



# *IETF Activities Update*



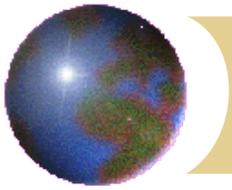
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ARIN XXVII

October 2011

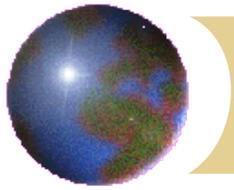
Philadelphia, PA



## *Note*

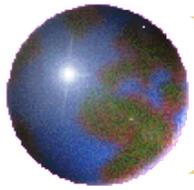
This presentation is not an official IETF report

- ❏ There is no official IETF Liaison to ARIN or any RIR
- ❏ This is all my opinion and my view and I am not covering everything just highlights
- ❏ You should know I like funny quotes
- ❏ I hope you enjoy it
- ❏ Your feedback is greatly appreciated
- ❏ If you were there and have an interesting item I missed please speak up



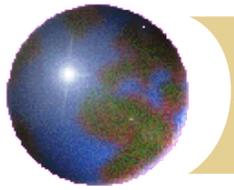
# Highlights

- ✚ draft-gashinsky-v6nd-enhance-00
  - ✚ Interesting draft with old problem enhanced by IPv6 large subnet sizes.
- ✚ Shared Transition Space
- ✚ WHOIS-based Extensible Internet Registration Data Service (WEIRDS)
  - ✚ <http://tools.ietf.org/html/draft-kucherawy-weirds-requirements-01>
- ✚ Most unusual speaker
  - ✚ Blue Cross Blue Shield (wanted IPv6 IP Identification Field change)



# *IEPG – World IPv6 Day updates*

- ✚ AAA records for major sites: were about 250 before, peaked during v6 day and then dropped but higher around 300
- ✚ TCP connection tests - hardly any difference in delays.
- ✚ It's hard to tell if a client does IPv6 because a lot of them will default to v4 if v4 is available.
- ✚ 6 to 4 is a lot slower unless relays are close



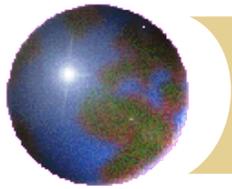
# *ISOC IPv6 Workshop*

- ✦ This was a non-IETF event put on by ISOC.
- ✦ This time topic was “How do we get there from here?”
- ✦ Geoff Huston was the optimist



# *ISOC IPv6 Workshop Quotes*

- ✚ "Installed base has so much inertia that it shrugs off innovation"
- ✚ "There is no enemy besides us".
- ✚ "Carriage providers have always wanted to blackmail content"
- ✚ "we are suffering a success disaster"
- ✚ Seriously though it seems like a chicken and egg problem.
  - ▣ Providers say customers aren't asking for it
  - ▣ Customers say that providers don't have it.



# *Internet Area*

- ✦ Didn't meet in Quebec City

- ✦ Active drafts

- ☒ [draft-ietf-intarea-ipv4-id-update-02](#)

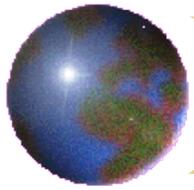
- Updated Specification of the IPv4 ID Field

- ☒ [draft-ietf-intarea-ipv6-required-01](#)

- IPv6 Support Required for all IP-capable nodes

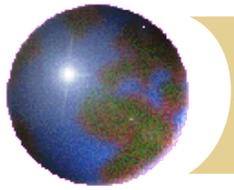
- ☒ [draft-ietf-intarea-router-alert-considerations-10](#)

- IP Router Alert Considerations and Usage



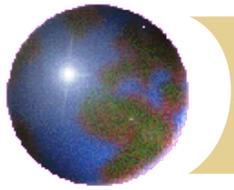
# *Multicast Transition (multitrans)*

- ✚ IPv4-IPv6 Multicast Scenarios-CJ
  - ☒ IPvX to IpvY
  - ☒ IPvX to IPvY then back to IPvX
  - ☒ Scenario where you have a lot of v6 receivers but you're still streaming v4
  - ☒ Mechanisms need to be transparent to senders and receivers



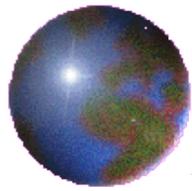
# *RENUM WG*

- ✦ RENUM is now a working group
- ✦ The problem is being broken down into smaller chunks
  - ✦ Enterprise Network Renumbering Scenarios
    - [draft-jiang-6renum-enterprise-00](#)
  - ✦ IPv6 Site Renumbering Gap Analysis
    - [draft-liu-6renum-gap-analysis-01](#)
- ✦ I would like to encourage folks in this community to participate.



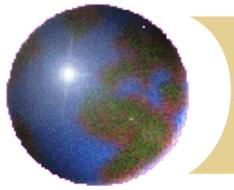
# *Routing Area Working Group*

- ✦ GreenTE: Power-Aware Traffic Engineering
- ✦ Routing Area WG up to date information can be found here
  - ☐ <http://tools.ietf.org/area/rtg>



# *V6 Operations (V6OPS)*

- ✚ Detailed update on World IPv6 Day
  - ☒ A number of drafts on the day
    - draft-jjmb-v6ops-comcast-ipv6-experiences-01.txt
- ✚ IPv6 Day at Microsoft
  - ☒ Their gaming sites are still on v6 (xbox, etc)
  - ☒ 8% are successful on 6to4 (historic status not useful)
  - ☒ Biggest issue is access not fear
  - ☒ MS quote "that would be more towards no than a yes"



# *V6 Operations (V6OPS) Cont*

## ✚ V6 Day notes

- ✚ Hurricane Electric – significant 6to4 traffic

- ✚ Comcast

  - 50% left AAAA record in place

  - 6to4 doubled, native was 6x, 6rd doubled

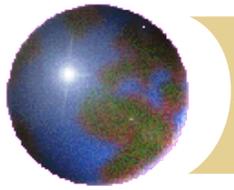
## ✚ IPv6 IP Identification Field

- ✚ Request from BCBS of Michigan

- ✚ IPID used for diagnostics

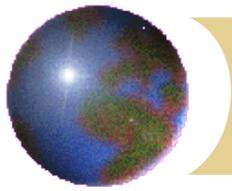
- ✚ 40 different docs in this WG now

- ✚ 30 Updated since last IETF



# *Secure Inter-Domain Routing (sidr)*

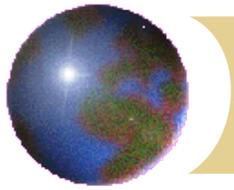
- ✦ There are many drafts under discussion
- ✦ BGPSEC draft is almost complete
- ✦ Several drafts relating to RPKI
- ✦ Several drafts relating to securing BGP
- ✦ <http://tools.ietf.org/wg/sidr/>



# *IPv6 Maintenance WG (6man)*

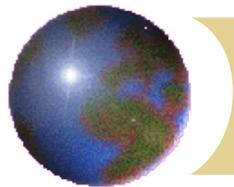
- ✚ RFC3484 is revised – all about how a host picks its default and which address to use v4 or v6
- ✚ Neighbor Un-reachability Detection is too impatient - working group document?
- ✚ IPv6 Router Solicitation Driven Access considered Harmful
- ✚ IPv6 ND Optimization for Energy Aware Devices
- ✚ 6Man Docs available here.

✚ <http://tools.ietf.org/wg/6man/>



# *Ops Area WG*

- ✚ Discussion of shared transition space draft. Consensus was to move it to WGLC after lengthy discussion.
  - ✚ There was a good concern about hosts assuming this block was global and using 6to4. No real answer from crowd
  - ✚ Discussion has continued on the mailing list. Drafts have been updated.

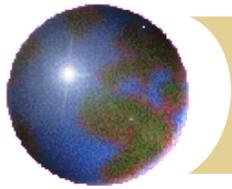


# *DNS Operations (DNSOP)*

✚ This draft draft-michaelson-as112-ipv6-00.txt discusses another interesting scaling problem in IPv6. The IAB asked the IANA to delegate a list of reverse dns zones to keep them local in scope.

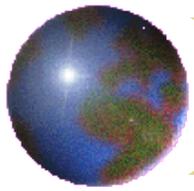
✚ <http://tools.ietf.org/wg/dnsop/>

"there's a difference between being incomplete and being wrong"



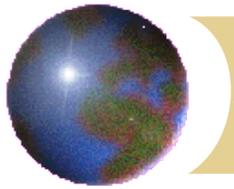
# BEHAVE WG

- ✦ *This group is all about address translation.*
- ✦ *Large Scale NAT Requirements*
- ✦ *NAT64 Discovery Heuristic*
- ✦ *Stateless Source Address Mapping for ICMPv6 Packets*
- ✦ *Revealing hosts sharing an IP addressing using TCP option*
- ✦ *Current info is available here*
  - ✦ <http://tools.ietf.org/wg/behave/>



# *Questions?*





# References

- ⊕ General WG Info:

- ⊞ <http://datatracker.ietf.org/wg/> (**Easiest to use**)

- ⊕ Internet Drafts:

- ⊞ <http://tools.ietf.org/html>

- ⊕ IETF Daily Dose (**quick tool to get an update**):

- ⊞ <http://tools.ietf.org/dailydose/>

- ⊕ Upcoming meeting agenda:

- ⊞ <http://tools.ietf.org/agenda>

- ⊕ Upcoming BOFs Wiki:

- ⊞ <http://tools.ietf.org/bof/trac/wiki>

- ⊕ Also IETF drafts now available as ebooks

- ⊞ <http://www.fenron.net/~fenner/ietf/ietf-ebooks>