Project	IEEE 802.16 Broadband Wireless Access Working Group <**http://ieee802.org/16**>
Title	Contribution on Table of Contents
Date Submitted	2004-11-11
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Re:	IEEE 802.16 NetMan Task Group Call for Contributions
Abstract	Proposal for Table of Contencts for the IEEE 802.16g specification. The Network Reference Model, Management Architecture Model, Management Functions like System configuration, Events/Statistics, AAA, Security, Handover and Physical layer management are described.
Purpose	To request NetMan Task Group to adopt the proposed text as baseline for the initial draft
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Proposal for Table of Contents

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Concept

This contribution proposes the table of contents and network reference models for the IEEE 802.16g specification. In the last IEEE 802.16 interim session #33 in Seoul we had proposed the scope and architectural considerations for this project in contribution IEEE C802.16g-04/07 [1]. This contribution derives the proposed Table of contents based on that work and other contributions [2][3][4][5][6].

Proposed Text

Adopt the following text as basis for initial working document.

1 Introduction

<Editors Notes: This section describes the scope of 802.16g and provides the purpose and use of the specification >

2 Overview

<Editors Notes: This section describes the functional aspects of 802.16g and how the different management procedures are specified. >

2.1 Network Reference Model

< Editors Notes: This section provides the network reference model diagram and describes the details of various functional elements within the model. Assumptions about the network that are essential to this specification are described. Intefaces within scope of this specification are described. Primary management connection based and secondary management based management modes are described.>

2.2 Management Architecture Model

< Editors Notes: This section provides a management architecture model diagram that lays out the functional layout of this specification. Assumptions within this model and how management procedures are structured within the 802.16 MAC are described. >

3 Management Functions

3.1 System Configuration and Provisioning

3.1.1 Basic RF Configuration

<Editors Note: Procedures for setting and retrieving system information about frequency assignments for sectors, channel bandwidths, FFT sizes, Tx Power, etc. are described>

3.1.2 Basic MAC Configuration

<Editors Note: Procedures for setting and retrieving MAC parameters like SDU size limits, PDU size limits, list of Service classes supported, scan list, packing, fragmentation, ARQ block sizes etc.are described>

3.1.3 BS Time Configuration

<Editors Note: Procedures for setting and retrieving BS time information are described.>

3.1.4 BS Service Provisioning

<Editors Note: Provisioning of the services on the BS are described. Ex: Operator IDs, BS IDs, setting and retrieval and what type of convergence layers are supported and their configuration parameters are described.>

3.1.5 SS/MSS Provisioning

<Editors Note: Provisioning>

3.2 Monitoring Events and Statistics

3.2.1 Monitored Events and Statistics

<Editors Note: Monitoring Statistics on the SS/MSS and BS.

Some of the statistics maybe:

- CINR
- Rx Power
- Tx Power
- Tx/Rx MCS sets for the various allocation slots
- Rx FEC block errors
- ARQ Retransmits
- Etc.

MIBs will not be specified here but in the 802.16f specification.>

3.2.2 Notification/Triggers

<Editors Note: Notification for events and trigger functions associated with some events are described>

3.2.3 Database and Logging

<Editors Note: How events and statistics are stored and how they are retrieved is specified.
Ex: MIBs is one way of collecting events and statistics. Also statistics/events and their periodicity of collection is described.>

3.3 Managing Connections

3.3.1 Capability Management

<Editors Note: Subscriber Basic Capabilities negotiation recommendations >

3.3.2 Admission control and QoS Mapping

<Editors Note: CID and SFID Management, Managing Bandwidth Requests and Grants. QoS Mapping for 802.16-Service-Flows to Network-Flows >

3.3.3 Managing Device States

<Editors Note: Idle Mode, Sleep Mode, Active Mode>

3.3.4 Managing Connection Resources

<Editors Note: Managing constraints on the CID and SFID related resources. Recommendations on when CIDs could be recycled etc.>

3.3.5 Managing Broadcast and Multicast Services

<Editors Note: >

3.4 Managing AAA and Security Functions

3.4.1 Authentication, Authorization and Accounting (AAA) Guidelines

<Editors Note: Recommendations for utilizing EAP, RADIUS protocols>

3.4.2 Security Context and Key Management

<Editors Note: Recommendations for establishment and management of Security Associations, Key establishment and caching policies.>

3.4.3 Security for Handoffs

<Editors Note: Recommendations for Security context re-establishment during handoffs, key binding and key usage policies>

3.4.4 Protecting Management Messages

<Editors Note: Recommendations for protecting MAC management messages which are not always associated with a SA-Id. >

3.5 Mobility and Handover Management

3.5.1 Handover Requirements

<Editors Note: Requirements for different kinds of handoff (Hard-Handoff, FBSS, SHO)>

3.5.1.1 Handover Context for Connections

3.5.1.2 Neighbor List Management

3.5.2 Paging Procedure

3.5.3 Location Update Procedure

3.5.4 Handover Control Procedures

3.5.4.1 Hard Handoff Procedures

3.5.4.2 Fast Base Station Switching Procedures

3.5.4.3 Soft Handoff Procedures

3.6 Physical Layer Management

3.6.1 Physical Layer Calibration and Tuning

<Editors Note: Includes scan times, recommendations for timing and frequency synchronization procedures>

3.6.2 MAP Management

<Editors Note: PHY Specific Sections that Include Subchannelization zone, AAS zone, MIMO zone management>

3.6.3 Radio Measurement and Reporting

<Editors Note: PHY Specific sections for SS/MSS and BS Radio Measurements>

3.6.4 Power Control Management

<Editors Note: PHY Specific sections>

References

[1] IEEE C802.16g-04/07, 802.16g Scope and Architectural Considerations (Jose Puthenkulam, Prakash Iyer, 04/08/29)

[2] IEEE C802.16g-04/06, Operation Support System Interface Specification for 802.16 fixed Wireless Systems (Radu Selea, Bogdan Moldoveanu, 04/08/26)

[3] IEEE C802.16g-04/05, The type of MIB and process of management by EMS (Chi-Man Lee, Ki-Jun Lee, Dong-Cheol Lee, 04/08/20)

[4] IEEE C802.16g-04/04, The issues related with Roaming (Ki-Jun Lee, Dong-Cheol Lee, Chi-Man Lee, 04/08/20)

[5] IEEE C802.16g-04/02, The scope of IEEE 802.16g (Min-Sung Kim, Yongjoo Tcha, Seong-Choon Lee, 04/08/17)

[6] IEEE C802.16g-04/01, 802.16 Accounting based on IEEE 802.1X Accounting (Dongkie Lee, DongIl Moon, DongRyul Lee, JongKuk Ahn, KangIl Koh, Sihun Ryu, Sungho Ha, 04/08/17)