



IPv6 Address Allocation and Assignment

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Outline

- **Introducing the RIPE NCC**
- **Allocation Statistics**
- **Getting IPv6 Addresses**



The RIPE NCC

- **Membership Association**
 - Established in Amsterdam in 1992
 - Over 4,100 members
 - Open to all
- **Regional Internet Registry (RIR)**
 - Distributes IP address space, AS Numbers
 - Reverse DNS delegations
 - Registration database



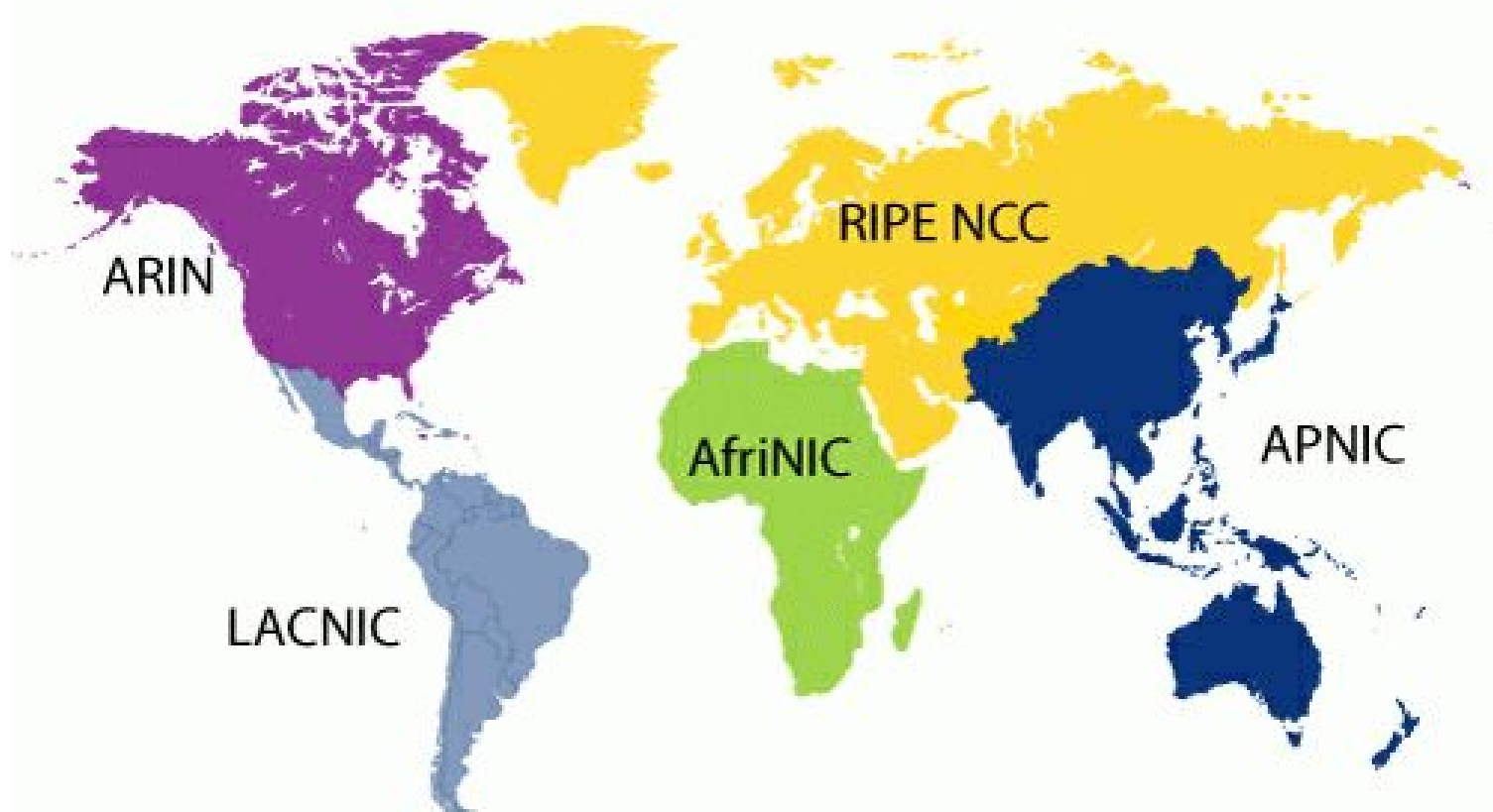
RIPE NCC Services

- **Registration Services**
 - IPv4, IPv6 and ASN
- **Public Services**
 - RIPE community support
 - Information Services
 - Operate 'K' root nameserver
 - ENUM delegations



RIPE NCC Service Region

Regional Internet Registries Service Regions





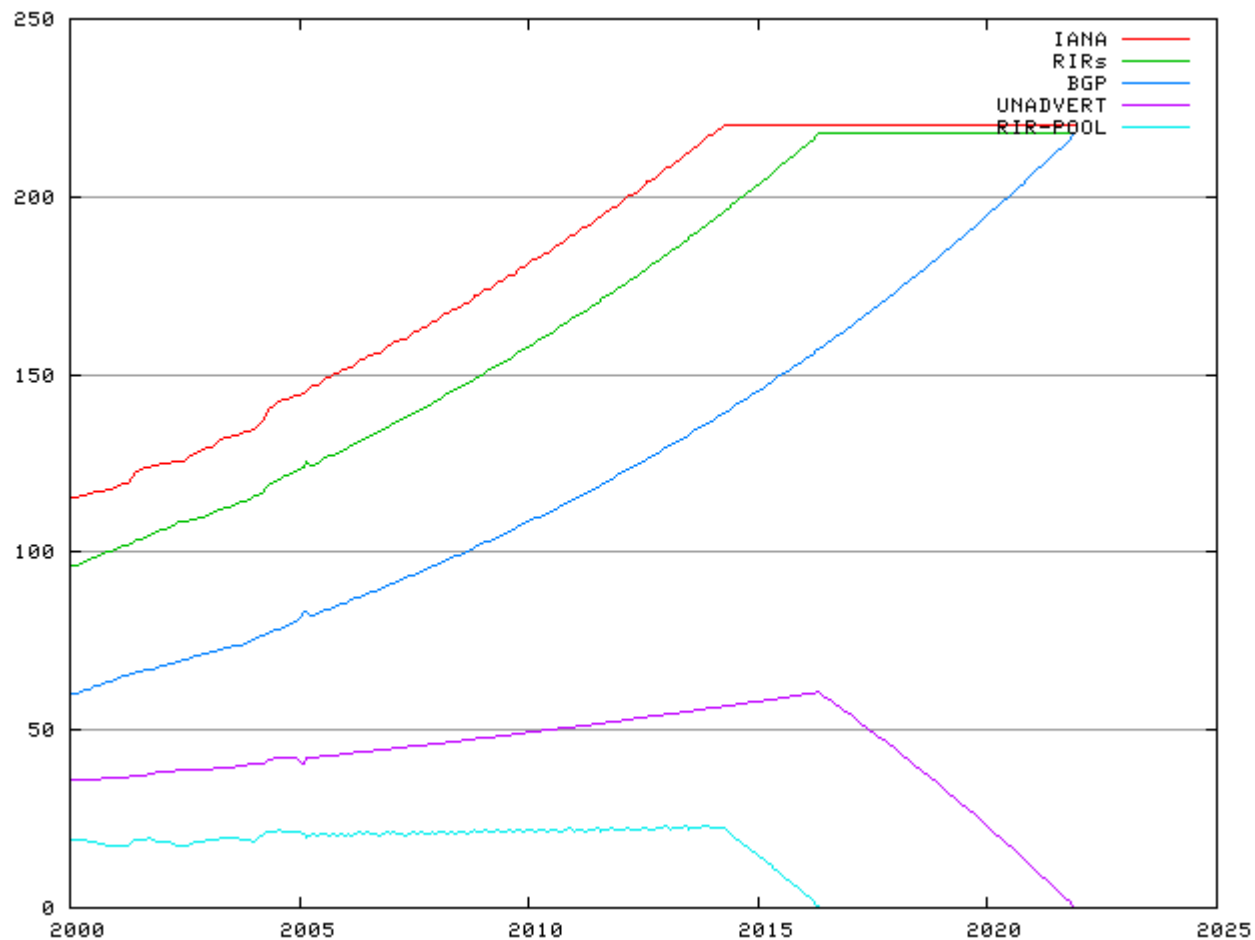
Welcome to AfriNIC !

- The 5th RIR has a new /8 of IPv4
- 8 IPv6 allocations have been made in Africa!



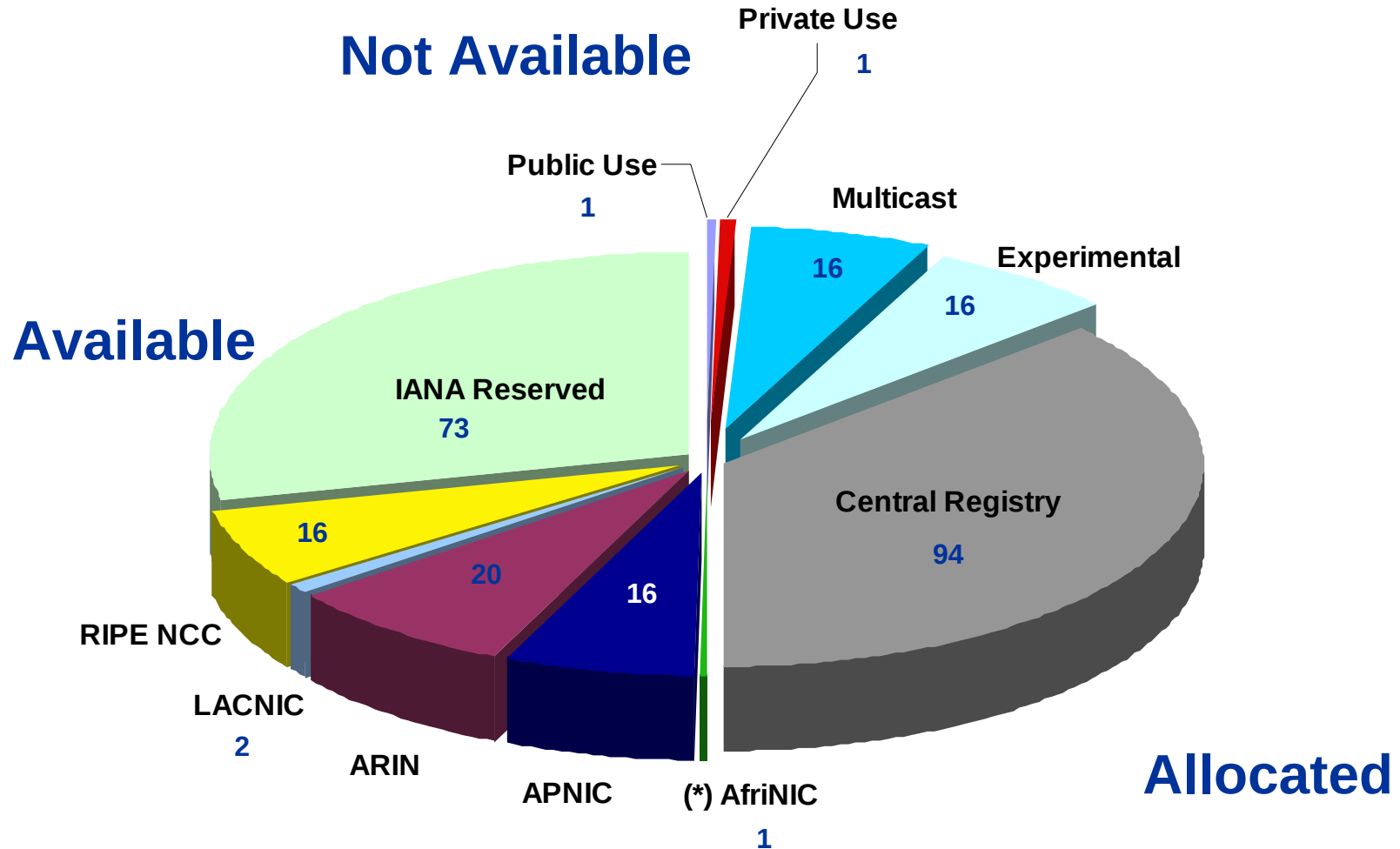
The Numbers May 2005

IPv4 Lifetime Projections (Data from Geoff Huston)





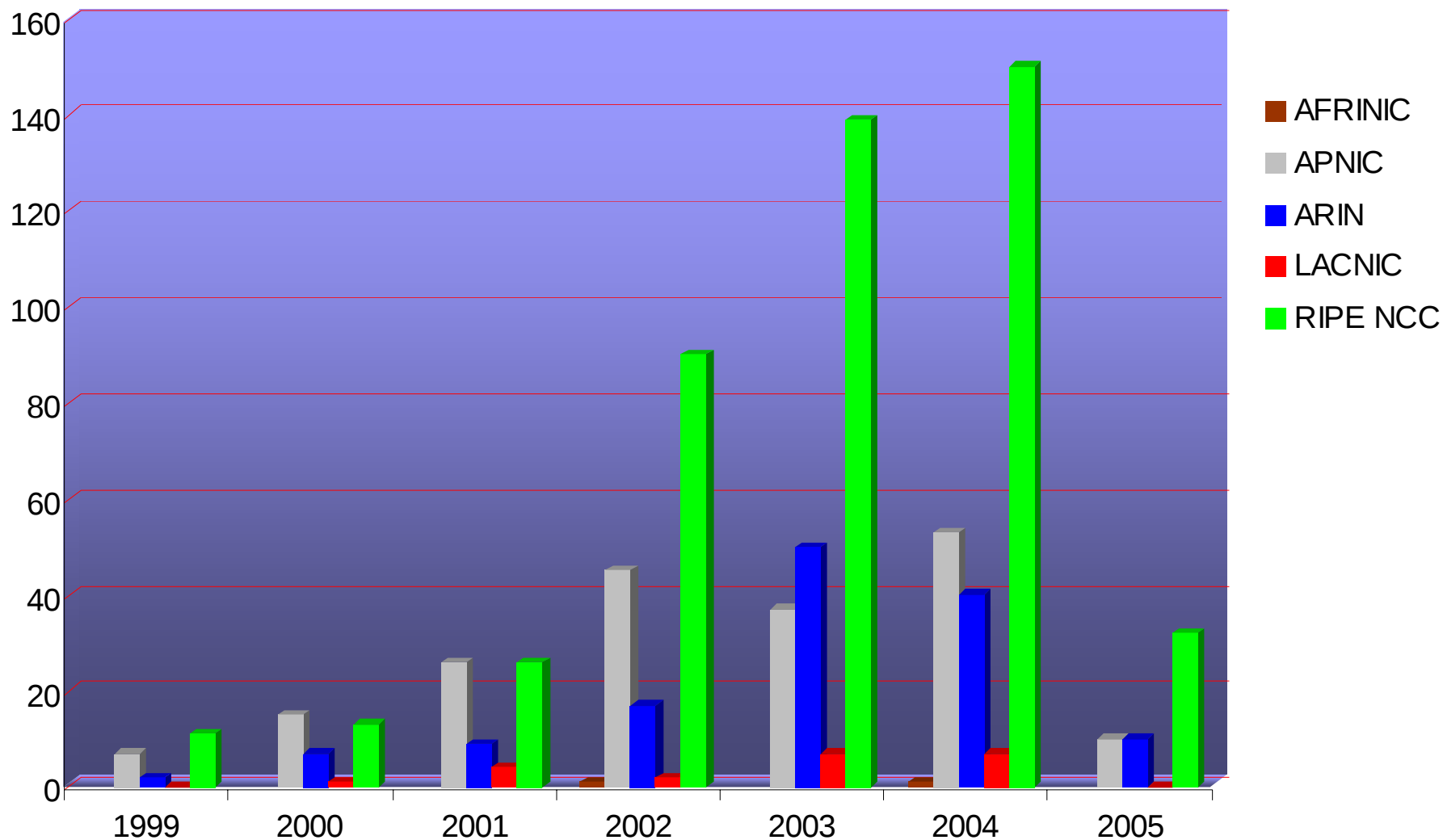
IPv4 /8 Address Space Status



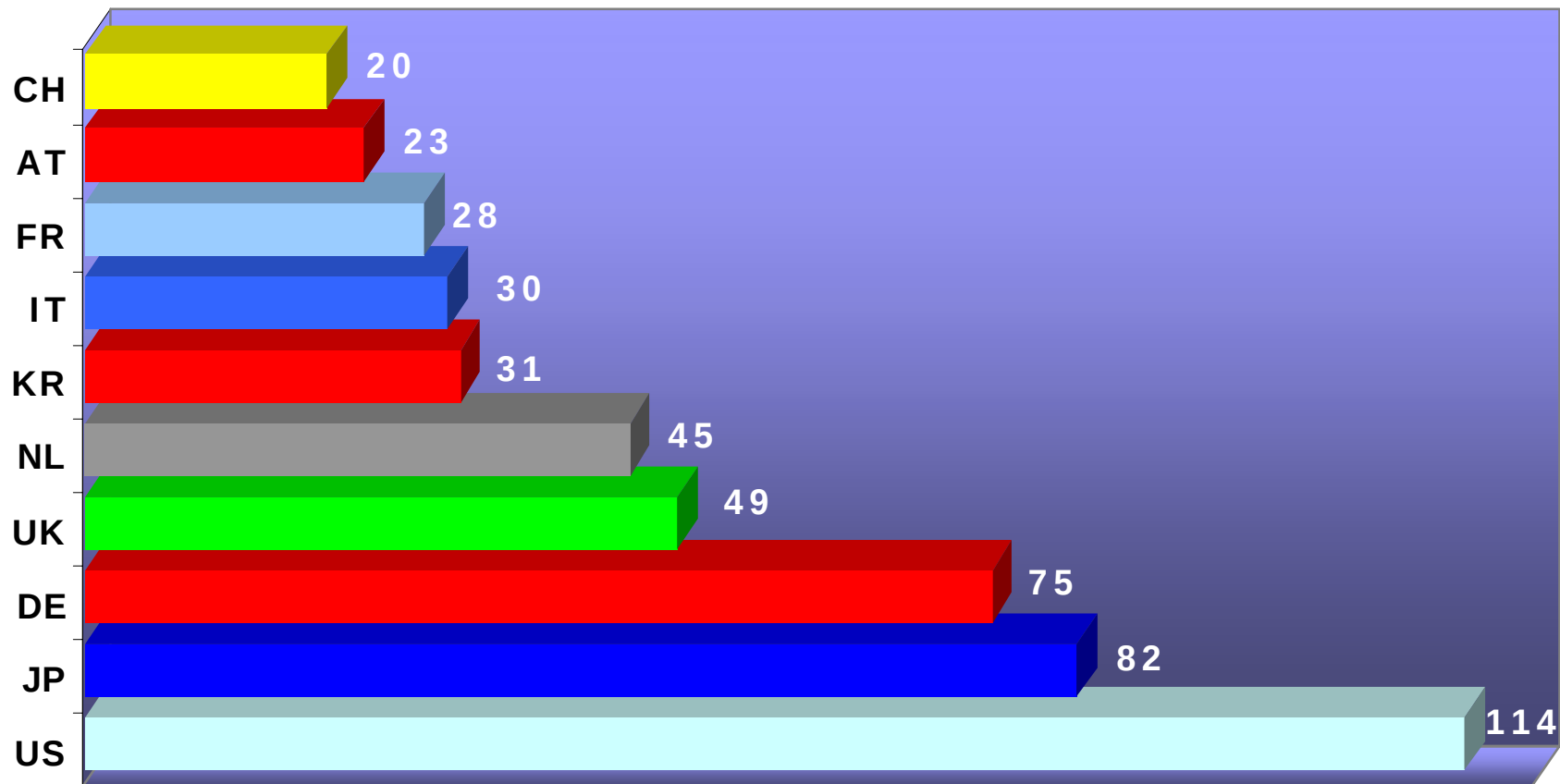
(*) AfriNIC block was allocated on April 11th by IANA



IPv6 Allocations RIRs to LIRs/ISPs



IPv6 Allocations Top 10 Countries





IPv6 in the RIPE Region

- **Address space from IANA**
 - Equivalent to a /17, /21, /22
- **471 Allocations to LIR's**
- **51 /48 IXP assignments made**
- **219 ip6.arpa rev. delegations made**

Allocation Principles

- **Aggregation**
 - Routing table size
- **Conservation**
 - Less important than with IPv4
- **Registration**
 - Uniqueness
 - Responsibility for network operations
 - Privacy concerns
- **Address space not considered property**



Current Policy Proposals

- **Policy proposal #gamma**

- Andy Furnell's proposal to remove the requirement to plan to make 200 /48 assignments

<http://ripe.net/ripe/maillists/archives/address-policy-wg/2005/msg00208.html>

- **Review Whois registration requirements**

<http://www.ripe.net/ripe/draftdocuments/whois2005.html>

Policy Status

- **Common policy agreed May 2002**
- **Policy changes under discussion**
 - RIPE Region policy list
address-policy-wg@ripe.net
 - Global IPv6 policy discussion list
global-v6@lists.apnic.net

Where to Get It From

- **"6to4" space**
 - (2002::/16) transition mechanism
- **An LIR or ISP**
- **From the RIPE NCC**

References

- **IPv6 Statistics (graphical)**

<http://www.ripe.net/rs/ipv6/stats/>

- **IPv4 Lifetime Projections**

<http://bgp.potaroo.net/ipv4/>

- **IPv6 RIPE Documents**

<http://www.ripe.net/ripe/docs/ipv6.html>

- **RIR Allocation Statistics**

<http://www.aso.icann.org/stats/>



Thank You

Questions