RIPE NCC

Activities and Services
Overview

• What is the RIPE NCC

• RIPE NCC Membership

• RIPE NCC Tasks

• RIPE NCC Services
What is the RIPE NCC?

- **Not for profit membership association**
  - Since 1997 (active since 1992)
  - Funded by members, thus autonomous

- **Bottom up structure**
  - Industry self-regulation
  - Open and transparent
  - Neutral and impartial
RIPE NCC Membership

• Membership is open to all interested parties

• RIPE NCC members:
  – Elect Executive Board
  – Guide activities & budget
  – Approve fees

• 3800+ participating LIRs (members)
RIPE NCC Tasks

• Co-ordination and provision of services for its members & RIPE community
  – Membership Services
  – Co-ordination Services
  – Information Services

• One of 5 Regional Internet Registries (RIRs)
  – Responsible stewardship of Internet Resources
    • IPv4, IPv6 addresses, AS Numbers
    • Allocation and Registration
  – AfriNIC, APNIC, ARIN, LACNIC, RIPE NCC
RIR Service Regions
RIPE NCC Who Is Who

Executive Board

Chief Scientist

Managing Director

CFO

CTO

Head Member Services

90+ staff (24 nationalities)
RIPE NCC Services
RIPE Whois Database

• **Public Database**
  – IP addresses
  – AS Numbers

• **Software**
  – RIPE NCC
  – Requirements by RIPE community

• **Content**
  – LIRs, Internet Users, RIPE NCC
  – **Not** responsibility of RIPE NCC

• **1,800,000+ objects in the RIPE Database**
Registration Services

• Allocation and registration of:
  – IPv4 addresses
  – IPv6 addresses
  – AS Numbers

• Putting policies into practice

• Information on resource distribution

• Member service
IP Address Distribution

AGGREGATION
less routes in the global routing table

CONSERVATION
less address space wasted

REGISTRATION
uniqueness / troubleshooting
Training

• **LIR Course**
  • How to request IP addresses and AS Numbers
  • RIPE policy process

• **Routing Registry Course**
  • Use of routing registry and RPSL
  • RIPE NCC routing related services

• **DNSSEC Course**
  • Explanation of DNS vulnerabilities
  • Introduction of DNS security extensions
Other Services

• Information Services
  – DNSMON
    • Monitoring of main DNS servers
    • Objective and up-to-date
  – DISI
    • Internet-wide security issues
  – RIS
    • Global routing information for operators
– Test Traffic Measurements
  • In-depth connectivity information

• Operation of DNS rootserver “k”
Summary

RIPE NCC:

– Economically and politically independent
– Not for profit membership association
– Bottom-up self governing structure
What is the NRO?

- Number Resource Organisation
  - “Coalition” of all RIRs
- For carriage of joint RIR activities
  - Technical coordination and services
    - DNS, ERX, whois, 6to4, IPv6 unique local ...
  - RIR point of contact and representation
  - Global policy coordination
  - Negotiation and Liaison with other bodies
    - ICANN, IETF, UN/ITU/WSIS etc
- Independent of ICANN
  - Able to operate with or without ICANN
  - But intended to support and work with ICANN
Political Context
Questions
Internet Myths

• Myth 1: We are running out of Addresses
• Myth 1a: Some Countries cannot get Addresses
• Myth 2: ICANN Makes Addressing Policies
• Myth 3: US controls Root Nameservers
• Myth 4: National address administration will make the world a better place
Myth 1: We are running out of Addresses

- Information Services on IPv4
  http://www.ripe.net/info/info-services/ipv4/
- Regional Internet Registries facilitate
  – Considerable slowing of address consumption rate
  – Dramatic increase in efficiency of usage
- Extrapolating current trends points to “Expiry Date” in between 2020 and 2040.
Myth 1a: Some Countries cannot get Addresses

- Addresses are held in a global pool of unallocated resources
- Anybody, Anytime will receive addresses based on “demonstrated need”.
- Ensuring longevity of resource pool while ensuring fair distribution
Myth 2:
ICANN Makes Addressing Policies

ICANN does not feature in the Policy Development Process
Myth 3: US controls Root Nameservers

More than 80 and the number is growing
Myths 4: National address administration will make the world a better place

- Internet resources have no attribute that links them to geography
- National reserves would be wasteful and further depletion
- Detrimental to Internet stability
  - Proliferation of routing information
- Response to ITU comments:
  http://www.nro.net/documents/nro17.html