

IPv4 Depletion & IPv6 Deployment

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Overview

- About RIPE and RIPE NCC
- IPv4 address pool exhaustion
- IPv4 depletion process
- IPv6 deployment
- IPv6 in Saudi Arabia
- How to request IPv6
- IPv6 Act Now

The five RIRs

ARIN
American Registry for Internet Numbers

 **RIPE**
NCC



 **LACNIC**

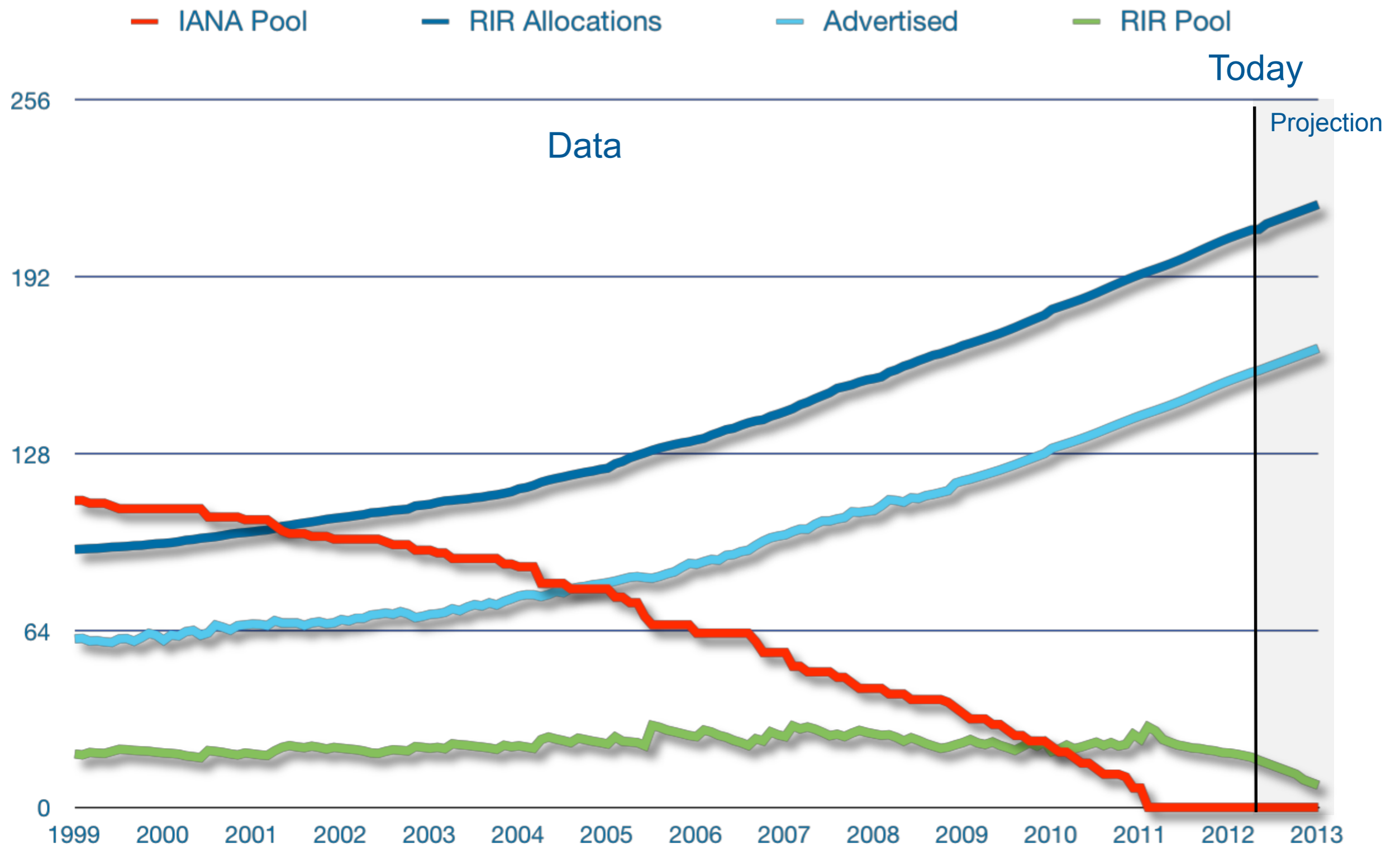
 **AfriNIC**
The Internet Numbers Registry for Africa

 **APNIC**

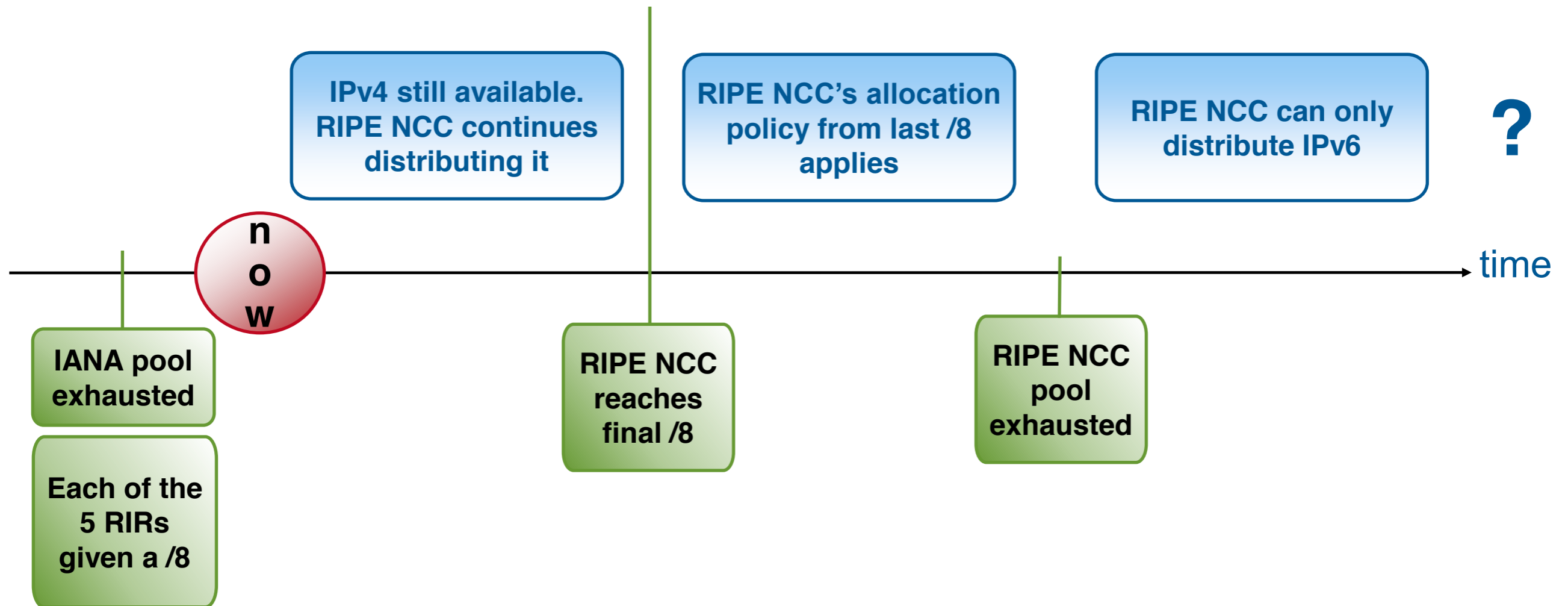
 **RIPE**
NCC

IPv4 Depletion

IANA and RIRs IPv4 pool



IPv4 exhaustion phases



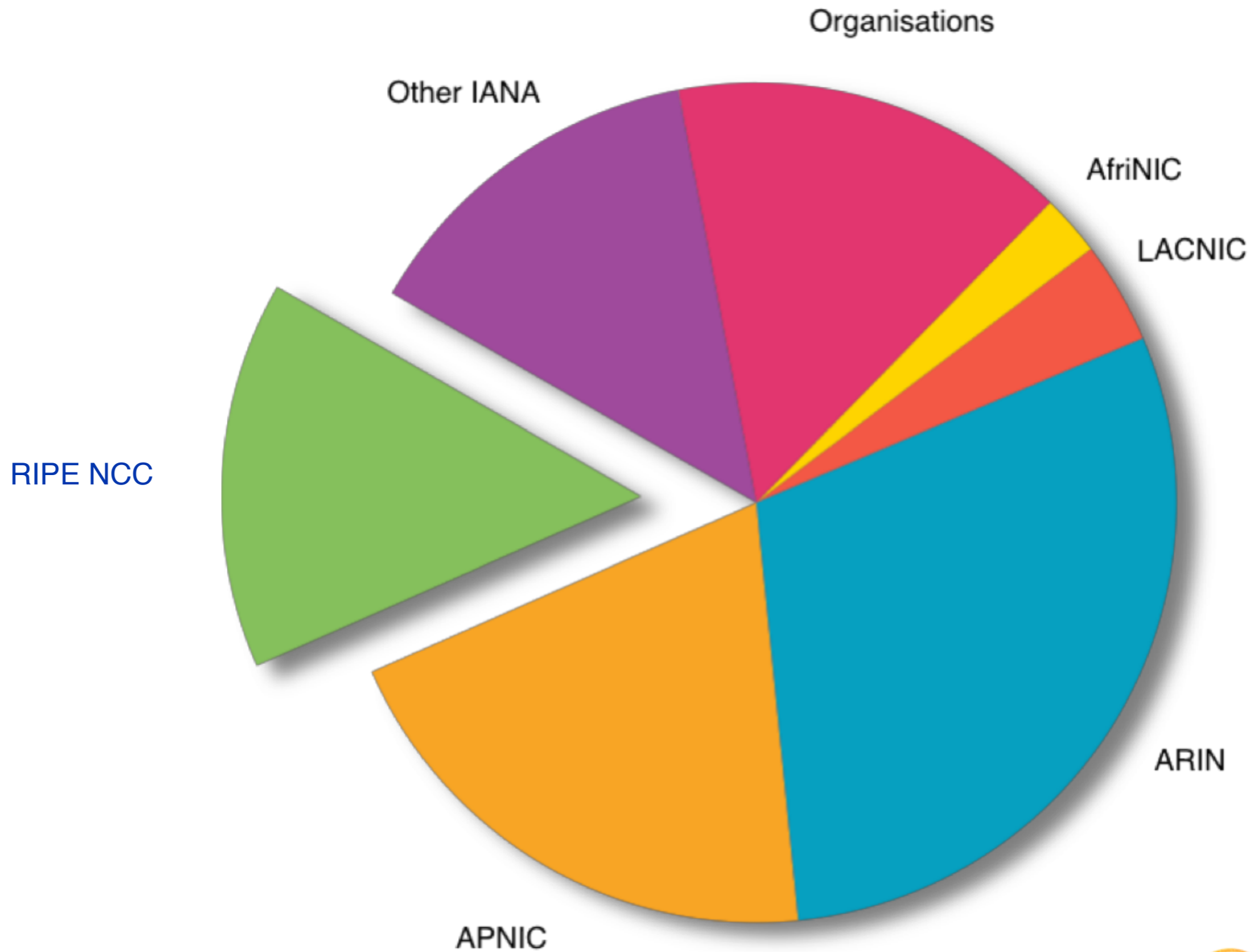
IPv4 Run Out Fairly

- Gradually reduced allocation / assignment periods
- Needs for “Entire Period” of up to...
 - 12 months (January 2010)
 - 9 months (July 2010)
 - 6 months (January 2011)
 - 3 months (July 2011)
- 50% has to be used up by half-period

Last /8

- We do things differently!
- Ensures IPv4 access for all members
 - 16 000 x /22 in a /8
 - members can get **one /22** (=1024 addresses)
 - must already hold IPv6
 - must qualify for allocation
- /16 set aside for unforeseen situations
 - if unused, will be distributed
- No PI so far. May change.

Our slice of IPv4



Legacy Space

- IPv4 addresses distributed prior to the RIR system
- Why register?
 - Benefits:
 - legitimize holdship
 - update reverse DNS delegation
 - use membership services
 - no fees!
 - Risks:
 - frozen data in the RIPE Registry
 - vulnerable to hijackers



legacy@ripe.net

Additional IPv4 allocation requirements

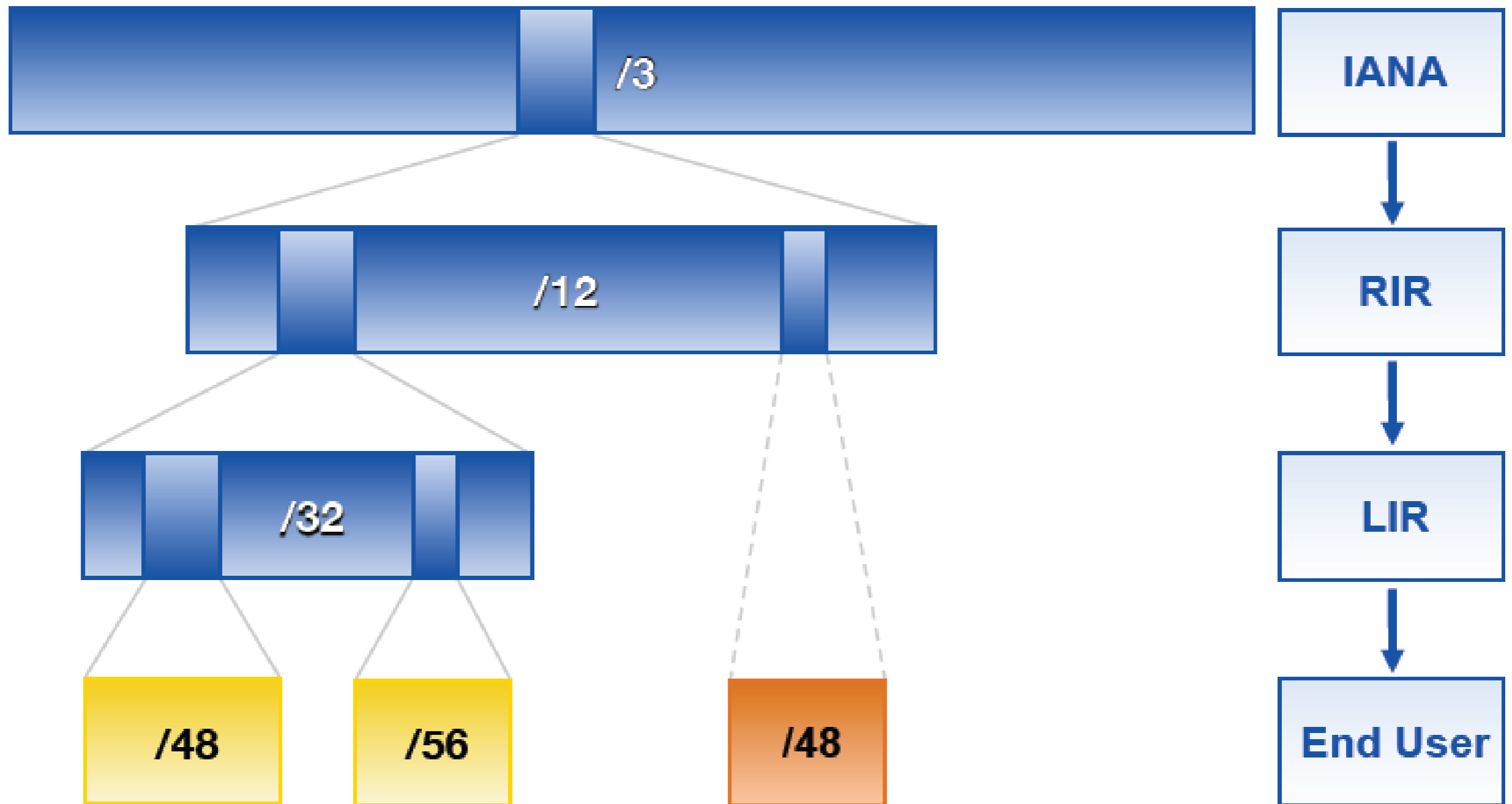
- 80% must be in use
- Tidy up current records
- Request a list of invalid assignments
- Send an IPv4 Additional Allocation request
- We will audit you

Transfer of IPv4 allocations

- Don't buy your IPv4 on eBay!
- Transfer unused allocations to another LIR
- Minimum allocation size /21
- Evaluated by the RIPE NCC

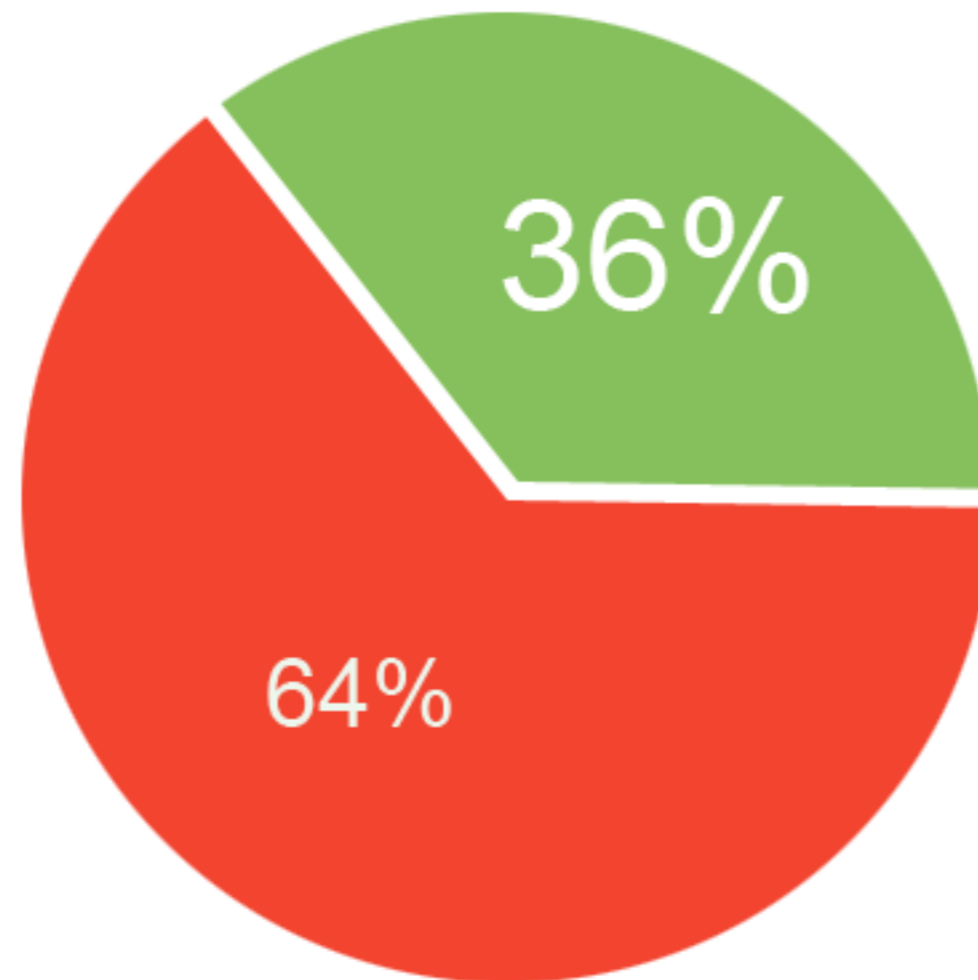
IPv6 Deployment

IPv6 Distribution



IPv6 in Saudi Arabia

Only 36% of LIRs have an IPv6 allocation



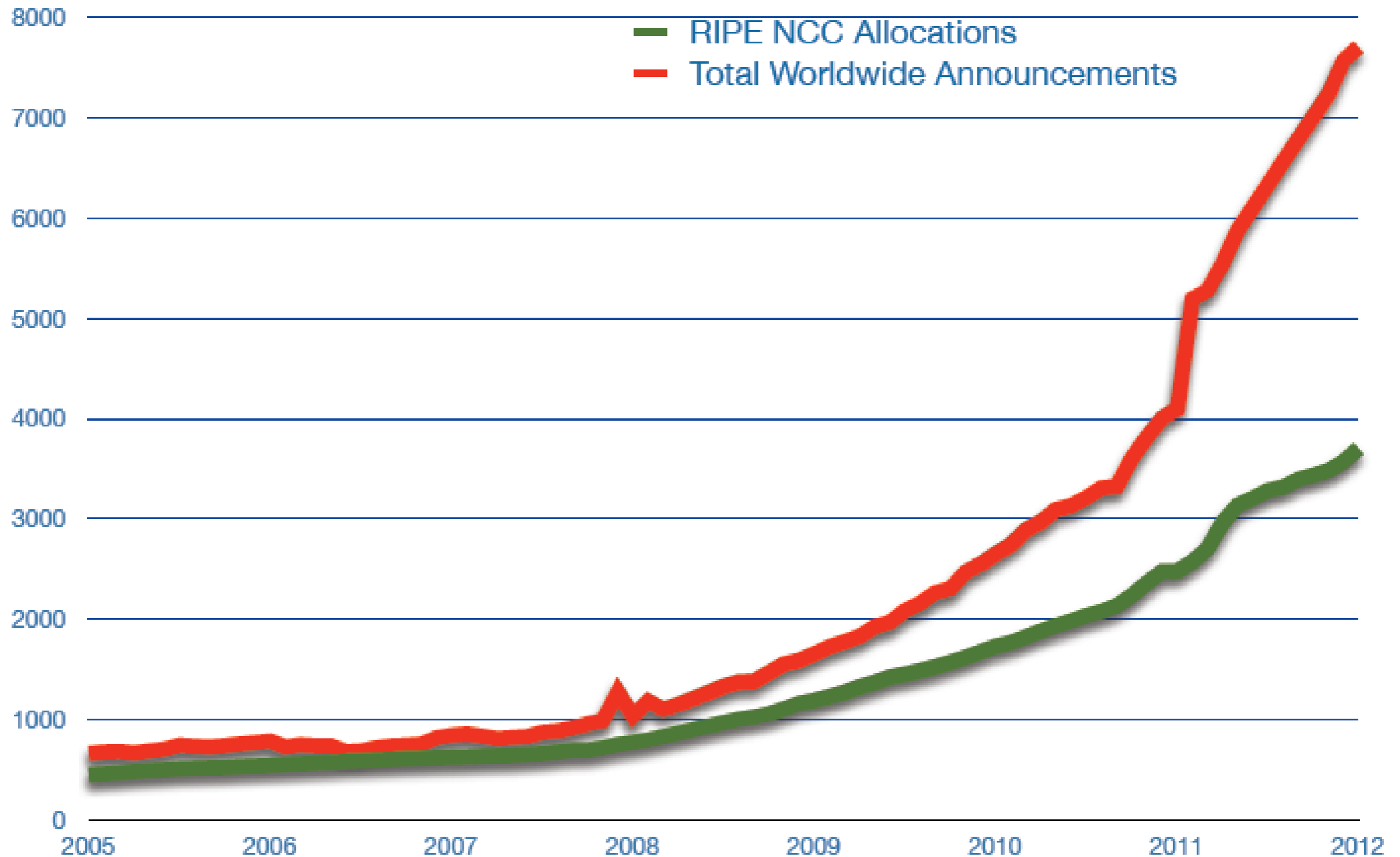
Getting an IPv6 allocation

- Requirements:
 - Be an LIR
 - Plan to make assignments within two years
- Minimum allocation size /32
- Announcement as a single prefix recommended

Getting IPv6 PI space

- Requirements:
 - Meet the contractual requirements
- Minimum assignment size /48

IPv6 Allocations and Announcements



Extension of the minimum allocation size

- Awaiting decision
- Initial IPv6 allocation from /32 to /29
- Enables small LIRs to deploy 6RD

IPv6 Act Now

- The RIPE NCC's IPv6 portal
- Deployment and transition tips
- Statistics and tools
- Case studies
- News
- Links



www.IPv6ActNow.org

Questions?

