

Miscellaneous shim6 stuff

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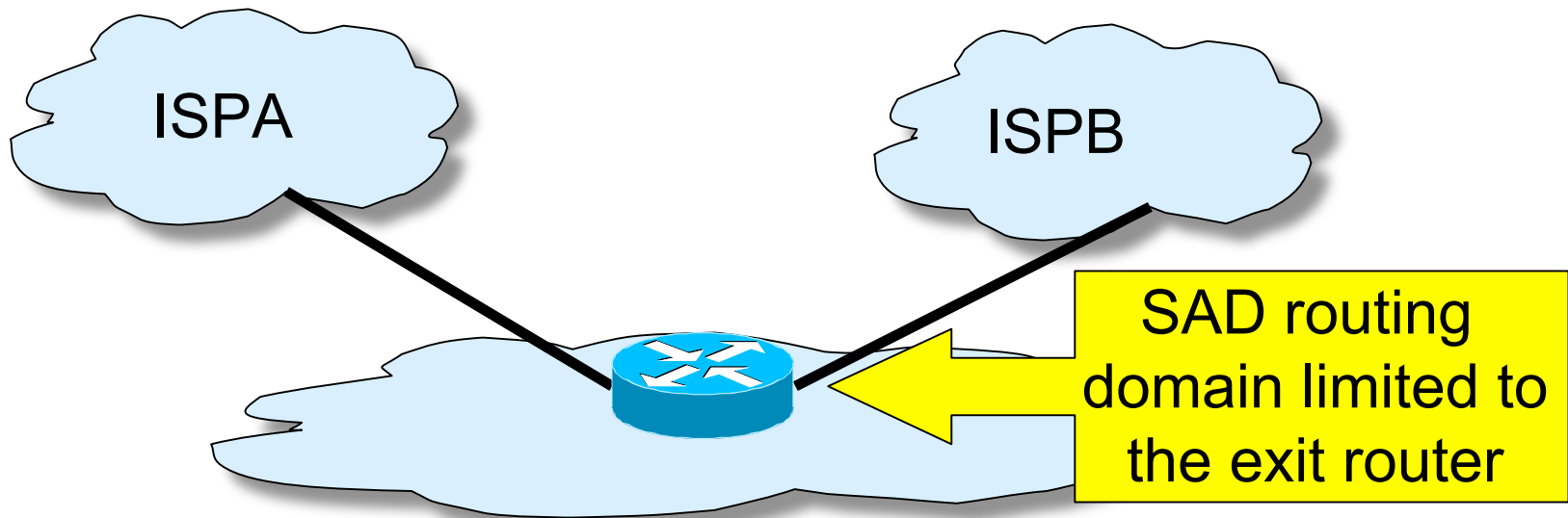
IETF 64

Site Exit Path selection

- Two motivations for empowering the multihomed host to select the site exit path
 - Provide ingress filtering compatibility
 - The selection of the source address determines the exit path to be used to route the packets
 - Enable the host to try different site exit routes
 - The shim6 protocol assumes that changing the address pair implies changing the path used
 - For the site exit path, changing the source address should imply changing the site exit
- Some form of Source Address Dependent (SAD) routing within the multihomed site

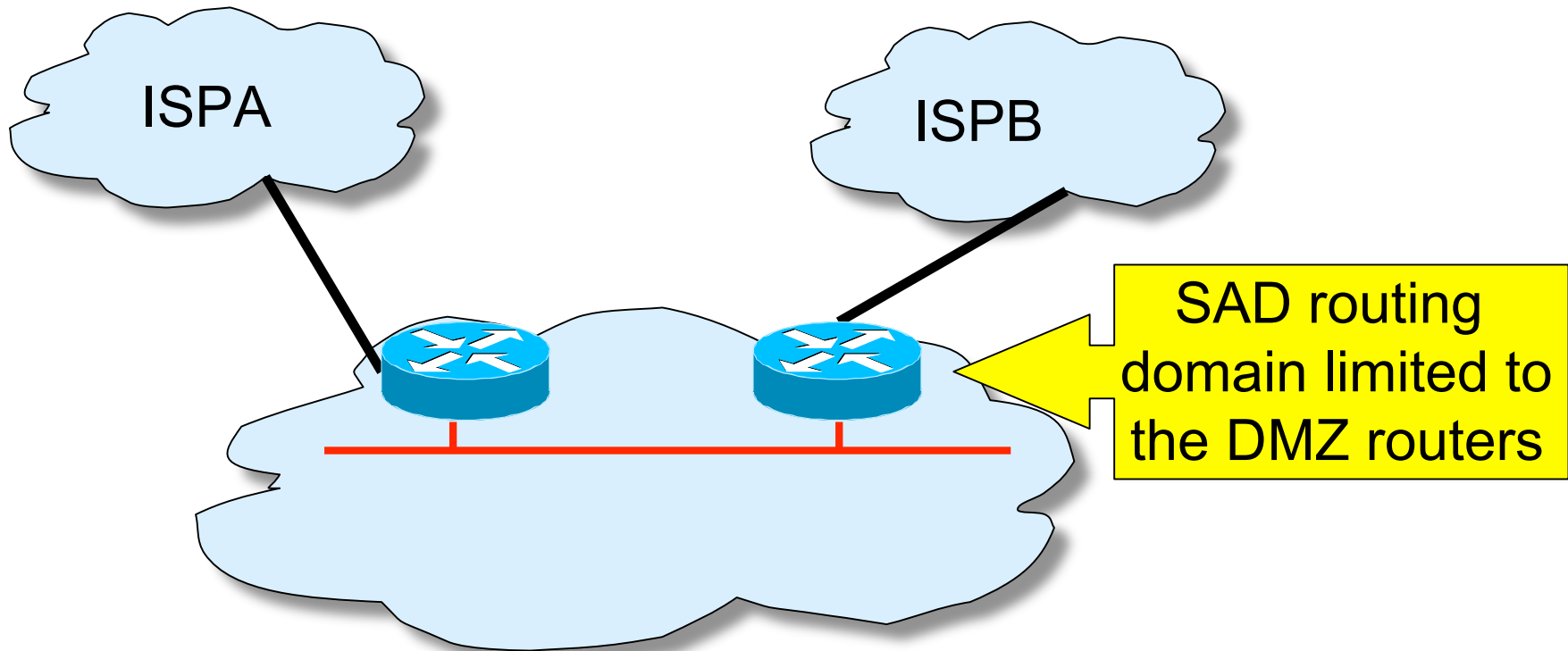
Cases for SAD routing

1 - Single Exit router



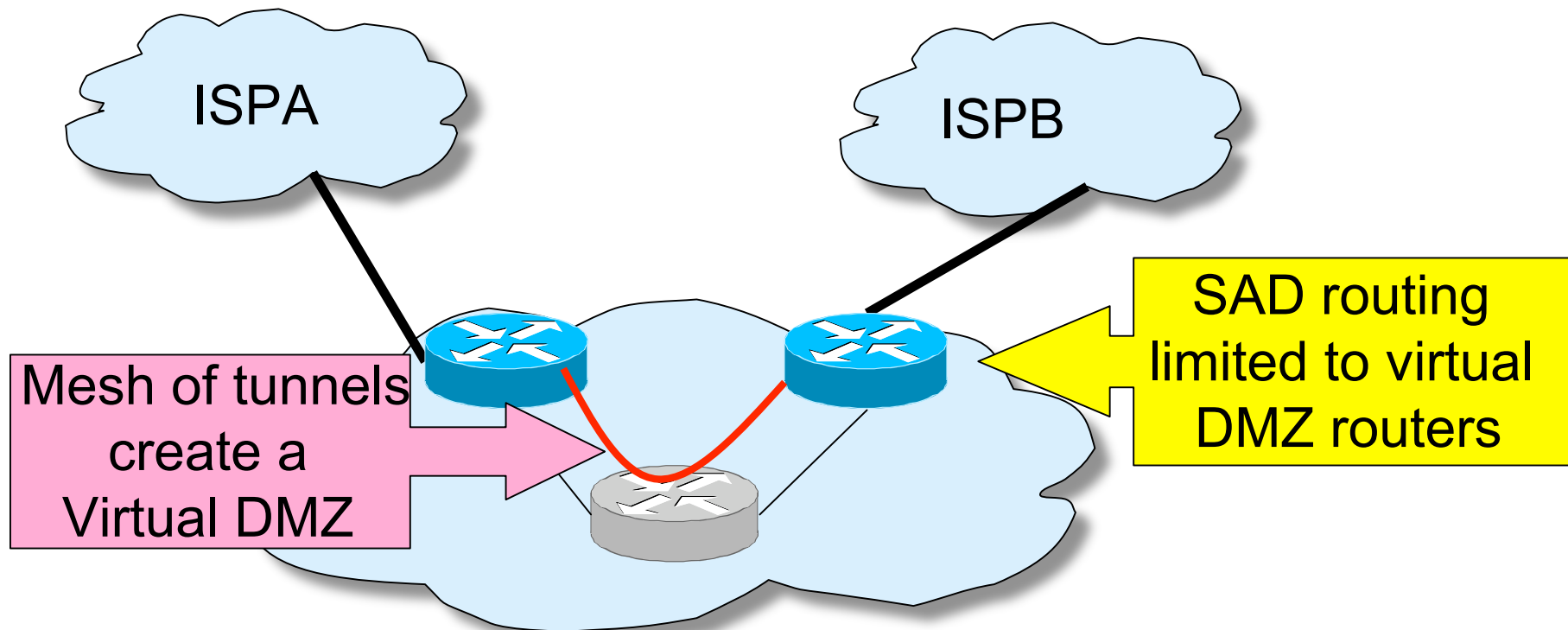
Cases for SAD routing

2 - DMZ



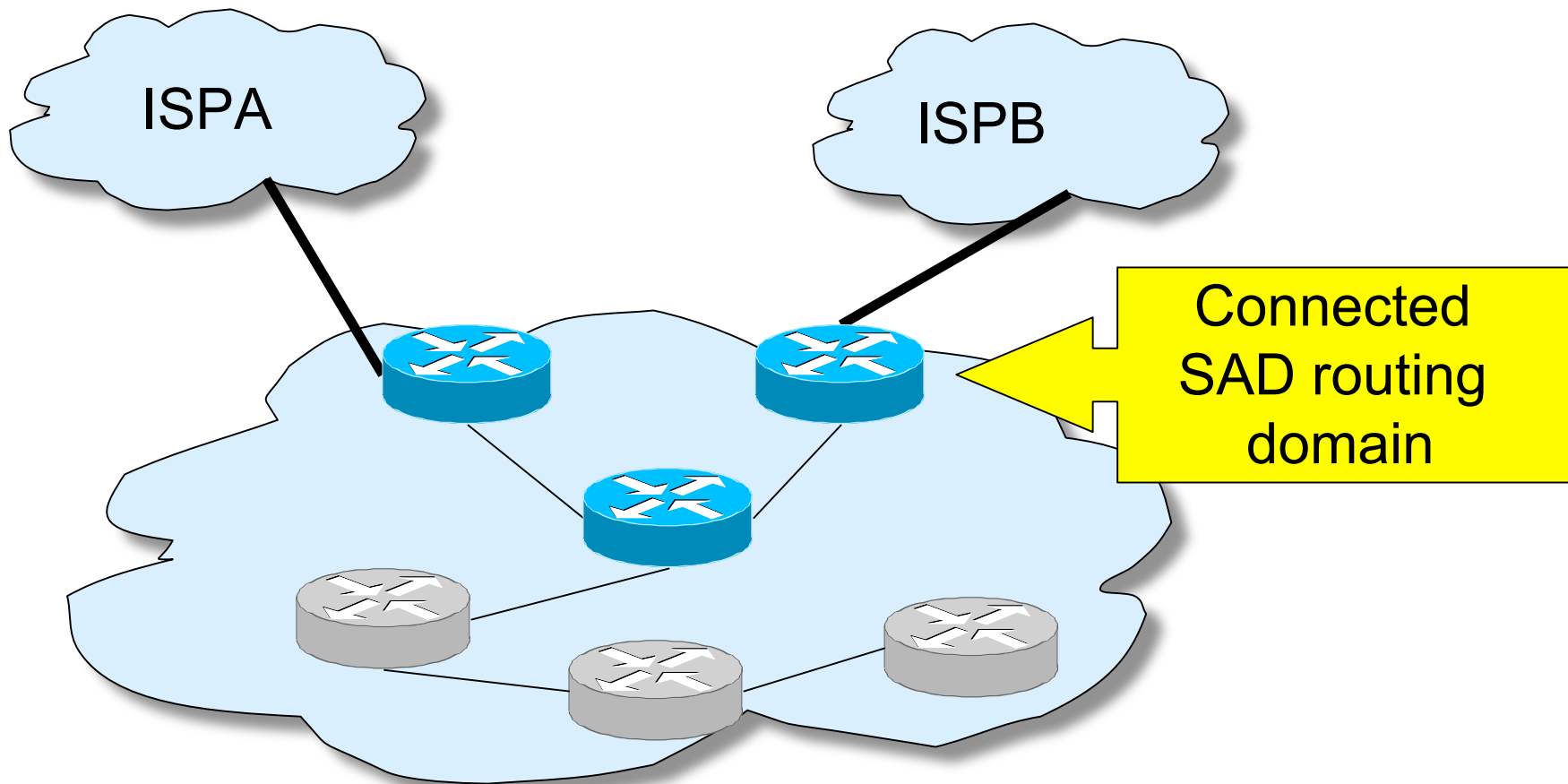
Cases for SAD routing

3 - Virtual DMZ

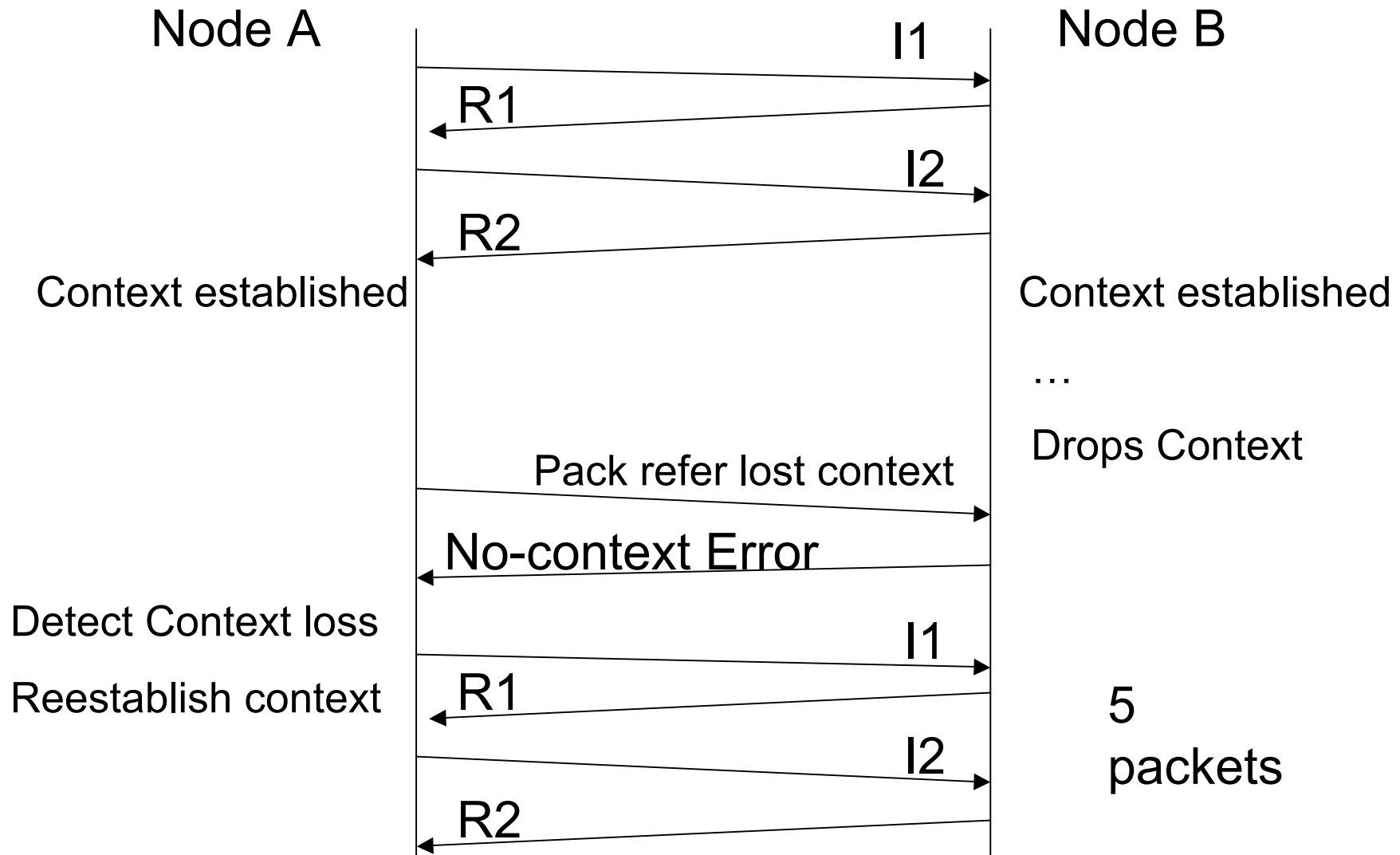


Cases for SAD routing

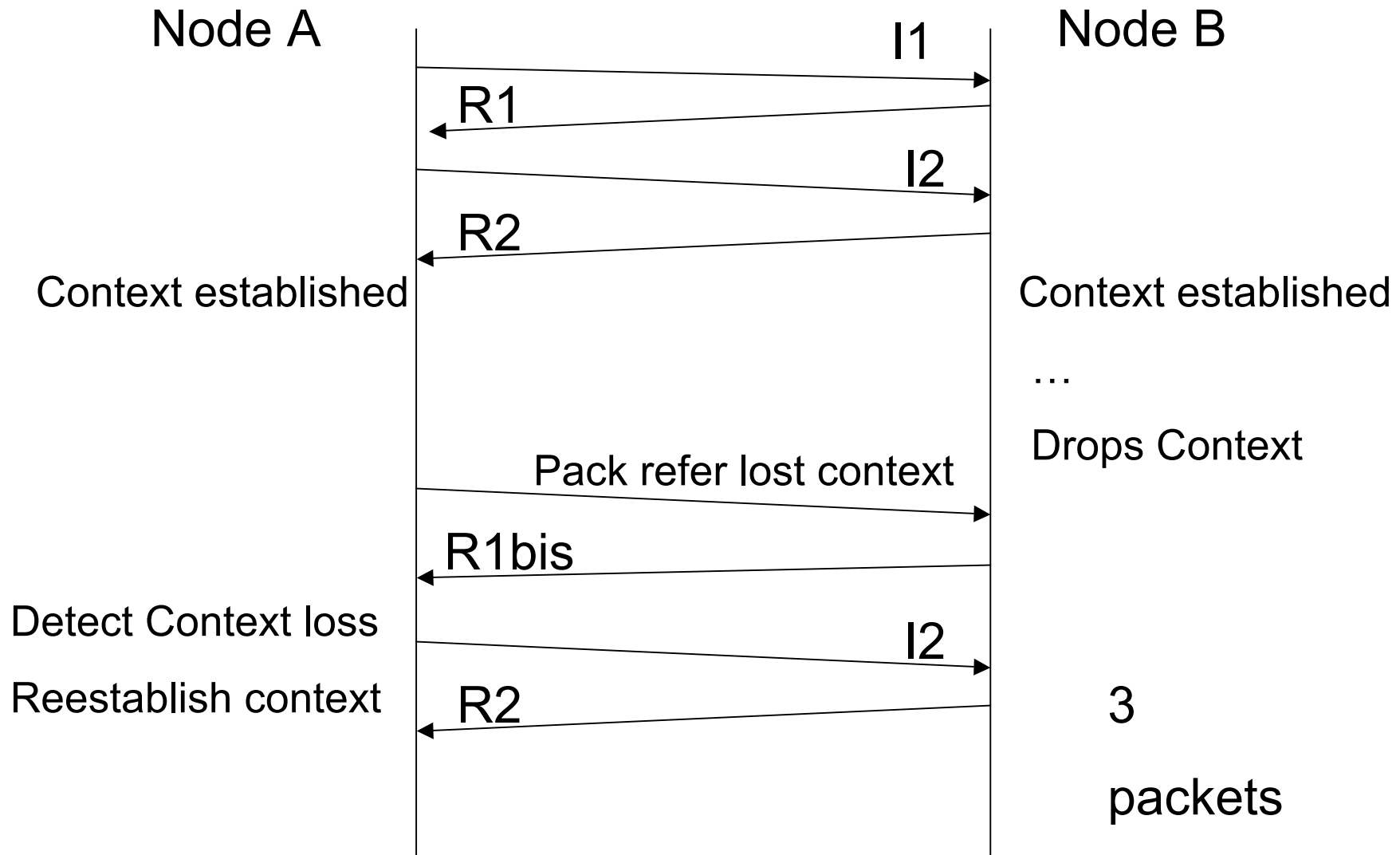
4 - General case



R1bis: life without R1bis



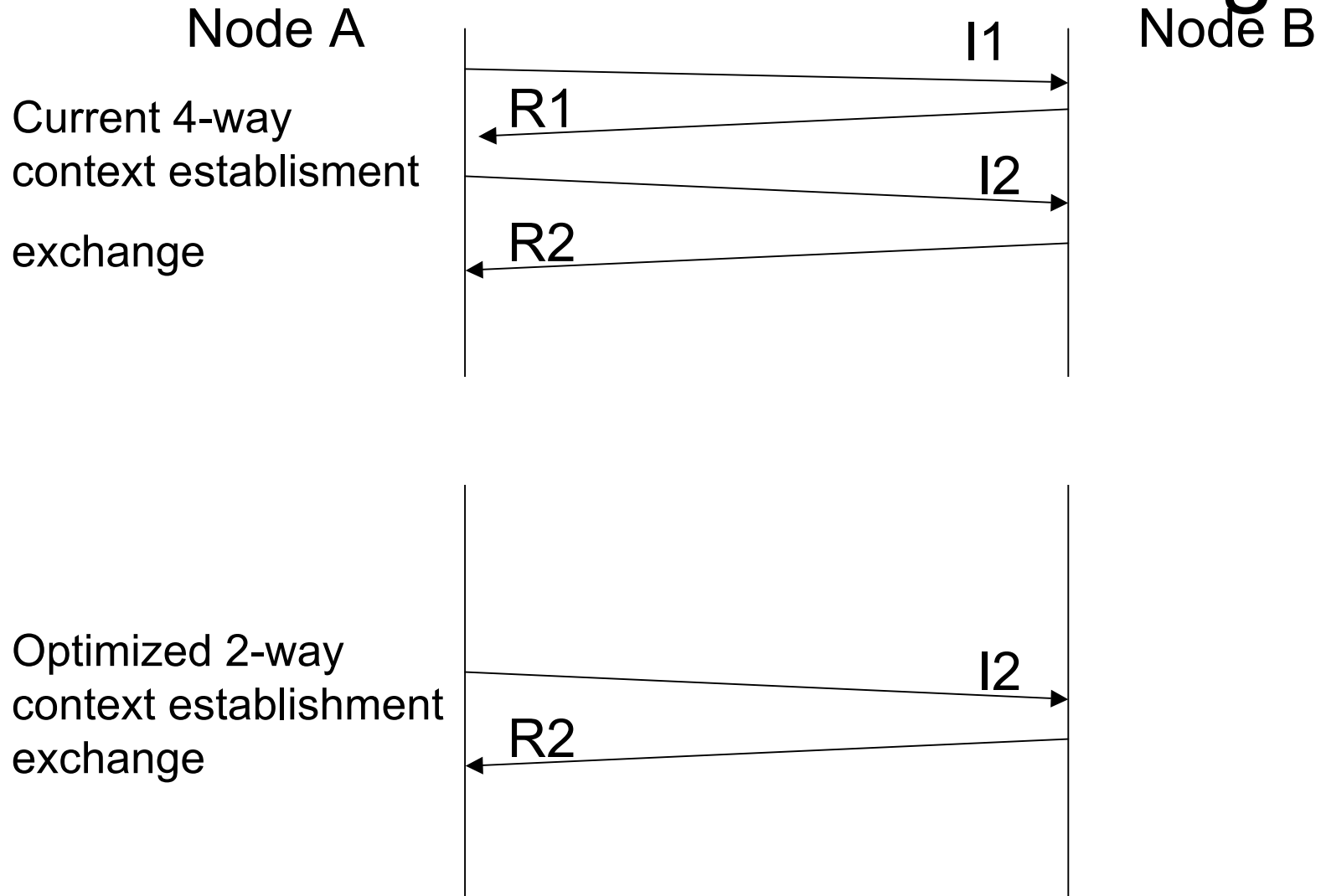
R1bis



Preliminary proposal for R1bis

- Define a new validator with hash inputs:
 - the Secret S
 - The responder (B) nonce
 - the locator pair
 - the context tag contained in the received packet
- Define that the initiator nonce used for R1bis packets is the hash of the locator pair and CTpac
- Define generation and processing of the R1bis packet accordingly.

Optimized 2-way context establishment exchange



Guidelines for potential protocol extensions for SHIM6

- flow label use / header compression,
- privacy,
- hash chains and security,
- initial contactless SHIM6 context establishment ,
- API interaction for initial contactless SHIM6 context establishment