Design Aspects of HIP Rendezvous Mechanisms

draft-eggert-hip-rendezvous-01

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History

- -00 version presented to HIP WG and RG in Seoul, Korea
 - decision to split the draft
- WG draft to focus on immediate HIP-to-HIP rendezvous protocol
 - draft-eggert-hip-rvs-00
 - with Julien Laganier from Sun
 - adopted as WG document on Wednesday
- RG draft to discuss general ideas for HIP rendezvous mechanisms

Focus and Changes

- focus: discussion of possibilities for HIP rendezvous mechanisms
 - we're not pushing a solution here
 - (and this would be the wrong venue anyway)
- existing text more or less unchanged, modulo bug fixes
- new sections by Marco Liebsch on HIP location privacy
 - focus on rendezvous
 - initial ideas, not a complete discussion

Location Privacy

- communicate via HIP without exposing your endpoint addresses to your peers
 - "location" in the topological sense
- who cares?
 - some operators do
 - concern of exposing network details
 - (not sure I agree with them)
 - according to some MobileIP people, this is why MobileIP is experiencing slow deployment

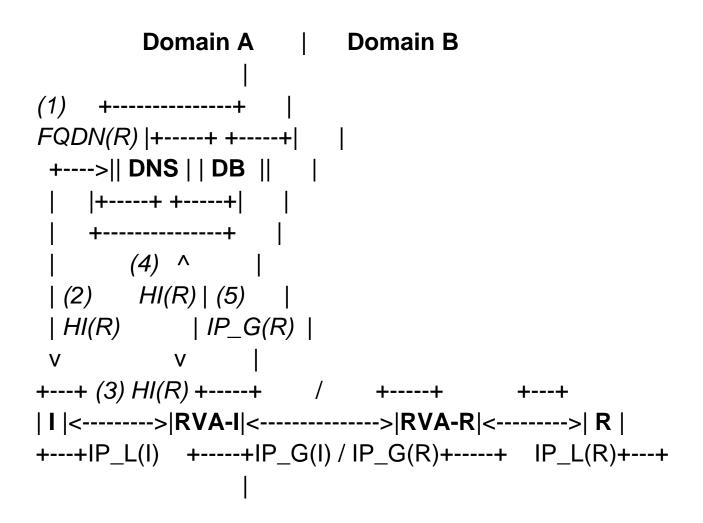
Strawman

- relay all communication through rendezvous servers
- high load on rendezvous servers
- inefficient routing
- still reveals the peers' global addresses

Thought Experiment

- ▶ push the HIAIP lookup into the network
 - hosts send all traffic to rendezvous "agents" (RVA)
 - initiator RVA performs HIP lookup, then forwards
 - destination RVA similarly
- host addresses only known to their local RVA
 - remote RVA sees local RVA's address

HIP Lookup at RVA



RVA Thought Experiment

- assumptions
 - you trust your local RVA
 - your RVA trusts the remote RVA more than the remote host
 - (operator view, not sure this holds)
- drawbacks
 - loss of end-to-end semantics, etc.
- related ideas
 - i3 (SIGCOMM 2002)
 - hi3 (draft-nikander-hiprg-hi3-00)
 - DataRouter (IWAN 2003)

HIP RVS Concealment

- concealment control fields
 - Julien's idea for HIP-to-HIP case
 - draft-eggert-hip-rvs-00
- WG feedback indicated that this would belong into the RG
 - we agree, remove from WG draft
- merge into future revision of the RG draft?

Questions to the RG

- location privacy interesting in general?
 - this is preliminary and needs refinement
- comments on draft specifics?
- organization of the rendezvous work?
 - draft is becoming large
 - is that OK? overview + split by topic? other ideas?

Questions

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