802.16.4 MAC Development

Issue Identification and Resolution Plan

IEEE 802.16 Presentation Submission Template (Rev. 8.2)

Document Number:

    IEEE 802.16.4-01/02

Date Submitted:

    1/25/01

Source:

Ken Peirce & TG4 MAC Team	Voice:	916-941-8814
Malibu Networks	Fax:	916-941-8850
1035 Suncast Lane	E-mail:	ken@malibunetworks.com
El Dorado Hills, CA 95762 USA		

Venue:

    Session 11, TG4 MAC Team – Ken Peirce focus point for MAC

Base Document:

    N/A

Purpose:

    Presentation of findings of TG4 MAC team

802.16.4 MAC Development

Issue Identification and Resolution Plan

TG1 MAC Change Request

- Working Group Comment:
  - Type field modification to 802.16.1 Generic Header
    - Use HT bit-field to indicate Type field presence
    - Modify Bandwidth Request Message to make it more consistent with US/DS Generic Header

Bit

0				**8**		**15**

EC	EKS 2 bits	CI	PDE		Length 11 bits
Connection Identifier 16 bits					
HT	CSI	FC 2 bits	FSN 4 bits	Type 8 bits
GM (Uplink only)				HCS
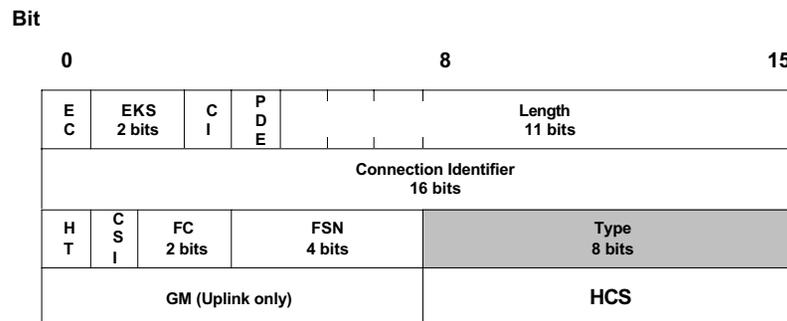
TG4 MAC Development

TG1 MAC Change Request

- Immediate Action Required
  - Type field modification to 802.16.1 Generic Header
  - Determine status of TG1 concatenation contribution

TG4 MAC Development

TG4 MAC Consensus Items

- Prioritized TG4 Issues:
  - ARQ (TG3, TG4)
  - MAP Flexibility (TG3,TG4)
  - DFS (TG4)
  - Transmission Power Control (TG3, TG4)
  - Adaptive Modulation – check TG1 (TG3, TG4)
  - Ranging, Frame Synchronization (TG3, TG4)
  - Optional support of mesh topology (TG4)

Summary

- Submission of Type field comment for 802.16.1 letter ballot.

- Continue expanding details on issues via TG4 reflector.

- Once basic features of issues identified, TG4 will work with TG3 to unify solutions.

TG4 MAC Development