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 HI→IP 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

\begin{center}
\begin{tabular}{c|c|c}
\hline
\textbf{Domain A} & | & \textbf{Domain B} \\
\hline
(1) & +---------- +---------- + & | \\
FQDN(R) & | +------ +------ | & | \\
\hline
\hline
\hline
\hline
(4) & ^ & | \\
\hline
(2) & HI(R) & (5) \\
\hline
HI(R) & | IP_G(R) \\
\hline
\hline
\hline
\hline
\hline
(3) & HI(R) & | \\
\hline
I & | RVA-I & | RVA-R & | R \\
\hline
IP_L(I) & | IP_G(I) & / & IP_G(R) & | IP_L(R) \\
\hline
\end{tabular}
\end{center}
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

draft-eggert-hip-rendezvous-01

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