

# draft-perreault-sunset4-noipv4-01

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IETF 85, Atlanta  
SUNSET4 meeting

2012-11-05

# A Reminder of What This is About

- A new DHCPv6 option that tells the client that IPv4 is not available.
- Contains an integer “level” of IPv4 availability with semantics defined in the draft.

# From -00 to -01

- Feedback from Vancouver was addressed:
  - What problems are we trying to fix?
    - Load on DHCPv4 server.
    - Bandwidth consumption.
    - Power inefficiency.
  - Split “v4-level” value 1 in two:
    - 1: No IPv4 upstream (nothing is said about downstream) (NEW!)
    - 2: No IPv4 upstream, local IPv4 restricted (only loopback, link-local, and RFC1819 are allowed) (Was level 1 before.)
  - Added section analyzing the need for an equivalent DHCPv4 option.

# Analysis of Equivalent DHCPv4 Option

- + Devices that don't speak IPv6 won't do DHCPv6.
  - But they won't ask for the DHCPv4 option either.
    - + But that's easier to implement than IPv6.
- When there are devices that don't speak IPv6, that means IPv4 shouldn't be turned off.
- The goal is to turn off IPv4, so maintaining a DHCPv4 infrastructure is counter-productive.
  - + But it could just be a minimal DHCPv4 server in the routers.
- Turning off IPv4 with an IPv4-transported signal means there's no way to go back.

# DHCPv4 Option: Conclusion

- Need for DHCPv4 is not clear.
- Not defined in current draft.

# Idea

- Provide these semantics: “IPv4 is available, but you really don't need it if you can do IPv6.”
  - e.g. when NAT64 is provided on a dual-stack network
- Does this need a new signal?
  - Since the client behaviour will be the same, proposed signals could be sufficient.

# Next Steps

- Adopt as WG draft?
- Future direction?