Project	**IEEE 802.16 Broadband Wireless Access Working Group <http://ieee802.org/16>**
Title	**Proposed Skeleton for 802.16 i**
Date Submitted	**2006-01-05**
Source(s)	Zou Lan mailto:zlan@huawei.com Huawei Technologies.
Re:	Contribution to IEEE 802.16i
Abstract	This contribution proposed the skeleton of 802.16i
Purpose	Adoption
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Skeleton for IEEE802.16i

Huawei Technologies.

Introduction

This contribution proposes document skeleton for IEEE802.16i standard.

Proposed Text

1. Overview
   1.1 Scope

   This document provides mobility enhancements to IEEE Std 802.16 MIB for the MAC, PHY and associated management procedures. The project will use protocol-neutral methodologies for network management to develop resource models and related solution sets for the management of devices in a multi-vendor 802.16 mobile network.

   The content of this document contains three parts of definitions, all of them are described in protocol-neutral methodology and corresponding solution set such as Corba, SNMP, XML etc.
   - Interface IRP: Definition of the network management procedures which could be used to retrieve data in a multi-vendor mobile network.
   - Network Resource Model (NRM) IRP: Definition of the 802.16 mobile network resource model.
   - Data IRP: Definition of 802.16 mobile network data information in a multi-vendor mobile network.

   1.2 Purpose

   The purpose of this project is to provide a definition of managed objects and management procedures which facilitate cross-vendor interoperability at the network level to enable the standards-based management of 802.16 devices.

   This will provide network operators with the ability to manage multi-vendor networks including 802.16e devices.

   This project extends upon the work of IEEE 802.16f in adding MIB support for new features and management functions added in IEEE 802.16e and other projects.

2. Reference

3. Definitions and abbreviations

4. Compliance rules

   See 3GPP TS 32.102 [2] .

5. Information Service
   5.1 Management Reference Models

   Figure X and XX shows management reference models of Mobility Broadband Wireless Access (MBWA) networks. It includes Network management service(NMS) and management network elements(NE). NMS is a function module of NCMS and Management NEs can be BS and SS/MS.

There are two scenarios for the management of NEs. One is NEs communicate directly to NMS through IRP. Another is NEs connect to vendor-specific EM system and EM system communicates with NMS through IRP.

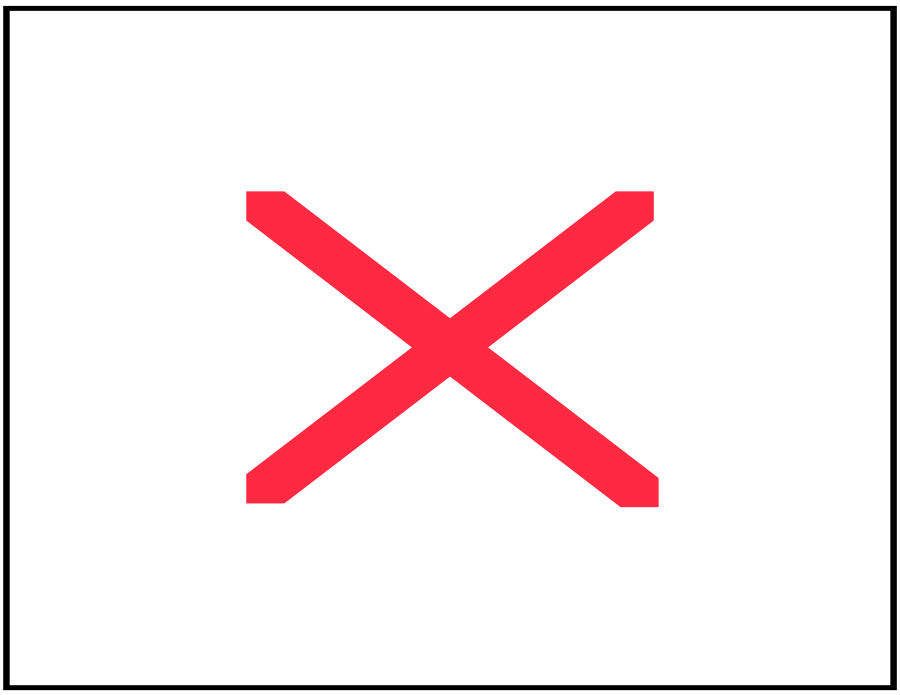

Figure X NE direct communicate with NMS reference model

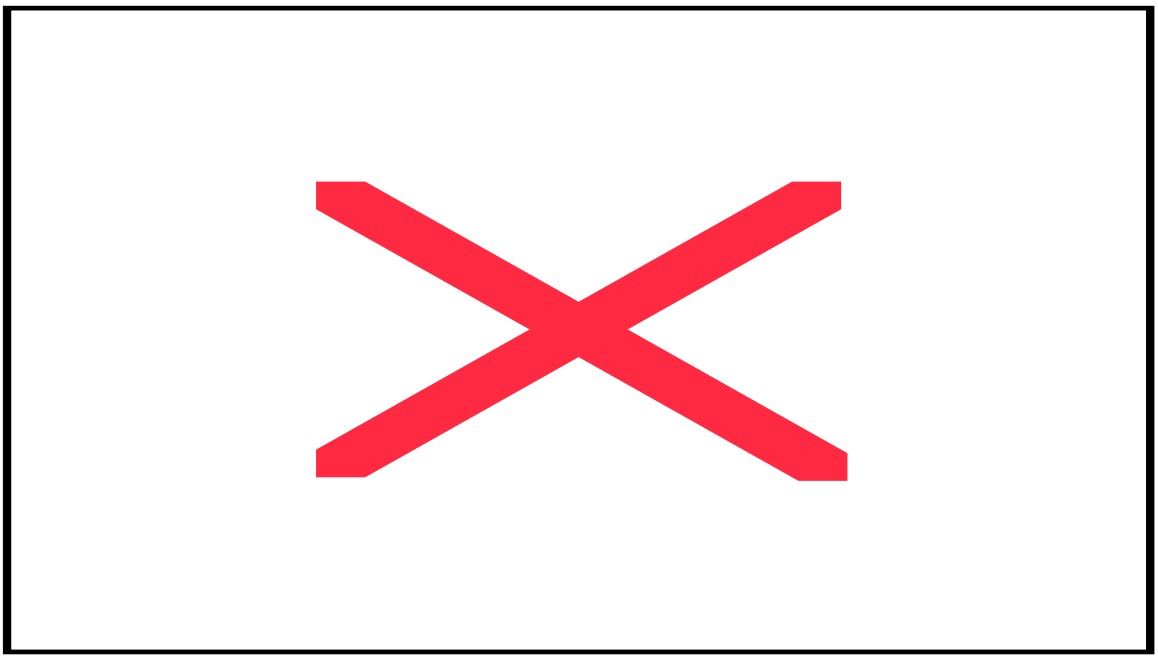

Figure XX EMS communicate with NMS reference model

Information Service Models include Interface IRPs ,NRM IRPs and Data IRPs.
This section is providing the IEEE 802.16 protocol neutral (IS) resource model definitions and

corresponding solution sets for the mentioned information service models.

5.2 Information Model Methodology

Move 16g section 14.3 description to this section.

For the purpose of Management Interface development an Interface Methodology known as Integration Reference Point (IRP) was developed to promote the wider adoption of standardized Management interfaces in telecommunication networks.

The IRP methodology employs Protocol & Technology Neutral modeling methods as well as protocol specific solution sets to help achieve its goals. The Integration Reference Point is a methodology to aid a modular approach to the development of standards interfaces.

There are three cornerstones to the IRP approach:

1.Top-down, process-driven modeling approach

The process begins with a requirements phase, the aim at this step is to provide conceptual and use case definitions for a specific interface aspect as well as defining subsequent requirements for this IRP.

2.Technology-independent modeling

The second phase of the process is the development of a protocol independent model of the interface. This protocol independent model is specified in the IRP Information Service.

3. Standards-based technology-dependent modeling

The third phase of the process is to create one or more interface technology and protocol dependent models from the Information Service model. This is specified in the IRP Solution Set(s).

5.3 Interface IRP

5.2.1 General

5.2.2 Performance Management

5.2.3 Fault Management

5.2.4 Configuration Management

5.2.5 Security Management

5.2.6 General File Transfer Management

5.2.7 Software Management

5.2.8 ...

5.4 NRM IRP

5.3.1 General

Move 16g section 14.3.1.1/14.3.1.2 to this section.

5.3.2 BS Network Resource Model

5.3.3 SS/MS Network Resource Model