

IPv6 Experiment and Challenge

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What is the IPv6 Experiment?

- This is an opportunity for everyone to try configuring v6 on their laptops.
- We are making v6 available on the wireless network.
- We are also netcasting the event over v6.

V6 on the wireless

- On the wireless network there are two SSID's:
 - JT-V6
 - JT-V4V6
- As you might imagine the first is an IPv6-only SSID and the second is a dual-stack SSID.

Dual Stack

- The dual stack SSID is there for two reasons.
- One, XP machines cannot do DNS transport on v6.
- Two, Its an opportunity for everyone to see how their machines behave in a dual stack environment.

Nameservice

- The IPv6 nameserver is:
 - 2001:468:140:1::10
- You will need to manually install this in your machine.

Addresses

- All machines will autoconfig on the v6 network.
- On the v6-only network the address will be in 2001:468:140:3::/64.
- On the dual-stack network the address will be in 2001:468:140:1::/64

What's in it for you?

- A chance to try this out?
- If you attach to <http://jointtechs.es.net/IPv6-Reg/> you will be able to register that you reached the site.
- For doing that you will be awarded a t-shirt and an opportunity to win an iPod.
- The iPod was donated by Dave Farmer.

Details

- Get your laptop configured.
 - There will be a help session over lunch on Tuesday.
- Attach to the website and register.
- On Tuesday night at the reception all who have registered will receive their shirts.
- At the reception we will have the drawing for the iPod,
 - You need to be registered for JT's to win; you do not need to be at the reception to win.

IPv6 Challenge

- The Internet2 IPv6 working group believes it is important that the community it represents show leadership in the deployment of IPv6 and in the development of resources to facilitate that deployment.
- The working group is issuing the following challenge to all Internet2-connected sites (presumably ESnet-connected sites already meet the standards).

Challenge - Routing

- Does your site have a prefix obtained from ARIN or other regional registry?
 - If so, is your site IPv6 prefix in the global IPv6 routing table?
- Does your site use a provider assigned prefix?
 - If so, does your organization have a BGP session with its provider and is their prefix in the global routing table?

Challenge - DNS

- Does your site's DNS system support IPv6 transport?
- Are there AAAA records in the DNS system for machines within the organization? If so how many?

Challenge - Web Services

- Do any of the organization's public facing websites have AAAA records and are they accessible via IPv6?
 - Do these web sites use your site's usual domain conventions or was a separate IPv6 domain established?
 - Is the reverse DNS zone delegated and functional for IPv6 addresses?

Challenge - Other

- Can your mail system send and receive mail using IPv6 transport?
- What is the estimated percentage of routed interfaces on your campus network that are IPv6 enabled?
- Is your campus wireless network IPv6 enabled?

Methodology

- A specific IPv6 challenge web site will be established.
- On this website there will be a record of Internet2 members and their challenge status.
- There will be further documentation and, where needed, instructions on specific challenge areas.

Methodology

- There will also be a web form that institutions can complete to provide information about how much of the challenge they have completed.
- Sites that have achieved compliance with all areas will be highlighted

Final Thoughts

- We are asking for you to accept this challenge for your institutions. We understand that this will take some time, effort and investment. But we believe that this is an investment that will serve you well over the next 12 to 18 months.
- We will continue to track and make public results of the challenge.
- Specifics on the web site and other details will be forthcoming.

IPv6 Working Group

- WG meeting scheduled for lunchtime on Wednesday
- Web site: ipv6.internet2.edu
- Subscribe to the WG mailing list (details on the WG web site).