IPv4 Soft Landing

David Conrad
IANA (I Am Not Affiliated)
drc@virtualized.org

ARIN XX
Albuquerque, NM

Quiz Time!

You're driving towards an invisible brick wall at 60 MPH, what do you do?

A. Accelerate. It will encourage brick wall removal.

B. Set cruise control and close your eyes. "We'll all hit the wall at once".

C. Slow down. Figure out if maybe getting out of the car makes sense.

Rationale

* 2-5 years of IPv4 left at historic consumption rates
  * See http://www.potaroo.net/tools/ipv4/
* It will probably take longer than that to get significant IPv6 deployment
  * See http://www.civil-tongue.net/clusterf/
* Maybe we should look at slowing down and firmly encouraging transition?

Proposal Summary

Phase	0	1	2	3
IANA free pool threshold (/8s)	~	40	25	10
Most recent utilization (%)	80	80	85	90
Downstream immediate utilization (%)	25	25	50	75
Downstream 1 year utilization (%)	50	50	75	90
Survey response required	N	Y	Y	Y
Non-1918 infrastructure list req'd	N	N	Y	Y
IPv6 plans documented	N	N	Y	Y
Non-1918 infrastructure migration plan	N	N	N	Y
IPv6 availability required	N	N	N	Y

But...

Concern	Response
Anything that prolongs IPv4 delays IPv6	"Running to the cliff" is politically dangerous
Too complicated	Easy as I could make it
Isn't fair (only ARIN)	Will be proposed at others
Isn't fair (ISP vs. end users)	ISPs use vast majority of space. End user version can be proposed.
Arbitrary thresholds	Each aimed at 18 months at current consumption

Response to ARIN Staff Comments

1. "Does this policy also apply to the other ISP additional policies ...?"
   - NPRM 4.5: 4.5.5, yes
   - NPRM 4.2.6: second bullet, yes
2. "Does this policy supersede the ISP additional request policy and any other ISP additional request policies?"
   - Yes
3. "[SWIP & rwhois] should be removed ..."
   - OK
4. "[Template fields] should be removed ..."
   - OK
5. "[ISP vs. End User fairness]"
   - As discussed previously

Conclusion

- Having a longer runway can help prevent the "oopsies"
    - Increased efficiency should lengthen the runway
    - More time to transition
- Break the IPv6 chicken-or-egg problem
- Hopefully will slow down gov't "help"
    - Doing nothing will strongly encourage "help".
    - Is doing nothing stewardship?

Questions?

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