



# RIPE NCC Certification Task Force Update

Presented by Nigel Titley

RIPE NCC Services WG  
May 9, 2007

# Content

- History
  - Why Resource Certification?
  - Complexity of Project
  - Task Force Set-up
- Scope of the Certification Task Force
- Current Status
- Impacted Areas
- Next Steps

# Why Resource Certification?

- Improve stability of the Internet
- Higher quality of allocation data
- Assertion validation procedure
  - Resource allocation: “RIPE NCC has allocated this resource to this party”
- Helpful to ensure routing security
  - Check route injection authority
  - Automate trust relationship
- Strengthen relationship between RIPE NCC and its members

# Complexity of Project

- The certification project extends through all parts of the RIPE NCC, and so is a difficult and complicated challenge.

# Task Force Set-up

- Certification TF assembled at RIPE 53
- Six RIPE community members
- Good representation of region
- Set-up to be part of the trial deployment in the RIPE region during 2007
- Tasked to formulate report for RIPE 55 for community discussion on way forward

# Task Force Scope

- Identify requirements for a number resource certification service
- Follow developments and raise awareness among network operators
- Advise on impact
  - Service infrastructure, operational procedures
  - Utility of the authentication model
  - Policy considerations
  - Business relation between LIRs and RIPE NCC
- Provide recommendations for production development

# Current Status

- The CA-TF defined a picture of the landscape
- The certification prototype has been delivered to support the identification of impacted areas
- To simplify the project five main areas will be the focus of research and discussion:
  - **Business area (including impact on policies)**
  - **Services area**
  - **Technical area**
  - **RIR wide area**
  - **Application area**

# Business Area

- Changes in the registration services related to the Registration Authority function
  - authentication
  - business relationship (throughout the whole chain)
    - Including end-users and PI space
- Resource transfers
  - role of the RIR
- Liability issues
  - Repository
  - certificate revocation and impact on end-users
  - certification of ERX space



# Business Area – Impact on Policies

- How certificates are issued
- For ERX/legacy resource holders
- A transfer policy
  - Transfers are going to be possible
  - Within an RIR region from one party to another and between RIR regions
  - Policy to ensure:
    - Avoiding transfer of the same resource to several parties at a time

# Services Area

- Certificate repository
  - Interoperability between repositories (RIRs)
- Validation service
- Hosted certification services
  - implication of hosted resource management systems
- Shared certificate repositories
  - reliability requirements

# Technical Area

- Specific areas for attention
  - Repository architecture
  - Performance implications

# RIR-wide Area

- Specific areas for attention
  - Trust anchor(s)
  - Inter-RIR resource transfers
  - Deployment plan

# Application Area

- Use for routing authorisation
  - Backward compatibility with RPSL database?
  - ROAs
  - Future secure routing protocols
- Automating provisioning
- Resource transfers

# Next steps

- Make available documentation and code
- Report at RIPE 55