

Making special better

Pearl Liang
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History

- + IANA IPv6 special registry created for IETF assignments from a dedicated /23
- + IPv4 special assignments were documented in RFC 3330 until a dedicated /24 was allocated and a registry created
- + Staff discussed updating the RFC with ADs but restructuring the registry was proposed instead

In the olden days

- + Focus on which prefixes were special
 - + Not why they were special
 - + Not exactly how they were special
 - + Not all prefixes listed
- + Like a reading list rather than a set of answers

Here's an example of the old registry structure

IANA IPv6 Special Purpose Address Registry

Reference

[\[RFC4773\]](#)

Note

Address prefixes listed in the Special Purpose Address Registry are not guaranteed routability in any particular local or global context. Other special IPv6 addresses requiring specific considerations for global routing are listed in [\[RFC5156\]](#).

Registration Procedures

IETF Consensus

Prefix <input type="checkbox"/>	Assignment <input type="checkbox"/>	Date Designated <input type="checkbox"/>	Termination Date <input type="checkbox"/>	Purpose <input type="checkbox"/>	Contact Details <input type="checkbox"/>	Routing Scope <input type="checkbox"/>	Reference <input type="checkbox"/>
2001:0000::/32	TEREDO	2006-01-10		Anycast		Scoped	[RFC4380]
2001:0002::/48	BMWG	2008-04-08	never	Benchmarking	See RFC and Errata	Not Routed	[RFC5180]
2001:10::/28	ORCHID	2007-03-21	2014-03-21	Overlay	See RFC	Not Routed	[RFC4843]

Nowadays... (1 of 2)

- + All special prefixes are listed
- + The registry now usefully shows Boolean information about whether an address can be a:
 - + Source address or a
 - + Destination address

Nowadays... (2 of 2)

- + Whether routers may forward packets with a destination address in a special prefix
- + Whether the address is globally scoped
- + Whether all compliant stacks have to behave this way “Reserved by protocol”

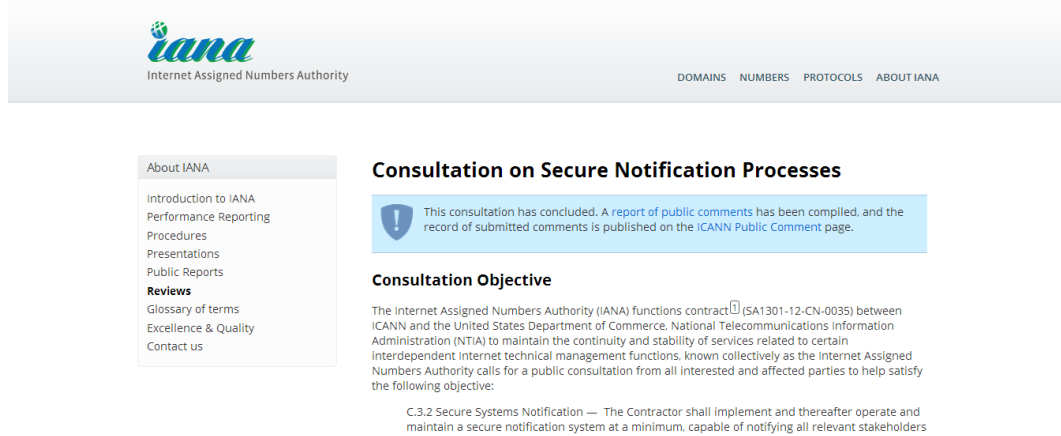
The new and improved structure

Address Block	Name	RFC	Allocation Date	Termination Date	Source	Destination	Forwardable	Global	Reserved-by-Protocol
0.0.0.0/8	"This host on this network"	RFC1122 , section 3.2.1.3	September 1981	N/A	True	False	False	False	True
10.0.0.0/8	Private-Use	RFC1918	February 1996	N/A	True	True	True	False	False
100.64.0.0/10	Shared Address Space	RFC6598	April 2012	N/A	True	True	True	False	False
127.0.0.0/8	Loopback	RFC1122 , section 3.2.1.3	September 1981	N/A	False ^[1]	False ^[1]	False ^[1]	False ^[1]	True
169.254.0.0/16	Link Local	RFC3927	May 2005	N/A	True	True	False	False	True
172.16.0.0/12	Private-Use	RFC1918	February 1996	N/A	True	True	True	False	False
192.0.0.0/24 ^[2]	IETF Protocol Assignments	RFC6890 , section 2.1	January 2010	N/A	False	False	False	False	False
192.0.0.0/29	DS-Lite	RFC6333	June 2011	N/A	True	True	True	False	False
192.0.0.170/32, 192.0.0.171/32	NAT64/DNS64 Discovery	RFC-ietf-behave-nat64-discovery-heuristic-17 , section 2.2	February 2013	N/A	False	False	False	False	True
192.0.2.0/24	Documentation (TEST-NET-1)	RFC5737	January 2010	N/A	False	False	False	False	False
192.88.99.0/24	6to4 Relay Anycast	RFC3068	June 2001	N/A	True	True	True	True	False
192.168.0.0/16	Private-Use	RFC1918	February 1996	N/A	True	True	True	False	False
198.18.0.0/15	Benchmarking	RFC2544	March 1999	N/A	True	True	True	False	False
198.51.100.0/24	Documentation (TEST-NET-2)	RFC5737	January 2010	N/A	False	False	False	False	False
203.0.113.0/24	Documentation (TEST-NET-3)	RFC5737	January 2010	N/A	False	False	False	False	False
240.0.0.0/4	Reserved	RFC1112 , section 4	August 1989	N/A	False	False	False	False	True
255.255.255.255/32	Limited Broadcast	RFC919 , section 7	October 1984	N/A	False	True	False	False	False

Consultation on notification

We are developing a notification engine that will allow notifications to be sent using different mechanisms

Mechanisms might include e-mail, RSS/Atom feeds and even Twitter



The screenshot shows the IANA website header with the logo and navigation links (DOMAINS, NUMBERS, PROTOCOLS, ABOUT IANA). Below the header is a sidebar menu with the following items: About IANA, Introduction to IANA, Performance Reporting, Procedures, Presentations, Public Reports, Reviews, Glossary of terms, Excellence & Quality, and Contact us. The main content area features a blue box with a shield icon and the text: "This consultation has concluded. A report of public comments has been compiled, and the record of submitted comments is published on the ICANN Public Comment page." Below this is the section "Consultation Objective" with the text: "The Internet Assigned Numbers Authority (IANA) functions contract (SA1301-12-CN-0035) between ICANN and the United States Department of Commerce, National Telecommunications Information Administration (NTIA) to maintain the continuity and stability of services related to certain interdependent Internet technical management functions. Known collectively as the Internet Assigned Numbers Authority calls for a public consultation from all interested and affected parties to help satisfy the following objective: C.3.2 Secure Systems Notification — The Contractor shall implement and thereafter operate and maintain a secure notification system at a minimum, capable of notifying all relevant stakeholders".

Future better

- + A notifications service is coming and it will let you know about registry changes and when to pull a new copy to update filters
- + We want to make something better than word of mouth
- + Hope that helps!

Thank You &
Questions?



pearl.liang@icann.org or leo.vegoda@icann.org