

Preparation For The IPv6 Solutions Tutorials

Schedule:

The planned tutorial schedule is currently:

- 1:00 PM: Intro/Opening Chorus
- 1:10 PM: IPv6 Security - Jeff Harrington, NYSERNET
- 2:40 PM: IPv6 For Linux Administrators - Alan Whinery, U. Hawaii
- 3:00-3:30 PM: Break
- 3:30 PM The IPv6-Only Network - Alan Whinery, U. Hawaii, Jeffry Handal, Cisco Meraki
- 5:00 PM: Adjourn

Prerequisites

The IPv6 tutorials planned for the 2017 Internet2 Tech Exchange in San Francisco are not intended to be entry-level introductions to IPv6. Many Internet2 Members have already offered IPv6/IPv4 “dual stack” connectivity to their users for years, and yet there is surprisingly little “next-step” training available. These tutorials are formulated for network operators who have already worked with IPv6 networks for some time. At the same time, it is important to realize that if you are well-versed in the operation of an IPv4 network, you already possess the fundamental concepts necessary to operate an IPv6 network.

All that said, all participants are welcome. If you have not previously dealt with IPv6 operationally, we offer some pointers to online materials you can access prior to Tech Exchange to get some exposure to the IPv6 “way of life”.

Starting Points

Internet Society: Deploy360 Programme - IPv6

<http://www.internetsociety.org/deploy360/ipv6/>

ARIN: IPv6 Info Center

https://www.arin.net/knowledge/ipv6_info_center.html

Further Reading

US DoD/DREN IPv6 Knowledge Base

<https://www.hpc.mil/index.php/2013-08-29-16-03-23/networking-overview/2013-10-03-17-24-38>

Videos You Should Watch

From the 2017 North American IPv6 Summit:

CGN – a driver for IPv6 adoption

<https://www.youtube.com/watch?v=fbk4H6EmZzI>

T-Mobile's path to IPv6 Only

https://www.youtube.com/watch?v=nNMNgIk_CvE

IPv6 – A View from the Edge

<https://www.youtube.com/watch?v=2RGzR5eMfcg>

Things to bring

- A laptop computer, *preferably* running one of the following operating systems:
 - Microsoft Windows 8 or later
 - Mac OS X (10.11 or newer)
 - Linux
 - BSD variants
- Older OSes may work OK, and if they don't, it's likely instructive
- The laptop will need to have a wireless interface to connect to the tutorial network.
- Optional: Smart phones or tablets as a 2nd point of reference (we especially welcome things that we haven't tested yet.)

Preparing Your Devices

Please prepare your devices to interact dynamically with the tutorial WiFi network, meaning, remove static IP addresses, DNS server configs, etc.

If your device has mobile connectivity, we recommend putting it in airplane mode and then turning on WiFi only.

Recommended Software

Nothing special is *required*, beyond an OS and a browser, but you should bring any app you'd like to try in an IPv6-only (with IPv4 as a service) environment.

Having installed **Wireshark** may enhance your experience. It will be possible to access the Internet and install things during the session, at need.

Recommended for Android:

Network Info II by Alexandros Schillings

JuiceSSH by Sonelli Ltd. (for terminal access to system info)

With a terminal program, you can look at information from

“ip”, “getprop”, “ifconfig”, “route”, “ping”, “ping6” (which are already on your Android)

Recommended for iPad/iPhone

Network Utility by Fausto Ristagno