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

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Recommendation on Mobility Management of Mobile Multi-hop Relay
Recommendation on Mobility Management of Multi-hop Relay

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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
Begin

Every RS sense UL signal strength of every MS

Is that Good

Y

RS send relay request message (including signal strength) to BS

N

BS select optimal RS to relay UL & DL

End