IETF Hackathon: Trustworthy Multipurpose Remote Identification (tmrid)

- IETF 106
- Nov. 16-17, 2019
- Singapore

HACKATHON

<IETF 106 / Singapore>

Hackathon Plan

- Immediately actionable, privacy preserving Remote ID for Unmanned Aircraft Systems (UAS, aka drones) etc.
  - RFCs 4423[bis], 7343 (ORCHID), 7401, 8002 - 8005
  - make ASTM UAS RID claims trustworthy
  - leverage HIP, DNS, WHOIS...
- Enhancements to Host Identity Protocol (HIP):

  - Hierarchical Host Identity Tag (HHIT)

  - Keccak: cSHAKE based HHIT; KMAC

What got done

- we started early @New York UAS Test Site

  - DNS lookups: HIT -> FQDN -> TXT; HIT -> HIP RR

  - SHAKE128 based HHIT (temp. stand-in for cSHAKE)

  - OpenHIP builds for Ubuntu 18.04

  - Observer to Pilot emergency comms via HIP proxies

  - flew in NY: Bluetooth Broadcast UAS RID of flat HIT

  - demo here: same w/Heirarchical HIT

What we learned

- need more draft reviewers & interop experimenters

  - some HIP experiments & drafts need maturation

  - UAS RID roles of WHOIS, DNS, HIP?

  - new IETF work is primarily for HIP WG

  - also some coordination w/ASTM, ICAO, RTCA...

Wrap Up

Team members:
Bob Moskowitz
James Mussi (remote)
Ryan Quigley (remote)
Stuart W. Card
Adam Wiethuechter

Please join us in tmrid BoF
Tuesday 1000 - 1200 VIP A

shutterstock · 148735430