

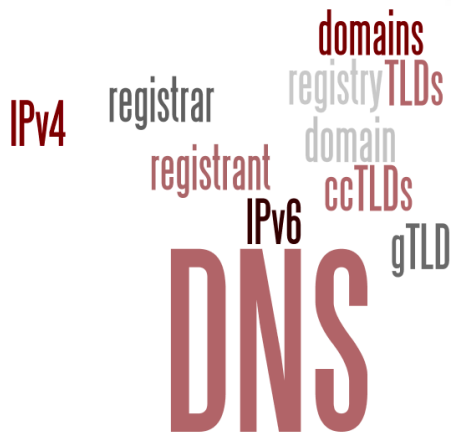


IPv6 is spreading from the centre

Elise Gerich
VP for IANA

IPv6 deployment as seen in DNS

ICANN has a particular interest in the security and stability of the DNS, so I will focus on IPv6 deployment in that context

A word cloud graphic with the word "DNS" in large, bold, dark red letters at the bottom. Above it, in smaller, lighter red and grey letters, are the words "IPv4", "registrar", "registrant", "domains", "registry", "TLDs", "domain", "ccTLDs", "IPv6", and "gTLD". The words are arranged in a cluster, with "DNS" being the most prominent.

IPv4 registrar registrant domains registry TLDs domain ccTLDs IPv6 gTLD
DNS

IPv6 glue for TLDs

2004

IPv6 glue was first added for TLDs in the root zone in July 2004

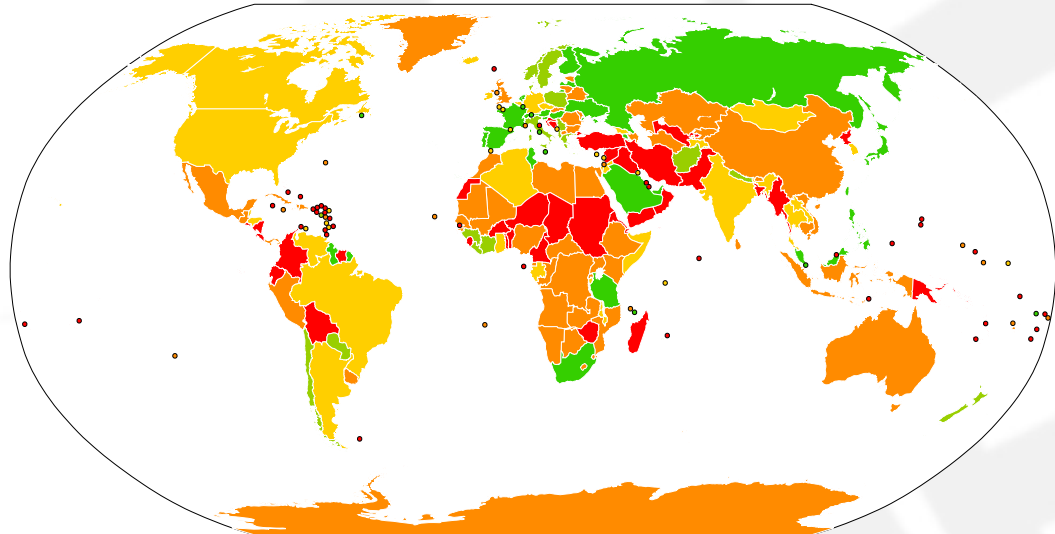
The .JP and .KT TLDs were the first to have IPv6 glue in the root zone in July 2004.

There were 292 glue records in the root zone in early January 2011.

Measuring the network diversity of TLDs' nameservers

2010

IPv6 glue is much more common now and so we measure the diversity of IPv6 connectivity rather than marvel at its existence



IPv6 for root DNS servers

2008

IPv6 glue was first added for root DNS servers in January 2008

9 root DNS servers have IPv6 glue in January 2010



Internet Assigned Numbers Authority

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IPv6 Addresses for the Root Servers

29 January 2008

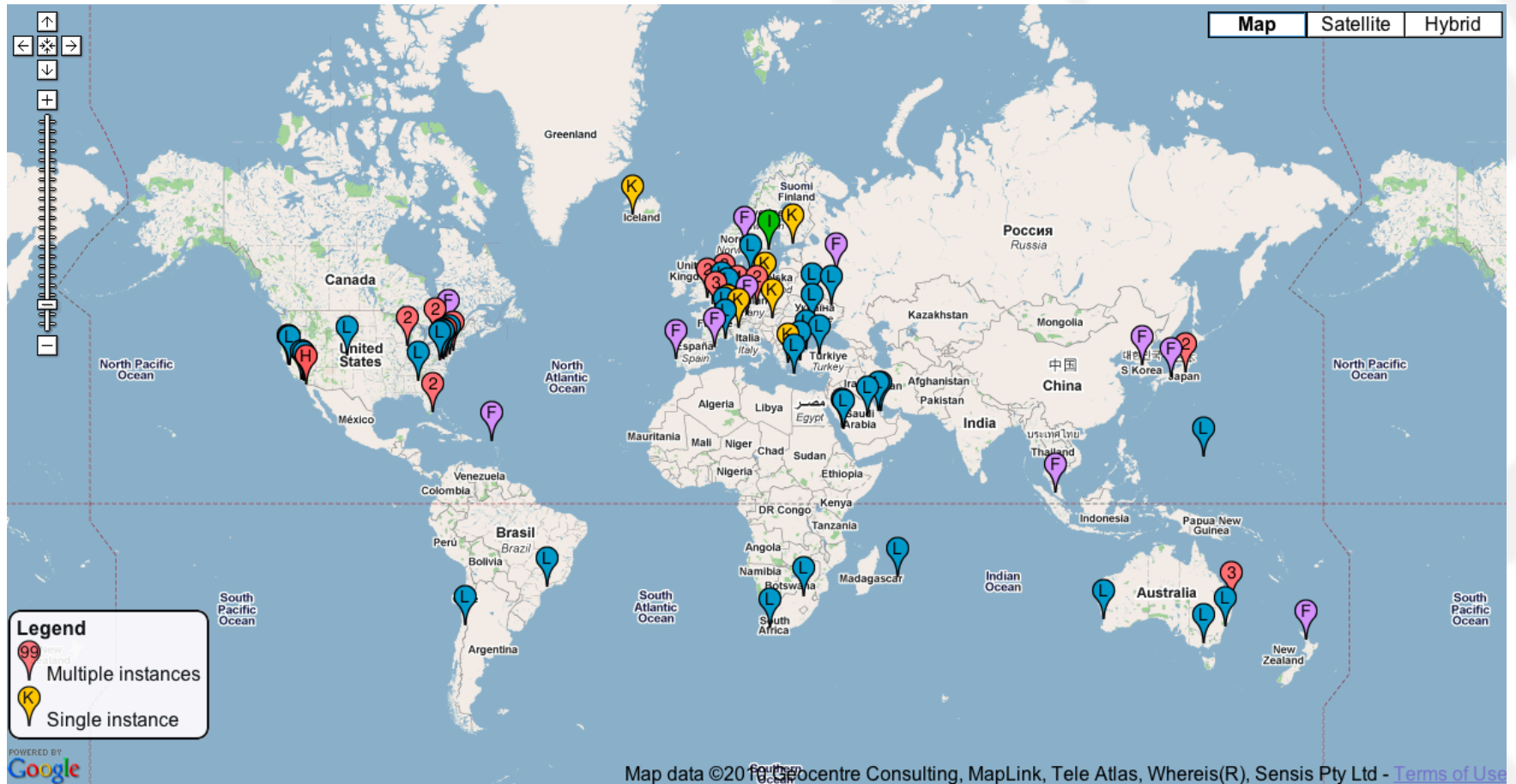
On or about 4 February 2008, for the first time AAAA records for some of the authoritative name servers for the DNS root zone will be introduced. These records will provide for access to the root servers over IPv6 transport, and will be implemented in both the root zone data, and the root hints file. We are providing this advanced notification in case unexpected network events occur that might be related to this change.

Six of the thirteen listed authorities for the root zone will add an AAAA record, as follows:

Authority	IPv6 Address	Prefix Length*
A.ROOT-SERVERS.NET	2001:503:ba3e::2:30	/48
F.ROOT-SERVERS.NET	2001:500:2f:f	/48
H.ROOT-SERVERS.NET	2001:500:1::803f:235	/48
J.ROOT-SERVERS.NET	2001:503:c27::2:30	/48
K.ROOT-SERVERS.NET	2001:7fd::1	/32
M.ROOT-SERVERS.NET	2001:dc3::35	/32

Operators who employ prefix filtering should verify that their routing policy does not prohibit access to these addresses.

Root DNS served over IPv6



Source: <http://root-servers.org/map/version-3-ipv6-only.html>



Thank you