#### **MS Handover with Non-transparent RS**

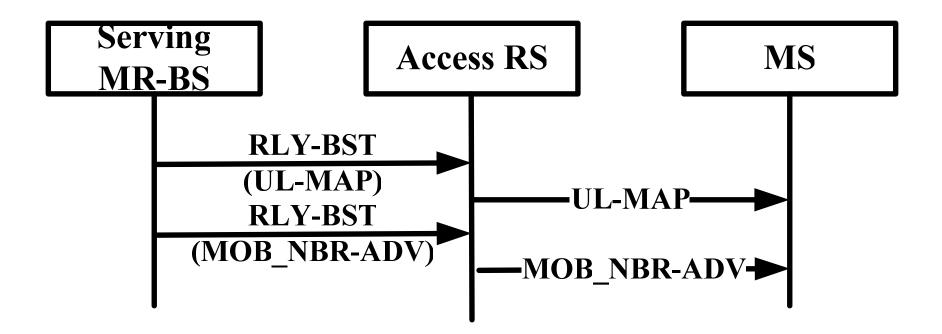
IEEE 802.16 Presentation Submission Template (Rev. 8.3) **Document Number:** IEEE S802.16j-07/072 Date Submitted: 2007-01-08 Source: Kanchei (Ken) Loa, Yi-Hsueh Tsai, 886-2-2739-9616 Voice: Chih-Chiang Hsieh, Shiann-Tsong Sheu, Hua-Chiang Yin, Yung-Ting Lee. Frank C.D. Tsai, Heng-lang Hsu, Youn-Tai Lee Institute for Information Industry Fax: 886-2-2378-2328 8F., No. 218, Sec. 2, Dunhua S. Rd., E-mail: loa@iii.org.tw Taipei City, Taiwan. [add co-authors here] Venue: IEEE 802.16 Session #47, London, UK Base Document: IEEE C802.16j-07/072 Purpose: Propose the text regarding MS Handover with Non-transparent RS. 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 <a href="http://ieee802.org/16/ipr/patents/policy.html">http://ieee802.org/16/ipr/patents/policy.html</a>, 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 <htps://ieee802.org/16/ipr/patents/notices>

# Requirements on MS Handover in a Multihop Relay System

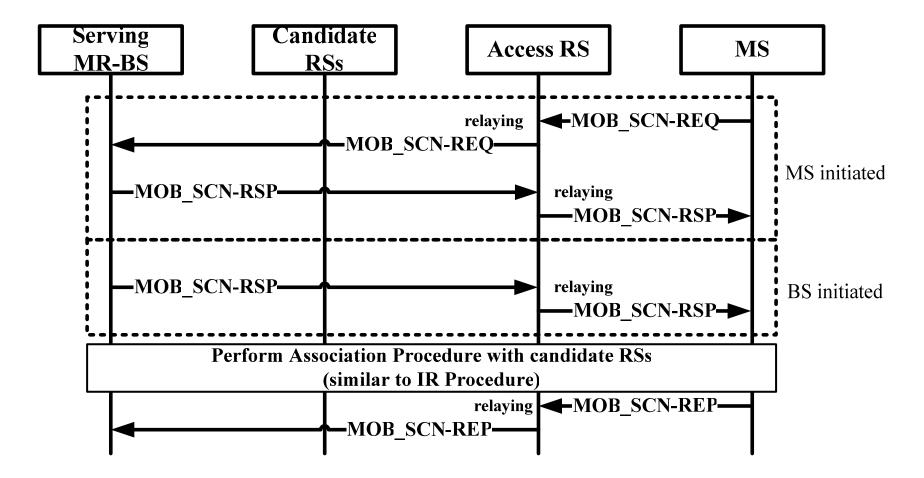
- The RS procedure shall support MS to handover between access stations in Multihop Relay network without any modification on MS
- The MS handover procedure executed by the RS should be centralized controlled by the MR-BS
- The modifications to legacy Network Entry Procedure should be minimized

# Neighbor Advertisement



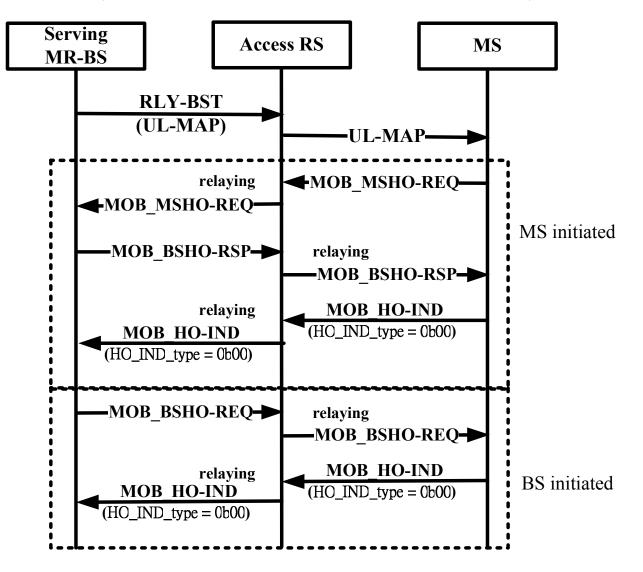
Network topology advertisement

# MS Scanning (Intra-MR-BS Handover)

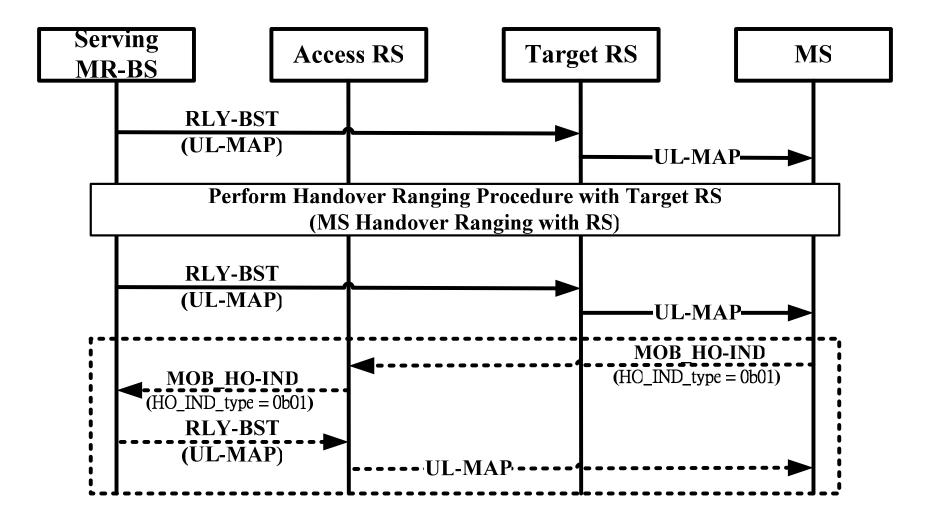


MS scanning of neighbor access stations

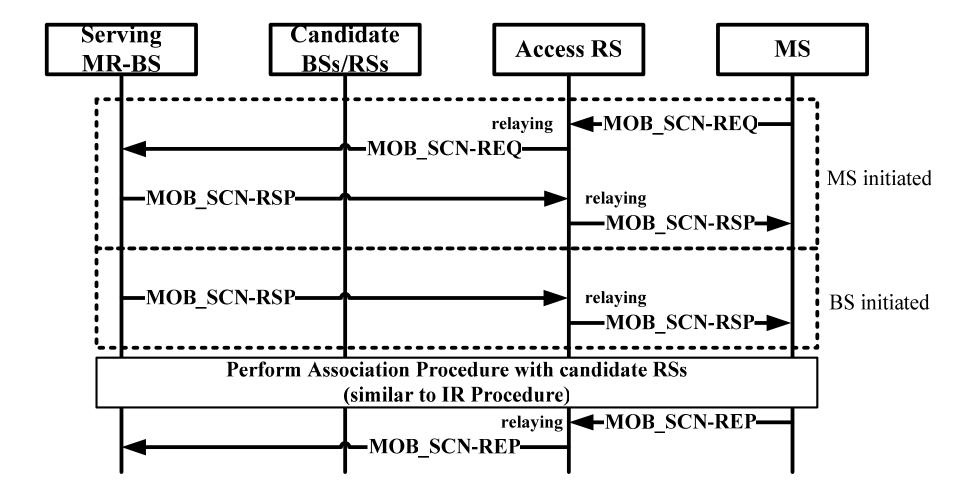
# Handover Initiation and Decision (Intra-MR-BS Handover)



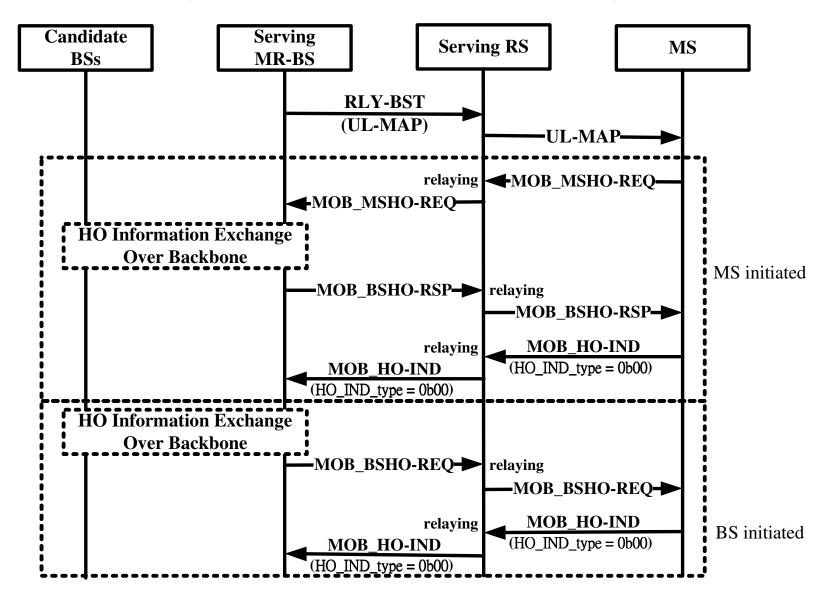
### Network Entry/Termination for Handover (Intra-MR-BS Handover)



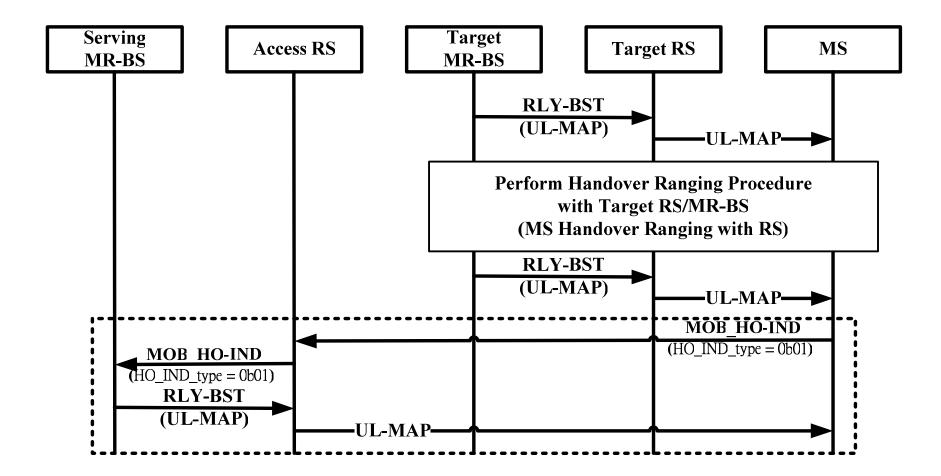
# MS Scanning (Inter-MR-BS Handover)



# Handover Initiation and Decision (Inter-MR-BS Handover)



### Network Entry/Termination for Handover (Inter-MR-BS Handover)



# Summary

- Propose RS procedures to assist MS handover should be centrally controlled by the MR-BS
- Propose modified handover procedure for MS through various access stations