

# WHOIS ACCURACY and PUBLIC SAFETY

DBWG - 10/05/2017

**RIPE 74**  
BUDAPEST, HUNGARY  
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# Problem statement

- WHOIS accurate info is essential:
  - for trouble shooting at all level
  - to attribute malicious online activity
- RIPE Data accuracy requirements + ex-ante/ex-post audit processes
- BUT WHOIS accuracy is still a challenge

# WHY?

- DB does not properly reflect the **entire chain** of assignments and sub-allocations
- **Lack of compliance mechanisms** to ensure accuracy requirements are implemented by downstream LIRs and their customers -> leads to outdated data.
- ...

# RIPE Members Contractual requirements

- **Art 6.1 of the RIPE NCC Standard Service Agreement**
  - ✓ Members required to maintain correct registration data
  
- **Art 6.3 Standard Service Agreement: In case of non-compliance**
  - ✓ Suspension
  - ✓ Deregister

# SUB-ALLOCATION

- **Section - IPv4 Address Allocation and Assignment Policies:**
  - ✓ All assignments and allocations must be registered
  - ✓ Registration data (range, contact information, status etc.) must be correct at all time (i.e. they have to be maintained)
- **Section 5.4 - IPv4 Address Allocation and Assignment Policies:**
  - ✓ LIR is contractually responsible for ensuring the address space allocated to it is used in accordance with RIPE community's policies.
- **COMPLIANCE?**

# What would we need:

- Require registration of all IP assignments and sub-allocations to downstream providers so entire chain of sub-allocations are accurately reflected in WHOIS
- NOT disclose end-user information but instead focus on downstream ISP providing connectivity to the end-user
- Ways to ensure adherence to policy requirements

# Issues to address

- Compliance with existing contractual and policy obligations?

- 1. Option 1: centralised system?

- Expand RIPE accuracy compliance programme (ARC) not only to RIPE Members (allocated PA = 34K) and assigned PI (23K) but also to all LIR assignments (assigned PA = 4M) and their customers' sub-allocations to downstream operators (Sub-allocated PA)?
- How? How much?

- 2. Option 2: Distributed compliance system?

- Assignment and sub-allocations dependent on existence of a “compliance function” at downstream resource holder.
- Ex-ante due diligence and ex-post controls done at the closest level of the resource.

- Can the RIPE database technically “reflect” more than 1 level?

- Allow for more level of assignments (nesting)?

- What needs to go in “country attribute”?

- Physical or administrative?

# WAY FORWARD

- **Brainstorming with interested stakeholders**
  - Collaborate with RIPE/RIR communities to find an industry-led solution
  - Implications for other existing RIPE policies?
  - Need for a policy change proposal?
  - “Omnibus policy change proposal” to address all issues at the same time?
- **Start the discussion on the mailing list in the coming weeks**
- **Present policy change proposal at the next RIPE meeting**





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**Thank you**

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