

Ranging in MMR System

IEEE 802.16 Presentation Submission Template (Rev. 8.3)

Document Number:

IEEE S802.16j-06/232

Date Submitted:

2006-11-14

Source:

Chang-kyoon Kim, Kyu-ha Lee, Hyung-kee Kim
Samsung Thales Co., Ltd.
San 12-1, Nongseo-Dong, Giheung-Gu,
Yongin-City, Gyeonggi-Do, Korea 446-712

Voice: + 82 31 280 1573
Fax: + 82 31 280 1620
E-mail: changkyoon.kim@samsung.com
knidus@empal.com

Byung-Jae Kwak, D.H. Ahn, Yong Su Lee
ETRI
161, Gajeong Dong, Yuseong Gu,
Daejeon, Korea 305-350

Voice: +82 42 860 6618
Fax: +82 42 861 1966
E-mail: bjkwak@etri.re.kr

Venue:

IEEE 802.16 Session #46

Base Document:

IEEE C802.16j-06/026

Purpose:

To propose ranging scheme for MMR system

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.

IEEE 802.16 Patent Policy:

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>.

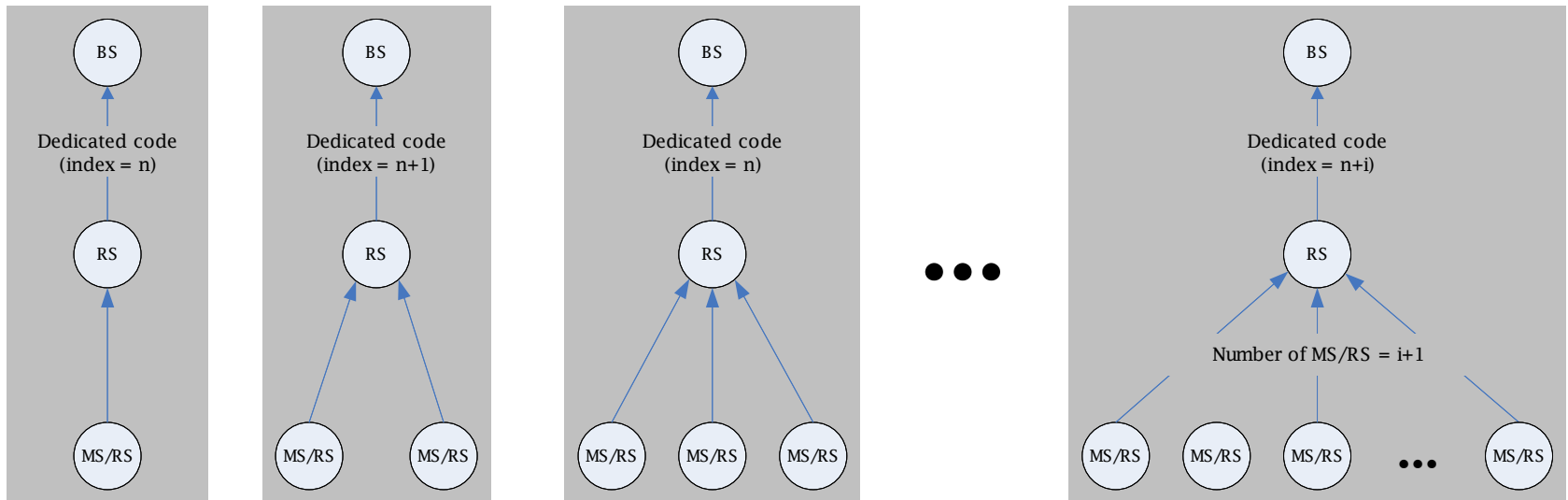
Overview

- Assumptions
 - The RS has the ability to perform all functions of the MS like network entry, initialization, and so on.
 - All nodes in the cell are controlled by the MMR-BS.
- Key Concept
 - Some ranging codes indicate the number of codes the RS received.
- Characteristics
 - Fast, but code-wasted
 - Optional feature (because of wasting codes)

Simple Procedure

- When codes from n to $(n+i)$ are allocated for relaying,

Relayed-ranging code index	n	$n+1$	$n+2$	$n+3$...	$n+i$
No. of received codes	1	2	3	4	...	$i+1$



- The detailed procedures are described in IEEE C802.16j-06/232

Notice

- My e-mail address(changkyoon.kim@samsung.com) has some problems, so anybody have a question use temporary address(knidus@empal.com), please.