



APNIC

ARIN
American Registry for Internet Numbers





RIR Update

A Joint Presentation
Prepared By
APNIC, ARIN, RIPE NCC

Overview



- Joint Efforts
- RIR Specific
- Statistics
- Questions

RIR Co-ordination



- IPv6 policy development
- Joint tutorial & presentation at AfNOG & AfriNIC in May 2002



ASO/Emerging RIRs



- ASO/ICANN
 - ASO Board elections ongoing
 - General Assembly meeting in Bangkok
 - Open Info Session in Ghana

- Emerging RIRs
 - LACNIC
 - LACNIC granted provisional approval as RIR by ICANN Board at ICANN Meeting in Ghana - March 2002

 - AfriNIC
 - Open policy meeting - 14 May 2002, Lome Togo

Outreach



- Objectives
 - Raise awareness
 - Promote industry self-regulation
- Activities
 - Meeting with
 - government representatives
 - industry groups
 - Conducting training
 - Newsletters

Open Policy Meetings



- **APNIC**

- 3 - 6 Sept. 2002 - Kita-Kyushu, Fukuoka, JP

- **ARIN**

- 7 - 10 April 2002 - Las Vegas, US

- **RIPE**

- 29 Apr. - 3 May 2002 - RIPE 42 - Amsterdam, NL

- 9 - 13 Sept. 2002 - RIPE 43 - Rhodes, GR





RIR Specifics

APNIC



- Recent policy changes (Dec 2001)
 - Criteria for portable allocations
 - Multihoming portable assignment policy
- Whois DB v3 migration
 - Planned for mid 2002
 - Working closely with RIPE NCC
- APIRR – “Asia Pacific IRR”
 - Implementation planned mid 2002
 - Test server at irr.apnic.net (fully operational)
 - Currently mirroring 36 other IRRs
 - Thanks to RIPE NCC for assistance!

MyAPNIC Project



- Secured member service web interface
 - Member can access private information and invoke specific APNIC services
 - Eg details of billing status, training records, contacts, resource and request status, allocation history
- Now at v.2 prototype
 - Linux / Perl / MySQL / Apache implementation
 - Similar look and feel to APNIC website
 - Integration with other APNIC systems
 - Certificate Authority
 - Request tracking (RT2)
 - Whois database (currently RIPE v2)

ARIN



- Newly Ratified Policies
 - Policy 2001-2: /24s may be reassigned to downstream customers that are multihomed
 - Policy 2001-6: Organizations with multiple discrete networks may obtain addressing resources under a single maintainer/account
 - Policy 2001-7: Bulk copies of ARIN WHOIS, minus point of contact information, will be made freely available to those who sign AUP
- Current Policy Discussions
 - 2002-1: Lame delegations in in-addr.arpa
 - 2001-3 and 2001-4: IPv6 Policy
- Internet Resource Policy Evaluation Process:
 - http://www.arin.net/arin/policy_eval_process.html

ARIN



- New ARIN Database Release
 - June 2002
 - New object types
 - Organization object (ties together all resources for orgs)
 - Abuse, admin, org-tech, and resource-tech POCs
- ARIN IX Meeting
 - April 7 – 10
 - Las Vegas, Nevada

RIPE NCC



- **ASN Policy**

Phil Smith's report this week shows:

- Total ASes present in the Internet Routing Table: 12759
- Origin-only ASes present in the Internet Routing Table: 11041
- Origin ASes announcing only one prefix: 4833
- Transit ASes present in the Internet Routing Table: 1718
- Transit-only ASes present in the Internet Routing Table: 59
- Average AS path length visible in the Internet Routing Table: 5.4
- Max AS path length visible: 16
- Illegal AS announcements present in the Routing Table: 57

Taking Philip's stats and comparing them with the number of ASs allocated by IANA we see there are fewer than 13000 in use despite 26623 being allocated.

- **GPRS ?**

- ~ 30 requests processed

RIPE NCC



- LIR Mergers

Despite us not being at the end of Q1 we still have almost 50% of the total mergers of all of last year.



– In 2001:

Mergers : 142

Closures: 29

– In 2002:

Mergers : 60

Closures: 10

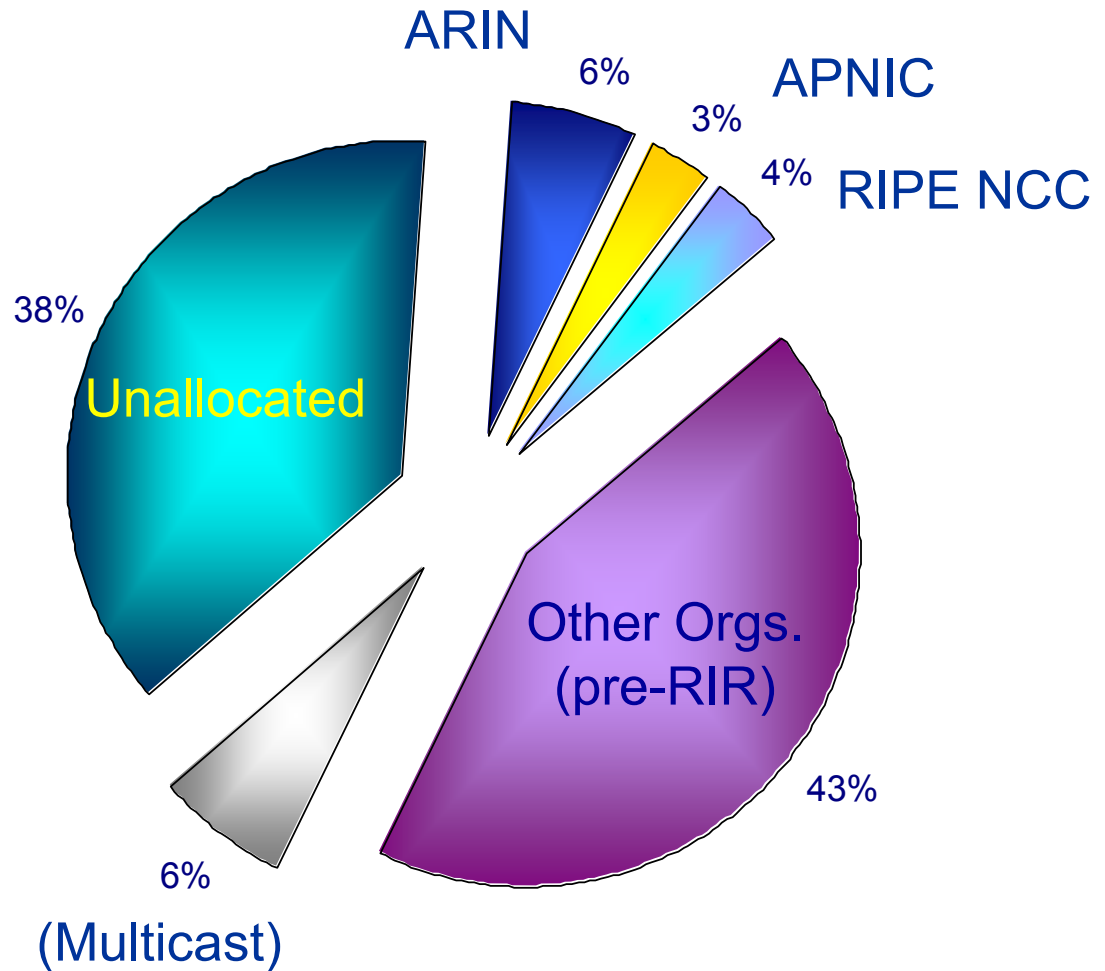


ENUM Operations

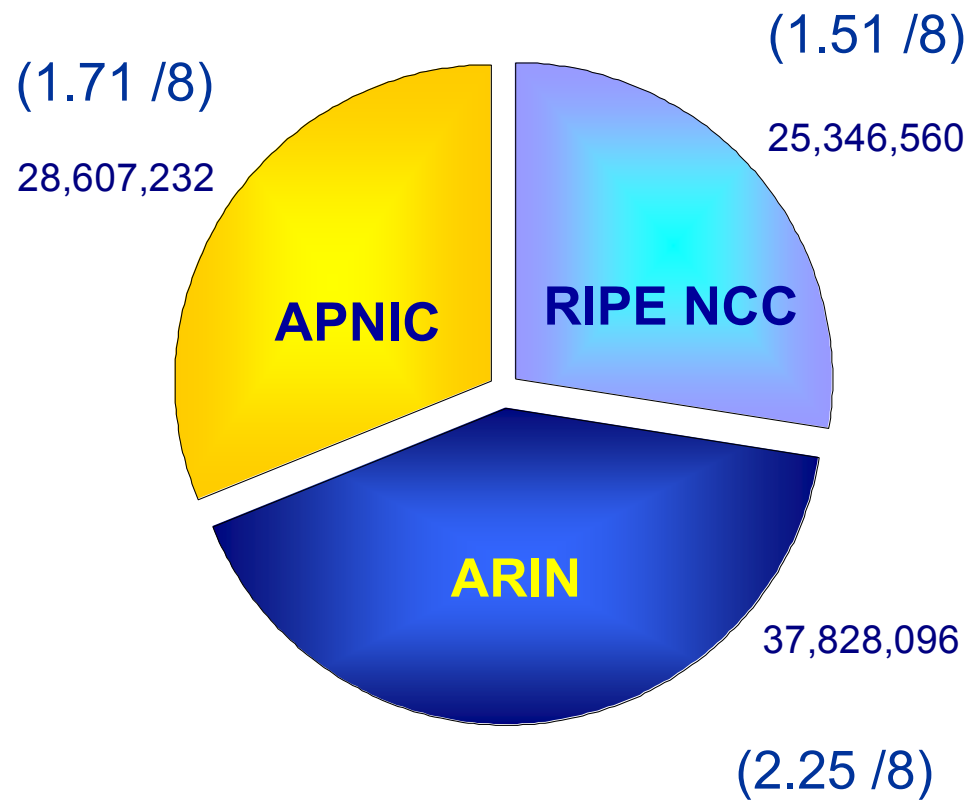


- ENUM requests received:
 - CN, DE, FR, GR, HU, IT, TW, UK, NeuStar
 - Only NeuStar request approved to date
- Country file archive of requests available on website
- Publicly archived mailing lists

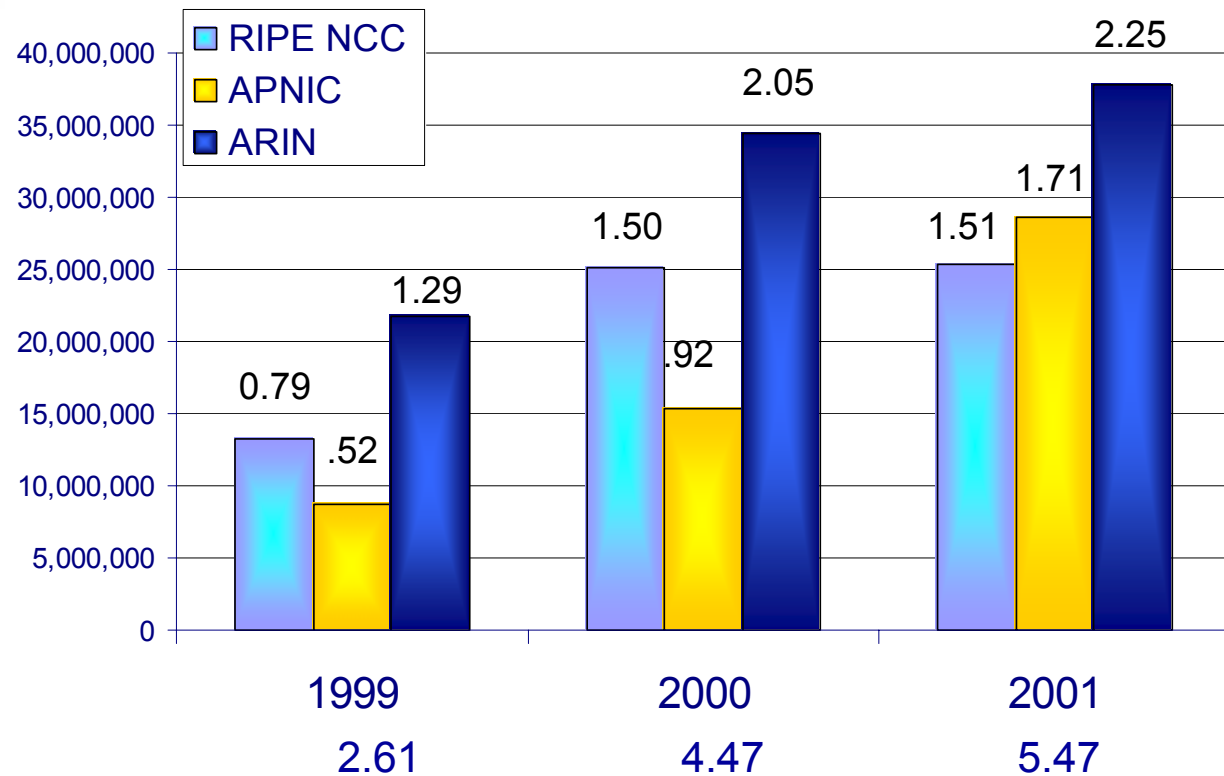
IANA Delegations IPv4 Address Space



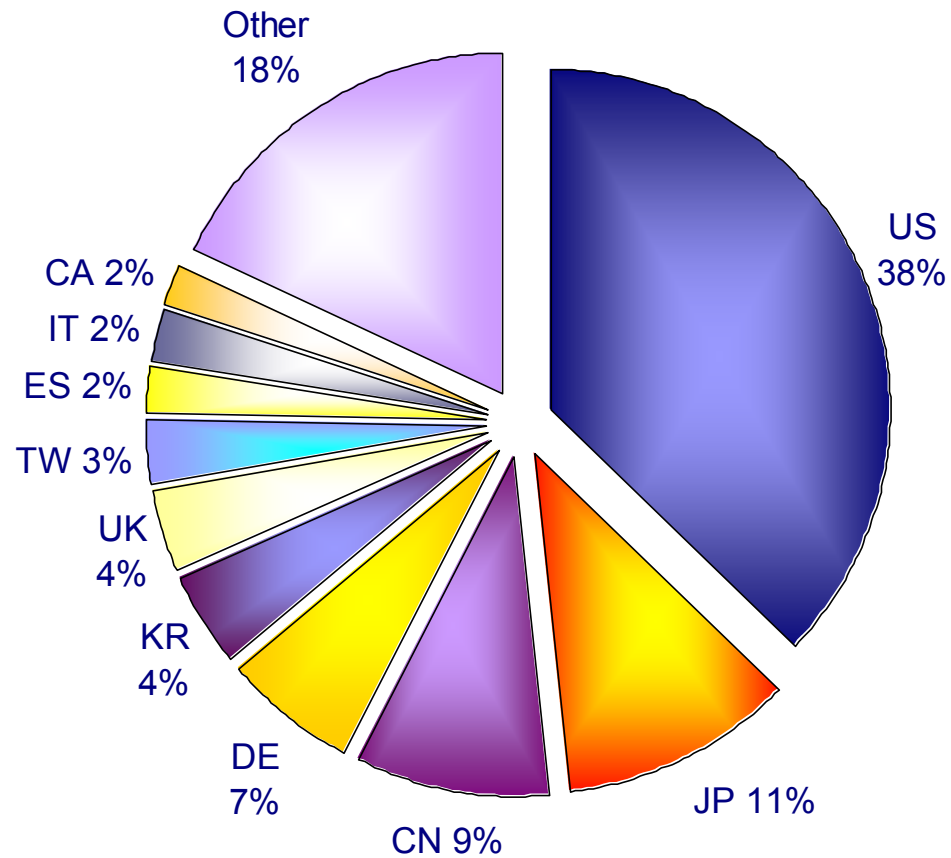
Global IPv4 Allocation 2001



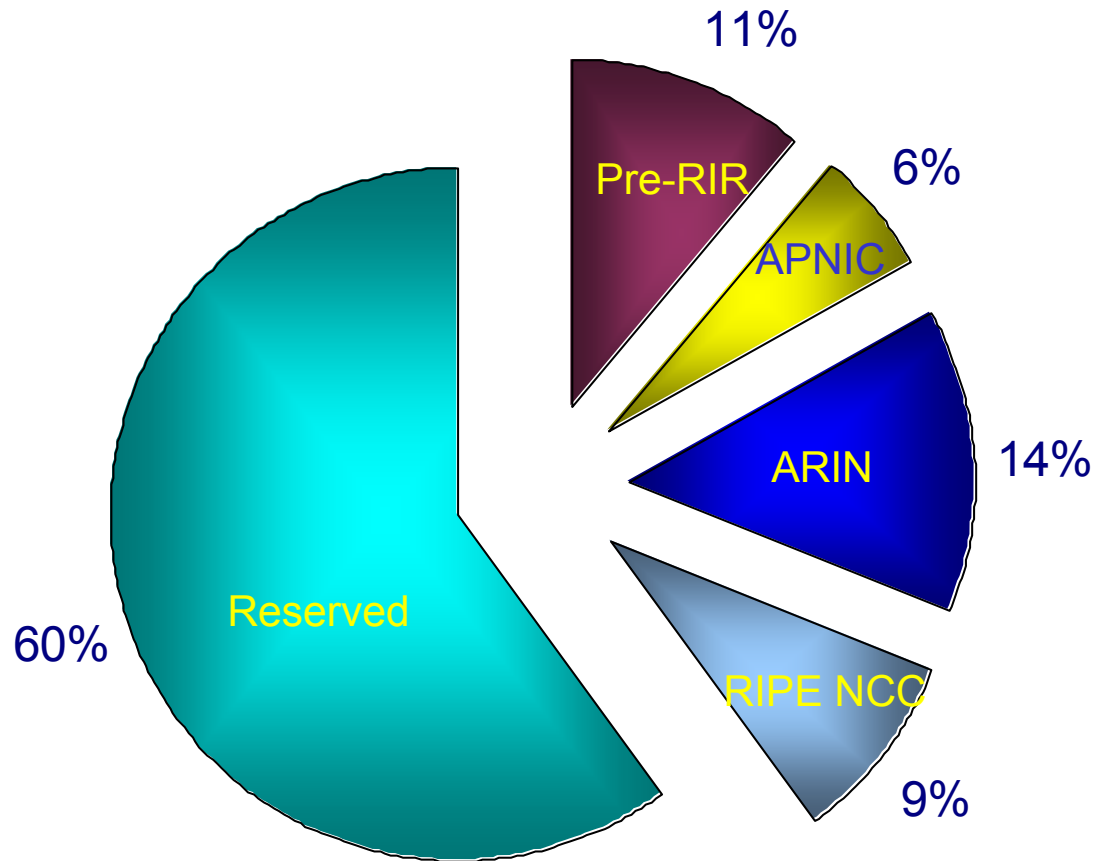
IPv4 Allocation by /8 1999-2001



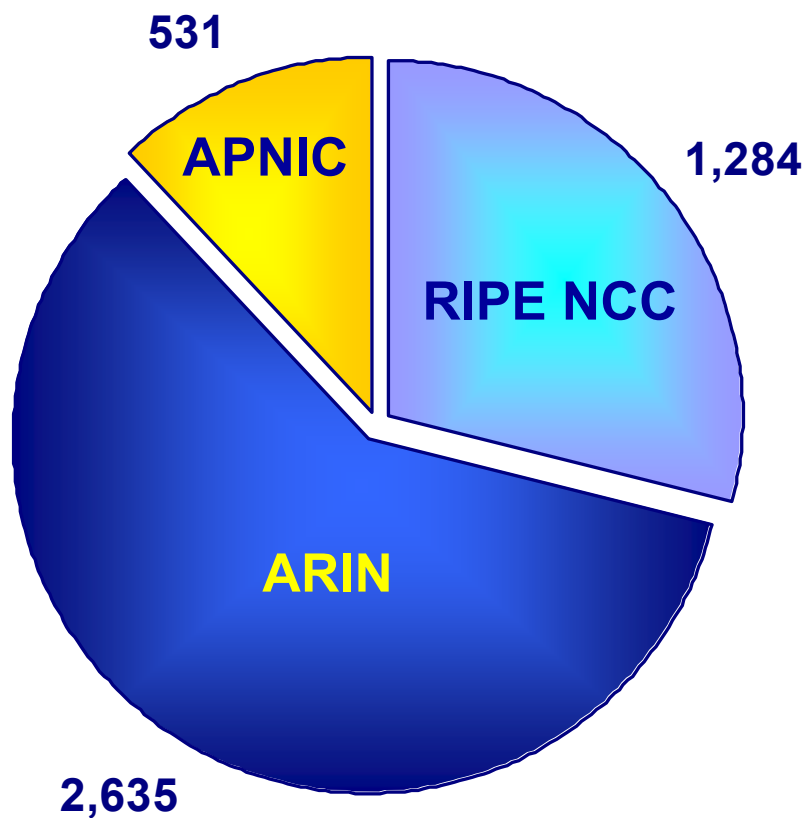
IPv4 Distribution by Country 2001



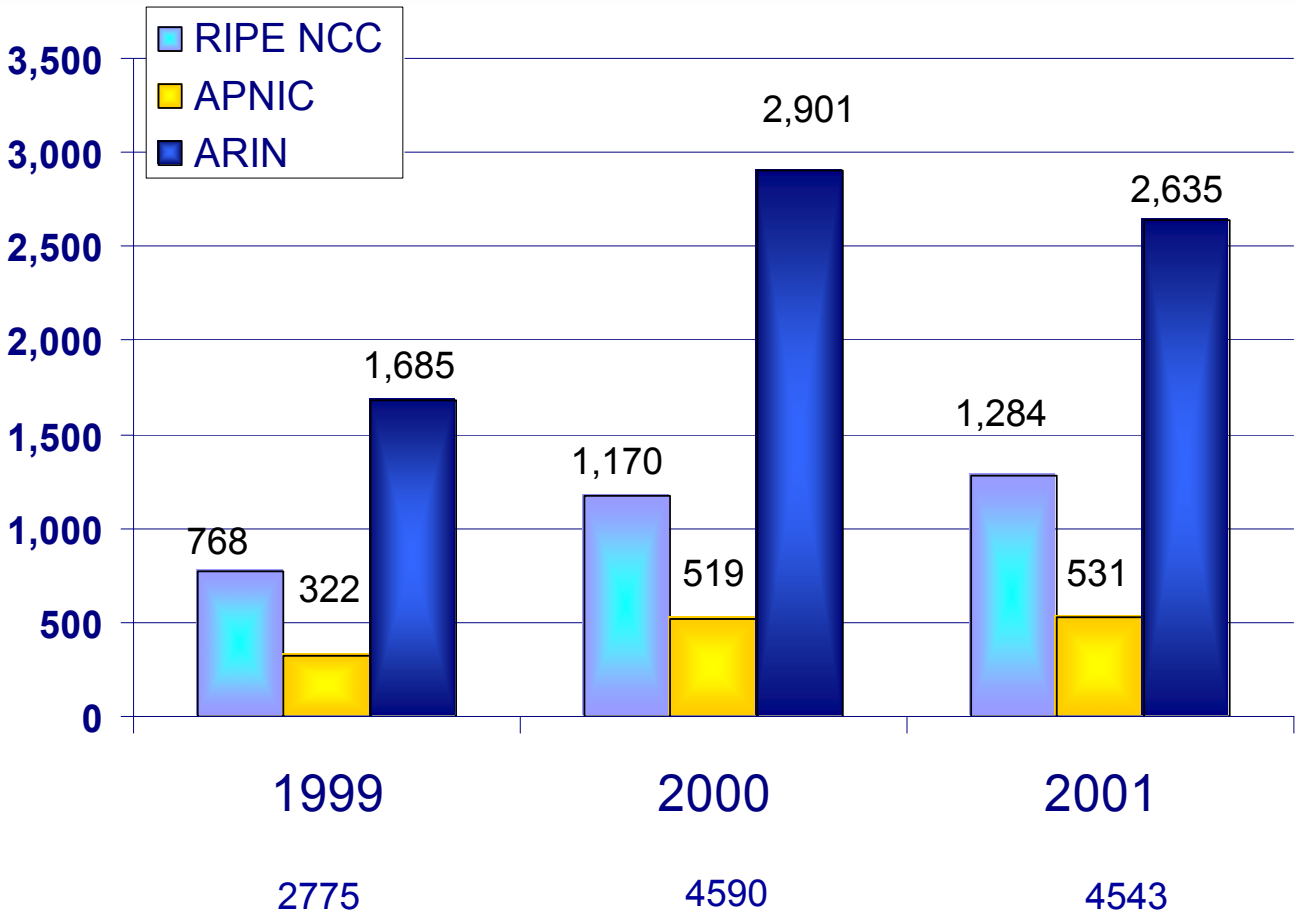
IANA AS Delegation



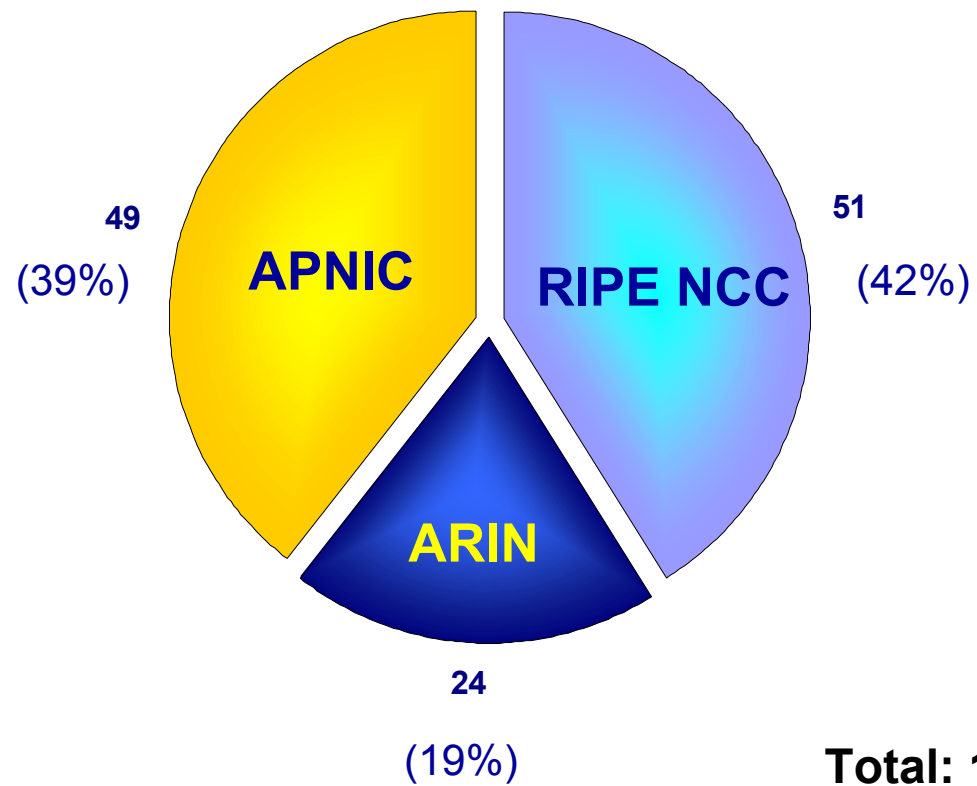
Global ASN Distribution 2001



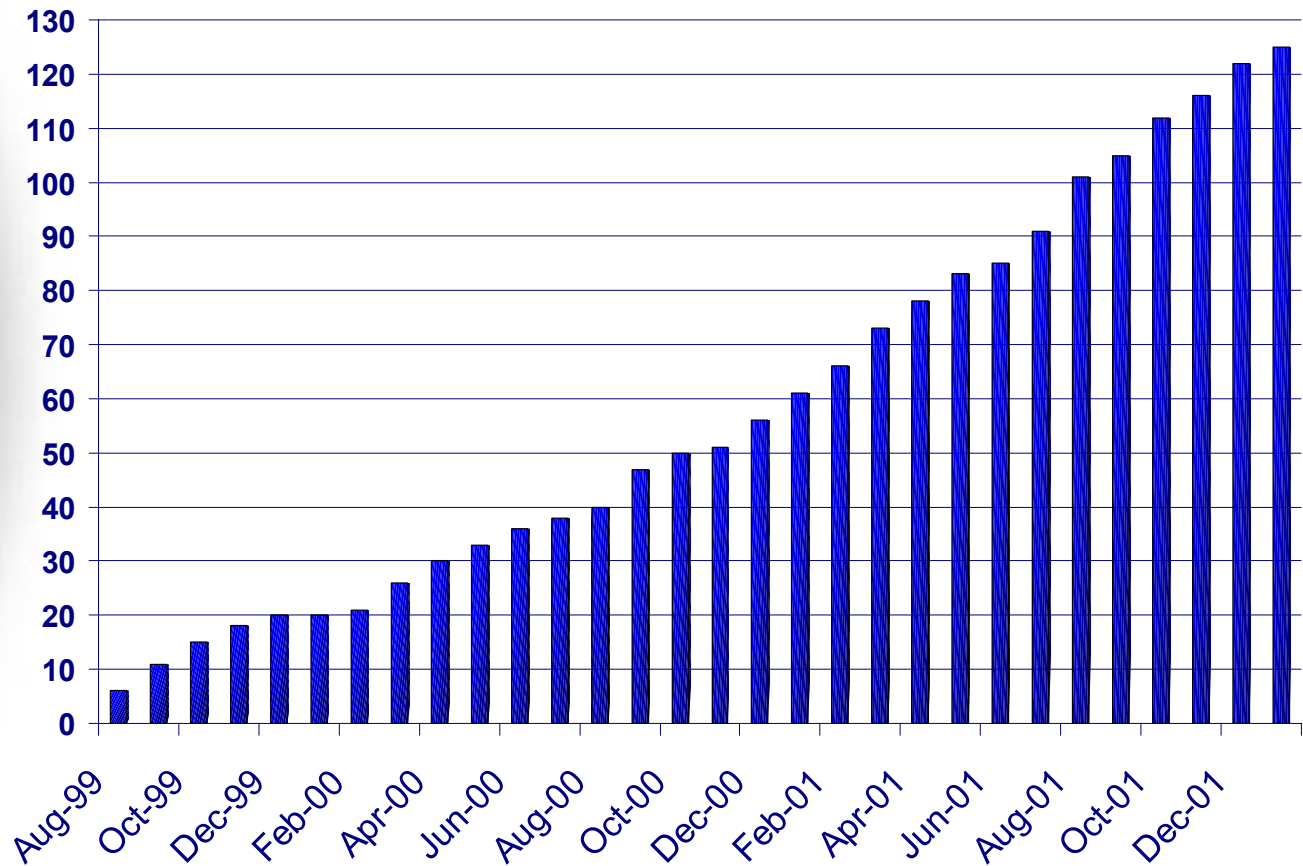
ASN Allocation 1999-2001



IPv6 Allocation

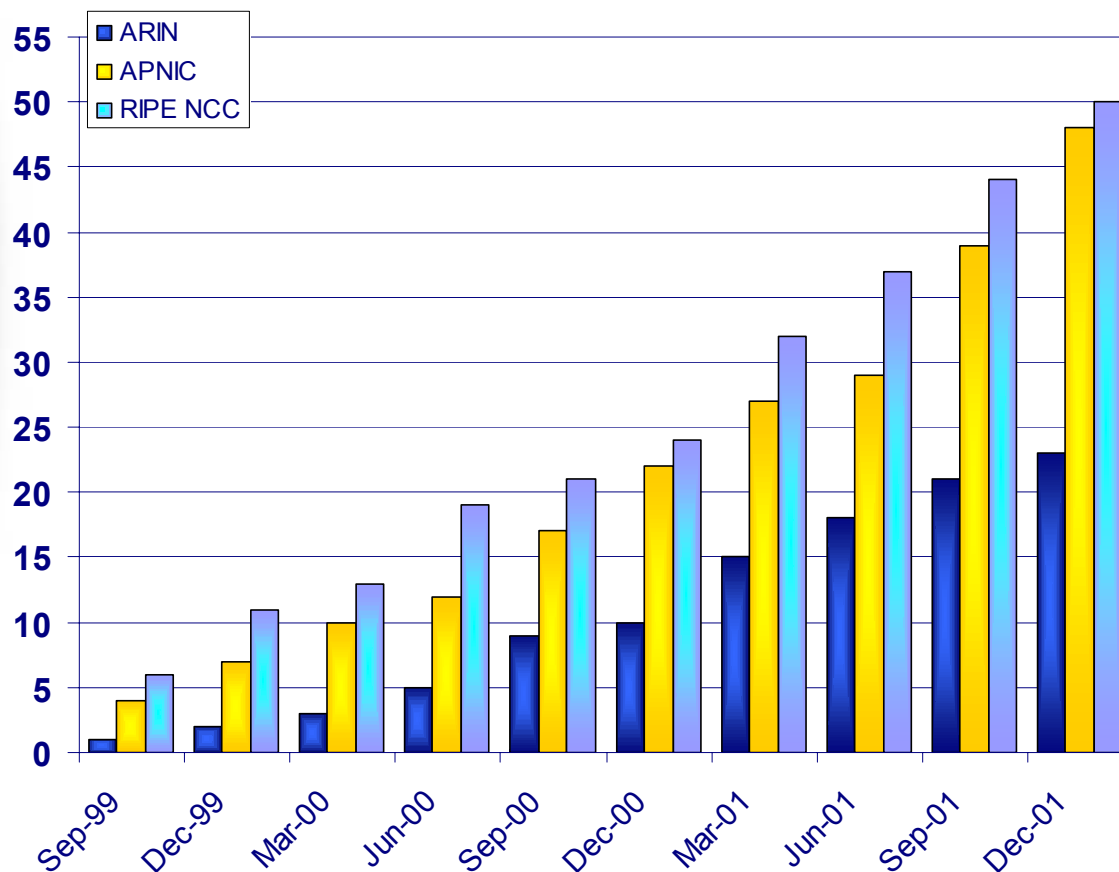


IPv6 Allocations 1999-2002*

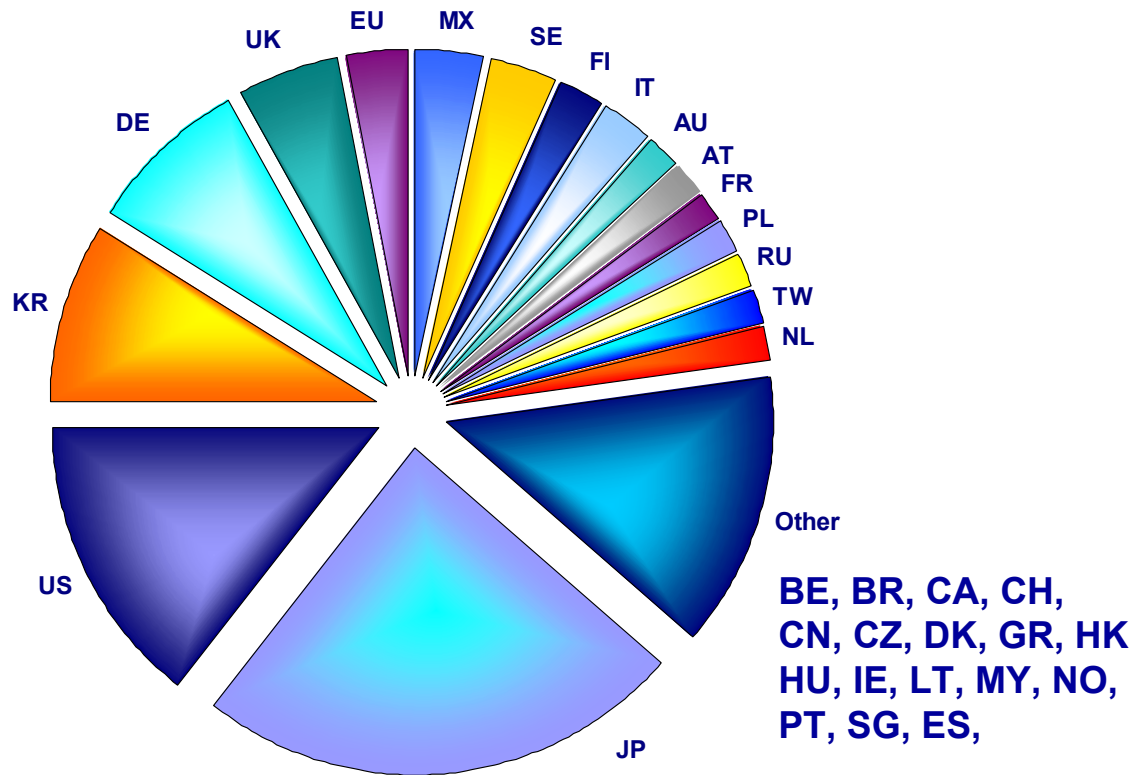


*Jan 2002

IPv6 Allocations per RIR 1999-2001



IPv6 Distribution by Country





Questions?