

IPv6: The Time is Now

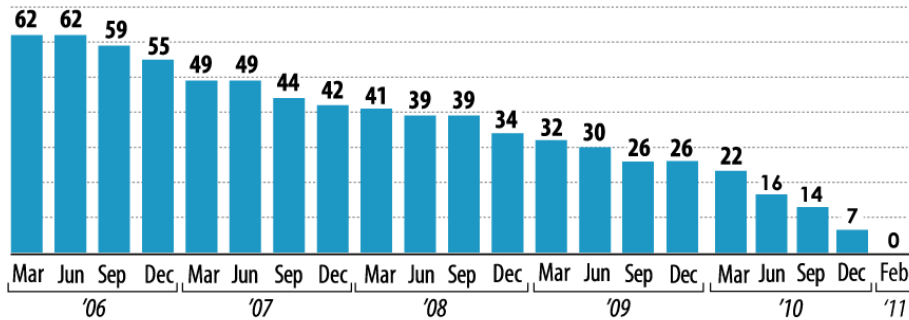
John Curran
ARIN President & CEO

3 February 2011
0 /8s Remaining

Quick History of the Internet Protocol

- Internet Protocol version 4 (IPv4, or just "IP")
 - First developed for the original Internet (ARPANET) in spring 1978
 - Deployed globally with growth of the Internet
 - Total of 4 billion IP addresses available
 - Well entrenched and used by every ISP and hosting company to connect customers to the Internet
 - Allocated based on documented need
- Internet Protocol version 6 (IPv6)
 - Design started in 1993 when IETF forecasts showed IPv4 depletion between 2010 and 2017
 - Completed, tested, and available for production since 1999
 - Total of 340,282,366,920,938,463,374,607,431,768,211,456 IP addresses available
 - Used and managed similar to IPv4

Available IPv4 Space in /8s



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IPv4 Depletion Situation Report

- Each RIR received its last /8 from IANA on 3 February 2011.
- The IANA free pool of IPv4 addresses has reached 0%.
- While each RIR currently has IPv4 addresses to allocate, it is impossible to predict when each RIR will run out.
- ARIN publishes an inventory of available IPv4 addresses, updated daily, at www.arin.net.

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IPv4 & IPv6 Coexistence

Today, the Internet is predominantly based on IPv4.

For the foreseeable future, the Internet must run both IP versions (IPv4 & IPv6) at the same time. (When done on a single device, this is called the “dual-stack” approach.)

Deployment is already underway. Today, there are organizations attempting to reach your mail, web, and application servers via IPv6...

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Call to Action

Your customers want access to the entire Internet, and this means IPv4 and IPv6 websites.

Offering full access requires running IPv4/IPv6 transition services and is a significant engineering project.

Multiple transition technologies are available, and each provider needs to make its own architectural decisions.



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Call to Action

Content must be reachable to newer Internet customers.



Content served only via IPv4 will be accessed by IPv6 customers via transition solutions run by access providers.

Plan on serving content via IPv6 in addition to IPv4 as soon as possible.

Call to Action

Coordinate with industry to support and promote awareness and educational activities.



Adopt regulatory and economic incentives to encourage IPv6 adoption.

Require IPv6 compatibility in procurement procedures.

Officially adopt IPv6 within your government agencies.

Learn More and Get Involved

Learn more about IPv6

www.arin.net

www.getipv6.info

www.TeamARIN.net

Get Involved in ARIN

Public Policy Mailing List

Attend a Meeting

<http://www.arin.net/participate/>

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Thank You

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