

Update: IP addresses AS numbers and related things...

PLNOG

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RIPE NCC

RIPE

IPv4

IPv6

Provider Independent Addresses

AS32

Routing Information Service

RIPE NCC

Located in Amsterdam

Not for profit membership organisation

6064 active members (1 jan 2008)

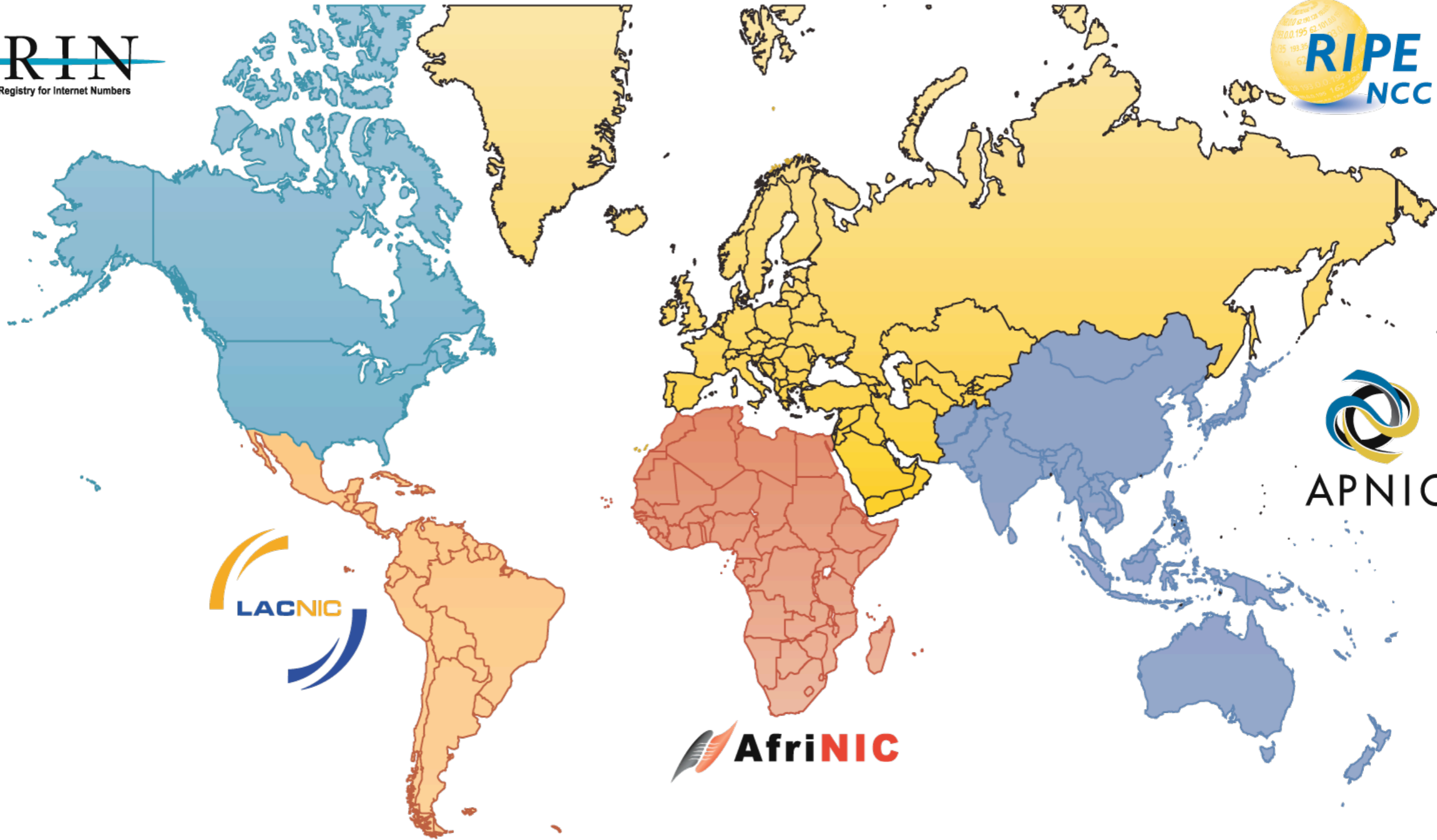
695 new members in 2008

Started by the RIPE community in 1992

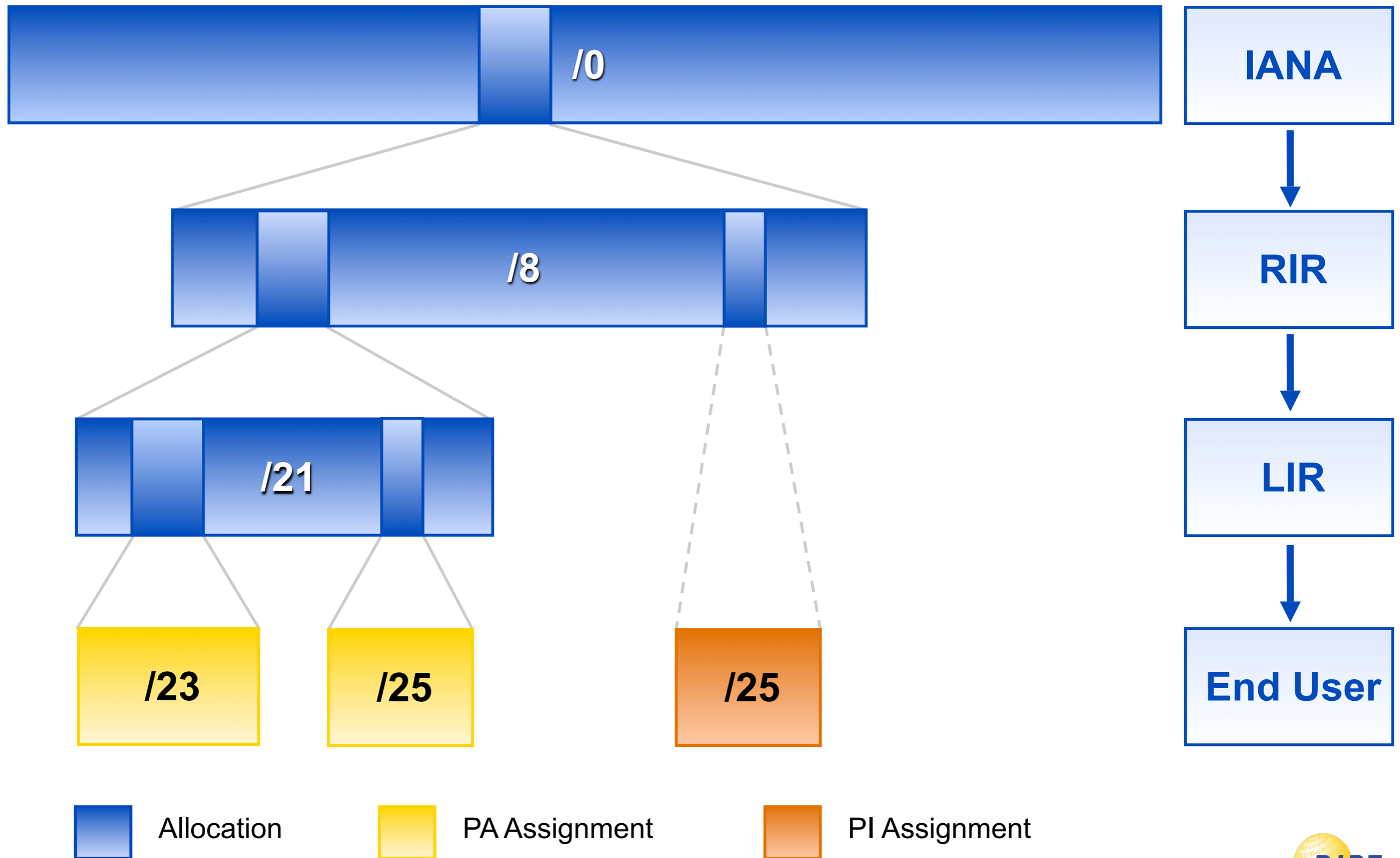
One of five RIRs

The 5 RIRs

ARIN
American Registry for Internet Numbers



IP Address Distribution





Registration



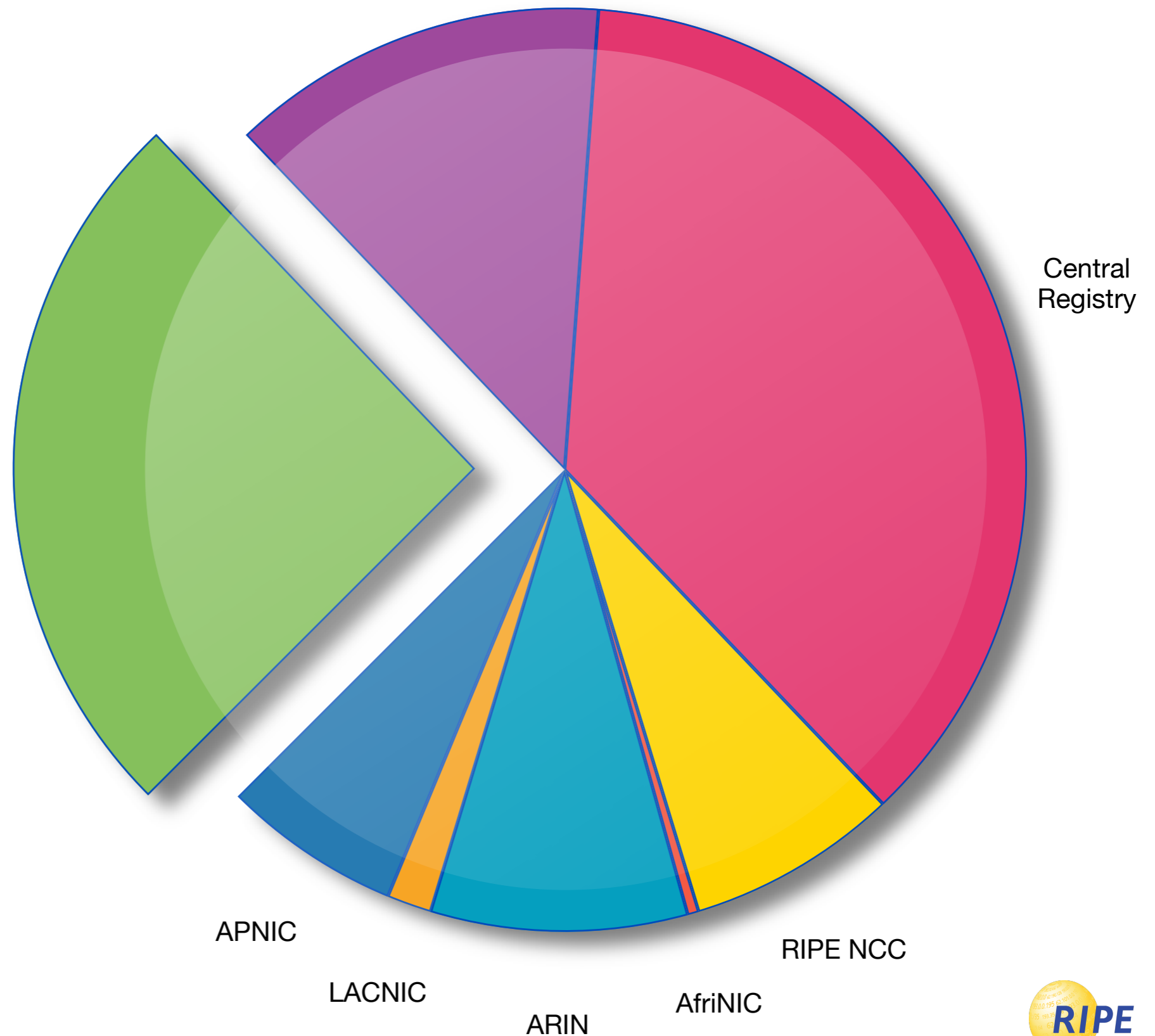
Aggregation



Conservation

IPv4 Address Pool - 2005

25%
available



Central
Registry

APNIC

RIPE NCC

LACNIC

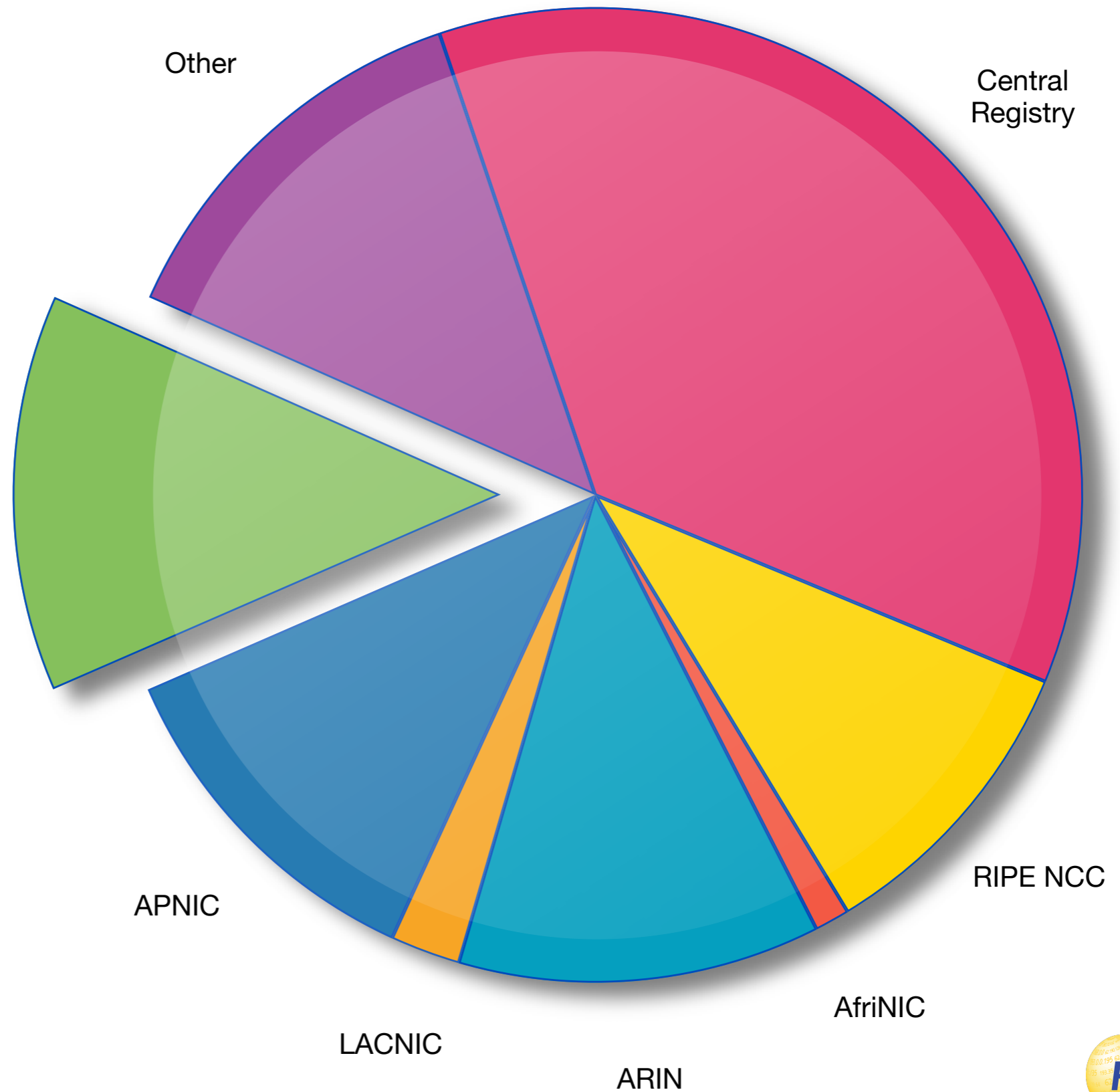
ARIN

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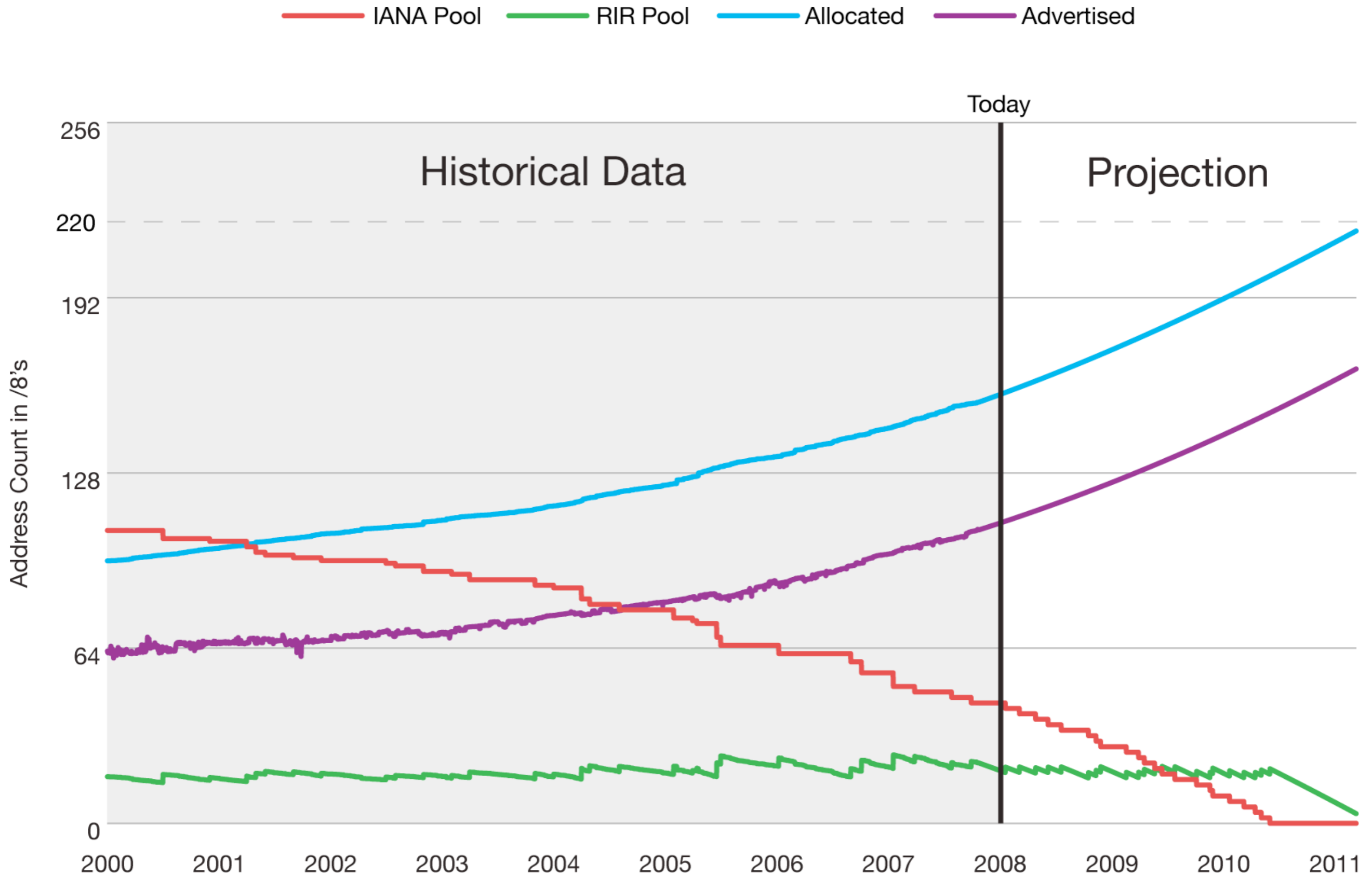


IPv4 Address Pool - Now

13%
available



IPv4 Address Pool - The Future



Stages of Grief

Denial

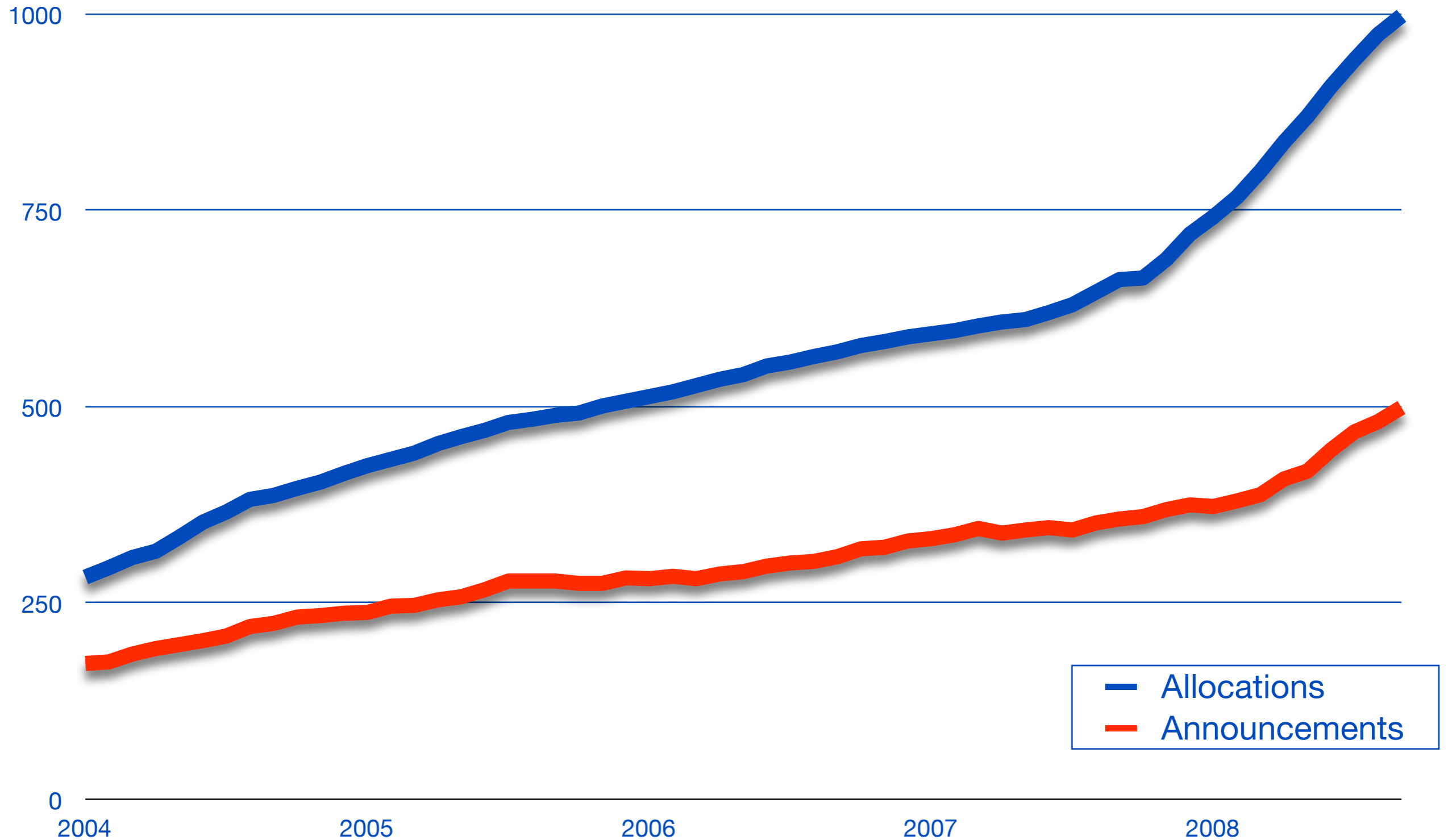
Anger

Bargaining

Depression

Acceptance

IPv6 Allocations and Announcements



Getting an IPv6 allocation

To qualify, an organisation must:

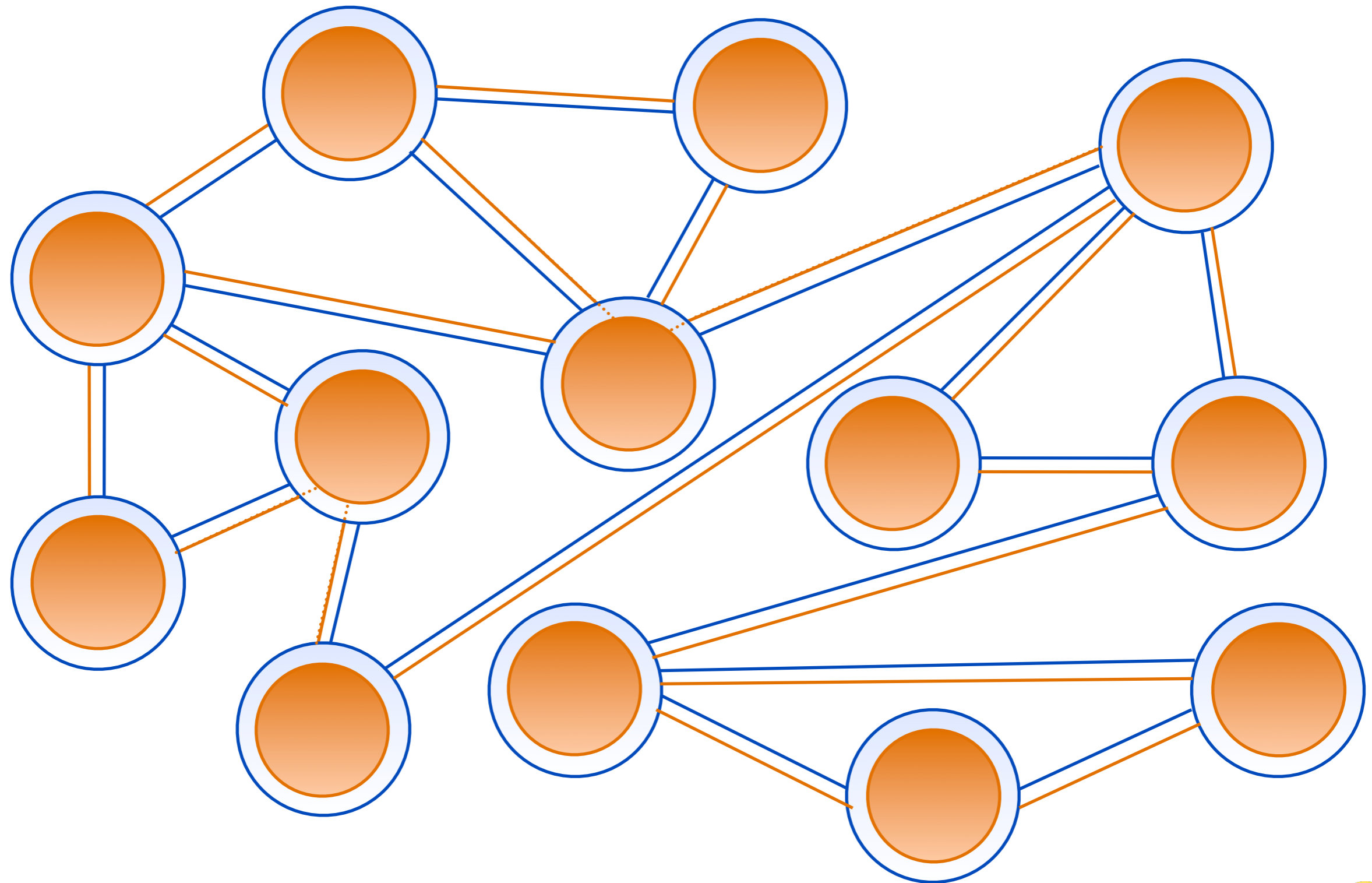
- Be an LIR

- Advertise the allocation as a single prefix

- Have a plan for making assignments within two years

Minimum allocation size /32

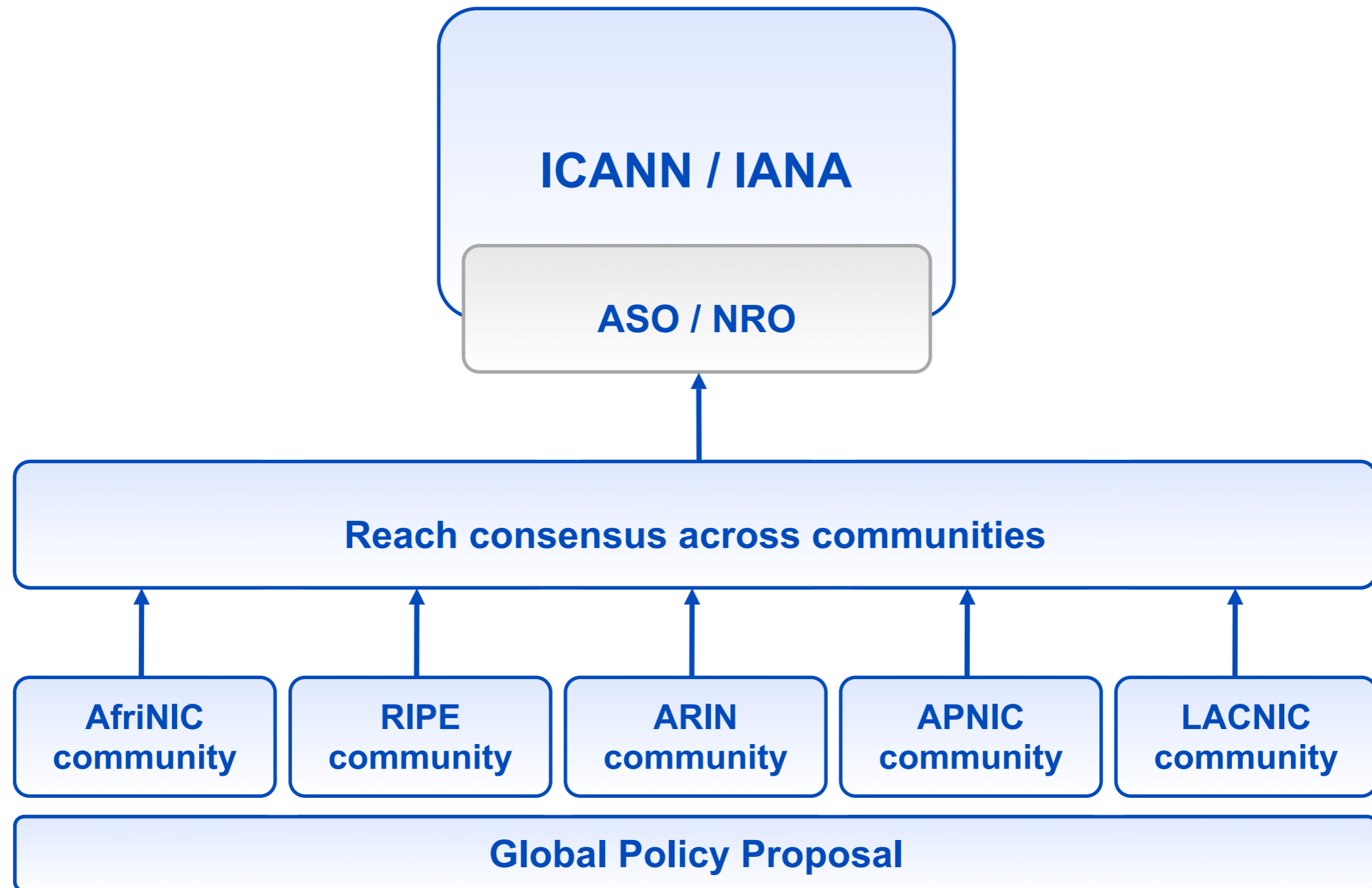
IPv6 Transition





Procedural changes...

How Policy Is Made



Direct End User assignments changes

Starting with RIPE NCC Charging Scheme 2009

Changes already applied to new members

Charges for PI address space and AS numbers

RIPE Policy Proposal 2007-01

What do the changes mean?

No impact on fee for vast majority of LIRs

Minimal impact for LIRs with many Direct End User assignments

Contract with end user needs to be renewed

Implementation of procedures is being worked on

PI address space user choices

- Renew contract with their original LIR
- Find a new sponsoring LIR
- Get a direct end user contract with RIPE NCC
- Become LIR
- Return the address space



New and improved ASNs

Autonomous System Numbers

Assignment requirements

- Address space
- Multihoming
- One AS Number per network

Requesting AS Numbers

- Create **organisation** and **mntner** objects
- Submit the AS Number request form
- Submit company registration documents

32-bit AS Numbers

Global policy on 32-bit ASN deployment schedule:

- 1 Jan 2008: 16-bit default, 32-bit on request
- 1 Jan 2009: 32-bit default, 16-bit on request
- 1 Jan 2010: Only 32-bit AS Numbers

32-bit AS Numbers and You

Can you handle a new AS number like “AS 200432”?
If not, please don't wait anymore!

Prepare for 32-bit AS numbers in your organisation:

- Check whether your hardware is compatible; if not, ask your hardware vendor for support
- Check whether your upstream provider is running compatible hardware; if not, encourage them to upgrade!



Routing Information Service

What is RIS?

A really really large database of BGP routing information

Free to use for any purpose, by anyone

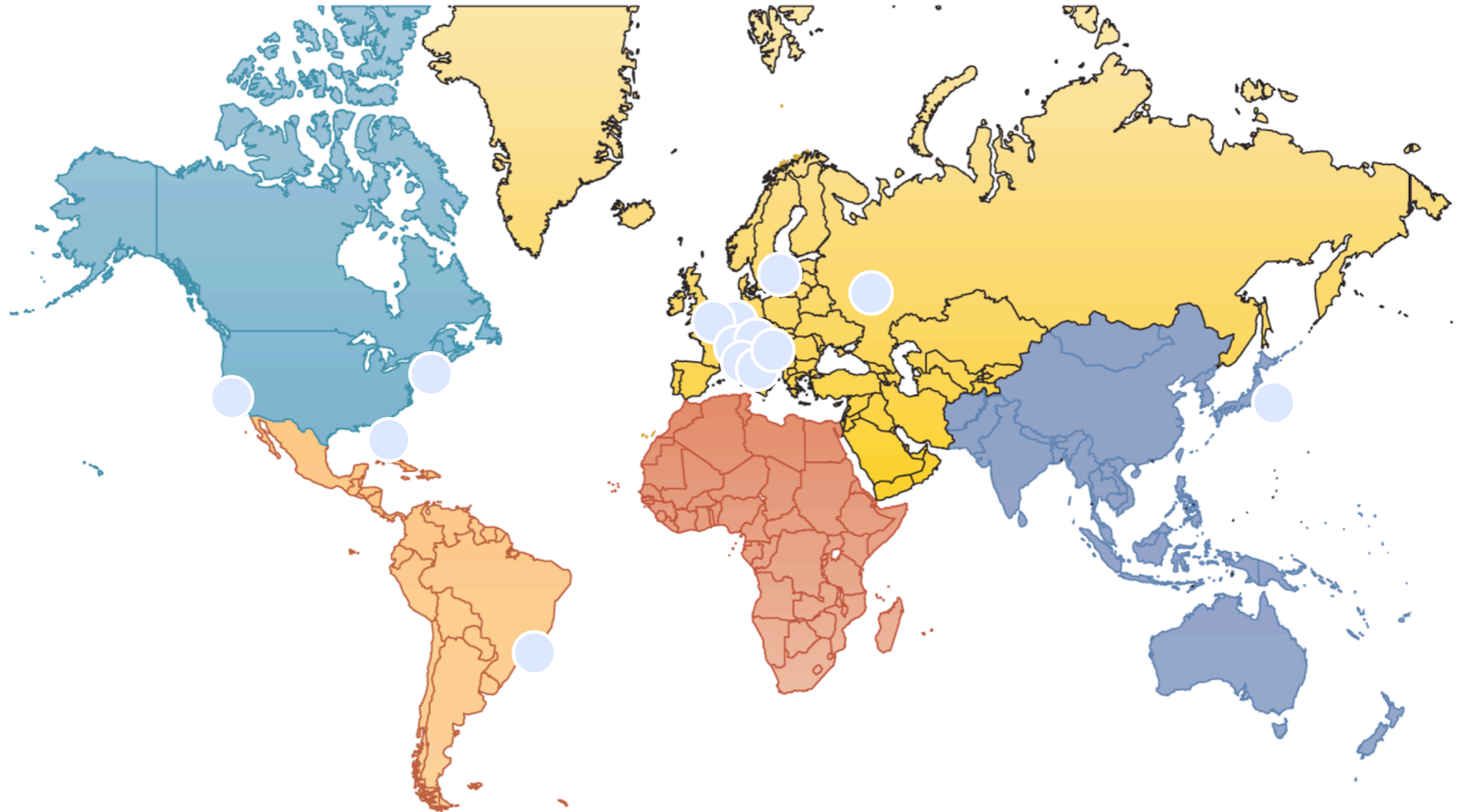
Collected from BGP peers around the world

- 580 peers on 14 collectors

- ~90 peers send full tables (including your prefixes)

- Every update, every route received from peers is stored

15 Remote Route Collectors (RRCs)



RIS tools

<http://www.ripe.net/ris/>

Allows searching in last 3 months of data

Search allows you to search for RIS data for a specific prefix or Autonomous System

Raw data available in standard format

Mostly used for research purposes

Kept forever - collection started in 1999



More information:

www.ripe.net

arno@ripe.net