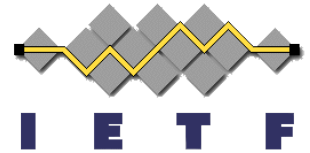# 6to4 Historic

A review of the history of the discussion, in part in response to Keith Moore's appeal
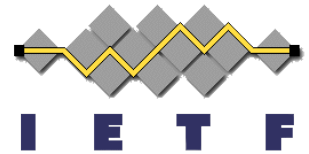
I E T F

Working Group History

- Predecessor:
  - draft-vandevelde-v6ops-harmful-tunnels
  - "Non-Deterministic IPv6 Tunnels considered Harmful"
- v6ops-6to4-historic discussed in working group
  - James Woodyatt requested a date certain for 6to4 shutdown
  - Jordi Palet Martinez and Keith Moore argued against shutdown
  - Predominant discussion: most considered 80% goodput rate (Huston statistics) unacceptable for a normal configuration.
  - There was not a consensus on active shutdown.

Eventual Working Group Outcome

- Paper recommended that CPEs (hosts and routers) that implement 6to4 default it *off,* and declare the protocol to be historic ("considered to be obsolete")

- *"*Obsolete" in English can mean **"no longer used"**; as the IETF uses the term, it is closer to Merriam-Webster's second definition: **"vestigial"** or **"not recommended for use".** Example: RIPv1, NAT-PT, and protocols that have been changed are all in use, but not recommended by the IETF

- *If 6to4 is implemented, nothing prevents a user from turning it on by choice.*

Known product outcomes

- BSD already had 6to4 disabled by default
- MacOSX changed address choice behavior to prefer IPv4 over 6to4
- Linksys changed 6to4 setting to disabled by default
- Several vendors requested an IETF statement regarding this, as it gives them air cover if they decide to remove the code.
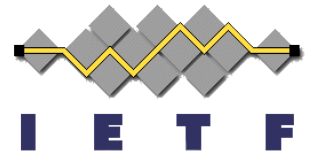
IESG/IETF Last Call Discussion
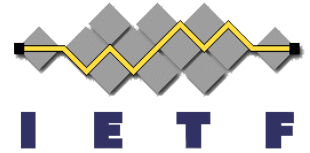
- If you don't know, don't ask ☺
  - Active discussion during last call
  - Amplification of the WG minority view
- A "discuss" has been placed by Pete Resnick, who is concerned about the strength of consensus
- Ron Bonica has also suggested making RFCs 3056/3068 "experimental"

Ron Bonica to IETF 25 July
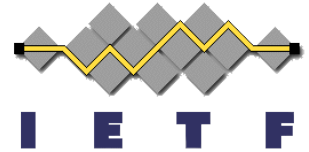
- After some discussion, the IESG is attempting to determine whether there is IETF consensus to do the following:
  - Add a new section to draft-ietf-v6ops-6to4-to-historic
  - Publish draft-ietf-v6ops-6to4-to-historic as INFORMATIONAL

- draft-ietf-v6ops-6to4-to-historic will obsolete RFCs 3056 and 3068 and convert their status to HISTORIC. It will also contain a new section describing what it means for RFCs 3056 and 3068 to be classified as HISTORIC. The new section will say that:

  - 6-to-4 should not be configured by default on any implementation (hosts, cpe routers, other)

  - Vendors will decide whether/when 6-to-4 will be removed from implementations. Likewise, operators will decide whether/when 6-to-4 relays will be removed from their networks. The status of RFCs 3056 and 3068 should not be interpreted as a recommendation to remove 6-to-4 at any particular time.
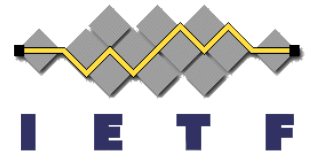
Ron Bonica, continued

- draft-ietf-v6ops-6to4-to-historic will not update RFC 2026. While it clarifies the meaning of "HISTORIC" in this particular case, it does not set a precedent for any future case.

- Please post your views on this course of action by August 8, 2011.