IEEE 802.16 Presentation Submission Template (Rev. 8.3)

Document Number:

IEEE C802.16mmr-05/026

Date Submitted:

2005-11-11

Source:

Deng Shiqiang, John Lee	Voice:	86(0)2168644808-24605
Huawei	Fax:	86(0)2150898375
No.98, Lane91, Eshan Road, Puding, Shanghai, China	E-mail:	sq_deng@huawei.com; john_lee@huawei.com

Venue:

Vancouver, BC, Canada

Base Document:

None

Purpose:

The purpose of this document is to give recommendations on mobility management of mobile multi-hop relay .

Recommendation on Mobility Management of Multi-hop Relay

Deng Shiqiang, John Lee

Huawei Technologies

Content

- Assumption & Definition
- Scenario
- Recommendation
- Example of Intra-Relay cluster handover process

Assumptions & Definition

- ## Assumptions
  - A1. Backward compatible with current 16e
  - A2. RS only forward MS's traffic which is in it's coverage
  - A3. RS transmit same preamble at same OFDMA symbol, MS have no idea the existence of RS
  - A4. RS relay broadcast message
- ## Definition
  - Define the set of one BS and connected RS as a Relay Cluster

Scenarios(Intra-Relay Cluster handover)
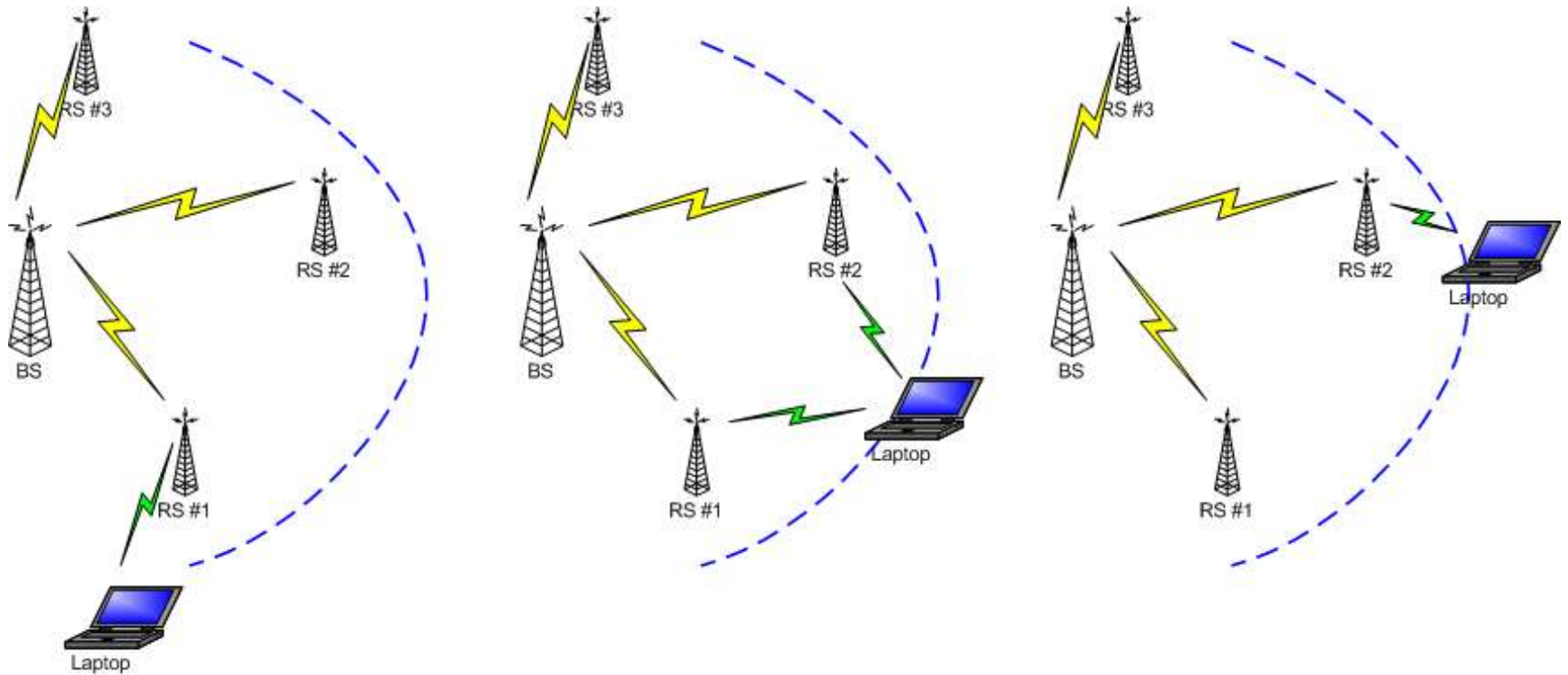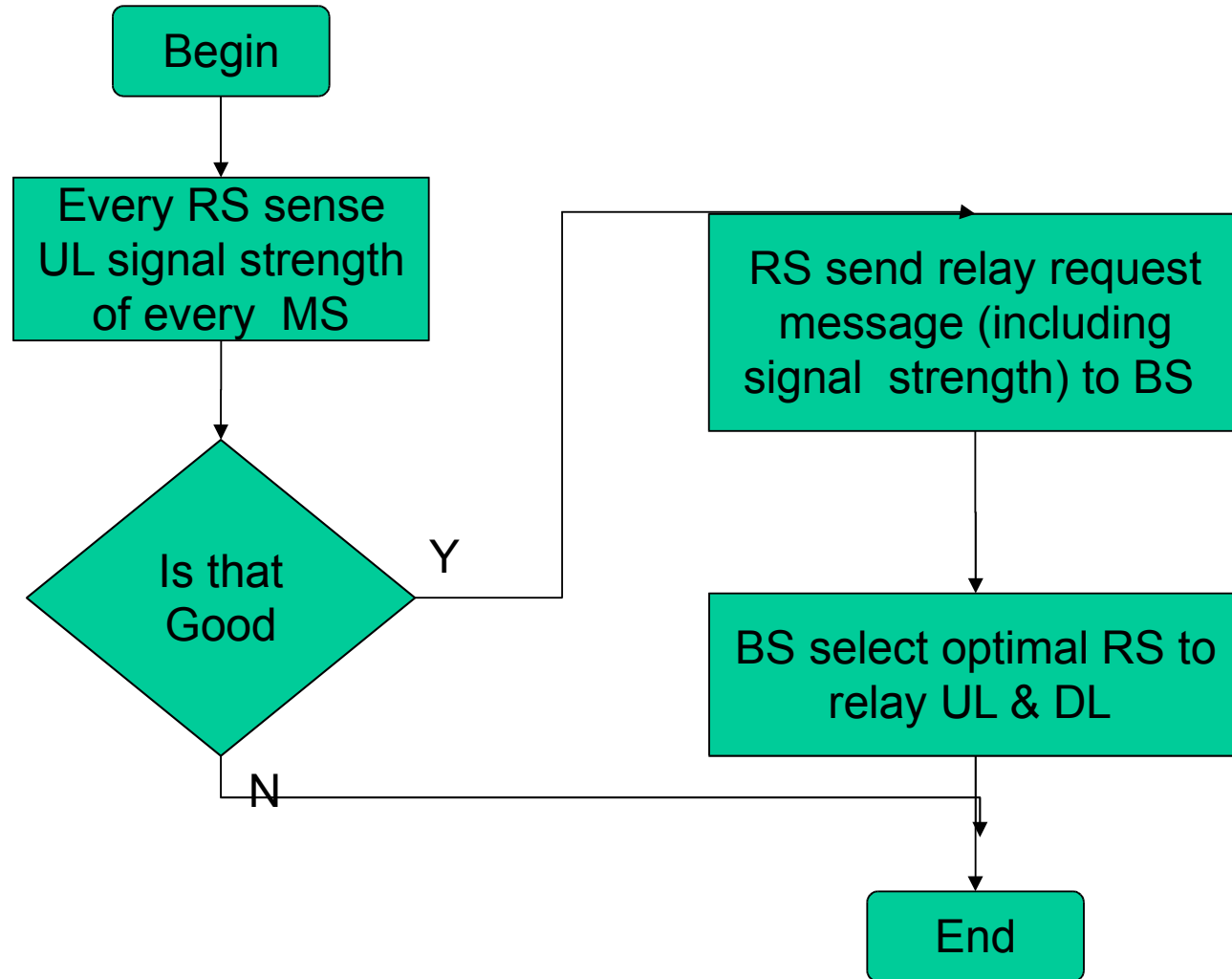
Intra-relay cluster handover problem

- MS should keep connection with BS when MS move from one RS to another

- BS should find optimal RS to relay UL & DL traffic when MS move from one RS to another

- MS have not ability to distinguish downlink signal from different RS

Recommendation on Handover

- Intra-relay cluster handover
  - RS only measure & report to BS
  - BS make final decision
  - UL route selection should base on measurement MS's uplink signal strength
  - DL route selection should base on UL route selection
- Inter-relay cluster handover
  - Follow the old routine

Example

Appendix