Source Address Dependent Routing (SADR)

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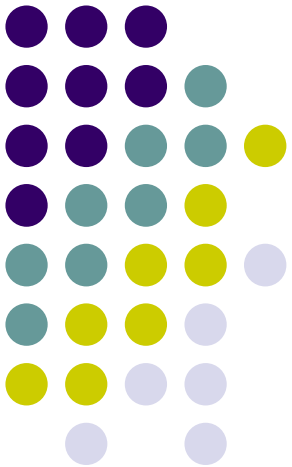
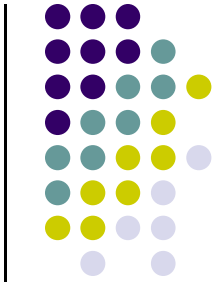
IETF 91



draft-sarikaya-6man-sadroverview-02
draft-sarikaya-6man-ra-route-02
draft-sarikaya-dhc-dhcpv6-raoptions-sadr-00

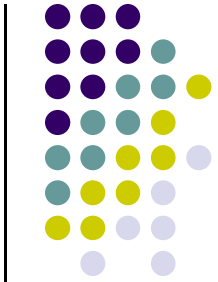
Source Address Dependent Routing



- We present three drafts:
- Overview draft
- RA options draft
- DHCP options draft

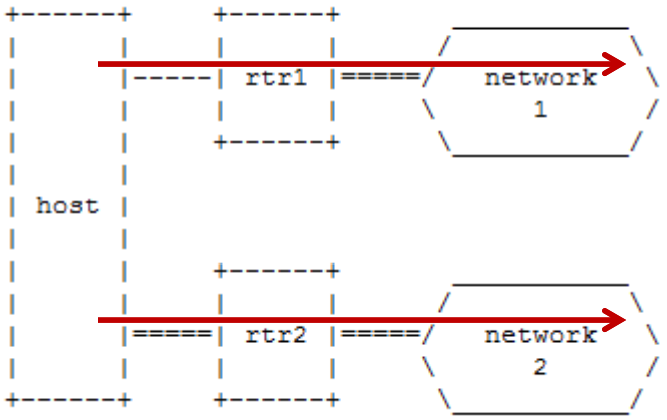
- All are host based. Host informed about ingress filtering can use the right source addresses and thus facilitate source address dependent routing

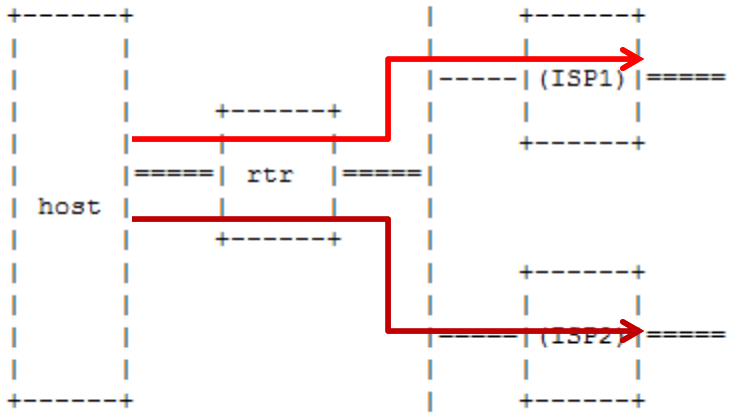
SADR Overview

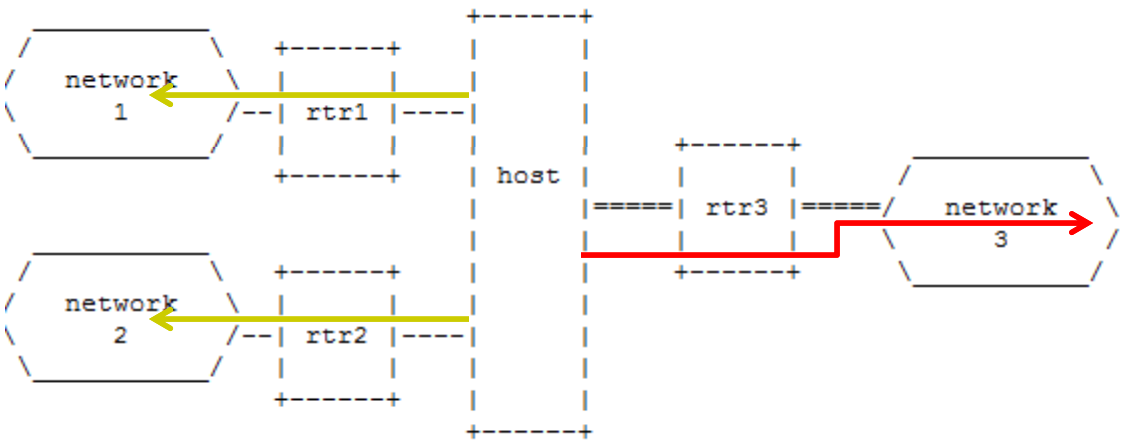


- Multihomed hosts and hosts with multiple interfaces
- 4 topologies
- Analysis
- Provisioning Domains and SADR

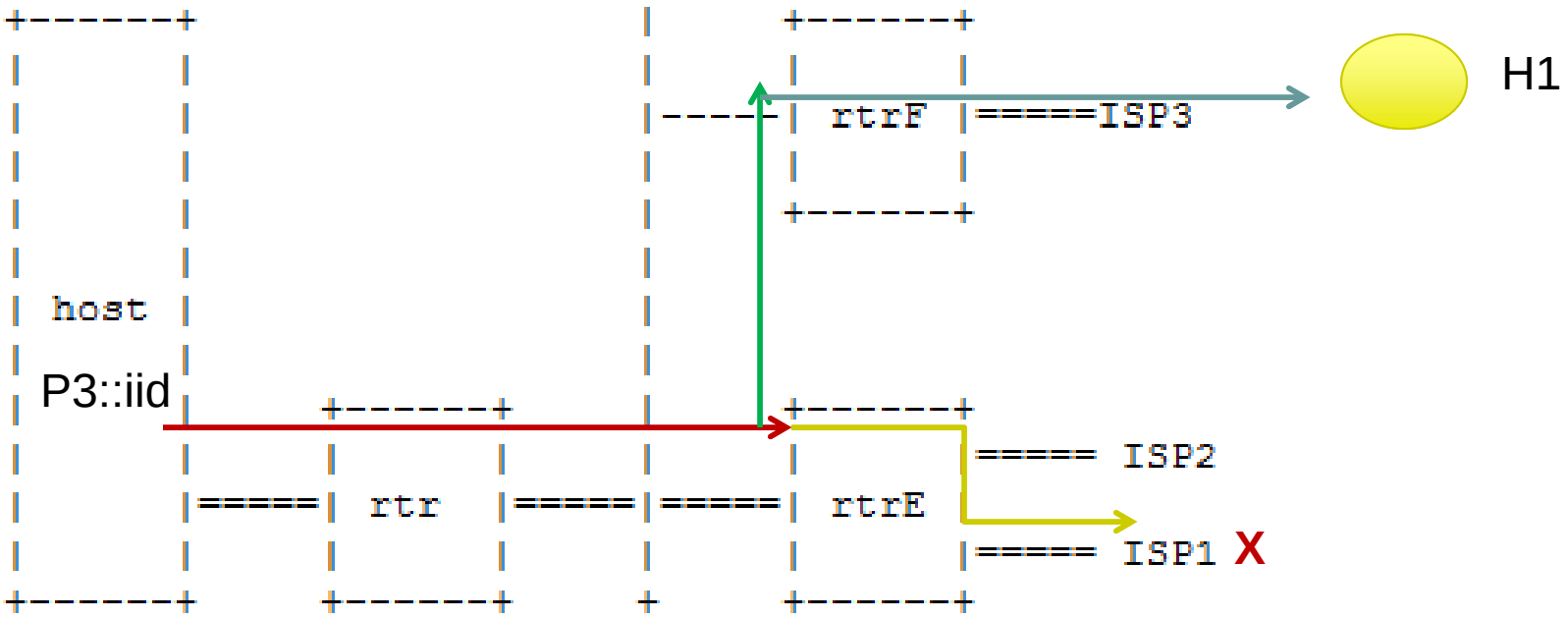
SADR Topologies



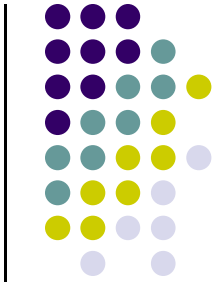




Shim6 Host Scenario

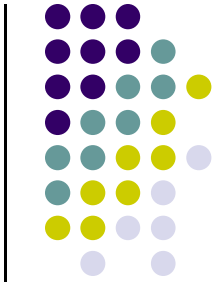


Provisioning Domains Perspective



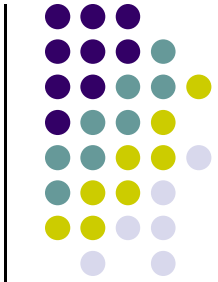
- Consistent set of network configuration information is called provisioning domain (PvD)
- PvDs have PvD Id and PvD Content
- PvD content may be defined as RA options or DHCP options
- The options we define next constitute PvD Content or part of PvD Content

IPv6 RA Options for Next Hop Routes



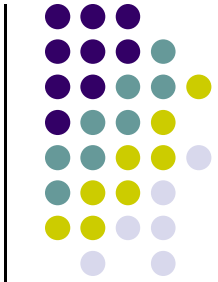
- Defines Router Advertisement Options for SADR
- Options defined
  - Route Prefix
  - Next Hop Address
  - Source Address/Prefix
  - Next Hop Address and Route Prefix
  - Next Hop Address with Source Address and Route Prefix

DHCPv6 Route Options for Source Address Dependent Routing



- Companion draft to draft-sarikaya-6man-next-hop-ra
- This draft defines DHCPv6 options corresponding to the options defined in draft-sarikaya-6man-next-hop-ra
- Route Prefix Option
- Source Address/Prefix Option
- Next Hop Option
  - With Route Prefix can be defined in sub-options
  - With Route Prefix and Source Address can be deined in sub-options

Next Steps



- WG draft?