

Intro to Enterprise-scale Networks

IPv6

Agenda

- In The News: So you're thinking OSPF might be hard? Try this!
<https://arstechnica.com/gadgets/2022/09/google-spinoff-aalyria-salvages-project-loon-technology-for-the-us-military/>
- Necessary lab materials:
 - printed copy of lab
 - USB memory stick to save results
- Open-Lab time: Sat & Sun mornings (T113, and T108 by request)
- New material:
 - Slides on IPv6
 - Lab prep: dynamic addressing for IPv6: DHCPv6

Assignments and Lab work

- Lab 1 post-lab: due tonight (Wed) @ **11:59pm**
- Lab 2 pre-lab: (was) due **before** your lab session this week
- Lab 2 post-lab: available now; due **before** your lab session next week
- Lab 3 pre-lab: due before your lab session next week
- Readings:
 - All about IPv6 (Ch 8, SRWE): in particular sections 8.1-8.3

References

- Synopsis of many IPv6 topics: <https://en.wikipedia.org/wiki/IPv6>
- Synopsis of pre-defined IPv6 addresses: Wk02 notes on course website
<http://michaelanderson.ca/22F-NET2000-010/Wk02-IPv6-Reference.pdf>
- "Other info" that may be provided by a DHCP server (most common options only):
<https://www.incognito.com/tutorials/dhcp-options-in-plain-english/>

Summary of IPv6 Address Selection/Generation

1. SLAAC (StateLess Address Autoconfiguration) – Address/mask + gateway only
2. SLAAC + DHCPv6 – basic address from SLAAC, other info from DHCPv6 server
3. DHCPv6 – all info (both address and other) from DHCPv6 server

The "other info" typically consists of the same elements provided by DHCP for IPv4 clients (DNS server, TFTP server, NTP server, etc).

Summarized in just two figures from SRWE sections 8.1.3, 8.1.4 (next page)

