IPv6 from an RIR perspective

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Outline

About the RIPE NCC

Allocation principles

IPv6 policy development

Statistics
About the RIPE NCC
Facts

Membership based organisation

Established in 1992 in Amsterdam

Over 4500 members

Membership is open to anyone
Services

Distribute internet number resources

IP Addresses and AS Numbers

Operate the RIPE Database

Reverse DNS Delegations
Allocation Principles
Aggregation

very large address space

will be in use for a long time

must limit routing table growth
Aggregation
Aggregation

Conservation

very large address space

it has to last a long time
Aggregation  Conservation
Aggregation  Conservation

Registration

uniqueness is always important
troubleshooting for operators
Aggregation   Conservation

Registration
Aggregation  Conservation

Registration
Current
IPv6 Address Policy
be an LIR
not be an end-site
assign /48s to other organisations
advertise a single prefix
have a plan
to make 200 assignments in two years
Current Policy Proposals
Proposal 2005-08

refinement of allocation sizes and accounting
Proposal 2005-08

Flexible customer assignment sizes

Smaller LIR allocations

Different utilisation counting method
Proposal 2006-01

Provider independent assignments
Proposal 2006-01

IPv6 assignments to end-users

Multi-homing

Routing table growth
Proposal 2006-02

refinement of allocation criteria
Proposal 2006-02

No more arbitrary number of customers

Customers can be LIR’s own organisation

Must announce as a single aggregate
Statistics
IPv6 Allocations by RIR

AFRINIC
APNIC
ARIN
LACNIC
RIPE NCC
Allocated and visible prefixes

- RIS Visible
- Allocated

Years: 2003 to 2007
IPv6 TLD anycast assignments

since September 2006

5 IPv6 anycast assignments

2 are visible in the routing table:

.ch and .cz
More Information

http://www.ripe.net

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http://www.icann.org/meetings/lisbon/presentation-leheux-ipv6-25mar07.pdf