

# **IPv6 Support Within IETF work**

## **draft-george-ipv6-support-01**

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# Abstract

- This document recommends that IETF formally require its standards work to
  - be IP version agnostic
  - or to explicitly include support for IPv6,
  - with some exceptions.
- It recommends that future IPv4 work be limited to solving documented operational problems identified through deployment experience.

# Motivations

- Formally declaring IPv4 “baked” allows IETF and the industry to focus on IPv6
  - Parallel development and maintenance (IPv4 + IPv6) requires more resources
- Reinforce the idea that:
  - IPv4-extension is a temporary solution
  - IPv6 is not optional
  - Eventually, new features might be IPv6-only

# Ramifications

- IETF documents should only be IPv4-specific if:
  - Vital operational or security issues *exist*
    - E.g., draft-xx-problem-statement has consensus
    - No other solution exists
  - The work helps transition to IPv6
- Otherwise, IETF documents should be IP version neutral, or IPv6-specific

# Highlights

- IETF SHOULD continue to update IPv4-only protocols and features to address vital operational or security issues.
- IETF work SHOULD update existing IPv4 to IPv6 transition and interworking technologies as necessary to address operational problems encountered during the implementation phase.
- IETF work SHOULD continue to make updates to IPv4 protocols and features to facilitate IPv4 decommissioning
- IETF work that is not related to the above exceptions MUST be IP version agnostic (because it is implemented above the network layer) or MUST explicitly support IPv6.
- IETF SHOULD NOT initiate new IPv4 extension technology development.

# Sunset4 Charter

The working group will provide a single venue for the consideration of IPv4 sunsetting, while ensuring that any such technologies do not impede the deployment of IPv6 and do not duplicate functions and capabilities already available in existing technologies.

Therefore, along the lines of [draft-george-ipv6-support](#), before the working group adopts any technology, it must:

- 1) describe the problem to be solved and show that there is widespread demand for a solution
- 2) demonstrate that the problem can not be solved with existing technologies
- 3) provide a description of the proposed solution along with the impact on current IPv4-only use and its ability to promote the deployment of IPv6

# Discussion

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- Adopt as WG doc?
- Ready for WGLC?