

# Preparation For The IPv6 Solutions Tutorials

## Schedule:

The *estimated* tutorial schedule is currently:

TIME: Monday 10/15/18 01:00PM-05:00PM

ROOM: Oceana Grand Ballroom 9

1:00 PM : IPv6 Addressing, Accounting, Tracking - Jeff Harrington, NYSERNET

3:00-3:30 PM: Refreshment Break (fixed time for all tutorials)

After break: (conclusion of above talk, if necessary)

3:35 Acknowledgements

3:38 Building IPv6-Only Networks with DNS64, NAT64, 464XLAT - Alan Whinery

5:00 PM: Adjourn

## Prerequisites

The IPv6 tutorials planned for the 2018 Internet2 Tech Exchange in Orlando 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 intended 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](https://www.arin.net/knowledge/ipv6_info_center.html)

**Intro to IPv6 with Philip Smith of NSRC/APNIC (Video -- 28 minutes)**

<https://youtu.be/CKYihYxdzJ0>

## 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>

## Other Videos

### 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](https://www.youtube.com/watch?v=nNMNgIk_CvE)

#### **IPv6 – A View from the Edge**

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

### 2017 I2 TechEx IPv6 Solutions Tutorial Videos:

Linked from: <http://ipv6hawaii.org/?p=388>

## 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
  - ChromeOS
- Older OSes may work OK, or not.
- The laptop will need to have an 802.11g or later WiFi interface to connect to the tutorial network.
- Optional: Smartphones 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.

## Software Which May Be Of Interest

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](https://www.wireshark.org/) (https://www.wireshark.org/) may enhance your experience. It should be possible to access the Internet from the Internet2 conference WiFi and install things during the session, if needed.

### 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)

### iPad/iPhone

**Network Utility** by Fausto Ristagno