

Project	IEEE 802.16 Broadband Wireless Access Working Group < http://ieee802.org/16 >
Title	Addition of Network Exit Procedure in Network Entry Management
Date Submitted	2007-01-12
Source(s)	Jee Hyeon Na, ETRI, E-mail: jhna@etri.re.kr Jaesun Cha, ETRI, E-mail : jscha@etri.re.kr JungMo Moon, PhD, ETRI, E-mail: jmmoon@etri.re.kr Mi-Young Yoon, ETRI, E-mail: myyun@etri.re.kr Sang Ho Lee, PhD, ETRI, E-mail: leesh@etri.re.kr Yun Won Chung, PhD, Soongsil University, E-mail: ywchung@ssu.ac.kr
Re:	Call for Comment on P802.16g D6 Document
Abstract	This contribution proposes service primitives for network entry.
Purpose	The document should be considered during the resolution of comments on the D6 document.
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 material 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 < http://ieee802.org/16/ipr/patents/policy.html >, including the statement "IEEE standards may include the known use of patent(s), including patent applications, provided the IEEE receives assurance from the patent holder or applicant with respect to patents essential for compliance with both mandatory and optional portions of 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:chair@wirelessman.org > as early as possible, in written or electronic form, if patented technology (or technology under patent application) might be incorporated into a draft standard being developed within the IEEE 802.16 Working Group. The Chair will disclose this notification via the IEEE 802.16 web site < http://ieee802.org/16/ipr/patents/notices >.

Addition of Network Exit procedure in Network Entry Management

*Jee Hyeon Na**, *Jaesun Cha**, *JungMo Moon**, *Mi-Young Yoon**, *Sang Ho Lee**,
and *Yun Won Chung***

* ETRI, 161, Gajeong-dong, Yuseong-gu, Daejeon, 305-700, Korea

** Soongsil University, 511 Sangdo-dong, Dongjak-gu, Seoul, 156-743, Korea

1. Introduction

In Section 14.2.7, network entry management is described, where network entry procedure consists of ranging, registration, and network attachments. However, network deregistration procedure is not defined in Section 14.2.7 but in Section 14.2.8 Mobile Terminal Management. We think that network deregistration primitive is not management procedure but control procedure. Thus, we newly add network exit procedure in Section 14.2.7 and remove deregistration procedure in Section 14.2.8 instead.

2. Proposed Text Changes

[Change section 14.2.7 to the followings]

14.2.7 Network entry & exit-management

The Network Entry & exit-Management Primitives are a set of primitives for supporting network entry, ~~and~~ network re-entry, and network exit procedures between 802.16 Entity and NCMS.

[Inserts the following after figure 500]

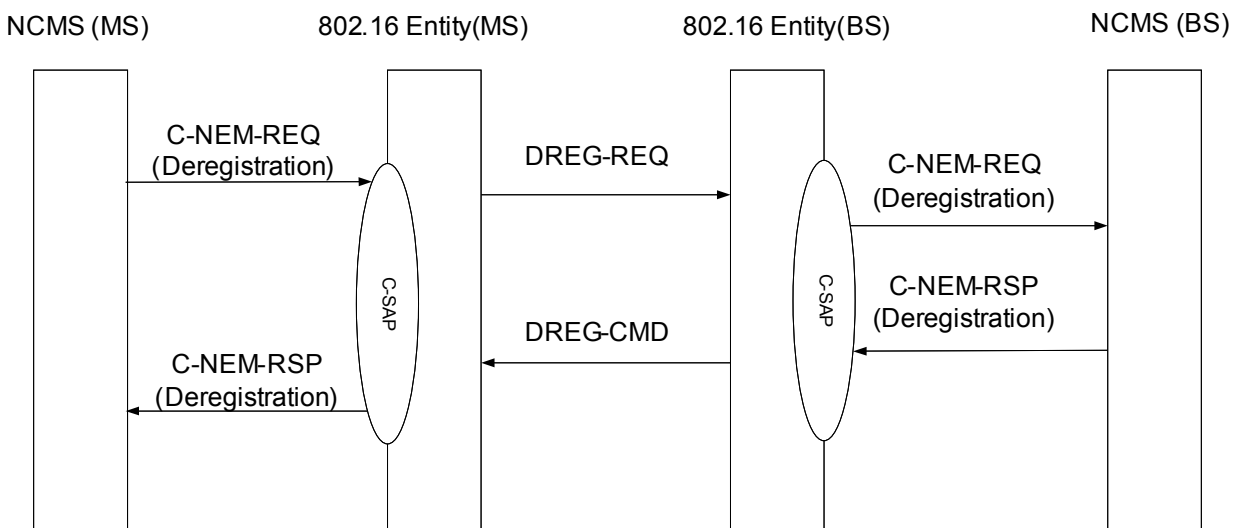


Figure xxx – Network Deregistration Primitives by MS

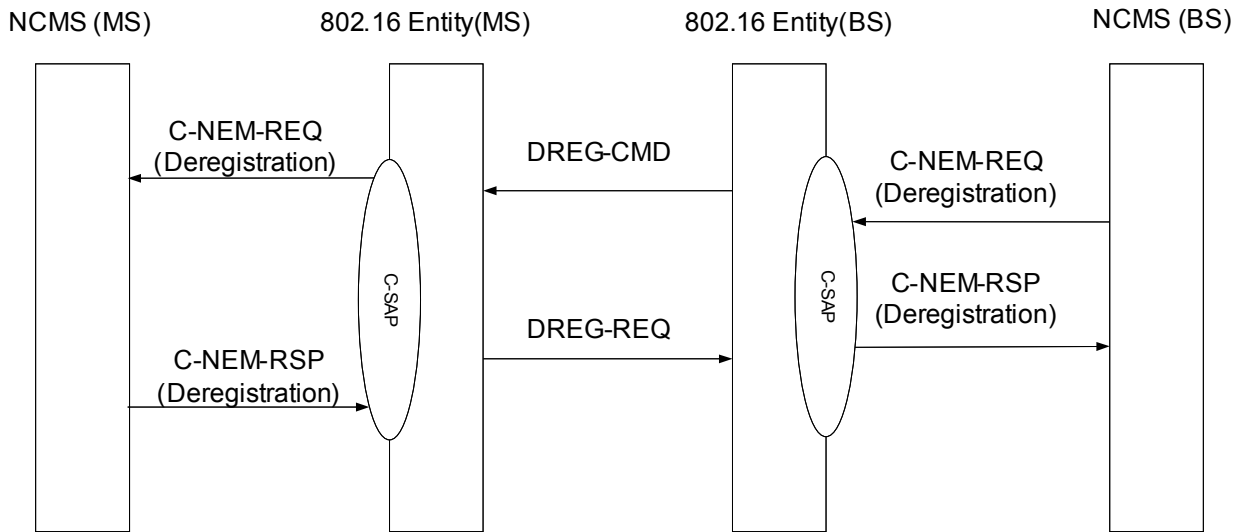


Figure xxx – Network Deregistration Primitives by BS

[Modify table in section 14.2.7 as follows]

Action type	Description
Ranging	Ranging procedures between 802.16 Entity and NCMS
Registration	Registration Procedures between 802.16 Entity and NCMS
<u>Deregistration</u>	<u>Deregistration procedures between 802.16 Entity and NCMS</u>

[Insert as follows before 14.2.7.2.]

14.2.7.1.3 C-NEM-REQ (Action = Deregistration)

Function:

This primitive is used by NCMS at MS side to trigger the deregistration procedure. In this case, IEEE 802.16 entity at BS notifies NCMS of deregistration request when it receives DREG-REQ message from the MS. This primitive is also used by NCMS at BS side to trigger deregistration procedure. It is also used by the 802.16 entity at MS to notify NCMS of deregistration request when it receives DREG-CMD message from the BS.

Semantics:

```

C-NEM-REQ
(
    Operation_type: Set
    Action_type: Deregistration
    Destination: MS or BS or NCMS
    Attribute_List:
        MS MAC Address,
        Action Code

```

)

MS MAC Address

48-bit MAC Address which identify MS.

Action Code

Indication of deregistration type.

When generated:

. NCMS(MS) to 802.16 MS Entity :

This primitive is generated when a higher layer entity in NCMS at MS wants to de-register the service from 802.16 networks. It is also generated by the 802.16 BS entity to notify NCMS of deregistration request when it receives DREG-REQ message from the MS.

. NCMS(BS) to 802.16 BS Entity :

This primitive is generated when a higher layer entity in NCMS at BS wants to de-register the service from 802.16 networks. It is also generated by the 802.16 MSS entity to notify NCMS of deregistration request when it receives DREG-CMD message from the BS.

Effect of receipt:

. NCMS(MS) to 802.16 MS Entity :

The 802.16 entity at MS shall send DREG-REQ message to the serving BS for de-registration. Action code included in DREG-REQ message corresponds to the Action Code in C-NEM-REQ primitive. If NCMS at BS receives this primitive, it shall responds to it with C-NEM-RSP primitive after deregistration process.

. NCMS(BS) to 802.16 BS Entity :

The 802.16 entity at BS shall send DREG-CMD message to the MS for de-registration. Action code included in DREG-CMD message corresponds to the Action Code in C-NEM-REQ primitive. If NCMS at MS receives this primitive, it shall responds to it with C-NEM-RSP primitive after deregistration process.

[Insert as follows before 14.2.7.3.]

14.2.7.2.3 C-NEM-RSP (Action = Deregistration)

Function:

This primitive is generated by the 802.16 MS entity or NCMS to respond to C-NEM-REQ(Deregistration). It is also generated by the 802.16 BS entity or NCMS to respond to C-NEM-REQ(Deregistration).

Semantics:

C-NEM-RSP

(

Operation_type: Set
 Action_type: Deregistration
 Destination: BS or NCMS
 Attribute_List:
 MS MAC Address,
 Action Code,
 Result Code

)

MS MAC Address
48-bit MAC Address which identify MS.

Action Code
Indication of deregistration type.

When generated:

This primitive is generated when the 802.16 entity at MS or NCMS at BS receives C-NEM-REQ(Deregistration)

Effect of receipt:

If NCMS receives this primitive, it completes deregistration procedure. If the 802.16 entity at BS receives this primitive, it shall send DREQ-CMD message to the MS. If the 802.16 entity at MS receives this primitive, it shall send DREG-REQ message to the BS.

[Change 14.2.8 to the following]

14.2.8 Mobile Terminal Management

The Mobile Terminal Management Primitives are a set of primitives to manage the status of mobile terminal. A management entity in NCMS can change the status of mobile terminal into power on/down/~~de-register~~, etc. Those primitive.....

[Delete Figure 501 before 14.2.7.3]

[Change 14.2.8.1 to the following]

14.2.8.1 M-MTM-REQ

The primitive is used by NCMS or 802.16 entities to request status change of the MS. The Action Type included in the primitive defines the type of status change to be performed. The possible Action Type for this primitive are listed in Table below:

Action type	Description
Power On	Power on procedure between MS and NCMS
Power Down	Power down procedure between MS and NCMS
Reset	Reset Procedure
Deregistration	Deregistration Procedure

[Delete 14.2.8.1.4]

[Delete 14.2.8.2.4]