

# Clarification of Some Terminologies for 802.16j

## Document Number:

IEEE C802.16j-06/079r1

## Date Submitted:

2006-07-12

## Source:

Wen Tong, Wang G-Q , Jose Costa, Peiying Zhu,  
Mohan Fong, Hang Zhang, Gamini Senarnath  
David Steer, Derek Yu  
Nortel, 3500 Carling Avenue  
Ottawa, On K2H 8E9 Canada

Voice: 613 7631315

E-mail: [wentong@nortel.com](mailto:wentong@nortel.com)

Dean Kitchener, Mark Naden  
Nortel  
London Road  
Harlow, Essex, CM17 9NA

## Venue:

IEEE 802.16 Session #44, San Diego, USA

Base Document: C80216j-06\_041:”Harmonized definitions and terminology for Mobile Multihop Relay”

## Purpose:

[To further clarify some terminologies associated with 802.16j](#)

## 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.

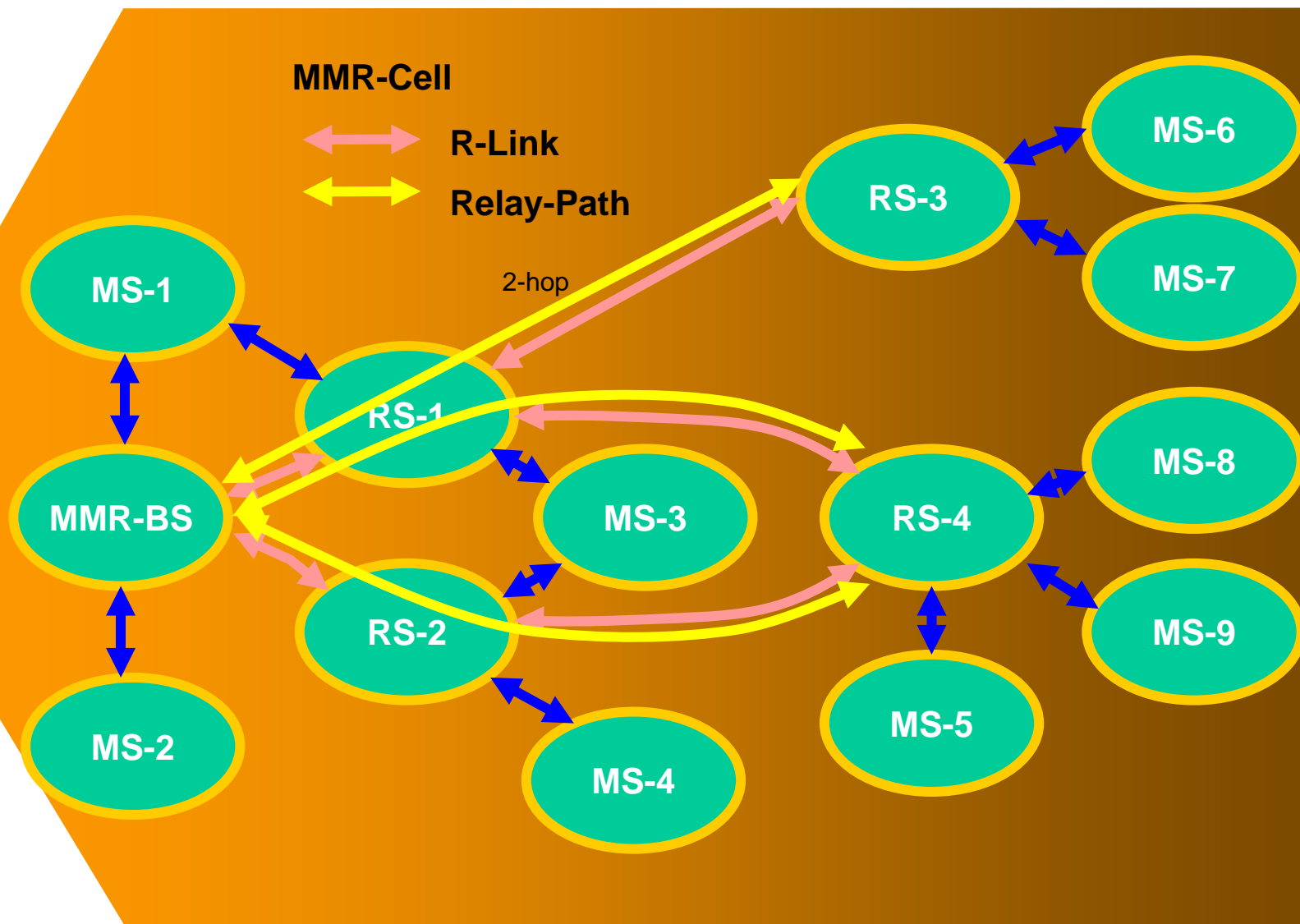
## IEEE 802.16 Patent Policy:

The contributor is familiar with the IEEE 802.16 Patent Policy and Procedures <<http://iee802.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://iee802.org/16/ipr/patents/notices>>.

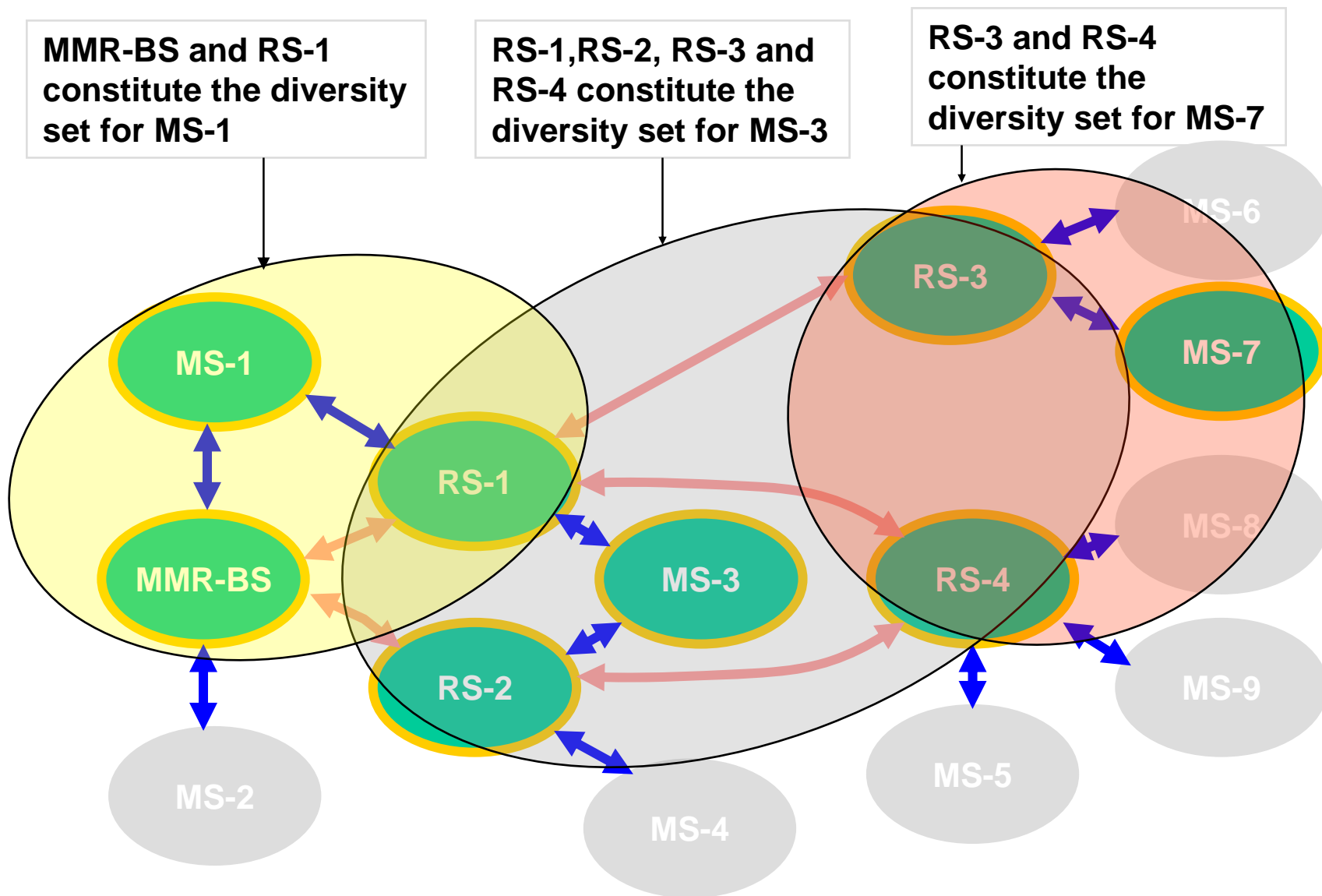
# Some Terminologies for IEEE 802.16j

- **Cell:** The radio coverage area of a particular access station (e.g. BS, MMR-BS, or RS).
- **MMR-cell:** The radio coverage area of a MMR-BS cell and all of its subordinate RS cells.
- **R-Link:** An 802.16j radio link between an MMR-BS and an RS or between a pair of RSs. This can be a R-DL or R-UL.
- **Relay path:** A concatenated set of relay links between the MMR-BS and the access RS or vice versa (depending on the direction of traffic flow).
- **k-hop path:** A concatenated set of  $k-1$  relay links and 1 access link between the MMR-BS and the MS or vice versa (depending on the direction of traffic flow)
- **MMR diversity set:** List of RSs, BSs, and/or MMR-BSs associated with an MS. This set is applicable to macro diversity handover, cooperative relay, and fast serving station switching.
- **Active MMR-BS :** An MMR-BS that is informed of the MS's capabilities, security parameters, service flows, and full MAC context information. For macro diversity handover the MS transmits/receives data to/from all active MMR-BSs in the MMR diversity set.
- **Anchor MMR-BS:** In the context of Macro Diversity Handover (MDHO), cooperative relay, and Fast Serving Station Switching (FSSS), this is the MMR-BS that sends registration, ranging, synchronization, and other control information to the MS.
- **Access Station:** The station at the point of direct access into the network for a given MS or RS. An access station can be a BS, RS, or MMR-BS. An intermediate RS acts as an access station for another RS.

# Definitions of MMR-Cell, R-Link and Relay-Path



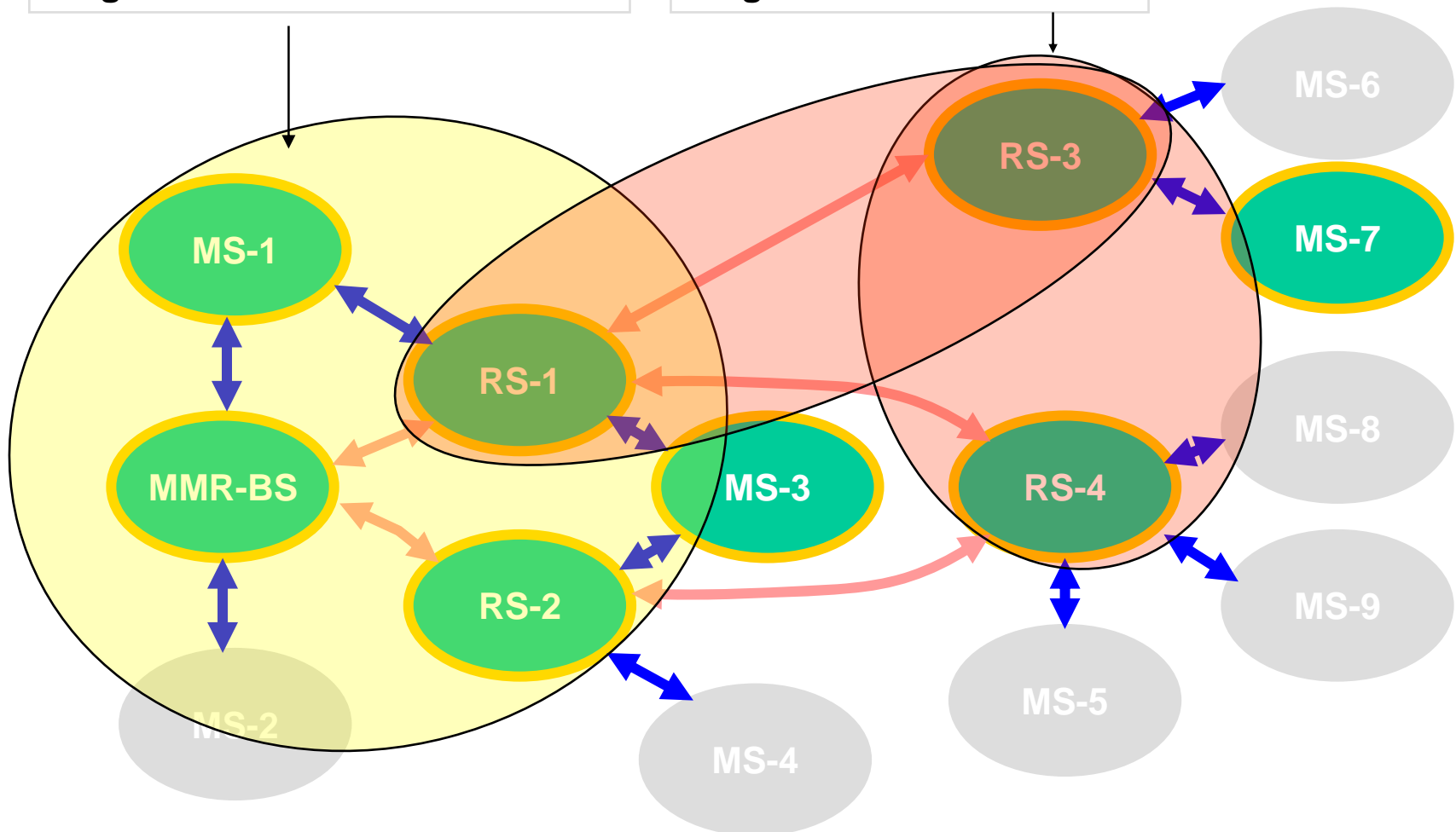
# Definitions of MMR-Diversity Set



# Definitions of Neighbor Stations

MMR-BS, RS-1 and RS-2 are the neighbor stations for MS-1

RS-1 and RS-4 are the neighbor stations for RS-3



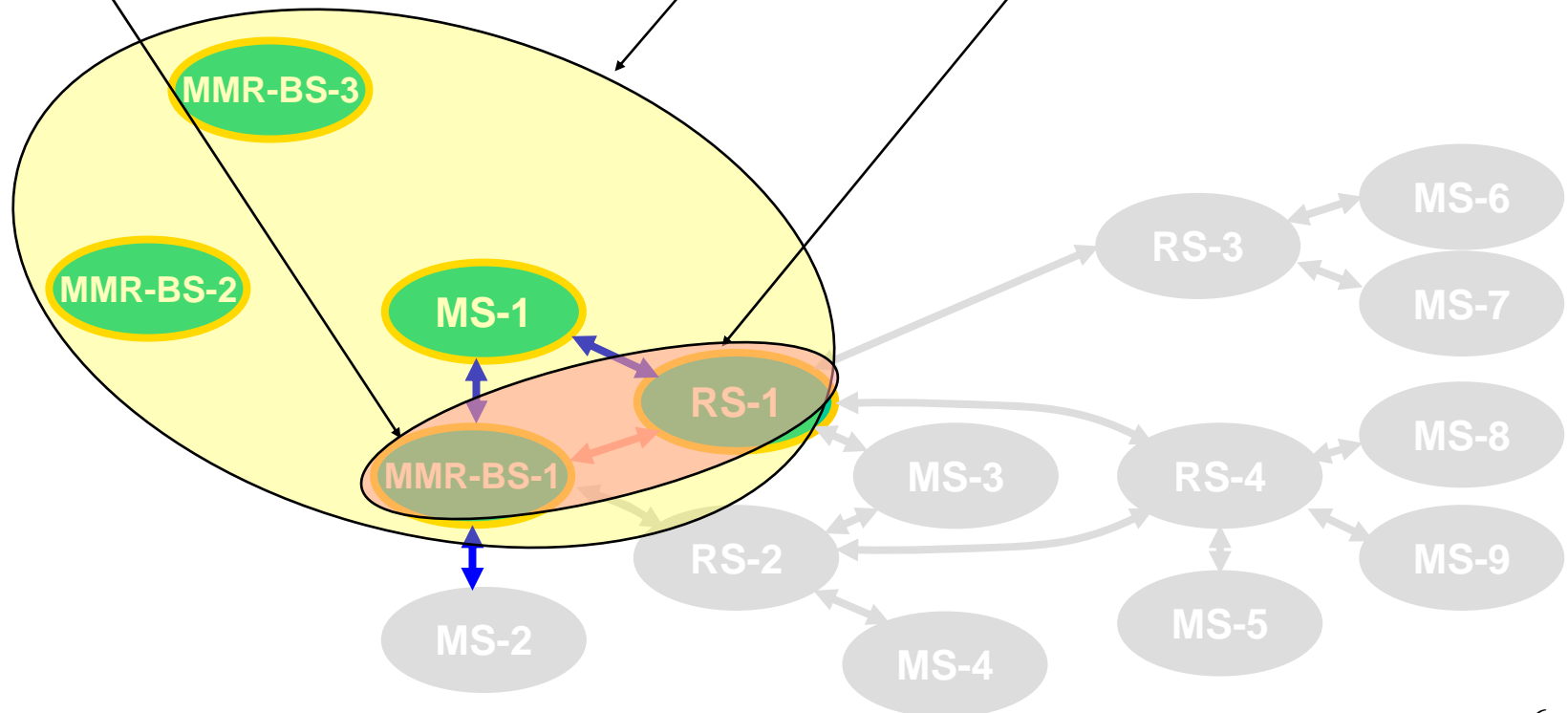
# Definitions of Active MMR-BS and Anchor MMR-BS

**MMR-BS-1 is the active MMR-BS and MMR-BS-1 is the anchor BS for MS-1**

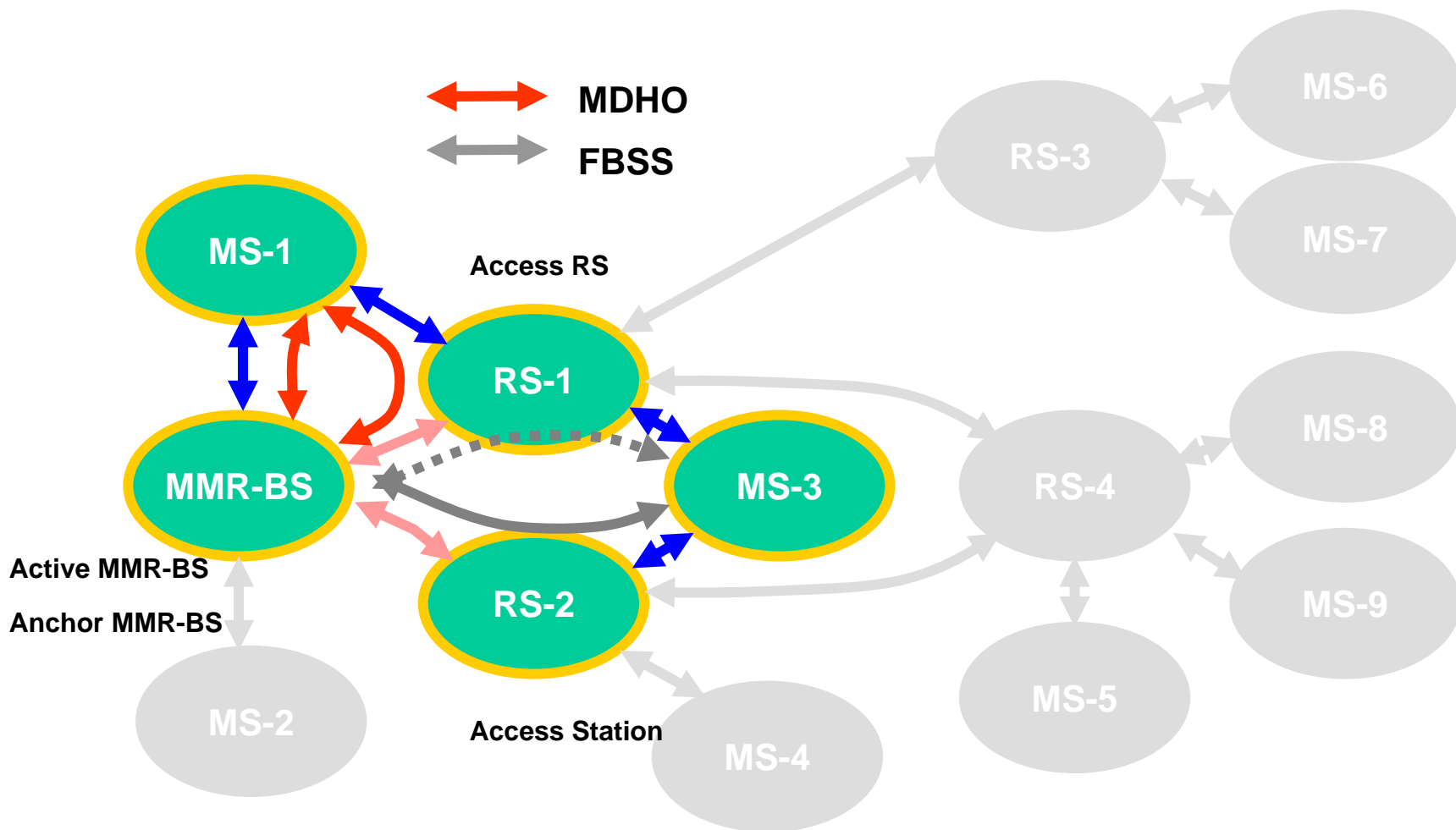
**MMR-BS-1, MMR-BS-2, MMR-BS-3 and RS-1 constitute the MMR-diversity set for MS-1**

**RS-1 is the access station for MS-1**

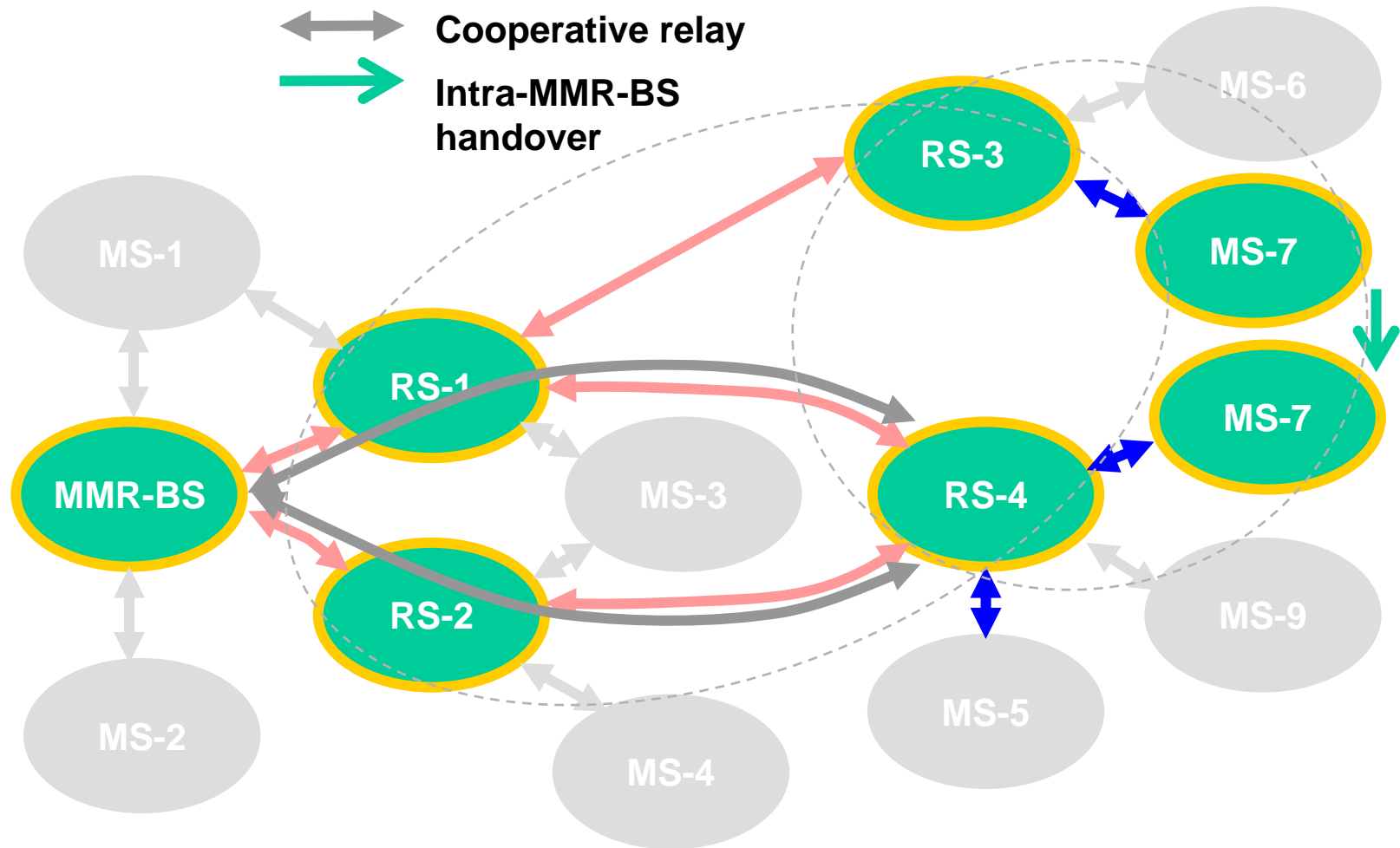
*RS-1 can not be the active RS and can not be the anchor RS*



# Definitions of MMR-MDHO and MMR-FBSS



# Definition of Cooperative Relay, Intra-MMR-BS HO





# Text Proposal

- See C80216j-06\_027\_R4.doc