Update on the Internet Research Task Force

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IRTF Status

• Seven Research Groups (RGs) met this week
  – Internet Congestion Control RG
  – Anti-Spam RG
  – Routing RG
  – Scalable, Adaptive Multicast RG
  – Delay Tolerant Networking RG
  – Host Identity Payload RG
  – Network Management RG
IRTF Status

• Closed two RGs:
  – End-Middle-End RG
  – Internet Measurement RG

• Continuing to discuss the future of the Peer-to-Peer RG

• Reviewed the Network Management RG with the IAB
IRTF RFCs

- 3 IRTF drafts in RFC Editor queue
  - ~8 drafts in progress towards publication

- Draft to establish an IRTF RFC stream is in development, should be published RSN
Suggestions for New Work

• IAB seeking an RG on *unwanted traffic mitigations*
  – Email going out to research community

• Interest in RG on *network virtualization*
  – BarBOF earlier this week

• Continued interest in an RG on QoS *policy framework*
A few RG highlights...
Anti-Spam RG

- Possible resurrection of RG while meeting at this IETF

- Interest in finishing two drafts
  - Description of mechanisms used for blacklists
  - BCP on blacklist operations

- Populating wiki on spam mitigation techniques
  - May evolve to document analyzing the worst (WCP)
  - http://wiki.asrg.sp.am
Routing Research Group

• Lots of activity: 930 msgs since IETF-70

• Evaluating several new routing architecture proposals

• Building consensus towards a recommendation by March 2009
  – Clarifying goal to be recommending an architecture rather than a proposal
Delay Tolerant Networking RG

- DTN implementations finding broad application
  - Nomadic, arctic users
  - Commercial, LEO satellites
  - DARPA mobile networks

- 2 RFCs, 16 drafts – need a roadmap

- DTN interop in the terminal room
  - *(stop by and say “hi”)*

- BarBOF tonight to discuss establishing a community-based reference DTN implementation
Host Identity Protocol
RG

• RFC Editor about to publish (Auth48) “NAT and Firewall Traversal Issues of Host Identity Protocol (HIP) Communication”

• Several new drafts presented on extending HIP
  – Use of certificates in HIP
  – HIP-based mobile router
  – SPI-based network address translation

• Continued discussion on legacy NAT and HIP-aware middlebox traversal
  – Possible P2P-SIP applicability
Internet Congestion Control RG

• Reviewing congestion control proposals for TSV area:
  – Compound TCP, CUBIC

• Continuing work on surveys:
  – Current congestion control RFCs
  – Open congestion control research issues

• Starting discussion of TCP Slow Start enhancements
Network Management
RG

- Studying the behaviour of management protocols using network traces
  - Seeking collaborators from enterprise nets

- Finalizing a document specifying SNMP trace exchange formats

- Specifying format for aggregating SNMP messages

- Feedback from IAB review: seek more interaction with operators (e.g., NANOG, RIPE)
Scalable, Adaptive Multicast RG

• Drafts include
  – Protocol for hybrid multicast
  – Applying P2P-SIP overlays to multicast

• Encouraging prototyping

• Tentative plan to have interim RG meeting at MILCOM 2008
  – Coordinated with special session on P2P Overlays
• Finishing up:
  – Location privacy for mobile v6
  – Handover pre-authentication

• Multicast mobility
  – Problem statement nearly done
  – Made some recommendations at IETF-70