

Project	IEEE 802.16 Broadband Wireless Access Working Group < http://ieee802.org/16 >	
Title	Service Primitive for Paging Group Action	
Date Submitted	2005-07-20	
Source(s)	Jee Hyeon Na, Yun Won Chung, PhD Sang Ho Lee, PhD ETRI, 161, Gajeong-dong, Yuseong-gu, Daejeon, 305-700, Korea	jhna@etri.re.kr yun.chung@etri.re.kr leesh@etri.re.kr Voice: +82-42-860-5408 Fax: +82-42-861-1966
Re:	Call for Comment on P802.16g Baseline Document	
Abstract	This contribution proposes service primitive for paging group action	
Purpose	The document should be considered during the resolution of comments on the baseline 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 >.	

Service Primitive for Paging Group Action

Jee Hyeon Na, Yun Won Chung, and Sang Ho Lee

ETRI, Korea

Problem Statement

The location information of an idle MS is managed by the unit of Paging Group in Paging Service of an NCMS, and paging messages are sent to all the BSs within the called MS's Paging Group. The NCMS should divide the whole service area into multiple Paging Groups and notify this Paging Group information to all the BSs within the service area, where a BS may be a member of one or more Paging Groups. In this contribution, we propose a service primitive for Paging Group Action which is exchanged through Management Service Access Point (M-SAP) of Management Plane specified in IEEE 802.16g baseline document. Paging Group Action is performed by Paging Service of an NCMS, as shown in Fig. 1.

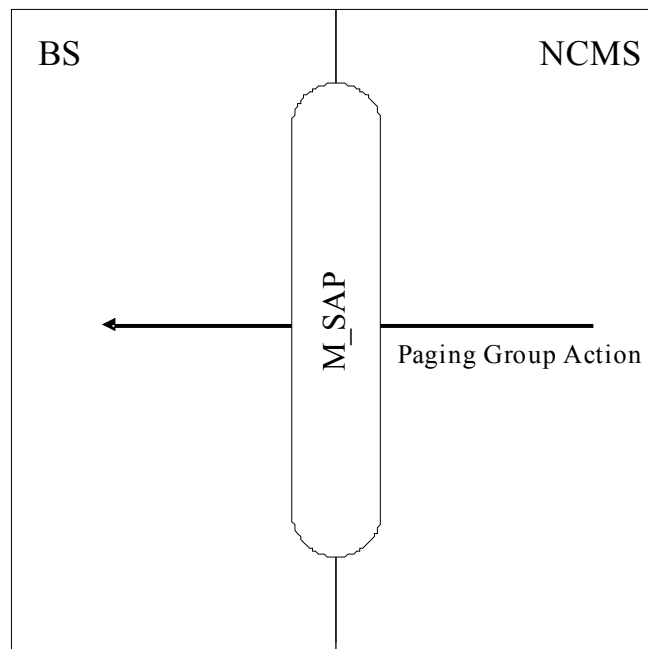


Fig. 1 - Paging Group Action Primitive

Summary of the Proposed Remedy

In this contribution, we define a primitive for supporting Paging Group Management between a BS and an NCMS, which is described briefly in the following table.

Primitive	Direction	Primitive Contents
Paging Group Action	NCMS -> BS	Paging Controller ID, Number of Paging Group IDs, Paging Group ID List

Proposed Text Changes

[Modify section 14.5.9.2 as follow]

14.5.9.2 Paging Management

14.5.9.2.1 Paging Group Management

14.5.9.2.1.1 Paging Group Management Procedure

The location information of an idle MS is managed by the unit of Paging Group in Paging Service of an NCMS, and paging messages are sent to all the BSs within the called MS's Paging Group. The NCMS should divide the whole service area into multiple Paging Groups and notify this Paging Group information to all the BSs within the service area, where a BS may be a member of one or more Paging Groups. In this contribution, we propose service primitive for Paging Group Action which is exchanged through Management Service Access Point (M-SAP) of Management Plane specified in IEEE 802.16g baseline document. Paging Group Action is performed by Paging Service of an NCMS, as shown in Fig. 2

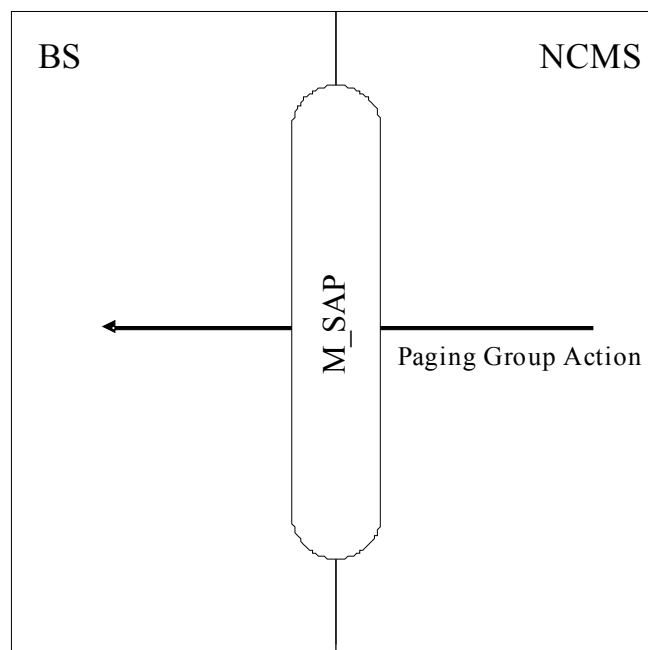


Fig. 2 - Paging Group Action Primitive

14.5.9.2.1.2 Service Primitive for Paging Group Management

14.5.9.2.1.2.1 Paging Group Action

14.5.9.2.1.2.1.1 Function

This primitive is issued by an NCMS to inform a BS of Paging Group ID(s) of the BS.

14.5.9.2.1.2.1.2 Semantics of the service primitive

The parameter of the primitive is as follows:

Paging Group Action

(

Paging Controller ID
Number of Paging Group IDs
Paging Group ID List

)

Paging Controller ID

The Paging Controller ID is a logical network identifier for the serving BS or other network entity retaining MS service and operational information and/or administering paging activity for the MS while in Idle Mode.

Number of Paging Group IDs

The number of Paging Group IDs in this primitive.

Paging Group ID List

List of Paging Group IDs of a BS (eg, Paging Group ID1, Paging Group ID2, ... , Paging Group IDn)

14.5.9.2.1.2.1.3 When generated

This primitive is generated when an NCMS initializes or updates paging group configuration information and notifies the information to a BS.

14.5.9.2.1.2.1.4 Effect of receipt

When the BS receives this primitive, it updates its Paging Group ID information according to the delivered Paging Group ID List, and broadcasts the updated Paging Group ID information in MOB_NBR-ADV, DREG-CMD, MOB_PAG-ADV, DCD, RNG-RSP messages.

References

[1] IEEE 802.16e/D9

[2] IEEE 802.16g-04/03r3, "Baseline Document – P802.16g Management Plane Procedures and Services"

[3] IEEE Std 802-16-2004