16m Relay frame structure considering interfering issue

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Venue:

SDD Session 56 Cleanup; in response to the TGm Call for Contributions and Comments 802.16m-08/033 for Session 57

Base Contribution:

None

Purpose:

Discuss this contribution to support SDD comment

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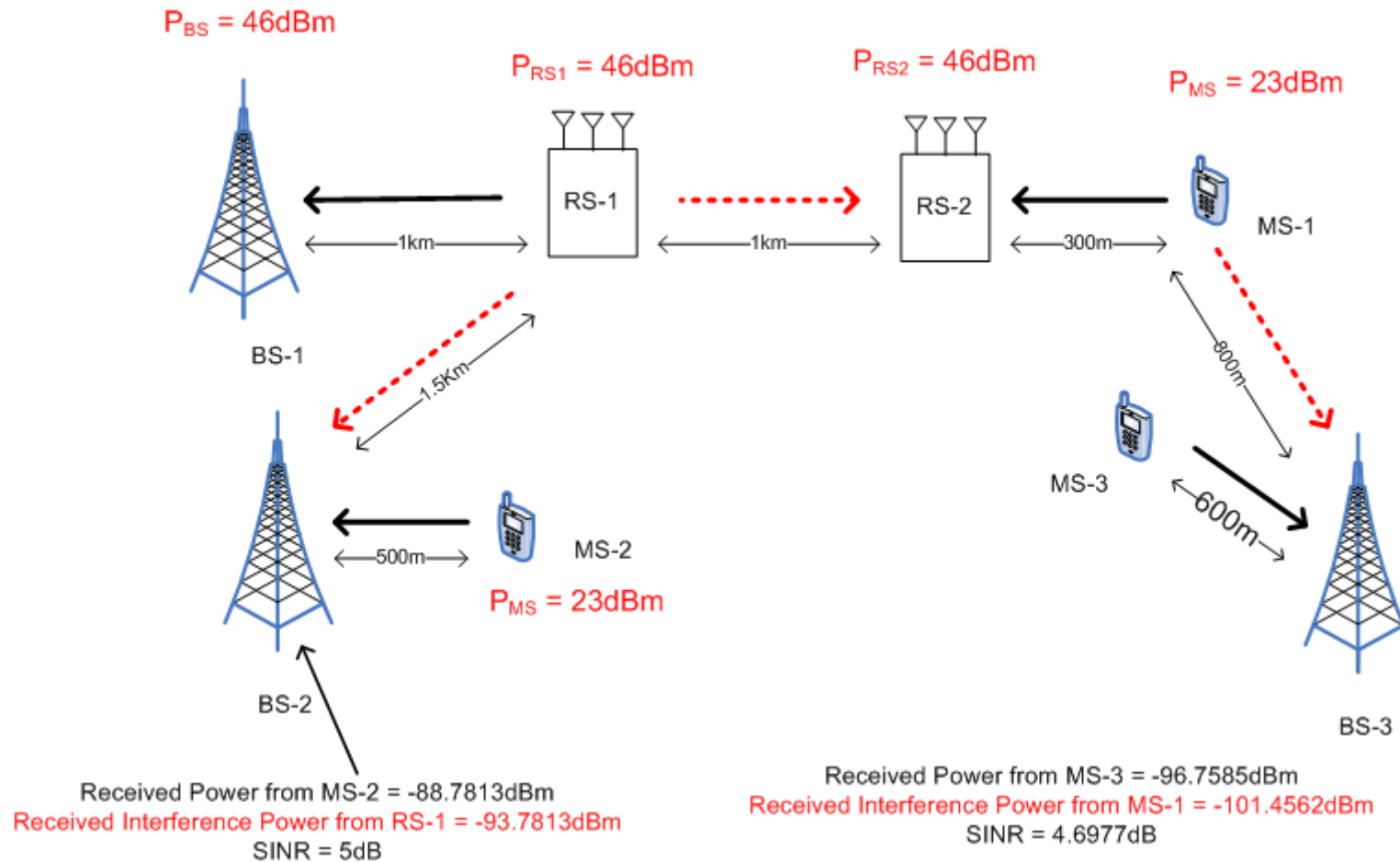
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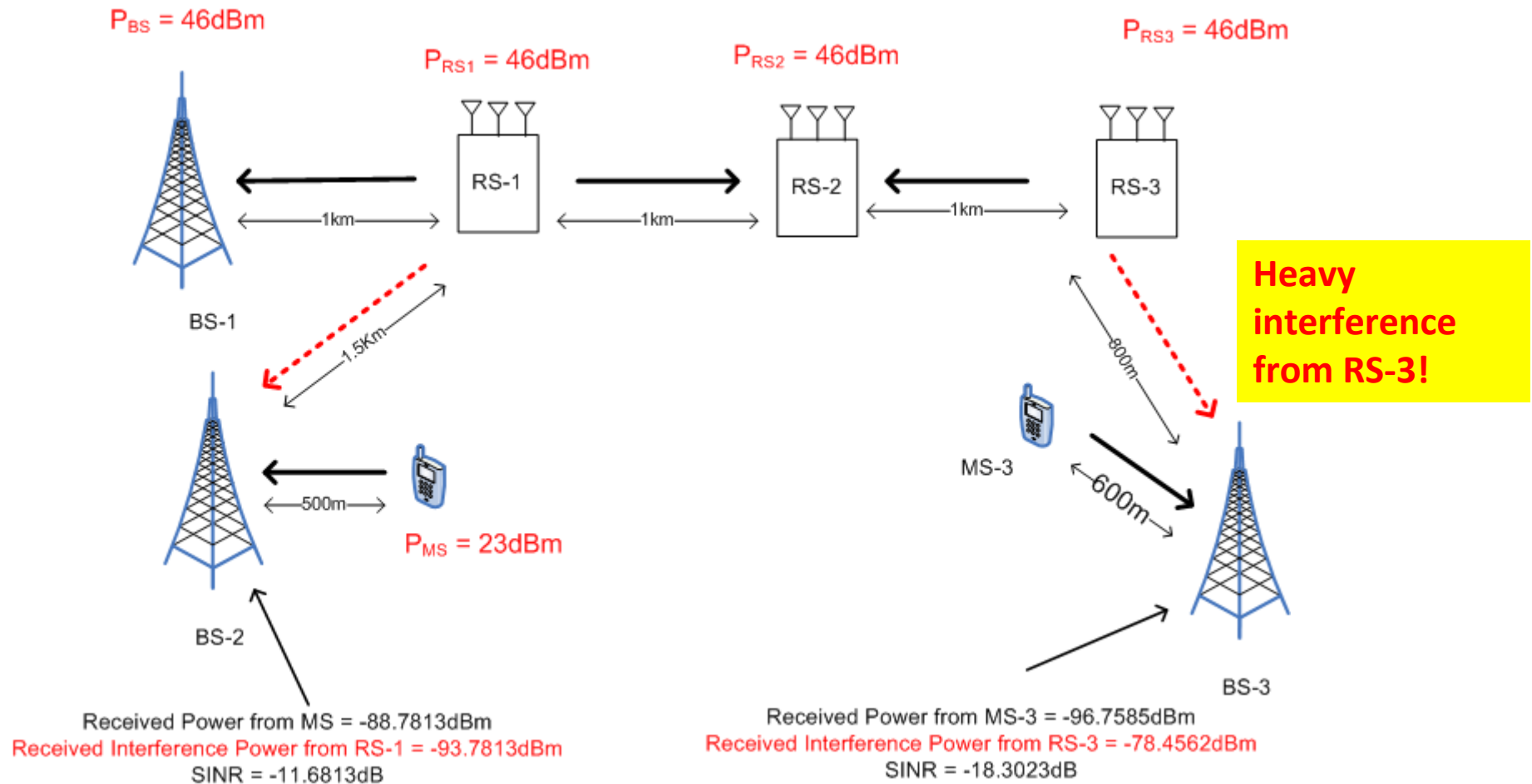
RS FS OPTION 1: Uplink
Interference to Non-relay neighboring sector

Interference issue is similar to conventional non-relay cellular architecture

RS FS OPTION 2: Uplink
Interference to non-relay neighboring sector

P_{BS} = 46dBm

P_{RS1} = 46dBm

P_{RS2} = 46dBm

P_{RS3} = 46dBm

RS-1

RS-2

RS-3

1km

1km

1km

BS-1

1.5Km

Heavy interference from RS-3!

800m

MS-3

600m

500m

P_{MS} = 23dBm

BS-2

BS-3

Received Power from MS = -88.7813dBm
Received Interference Power from RS-1 = -93.7813dBm
SINR = -11.6813dB

Received Power from MS-3 = -96.7585dBm
Received Interference Power from RS-3 = -78.4562dBm
SINR = -18.3023dB

For the same set-up, interference can vary widely and consequently needs more interference management.