).

Comment # 11-104 **Comment submitted by:** Carl Eklund Member

Type Editorial **Starting Page Number** 40 **Starting Line Number** 47 **Section** 6.2.1.1.1

Suggested Change: **Editor** Sater

Change the term "Convergence sublayer PDU" to "Transport PDU". Propagate the change through the document.

Reason:

The Convergence sublayer PDU is the unit of peer-to-peer communication of the CS (does not include the MAC header). Here we are defining a MPDU format.

Comment # 11-105 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 41 **Starting Line Number** 47 **Section** 6.2.1.1.2

Suggested Change: **Editor** Sater

Change "a SA" to "an SA" and similar incidences throughout the document (e.g., page 41, line 47 again).

Reason:

Grammatical error.

Comment # 11-106 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 41 **Starting Line Number** 47 **Section** 6.2.1.1.2

Suggested Change: **Editor** Sater

Change "a SA" to "a Security Association (SA)".

Reason:

SA appears for the first time and should be spelled out.

Comment # 11-107 **Comment submitted by:** Antonis Karvelas Neither

Type Technical, Binding **Starting Page Number** 43 **Starting Line Number** 15 **Section** 6.2.1.2

Suggested Change: **Editor** Sater

Delete of define somewhere in the standard the DCC-REQ and DCC-RSP MAC Management messages.

Reason:

There is nowhere definition of the DCC-REQ and DCC-RSP MAC Management messages.

Comment #	11-108	**Comment submitted by:**	Kenneth	Stanwood	Member		
Type	Technical, Binding	**Starting Page Number**	43	**Starting Line Number**	23	**Section**	6.2.1.2 MAC
						Editor	Sater

Suggested Change:

On page 43, line 23 add:

24 DBTC-RSP Downlink Burst Type Change Response

On page 43, line 24, change "24" to "25"

On page 89, line 5 add a section for the Downlink Burst Type Change Response (DBTC-RSP) Message. It should have the same exact structure as the DBTC-REQ message except that the Message Type = 24. The text should read:

" The Downlink Burst Type Change Response (DBTC-RSP) Messge shall be transmitted by the BS on the SS's basic CID in response to a DBTC-REQ message from the SS. If the DIUC parameter is the same as requested in the DBTC-REQ message then request was accepted. Otherwise, if request is rejected, the DIUC parameter shall be the previous DIUC at which the SS was receiving downlink data."

Reason:

If the SS is, for instance, asking for a change to a more robust burst profile due to a rain fade, it needs to know that the BS received its DBTC-REQ and is transmitting data using the more robust profile. If the SS just assumes the change takes place, but the SS did not receinve the DBTC-REQ message, SS will lose its downlink data.

Comment #	11-109	**Comment submitted by:**	Kenneth	Stanwood	Member		
Type	Technical	**Starting Page Number**	43	**Starting Line Number**	25	**Section**	6.2.1.2 Management
Suggested Change:						**Editor**	Sater

1. On page 43, line 25, add two rows to Table 2 for the following 2 new MAC management messages:

26 SBC-REQ SS Basic Capability Request
27 SBC-RSP SS Basic Capability Response

2. On page 43, line 26 change the reserved message types to 28-255.

3. On page 59, line 21 add the following parenthetical remark at the end of the line:

"(excluding Physical Parameters Supported and Bandwidth Allocation Support)"

4. On page 88, line 23 add the following sections:

6.2.1.2.x SBC-REQ Message
The SS Basic Capability Request shall be transmitted by the SS during initialization. An SS shall generate SBC-REQ messages in the form shown in Figure x.

<<Insert figure here identical to Figure 22 on page 58 for REG-REQ except message type field = 26.>>

An SS shall generate SS Basic Capability Requests including the following parameter:

Basic CID (in the MAC Header)
The CID in the MAC Header is the Basic CID for this SS, as assigned in the RNG-RSP message.

All other parameters are coded as TLV tuples.

Basic Capability Requests contain those SS Capabilities Encodings that are necessary for effective communication with the SS during the remainder of the initialization protocols. The following parameters are included in the Basic Capabilities Request:

Physical Parameters Supported (see 11.4.5.3)
Bandwidth Allocation Support (see 11.4.5.4.1)

6.2.1.2.x SBC-RSP Message
The SS Basic Capability Response shall be transmitted by the BS in response to a received SBC-REQ.

To provide flexibility, the message parameters following the Response field shall be encoded in a TLV format.

<<Insert figure here identical to Figure 23 on page 60 for REG-RSP except message type field = 27.>>

A BS shall generate SS Basic Capability Responses in the form shown in Figure x, including both of the following parameters:

CID (in the MAC Header)
CID from corresponding SBC-REQ to which this response refers (this acts as a transaction identifier)

Response
A one-byte quantity with one of the following values:
0 = Okay

The following parameters shall be included in the registration response if found in the SS Basic Capability Request:

SS Capabilities (see 11.4.5)
The BS response to the subset of SS capabilities present in the SBC-REQ message. The BS responds to the SS capabilities to indicate whether they may be used. If the BS does not recognize an SS capability, it must return this as "off" in the SBC-RSP.

Only capabilities set to "on" in the SBC-REQ may be set "on" in the REG-RSP as this is the handshake indicating that they have been successfully negotiated.

5. On page 107, line 49 insert the following line between items c and d, renumbering the rest of the list:

d) Negotiate basic capabilities

6. On page 108, line 29 add the negotiation of basic capabilities to Figure 58 between Ranging and Establishment of IP connectivity.

7. On page 117, line 1 add the following section before the current section 6.2.3.8 (renumbering the following sections):

6.2.3.8 Negotiate Basic Capabilities
Immediately after completion of ranging, the SS informs the BS of its basic capabilities by transmitting an SBC-REQ message with its capabilities set to "on". The BS responds with an SBC-RSP message with the intersection of the SS's and the BS's capabilities set to "on".

8. On page 313, line 28 through page 316, line 15 change the scope of the TLVs to be SBC-REQ and SBC-RSP.

Reason:

As discussed in section 1 of IEEE 802.16.1c-01/03r0:

Currently the SS physical layer capabilities are reported to the BS in the REG-REQ message. This message, unfortunately, is preceded by

Currently the SS physical layer capabilities are reported to the BS in the REG-REQ message. This message, unfortunately, is preceded by the establishment of IP connectivity, establishment of time of day, and the transfer via TFTP of the configuration file. This is shown in Figure 58 on page 108 of the air interface specification. Unfortunately, until the REG-REQ message the BS is not aware of the SSs capabilities at the physical layer. This effectively requires that the BS communicate with the SS using the control channel FEC. This is a very inefficient use of bandwidth.

Additionally, the BS does not know whether the SS is GPC or GPT. Since some of the interaction to this point should happen on the SSs basic connection and some should happen on its secondary management connection, this unduly complicates the initialization process.

An SS Basic Capabilities Request (SBC-REQ) and Response (SBC-RSP) should be added in the initialization sequence between ranging and the establishment of IP connectivity. The SBC-REQ should be from the SS to the BS and should contain the following TLVs that are currently in the REG-REQ messages. The SBC-RSP would return those that the SS is allowed to use as is currently being done by the REG-RSP message. Only those relevant to the particular PHY or SS should be included.

- 5.12.1 Physical Layer Type (it is actually recommended that this TLV be eliminated since it serves no purpose)
- 5.12.2 10-66 GHz PHY SS Demodulator Types
- 5.12.3 10-66 GHz PHY SS Modulator Types
- 5.12.4 10-66 GHz PHY Mode A SS Downstream FEC Types
- 5.12.5 10-66 GHz PHY Mode B SS Downstream FEC Types
- 5.12.6 10-66 GHz PHY SS Upstream FEC Types
- 5.14 Duplexing Support (it is actually recommended that this TLV be eliminated since it serves no purpose)
- 5.15 Bandwidth Allocation Support

These TLVs would then be removed from the REG-REQ and REG-RSP messages.

Comment # 11-110 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 43 **Starting Line Number** 33 **Section** 6.2.1.2.1

Suggested Change: **Editor** Sater

To explain what is an active uplink.

Reason:

Along the text there is no explanation about the meaning, implications, and possible number of active uplinks in the system.

Comment # 11-111 **Comment submitted by:** Vladimir Yanover Observer

Type Editorial **Starting Page Number** 44 **Starting Line Number** 46 **Section** 6.2.1.2.1

Suggested Change: **Editor** Sater

Remove all the definition of the parameters set of UCD message to the PHY section

Reason:

This is a part of MAC-PHY separation process. Most of the parameters listed in the mentioned topic are not relevant e.g. to HIPERLAN PHY

Comment # 11-112 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 44 **Starting Line Number** 57 **Section** 6.2.1.2.1

Suggested Change: **Editor** Sater

To define the meaning of "PHY types=(0,1)" previously to mention it.

Reason:

It is necessary to introduce the concept and notation of PHY types previously to be used in the text.

Comment # 11-113 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 45 **Starting Line Number** 1 **Section** 6.2.1.2.1

Suggested Change: **Editor** Sater

To insert "Figure 12" just between "UL-MAP Message." and "illustrates"

Reason:

Missing word

Comment # 11-114 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 47 **Starting Line Number** 16 **Section** 6.2.1.2.2

Suggested Change: **Editor** Sater

To explicitely describe the characteristics of TDM Burst type 1

Reason:

In the Comments column, it is necessary to explicitely describe what is meant by well known, i.e. what are the characteristics of TDM burst type 1

Comment # 11-115 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 47 **Starting Line Number** 40 **Section** 6.2.1.2.2

Suggested Change: **Editor** Sater

To describe the function of Gap Burst type in the system, as well as to confirm if Gap Burst descriptor should include all the parameters listed on page 48, lines 35-47

Reason:

It is not clear how is used the Gap Burst type, neither if its descriptor should contain the same parameters as the other burst types in the table.

Comment # 11-116 **Comment submitted by:** Antonis Karvelas Neither

Type Technical, Non-binding **Starting Page Number** 48 **Starting Line Number** 28 **Section** 6.2.1.2.2

Suggested Change: **Editor** Sater

Which is the reason for sending every 2 seconds (maximum) the PHY characteristics of each Burst (Burst Descriptor)? Why to spend bandwidth?

Reason:

I believe that the PHY characteristics of each Burst are chosen for every system deployment once and if changed, are changed very rarely.

Comment # 11-117 **Comment submitted by:** Vladimir Yanover Observer

Type Editorial **Starting Page Number** 48 **Starting Line Number** 32 **Section** 6.2.1.2.3

Suggested Change: **Editor** Sater

Remove all the definition of the parameters set of Burst Descriptor to the PHY section

Reason:

This is a part of MAC-PHY separation process. Most of the parameters listed in the mentioned topic are not relevant e.g. to HIPERLAN PHY

Comment # 11-118 **Comment submitted by:** Carl Eklund Member

Type Technical **Starting Page Number** 48 **Starting Line Number** 35 **Section** 6.2.1.2.2

Suggested Change: **Editor** Sater

Make irrelevant TLVs optional in the burst descriptos

Reason:

There is little use for a Mode A BS to tell 10^6 times during its lofetime that it doesn't support BTCs. Same comment applies for page 45 line 38 and I am too lazy to start a new comment document for this duplicated comment.

Comment # 11-119 **Comment submitted by:** Coleman Hum Member

Type Editorial **Starting Page Number** 49 **Starting Line Number** 26 **Section** Figure 15

Suggested Change: **Editor** Marks

Type 5)

Reason:

missing closing bracket

Comment # 11-120 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 49 **Starting Line Number** 26 **Section** 6.2.1.2.3

Suggested Change: **Editor** Sater

To correct the figure changing "PHY Type 5" by "Phy Type 2"

Reason:

To avoid inconsistency

Comment # 11-121 **Comment submitted by:** Carl Eklund Member

Type Technical **Starting Page Number** 49 **Starting Line Number** 53 **Section** 6.2.1.2.3

Suggested Change: **Editor** Sater

Insert text" -Length: If the length of the DL-MAP message is a non-integer number of byte the Length field in the MAC header is reported as \lceil length of the DL-MAP message \rceil [latex notation]. The message must be padded to match this length but the SS must disregard the 4 pad bits"

Reason:

The length is given in bytes, the DL-MAP is not byte aligned.

Comment # 11-122 **Comment submitted by:** Vladimir Yanover Observer

Type Editorial **Starting Page Number** 49 **Starting Line Number** 54 **Section** 6.2.1.2.3

Suggested Change: **Editor** Sater

Remove all the definition of the parameters set of PHY synchronization field to the PHY section

Reason:

This is a part of MAC-PHY separation process. Removing (to PHY section) of the constant frame length condition is especially important.

Comment # 11-123 **Comment submitted by:** Carl Eklund Member

Type Editorial **Starting Page Number** 55 **Starting Line Number** 14 **Section** 6.2.1.2.5

Suggested Change: **Editor** Sater

Add UIUC=0 reserved to table 4

Reason:

UIUC=0 is not defined

Comment # 11-124 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 56 **Starting Line Number** 15 **Section** 6.2.1.2.5

Suggested Change: **Editor** Sater

To add a "l" to "Til"

Reason:

Missing letter

Comment # 11-125 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 56 **Starting Line Number** 32 **Section** 6.2.1.2.5

Suggested Change: **Editor** Sater

To delete "is" from "Initialization CID if SS is has not yet..", and correction of "..both dowlink and downlink.." by ".. both downlink and uplink.."

Reason:

To correct wording errors in the text

Comment #	11-126	Comment submitted by:	Carl	Eklund	Member
Type	Editorial	Starting Page Number	56	Starting Line Number 38	Section 6.2.1.2.5
Suggested Change:					Editor Sater

The text if sent.. should not be a part of the itemized list

Reason:

List is about CIDs in the initial maintenance intervals.

Comment #	11-127	Comment submitted by:	Antonis	Karvelas	Neither
Type	Technical, Binding	Starting Page Number	56	Starting Line Number 45	Section 6.2.1.2.5
Suggested Change:					Editor Sater

In sentence :
"The identifier of the downlink channel on which the SS received the DCD which described this uplink."
replace the DCD with UCD.

Reason:

The Uplink channel is described by the UCD and not the DCD MAC Management messages.

Comment #	11-128	Comment submitted by:	Vicente	Quilez	Observer
Type	Editorial	Starting Page Number	56	Starting Line Number 46	Section 6.2.1.2.5
Suggested Change:					Editor Sater

To change the sentence: .. the DCD which described this uplink.
by the sentence: .. the DCD which described this downlink.

Reason:

There is an inconsistency since the DCD only describes burst profiles in the downlink direction (not in the uplink).

Comment # 11-129 **Comment submitted by:** Vladimir Yanover Observer

Type Editorial **Starting Page Number** 58 **Starting Line Number** 2 **Section** 6.2.1.2.7

Suggested Change: **Editor** Sater

Replace "Requested DL Modulation Maximum Modulation Type Supported" with "Requested range of DL PHY parameters"

Reason:

This is a part of MAC-PHY separation process. In e.g. 802.11a/HIPERLAN PHY the Maximum Modulation Type does not define the highest possible data rate, the rate depends also on the FEC rate (1/2, 2/3 etc.)

Comment # 11-130 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 58 **Starting Line Number** 61 **Section** 6.2.1.2.7

Suggested Change: **Editor** Sater

To change : Downlink Frequency Configuration settings.
by : Downstream Frequency Configuration settings.

Reason:

To be coherent with the title of the referenced standard section (11.4.1).

Comment # 11-131 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 58 **Starting Line Number** 62 **Section** 6.2.1.2.7

Suggested Change: **Editor** Sater

To change : Uplink Channel ID configuration setting
by ; Upstream Channel ID configuration setting.

Reason:

To be coherent with the title of the referenced standard section (11.4.2).

Comment #	11-132	**Comment submitted by:**	Kenneth	Stanwood	Member		
Type	Technical, Binding	**Starting Page Number**	58	**Starting Line Number**	64	**Section**	6.2.1.2.7 Registration
Suggested Change:						**Editor**	Sater

See section 3 of IEEE 802.16.1c-01/03r0:

1. On page 58, delete line 64.

2. On page 59, delete line 1.

3. On page 59, line 27 add:
- Uplink Service Flow Configuration Settings
- Downlink Service Flow Configuration Settings

4. On page 60, delete lines 41-43.

5. On page 60 delete line 49 through page 61, line 13.

6. On page 62 delete lines 10-26.

7. On page 108, line 38 add a step to Figure 58 called "Establish provisioned connections" between privacy and operational.

8. On page 118, line 26 delete the phrase "provisioned set of service flows and any other".

9. On page 120, line 16, remove the phrase "Setup Service Flows &" from the rightmost box.

10. On page 120, line 51 delete step d).

11. On page 120, line 60 delete the phrase "If the Registration Request contains Service Flow encodings,"

12. On page 121, line 29-37 delete the 2 decision diamonds and their associated "No" actions.

13. On page 121, line 45-46 delete the "Create Requested Services" box.

14. On page 122, line 16-17 delete the "Destroy Services" box.

15. On page 122, line 33 add the section:

6.2.3.9.3 Service Flow Setup

After privacy is initialized, or after registration if privacy is disabled, the SS shall send DSA-REQ messages to the BS for to set up connections for the service flows listed in the configuration file. The BS shall respond with the DSA-RSP message.

16. On page 130, line 62 delete "Registration Response,"

17. On page 131, line 14 delete "REG-RSP"

18. On page 131, line 25 delete "REG-REQ"

19. On page 133, line 42 change "a Registration Request" to "multiple DSA-REQ messages".

20. On page 133, line 43 change "Registration Response" to "DSA-RSP" and change "Registration Acknowledge" to "DSA-ACK".

21. On page 134, line 1, replace the figure with a flowchart that better describes sending multiple DSA messages after registration.

22. On page 134, delete line 57 through page 135, line 59.

Reason:

See section 3 of IEEE 802.16.1c-01/03r0:

There are 3 scenarios where connections are established.

Provisioned connections at SS initialization
Dynamic connections
Provisioned connections added to an SS at some point after initialization

The last two scenarios require the use of the DSA-REQ/RSP/ACK protocol to set up connections in response to network management, signaling, or some other external stimulus.

The first scenario is currently specified to work in the following manner:

- The SS TFTPs a configuration file containing the parameters for its currently provisioned service flows.
- The SS sends the service flow information to the BS in the REG-REQ message.
- The BS responds with connection IDs in the REG-RSP message.

Not only is the use of the REG-REQ/RSP in this scenario inconsistent with the presence of the DSA protocol, there are issues regarding the timing of the setup and use of the connections. Figure 58 on page 108 shows that authentication and key exchange happen after registration. But the current protocol allows SSs to setup and start using connections before they are fully authenticated. To avoid this race condition and to eliminate redundant methods for achieving the same goal, the following sequence of events should be used to set up the connections for the service flows that are listed in the SS's configuration file.

connections for the service flows that are listed in the SS's configuration file.

- The SS TFTPs a configuration file containing the parameters for its currently provisioned service flows.
- The SS registers, but does not provide service flow parameters in the REG-REQ
- The SS is authenticated
- The SS uses a series of DSA-REQ/RSP protocols to set up the connections for the service flows that were in the configuration file.

Comment # 11-133 **Comment submitted by:** Antonis Karvelas Neither

Type Technical, Binding **Starting Page Number** 59 **Starting Line Number** 8 **Section** 6.2.1.2.7

Suggested Change: **Editor** Sater

Delete the Downlink Modulation Configuration Setting and also the 11.4.4 section.

Reason:

This setting doesn't exist in the Configuration File based on the 9.2.2 section.

Comment # 11-134 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 84 **Starting Line Number** 58 **Section** 6.2.1.2.18

Suggested Change: **Editor** Sater

To change "Request" by "Response" in the title

Reason:

To correct the title

Comment #	11-135	**Comment submitted by:**	Kenneth	Stanwood	Member		
Type	Editorial	**Starting Page Number**	87	**Starting Line Number**	34	**Section**	6.2.1.2.19 Multicast
						Editor	Marks

Suggested Change:

On page 87, line 34 add the lsit of parameters, referencing the correct section:

Multicast CID (see section 11.1.4.1)
Assignment (see section 11.1.4.1)

On page 88, line 10: reference TLV section for this message which must be added on page 295, line 21.

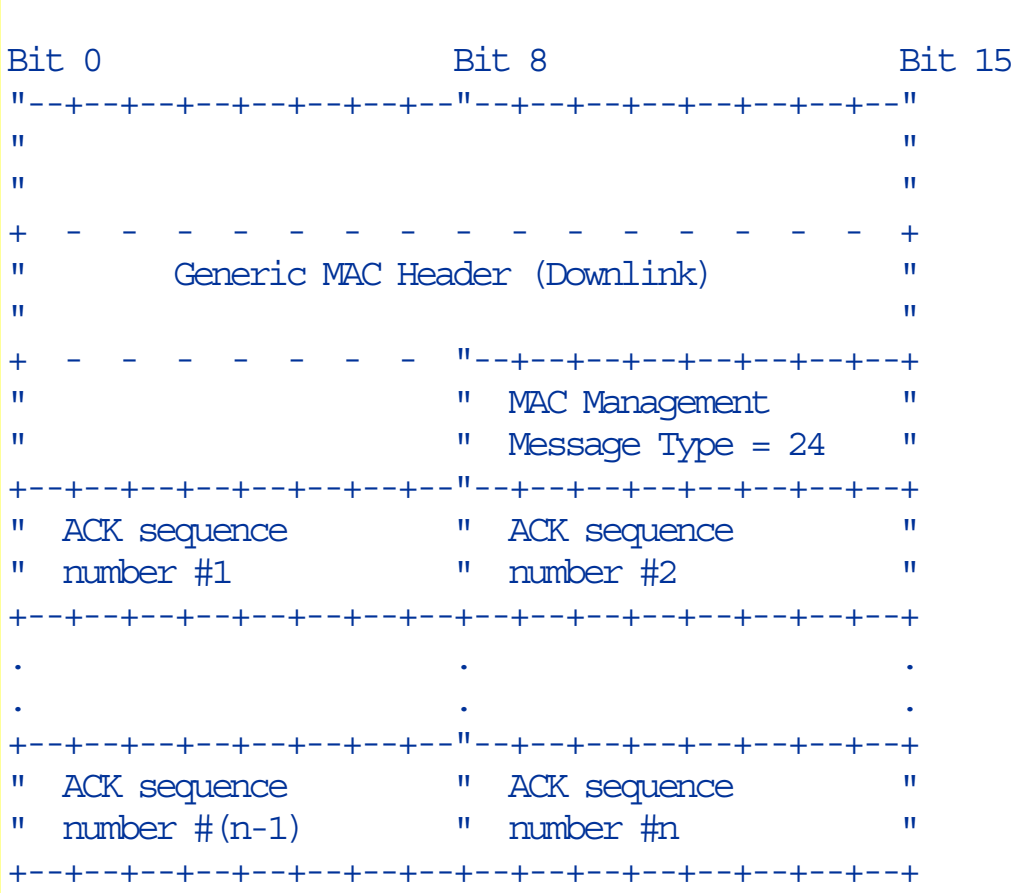
On page 295, line 1 the section level is wrong for section 11.1.4.1. It should really be 11.1.5. This change should be reflected in the change on page 87.

Reason:

Consistency with rest of document and clarity when building the message.

Comment #	11-136	Comment submitted by:	Yigal	Leiba	Member
Type	Technical, Binding	Starting Page Number	88	Starting Line Number 21	Section 6.2.1.2.21
Suggested Change:					Editor Sater

In response to the ARQ-ACK message whose format is specified as TBD, the following format is proposed



See also document number IEEE 802.16.1c-00/02 (figure 2) for a VISIO drawing of the text drawing above (with the slight difference that the concatenation of the generic downlink MAC header and the byte specifying the management message type are called 'MAC management header').

Reason:

Response for TBD

Comment # 11-137 **Comment submitted by:** Carl Eklund Member

Type Technical **Starting Page Number** 88 **Starting Line Number** 37 **Section** 6.2.1.2.22

Suggested Change: **Editor** Sater

Change the text starting from "In this case..." to ".. uses contention slots". to read "In this case the message should be sent in a more robust uplink interval. As the BS may not have have allocated such an interval the SS may send it in a Request Interval or Data Grant Type interval assigned to any multicast group the member of which the SS is with the designated UIUC of that interval.""","It is unclear which kind of contention slots it can be sent in. As specified now it can possibly cause serious havoc. We must respect the UIUC. Currently the way we have defined this and the uplink IE we are in a dead end. Obviously this also requires the redefinition of the request IE.

Reason:

Comment # 11-138 **Comment submitted by:** Carl Eklund Member

Type Technical **Starting Page Number** 88 **Starting Line Number** 61 **Section** 6.2.1.2.22

Suggested Change: **Editor** Sater

Replace the list of data grant burst types(i.e. until line 4 of next page) with
-DIUCs as defined in <reference to table 3>. Only DIUC values from 0-5 are allowed.

Reason:

The figure states DIUC which is not clear from the parameters.

Comment # 11-139 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 89 **Starting Line Number** 40 **Section** 6.2.1.4

Suggested Change: **Editor** Sater

Change the sentence to read ". . . Service Flow to 00 and 0000, respectively." instead of ". . . Service Flow to 0 and 0000, respectively."

Reason:

Per its definition (see page 89 line59), FC is a two-bit value.

Comment # 11-140 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 90 **Starting Line Number** 4 **Section** 6.2.1.4

Suggested Change: **Editor** Sater

To insert first, thus reading "new first fragment...".

Reason:

As it appears in the text, the description of the behaviour of the system after fragment loss is ambiguous.

Comment # 11-141 **Comment submitted by:** Carl Eklund Member

Type Technical **Starting Page Number** 90 **Starting Line Number** 6 **Section** 6.2.1.4.1

Suggested Change: **Editor** Sater

Change "Encryption of PDU fragments" to "Encryption of fragment PDUs" and Change text to read "A PDU which is a fragment of a MSDU may have its payload encrypted. Encryption is applied after frag-mentation. Likewise, decryption is applied before reassembly of the MSDU."

Reason:

We do not intend to fragment MAC PDUs

Comment # 11-142 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 90 **Starting Line Number** 38 **Section** 6.2.2.1

Suggested Change: **Editor** Stanwood

To change: .. of each QoS parameter is provided in 11
by: .. of each QoS parameter is provided in 11.4.12.

Reason:

To ease to the reader the search of the referenced parameters, since section 11 is a very large section.

Comment # 11-143 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 90 **Starting Line Number** 44 **Section** 6.2.2.1.

Suggested Change: **Editor** Stanwood

The third colom of table 20 indicates whether or not the Bandwidth Stealing mechanism is allowed per each kind of service, but there is no definition on that along the standard.
The suggestion is to add the Bandwidth Stealing concept definition in section 3 (Defintions).

Reason:

To increase the understanding of the standard.

Comment # 11-144 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 91 **Starting Line Number** 29 **Section** 6.2.2.1.1.

Suggested Change: **Editor** Stanwood

To change: The Grant Management fields in the Generic MAC header (see Figure 5) is used..
by : The Grant Management fields in the Generic MAC header (see Figure 5) are used ..
or by: The Grant Management field in the Generic MAC header (see Figure 5) is used ..

Reason:

To maintain the subject concordant with the verb of the sentence.

Comment # 11-145 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 91 **Starting Line Number** 30 **Section** 6.2.2.1.1.

Suggested Change: **Editor** Stanwood

To change: .. the Bandwidth Management field ..
by: .... the Grant Management field ..

Reason:

To be coherent with the description of the Generic MAC header (figure 5).

Comment # 11-146 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 91 **Starting Line Number** 35 **Section** 6.2.2.1.1

Suggested Change: **Editor** Stanwood

Change "mismatch's" to "mismatches"

Reason:

Typo

Comment # 11-147 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 91 **Starting Line Number** 36 **Section** 6.2.2.1.1

Suggested Change: **Editor** Stanwood

To change: non-USG
by: non-UGS

Reason:

The Unsolicited Grant Service is referred as UGS.

Comment # 11-148 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 91 **Starting Line Number** 40 **Section** 6.2.2.1.1.

Suggested Change: **Editor** Stanwood

To change: .. the Bandwidth Management field ..
by: .... the Grant Management field ..

Reason:

To be coherent with the description of the Generic MAC header (figure 5).

Comment # 11-149 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 92 **Starting Line Number** 34 **Section** 6.2.2.1.3.

Suggested Change: **Editor** Stanwood

To change: .. the Bandwidth Management field ..
by: .... the Grant Management field ..

Reason:

To be coherent with the description of the Generic MAC header (figure 5).

Comment # 11-150 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 92 **Starting Line Number** 35 **Section** 6.2.2.1.3

Suggested Change: **Editor** Stanwood

Change "UGS/AD" to "UGS-AD"

Reason:

Per its definition on page 23, line 11.

Comment # 11-151 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 92 **Starting Line Number** 36 **Section** 6.2.2.1.3

Suggested Change: **Editor** Stanwood

To change: .. the Bandwidth Management field ..
by: .... the Grant Management field ..

Reason:

To be coherent with the description of the Generic MAC header (figure 5).

Comment # 11-152 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 92 **Starting Line Number** 38 **Section** 6.2.2.1.3

Suggested Change: **Editor** Stanwood

Change "UGS/AD" to "UGS-AD"

Reason:

Per its definition on page 23, line 11.

Comment # 11-153 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 94 **Starting Line Number** 1 **Section** 6.2.2.2.1

Suggested Change: **Editor** Stanwood

In the sentence: ..GPT mode most requests are incremental, but the SS periodically issues aggregate requests..
to add the proper references to the messages used to distinguish between both kind of requests (incremental or aggregate).

Reason:

To ease the understanding of both kind of request mechanims at GPT mode, as well as how this different mechanisms work

Comment # 11-154 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 94 **Starting Line Number** 3 **Section** 6.2.2.2.1

Suggested Change: **Editor** Stanwood

Add "." to the end of the line.

Reason:

Punctuation error.

Comment # 11-155 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 96 **Starting Line Number** 5 **Section** 6.2.2.2.1.2.

Suggested Change: **Editor** Stanwood

There are several arrows missing in the flowchart described in figure 48.

Reason:

To clarify the implementation of the GPT mode, since this flowchart is the only explanation on how this mode works.

Comment # 11-156 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 96 **Starting Line Number** 12 **Section** 6.2.2.2.1.2.

Suggested Change: **Editor** Stanwood

To change the text: Request Bandwidth for CIDx
by: Request Bandwidth for Basic CID
or to add some steps explaining how from a request bandwidth for CIDx, the SS requests bandwidth to the BS by means of the Basic CID.

Reason:

The BS only knows the Basic CID associated to the SS, in GPTmode .

Comment # 11-157 **Comment submitted by:** Vicente Quilez Observer

Type Technical, Binding **Starting Page Number** 96 **Starting Line Number** 44 **Section** 6.2.2.2.1.2.

Suggested Change: **Editor** Stanwood

The box placed at the bottom to the rigth of figure 48 says that when there is another SDU in queue, the SS "sends the untransmitted portion of 1st SDU with request for queue contents in piggyback field."
Therefore, it seems that is not possible to start the transmission of next SDU, although there is space for it. If this is the case, please insert an explanation on why this happens.

Reason:

To clarify whether it is possible to send portion's of next SDU when there might be space for it in GPT mode.

Comment # 11-158 **Comment submitted by:** Stanley Wang Neither

Type Technical, Binding **Starting Page Number** 98 **Starting Line Number** 3 **Section** 6.2.2.2.2.1

Suggested Change: **Editor** Stanwood

In Figure 49, change all incidences of "CPE" to "SS" (10 incidences total)

Reason:

This specification uses the term "SS" instead of "CPE"

Comment # 11-159 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 98 **Starting Line Number** 13 **Section** 6.2.2.2.2.1.

Suggested Change: **Editor** Stanwood

To change the acronym CPE by SS in all the text boxes depicted in figure 48.

Reason:

To show that one SS may have more than one associated CPE.

Comment # 11-160 **Comment submitted by:** Carl Eklund Member

Type Editorial **Starting Page Number** 99 **Starting Line Number** 37 **Section** 6.2.2.2.2.2

Suggested Change: **Editor** Stanwood

Remove sentence "This will typically.."

Reason:

The sentence provides no useful information.

Comment # 11-161 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 100 **Starting Line Number** 24 **Section** 6.2.2.2.2.2.

Suggested Change: **Editor** Stanwood

To change the acronym CPE by SS in all the text boxes depicted in figure 49.

Reason:

To show that one SS may have more than one associated CPE

Comment # 11-162 **Comment submitted by:** Stanley Wang Neither

Type Technical, Binding **Starting Page Number** 100 **Starting Line Number** 24 **Section** 6.2.2.2.2.2

Suggested Change: **Editor** Stanwood

In Figure 50, change all incidences of "CPE" to "SS" (5 incidences total)

Reason:

This specification uses the term "SS" instead of "CPE"

Comment # 11-163 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 100 **Starting Line Number** 54 **Section** 6.2.2.2.3.

Suggested Change: **Editor** Stanwood

To change the acronym USG by the acronym UGS in the paragraph placed between lines 54 and 63.

Reason:

The acronym used for Ungranted Service is UGS, not USG.

Comment # 11-164 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 101 **Starting Line Number** 12 **Section** 6.2.2.2.3

Suggested Change: **Editor** Stanwood

To change the acronym USG by the acronym UGS in all the text boxes included in figure 51.

Reason:

The acronym for Ungranted Service is UGS, not USG.

Comment # 11-165 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 101 **Starting Line Number** 51 **Section** 6.2.2.3.1.1

Suggested Change: **Editor** Stanwood

Change the second sentence to read
"After either the BS or SS Time Stamps reach the maximum value of 2^29 - 1, both Time Stamps roll over to zero and continue to count."
instead of
"After either the BS or SS Time Stamps reach the maximum value of 2^29 - 1, they roll over to zero and continue to count."

Reason:

Since "either A or B" implies one of the two, the sentence must specifically states "both Time Stamps." Otherwise, the word "they" in the sentence refers to nothing.

Comment # 11-166 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 102 **Starting Line Number** 4 **Section** 6.2.2.3.2

Suggested Change: **Editor** Stanwood

To change the expression: .. carried in the Physical Channel Descriptor.
by: ..carried in the Uplink Channel Descriptor.

Reason:

There is no Physical Channel Descriptor MAC message. There are only Uplink or Downlink Channel Descriptor MAC messages. To be coherent with the kind of MAC messages definition.

Comment # 11-167 **Comment submitted by:** Carl Eklund Member

Type Editorial **Starting Page Number** 102 **Starting Line Number** 10 **Section** 6.2.2.3.2

Suggested Change: **Editor** Stanwood

Delete paragraph starting "Practical mini.."

Reason:

This paragraph although skillfully worded contains no useful information and no requirements.

Comment # 11-168 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 103 **Starting Line Number** 64 **Section** 6.2.2.3.3.6

Suggested Change: **Editor** Stanwood

To include section description of Data Acknowledge IE

Reason:

Data Acknowledge IE is mentioned but not described

Comment # 11-169 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 105 **Starting Line Number** 4 **Section** 6.2.2.4.1

Suggested Change: **Editor** Stanwood

MAC Ctrl should be applied to the same frame that Phy Ctrl. Therefore, n, n+1, n+2 and n+3 should be changed to n-1, n, n+1, n+2.

Reason:

In figure 55, the information included in the MAC Ctrl portion pertains to the same frame and not to the following one as it is in the figure.

Comment # 11-170 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 105 **Starting Line Number** 25 **Section** 6.2.2.4.1

Suggested Change: **Editor** Stanwood

MAC Ctrl should be applied to the same frame that Phy Ctrl. Therefore, n, n+1, n+2 and n+3 should be changed to n-1, n, n+1, n+2.

Reason:

In figure 56, the information included in the MAC Ctrl portion pertains to the same frame and not to the following one as it is in the figure.

Comment # 11-171 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 106 **Starting Line Number** 24 **Section** 6.2.2.5

Suggested Change: **Editor** Stanwood

Change "SS makes," at the end of the line to "SS makes;"

Reason:

Punctuation error.

Comment # 11-172 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 106 **Starting Line Number** 25 **Section** 6.2.2.5

Suggested Change: **Editor** Stanwood

Change "a instructional" to "an instructional"

Reason:

Grammatical error.

Comment # 11-173 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 106 **Starting Line Number** 26 **Section** 6.2.2.5

Suggested Change: **Editor** Stanwood

Change "own CID)" to "own CID),"

Reason:

Punctuation error.

Comment # 11-174 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 110 **Starting Line Number** 33 **Section** 6.2.3.3

Suggested Change: **Editor** Zuniga

Move the "NO" on the right-hand side of the figure to the right-hand side of the decision box (i.e., the box labeled "Initial ranging successful?") where it belongs (around line 47)

Reason:

Editorial change of the figure.

Comment # 11-175 **Comment submitted by:** Antonis Karvelas Neither

Type Technical, Non-binding **Starting Page Number** 110 **Starting Line Number** 61 **Section** 6.2.3.4

Suggested Change: **Editor** Zuniga

You must solve the inconsistency between sections 6.2.3.2 and 6.2.3.4.

Reason:

There is an inconsistency between sections 6.2.3.2 and 6.2.3.4.
In section 6.2.3.2 the standard notes that "The SS achieves MAC synchronization once it has received at least one DL-MAP message. A SS MAC remains in synchronization as long as it continues to successfully receive the DL-MAP and DCD messages for its Channel".
In section 6.2.3.4 the standard notes that "The SS MAC remains in synchronization as long as it continues to successfully receive the DL-MAP, UL-MAP, DCD and UCD messages."
I believe that may be two types of synchronization.
(a) Upstream synchronization: The SS must receive periodically UCD and UL-MAP messages to retain synchronization, otherwise search for other upstream channel. The loss of this synchronization doesn't mean that the SS lose downstream synchronization.
(b) Downstream synchronization: The SS must receive periodically DCD and DL-MAP messages to retain synchronization, otherwise search for other downstream channel and of course lose not only downstream but also upstream synchronization.

Comment # 11-176 **Comment submitted by:** Stanley Wang Neither

Type Technical, Binding **Starting Page Number** 111 **Starting Line Number** 5 **Section** 6.2.3.5

Suggested Change: **Editor** Zuniga

Change the end of the line to read "Refer to Figure 60" and fix the cross-reference, if any.

Reason:

There is no table and only one figure to refer to.

Comment # 11-177 **Comment submitted by:** Stanley Wang Neither

Type Technical, Binding **Starting Page Number** 111 **Starting Line Number** 5 **Section** 6.2.3.5

Suggested Change: **Editor** Zuniga

Change "defined in 10.1" to "defined in Table 66" and fix the corss-reference.

Reason:

Section 10.1 is the section containing Table 66 which defines the "ranges."

Comment # 11-178 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 111 **Starting Line Number** 7 **Section** 6.2.3.5

Suggested Change: **Editor** Zuniga

Edit Figure 60 on page 111 and continued on page 112 to remove some of the unnecessary spaces and to make the figure fit on one page.

Reason:

Currently, there are two figures (one on page 111 and another on page 112). Both are labeled "Figure 60". Make them fit on one page can improve the readability. At least, the caption of the second Figure 60 should include the word "continued".

Comment # 11-179 **Comment submitted by:** Antonis Karvelas Neither

Type Editorial **Starting Page Number** 111 **Starting Line Number** 8 **Section** 6.2.3.5

Suggested Change: **Editor** Zuniga

You must modify the Figure 60 so as to include the DCD messages from the BS.

Reason:

The BS sends at every 2 seconds (maximum) DCD messages in order to specify the characteristics of the downstream channel. I believe that the Figure 60 must include these DCD messages from the BS in order to be more descriptive.

Comment # 11-180 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 112 **Starting Line Number** 39 **Section** 6.2.3.6

Suggested Change: **Editor** Zuniga

Change "(maximum round trip propagation delay due to cell size plus maximum allowable implememtation delay)" to read "(maximum round trip propagation delay due to cell radius plus maximum allowable implememtation delay)"

Reason:

The delay actually depends on the radius of the transmission cell instead of the size of the cell.

Comment # 11-181 **Comment submitted by:** Antonis Karvelas Neither

Type Technical, Binding **Starting Page Number** 112 **Starting Line Number** 56 **Section** 6.2.3.6

Suggested Change: **Editor** Zuniga

The temporary CID isn't defined in section 6.2.1.2.5 which describes the RNG-REQ MAC Management message.

Reason:

This inconsistency must be resolved.

Comment # 11-182 **Comment submitted by:** Lars Lindh Member

Type Technical **Starting Page Number** 112 **Starting Line Number** 60 **Section** 6.2.3.6

Suggested Change: **Editor** Zuniga

Insert "The SS shall first send the Ranging Request at minimum power level and if it is not successful the SS shall resend it at the next Initial Maintenance transmit opportunity at one step higher power level until successful."

Reason:

This procedure will decrease the needed dynamic range in the BS.

Comment # 11-183 **Comment submitted by:** Antonis Karvelas Neither

Type Technical, Non-binding **Starting Page Number** 112 **Starting Line Number** 61 **Section** 6.2.3.6

Suggested Change: **Editor** Zuniga

Update the Figure 62 to be consistent with the actions that are described from this point until the Page 113, Line 6 of section 6.2.3.6 .

Reason:

The Figure 62 doesn't contain the actions that are described from this point until the Page 113, Line 6 of section 6.2.3.6 .

Comment # 11-184 **Comment submitted by:** Stanley Wang Neither

Type Technical, Binding **Starting Page Number** 112 **Starting Line Number** 62 **Section** 6.2.3.6

Suggested Change: **Editor** Zuniga

Change "a Ranging Request" to "another Ranging Request"

Reason:

It is actually "another" instead of "a," since the SS has transmitted one before.

Comment # 11-185 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 113 **Starting Line Number** 11 **Section** 6.2.3.6

Suggested Change: **Editor** Zuniga

Change the line to read "The message sequence chart (Figure 61) and flow charts (Figure 62 and Figure 63) on the following . . ."

Reason:

Adding specific figure numbers to the text improves its readability.

Comment # 11-186 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 113 **Starting Line Number** 52 **Section** 6.2.3.6

Suggested Change: **Editor** Zuniga

Delete four (4) lines of text starting with the line "[time to send an . . ." and reduce the space caused by the removal of these lines in the Figure.

Reason:

This may have been an editorial error as a result of copy-and-paste from another part of the same figure.

Comment # 11-187 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 114 **Starting Line Number** 2 **Section** 6.2.3.6

Suggested Change: **Editor** Zuniga

Change the last sentence of the line to read "This is defined as SS Ranging Response Processing Time in Table 66."

Reason:

Per its definition in Table 66, the word "Processing" is missing. In addition, the text should refer to the definition table (Table 66) not the section (section 10.1) that contains the table.

Comment # 11-188 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 114 **Starting Line Number** 13 **Section** 6.2.3.6

Suggested Change: **Editor** Zuniga

Add a space to read "UL-MAP with" instead of "UL-MAPwith"

Reason:

Typo

Comment # 11-189 **Comment submitted by:** Antonis Karvelas Neither

Type Technical, Binding **Starting Page Number** 114 **Starting Line Number** 30 **Section** 6.2.3.6

Suggested Change: **Editor** Zuniga

Add a process before the "Wait for Station Maintenance opportunity" process. The process will be named "Check RNG-RSP validity" and will check the RNG-RSP contents e.g. the Ranging Status filed. If all OK the next process will be the "Wait for Station Maintenance opportunity" process, if not the next process will be the "Error Re-Initialize MAC" process.

Reason:

To describe better the Initial Ranging procedure.

Comment # 11-190 **Comment submitted by:** Antonis Karvelas Neither

Type Technical, Binding **Starting Page Number** 114 **Starting Line Number** 32 **Section** 6.2.3.6

Suggested Change: **Editor** Zuniga

The process "Wait for Station Maintenace opportunity" doesn't exit anywhere in the document. Is there any relation between figures 62 and 71?

Reason:

To reduce confusion.

Comment # 11-191 **Comment submitted by:** Antonis Karvelas Neither

Type Technical, Binding **Starting Page Number** 114 **Starting Line Number** 33 **Section** 6.2.3.6

Suggested Change: **Editor** Zuniga

Add a note to explain that the "Retries exhausted?" conditional refers to the "Contention Ranging Retries" entry of the Table 66.

Reason:

Where the "Retries exhausted?" conditional refers?
If refers to the "Contention Ranging Retries" entry of the Table 66, I believe that you must add a note to explain this.

Comment # 11-192 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 114 **Starting Line Number** 44 **Section** 6.2.3.6

Suggested Change: **Editor** Zuniga

Change the text to read "To avoid these SSs repeating the loop . . ." instead of "To avoid these SS repeating the loop . . ."

Reason:

Grammatical error.

Comment # 11-193 **Comment submitted by:** Antonis Karvelas Neither

Type Technical, Binding **Starting Page Number** 114 **Starting Line Number** 47 **Section** 6.2.3.6

Suggested Change: **Editor** Zuniga

The DSC-Remote and DSC-ACK text in the box must be replaced with "Increase local power" as in a previous version of the standard.

Reason:

What is the meaning of the DSC-Remote and DSC-ACK here ? I believe that the text in the box must be replaced with "Increase local power" as in a previous version of the standard.

Comment # 11-194 **Comment submitted by:** Yigal Leiba Member

Type Editorial **Starting Page Number** 114 **Starting Line Number** 47 **Section** 6.2.3.6

Suggested Change: **Editor** Zuniga

The DSC-Remote and DSC-ACK seem out of place in figure 62, which is about intial ranging. Seems like the box should contain a text like 'Increase power by 1 step'.

Reason:

Typo

Comment # 11-195 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 115 **Starting Line Number** 1 **Section** 6.2.3.7

Suggested Change: **Editor** Zuniga

Itemize the line to read "a) All parameters shall be . . . " and relabel the reset of the list to b), c) and d)

Reason:

Paragraph format problem.

Comment # 11-196 **Comment submitted by:** Stanley Wang Neither

Type Technical, Binding **Starting Page Number** 115 **Starting Line Number** 12 **Section** 6.2.3.7

Suggested Change: **Editor** Zuniga

Remove two (2) lines starting with the line "For multi-channel support, . . ." and move these two lines to page 114, line 4 to read "NOTE -- For multi-channel support, . . ."

Reason:

This paragraph has nothing to do with the section (Section 6.2.3.7, Ranging Parameter Adjustment). It belongs to the end-of-paragraph note for Section 6.2.3.6, Initial Ranging and Automatic Adjustments.

Comment # 11-197 **Comment submitted by:** Antonis Karvelas Neither

Type Editorial **Starting Page Number** 116 **Starting Line Number** 36 **Section** 6.2.3.6

Suggested Change: **Editor** Zuniga

In Figure 63 add notes to the two conditionals "Retries exhausted?" in order to clarify the entries of Table 66 which correspond to the conditionals.

Reason:

To clarify the figure 63.

Comment # 11-198 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 116 **Starting Line Number** 39 **Section** 6.2.3.7

Suggested Change: **Editor** Zuniga

Edit Figure 63 to include an arrow for the second input (the one on the right-hand side) for the box labeled "Remove SS from poll list"

Reason:

Editorial error.

Comment # 11-199 **Comment submitted by:** Yigal Leiba Member

Type Editorial **Starting Page Number** 116 **Starting Line Number** 57 **Section** 6.2.3.7

Suggested Change: **Editor** Zuniga

The note to figure 63 mentions a transmit equalizer. Remove the text, 'If opportunities are offered prior to the pending-till-complete expiry, the "good-enough" test which follows receipt of a RNG-RSP shall not judge the SS's transmit equalization until pending-till-complete expires.'.

Reason:

The text mentions a transmit equalizer, which no longer exists in this standard.

Comment # 11-200 **Comment submitted by:** Antonis Karvelas Neither

Type Technical, Non-binding **Starting Page Number** 117 **Starting Line Number** 6 **Section** 6.2.3.8.1

Suggested Change: **Editor** Zuniga

The standard must clarify which MAC management messages will be used for the implementation of the DHCP mechanisms.

Reason:

I believe that the standard must clarify which MAC management messages, if any, will be used for the implementation of the DHCP mechanisms.

Comment # 11-201 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 117 **Starting Line Number** 8 **Section** 6.2.3.8.1

Suggested Change: **Editor** Zuniga

"See Table 64" should be changed to "See figure 64".

Reason:

To correct a misprint.

Comment # 11-202 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 117 **Starting Line Number** 8 **Section** 6.2.3.8.1

Suggested Change: **Editor** Zuniga

Change the end of the line to read "See Figure 64." instead of "See Table 64." and fix the cross-reference (if any).

Reason:

It is a figure not a table.

Comment # 11-203 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 117 **Starting Line Number** 43 **Section** 6.2.3.8.2

Suggested Change: **Editor** Zuniga

Change the end of the line to read "Refer to Figure 65." instead of "See Table 65." and fix the cross-reference (if any).

Reason:

It is a figure not a table.

Comment # 11-204 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 117 **Starting Line Number** 44 **Section** 6.2.3.8.1

Suggested Change: **Editor** Zuniga

"See Table 65" should be changed to "See figure 65".

Reason:

To correct a misprint.

Comment # 11-205 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 117 **Starting Line Number** 45 **Section** 6.2.3.8.2

Suggested Change: **Editor** Zuniga

Change the end of the line to read ". . . from the server's Universal Coordinated Time (UCT) shall be combined . . ." instead of ". . . from the server (UTC) shall be combined . . ."

Reason:

Acronyms with definition.

Comment # 11-206 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 118 **Starting Line Number** 8 **Section** 6.2.3.9

Suggested Change: **Editor** Zuniga

At the end of the sentence, "as shown in 66" should be changed by "as shown in figure 66".

Reason:

To include a missing word.

Comment # 11-207 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 118 **Starting Line Number** 8 **Section** 6.2.3.9

Suggested Change: **Editor** Zuniga

Change the line to read "as shown in Figure 66" instead of "as shown in 66" and fix the cross-reference (if any).

Reason:

"66" implies "Section 66" not "Figure 66."

Comment # 11-208 **Comment submitted by:** Stanley Wang Neither

Type Technical, Binding **Starting Page Number** 119 **Starting Line Number** 25 **Section** 6.2.3.9.1

Suggested Change: **Editor** Zuniga

Change the label for the second box (the box in the middle) to read "TFTP Wait Timeout" instead "Timeout"

Reason:

A specific timeout is defined in Table 66 on page 284 for this purpose and should be used here.

Comment # 11-209 **Comment submitted by:** Stanley Wang Neither

Type Technical, Binding **Starting Page Number** 120 **Starting Line Number** 41 **Section** 6.2.3.9.1

Suggested Change: **Editor** Zuniga

Change the text at the end of line to read "Authentication Failure (i.e., Response=1 in the REG-RSP Messge)." instead of "Authorization Failure."

Reason:

BS MIC is for authentication, which is part of the authorization process not the entire authorization process. Per Figure 68 on page 121. Adding "Response=1" improves the readability of the document. "Response=1" is per section 6.2.1.2.8, REG-RSP Message, on page 60.

Comment # 11-210 **Comment submitted by:** Stanley Wang Neither

Type Technical, Binding **Starting Page Number** 120 **Starting Line Number** 54 **Section** 6.2.3.9.1

Suggested Change: **Editor** Zuniga

Change the end of the line to read "Service Flow Parameters." instead of "Service Flow Response(s)."

Reason:

Per REG-RSP definition in 6.2.1.2.8 on page 60.

Comment # 11-211 **Comment submitted by:** Stanley Wang Neither

Type Technical, Binding **Starting Page Number** 120 **Starting Line Number** 54 **Section** 6.2.3.9.1

Suggested Change: **Editor** Zuniga

Change the line to read "Class of Service Failure (i.e., Response=2 in the REG-RSP Message)" instead of "Class of Service Failure"

Reason:

Adding "Response=2" improves the readability of the document. "Response=2" is per section 6.2.1.2.8, REG-RSP Message, on page 60.

Comment # 11-212 **Comment submitted by:** Stanley Wang Neither

Type Technical, Binding **Starting Page Number** 120 **Starting Line Number** 55 **Section** 6.2.3.9.1

Suggested Change: **Editor** Zuniga

Change the line to read "any SS Capabilities (refer to 11.4.5) requested." instead of "any SS Capabilities requested." and fix the cross-reference (if any).

Reason:

Adding a forward reference improves the readability of the document.

Comment # 11-213 **Comment submitted by:** Stanley Wang Neither

Type Technical, Binding **Starting Page Number** 120 **Starting Line Number** 55 **Section** 6.2.3.9.1

Suggested Change: **Editor** Zuniga

Change the end of the line to read "to provide any SS" instead of "to provide the SS"

Reason:

There are many requested SS Capabilities. "SS Capabilities" shall be turned "off" if any one of those capabilities cannot be met.

Comment # 11-214 **Comment submitted by:** Stanley Wang Neither

Type Technical, Binding **Starting Page Number** 120 **Starting Line Number** 56 **Section** 6.2.3.9.1

Suggested Change: **Editor** Zuniga

Change the end of the line to read "(refer to 6.2.1.2.8)." instead of "(refer to 6.2.8.1)." and fix the cross-reference (if any).

Reason:

There is no such section. The correct section should be section 6.2.1.2.8, which defines the format of the REG-RSP Message.

Comment # 11-215 **Comment submitted by:** Stanley Wang Neither

Type Technical, Binding **Starting Page Number** 120 **Starting Line Number** 63 **Section** 6.2.3.9.1

Suggested Change: **Editor** Zuniga

Change the line to read "If timer T9 (defined in Table 66) expires" instead of "If timer T9 expires" and fix the cross-reference (if any).

Reason:

Adding a forward reference improves the readability of the document. Table 66 on page 284 defines all the timers.

Comment # 11-216 **Comment submitted by:** Stanley Wang Neither

Type Technical **Starting Page Number** 122 **Starting Line Number** 7 **Section** 6.2.3.9.1

Suggested Change: **Editor** Zuniga

In Figure 69, two constants are needed, a timer for REG-ACK timeout and a counter for REG-ACK retries. Both constants must be defined in Table 66 on page 284. Once the two constants were defined, Figure 69 must be updated accordingly.

Reason:

Figure 69 refers to "T7" timer, which was defined (according to Table 66 on page 284) as "Wait for DSA/DSC/DSD Response timeout." In other words, "T7" is not for "REG-ACK timeout". In addition, a "Retries counter" is needed for REG-ACK retries.

Comment # 11-217 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 122 **Starting Line Number** 31 **Section** 6.2.3.9.2

Suggested Change: **Editor** Zuniga

Change the beginning of the line to read "described in 7.2.1." instead of "described in 7."

Reason:

Should refer to a specific sub-section that actually describes the process. 7.2.1 on page 175 describes SS initialization.

Comment # 11-218 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 122 **Starting Line Number** 31 **Section** 6.2.3.9.2

Suggested Change: **Editor** Zuniga

Change the end of the line to read "a Privacy Support encoding (see 11.4.5.1)" instead of "a Privacy Configuration Setting (11.4.5.1)"

Reason:

Typo per definition defined in section 11.4.5.1.

Comment # 11-219 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 122 **Starting Line Number** 60 **Section** 6.2.3.9.3

Suggested Change: **Editor** Zuniga

Delete the reference to section 6.2.1.2.8. Specifically, delete " see (6.2.1.2.8)" at the end of the line.

Reason:

The text refers to Section 6.2.1.2.8, Registration Response (REG-RSP) Message, which does not include information about aging out the old CIDs. No specific section can be located that does cover the aging out the old CIDs.

Comment # 11-220 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 123 **Starting Line Number** 14 **Section** 6.2.4

Suggested Change: **Editor** Stanwood

To insert a reference in order to clarify the meaning of T4.

Reason:

T4 is introduced in the text without a reference. It should be appended "(see Table 66)" at the end of the sentence

Comment # 11-221 **Comment submitted by:** Vladimir Yanover Observer

Type Editorial **Starting Page Number** 125 **Starting Line Number** 32 **Section** 6.2.4.1

Suggested Change: **Editor** Stanwood

There is a problem with paragraph 6.2.4.1 that mentions explicitly the terms of the 802.16.1 Mode B PHY. It should be transformed to more generic form, particularly "modulation threshold" may not be applicable to all PHY (and actually is not for 802.11a/HIPERLAN)

Reason:

Comment # 11-222 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 126 **Starting Line Number** 52 **Section** 6.2.5.1

Suggested Change: **Editor** Sater

Add "." to the end of the line.

Reason:

Punctuation error.

Comment # 11-223 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 127 **Starting Line Number** 8 **Section** 6.2.5.1

Suggested Change: **Editor** Sater

After the semicolon, it is proposed to delete "upstream". Then, it should be written "active Service Flows also have a 16 bit Connection Identifier (CID)" instead of "upstream active Service Flows also have a 16 bit Connection Identifier (CID)".

Reason:

CIDs are associated to both upstream and downstream.

Comment # 11-224 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 127 **Starting Line Number** 23 **Section** 6.2.5.2

Suggested Change: **Editor** Sater

Points a) and f) should be merged. Point f) should be deleted and point a) should be written as follows: "A ServiceFlowID (SFID) is assigned by the BS to all existing Service Flows. The SFID serves as the principal identifier in the SS and the BS for the Service Flow. A Service Flow which exists has at least an SFID, and an associated Direction". Due to this change, point g) becomes point f).

Reason:

The SFID seems to be duplicated in the attribute list of Service Flows.

Comment # 11-225 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 127 **Starting Line Number** 38 **Section** 6.2.5.2

Suggested Change: **Editor** Sater

Delete the "," after "SFID."

Reason:

Punctuation error.

Comment # 11-226 **Comment submitted by:** Coleman Hum Member

Type Editorial **Starting Page Number** 127 **Starting Line Number** 44 **Section** 6.2.5.2

Suggested Change: **Editor** Sater

The relationship between the Qos Parameter Sets is as shown in Figure 74

Reason:

Figure 76 should be Figure 74.

Comment # 11-227 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 127 **Starting Line Number** 44 **Section** 6.2.5.2

Suggested Change: **Editor** Sater

Change the line to read "in Figure 74 and Figure 75" instead of "in Figure 76 and Figure 75" and fix the cross-reference (if any)

Reason:

The original text refers to the wrong figure.

Comment # 11-228 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 127 **Starting Line Number** 45 **Section** 6.2.5.2

Suggested Change: **Editor** Sater

"Figure 76" should be changed to "Figure 74".

Reason:

To correct a misprint.

Comment # 11-229 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 127 **Starting Line Number** 57 **Section** 6.2.5.2 footnote

Suggested Change: **Editor** Sater

Insert a new line break before the word "if" at the end of the end and make the new line aligned with the rest of the lines on the same page.

Reason:

Editorial changes.

Comment # 11-230 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 127 **Starting Line Number** 58 **Section** footnote

Suggested Change: **Editor** Sater

Change "e.g. " (with a space) to "e.g., " (with a space) and similar incidences throughout the document (e.g., page 127, line 60).

Reason:

Punctuation error.

Comment # 11-231 **Comment submitted by:** Stanley Wang Neither

Type Technical, Binding **Starting Page Number** 130 **Starting Line Number** 55 **Section** 6.2.5.4

Suggested Change: **Editor** Sater

Change the line to read "--- By explicitly including all QoS parameters." instead of "--- By explicitly including all traffic parameters."

Reason:

Traffic parameter (e.g., Peak Cell Rate & Cell Delay Variation Tolerance) and QoS parameter (e.g., Cell Loss Rate & Cell Delay Variation) are two different concepts and are not interchangeable.

Comment # 11-232 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 130 **Starting Line Number** 62 **Section** 6.2.5.4

Suggested Change: **Editor** Sater

Change the line to read "stages: REG-RSP, DSA-REQ, . . ." instead of "stages: Registration Response, DSA-REQ, . . ."

Reason:

Consistency issue.

Comment # 11-233 **Comment submitted by:** Stanley Wang Neither

Type Technical, Binding **Starting Page Number** 133 **Starting Line Number** 29 **Section** 6.2.5.6.3

Suggested Change: **Editor** Sater

Change the line to read ". . . shall be authenticated by the BS MIC." instead of ". . . shall be authorized by the BS MIC.""","Authorization" and "authentication" are two different functionalities. BS MIC is used to authenticate SSs (per section 6.2.3.9.1 on page 118, line 21).

Reason:

Comment # 11-234 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 134 **Starting Line Number** 52 **Section** 6.2.5.7.1

Suggested Change: **Editor** Sater

References at the end of the sentence should be changed by the appropriate ones.

Reason:

Sections 5.3.6.1.3 and C.2.2.3.4 do not exist in the standard.

Comment # 11-235 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 135 **Starting Line Number** 60 **Section** 6.2.5.7.2

Suggested Change: **Editor** Sater

Add a new section title as follows:
"6.2.5.7.2 Dynamic Service Flows"

Change the number for current section "6.2.5.7.2" (page 135, line 61) to "6.2.5.7.2.1"

Change the subsection numbers for the rest of the section accordingly, i.e., "6.2.5.7.2.1" (page 136, line 31) to "6.2.5.7.2.2" and "6.2.5.7.2.2" (page 136, line 61) to "6.2.5.7.2.3".

Reason:

The current numbering implies that "6.2.5.7.2.1 Dynamic Service Flow Creation --- BS Initiated" (page 136, line 31) is a subsection of "6.2.5.7.2 Dynamic Service Flow Creation --- SS Initiated" (page 135, line 61) which is inappropriate.

Comment # 11-236 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 136 **Starting Line Number** 35 **Section** 6.2.5.7.2.1

Suggested Change: **Editor** Sater

Change the text at the end of the line to read "The protocol is illustrated" (i.e., remove the word "as").

Reason:

Grammatical error.

Comment # 11-237 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 137 **Starting Line Number** 30 **Section** 6.2.5.8.1

Suggested Change: **Editor** Sater

In figure 80, "DSD" should be changed to "DSC".

Reason:

After a Dynamic Service Deletion, the Service Flow cannot be operational.

Comment # 11-238 **Comment submitted by:** Stanley Wang Neither

Type Technical, Binding **Starting Page Number** 146 **Starting Line Number** 35 **Section** 6.2.5.8.3

Suggested Change: **Editor** Sater

Add another subsection titled as follows:
"6.2.5.8.3.1 SS Initiated Dynamic Service Addition"

Change the subsection numbers for the rest of the section accordingly, i.e., "6.2.5.8.3.1" (page 147, line 45) to "6.2.5.8.3.2" and "6.2.5.8.3.2" (page 149, line 1) to "6.2.5.8.3.3".

Fix the cross-reference on page 136, line 3, so that the updated cross-reference would point to this newly created instead of the currently defined subsection 6.2.5.8.3.1.

Reason:

Current section 6.2.5.8.3, Dynamic Service Addtion, actually includes SS initiated and BS initiated DSAs. SS initiated DSA is discussed in 6.2.5.8.3 itself; while BS initiated DSA is discussed in one of its subsections, 6.2.5.8.3.1. This structure implies that BS initiated DSA is a subsection of SS initiated DSA.

Comment # 11-239 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 148 **Starting Line Number** 46 **Section** 6.2.5.8.3.1

Suggested Change: **Editor** Sater

Delete the two lines of text on page 148, line 46 and line 48.

Reason:

These two lines of text might have been place holders for section 6.2.5.8.3.2 (page 149, line 1) and were not deleted when the section was created.

Comment # 11-240 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 173 **Starting Line Number** 27 **Section** 7.1.1

Suggested Change: **Editor** Eklund

The last word of the sentence should be "Format" instead of "Formant".

Reason:

To correct a misprint.

Comment # 11-241 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 175 **Starting Line Number** 1 **Section** 7.1.3

Suggested Change: **Editor** Eklund

Change "A SA" to "An SA" and similar incidences throughout the document (e.g., page 179, line 14).

Reason:

Grammatical error.

Comment # 11-242 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 178 **Starting Line Number** 47 **Section** 7.3.1.1

Suggested Change: **Editor** Eklund

Change "i.e. " (with a space) to "i.e., " (with a space) and similar incidences throughout the document (e.g., page 288, line 5).

Reason:

Punctuation error.

Comment # 11-243 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 200 **Starting Line Number** 53 **Section** 8.1.1

Suggested Change: **Editor** Yanover

The point inside the brackets should be deleted. Therefore, instead of "(PLME.)", it should be "(PLME)".

Reason:

To correct a misprint.

Comment # 11-244 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 202 **Starting Line Number** 17 **Section** 8.1.3.2

Suggested Change: **Editor** Yanover

"UCD_PARAM_VEC" should be changed to "UCD_PARAM_VECTOR".

Reason:

As the rest of vectors have "VECTOR" in their names, it seems reasonable, for the sake of consistency, to include this complete word in the name proposed for change.

Comment # 11-245 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 205 **Starting Line Number** 20 **Section** 8.1.3.9

Suggested Change: **Editor** Yanover

The word "Primatives" should be changed to "Primitives"

Reason:

To correct a misprint in the figure caption.

Comment # 11-246 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 206 **Starting Line Number** 61 **Section** 8.1.3.12.5

Suggested Change: **Editor** Yanover

The word "Primatives" should be changed to "Primitives".

Reason:

To correct a misprint in the figure caption.

Comment # 11-247 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 213 **Starting Line Number** 10 **Section** 8.1.3.24.5

Suggested Change: **Editor** Yanover

The arrow direction must be changed.

Reason:

Following PHY_TXSTART. request definition (see 8.1.3.15), this primitive is generated by MAC.

Comment # 11-248 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 213 **Starting Line Number** 12 **Section** 8.1.3.24.5

Suggested Change: **Editor** Yanover

Arrow direction must be changed.

Reason:

Following PHY_TXSTART. confirmation definition (see 8.1.3.16), this primitive is generated by PHY.

Comment # 11-249 **Comment submitted by:** Vicente Quilez Observer

Type Technical, Binding **Starting Page Number** 213 **Starting Line Number** 15 **Section** 8.1.3.24.5

Suggested Change: **Editor** Yanover

The position of PHY_MACPDU.confirmation in figure 118 must be checked.

Reason:

Following PHY_MACPDU.confirmation definition (8.1.3.19.1), this primitive "confirms that the transmission of the MAC message requested by the PHY_MACPDU primitive has been completed". However, in figure 118, this primitive is placed before PHY_START.indication that is generated after the start of transmission (see 8.1.3.17.3). It does not seem possible to confirm the complete transmission before the start of it.

Comment # 11-250 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 213 **Starting Line Number** 17 **Section** 8.1.3.24.5

Suggested Change: **Editor** Yanover

A definition of PHY_RXSTART.indication primitive should be included somewhere in the section.

Reason:

The PHY_RXSTART.indication primitive, represented in figures 118 and 119, has not been previously defined.

Comment # 11-251 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 213 **Starting Line Number** 30 **Section** 8.1.3.24.5

Suggested Change: **Editor** Yanover

The word "Primatives" should be changed to "Primitives".

Reason:

To correct a misprint in figure caption.

Comment # 11-252 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 213 **Starting Line Number** 37 **Section** 8.1.3.24.5

Suggested Change: **Editor** Yanover

Figure 119 should be reviewed.

Reason:

PHY_TXSTART.request has no confirmation in figure.

Comment # 11-253 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 213 **Starting Line Number** 41 **Section** 8.1.3.24.5

Suggested Change: **Editor** Yanover

Figure 119 should be reviewed.

Reason:

PHY_RXSTART.confirmation has no request.

Comment # 11-254 **Comment submitted by:** Vicente Quilez Observer

Type Technical, Binding **Starting Page Number** 213 **Starting Line Number** 46 **Section** 8.1.3.24.5

Suggested Change: **Editor** Yanover

The position of PHY_MACPDU.confirmation in figure 119 must be checked.

Reason:

Following PHY_MACPDU.confirmation definition (8.1.3.19.1), this primitive "confirms that the transmission of the MAC message requested by the PHY_MACPDU primitive has been completed". However, in figure 119, this primitive is placed before PHY_START.indication that is generated after the start of transmission (see 8.1.3.17.3). It does not seem possible to confirm the complete transmission before the start of it.

Comment # 11-255 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 213 **Starting Line Number** 48 **Section** 8.1.3.24.5

Suggested Change: **Editor** Yanover

An arrow must be inserted under PHY_START.indication.

Reason:

To insert a missing arrow in figure 119.

Comment # 11-256 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 213 **Starting Line Number** 59 **Section** 8.1.3.24.5

Suggested Change: **Editor** Yanover

The word "Primatives" should be changed to "Primitives".

Reason:

To correct a misprint in the figure caption.

Comment # 11-257 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 217 **Starting Line Number** 5 **Section** 8.2.1.2.4

Suggested Change: **Editor** Schiltz/Klein

It should be included a reference of the definition of PHY mode A. This definition is in section 8.2.1.5.1.

Reason:

PHY mode A is introduced in the text without any previous definition or reference.

Comment # 11-258 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 217 **Starting Line Number** 19 **Section** 8.2.1.2.5

Suggested Change: **Editor** Schiltz/Klein

The word "multiple" should be deleted.

Reason:

A PHY slot is not made of a multiple of 4 symbols but of exactly 4 symbols.

Comment # 11-259 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 217 **Starting Line Number** 27 **Section** 8.2.1.2.5

Suggested Change: **Editor** Schiltz/Klein

It should be included a reference of the definition of PHY mode B. This definition is in section 8.2.1.5.2.

Reason:

PHY mode B is introduced in the text without any previous definition or reference.

Comment # 11-260 **Comment submitted by:** Lars Lindh Member

Type Editorial **Starting Page Number** 217 **Starting Line Number** 47 **Section** 8.2.1.2.5

Suggested Change: **Editor** Schiltz/Klein

Insert the word "QPSK"so the sentence will read ".. this means QPSK followed by 16-QAM.."

Reason:

The word QPSK was left out of the sentence

Comment # 11-261 **Comment submitted by:** Antonis Karvelas Neither

Type Technical, Non-binding **Starting Page Number** 217 **Starting Line Number** 52 **Section** 8.2.1.2.5

Suggested Change: **Editor** Schiltz/Klein

The standard must clarify with details where in the downstream frame the SS is responsible to hear.

Reason:

The standard must clarify with details where in the downstream frame the SS is responsible to hear. Starting from this line it notes that: "Each SS continuously receives the entire downstream burst, decodes the data in the DS burst, and looks for MAC headers indicating data for that SS.", but the "burst" is a downstream region with specific PHY characteristics. I believe that a SS is responsible to hear the Frame Control Header and the DIUC for which is assigned to, and not to the other DIUC regions.

Comment # 11-262 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 217 **Starting Line Number** 52 **Section** 8.2.1.2.5

Suggested Change: **Editor** Schiltz/Klein

To specify the modes that are compliant with this sentence

Reason:

The sentence is not always true (e.g., FDD HD)

Comment # 11-263 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 218 **Starting Line Number** 36 **Section** 8.2.1.2.5

Suggested Change: **Editor** Schiltz/Klein

To insert a dot preceding "the TDMA portion.."

Reason:

Missing character

Comment # 11-264 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 218 **Starting Line Number** 52 **Section** 8.2.1.2.5

Suggested Change: **Editor** Schiltz/Klein

To insert TDMA instead of TDM in the data part of TDMA portion in figure 123

Reason:

Wording error

Comment #	11-265	**Comment submitted by:**	Vicente	Quilez		Observer	
Type	Editorial	**Starting Page Number**	219	**Starting Line Number**	29	**Section**	8.2.1.2.7
Suggested Change:						**Editor**	Schiltz/Klein

To specify that the Frame Control Header contains a map stating the PS not only where the modulation will change, but the complete burst profile

Reason:

To provide a more exact statement

Comment #	11-266	**Comment submitted by:**	Antonis	Karvelas		Neither	
Type	Editorial	**Starting Page Number**	219	**Starting Line Number**	32	**Section**	8.2.1.2.7
Suggested Change:						**Editor**	Schiltz/Klein

Insert the sentence : "The supporting of the Shortened FEC Block for the downlink bursts is optional as referred to the section 11.1.2.2 ."

Reason:

I believe that in the region 8.2.1.2.7 the standard must remarks that the supporting of the Shortened FEC Block for the downlink bursts is optional as referred to the section 11.1.2.2, in order to remove any doubt about this.

Comment #	11-267	**Comment submitted by:**	Antonis	Karvelas		Neither	
Type	Editorial	**Starting Page Number**	219	**Starting Line Number**	36	**Section**	8.2.1.2.7
Suggested Change:						**Editor**	Schiltz/Klein

The sentence: "Then, p= kn + j where j is the number of integral FEC blocks that fit in the burst and is the number of PS remaining after integral FEC blocks are allocated." must be replaced with the following: "Then, p= kn + j where k is the number of integral FEC blocks that fit in the burst and j is the number of PS remaining after integral FEC blocks are allocated."

Reason:

You must correct the sentence in order to agree with Figure 124.

Comment # 11-268 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 219 **Starting Line Number** 36 **Section** 8.2.1.2.7

Suggested Change: **Editor** Schiltz/Klein

To correct the FEC usage explanation as follows: " =kn+j where k is the number of integral FEC blocks that fit in the burst and j is the number of PS remaining"

Reason:

Wrong definition

Comment # 11-269 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 219 **Starting Line Number** 38 **Section** 8.2.1.2.7

Suggested Change: **Editor** Schiltz/Klein

To substitute f by r

Reason:

To unify nomenclature when talking about the name given to the bits providing correction in Reed Solomon schemes

Comment # 11-270 **Comment submitted by:** Lars Lindh Member

Type Technical **Starting Page Number** 219 **Starting Line Number** 43 **Section** 8.2.1.2.7

Suggested Change: **Editor** Schiltz/Klein

Insert a sentence stating that a codeword cannot have less than 6 information bytes

Reason:

This is also required in 8.2.3.5.5.2

Comment # 11-271 **Comment submitted by:** Antonis Karvelas Neither

Type Editorial **Starting Page Number** 219 **Starting Line Number** 46 **Section** 8.2.1.2.7

Suggested Change: **Editor** Schiltz/Klein

Replace the "symbols" with "PSs".

Reason:

The x,y are counted in PSs, so the same must be true for the right side of the expression y-x=kn+j.

Comment # 11-272 **Comment submitted by:** Antonis Karvelas Neither

Type Editorial **Starting Page Number** 219 **Starting Line Number** 54 **Section** 8.2.1.2.7

Suggested Change: **Editor** Schiltz/Klein

The "symbols" must be replaced with "PSs".

Reason:

The j is PSs not symbols according to the above text.

Comment # 11-273 **Comment submitted by:** Carl Eklund Member

Type Editorial **Starting Page Number** 220 **Starting Line Number** 12 **Section** 8.2.1.2.8

Suggested Change: **Editor** Schiltz/Klein

change msec to ms

Reason:

The SI unit for measuring time is a second which is abbreviates s. Apply this whereever it appears.

Comment # 11-274 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 220 **Starting Line Number** 25 **Section** 8.2.1.3

Suggested Change: **Editor** Schiltz/Klein

To insert "sub" in front of "frame"

Reason:

To provide a more exact statement

Comment # 11-275 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 221 **Starting Line Number** 1 **Section** 8.2.1.3.1

Suggested Change: **Editor** Schiltz/Klein

To substitute "Upstream Burst Mode Modulation" by "Upstream burst profile modes"

Reason:

The section actually deals with burst profiles modes, not only moduilation modes

Comment # 11-276 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 221 **Starting Line Number** 3 **Section** 8.2.1.3.1

Suggested Change: **Editor** Schiltz/Klein

To substitute "Adaptive modulation.." by "Adaptive burst profiles.."

Reason:

The section actually deals with burst profiles, not only modulation

Comment # 11-277 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 221 **Starting Line Number** 3 **Section** 8.2.1.3.1

Suggested Change: **Editor** Schiltz/Klein

To substitute "users" by "SS"

Reason:

Actually, the SS are assigned transmission characteristics

Comment # 11-278 **Comment submitted by:** Carl Eklund Member

Type Technical **Starting Page Number** 221 **Starting Line Number** 8 **Section** 8.2.1.3.1

Suggested Change: **Editor** Schiltz/Klein

Replace "QAM-4" with "the parameters specified for Request Intevals (UIUC=1)"

Reason:

This sentence is in contradiction with the MAC. The parameters for the intervals are defined in the UCD message. If we would want to mandate that Request intervals use QAM-4 this must be done in a separate section.

Comment # 11-279 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 221 **Starting Line Number** 10 **Section** 8.2.1.3.1

Suggested Change: **Editor** Schiltz/Klein

To substitute "..SS transmits with the modulation specified by.." by "..SS transmits with the burst profile specified by"

Reason:

The section actually deals with burst profile, not only modulation

Comment # 11-280 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 221 **Starting Line Number** 57 **Section** 8.2.1.4

Suggested Change: **Editor** Schiltz/Klein

To change figure title to "Uplink mapping in the Continuous Downstream FDD"

Reason:

The word Downstream in the title (as appearing now) is confusing due to the mapping is really for upstream. The suggested change avoid such confussion.

Comment # 11-281 **Comment submitted by:** Antonis Karvelas Neither

Type Editorial **Starting Page Number** 222 **Starting Line Number** 28 **Section** 8.2.1.5.2

Suggested Change: **Editor** Schiltz/Klein

In the title of section 8.2.1.5.2 the "Upstream" must be replaced with "Downstream".

Reason:

Reduce confusion.

Comment # 11-282 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 222 **Starting Line Number** 28 **Section** 8.2.1.5.2

Suggested Change: **Editor** Schiltz/Klein

To change "upstream" by "downstream"

Reason:

Wording error

Comment # 11-283 **Comment submitted by:** Vladimir Yanover Observer

Type Editorial **Starting Page Number** 223 **Starting Line Number** 4 **Section** 8.2.2

Suggested Change: **Editor** Schiltz/Klein

8.2.2 PHY SAP Parameter Definitions paragraph needs to be completed including specification of all the parameters' vectors and primitives mentioned in 8.1

Reason:

A a formal request, if needed. This is a part of MAC-PHY separation process

Comment # 11-284 **Comment submitted by:** Lars Lindh Member

Type Technical **Starting Page Number** 235 **Starting Line Number** 15 **Section** 8.2.3.4

Suggested Change: **Editor** Schiltz/Klein

Delete from "When no data is available to transmit .." until end of paragraph.

Reason:

This sentence is unclear and does not explain for what reason data is not available to transmit. If we have no data then we have a gap and transmission gaps should be scheduled in a DL map entry as burst type "Gap" with DIUC=14 according to Table 3. During such a gap the transmitter shall be shut down according to paragraph 8.2.1.2.7 Downlink Data. This operation has nothing to do with the pointer.

Comment # 11-285 **Comment submitted by:** Antonis Karvelas Neither

Type Technical, Binding **Starting Page Number** 235 **Starting Line Number** 16 **Section** 8.2.3.4

Suggested Change: **Editor** Schiltz/Klein

The text must describe the case where gaps exist between MAC PDUs. If not, the corresponding text must be removed.

Reason:

I believe that the only case to use the stuff_byte pattern is when the MAC sends the last codeword and the Last Codeword Length for this burst is fixed. Is there any case to have gaps between MAC PDUs of the same burst? Based on the Downstream Frame format there is the need to implement a buffer mechanism with 12 banks where each memory bank corresponds to one DIUC region and stores MAC PDUs for that DIUC region. There is not a reason to have gaps between the MAC PDUs of the same memory bank.

Comment # 11-286 **Comment submitted by:** Lars Lindh Member

Type Technical **Starting Page Number** 235 **Starting Line Number** 61 **Section** 8.2.3.5.1

Suggested Change: **Editor** Schiltz/Klein

Delete the sentence "After registration and authorization by the .. ".

Reason:

This sentence is not valid and gives a wrong understanding of the use of adaptive modulation.

Comment # 11-287 **Comment submitted by:** Antonis Karvelas Neither

Type Technical, Non-binding **Starting Page Number** 236 **Starting Line Number** 42 **Section** 8.2.3.5.3

Suggested Change: **Editor** Schiltz/Klein

The standard must clarify when the scrambler is cleared. At the beginning of each Downstream Frame or at the beginning of each TDM burst (that is at the beginning of each modulation/FEC different region - DIUC)?

Reason:

Based on the definition of "burst" the sentence "At the beginning of each burst, the PRBS register is cleared.." means that the scrambler is reloaded with the seed at the beginning of each DIUC region. But this is different with the next sentence which notes that the scrambler is reloaded with the seed at the beginning of the TDM region of the Downlink frame and also at the beginning of each TDMA burst of the Downlink frame.

Comment # 11-288 **Comment submitted by:** Antonis Karvelas Neither

Type Editorial **Starting Page Number** 236 **Starting Line Number** 48 **Section** 8.2.3.5.3

Suggested Change: **Editor** Schiltz/Klein

The sentence: "The sequence generator pauses while parity bites are being transmitted." must be replaced with: "The sequence generator pauses while parity bytes are being transmitted from the Reed Solomon Encoder."

Reason:

To demystify the text and to show that when the Reed Solomon transmits the check bytes the scrambler must be in a hold (not running) state.

Comment # 11-289 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 237 **Starting Line Number** 29 **Section** 8.2.3.5.4

Suggested Change: **Editor** Schiltz/Klein

To align the initial value of t with the value provided in page 290, line 19

Reason:

To avoid inconsistency

Comment # 11-290 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 237 **Starting Line Number** 34 **Section** 8.2.3.5.4

Suggested Change: **Editor** Schiltz/Klein

To indicate if the parity check code is used for error correction, error detection or both. If the use is as an error correction code, please insert an indication of the mechanism that may be used for getting that (e.g., soft decodable, etc.)

Reason:

To suggest an implementation solution, as in the case of Reed Solomon plus Block convolutional code (soft decodable)

Comment # 11-291 **Comment submitted by:** Antonis Karvelas Neither

Type Editorial **Starting Page Number** 237 **Starting Line Number** 48 **Section** 8.2.3.5.5

Suggested Change: **Editor** Schiltz/Klein

Change the text "..able to correct from 1 to 16 byte errors." with the "..able to correct from 0 to 16 byte errors." or change the corresponding entry of Table 49 where the Error correction capability is defined as R=0-32 (T=0-16).

Reason:

To remove the inconsistency with Table 49 where the Error correction capability is defined as R=0-32 (T=0-16).

Comment # 11-292 **Comment submitted by:** Lars Lindh Member

Type Technical **Starting Page Number** 237 **Starting Line Number** 57 **Section** 8.2.3.5.5

Suggested Change: **Editor** Schiltz/Klein

Change "2 to 32" to "0 to 32"

Reason:

It shall be possible to bypass the Reed Solomon code.

Comment # 11-293 **Comment submitted by:** Antonis Karvelas Neither

Type Technical, Non-binding **Starting Page Number** 238 **Starting Line Number** 1 **Section** 8.2.3.5.5

Suggested Change: **Editor** Schiltz/Klein

I believe that the standard must clarify the reasons for the codeword size (K+R) to be an even number.

Reason:

To reduce confusion.

Comment # 11-294 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 239 **Starting Line Number** 7 **Section** 8.2.3.5.5.2

Suggested Change: **Editor** Schiltz/Klein

To unify processing descriptions contained in Shortened Last Codeword Mode given in page 239 from line 7 to line 20, and that given in page 257 from line 10 to line 20.

Reason:

To align definitions

Comment # 11-295 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 240 **Starting Line Number** 1 **Section** 8.2.3.5.8

Suggested Change: **Editor** Schiltz/Klein

To change "Figure 139" by "Figure 140"

Reason:

Numbering error

Comment # 11-296 **Comment submitted by:** Lars Lindh Member

Type Technical **Starting Page Number** 243 **Starting Line Number** 41 **Section** 8.2.3.5.8

Suggested Change: **Editor** Schiltz/Klein

Change the code (53,46) x (51,44)

Reason:

The length of the codeword (53,46)x(51,44) is 338 bytes and exceeds the maximal length of 255 set by the pointer in the TC Sublayer.

Comment # 11-297 **Comment submitted by:** Alok Gupta Neither

Type Technical **Starting Page Number** 244 **Starting Line Number** 31 **Section** 8.2.3.5.9

Suggested Change: **Editor** Schiltz/Klein

Replace (40,20) with (46,26)

Reason:

MAC message length has changed. FEC block size must match. See contribution for details.

Comment #	11-298	**Comment submitted by:**	Vicente	Quilez	Observer		
Type	Editorial	**Starting Page Number**	244	**Starting Line Number**	40	**Section**	8.2.3.5.10
Suggested Change:						**Editor**	Schiltz/Klein

To delete the duplicated word "Table"

Reason:

To avoid duplication

Comment #	11-299	**Comment submitted by:**	Lars	Lindh	Member		
Type	Technical	**Starting Page Number**	247	**Starting Line Number**	20	**Section**	8.2.3.5.11
Suggested Change:						**Editor**	Schiltz/Klein

Insert "The power levels of the different modulation schemes in a DL burst shall be such that the outer constellation points for the different modulation scheme coincide."

Reason:

This will make it easier for the AGC in the SS to operate during the change of the modulations. This is especially important in the TDM mode.

Comment #	11-300	**Comment submitted by:**	Antonis	Karvelas	Neither		
Type	Editorial	**Starting Page Number**	255	**Starting Line Number**	48	**Section**	8.2.4.3.2.1
Suggested Change:						**Editor**	Schiltz/Klein

Change the text "..able to correct from 1 to 16 byte errors." with the "..able to correct from 0 to 16 byte errors." or change the corresponding entry of Table 60 where the Error correction capability is defined as R=0-32 (T=0-16).

Reason:

To remove the inconsistency with Table 60 where the Error correction capability is defined as R=0-32 (T=0-16).

Comment #	11-301	**Comment submitted by:**	Lars	Lindh	Member		
Type	Technical	**Starting Page Number**	255	**Starting Line Number**	58	**Section**	8.2.4.3.2.1
Suggested Change:						**Editor**	Schiltz/Klein

Change "2 to 32" to "0 to 32"

Reason:

It shall be possible to bypass the Reed Solomon code.

Comment # 11-302 **Comment submitted by:** Lars Lindh Member

Type Technical **Starting Page Number** 263 **Starting Line Number** 30 **Section** 8.2.4.3.4

Suggested Change: **Editor** Schiltz/Klein

Delete 64-QAM as an optional modulation scheme for the uplink

Reason:

The use 64-QAM as an optional modulation scheme in the uplink will enforce the use of a very tight spectrum mask for all modulation schemes. This will consequently lead to higher back-off requirements for the power amplifier also for the mandatory QPSK and makes it difficult to realize cost reduced terminals.

Comment # 11-303 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 269 **Starting Line Number** 50 **Section** 8.2.4.3.7

Suggested Change: **Editor** Schiltz/Klein

To complete the second column on table 60

Reason:

It seems to be incompleted

Comment # 11-304 **Comment submitted by:** Lars Lindh Member

Type Technical **Starting Page Number** 271 **Starting Line Number** 34 **Section** 8.2.6.1

Suggested Change: **Editor** Schiltz/Klein

Change "This reference can then be used .." by "This reference must then be used".

Reason:

In order minimize error sources symbol clock locking should be mandatory.

Comment # 11-305 **Comment submitted by:** Jay Klein Member

Type Editorial **Starting Page Number** 271 **Starting Line Number** 47 **Section** 8.2.6.2

Suggested Change: **Editor** Schiltz/Klein

Change "RF Sources" to "Radio and modem frequency sources"","Cost effectivness requires the modem frequency source (symbol clock) to be tied to other Radio system sources.

Reason:

Comment # 11-306 **Comment submitted by:** Lars Lindh Member

Type Technical **Starting Page Number** 271 **Starting Line Number** 48 **Section** 8.2.6.2

Suggested Change: **Editor** Schiltz/Klein

Change ".. RF source should reference each other" with "RF sources must reference each other".

Reason:

It should clearly be stated that frequency locking is mandatory.

Comment # 11-307 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 272 **Starting Line Number** 9 **Section** 8.2.7

Suggested Change: **Editor** Schiltz/Klein

To specify referenced Subsection

Reason:

To avoid indetermination in references

Comment # 11-308 **Comment submitted by:** Jay Klein Member

Type Editorial **Starting Page Number** 272 **Starting Line Number** 17 **Section** 8.2.7

Suggested Change: **Editor** Schiltz/Klein

Delete appearance of "Max Rx phase noise"

Reason:

Based on Session #10 (PHY, TG1) minutes these items are not parameters to appear in minimum performance. Due to an incorrect procedure the Editor was not informed about this change.

Comment # 11-309 **Comment submitted by:** Juha Pihlaja Neither

Type Technical **Starting Page Number** 272 **Starting Line Number** 27 **Section** 8.2.7

Suggested Change: **Editor** Schiltz/Klein

Insert: Tx symbol clock accuracy : 20 ppm

Reason:

The symbol clock accuracy must be a requirement

Comment # 11-310 **Comment submitted by:** Juha Pihlaja Neither

Type Technical **Starting Page Number** 272 **Starting Line Number** 27 **Section** 8.2.7

Suggested Change: **Editor** Schiltz/Klein

Change: 10-66 GHz +- 10 ppm, terminal frequency locking required

Reason:

+- 10 ppm is sufficient when we require terminal frequency locking

Comment # 11-311 **Comment submitted by:** Jay Klein Member

Type Editorial **Starting Page Number** 272 **Starting Line Number** 33 **Section** 8.2.7

Suggested Change: **Editor** Schiltz/Klein

Delete appearance of "Composite Group Delay" and "Composite Amplitude Ripple"

Reason:

Based on Session #10 (PHY, TG1) minutes these items are not parameters to appear in minimum performance. Due to an incorrect procedure the Editor was not informed about this change.

Comment # 11-312 **Comment submitted by:** Jay Klein Member

Type Editorial **Starting Page Number** 272 **Starting Line Number** 38 **Section** 8.2.7

Suggested Change: **Editor** Schiltz/Klein

Delete table section discussing "Base station Receiver" parameters

Reason:

Based on Session #10 (PHY, TG1) minutes these items are not parameters to appear in minimum performance. Due to an incorrect procedure the Editor was not informed about this change

Comment # 11-313 **Comment submitted by:** Juha Pihlaja Neither

Type Technical **Starting Page Number** 272 **Starting Line Number** 40 **Section** 8.2.7

Suggested Change: **Editor** Schiltz/Klein

Change: Dynamic Range: 32 dB

Reason:

32 dB is sufficient when the terminals are subject to power control

Comment # 11-314 **Comment submitted by:** Juha Pihlaja Neither

Type Technical **Starting Page Number** 272 **Starting Line Number** 42 **Section** 8.2.7

Suggested Change: **Editor** Schiltz/Klein

Change: BER performance threshold before FEC:

for 10-3
QPSK -94 + 10*log(R)
16 QAM -87 + 10*log(R)
64-QAM -81 + 10*log(R)
for 10-6
QPSK -90 + 10*log(R)
16 QAM -83 + 10*log(R)
64-QAM -77 + 10*log(R)
where R is the RF channel bandwidth in MHz

Reason:

These values are realistic and do not lead to unnecessary high transmission power in the SS

Comment # 11-315 **Comment submitted by:** Juha Pihlaja Neither

Type Technical **Starting Page Number** 272 **Starting Line Number** 57 **Section** 8.2.7

Suggested Change: **Editor** Schiltz/Klein

Change: Adjacent channel interferer threshold degradation at BER=10-6 : S/I = -2 dB for 1 dB degradation (assuming similar modulations on adjacent channels) where S/I represents Signal to Interferer ratio

Reason:

Makes use of adjacent channel possible

Comment # 11-316 **Comment submitted by:** Juha Pihlaja Neither

Type Technical **Starting Page Number** 272 **Starting Line Number** 62 **Section** 8.2.7

Suggested Change: **Editor** Schiltz/Klein

Insert: Co-channel interference threshold degradation at BER=10-6: S/I = 23 dB (QPSK) and 30 (16-QAM) and 36 (64-QAM) for 1 dB degradation. TBR S/I = 19 dB (QPSK) and 26.5 (16-QAM) and 32.5 (64-QAM) for 3 dB degradation. TBR Where S/I represents Signal to Inteference ratio

Reason:

Co-channel interference threshold degradation should be included for the uplink as well

Comment # 11-317 **Comment submitted by:** Juha Pihlaja Neither

Type Technical **Starting Page Number** 272 **Starting Line Number** 64 **Section** 8.2.7

Suggested Change: **Editor** Schiltz/Klein

Delete: Tx Dynamic Range

Reason:

Min and Max power specification is prefered

Comment # 11-318 **Comment submitted by:** Juha Pihlaja Neither

Type Technical **Starting Page Number** 273 **Starting Line Number** 1 **Section** 8.2.7

Suggested Change: **Editor** Schiltz/Klein

Change: Min transmitted rms power at at Max level setting :

26 GHz band	17 dBm
32 GHz band	16 dBm
42 GHz band	15 dBm

with QPSK modulation (0.35 roll-off factor)

Reason:

Tx power shall be specified as the transmitted rms power

Comment # 11-319 **Comment submitted by:** Juha Pihlaja Neither

Type Technical **Starting Page Number** 273 **Starting Line Number** 4 **Section** 8.2.7

Suggested Change: **Editor** Schiltz/Klein

Insert: Max transmitted rms power at Min level setting: -30 dBm

Reason:

Maximum and Minimum values specification preferred

Comment # 11-320 **Comment submitted by:** Juha Pihlaja Neither

Type Technical **Starting Page Number** 273 **Starting Line Number** 4 **Section** 8.2.7

Suggested Change: **Editor** Schiltz/Klein

Change: Tx power level adjustment steps and accuracy : The subscriber station shall adjust its Tx power level, based on feedback from the basestation via MAC messaging, in steps of 1.0 dB +- 0.5 dB in a monotonic fashion

Reason:

1.0 dB step size is prefered

Comment # 11-321 **Comment submitted by:** Juha Pihlaja Neither

Type Technical **Starting Page Number** 273 **Starting Line Number** 16 **Section** 8.2.7

Suggested Change: **Editor** Schiltz/Klein

Insert: Tx Symbol Clock Accuracy: Must be locked to BS symbol clock

Reason:

Symbol clock accuracy is an important parameter

Comment # 11-322 **Comment submitted by:** Juha Pihlaja Neither

Type Technical **Starting Page Number** 273 **Starting Line Number** 19 **Section** 8.2.7

Suggested Change: **Editor** Schiltz/Klein

Change : Tx RF frequency/accuracy: SS frequency locking required

Reason:

Frequency locking is required for SS to achieve high accuracy

Comment # 11-323 **Comment submitted by:** Jay Klein Member

Type Editorial **Starting Page Number** 273 **Starting Line Number** 21 **Section** 8.2.7

Suggested Change: **Editor** Schiltz/Klein

Delete "Tx Freq Range"

Reason:

Based on Session #10 (PHY, TG1) minutes these items are not parameters to appear in minimum performance. Due to an incorrect procedure the Editor was not informed about this change

Comment # 11-324 **Comment submitted by:** Juha Pihlaja Neither

Type Technical **Starting Page Number** 273 **Starting Line Number** 21 **Section** 8.2.7

Suggested Change: **Editor** Schiltz/Klein

Delete: Tx frequency range

Reason:

Not relevant for specification

Comment # 11-325 **Comment submitted by:** Jay Klein Member

Type Technical **Starting Page Number** 273 **Starting Line Number** 23 **Section** 8.2.7

Suggested Change: **Editor** Schiltz/Klein

Replace TBD with "Per relevant local regulation requirements"

Reason:

Used for the base station as well. Better than TBD.

Comment # 11-326 **Comment submitted by:** Jay Klein Member

Type Editorial **Starting Page Number** 273 **Starting Line Number** 25 **Section** 8.2.7

Suggested Change: **Editor** Schiltz/Klein

Remove the following items: "Spectral mask (in band)" and "Filter distortion" (including Group delay and amplitude ripple reference)

Reason:

Based on Session #10 (PHY, TG1) minutes these items are not parameters to appear in minimum performance. Due to an incorrect procedure the Editor was not informed about this change

Comment # 11-327 **Comment submitted by:** Jay Klein Member

Type Editorial **Starting Page Number** 273 **Starting Line Number** 32 **Section** 8.2.7

Suggested Change: **Editor** Schiltz/Klein

(1) Create a Subscriber Station Receiver section in the table
(2) Add a "BER performance threshold" item identical to the one on page 272 line 48

Reason:

Based on Session #10 (PHY, TG1) minutes these items are not parameters to appear in minimum performance. Due to an incorrect procedure the Editor was not informed about this change

Comment # 11-328 **Comment submitted by:** Jay Klein Member

Type Editorial **Starting Page Number** 273 **Starting Line Number** 32 **Section** 8.2.7

Suggested Change: **Editor** Schiltz/Klein

Replace TBD for the "Adjacent Channel" with the contents of similar section from page 272 line 59

Reason:

Based on Session #10 (PHY, TG1) minutes these items are not parameters to appear in minimum performance. Due to an incorrect procedure the Editor was not informed about this change

Comment # 11-329 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 274 **Starting Line Number** 9 **Section** 8.2.7

Suggested Change: **Editor** Schiltz/Klein

Change references in the table 64, column named "specification section"

Reason:

In table 64, "specification Section" column, references does not match any subclause section in the document.

Comment # 11-330 **Comment submitted by:** Jay Klein Member

Type Editorial **Starting Page Number** 275 **Starting Line Number** 40 **Section** 8.2.7.2.1

Suggested Change: **Editor** Schiltz/Klein

Editor is required to Insert accepted changes of Session #10, Comment 579 by J.Klein

Reason:

Editor forgot to insert change.

Comment # 11-331 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 275 **Starting Line Number** 48 **Section** 8.2.7.2.1

Suggested Change: **Editor** Schiltz/Klein

Include Type 0 in table 65

Reason:

Type 0 is referenced in the following paragraph (pg 275, line 57) but it is not included in table 65

Comment # 11-332 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 278 **Starting Line Number** 62 **Section** 9.2.1

Suggested Change: **Editor** Baragar/Tappenden

Change the line to read "Type is a single-byte identifier . . ." instead of "Type is a single- identifier . . ."

Reason:

Typo

Comment # 11-333 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 278 **Starting Line Number** 63 **Section** 9.2.1

Suggested Change: **Editor** Baragar/Tappenden

Change the line to read "Length is a single-byte containing . . ." instaed of "Length is a single containing . . ."

Reason:

Typo

Comment # 11-334 **Comment submitted by:** Antonis Karvelas Neither

Type Editorial **Starting Page Number** 279 **Starting Line Number** 51 **Section** 9.2.2

Suggested Change: **Editor** Baragar/Tappenden

Add text to show that the "Network Access Configuration Setting" is the same with the Network Access Control Object of the 11.4.3 Encoding.","The text must show that the "Network Access Configuration Setting" is the same with the Network Access Control Object of the 11.4.3 Encoding in order to remove any doubt.

Reason:

Comment # 11-335 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 281 **Starting Line Number** 14 **Section** 9.2.3

Suggested Change: **Editor** Baragar/Tappenden

Take out last row in figure 156

Reason:

The step described by the figure 156 reaches up to the SS MIC inclussion. The step describing how and when the BS MIC is included in the configuration file is described by figure 157.

Comment # 11-336 **Comment submitted by:** Stanley Wang Neither

Type Editorial **Starting Page Number** 281 **Starting Line Number** 14 **Section** 9.2.3

Suggested Change: **Editor** Baragar/Tappenden

Delete the last row ("type, length,value for BS MIC") from Figure 156.
Correspondingly, change the first sentence of page 282, line 12 to read as follows:
"b) The bytes of the BS MIC TLV are omitted from the calculation since it is not present at this step."

Reason:

There is no BS MIC at step (b) yet. BS MIC is added to the configuration file at step (c). In addition, without the additional wording "since it is not present at this step" to page 282, line 12, it may lead the reader to believe that BS MIC is present at step (b).

Comment # 11-337 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 282 **Starting Line Number** 64 **Section** 9.3.1

Suggested Change: **Editor** Baragar/Tappenden

Change/Delete reference D.3.1.1

Reason:

Section/Clause D.3.1.1 does not exist in the document

Comment # 11-338 **Comment submitted by:** Antonis Karvelas Neither

Type Technical, Binding **Starting Page Number** 284 **Starting Line Number** 27 **Section** 10.1

Suggested Change: **Editor** Guillemette

Replace the text "Time between transmission of broadcast Ranging requests" with "Time between of Initial Maintenance regions assigned by the BS".

Reason:

The BS doesn't send RNG-REQ messages. I believe that the text "Time between transmission of broadcast Ranging requests" must be replaced with "Time between of Initial Maintenance regions assigned by the BS" to reduce confusion.

Comment # 11-339 **Comment submitted by:** Antonis Karvelas Neither

Type Technical, Binding **Starting Page Number** 285 **Starting Line Number** 21 **Section** 10.1

Suggested Change: **Editor** Guillemette

Replace the "Wait for ranging response" with "Wait for ranging response after sending the ranging request". Also remove the Minimum Value 50 msec from Table 66 entry.

Reason:

Replace the sentence in order to clarify that the Timer T3 begins the counting after the SS sends the ranging request message. Also I believe that you must remove the Minimum Value 50 msec from the table entry because there isn't any reason to exist. If there is a reason for defining the Minimum Value then you must add a note which will explain that reason.

Comment # 11-340 **Comment submitted by:** Kenneth Stanwood Member

Type Editorial **Starting Page Number** 286 **Starting Line Number** 49 **Section** 10.2 Well known

Suggested Change: **Editor** Marks

Use title-caps for header. I.E., "Well Known Addresses and Identifiers"

Reason:

Consistency with rest of document

Comment # 11-341 **Comment submitted by:** Kenneth Stanwood Member

Type Editorial **Starting Page Number** 287 **Starting Line Number** 39 **Section** 10.2 Well known

Suggested Change: **Editor** Marks

On page 287, line 39 delete "Temporary Registration and"

Reason:

The Temporary CID was eliminated at a previous session, so this term doesn't exist anymore.

Comment # 11-342 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 288 **Starting Line Number** 6 **Section** 11

Suggested Change: **Editor** Licardie

Change last words in the paragraph "the most-significant bits is the first transmitted on the wire" by "the most signigicant bits are the first transmitted on the air interface"

Reason:

Transmission of bits "on the wire" does not make sense in the paragraph where the coment is included

Comment # 11-343 **Comment submitted by:** Lars Lindh Member

Type Technical **Starting Page Number** 289 **Starting Line Number** 17 **Section** 11.1.1.1

Suggested Change: **Editor** Licardie

Change "Preamble pattern" to "Preamble repetition"which defines how many times the basic 16 symbol preamble should be repeated.

Reason:

Preamble pattern is fixed and cannot be defined. The repetition count must however be given as a parameter

Comment # 11-344 **Comment submitted by:** Lars Lindh Member

Type Technical **Starting Page Number** 289 **Starting Line Number** 42 **Section** 11.1.1.1

Suggested Change: **Editor** Licardie

Delete Spectrum inversion

Reason:

There was never a decision to adopt this parameter

Comment # 11-345 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 290 **Starting Line Number** 42 **Section** 11.1.1.2

Suggested Change: **Editor** Licardie

To explain the use of the Convergence Layer bit (enable/disable)

Reason:

There is no explanation about the use of it in the text.

Comment # 11-346 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 292 **Starting Line Number** 24 **Section** 11.1.2.2

Suggested Change: **Editor** Licardie

Change "in pi dB units" by "in 1/4 dB units" in last column, second row starting by the end

Reason:

Fixing of an editorial mistake

Comment # 11-347 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 294 **Starting Line Number** 10 **Section** 11.1.4

Suggested Change: **Editor** Licardie

Change "in pi dB units" by "in 1/4 dB units" in last column, first row .

Reason:

Fixing of an editorial mistake

Comment # 11-348 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 294 **Starting Line Number** 15 **Section** 11.1.4

Suggested Change: **Editor** Licardie

Change "in pi dB units" by "in 1/4 dB units" in last column, second row

Reason:

Fixing of an editorial mistake

Comment # 11-349 **Comment submitted by:** Antonis Karvelas Neither

Type Technical **Starting Page Number** 294 **Starting Line Number** 36 **Section** 11.1.4

Suggested Change: **Editor** Licardie

Replace the sentence "If this TLV is used, the Ranging Status value must be set to 1" with the following "If this TLV is used, the Ranging Status value must be set to 2".

Reason:

If the BS commands the SS to change the downlink channel and redo initial ranging then the Ranging Status value is more logical to have the 2=abort value, because then the SS must abort the current Initial Ranging process, execute PHY resynchronization (downstream and upstream) and after these actions to perform again the Initial Ranging process.

Comment # 11-350 **Comment submitted by:** Antonis Karvelas Neither

Type Technical, Binding **Starting Page Number** 294 **Starting Line Number** 39 **Section** 11.1.4

Suggested Change: **Editor** Licardie

Insert the sentence "If this TLV is used, the Ranging Status value must be set to 2." after the sentence "The identifier of the uplink channel with which the SS should redo initial ranging."

Reason:

If the BS commands the SS to change the Uplink channel, the SS must abort its current Initial Ranging process. Then it must execute Upstream PHY synchronization (it must not execute Downstream PHY synchronization) and after completion of this it will redo Initial Ranging.

Comment # 11-351 **Comment submitted by:** Antonis Karvelas Neither

Type Technical **Starting Page Number** 312 **Starting Line Number** 39 **Section** 11.4.5

Suggested Change: **Editor** Licardie

Add text to clarify where the SS Capabilities Encoding stored in the SS.

Reason:

Where are these parameters come from? If the SS Capabilities Encoding stored in the SS (in a non-volatile storage) during the manufacturing phase, the standard must declare this.

Comment # 11-352 **Comment submitted by:** Kenneth Stanwood Member

Type Technical, Non-binding **Starting Page Number** 313 **Starting Line Number** 40 **Section** 11.4.5.3.1 Physical

Suggested Change: **Editor** Licardie

Delete this TLV.

Reason:

It serves no purpose. For the SS and BS to communicate well enough to transfer this parameter, they must already agree on physical layer type.

Comment # 11-353 **Comment submitted by:** Kenneth Stanwood Member

Type Editorial **Starting Page Number** 314 **Starting Line Number** 31 **Section** 11.4.5.3.3 10-66 GHz

Suggested Change: **Editor** Licardie

Change type from 5.12.2 to 5.12.3.

Reason:

5.12.2 is the type of the previous TLV.

Comment # 11-354 **Comment submitted by:** Kenneth Stanwood Member

Type Technical, Non-binding **Starting Page Number** 315 **Starting Line Number** 38 **Section** 11.4.5.4 Duplexing

Suggested Change: **Editor** Licardie

Delete this TLV

Reason:

It serves no purpose. For the SS and BS to communicate well enough to transfer this parameter, they must already agree on duplexing method.

Comment # 11-355 **Comment submitted by:** Kenneth Stanwood Member

Type Editorial **Starting Page Number** 316 **Starting Line Number** 1 **Section** 11.4.5.4.1 Bandwidth

Suggested Change: **Editor** Marks

Change section number to 11.4.5.5. (make it one level less deep)

Reason:

This TLV is same level as 11.4.5.4 Duplexing Support.

Comment # 11-356 **Comment submitted by:** Antonis Karvelas Neither

Type Technical, Binding **Starting Page Number** 317 **Starting Line Number** 1 **Section** 11.4.7.2

Suggested Change: **Editor** Licardie

Remove the 11.4.7.2 Service(s) Not Available Response section.

Reason:

This configuration setting doesn't exist in the REG-RSP message in the section 6.2.1.2.8 .

Comment # 11-357 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 318 **Starting Line Number** 15 **Section** 11.4.9.1

Suggested Change: **Editor** Licardie

Delete the dot before subclause title

Reason:

Fixing of a typing mistake

Comment # 11-358 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 318 **Starting Line Number** 32 **Section** 11.4.9.2

Suggested Change: **Editor** Licardie

Change "Authorize Wail state" by Reauthorize Wait state" at the end of the paragraph

Reason:

To be coherent with table 82 and subclause 11.4.9.1

Comment # 11-359 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 318 **Starting Line Number** 51 **Section** 11.4.9.3

Suggested Change: **Editor** Licardie

Change/harmonize Valid Range value in table

Reason:

Make coherent the valid range for the Authorization Grace time because it does not match the one in the table 82, page 320 (by 35 days)

Comment # 11-360 **Comment submitted by:** Kenneth Stanwood Member

Type Editorial **Starting Page Number** 325 **Starting Line Number** 29 **Section** 11.4.12.5.4 Quality of

Suggested Change: **Editor** Licardie

Decrease the heading level to 11.4.12.5.

Reason:

These TLVs are not part of "Service Flow Error Encodings"

Comment # 11-361 **Comment submitted by:** Stanley Wang Neither

Type Technical, Binding **Starting Page Number** 325 **Starting Line Number** 29 **Section** 11.4.12.5.4

Suggested Change: **Editor** Licardie

Change the section number from "11.4.12.5.4" to "11.4.12.6" and re-number all subsections under section 11.4.12. Specifically, subsection 11.4.12.6 (page 326, line 39) should be re-numbered to 11.4.12.7; subsection 11.4.12.7 (page 327, line 3) should be re-numbered to 11.4.12.8, etc.

Reason:

Section 11.4.12.5, Service Flow Error Encodings, should not include a subsection in Quality of Service Parameter Set Type, which is currently numbered as subsection 11.4.12.5.4. Instead, Quality of Service Parameter Set Type should be a section by itself and should be in parallel with section 11.4.12.5, Service Flow Error Encodings.

Comment # 11-362 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 327 **Starting Line Number** 12 **Section** 11.4.12.7

Suggested Change: **Editor** Licardie

Equation numbering should be "(1)" instead of "(2)"

Reason:

References to the equation (for instance, in subclause 11.4.12.7.1) mention "(1)"

Comment # 11-363 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 328 **Starting Line Number** 46 **Section** 11.4.12.9

Suggested Change: **Editor** Licardie

Change "This value of this parameter" by "The value of this parameter"

Reason:

Fixing of an editorial mistake

Comment # 11-364 **Comment submitted by:** Vicente Quilez Observer

Type Technical, Binding **Starting Page Number** 334 **Starting Line Number** 59 **Section** 11.4.12.22

Suggested Change: **Editor** Licardie

Change "NSI" by "BNI" in line 59

Reason:

The paragraph refers to the interface between the BS and the network. This interface is named -page 342, figure 160- as BNI from BS-Network Interface

Comment #	11-365	**Comment submitted by:**	Yigal	Leiba	Member		
Type	Technical, Binding	**Starting Page Number**	335	**Starting Line Number**	17	**Section**	11.4.12
Suggested Change:						**Editor**	Licardie

Insert the new sections, whose text is shown below,
'11.4.12.23 CRC and ARQ usage
The value of this parameter will define whether the connection uses ARQ and/or additional CRC on its MPDUs. The TLV fields are
TYPE: [24/25].23
Length: 1
Value: Bit 0, when set the connection appends a CRC field to each MPDU as specified in section 6.2.1
Bit 1, when set the connection appends a CRC field and an ARQ header to to each MPDU as specified in section 6.2.1
SCOPE: Configuration File, REG-REQ, REG-RSP, DSx-REQ, DSx-RSP, DSx-ACK

11.4.12.24 ARQ re-transmission limit
The value of this parameter will characterize the ARQ algorithm for this connection. The number is the maximum number of times an MPDU can be re-trasnsmiited before it must be dropped. This limit enables connections that must satisfy a certain latency constraint to take advantage of ARQ in a way that will limit the resulting latency. The TLV fields are
TYPE: [24/25].24
Length: 1
Value: 0 - 127 (re-transmission count)
SCOPE: Configuration File, REG-REQ, REG-RSP, DSx-REQ, DSx-RSP, DSx-ACK

11.4.12.25 ARQ acknowledge window size
The value of this parameter will characterize the ARQ algorithm for this connection. The number is the size of the acknowledgement window, which measures the amount of time (since a certain MPDU is sent until is acknowledged by the receiving party. This time includes all processing delays of both PHY and MAC at both the transmitter and the receiver. MPDUs at the sender could belong from ARQ view point to one of four types, not-sent, outstanding, acknowledged and not-acknowledged. Any MPDU begins as not-sent. When it is sent it becomes outstanding for an acknowledgement window duration, after which it either is acknowledged, or becomes not-acknowledged. The ARQ algorithm defines the following policy that if any not-acknowledged MPDUs exist, they should be transmitted at the next transmission opportunity, otherwise a not-sent MPDU should be sent.The TLV fields are
TYPE: [24/25].25
Length: 4
Value: 0 - 2^32 (microseconds)
SCOPE: Configuration File, REG-REQ, REG-RSP, DSx-REQ, DSx-RSP, DSx-ACK'

Reason:

Complete missing information on the ARQ algorithm parameters specified in the MAC-CREATE-CONNECTION messages (section 6.1.1), and define the TLVs needed to communicate the information required in these messages across the air interface.

and define the TLVs needed to communicate the information required in these messages across the air interface.

Comment # 11-366 **Comment submitted by:** Kenneth Stanwood Member

Type Technical, Binding **Starting Page Number** 335 **Starting Line Number** 17 **Section** 11.4.12 Service Flow

Suggested Change: **Editor** Licardie

Add a TLV for whether or not the MAC layer CRC is added to each PDU.

Reason:

There is currently no way to specify whether the CRC is turned on for a connection.

Comment # 11-367 **Comment submitted by:** Carl Eklund Member

Type Editorial **Starting Page Number** 337 **Starting Line Number** 48 **Section** Annex A

Suggested Change: **Editor** Marks

Delete entire annex

Reason:

It does not belong in the document. Also the text is outdated and confusing.

Comment # 11-368 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 337 **Starting Line Number** 61 **Section** A.1

Suggested Change: **Editor** Marks

Change the line starting "The IEEE802.16.1 standard" by "The IEEE802.16 standard"

Reason:

The paragraph description is general and apply to both IEEE802.16.1 and IEEE802.16.3

Comment # 11-369 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 339 **Starting Line Number** 8 **Section** A.2

Suggested Change: **Editor** Marks

In figure 159, second row last column, change "802.16 P-MP Radio" by "802.16.1 P-MP Radio".

Reason:

The row description fits to "IEEE802.16.1 products" more than "IEEE802.16.3 products"

Comment # 11-370 **Comment submitted by:** Vicente Quilez Observer

Type Editorial **Starting Page Number** 339 **Starting Line Number** 13 **Section** A.2

Suggested Change: **Editor** Marks

In figure 159, third row last column, change "802.16 P-MP Radio" by "802.16.3 P-MP Radio".

Reason:

The row description fits to "IEEE802.16.3 products" more than "IEEE802.16.1 products"

Comment # 11-371 **Comment submitted by:** Carl Eklund Member

Type Editorial **Starting Page Number** 1 **Starting Line Number** 1 **Section** all

Suggested Change: **Editor**

Incorporate the changes shown in contribution IEEE 802.16.1c-00/06. Green signifies added text, blue deleted.

Reason:

A better separation of PHY and MAC has been agreed on. Work on it started in San Diego but was not finished in time for the latest release of the draft.