

IETF Hackathon:
Trustworthy
Multipurpose Remote
Identification (tmrid)

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