

# Interconnecting domains with IBGP

draft-smn-idr-inter-domain-ibgp

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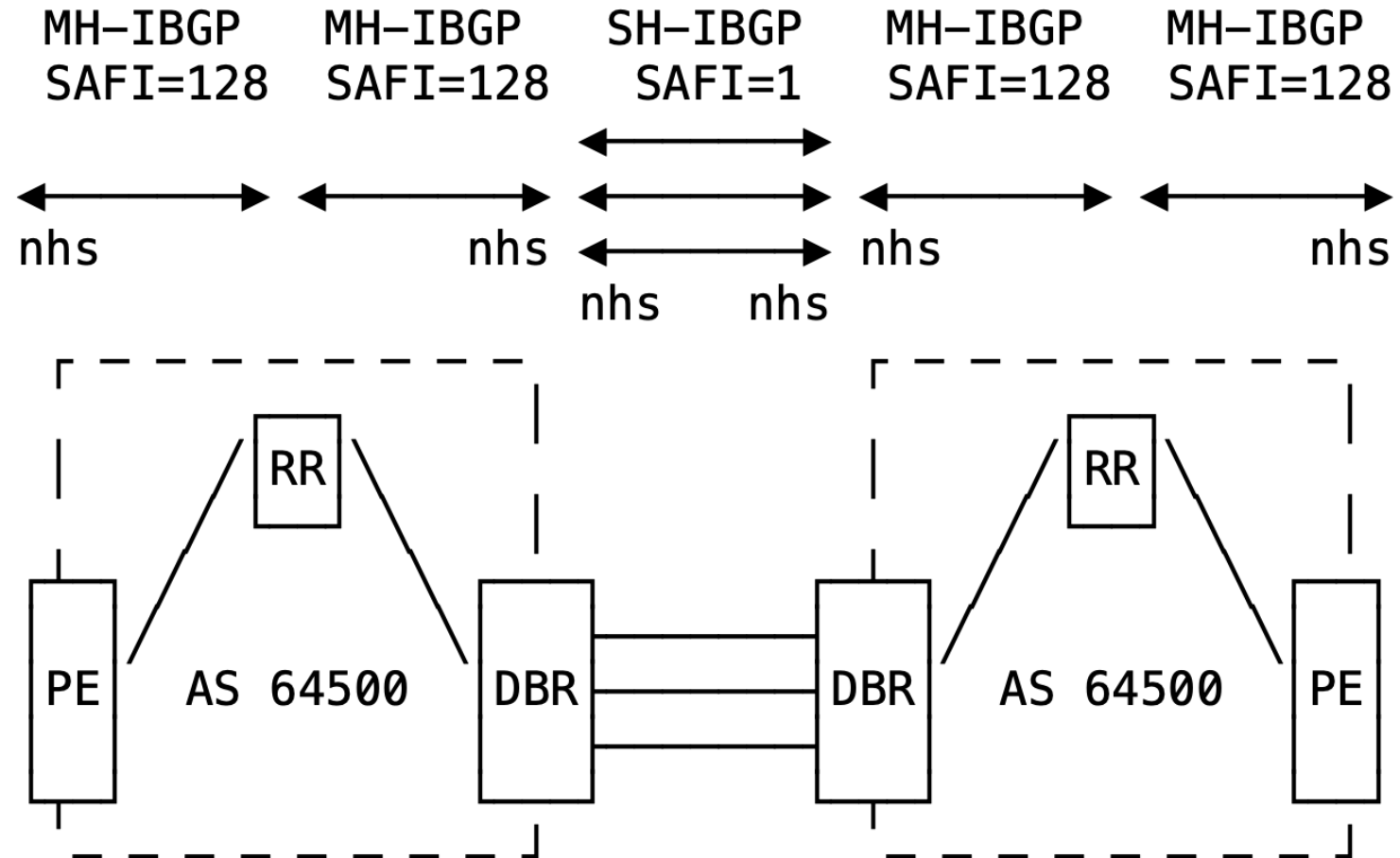
# Motivation

- Service Providers must often partition (divide) the network into domains
  - Geographical/regional separation
  - Administrative separation (different network operation teams)
  - Separation due to network size (scaling challenges)
- Domains can be interconnected via eBGP or iBGP
  - eBGP was designed from day 1 to interconnect domains
  - iBGP was designed to provide connectivity within the domain
  - In existing networks (brownfield deployment) it might be operationally challenging (AS re-numbering) to migrate from single domain to eBGP-connected multi-domain design
    - Operators are implementing iBGP multi-domain architecture in these cases

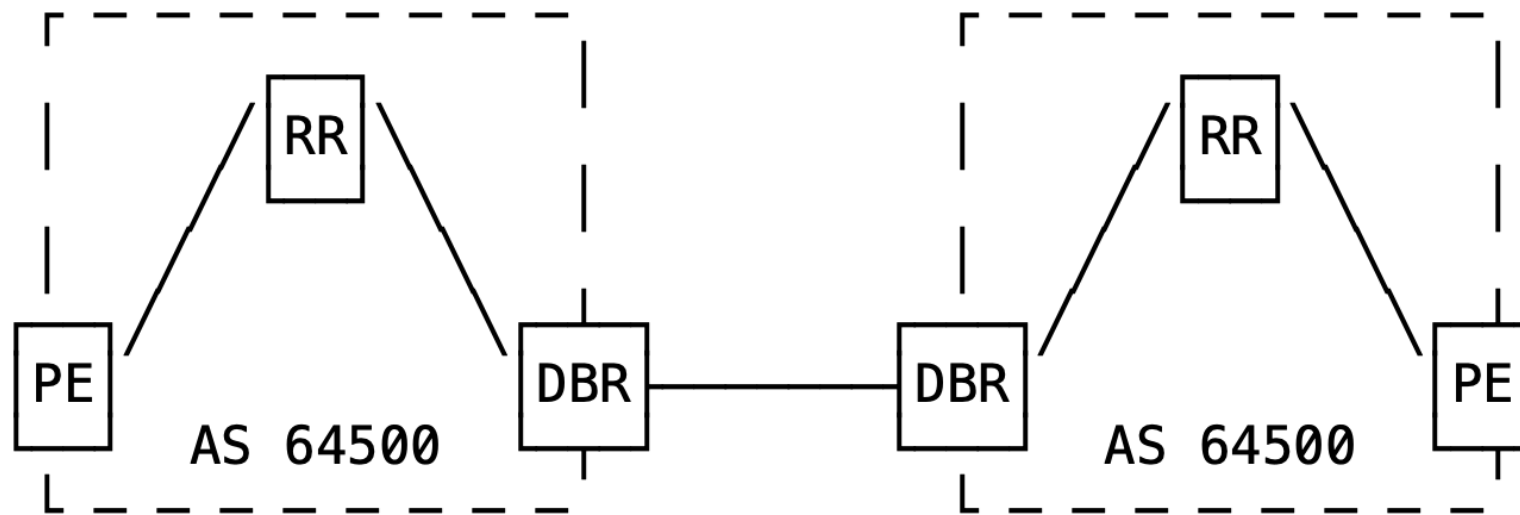
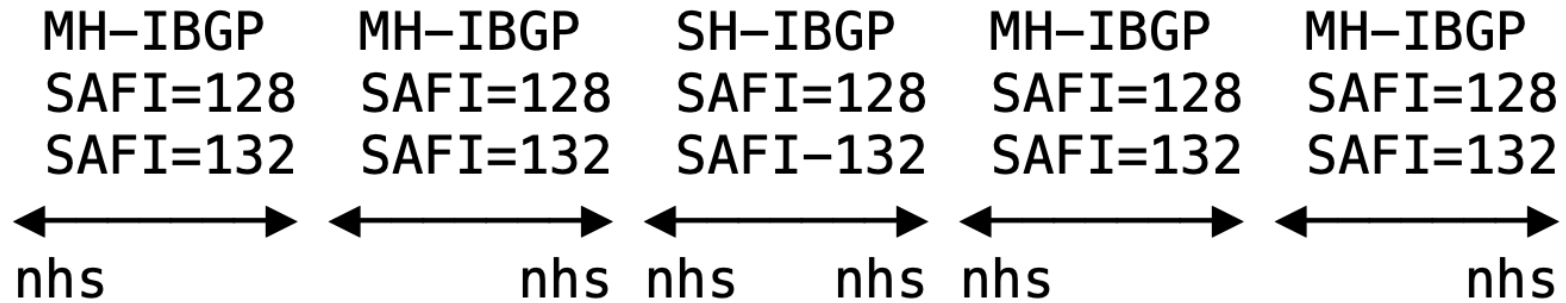
# Motivation (cont.)

- draft-smn-idr-inter-domain-ibgp
  - Addresses the iBGP-connected multi-domain design aspects
  - Does not intend to compare (advantages/disadvantages) of eBGP vs. iBGP multi-domain architectures
  - Discusses three iBGP inter-domain connectivity options (A, B, C)

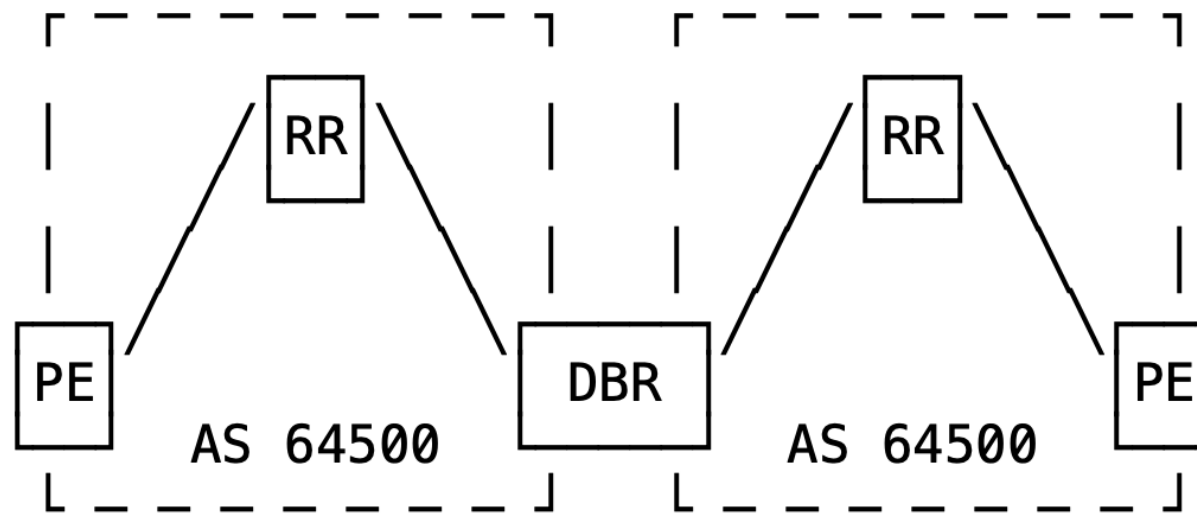
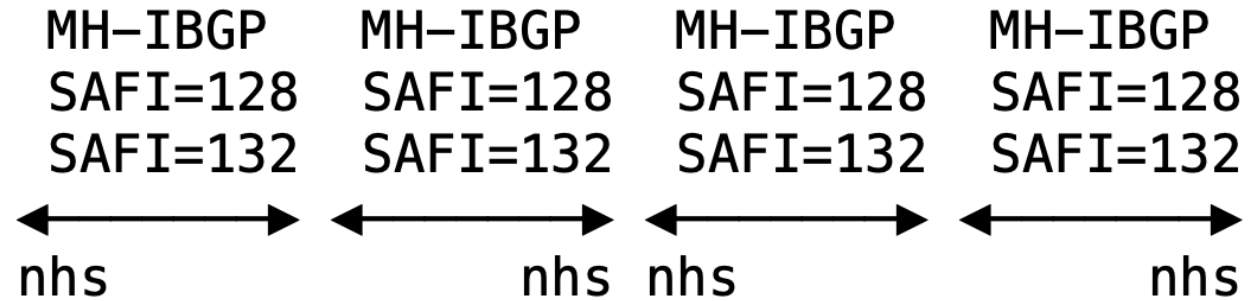
# Option A



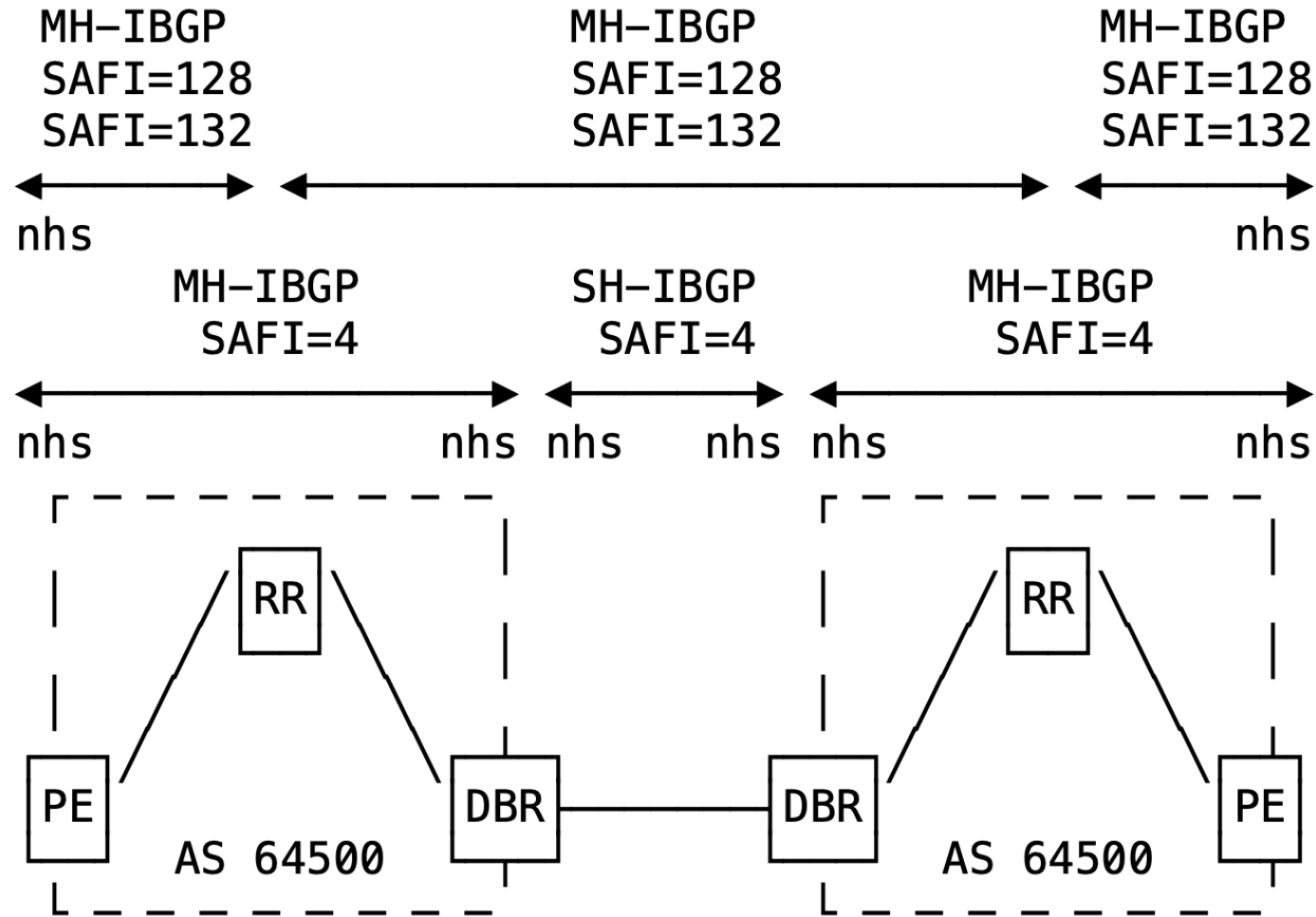
# Option B (separated DBRs)



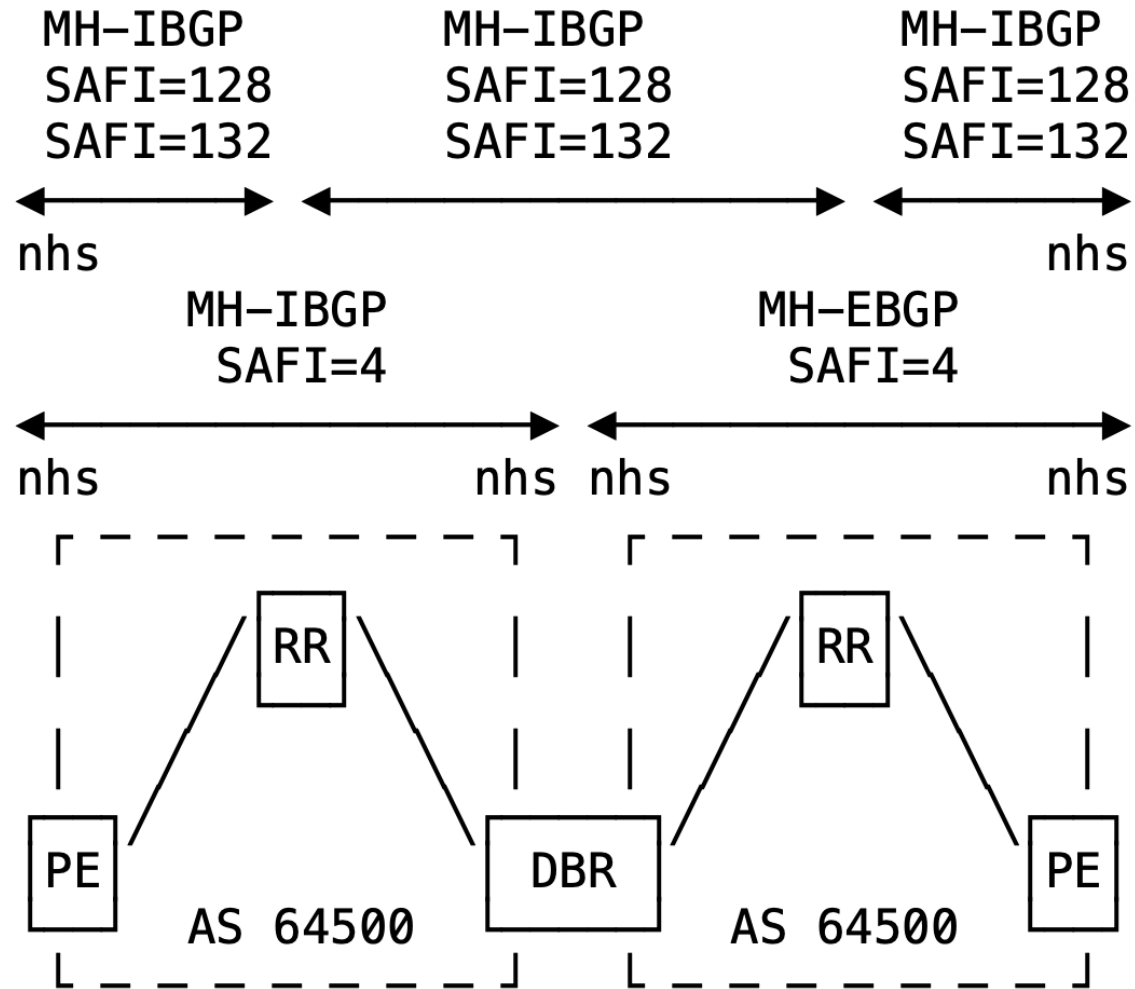
# Option B (collapsed DBR)



# Option C (separated DBRs)



# Option C (collapsed DBR)





# Next steps

- Questions and comments
  - Extensive comments (for rev 02) received from Robert R. and Bruno D. (thank you)
    - authors are working on next draft revision to address these comments
- Seeking feedback from WG