

# Update on the IAB Routing and Addressing Workshop (RAWS)



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# Agenda

- Why Hold This Workshop?
- Logistics
- Workshop Objectives
- Key Findings
- Next Steps
- Questions/Comments?

# Why Hold This Workshop?

- The Internet's routing system is facing a set of serious scaling problems, and...
- We are the IAB, after all
  - “A is for Architecture” -- Leslie
- There is a shared opinion among backbone operators that none of the existing IETF efforts provides effective solutions

# Logistics

- The workshop was held in Amsterdam, Netherlands on October 18-19, 2006
- 38 attendees
  - Focused on backbone operators
    - Also a few h/w designers, enterprise types
    - 18 (of the 38) were IESG, IAB, or IRTF
    - One scribe
- Many thanks to ISOC/RIPE NCC/NLnet Labs/Cisco
  - and anyone else I missed...

# Workshop Objectives

- To develop a shared understanding of the problems that operators are facing with today's routing and addressing system, and
- To use that information to inform the IETF process

# Key Findings

- **The scalability of the routing system is a problem and must be addressed in the near term**
  - Among various observations was that we may not be able to scale FIB memories in an “economically feasible” way
    - Dynamics in the RIB also an issue (cf. PI space)
  - And of course, along with all of the various constraints (e.g., no provider lock, ,TE, multihoming,...)
  - IPv6, in its current form, does not fix these problems

# Key Findings

- **The overloading of IP addresses with both ID and Locator semantics is a problem**
  - Discussion as to whether this is a solution to the M&M (mobility and multihoming) requirement or is itself an *inherent problem*
  - Especially if the anticipated “orders of magnitude” growth in new mobile end devices occurs
  - Discussed HIP, SHIM6, GSE, ...

# Key Findings

- **Finally, these problems are urgent**
- Lots of discussion about “hit the wall” dates
- Need to start working on solutions now



# Some “Editorial” Findings

- The workshop generated a nice enthusiasm, and ...
- Everyone seemed to leave with a new energy around the problem
- Some folks who hadn't engaged with IETF leadership recently (or ever before) re-engaged
- A lot of positive socialization occurred

# Next Steps

- **Build/Publish Workshop Report**
  - Have an early draft in hand
  
- **Gain/enlarge strong community consensus**
  - Engage all stakeholders
  - Operators (backbone/enterprise), vendors, users, ...

# Next Steps, Cont.

- **IAB: More work on the architectural aspects of locator/id split**
- **Discussion with the IESG as to next steps**
- **However,....**

# Questions/Comments?

# **Thanks!**