

IRTF Update

By Aaron Falk

Four research groups (RGs) met at IETF 76 in Hiroshima, Japan: Host Identity Payload; Scalable, Adaptive Multicast; Delay Tolerant Networking; and Routing. Most of the 13 RGs that make up the Internet Research Task Force (IRTF) are active.

Six IRTF drafts are awaiting publication by the RFC Editor. The publication process has been in suspension for several months pending revision of the IETF Trust License Provisions. The current expectation is that publication will resume in January 2010. One of the documents in the RFC Editor queue is draft-irtf-rfcs-05.txt, which defines the IRTF RFC stream. The draft was removed from the publication queue so that the rights language can be made consistent with that of the Independent Stream.

From time to time the IRTF considers proposals for new RGs. Several folks who have expressed interest in an RG on virtual networks have been meeting informally for some time. A Bar BoF on the topic was held at IETF 76 for the purpose of reaching agreement on a draft charter. Some interest has also been expressed in establishing an RG with a charter related to the Internet of Things.

The Routing RG met with the Internet Architecture Board at IETF 76 to discuss plans for making a recommendation to the IETF based on the group's work over the past two years in evaluating proposals for a future routing and addressing architecture. The work was motivated by concerns over forwarding table growth in the default-free zone. There has been a great deal of energy in the RG, and while progress has been made in defining the nature of the problem and gaining an understanding of the classes of solutions available, it will be a challenge for the group to converge on recommendations.

The End-to-End RG, which is chaired by Craig Partridge and Karen Sollins, has decided to close in January 2010 after 26 years. The RG has served as a focal point for several important concepts in Internet design, including slow start and improved round-trip time estimation, Random Early Drop, Integrated and Differentiated Services, Weighted Fair Queuing, PAWS (Protection Against Wrapped Sequence Numbers), and Transaction TCP. The end2end-interest mailing list will continue operation.

At each IETF, brief overviews of selected IRTF RGs are presented to help familiarize the IETF community with the research topics that are under discussion. At the IETF 76 plenary, short presentations described the Anti-Spam RG and the Scalable, Adaptive Multicast RG.

The Anti-Spam research group, chaired by John Levine, looks at open problems in topics related to combating unsolicited e-mail. The original hope was that the RG would create initiatives around which standardization could occur. Those initiatives have not yet been created. The group has an open membership, which includes representatives from industry and academia as well as independent participants. Combating spam has become a major industry, one that has led to the formation of an IETF working group (DKIM), trade groups (MAAWG and ESPC), and conferences (CEAS and presentations to Usenix). The RG has produced a document that provides details on Domain Name System blacklists and white lists (the document is awaiting publication), and it is working on a draft that covers management practices for blacklists. Another



Aaron Falk, IRTF Chair

Combating spam has become a major industry, one that has led to the formation of an IETF working group (DKIM), trade groups (MAAWG and ESPC), and conferences (CEAS and presentations to Usenix).



ISOC Fellows and mentors meet over lunch at IETF 76



IETF 76 take in the Bandwidth Bandwagon panel discussion



Attendees enjoy some down time at IETF 76 in Hiroshima, Japan. Photos/Internet Society.

work in progress for the RG covers taxonomies on antispam and spamming techniques (see <http://wiki.asrg.sp.am>). The RG serves as a good sounding board for folks who have antispam ideas.

The Scalable, Adaptive Multicast RG (SAMRG), chaired by John Buford and Thomas Schmidt, is investigating the development of unified approaches to multicast that take advantage of link-layer multicast, IP multicast, and application multicast when they are available. There are several active researcher/developer communities in the SAMRG, including application layer multicast over peer-to-peer networks; an experimental protocol called XCAST, which is optimized for medium-scale voice conferencing; native (link-layer) multicast; and applications that use multicast. Some of the RG's work is focused on extending the Automatic IP Multicast without Explicit Tunnels (AMT) protocol as an overlay that can tie together multicast-enabled clouds. Other work focuses on defining a common application programming interface and name space that would enable applications to take advantage of multicast when it is available. In the future, the RG plans to work on extending common simulation tools to hybrid multicast mechanisms as well as on developing a wide-area hybrid multicast test bed.

Recent IESG Document and Protocol Actions

A full list of recent IESG Document and Protocol Actions can be found at <http://www.isoc.org/ietfjournal/DocProtoActions0503.shtml>.