

IETF Hackathon: ILNP

IETF 105
20-21 July 2019
Montreal

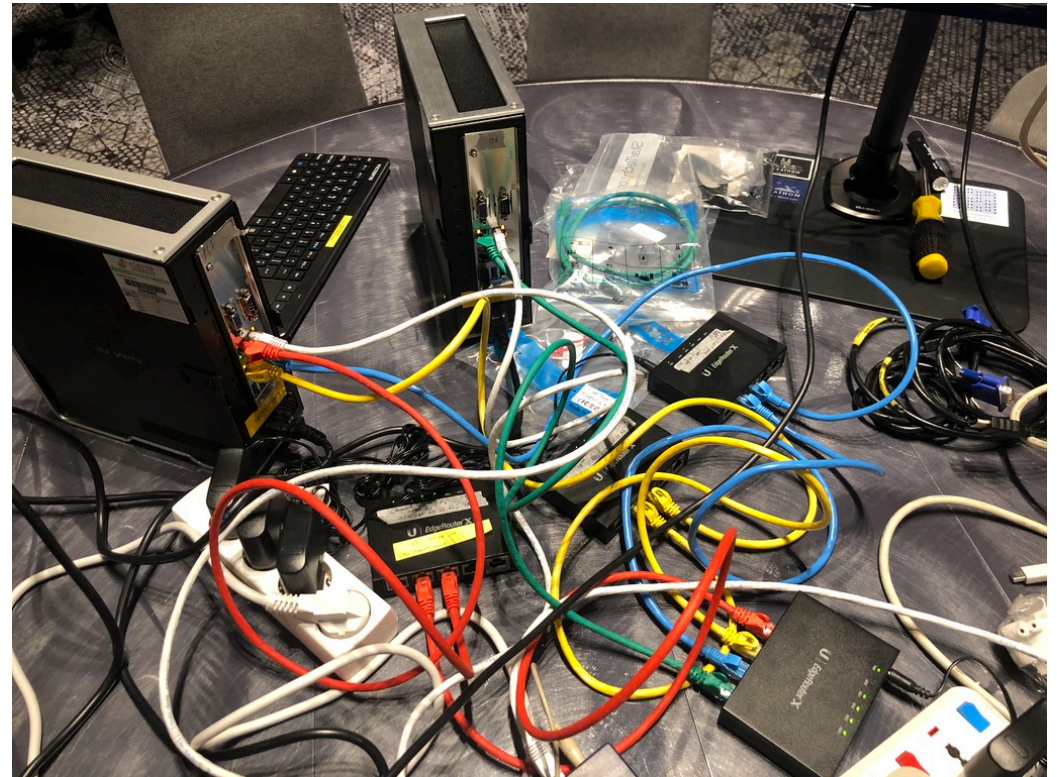


ILNP background information

- RFCs 6740 – 6748 (Experimental)
 - IRTF Routing RG (now concluded)
- **First demo at IETF104/Prague.**
- Work in progress:
 - Development work on Linux kernel v4.9 LTS.
 - (Refinements and updates to RFCs.)
 - (Continuing research, also.)
- <https://ilnp.cs.st-andrews.ac.uk/>

Hackathon Plan

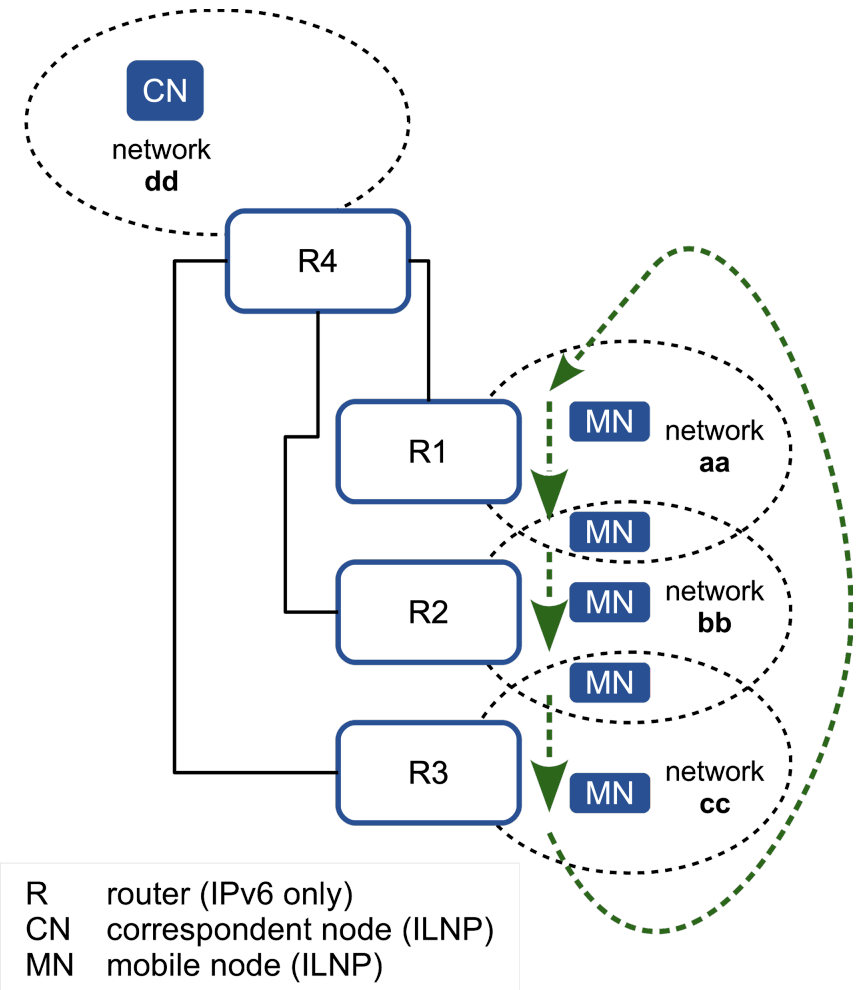
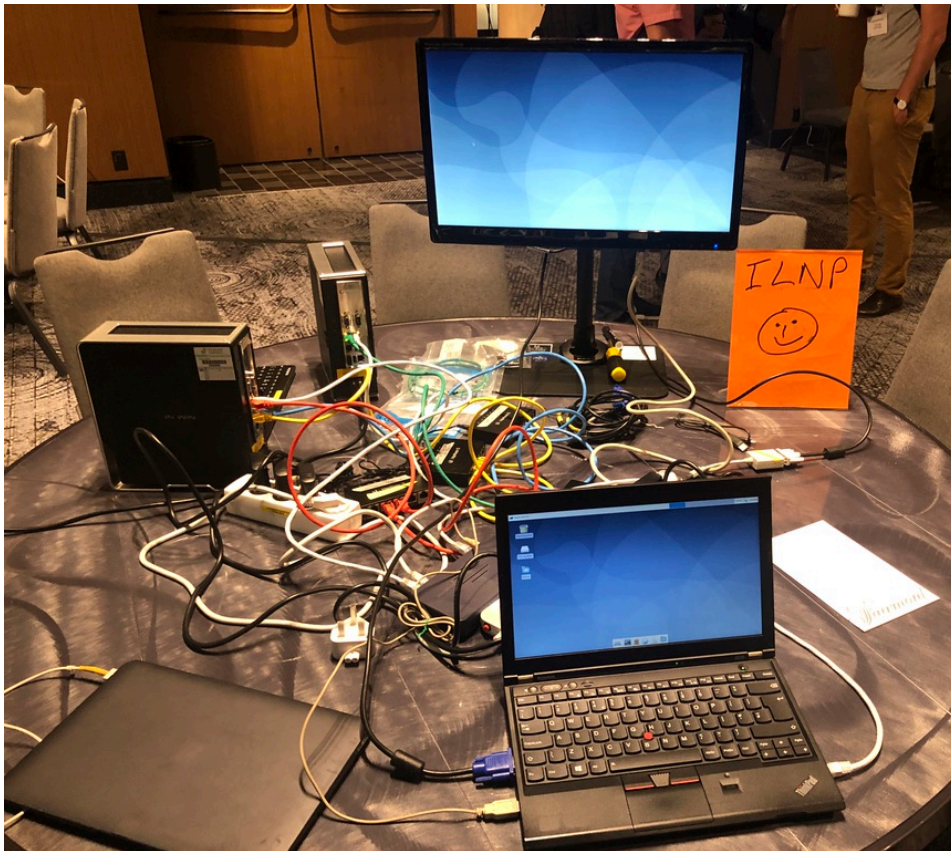
- Improve ILNP working over “real” networks.
- Testing over small network of commercial routers.
 - Ubiquiti EdgeRouterX
 - Modified Linux kernel running on modest desktop machines (Intel Atom 4C).
- (DNS improvements.)



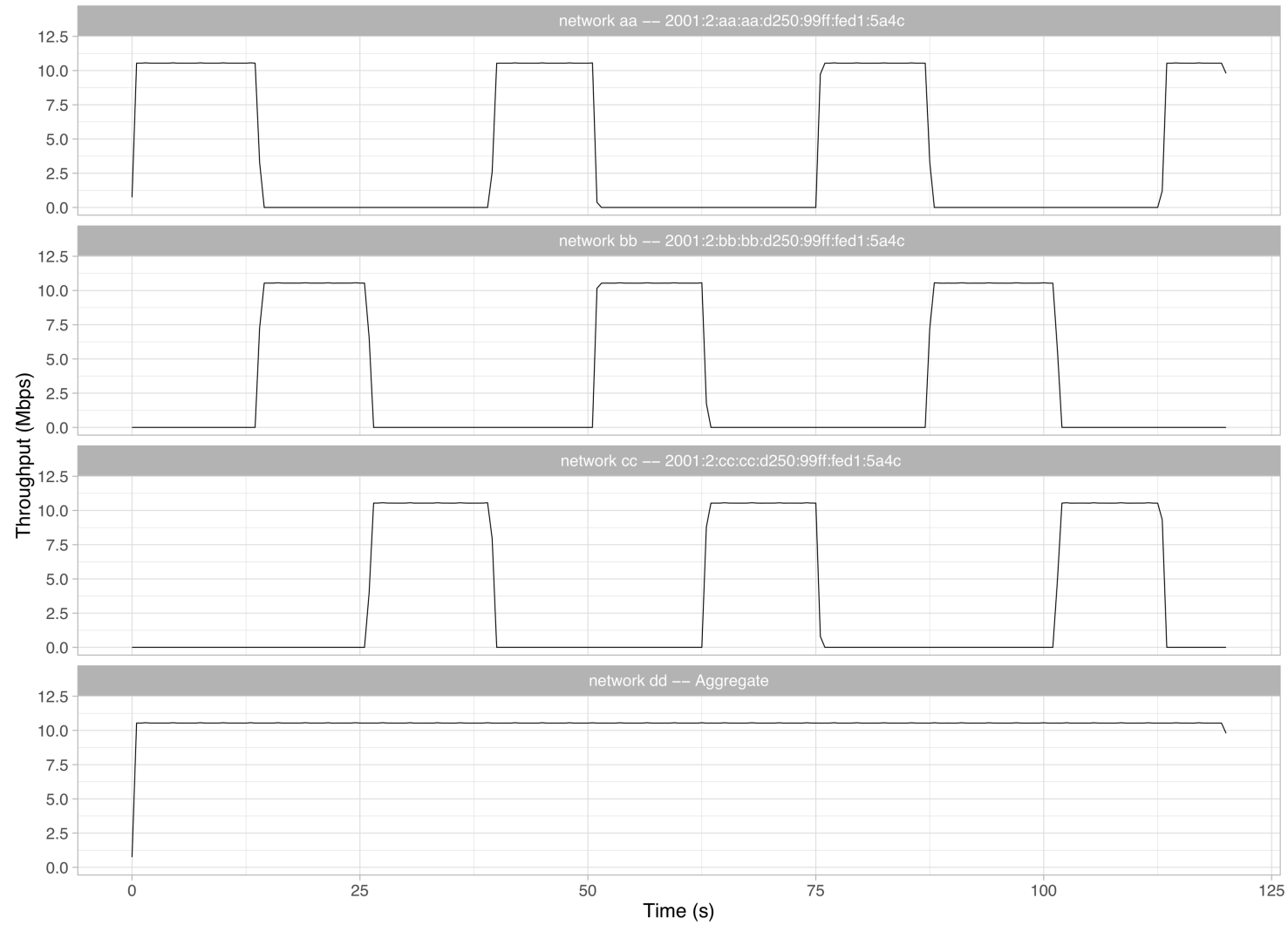
What we found & what we got done

- **Test runs with TCP over ILNP:**
 - Ubiquiti Networks EdgeRouterX units running IPv6 only.
- **Final testing of kernel code before public release of code:**
 - Including fixes to bugs found at IETF104/Prague.
- **Discussion on DNS (regarding section 3.2 of RFC6742):**
 - Thanks to Stéphane Bortzmeyer (AFNIC), Petr Špaček (cz.nic).
 - (Extensions in progress to KnotDNS and Unbound.)
 - (Discussions on secure write performance with DNS.)

Mobile node (no mobile IP)



Throughput, Observed by CN (d250:99ff:fed1:5a34) with 0.5 sec. interval aggregation – TCP – ilnpv6



Wrap Up

Current team members:

- Saleem Bhatti (project lead)
- Ryo Yanagida (PhD student)

Former students:

- Khawar Shezhad
- Ditchaphong Phoomikiatissak
- Bruce Simpson

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