Internet Area Meeting / Identifier-Locator Separation BOF

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• Please consult RFC 3978 for details.
The RAM List
https://www1.ietf.org/mailman/listinfo/ram
Agenda

Background and scope (ADs 10 min)
Routing issues of concern where id-loc split might play a role (Ward/Scudder 20 min)
High-level design space (Thaler 45 min)
Where are current work applies, and where we need work going forward (Nikander 15 min)
Discussion (45 min)
What we do next (ADs/chairs 10 min) – (Conclude the discussion, next steps, and try to read consensus)
Identifier – Locator Separation
Work In the Internet Area?

Background and Scope

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Outline

• Why are we here?
• What's in scope?
• What's NOT in scope?
• What are the expected next steps?
Why Are We Here?

• A recent sense of urgency and wake-up call from the routing community regarding routing and addressing issues
  – 2006 IAB Workshop
  – Discussion on various lists, ram@iab.org, arch-d@ietf.org, etc.
  – A long list of gatherings and presentations in operator forums and elsewhere on this topic

• We need to decide if there is IP layer work that should take place because of this
Goals of the Next 2.5 hours

• Focus on design of identifier-locator separation
  – A new input: can we improve routing scalability?
• Take the path we have been on, incorporate new insights from the past six months of activity, and translate them into additional goals moving forward.
• Establish some of the high-level boundaries for our solution set
• Determine next short-term steps
Scope of the meeting

• Understand motivations for id-loc split
  – Listen to input from the core routing community
  – Consider other reasons to do more work in this space

• Architectural design discussion
  – Why, how, trade-offs, etc.
  – Refrain from specific protocol details as much as possible
High level boundary questions to keep in mind

- Do we need a network-based solution, host based solution, or both?
- What about “Mobility”?
- Traffic Engineering?
- NAT?
- ...

If we can answer just a few of these, we will have accomplished something
Initial Proposal from the ADs

We should start new work that

• Satisfies requirements from the routing community

• Can be deployed
  – What this means comes clearer in the subsequent presentations

• Allows applications to work unchanged
  – Might still allow enhanced APIs etc.

• Backwards compatibility with existing networks
  – IPv4, IPv6, NATs, etc.

• What we can we do from where we are today?
Next Steps

• Continue discussion on the RAM list
• Come to agreement on scope of the work that we want to do & write it down
  – What functionality is included?
  – What point in the design space?
• Charter a working group
• Engineering ideas and implementations are welcome even before a WG exists
• Research is also very welcome on this space; the RRG is for this
Discussion
Some Questions...

• Is there interest in forming a WG?
• Should we focus on a network or host approach?
• Assume that existing apps must continue to work (don't break the API)?
• Assume that an application identifier is an IPv4/IPv6 address? Should it be routable?
• Focus on IPv6 in the end sites?
• Timeframe of significant deployment?
• What have we missed?
• Interim meeting in May?