Project	**IEEE 802.16 Broadband Wireless Access Working Group <http://ieee802.org/16>**
Title	**A New Primitive for Indicating Network Attachment**
Date Submitted	**2006-11-06**
Source(s)	Jaesun Cha and Chulsik Yoon jscha@etri.re.kr ETRI 161 Gajeong-dong, Yuseong-gu Daejeon 305-700 Korea
Re:	Contribution on comments to IEEE 802.16g/D5
Abstract	In this contribution, we propose a new primitive to infer NCMS of network attachment.
Purpose	Adoption
Notice	This document has been prepared to assist IEEE 802.16. It is offered as a basis for discussion and is not binding on the contributing individual(s) or organization(s). The material in this document is subject to change in form and content after further study. The contributor(s) reserve(s) the right to add, amend or withdraw material contained herein.
Release	The contributor grants a free, irrevocable license to the IEEE to incorporate text contained in this contribution, and any modifications thereof, in the creation of an IEEE Standards publication; to copyright in the IEEE's name any IEEE Standards publication even though it may include portions of this contribution; and at the IEEE's sole discretion to permit others to reproduce in whole or in part the resulting IEEE Standards publication. The contributor also acknowledges and accepts that this contribution may be made public by IEEE 802.16.
Patent Policy and Procedures	The contributor is familiar with the IEEE 802.16 Patent Policy and Procedures (Version 1.0) <http://ieee802.org/16/ipr/patents/policy.html>, including the statement "IEEE standards may include the known use of patent(s), including patent applications, if there is technical justification in the opinion of the standards-developing committee and provided the IEEE receives assurance from the patent holder that it will license applicants under reasonable terms and conditions for the purpose of implementing the standard." Early disclosure to the Working Group of patent information that might be relevant to the standard is essential to reduce the possibility for delays in the development process and increase the likelihood that the draft publication will be approved for publication. Please notify the Chair <mailto:r.b.marks@ieee.org> as early as possible, in written or electronic form, of any patents (granted or under application) that may cover technology that is under consideration by or has been approved by IEEE 802.16. The Chair will disclose this notification via the IEEE 802.16 web site <http://ieee802.org/16/ipr/patents/notices>.

A New Primitive for Indicating Network Attachment

Jaesun Cha and Chulsik Yoon

ETRI

1. Motivation

According to the current draft, NCMS shall issue M-MTM-REQ(power on) and C-NEM-REQ(ranging) primitives to activate 802.16 terminal. But, NCMS doesn't know when the 802.16 terminal is ready to perform ranging after it receives M-MTM-RSP(power on) primitive. After the 802.16 terminal is powered on, it shall scan for downlink channel, establish synchronization with a BS and obtain transmit parameters from UCD and DCD message before initial ranging. It will take a couple of seconds to complete aforementioned initialization steps because of transmission interval of UCD and DCD. Therefore NCMS can't issue C-NEM-REQ(ranging) right after it receive M-MTM-RSP(power on).

In this contribution, we propose a new control primitive which tell that 802.16 terminal is synchronized with BS and ready to perform initial ranging.

2. Proposed Text Changes

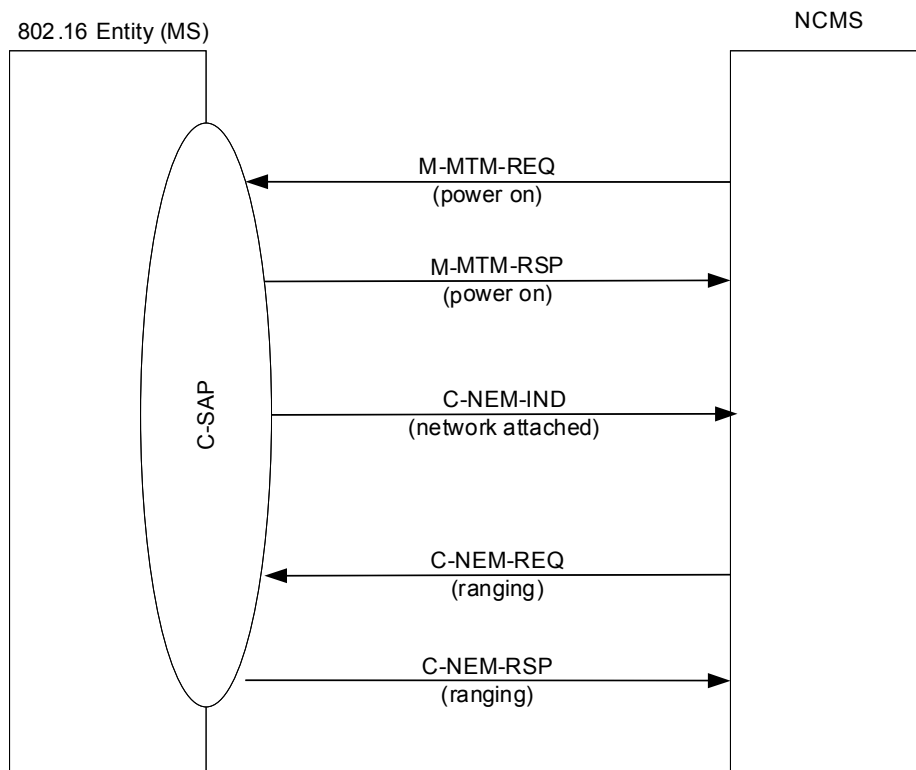[***Insert the following figure before subclause 14.2.81 on page 99***]

Figure xxx – network attachment

[***Insert a new subclause 14.2.8.4 as follows***]

14.2.8.4 C-NEM-IND

Function:

This primitive is used by 802.16 entity to infer NCMS of the completion of initialization procedure which includes synchronization with the BS and acquirement of downlink/uplink transmission parameters.

Semantics of the service primitive:

The following parameters are included in this primitive.

```
C-NEM-IND
(
        Message_id,
        Operation_Type(Action),
        Action_Type (network attached),
        Object_id (MS MAC address),
        Attribute_list:
)
```

When generated:
This primitive is generated when 802.16 entity completes initialization steps and is ready to perform initial ranging.

Effect of receipt:
NCMS can issue C-NEM-REQ(ranging) to request the 802.16 entity to perform initial ranging after it receives this primitive.