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G. Huston
APNIC
M. Cotton
L. Vegoda
ICANN

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# IANA IPv4 Special Purpose Address Registry

## Abstract

This is a direction to IANA concerning the creation and management of the IANA IPv4 Special Purpose Address Registry.

## Status of This Memo

This document is not an Internet Standards Track specification; it is published for informational purposes.

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). Not all documents approved by the IESG are a candidate for any level of Internet Standard; see 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/rfc5736.

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## 1. Introduction

This is a direction to [IANA] concerning the creation and management of the IANA IPv4 Special Purpose Address Registry. The registry will be used for recording IETF protocol assignments from 192.0.0.0/24 and any other address prefixes allocated to the registry in the future, as described in Section 3.

## 2. IANA IPv4 Special Purpose Address Block

[RFC5735] records the assignment of an IPv4 address prefix to IANA for IETF protocol assignments.

> 192.0.0.0/24 - This block is reserved for IETF protocol assignments.

This address allocation to IANA is intended to support IETF protocol assignments. A more general view of the roles of IANA with respect to address allocation functions is documented in [RFC2860]:

> 4.3. [...] Note that [...] (b) assignments of specialised address blocks (such as multicast or anycast blocks), and (c) experimental assignments are not considered to be policy issues, and shall remain subject to the provisions of this Section 4. (For purposes of this MOU, the term "assignments" includes allocations.)

The reference to Section 4 here is to the general technical work for the IANA as described in [RFC2860]:

> 4.1. The IANA will assign and register Internet protocol parameters only as directed by the criteria and procedures specified in RFCs, including Proposed, Draft, and full Internet Standards and Best Current Practice documents, and any other RFC that calls for IANA assignment.

This document directs IANA to designate special purpose address blocks in compliance with [RFC2860].

This document directs IANA to open an IPv4 Special Purpose Address Registry for the management of these IANA-designated address blocks. Special Purpose registrations to be made from this registry include addresses for IETF protocol assignments and other special purpose cases, as documented in IESG-reviewed RFCs, according to the provisions described in Section 4.1 of [RFC2860].

## 3. IANA Considerations

IANA maintains an "IANA IPv4 Special Purpose Address Registry". The registry records current IANA address designations from the IANA-managed IPv4 Special Purpose address pool.

This recommendation concerns the management of the address pool used for IETF protocol assignments as documented in [RFC5735] -- namely, 192.0.0.0/24. Following the policies outlined in [RFC5226], further assignments of address space to IANA for subsequent designation of address prefixes for the purposes listed here shall be undertaken only through an IETF Review action.

IANA may make Special Purpose address designations to support testing or experimental usage activities initiated by the IETF, or for specialised use of a designated address block in a context (e.g., anycast) associated with an Internet Standards Track protocol. All such address designations must be documented in the "IANA Considerations" section of an IESG-reviewed RFC.

The IANA IPv4 Special Purpose Address Registry records, for all current address designations undertaken by IANA:

1. The designated address prefix.

2. The RFC that called for the IANA address designation.

3. The date the designation was made.

4. The date the use designation is to be terminated (if specified as a limited-use designation).

5. The nature of the purpose of the designated address (e.g., unicast experiment or protocol service anycast).

6. For experimental unicast applications and otherwise as appropriate, the registry will also identify the entity and related contact details to whom the address designation has been made.

7. The registry will also note, for each designation, the intended routing scope of the address, indicating whether the address is intended to be routable only in scoped, local, or private contexts, or whether the address prefix is intended to be routed globally.

8. The date in the IANA registry is the date of the IANA action, i.e., the day IANA records the allocation.

The IANA registry notes, as a general comment, that address prefixes listed in the IPv4 Special Purpose Address Registry are not guaranteed routability in any particular local or global context.

IANA will not maintain further sub-registries for any IPv4 Special Purpose address block designated according to this direction.

## 4. Security Considerations

Security of the Internet’s routing system relies on the ability to authenticate an assertion of unique control of an address block. Measures to authenticate such assertions rely on validation that the address block forms part of an existing allocated address block, and that there is a trustable and unique reference in the IANA address registries.

This registry is intended to provide an authoritative source of information regarding the currency and intended purpose of IPv4 Special Purpose address blocks that are designated from the IANA-administered IPv4 Special Purpose address pool. This is a small step towards the creation of a comprehensive registry framework that can be used as a trust point for commencing a chain of address validation. Consideration should be given to the use of file signatures and associated certificate mechanisms to allow applications to confirm that the registry contents are current, and that they have been published by the IANA.

## 5. Acknowledgements

This document is based on [RFC4773], which was prepared with the assistance of Leslie Daigle, Brian Haberman, Bob Hinden, David Kessens, Kurt Lindqvist, Thomas Narten, and Paul Wilson. While all these individuals were not explicitly consulted in the preparation of this document, their original contribution is acknowledged here.

## 6. Informative References

[IANA] IANA, "IANA Matrix for Protocol Parameter Assignment/ Registration Procedures", <http://www.iana.org/numbers.html>.

[RFC2860] Carpenter, B., Baker, F., and M. Roberts, "Memorandum of Understanding Concerning the Technical Work of the Internet Assigned Numbers Authority", RFC 2860, June 2000.

[RFC4773] Huston, G., "Administration of the IANA Special Purpose IPv6 Address Block", RFC 4773, December 2006.

[RFC5226] Narten, T. and H. Alvestrand, "Guidelines for Writing an IANA Considerations Section in RFCs", BCP 26, RFC 5226, May 2008.

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## Authors' Addresses

Geoff Huston
Asia Pacific Network Information Centre
PO Box 2131
Milton, QLD 4064
Australia

Phone: +61-7-3858-3100
EMail: gih@apnic.net
URI: http://www.apnic.net/

Michelle Cotton
Internet Corporation for Assigned Names and Numbers
4676 Admiralty Way, Suite 330
Marina del Rey, CA 90292-6601
USA

Phone: +1-310-823-9358
EMail: michelle.cotton@icann.org
URI: http://www.iana.org/

Leo Vegoda
Internet Corporation for Assigned Names and Numbers
4676 Admiralty Way, Suite 330
Marina del Rey, CA 90292-6601
USA

Phone: +1-310-823-9358
EMail: leo.vegoda@icann.org
URI: http://www.iana.org/