



**RIPE NCC**  
RIPE NETWORK COORDINATION CENTRE

# Feedback from RIPE NCC Registration Services

# The Aim of this Update



- To report back to the RIPE community:
  - The feedback that we receive from LIRs
  - Highlighting potential problem areas
- Asking for guidance on these topics
- Providing input to the community for policy discussions

# Outline



- Returning unused ASNs to the free pool
- LIRs with multiple IPv6 allocations
- IPv6 first and additional allocation policy out of sync?
- Legacy resource transfers after inter-RIR transfers



# **Returning unused ASNs to the free pool**

# ASN Policy



*“A new AS Number should be used only if a new external routing policy is required”*

*“A network must be multihomed in order to qualify for an AS Number”*

*“If an organisation no longer uses the AS Number, it should be returned to the public pool of AS Numbers”*

\* <https://www.ripe.net/publications/docs/ripe-638>

# Some Utilisation Numbers



- ~6.6K ASNs are not advertised in the routing system\*
  - 22% of the total ~30K ASNs assigned by the RIPE NCC
- Organisations are out of business or don't need the ASN anymore
  - Deteriorating RIPE Registry data quality
  - Abandoned resources prone to hijack

\* <http://www.potaroo.net/tools/asn32/>

# Proposal Cleanup



- Return unused ASNs to the free pool
- When?
  - IF ASN is not originating any address space in BGP; AND
  - IF there are no plans to do so in the coming six months or the End User is unresponsive
  - Unless the resource holder has a reasonable explanation



# **LIRs with multiple IPv6 allocations**



# IPv6 Transfer Policy



- LIRs can transfer IPv6 allocations as of March 2015
  - Policy goal is to avoid forced allocation return in case of LIR consolidation
  - No active transfer market was forecasted

# Some Numbers



<b>Number of allocations</b>	<b>LIRs with this number of allocations</b>
1	10635
2	262
3	44
4	21
5	11
6	5
7	4
8	2
9	1
12	2
13	2
16	1
18	2



# Potential Problem

- Every LIR can receive a /29 without justification
- Reasons
  - *"Easier than justifying additional allocation"*
  - *"Easier for de-aggregation: /29 per location"*
- Unfair towards organisations trying to justify large first allocation or additional allocation?



**IPv6 first and additional  
allocation policy out of  
sync?**

# IPv6 First Allocation Policy



- Up to /29 no justification needed
- Recent policy change allowing for more flexibility for larger allocation
  - Number of users and extent of infrastructure
  - Hierarchical and geographical structure of the organisation (new)
  - The segmentation of infrastructure for security (new)
  - The planned longevity of the allocation (new)

# IPv6 Subsequent Allocation



- Fully based on past address utilisation by applying HD-ratio
- Difficult to justify
- Deployment requirements may have changed
- Holding back deployment?



# **Legacy Resource Transfers**

# Inter-RIR Transfer Policy



*“For transfers from RIR regions that require the receiving region to have needs-based policies, recipients must provide a plan to the RIPE NCC for the use of at least 50% of the transferred resources within 5 years”*

*“With this policy, legacy resources can be transferred to or from the RIPE NCC service region, in spite of the fact there is no specific transfer policy for them”*

<https://www.ripe.net/publications/docs/ripe-644>



# Inter-RIR Legacy Resources



- In spite of five-year plan, recipient can transfer legacy resources the next day
  - No legacy policy transfer limitations within the region
  - RIPE NCC not part of the transfer process
- All according to policy, but is it also according to the policy spirit?



# Questions



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