

## ETNO Expert Contribution on AD ratio for IPv4 addresses allocation

### Executive Summary

ETNO has considered the proposal to replace the fixed utilisation criteria of 80% in IPv4 address space allocation, by a criteria based on AD (Assignment Density) ratio.

ETNO strongly support the proposal and suggest selecting an AD ratio of 0.966. ETNO further suggest to the RIRs to monitor the impact of this measure on address consumption and periodically report on it to the addressing community.

### Background

During the RIPE 48 meeting in Amsterdam, a proposal was presented by APNIC to replace the fixed utilisation criteria of 80% to request additional IPv4 addresses blocks, by a criteria based on "AD ratio" value. This ratio value corresponds to a logarithmic scale and corresponds to a percentage utilisation, which decreases as the size of the address space grows.

The presentation can be downloaded at:

<http://www.ripe.net/ripe/meetings/ripe-48/presentations/ripe48-ap-hd-ratio.pdf>

The decision was made to take the discussion to the RIPE Address-policy working group mailing list and to ask for some feed back from the community. As most European Telecommunications Network Operators' Association<sup>1</sup>(ETNO) members are large or extra-large Local Internet Registries in Europe, representing an important part of these categories in the RIPE region, this proposal was considered and analysed with attention.

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<sup>1</sup> The European Telecommunications Network Operators' Association is representing 41 major companies from 34 European countries, providing electronic communications networks over fixed, mobile or personal communications systems. ETNO's primary purpose is to establish a constructive dialogue between its member companies and actors involved in the development of the European Information Society to the benefit of users. More information on ETNO can be found at: [www.etno.be](http://www.etno.be)

### **Findings**

- 1- This proposal fairly takes into account addressing hierarchies used in large and extra-large registries and introduces a useful level of flexibility for those registries.
- 2- The Local Internet Registries using the 80% criteria may continue to do so and will not be impacted by the new policy.
- 3- Complicated calculation or administrative burden should be easily avoided to registries choosing this method using simple chart or software through LIR portal.
- 4- As analysed by APNIC, the impact on address consumption is limited to a maximum around 20% and can be easily controlled and monitored using a rather conservative approach (AD ratio of 0.966).
- 5- This impact can be partly counterbalanced by reducing the number of small and extra-small registries whose existence is only justified by management overhead of large registries with current 80% criteria, and has a positive impact on address aggregation.
- 6- No additional impact on registrations is seen in RIPE region, as infrastructure assignments are already registered in the database.

### **Conclusion**

ETNO strongly supports this proposal and suggest selecting a conservative AD ratio value of 0.966.

ETNO also suggest to the RIRs to monitor the use of this facility and its impact on address consumption, and periodically report on it to the addressing community.