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Formally Deprecating Some ICMPv4 Message Types

Abstract

A number of ICMPv4 message types have become obsolete in practice, but have never been formally deprecated. This document deprecates such ICMPv4 message types, thus cleaning up the corresponding IANA registry. Additionally, it updates RFC 792 and RFC 950, obsoletes RFC 1788, and requests the RFC Editor to change the status of RFC 1788 to Historic.

Status of This Memo

This is an Internet Standards Track document.

This document is a product of the Internet Engineering Task Force (IETF). It represents the consensus of the IETF community. It has received public review and has been approved for publication by the Internet Engineering Steering Group (IESG). Further information on Internet Standards is available in Section 2 of RFC 5741.

Information about the current status of this document, any errata, and how to provide feedback on it may be obtained at http://www.rfc-editor.org/info/rfc6918.

Table of Contents

1. Introduction

A number of ICMPv4 [RFC0792] message types have been specified over the years. A number of these message types have become obsolete in practice, but have never been formally deprecated. This document deprecates such ICMPv4 message types, "cleaning up" the corresponding IANA registry. Additionally, it updates RFC 792 and RFC 950, obsoletes RFC 1788, and requests the RFC Editor to change the status of RFC 1788 to Historic.

Section 2 discusses each of the obsoleted ICMPv4 messages. Section 4 requests the RFC Editor to change the status of RFC 1788 to Historic.

2. Discussion of Deprecated ICMPv4 Message Types

The following subsections discuss the details of those ICMPv4 message types being deprecated, based on publicly available information and/or information provided by the requester of the corresponding assignment.

2.1. Alternate Host Address (Type 6)

There is no publicly available information about this message type.

2.2. Information Request (Type 15)

This message type is specified in [RFC0792]. However, other mechanisms (such as DHCP [RFC2131]) have superseded this message type for the purpose of host configuration.

2.3. Information Reply (Type 16)

This message type is specified in [RFC0792]. However, other mechanisms (such as DHCP [RFC2131]) have superseded this message type for the purpose of host configuration.

2.4. Address Mask Request (Type 17)

This message type is specified in [RFC0950] and was meant to provide a means to obtain the subnet mask. However, other mechanisms (such as DHCP [RFC2131]) have superseded this message type for the purpose of host configuration.

2.5. Address Mask Reply (Type 18)

This message type is specified in [RFC0950] and was meant to provide a means to obtain the subnet mask. However, other mechanisms (such as DHCP [RFC2131]) have superseded this message type for the purpose of host configuration.

2.6. Traceroute (Type 30)

This message type is specified in [RFC1393] and was meant to provide an alternative means to discover the path to a destination system. This message type has never been widely deployed. The status of [RFC1393] has been changed to Historic by [RFC6814], and the corresponding option this message type relies on (Traceroute, Type 82) has been formally obsoleted by [RFC6814].

2.7. Datagram Conversion Error (Type 31)

This message type was originally meant to report conversion errors in the TP/IX [RFC1475] protocol. However, TP/IX was never widely implemented or deployed, and the status of [RFC1475] is Historic.

2.8. Mobile Host Redirect (Type 32)

This message type was originally specified as part of an experimental protocol for IP Mobile Hosts [CMU-MOBILE]. However, it was never widely implemented or deployed.

2.9. IPv6 Where-Are-You (Type 33)

This message type was originally specified in [SIMPSON-DISCOV] for the purpose of identification of adjacent IPv6 nodes. It was never widely deployed or implemented.

2.10. IPv6 I-Am-Here (Type 34)

This message type was originally specified in [SIMPSON-DISCOV] for the purpose of identification of adjacent IPv6 nodes. It was never widely deployed or implemented.

2.11. Mobile Registration Request (Type 35)

This message type was originally meant for transparent routing of IPv6 datagrams to Mobile Nodes [SIMPSON-MOBILITY]. It was never widely deployed or implemented.

2.12. Mobile Registration Reply (Type 36)

This message type was originally meant for transparent routing of IPv6 datagrams to Mobile Nodes [SIMPSON-MOBILITY]. It was never widely deployed or implemented.

2.13. Domain Name Request (Type 37)

This message type was originally specified in [RFC1788] for the purpose of learning the Fully Qualified Domain Name associated with an IP address. This message type was never widely deployed or implemented.

2.14. Domain Name Reply (Type 38)

This message type was originally specified in [RFC1788] for the purpose of learning the Fully Qualified Domain Name associated with an IP address. This message type was never widely deployed or implemented.

2.15. SKIP (Type 39)

This message type was originally specified in [SKIP-ADP] for informing supported capabilities in the SKIP [SKIP] protocol. This message type was never widely deployed or implemented.

3. IANA Considerations

The "Internet Control Message Protocol (ICMP) Parameters" registry [IANA-ICMP] contains the list of the currently assigned ICMP message Types.

This document formally deprecates the following ICMP message Types and requests IANA to mark them as such in the corresponding registry [IANA-ICMP]:

- Alternate Host Address (Type 6)
- Information Request (Type 15)
- Information Reply (Type 16)
- Address Mask Request (Type 17)
- Address Mask Reply (Type 18)
- Traceroute (Type 30)
- Datagram Conversion Error (Type 31)
- Mobile Host Redirect (Type 32)
- IPv6 Where-Are-You (Type 33)
- IPv6 I-Am-Here (Type 34)
- Mobile Registration Request (Type 35)
- Mobile Registration Reply (Type 36)
- Domain Name Request (Type 37)

- Domain Name Reply (Type 38)

- SKIP (Type 39)

The ICMPv4 Source Quench Message (Type 4) has already been deprecated by [RFC6633].

4. Changing the Status of RFC 1788 to Historic

This document requests the RFC Editor to change the status of [RFC1788] to Historic.

Both [RFC1385] and [RFC1393] already have a status of Historic. The status of other RFCs (such as [RFC0792] and [RFC0950]) is not changed since other parts of these documents are still current.

5. Security Considerations

This document does not modify the security properties of the ICMPv4 message types being deprecated. However, formally deprecating these message types serves as a basis for, e.g., filtering these packets.

6. Acknowledgments

The authors would like to thank Ron Bonica and Joel Halpern for their guidance.

7. References

7.1. Normative References

[RFC0792] Postel, J., "Internet Control Message Protocol", STD 5, RFC 792, September 1981.

[RFC6814] Pignataro, C. and F. Gont, "Formally Deprecating Some IPv4 Options", RFC 6814, November 2012.

7.2. Informative References

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[RFC0950] Mogul, J. and J. Postel, "Internet Standard Subnetting Procedure", STD 5, RFC 950, August 1985.

[RFC1385] Wang, Z., "EIP: The Extended Internet Protocol", RFC 1385, November 1992.

[RFC1393] Malkin, G., "Traceroute Using an IP Option", RFC 1393, January 1993.

[RFC1475] Ullmann, R., "TP/IX: The Next Internet", RFC 1475, June 1993.

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[SKIP] Aziz, A., Markson, T., and H. Prafullchandra, "Simple Key-Management For Internet Protocols (SKIP)", Work in Progress, December 1995.

[SKIP-ADP] Aziz, A., Markson, T., and H. Prafullchandra, "SKIP Algorithm Discovery Protocol", Work in Progress, December 1995.

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