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Re:	IEEE 802.16m-07/047 “Call for Contributions on Project 802.16m System Description Document”	
Abstract	This contribution proposes reference model and protocol architecture.	
Purpose	For discussion and approval of the proposed reference model and protocol architecture.	
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A proposal about reference model and protocol architecture

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Introduction

According to IEEE 802.16m System Requirements [1], IEEE 802.16m shall support handover within and between all cell types in an IEEE802.16m system , IEEE 802.16m shall provide handover with WirelessMAN-OFDMA Reference Systems and IEEE 802.16m shall support interworking functionality to allow efficient handover to other radio access technologies.

IEEE802.16m should be fully compatible with IEEE 802.16 Network Control and Management Services (NCMS). IEEE 802.16m shall provide support for preserving QoS during handover with other RATs when it is feasible.

In addition, IEEE 802.16m shall enable advanced RRM by enabling the collection of reliable statistics over different timescales, including system (e.g. dropped call statistics, BS loading condition, and channel occupancy), user (e.g. terminal capabilities, mobility statistics, and battery life), flow, packet, etc.

IEEE 802.16m should support self organizing mechanisms including Self-optimization. Self-optimization means allowing automated or autonomous optimization of network performance with respect to service availability, QoS, network efficiency and throughput.

The above mentioned system requirements of IEEE 802.16m have very tight relation with the neighbor BSs information, which include interference information, loading information, real-time QoS information, network efficiency information and so on. In other word, network should be able to provide sufficient neighbor BSs information. These neighbor BSs include 802.16-based BSs and non-802.16 RATs BSs.

This contribution includes two proposals for 802.16m system description document (SDD). The first one describes an amendment reference model and functionalities for NCMS. The other one is Table of Contents (ToC) for 802.16m SDD. The first proposal could also be treated as our reasons and explanation for the proposed ToC.

NCMS Amendment

In the amendment mode, 802.16m can negotiate with other 801.16-based or non-802.16 systems to supply sufficient neighbor BS information through the Neighbor BSs information services.

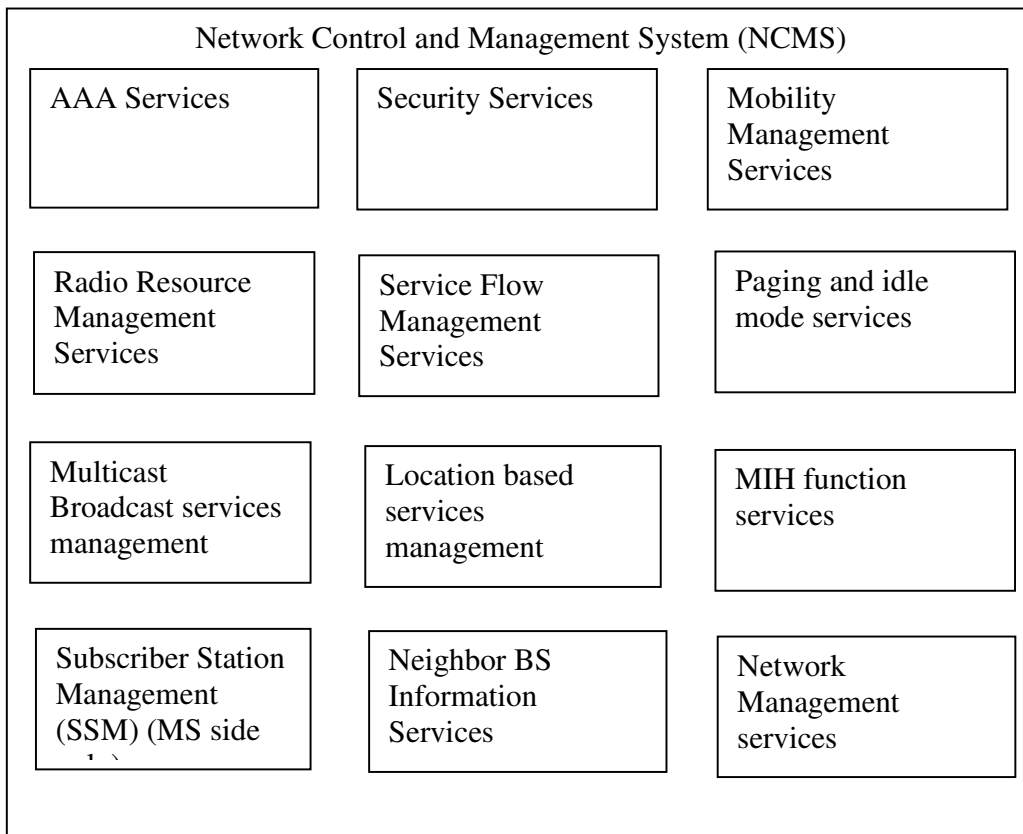


Figure 1--Illustration of the Network Control and Management System

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Reference

[1] 80216m-07_002r4 IEEE 802.16m System Requirements

[2] 80216m-07_047 Call for Contributions, 802.16m System Description Document (SDD)