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

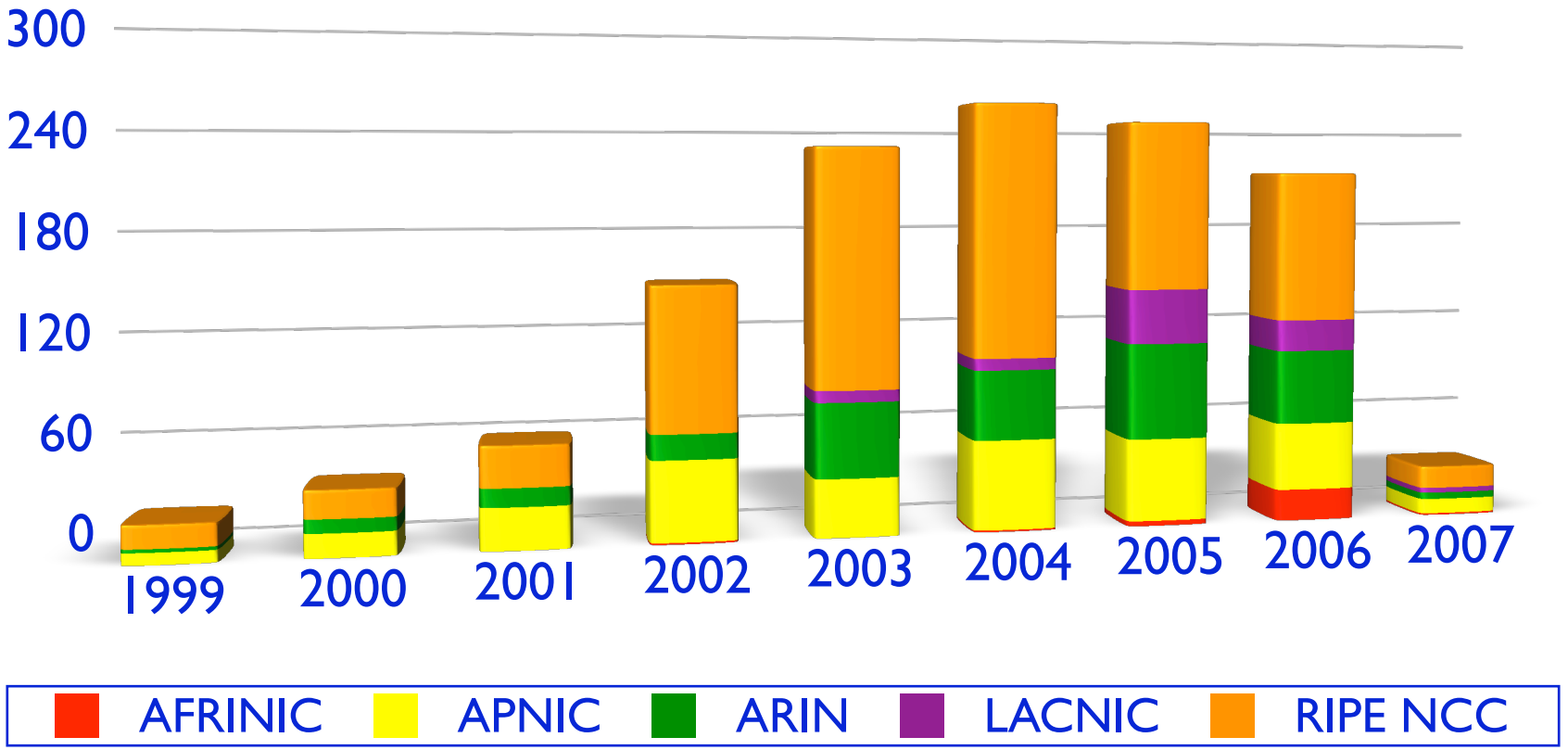
No more arbitrary number of customers

Customers can be LIR's own organisation

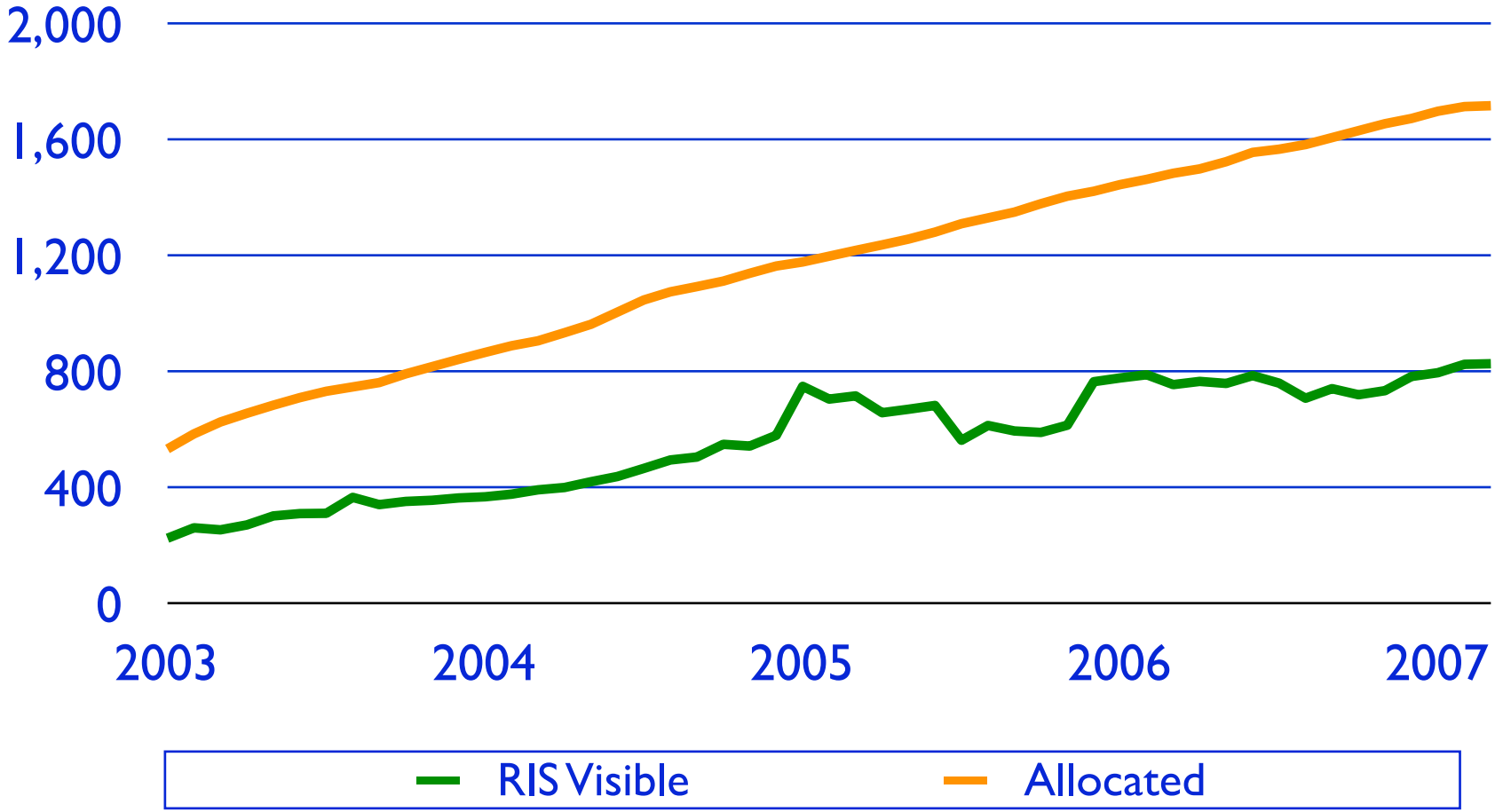
Must announce as a single aggregate

Statistics

IPv6 Allocations by RIR



Allocated and visible prefixes



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