IPv6 Allocation and Assignments

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Outline

- Introducing RIPE NCC
- IPv6 Allocation Principles
- Some IPv6 Numbers
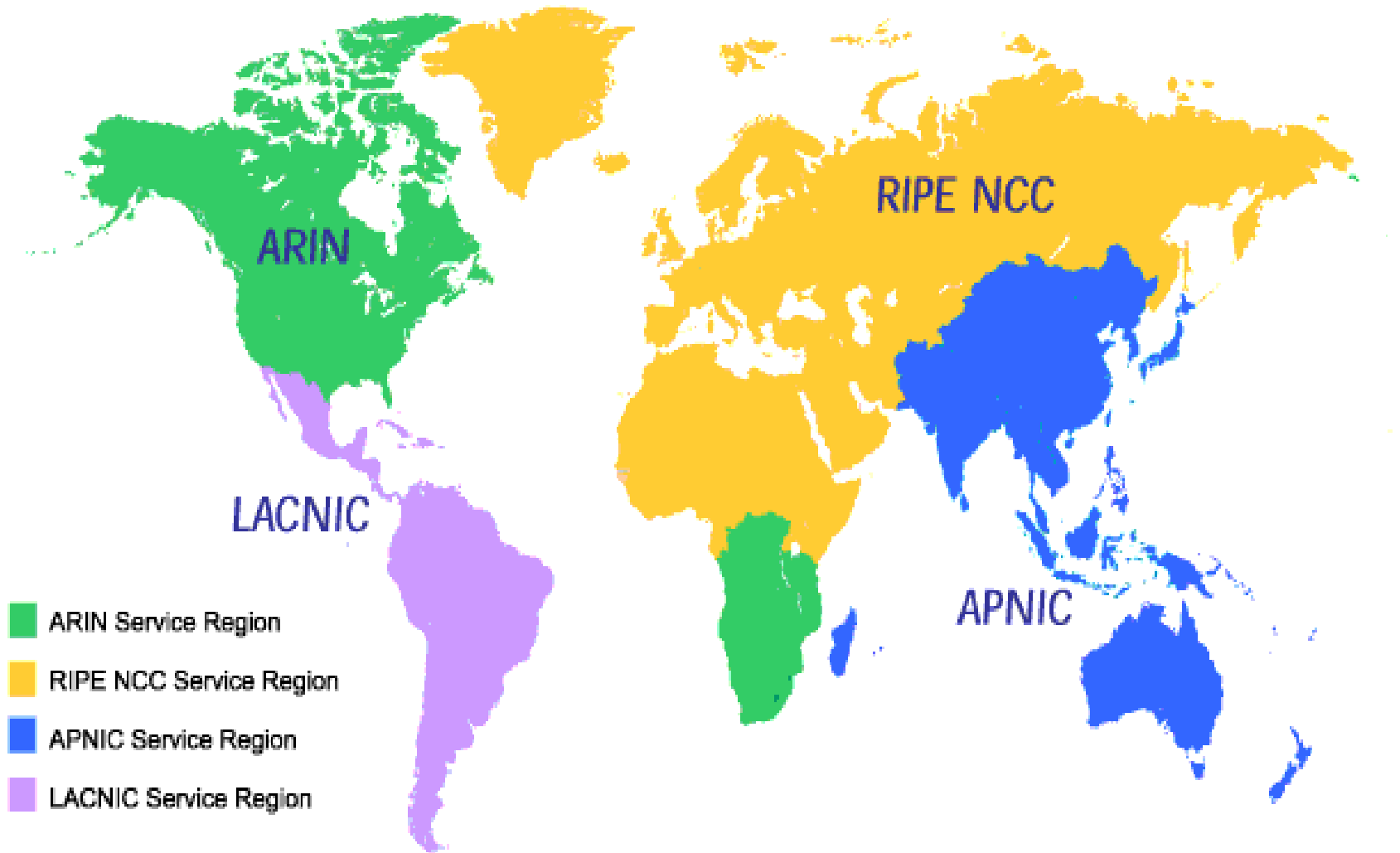- IPv6 Policy

RIPE NCC

- Membership Association
  - Established in Amsterdam in 1992
  - Over 3,800 members (LIRs)
  - Open to all

- Regional Internet Registry (RIR)
  - Not-for-profit
  - Distributes IP address space, AS Numbers
  - Reverse DNS delegations
  - Registration database

RIR Service Regions

ARIN

RIPE NCC

LACNIC

APNIC

- ARIN Service Region
- RIPE NCC Service Region
- APNIC Service Region
- LACNIC Service Region

Allocation Principles

- Aggregation
  - Routing table size

- Conservation
  - Less emphasis than with IPv6

- Registration
  - Uniqueness important
  - Troubleshooting for network operators

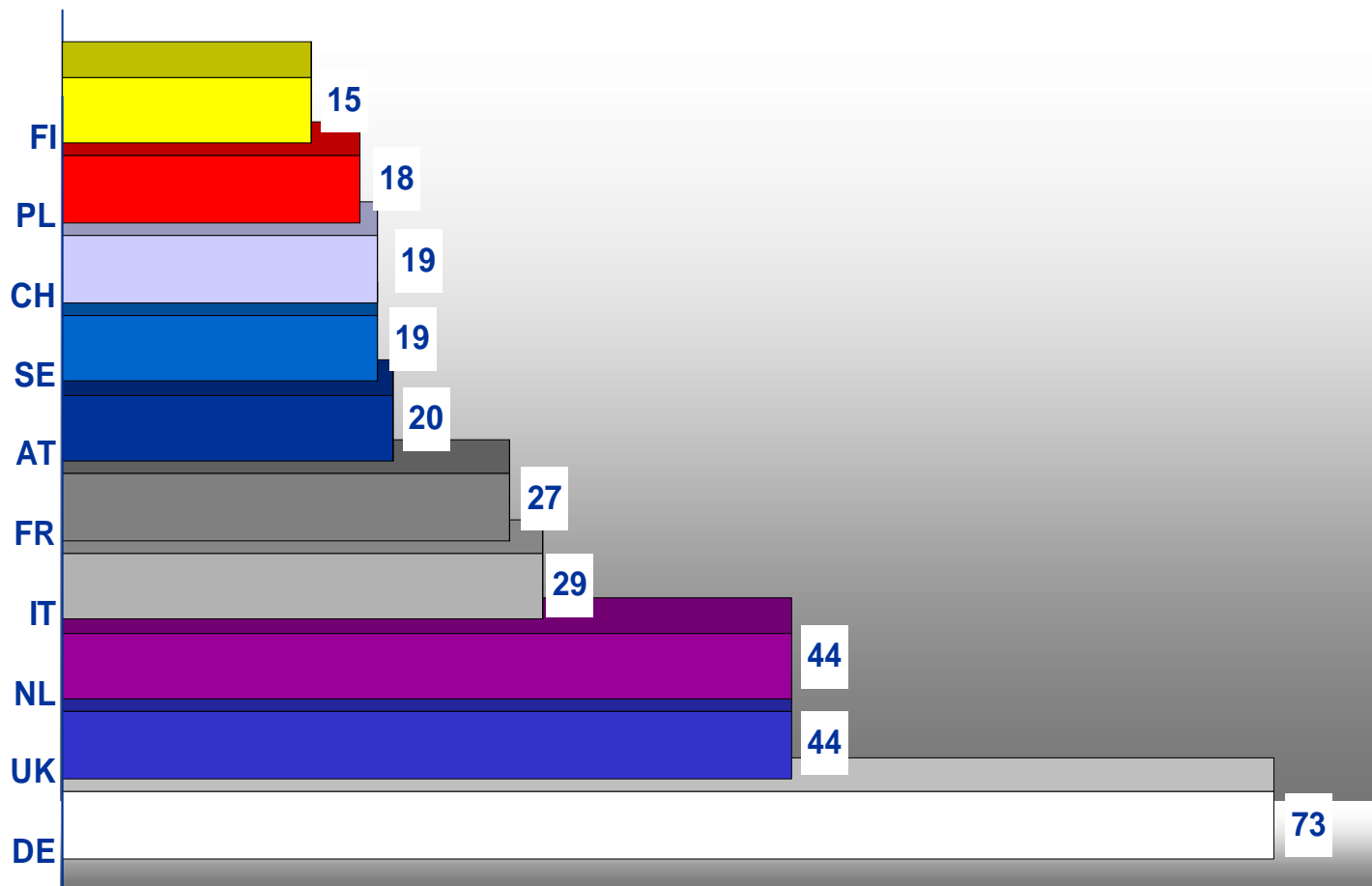- Address space not considered property

Some IPv6 Numbers
As of 28th February 2005

Number of /23 blocks received from IANA	66
Number of allocations	443
/48 IXP assignments made	51
ip6.arpa delegations made	313
'Larger' allocations	12 /19, /20, /21, /23, /24, /27 (2), /29, /30, /31 (3)

IPv6 Allocations per Country
RIPE Region Top 10

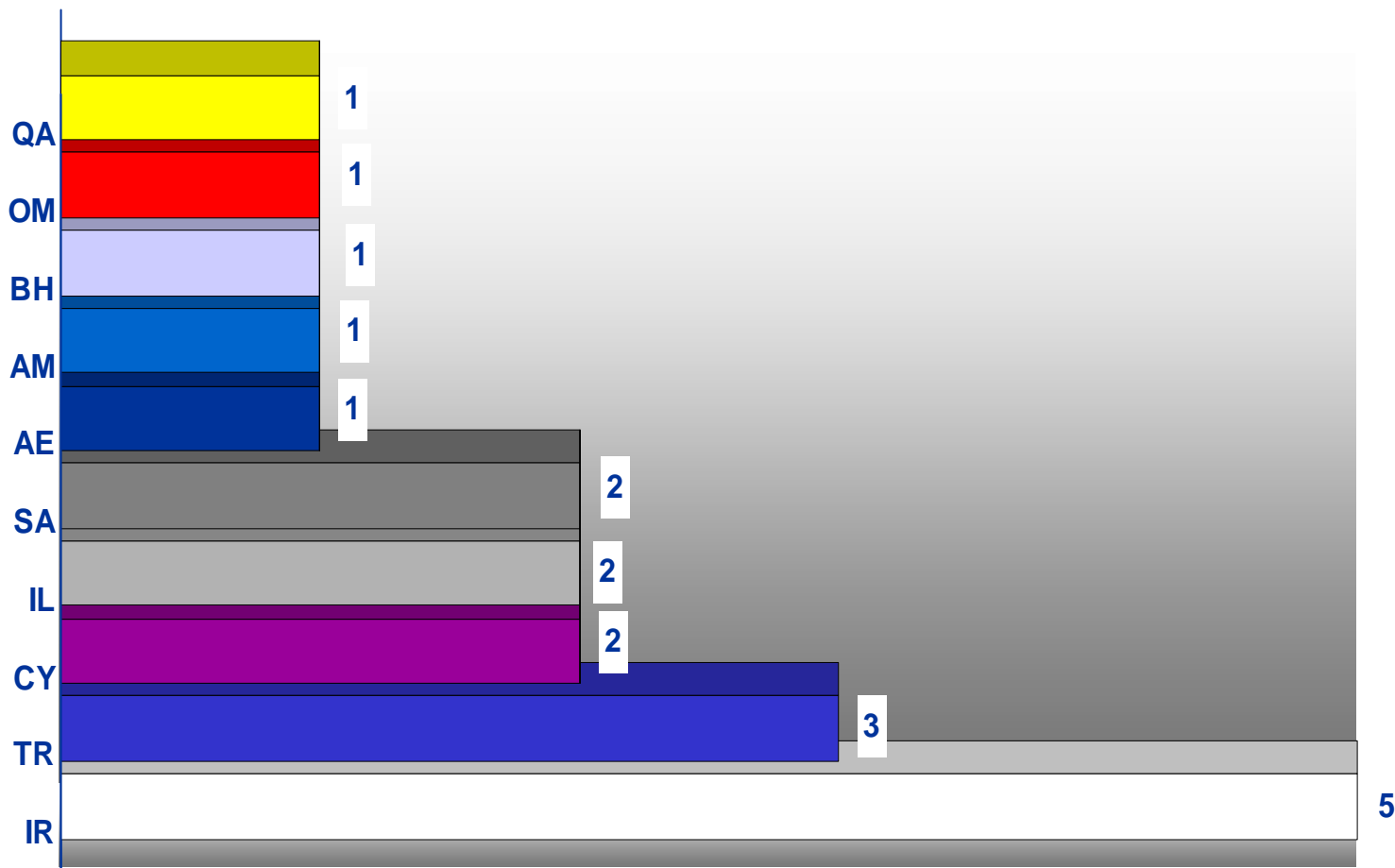| Country	Allocations
FI	15
PL	18
CH	19
SE	19
AT	20
FR	27
IT	29
NL	44
UK	44
DE	73

IPv6 Allocations per Country
Middle East (total)

Policy in RIPE Region

- Common policy agreed May 2002

- Initial IPv6 allocation
  - be an LIR;
  - not be an End Site;
  - plan to provide IPv6 connectivity & assign /48s by aggregating the single allocation; and
  - plan to assign 200 /48s to other organisations within 2 years

- /32 Minimum allocation size

Regional variations in time…

- LACNIC
  - Removed 200 /48 assignments
  - Instead has more time restrictions
    - Start announcing in 12 months
    - Offer IPv6 services to clients in 24 months

- ARIN
  - be an existing ISP in the ARIN region; or
  - plan to make 200 /48 assignments in 5 years

Current Policy Discussions
RIPE Region

- RIPE 49 Address Policy WG (Sept. 2004)
  - Action to draft formal proposal to remove 200 customer requirement

- Draft IANA Policy for Allocation of IPv6 Blocks to RIRs (in all regions)

  http://www.ripe.net/ripe/draft-documents/ipv6.html

Open Policy Development

- Policy development process is
    - Open to all
    - Bottom up
    - Consensus driven
    - Effective

- Please take part

Discussion Lists

- RIPE Region policy list

  address-policy-wg@ripe.net

- Global IPv6 policy discussion list

  global-v6@lists.apnic.net

References

- RIPE IPv6 documents

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

- RIR allocation statistics

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

- RIPE Meetings

    http://www.ripe.net/ripe/meetings/
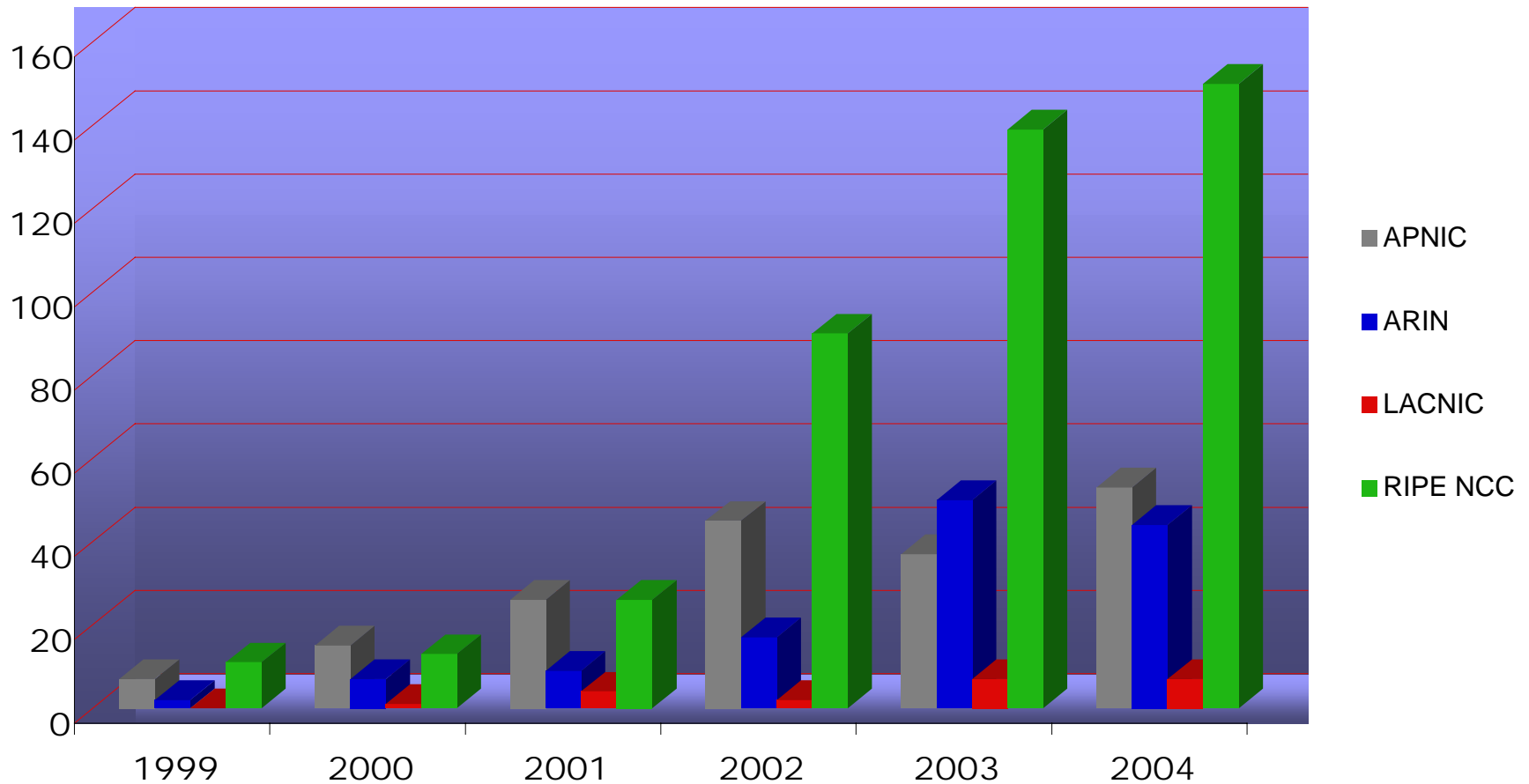
Questions

Thank you!

Global IPv6 Allocations
Yearly Comparison

IPv6 Allocations per country
Global top 10 as of end of 2004

Country	Allocations
CH	19
SE	19
FR	25
IT	26
KR	31
UK	44
NL	45
DE	72
JP	78
US	104