



# It's Time To Make The Move

---

Ray Plzak  
President Emeritus

# Agenda

- IPv4 Depletion Trends
- Community Efforts
- Get Involved
- Q & A

The logo for ARIN (American Registry for Internet Numbers) is displayed in white serif font. The letters 'A', 'R', 'I', and 'N' are arranged horizontally, with a light blue horizontal line passing through the middle of the 'R' and 'I'. The background of the top half of the slide is a dark blue grid pattern with a stylized globe on the right side, showing the Americas in a lighter blue color. A white curved line separates the top half from the bottom half.

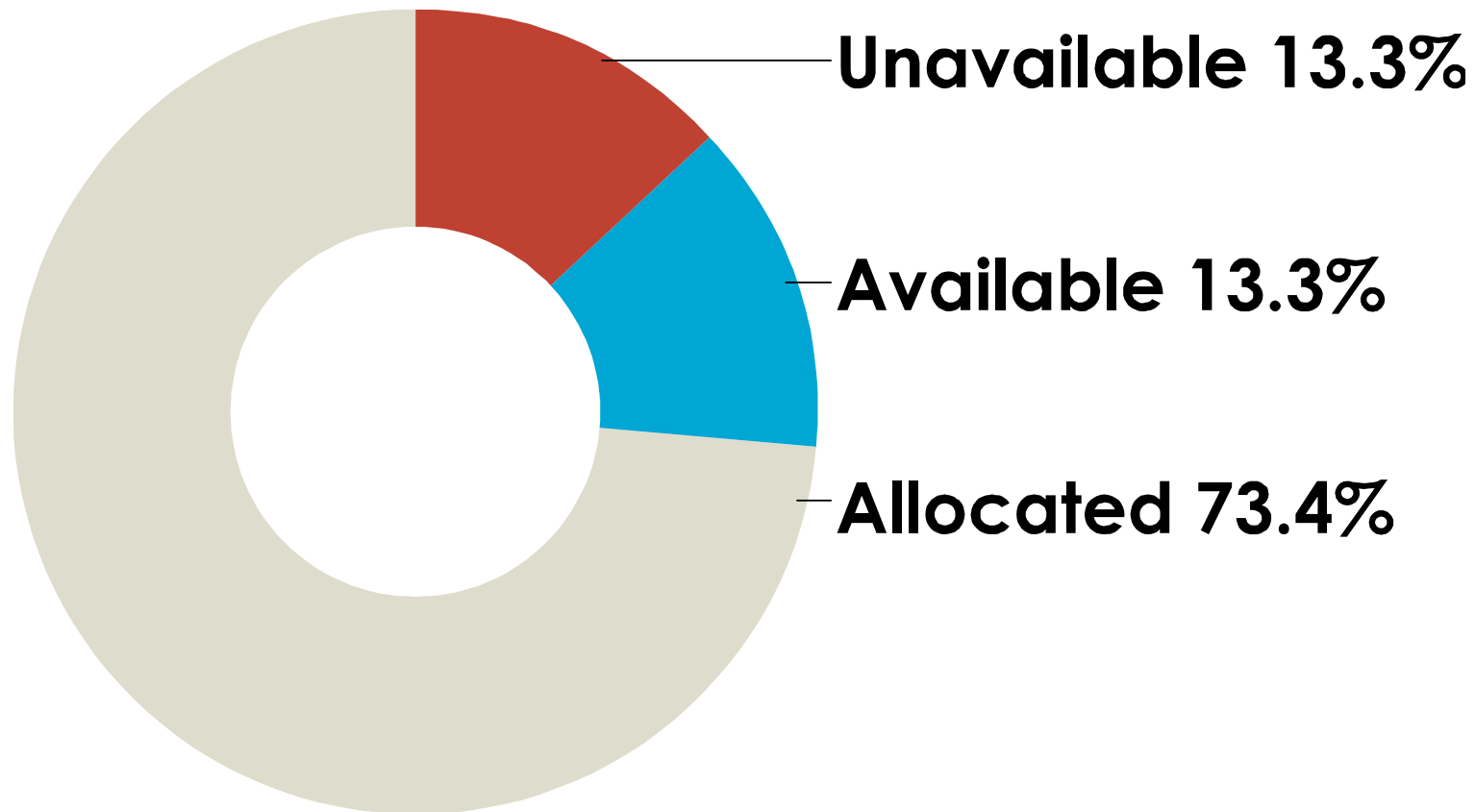
ARIN

American Registry for Internet Numbers

# Statistics

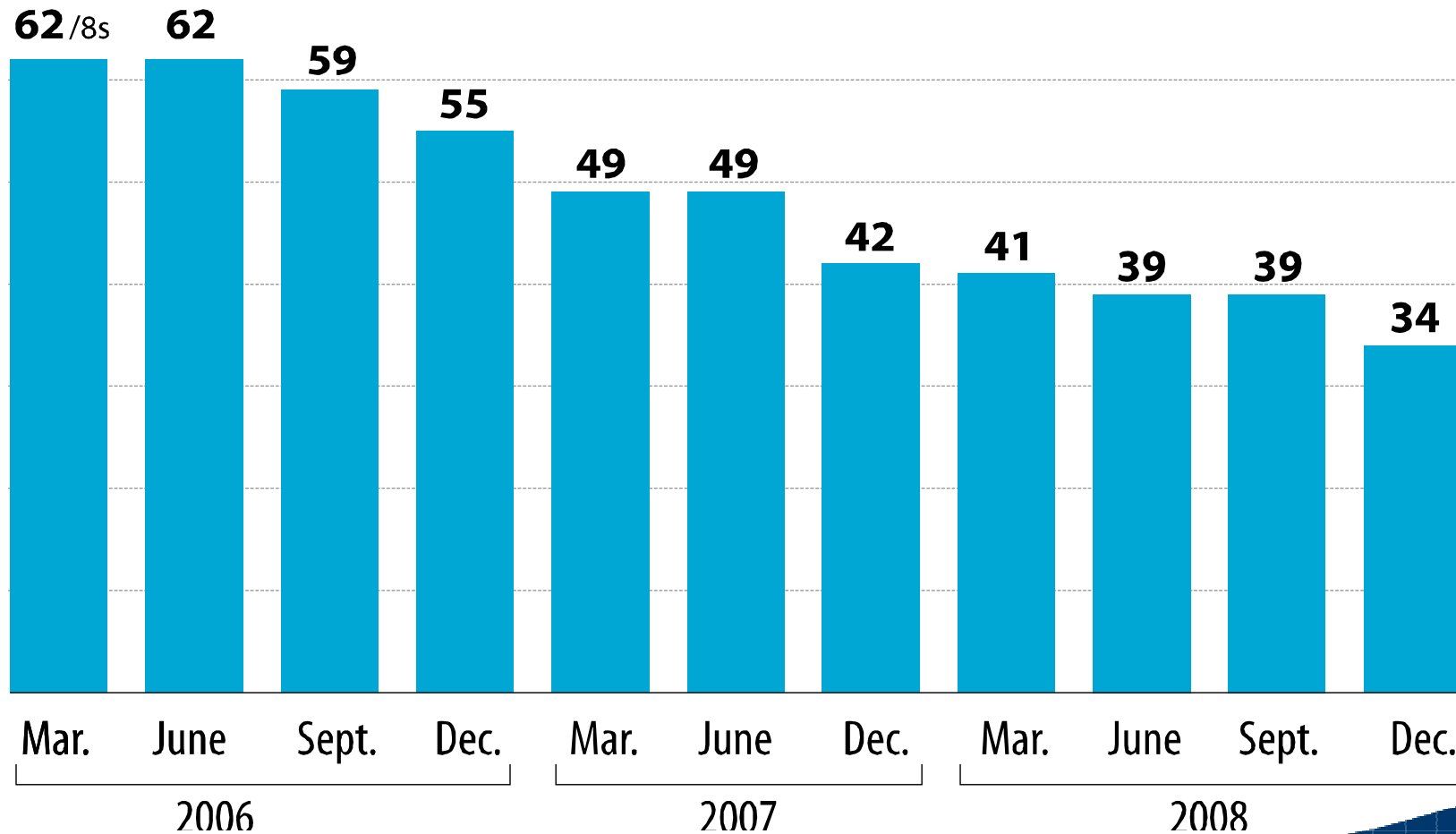
---

# Available IPv4 /8s from IANA\*



\* as of December 31, 2008

# Remaining IPv4 /8s from IANA



RIRs are consistently allocating over  
12 /8s per year

---

RIRs collectively allocated over  
12 /8s for the first time in 2007

---

Number of /8s remaining in IANA's  
unallocated pool:

**34 \***

\* as of 31 December 2008

The logo for ARIN (American Registry for Internet Numbers) is displayed in white serif font. The letters 'A', 'R', 'I', and 'N' are arranged horizontally, with a light blue horizontal line passing through the middle of each letter. The background of the top half of the slide is a dark blue grid pattern. On the right side, there is a stylized globe in shades of blue, showing the continents of North and South America. A light blue curved band separates the top graphic area from the white bottom area.

ARIN

American Registry for Internet Numbers

# Community Actions

---

# What Else To Do?

Raise Public Awareness

Facilitate IPv6 Deployment

Implement IPv6 Accessible Services



# ARIN Actions

Community Outreach

Educational Materials

Policy Actions

Public Policy Mailing List

Facilitate IPv6 Deployment

# Board Resolution

Encourages transition to IPv6

Orders more scrutiny of IPv4  
resource requests

Requests Advisory Council to  
consider policy changes

## ARIN Board Advises Internet Community on Transition to IPv6

ARIN and the other Regional Internet Registries have distributed Internet Protocol version 6, IPv6, alongside IPv4 since 1999. To date, ARIN has issued both protocol versions in tandem and has not advocated one over the other. ARIN has closely monitored trends in demand and distribution for both protocol versions with the understanding that the IPv4 available resource pool would continue to diminish.

The available IPv4 resource pool has now been reduced to the point that ARIN is compelled to advise the Internet community that transition to IPv6 is necessary for any applications that require ongoing availability from ARIN of contiguous IP number resources.

On 7 May 2007, the ARIN Board of Trustees passed the following resolution:

### RESOLUTION OF THE BOARD OF TRUSTEES OF ARIN ON INTERNET PROTOCOL NUMBERING RESOURCE AVAILABILITY

WHEREAS, community access to Internet Protocol (IP) numbering Resources has proved essential to the successful growth of the Internet; and,

WHEREAS, ongoing community access to Internet Protocol version 4 (IPv4) numbering resources can not be assured indefinitely; and,

WHEREAS, Internet Protocol version 6 (IPv6) numbering resources are available and suitable for many Internet applications,

BE IT RESOLVED, that this Board of Trustees hereby advises the Internet community that migration to IPv6 numbering resources is necessary for any applications which require ongoing availability from ARIN of contiguous IP numbering resources; and,

BE IT ORDERED, that this Board of Trustees hereby directs ARIN staff to take any and all measures necessary to assure veracity of applications to ARIN for IPv4 numbering resources; and,

BE IT RESOLVED, that this Board of Trustees hereby requests the ARIN Advisory Council to consider Internet Numbering Resource Policy changes advisable to encourage migration to IPv6 numbering resources where possible.

Implementation of this resolution will include both internal and external components. Internally, ARIN will review its resource request procedures and continue to provide policy experience reports to the Advisory Council. Externally, ARIN will send progress announcements to the ARIN community as well as the wider technical audience, government agencies, and media outlets. ARIN will produce new documentation, from basic introductory fact sheets to FAQs on how this resolution will affect users in the region. ARIN will focus on IPv6 in many of its general outreach activities, such as speaking engagements, trade shows, and technical community meetings.

Visit the IPv6 Information Center at [www.arin.net/v6/v6-info.html](http://www.arin.net/v6/v6-info.html),  
or visit the ARIN IPv6 wiki at [www.getipv6.info](http://www.getipv6.info).

# ARIN IPv6 Wiki

## www.getipv6.info

- Facilitate discussion and information sharing on IPv6
- Includes real-world experience about adopting IPv6

The screenshot shows the main page of the ARIN IPv6 Wiki. The page is titled "Main Page" and features a navigation menu on the left with links to "Main Page", "Community portal", "Current events", "Recent changes", "Random page", "Help", and "Acceptable Use Policy". Below the navigation menu is a search box and a "Go" button. The main content area includes a "Contents" table of contents, a "Welcome to the ARIN IPv6 Wiki" message, and several sections of links: "IPv6 Education", "IPv6 Deployment and Migration Planning", "IPv6 Usage", "Relevant IPv6 Information at ARINNET", and "Getting started using this site". The "IPv6 Usage" section lists links for "IPv6 Management Tools", "DNS and Naming Issues", "Mixed", "Renumbering an IPv6 Network", "Relay Services", "Cisco Bt04 Relay Service", "Juniper Bt04 Relay Service", "Linux or BSD Bt04 Relays", and "Troubleshoot IPv6 Issues". The "Relevant IPv6 Information at ARINNET" section lists links for "IPv6 section of Number Resource Policy Manual", "Guidelines-Initial IPv6 Allocation from ARIN", and "Guidelines-Requesting Additional IPv6 Allocations from ARIN". The "Getting started using this site" section lists links for "Configuration settings list" and "MediaWiki FAQ".

# RIR Actions

Allocation Policy Liberalization

Waiver of IPv6-related Service Fees

Training, Workshops, Projects

Recovering IPv4 Space

# Government Actions

## Awareness

Coordinate with Industry

Adopt Incentives

- Regulatory
- Economic

Support and Promote Activities

Officially Adopt IPv6

# Transition Needs

IPv6 address space

IPv6 connectivity

Operating systems, software, and network management tool upgrades

Router, firewall, and other hardware upgrades

IT staff and customer service training

The logo features the acronym 'ARIN' in a white, serif font. A horizontal blue line with a slight gradient passes through the middle of the letters. Below the acronym, the full name 'American Registry for Internet Numbers' is written in a smaller, white, sans-serif font. The background is a dark blue grid with a light blue globe on the right side, showing the Americas. A white and blue curved shape is at the bottom of the grid area.

**ARIN**

American Registry for Internet Numbers

# Get Involved

---

# Policy Development Process

The regional community decides how ARIN will manage and administer Internet number resources.

Anyone may participate in the process.

The ARIN Board of Trustees ratifies policies only after:

- discussion on mailing lists and during biannual Public Policy meetings;
- the ARIN Advisory Council recommends adoption after finding consensus in favor of a proposal.



# Policy Development Process

## Participation includes:

- Subscribing to the Public Policy Mailing List (PPML) and joining in the discussions
- Attending Biannual Public Policy Meeting
  - Remotely via Webcast and Chat [[www.arin.net](http://www.arin.net)]
  - In Person
- Submitting a policy proposal to create new policy or revise current policy

# Draft Policies and Proposals Under Discussion

1. 2009-4: IPv4 Recovery Fund
2. 2009-3 (Global): Allocation of IPv4 Blocks to Regional Internet Registries
3. 2009-2: Depleted IPv4 reserves
4. 2009-1: Transfer Policy
5. 2008-7: Identify Invalid WHOIS POC's
6. 2008-3: Community Networks IPv6 Assignment

# Markets – Recent Policy Discussion

**NOW:** Internet numbers are leased-based resources and recorded in a public database

## Proposals (beginning in 2008) call for:

- Allowable transfers between registrants without requiring legal documentation
- Recognition of financial market for Internet number resources

# Learn More and Get Involved

## Learn more about IPv6

[www.arin.net](http://www.arin.net)

[www.getipv6.info](http://www.getipv6.info)

## Get Involved in ARIN

Public Policy Mailing List

Attend a Meeting [Remotely or in Person]

**ARIN XXIII, San Antonio, TX, USA**

**26-29 April 2009**

# Thank you!

For more information, see:

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