

Discussion Material to Help Plan 802.16j TG Activities

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Base Document:

None

Purpose:

Discussion material for study group

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Purpose

- This contribution is provided to help plan the activities of the 802.16j TG
- This contribution is intended as a base for the discussion of the agenda for the first TG meeting and beyond

Problem Statement

- Scope of MMR project covers a wide range of requirements
- MMR extensions will impact many aspects of PHY and MAC and interdependencies between them
- C80216mmr-06_001.pdf presents a tentative schedule for TG
 - All technical contributions scheduled for submission / evaluation in the September meeting
 - There may be too much ground to cover in one meeting
 - Need to further partition the submission/evaluation of contributions across several meetings to focus TG efforts

Proposed Approach

- Divide the process of submitting / selecting contributions into Phases
- Structure phases so that more fundamental aspects of the air interface are addressed earlier
 - Contributions in subsequent phases can be based on work / decisions made in earlier phases.
 - This approach provides a structure and framework focusing efforts on the core aspects in a methodical order
- Adapt the process as we go
 - Each meeting concludes with presentation & selection of discussion topics for next meeting

Four Phased Approach to Review/Select Contributions

Month	Session	Phase	Action Items
March	#42 Plenary		Presentation & Selection of discussion topics for next meeting
May	#43 Interim	Phase I	Requirements and planning contributions <ul style="list-style-type: none"> - Requirements Document - Procedures for selecting and merging contributions - 802.16j document outline / TOC - Channel Models / Simulation Approach
July	#44 Plenary	Phase II	Presentation & Selection of Phase II Contribution Topics
Sept	#45 Interim	Phase III	Presentation & Selection of Phase III Contribution Topics
Nov	#46 Plenary	Phase IV	Presentation & Selection of Phase IV Contribution Topics
Remaining meetings as on currently proposed schedule (shifted by two meetings)			

Proposed Contribution Topics for Phase II

Topic	PHY	MAC
Network topology choice (PMP, tree structure)	O	O
Frame structure	O	O
Backhaul waveform design (preamble design, sub-channelization schemes, channel coding)	O	O
Network entry and initialization	O	O
Ranging support for initial, periodic and handover	O	O
Contention resolution	O	O
Channel quality measurements (RSSI, CINR)	O	O
Bandwidth request	O	O
Synchronization & Power control	O	O
QoS Architecture	O	O
Sleep & Idle Mode		O

- Contribution topics expanded/modified based on study items from C80216mmr-06_001.pdf

Proposed Contribution Topics for Phase III

Topic		PHY	MAC
HARQ/ARQ		O	
AAS & MIMO		O	
Link Adaptation and DIUC, UIUC update exchanges		O	O
Fast-feedback, CQICH support		O	O
MAC Support of PHY		O	O
Mobility	L2 Routing		
	Handover	O	O
Radio Resource Management	Frequency Reuse & Interference		O
	Spectrum Efficiency		O
	Resource Allocation	O	O

- Contribution topics expanded/modified based on study items from C80216mmr-06_001.pdf

Proposed Contribution Topics for Phase IV

Topic	PHY	MAC
Map message fields and IEs		O
Addressing and connections		O
MAC PDU formats		O
Construction and transmission of MAC PDUs		O
Update of channel descriptors		O
Congestion control		O
Multicast & Broadcast		O
Service-specific CS		O
Security		O
Transmitter requirements	O	O
Receiver requirements	O	O
Frequency control requirements	O	

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