

prop-085-v001: Eligibility for critical infrastructure assignments from the final /8

Terence Zhang Yinghao, Wendy Zhao Wei





Introduction

This policy proposal seeks to making it possible for critical infrastructure account holders to receive portable IPv4 assignments from the final /8 space.

② In the spirit of the current final /8 policy, this proposal ensures each account holder is only eligible to receive one single allocation OR assignment from the final /8 space.



Current Status

Currently, critical infrastructure networks such as TLDs (Top Level Domains) are eligible to receive portable IPv4 assignments under the **critical infrastructure policy**.

203.119.0.0/16

Used to make /24 assignments to Critical Infrastructure

The current final /8 policy, only permits allocations.

This means that during the final /8 phase, it will be impossible to make IPv4 addresses assignments to end users under critical infrastructure policy.

9.3 Criteria for initial allocation

- -have used a /24 from their upstream provider or demonstrate an immediate need for a /24;
- -demonstrate a detailed plan for use of a /23 within a year; and

11.3 (Criteria for) Critical infrastructure (assignment)

The following critical infrastructure networks are eligible to receive a portable assignment:

- root domain name system (DNS) server;
- global top level domain (gTLD) nameservers;
- country code TLD (ccTLDs) nameservers;
- Regional Internet Registry (RIRs); and National Internet Registry (NIRs). The minimum assignment made under these terms is /24.



Current Status: final /8 policy

The current final /8 policy, only permits allocations

9.10 Distribution of the final /8 worth of space ...

When the total remaining space in the unallocated APNIC address pool reaches a threshold of a total of one /8, the following policies will come into force.

9.10.1 Allocations to LIRs

Each APNIC account holder will be eligible to request and receive a single allocation from the remaining /8 worth of space, with the following conditions:

- 1.Each allocation will consist of the minimum IPv4 allocation size
- 2. The account holder must meet the criteria for receiving an IPv4 allocation specified in one of the following sections of this policy document:
- 9.3 Criteria for initial allocation
- 9.4 Criteria for subsequent allocations





Situation in other RIR

- AfriNIC has a policy proposal under discussion that permits assignments as well as allocations to be made from AfriNIC's last /8 from IANA AFPUB-2009-v4-003: IPv4 Soft Landing Policy
- ARIN has adopted a policy that permits both assignments and allocations to be made from a /10 block reserved from ARIN's final /8 from IANA NRPM section 4.10, Dedicated IPv4 block to facilitate IPv6 Deployment
- RIPE has a policy proposal under discussion that permits allocations to be made from RIPE's last /8 worth of space, but not assignments:
 Allocations from the last /8
- LACNIC has adopted a policy that permits critical infrastructure assignments to new members from LACNIC's final /12:
 LACNIC Policy Manual, section 10.1, Special IPv4 Allocations/Assignments
 Reserved for New Members





Details

It is proposed that each APNIC account holder will be eligible to request and receive a single assignment from the remaining /8 worth of space, with the following conditions:

- 1. The account holder must meet the criteria for receiving an IPv4 portable assignment specified in section 11.3, "Critical infrastructure" in "Policies for IPv4 address space management in the Asia Pacific region"[2].
- 2. Each assignment will consist of the minimum IPv4 assignment size for critical infrastructure, or the minimum IPv4 allocation size, whichever is **smaller**.
- 3. All APNIC account holders are eligible to receive **only one** allocation **OR** assignment from the final /8 worth of address space.



Pros/Cons

Advantages:

This proposal makes it possible for critical infrastructure account holders to receive portable assignments from the final /8 space.

Disadvantages: None.



Effect on APNIC Members

APNIC Members with critical infrastructures may receive IPv4 address assignments from the final /8





Effect on NIRs

Same as effect on APNIC Members.



Summary of mailing list discussion

There were questions about whether it would still be possible to request critical infrastructure assignments from the designated 203.119.0.0/16 block after the current final /8 policy is activated.

- the reservation of 203.119.0.0/16 was just an operational decision
- all previous allocation and assignment policies will be replaced by the final /8 policy when it is activated.
- It was suggested that any critical infrastructure assignments made after the final /8 policy was activated should continue to be made from 203.119.0.0/16 and form part of the final /8 worth of IPv4 address space.

There was discussion about the definition of what is critical Internet infrastructure and whether anything outside the root servers had a genuine need for IPv4 addresses in the final /8 phase.



Questions?

