Network Working Group
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IPv4 Declared Historic
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Abstract

IPv4 has been superseded by IPv6, and is therefore Historic.

Status of This Memo

This Internet-Draft is submitted in full conformance with the provisions of BCP 78 and BCP 79.

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This Internet-Draft will expire on September 15, 2016.

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Table of Contents

1. Introduction

According to [RFC2026], "The Internet Standards Process":

> 4.2.4 Historic
>
> A specification that has been superseded by a more recent specification or is for any other reason considered to be obsolete is assigned to the "Historic" level.
>
> Note: Standards track specifications normally must not depend on other standards track specifications which are at a lower maturity level or on non standards track specifications other than referenced specifications from other standards bodies. (See Section 7.)

IPv4 [RFC791] has been superseded by the more recent IPv6 specification [RFC2460bis]. The IPv6 document specifically says, "IP version 6 (IPv6) is a new version of the Internet Protocol, designed as the successor to IP version 4 (IPv4) [RFC791]."

RFC791 is therefore Historic.

IPv4 has inherent limitations which can not be mitigated; the IETF has therefore developed a new protocol without these limitations. Current and future work builds on IPv6, making it better for every purpose than the old protocol.

The use of IPv4 is deprecated. The term "deprecated" is used to indicate a feature, characteristic, or practice that should be avoided, in this case because it is being superseded by a newer protocol. The term does not indicate that the practice is harmful, but that there will be no further development in IPv4, and therefore those using the old version are advised to transition to the newer version.

2. Implications

Moving an Internet Standard to the Historic maturity level does not mean that it cannot be used. It does mean that any Standards Track RFC with a Normative reference to RFC791 is Historic. This is appropriate: any RFC defining IPv4 options is Historic.

In addition, some RFCs that refer to RFC791, such as [RFC1035] "DOMAIN NAMES - IMPLEMENTATION AND SPECIFICATION" which defines A and IN-ADDR.ARPA, will be Updated By this document, but are not Historic. Other documents with incidental references to RFC791 should not be affected. Documents requiring updates are appropriate for [draft-ietf-sunset4-gapanalysis].

The IETF does not update Historic RFCs. Therefore, the IETF will no longer work on IPv4 technologies, including transition technologies.

The term "IP," without address family specified, is assumed to mean "IPv6."

3. Security Considerations

It is possible that bugs inherent to IPv4 will yet be discovered. Being Historic, the IETF will not further update IPv4. Therefore, for security reasons, the use of IPv6 exclusively is recommended.

4. IANA Considerations

This document does not direct IANA to alter its processes for allocating IPv4 addresses according to its processes. This is unlikely to be a significant activity for long.

5. Acknowledgements

6. References

6.1. Normative References

[RFC791], Postel, J., "Internet Protocol", September 1981.

[RFC2460bis], Deering, S., and Hinden, R., "Internet Protocol, Version 6 (IPv6) Specification", January 2016.

[RFC2026], Bradner, S., "The Internet Standards Process", October 1996.

[draft-ietf-6man-rfc2460bis] Deering, S. and R. Hinden, "Internet Protocol, Version 6 (IPv6) Specification", November 2015.

6.2. Informative References

[RFC1035], Mockapetris, P., "DOMAIN NAMES - IMPLEMENTATION AND SPECIFICATION", November 1987.

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