

Introducing IPv6 Address Space

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RIR Policy Development

- The initial 1999 policy
 - Bootstrap phase
 - The first 100 allocations
- The 2002 RIR common policy
 - Increased availability
- Regional changes since 2002
 - Some requirements removed
 - Easier to obtain addresses



Global Policy Development

- ICANN context
 - Policy agreed in all RIR communities and forwarded by the ASO AC to the ICANN board
- IPv6 Allocations to RIRs
 - Policy discussions ongoing

Common IPv6 Policy Principles

- Address space is not property
 - Leased
 - Automatically renewed, if criteria still fulfilled
- Different priority of goals
 - Aggregation over conservation
 - Less administrative overhead

Allocation Principles

- Aggregation
 - Routing table size
- Conservation
 - Less important than with IPv4
- Registration
 - Uniqueness
 - Contacting network operators
 - Privacy concerns

Assignment Principles

- Assignment size
 - /48 if multiple networks might be needed
 - /64 one subnet by design
 - /128 one device
- /48 per ISP site suggested
- Approval needed when using multiple /48s per site

Other IPv6 Policy Details

- LIR-to-ISP sub-allocations encouraged
- More hierarchy (and aggregation) encouraged
- Registration
 - Register every /48 “in a database accessible to the RIR”

Policy Status

- Policy change under discussion
 - Remove the “plan for making at least 200 /48 assignments” requirement, making it easier to obtain addresses
- RIPE’s policy discussion list
address-policy-wg@ripe.net
- Global IPv6 policy discussion list
global-v6@lists.apnic.net

And now for the numbers...
(28 February 2005)

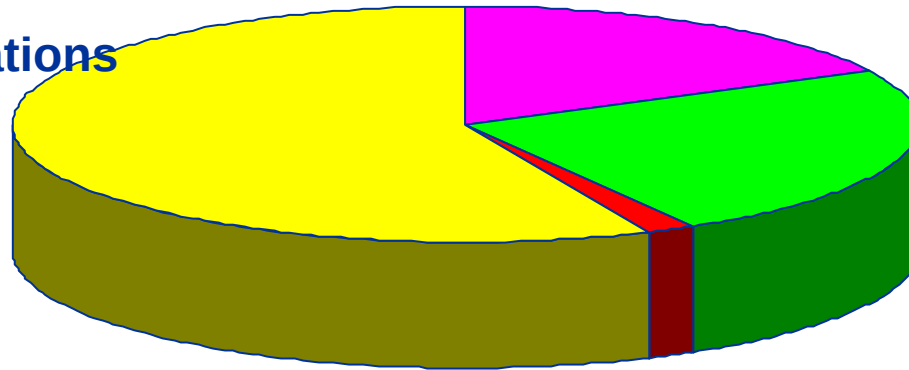


RIPE NCC IPv6 Address Space Distribution Overview

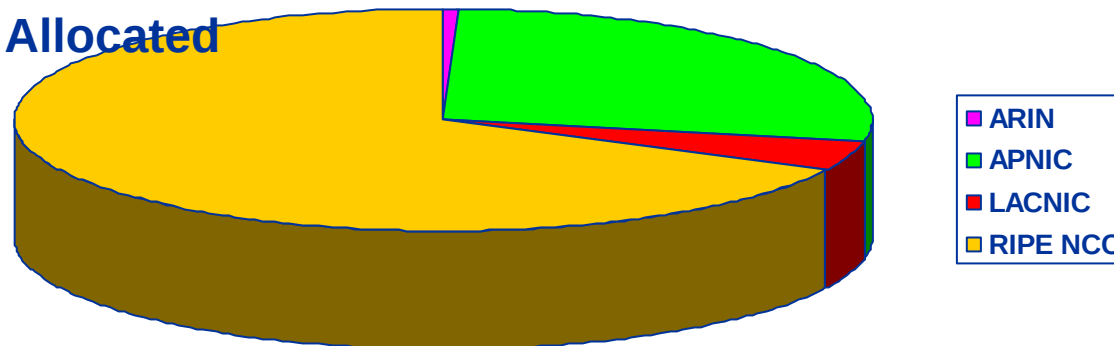
/23 blocks received from IANA	66
Number of allocations	443
/48 IXP assignments	41
ip6.arpa reverse delegations	313
“Bigger” allocations	12 /19, /20, /21, /23, /24, 2x/27, /29, /30(exp), 3x/31

Global IPv6 Distribution

Number of Allocations



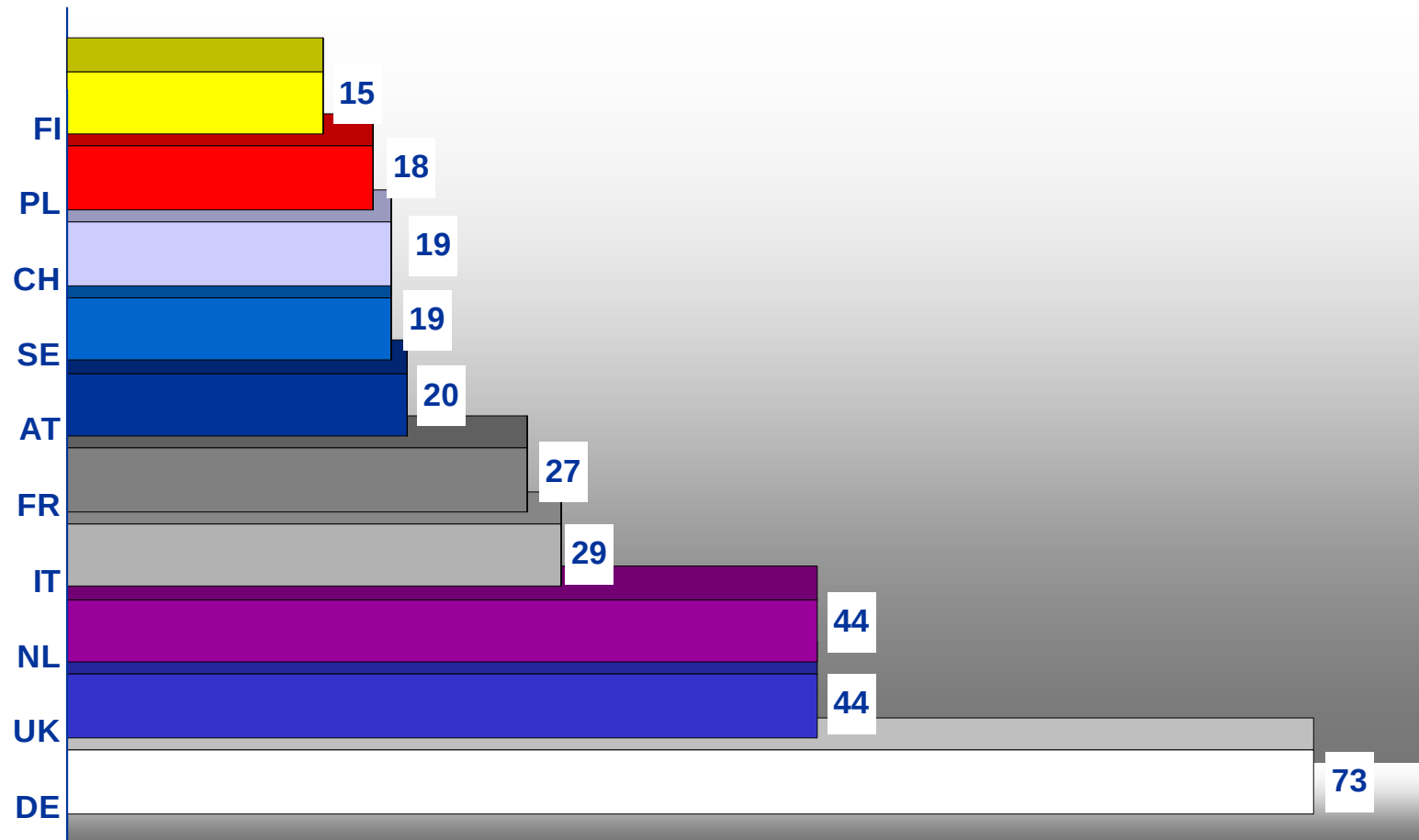
Amount of Space Allocated





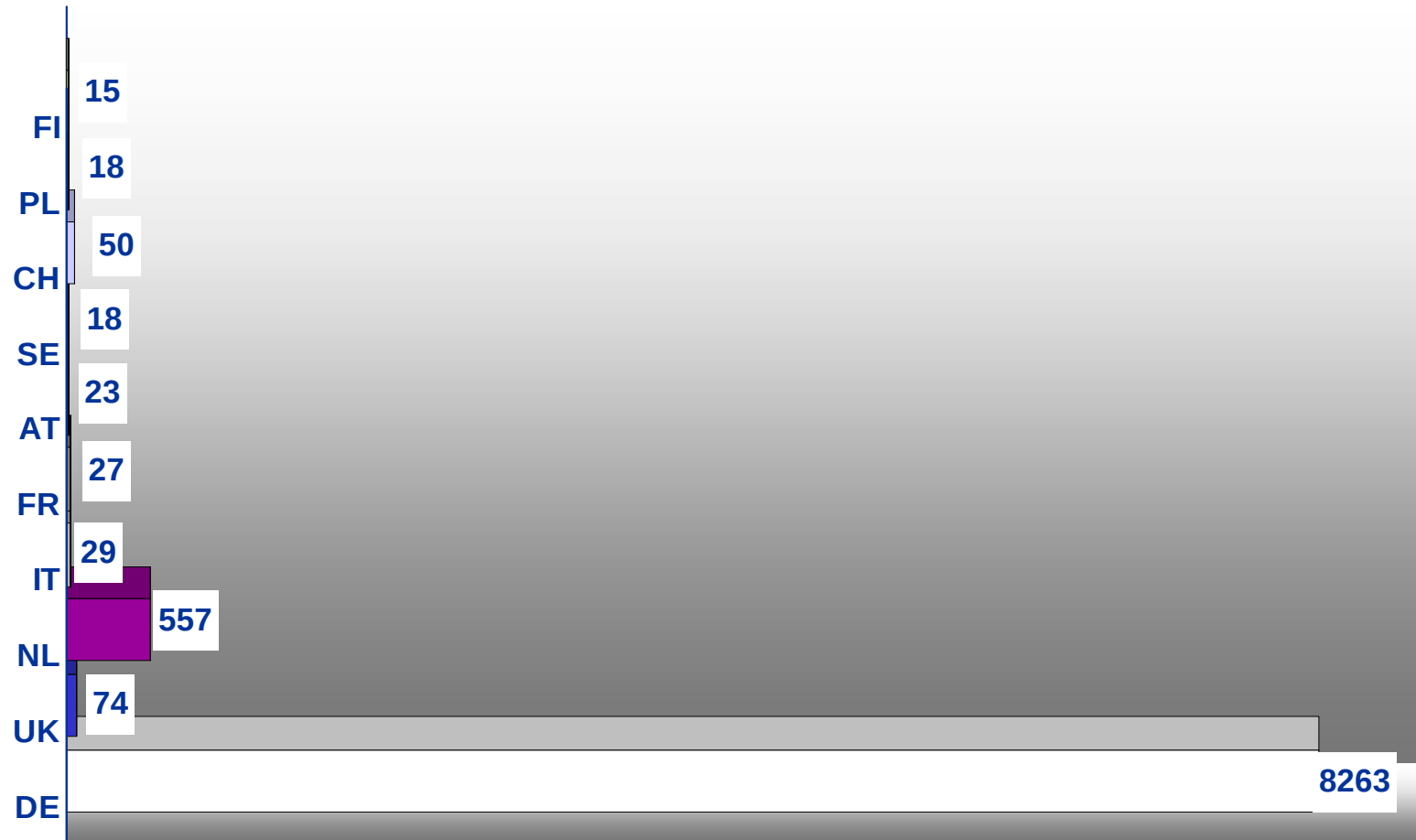
No. of Allocations per Country

RIPE NCC Service Region



IPv6 Space per Country

RIPE NCC Service Region



References

- Common Policy Document

<http://www.ripe.net/ripe/docs/ipv6policy.html>

- IPv6 RIPE Documents

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

- IPv6 Statistics (graphical)

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

- RIR Allocation Statistics

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

Questions & Answers

