Ingress filtering compatibility for IPv6 multihomed sites

multi6 wg meeting - IETF 61

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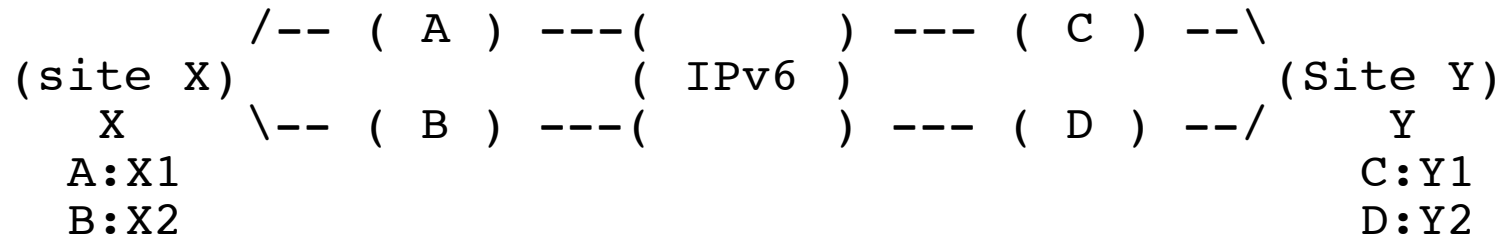
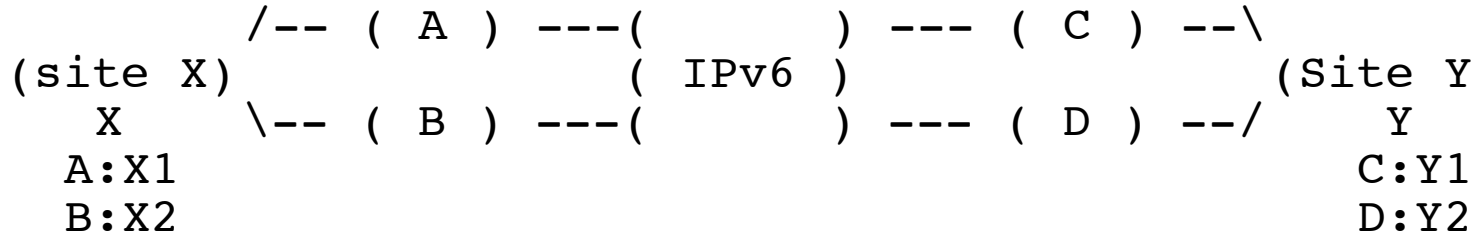
Introduction

- set of mechanisms to provide ingress filtering compatibility
- focus on legacy hosts in IPv6 multihomed sites
- just a component
  - additional mechanisms are needed

Scenario & problem



Goal and non goals



Goal:

- ingress filtering compatibility when X and Y are LEGACY HOSTS

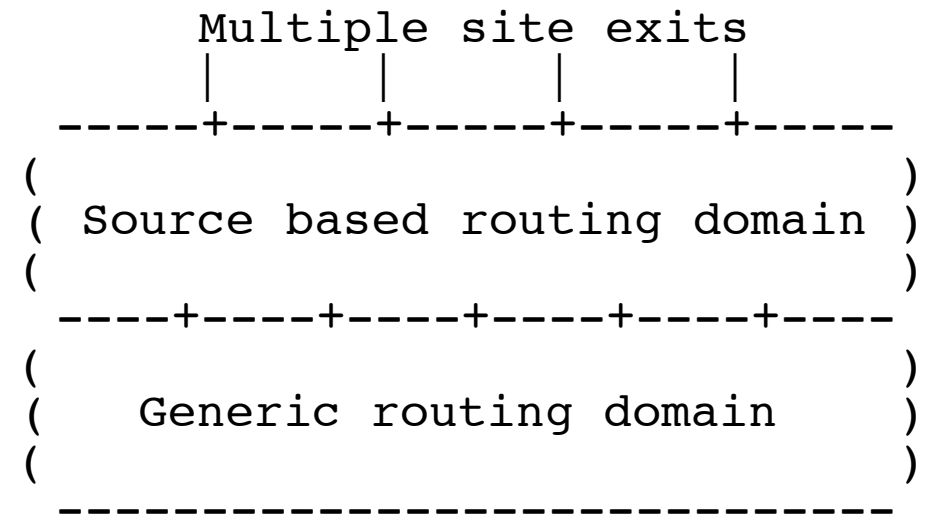
Non-Goals:

- complete multihoming solution
- Fault tolerance
- upgrade hosts

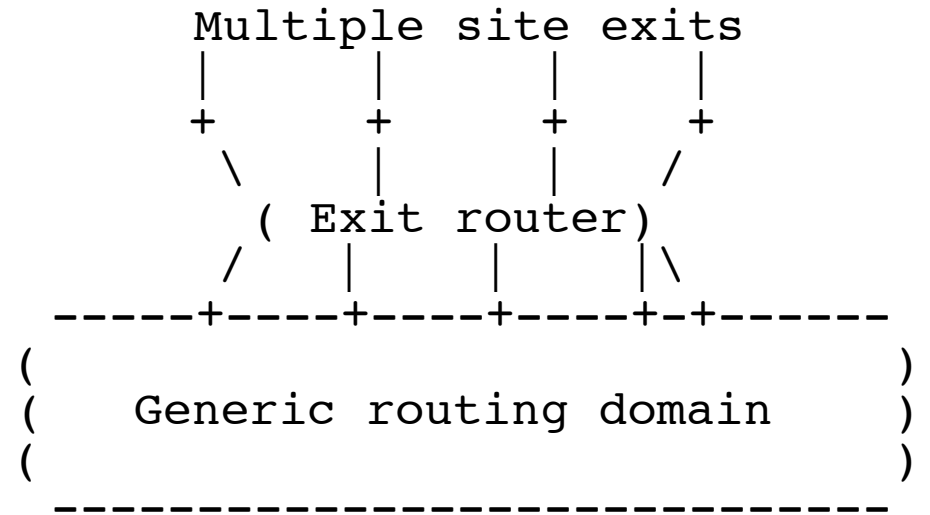
Possible approaches

- Relaxing ingress filtering
  - not always possible, trust issues
- Some form of Source Address Dependent (SAD) Routing
  - single site exit router
  - DMZ
  - virtual DMZ
  - full SAD routing

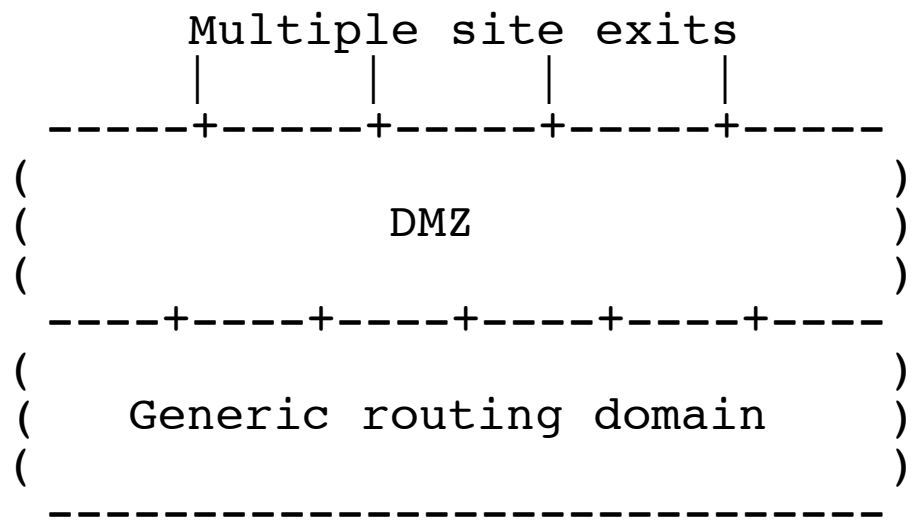
SAD routing domain



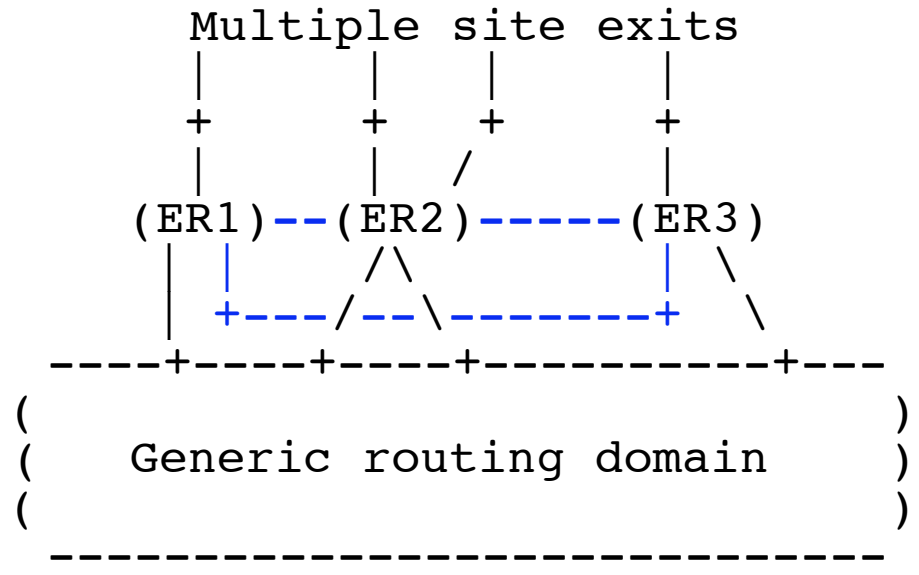
Single router case



DMZ



Virtual DMZ
mesh of tunnels



What's next?

- SAD Routing
  - single site exit router
    - Internal stuff, no work here
  - DMZ
    - perhaps some work specifying the communication between the DMZ
  - virtual DMZ
    - some work to define which tunnels, how to build them
  - full SAD routing
    - analyze how routing protocols work with this