Formally Deprecating some IPv4 Options
draft-gp-intarea-obsolete-ipv4-options-iana-01

Abstract

   A number of IPv4 options have become obsolete in practice, but have
   never been formally deprecated. This document deprecates such IPv4
   options, thus cleaning up the corresponding IANA registry, and
   serving as a basis for providing advice about the filtering of
   packets containing these options. Additionally, it requests that the
   status of the corresponding RFCs be changed to "Historic".

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1. Introduction

The Internet Protocol version 4 (IPv4) [RFC0791] provides for
expansion of the protocol by supporting a number of "options" in the
variable-length IPv4 header. IPv4 options are identified by an
option "type" value, whose registration is managed by IANA [IANA-IP].
A number of IPv4 options have become obsolete in practice, but have
never been formally deprecated. This document deprecates such IPv4
options, "cleaning up" the corresponding IANA registry.

2. Discussion of Deprecated Options

The following subsections discuss the details of options being
deprecated, and no other reference information has been found.

2.1. Stream ID

The Stream ID option is obsolete. It is specified in RFC 791
[RFC0791], and deprecated in Section 3.2.1.8 of RFC 1122 [RFC1122]
and Section 4.2.2.1 of RFC 1812 [RFC1812].

2.2. Extended Internet Protocol

The Extended Internet Protocol option is defined in [RFC1385], and is
superseded by [RFC2460].

2.3. Traceroute

The Traceroute option is defined in [RFC1393]. The Traceroute option
is defined as "experimental" and it was never widely deployed on the
public Internet.

2.4. ENCODE

This option was used for experimentation around IP-layer encryption.
No products are known to ever have shipped with support for this
option.

2.5. VISA

This option was part of an experiment [VISA87] [VISA89] at USC and
was never widely deployed.

2.6. Address Extension

The Address Extension option is defined in the Experimental
[RFC1475], and marked as IPv7.

2.7. Selective Directed Broadcast

   The Selective Directed Broadcast option is originally defined in
   [RFC1770].

2.8. Dynamic Packet State

   The Dynamic Packet State option was specified in
   [I-D.stoica-diffserv-dps]. The aforementioned document was meant to
   be published as "Experimental", but never became an RFC.

2.9. Upstream Multicast Pkt.

   This option was originally specified in [draft-farinacci-bidir-pim].
   Its use was deprecated by [RFC5015], which employs a control plane
   mechanism to solve the problem of doing upstream forwarding of
   multicast packets on a multi-access LAN.

3. IANA Considerations

   The "IP OPTION NUMBERS" registry [IANA-IP] contains the list of the
   currently assigned IP option numbers. This registry also denotes an
   deprecated IP Option Number by marking it with a single asterisk
   ("*").

   This document formally deprecates the following options, and requests
   IANA to mark them as such in the corresponding registry [IANA-IP].

```
Copy Class Number Value Name                            Reference
---- ----- ------ ----- ------------------------------- ------------
   1     0      8   136 SID    - Stream ID               [RFC791,JBP]*
   1     0     14   142 VISA   - Expermental Access Control [Estrin]*
   0     0     15    15 ENCODE - ???                        [VerSteeg]*
   1     0     17   145 EIP    - Extended Internet Protocol[RFC1385]*
   0     2     18    82 TR     - Traceroute                 [RFC1393]*
   1     0     19   147 ADDEXT - Address Extension    [Ullmann IPv7]*
   1     0     21   149 SDB    - Selective Directed Broadcast[Graff]*
   1     0     23   151 DPS    - Dynamic Packet State       [Malis]*
   1     0     24   152 UMP    - Upstream Multicast Pkt. [Farinacci]*
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   The IP Options "MTU Probe" (MTUP, value 11) and "MTU Reply" (MTUR,
   value 12) initially defined in [RFC1063] have already been deprecated
   by [RFC1191].

4. Changing the status of the corresponding RFCs to Historic

   This document requests the RFC Editor to change the status of
   [RFC1385] and [RFC1393] to "Historic".

5. Security Considerations

   This document does not modify the security properties of the IPv4
   Options being deprecated. However, formally deprecating these
   options serves as a basis for e.g. providing advice about filtering
   packets containing these options (as in
   [I-D.ietf-opsec-ip-options-filtering]).

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   for providing insights on some of the options being formally
   deprecated by this document.

7. References

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Authors' Addresses

    Carlos Pignataro
    Cisco Systems
    7200-12 Kit Creek Road
    Research Triangle Park, NC 27709
    US

    Email: cpignata@cisco.com

    Fernando Gont
    UTN-FRH / SI6 Networks
    Evaristo Carriego 2644
    Haedo, Provincia de Buenos Aires 1706
    Argentina

    Phone: +54 11 4650 8472
    Email: fgont@si6networks.com
    URI: http://www.si6networks.com