

# Self-backhaul Relay

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None

Purpose:

Proposal of self-backhaul relay for MMR

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# Self-backhaul Relay

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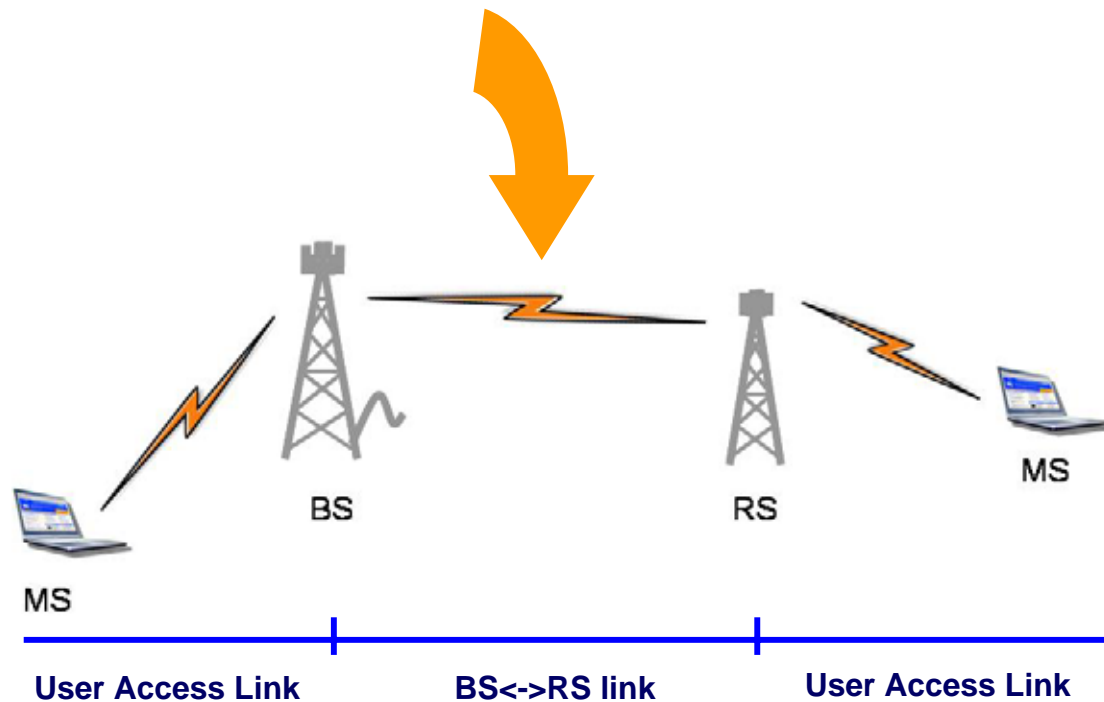
Oct, 2005

# Outline

- Purpose of the proposal
- Self-backhaul relay concepts, scenarios
- Features of self-backhaul relay
- Summary

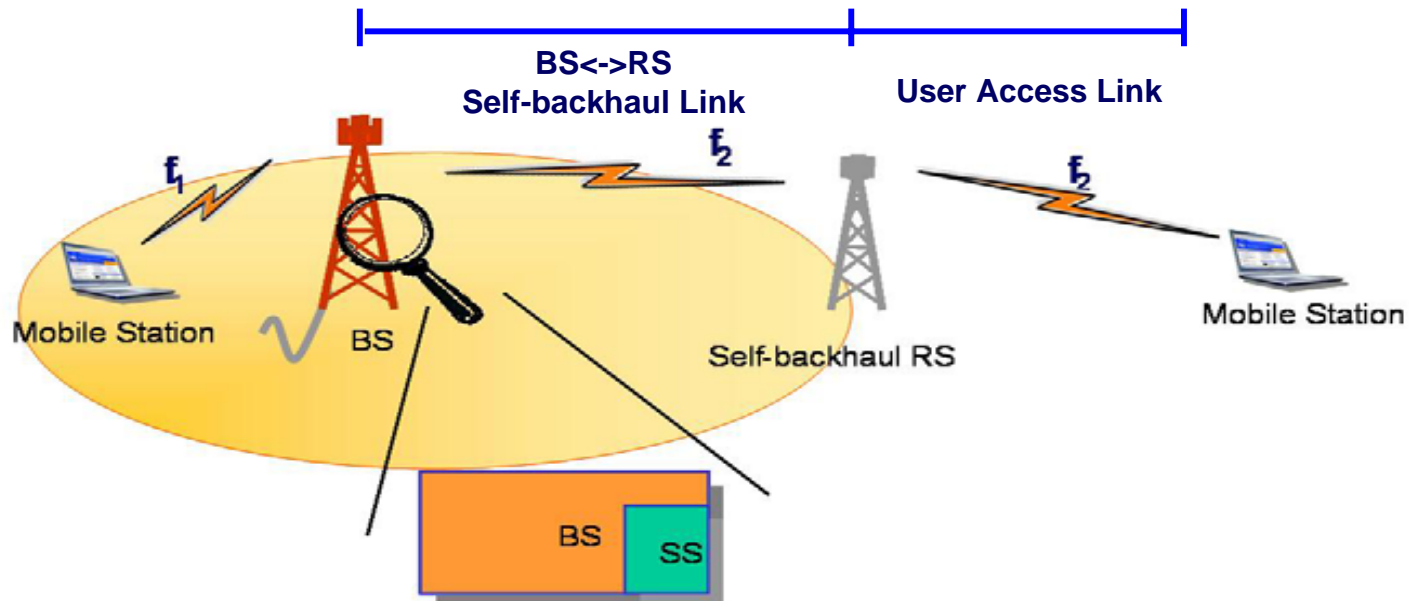
# Objective

- Need a simple and efficient method to support BS-RS wireless link



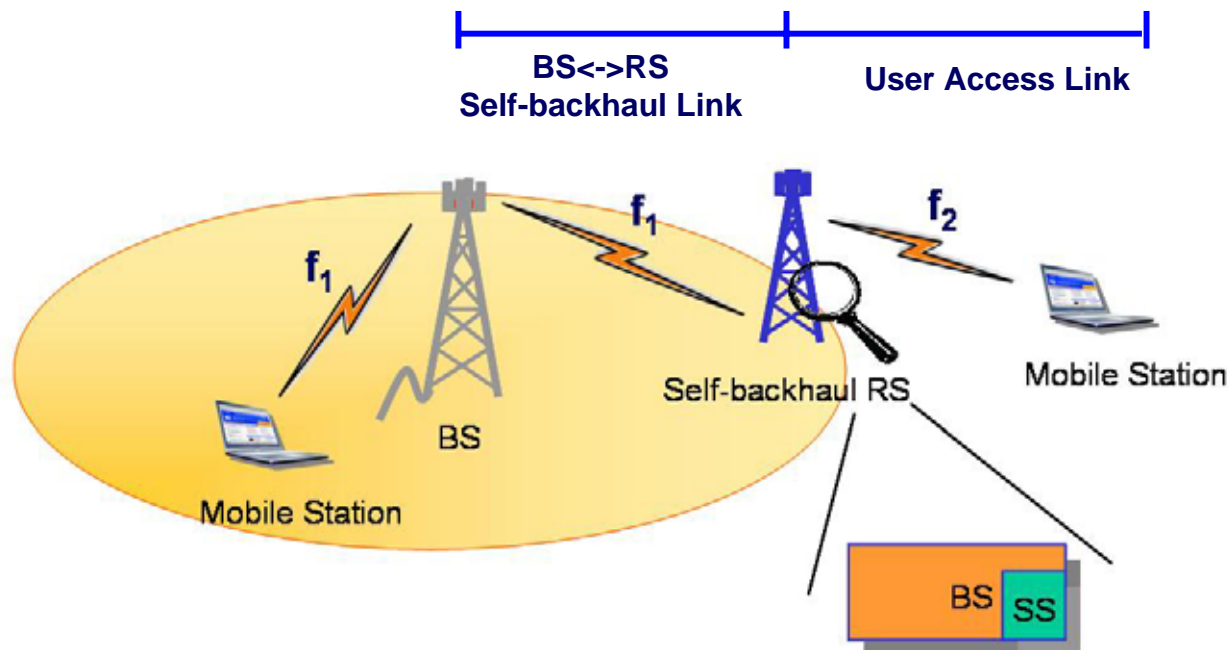
# Self-backhaul Relay

- Self-backhaul is defined as using BS-owned radio resources and protocol for backhaul
- Self-backhaul RS performs BS functionalities
  - For both user access and RS backhaul
- SS function block is required in the BS side
- In this case, BS works at  $f_1$  for its own user access and  $f_2$  for BS-RS communication



# Another Scenario of Self-backhaul Relay

- Portion of BS radio resources for self-backhaul
  - RS-BS communication is provided by self-backhaul link
- MS function block is required in the RS side
  - RS acts as BS for user access, and acts as SS for backhaul



# Features

- Using access resource for backhaul
- From the view of MS in the coverage of RS, self-backhaul RS behaves as BS
- Compatible with the 802.16 standard

# Summary

- This proposal introduced self-backhaul concept, which could be taken as one of approaches for mobile multi-hop relay
  - Self-backhaul relay shares radio resources for both user access and RS-BS link
  - Two cases of self-backhaul relay and their features are presented
  - Further technical schemes and performance analysis will be studied