

Multihoming not required for ASN

AFPUB-2019-ASN-DRAFT02

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Summary of the problem

- When the ASN assignment policy was originally designed, the main concern was that 16 bits is a limited address space (RFC1930, section 9).
 - No longer an issue with 32-bits ASN numbers (RFC6793). If each of the five RIRs were to assign 100 AS Numbers a day, 365 days a year, it would take over 20,000 years to fill up the 32-bit space.
- When initial ASN policies were developed, the reliability of networks was not so good as today and it was making sense to make sure that ASN holders be multihomed.
 - Today this is not necessarily a reasonable requirement. Some networks may require an ASN while not willing to be multihomed (because of the cost or remote locations that have only a single upstream, etc.) and their SLA requirements don't need that redundancy.
- IPv6 deployment increased the need for organizations which are not ISPs to obtain IPv6 PI, to have stable addresses. They should announce their PI space with their own ASN. They don't have to be multihomed.

Proposed Changes (I)

7.0 ASN

This section contains policies and guidelines concerning requesting, assigning and registering AS (Autonomous System) numbers in the AFRINIC region.

7.1 Introduction

AFRINIC (the African Network Information Center) is the regional Internet Registry for Africa and part of the Indian Ocean region (Seychelles, Mauritius, Madagascar, Comoros). It is responsible for distributing public Internet address space and related resources (including Autonomous System Numbers) in the region and coordinating the development and implementation of the policies to manage those resources.

The policies described in this document have been developed by the Internet community through a consensus process facilitated by AFRINIC. They are to be implemented by AFRINIC.

7.2 Scope

This document describes the policies relating to the distribution, management, and use of Autonomous System (AS) numbers in the AFRINIC service region. These policies apply to IPv4 and IPv6 networks. Policies of other regions other than the AFRINIC service region are outside the scope of this document.

7.3 Definitions

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7.0 ASN

This section contains the policies relating to the distribution, management, and use of Autonomous System (AS) numbers in the AFRINIC service region.

7.1 Definitions

[Retain under here all text from the current CPM 7.3]

Proposed Changes (II)

7.4 Eligibility for an AS Number assignment

It is important to determine which sites require unique AS Numbers and which do not require a unique AS Number should use one or more of the AS Numbers reserved for private use. Those numbers are: 64512 through 65535 (RFC1930).

In order to qualify for an AS number, the requesting organization must fulfill the following requirements:

7.4.1 A unique routing policy (its policy differs from its border gateway peers).

7.4.2 A multi-homed site.

7.4.3 An organization will also be eligible if it can demonstrate that it will meet the above criteria upon receiving an ASN (or within a reasonably short time thereafter).

7.4.4 Be an AFRINIC member in a good standing (End-User or LIR type)

All requests for ASNs under these criteria will be evaluated using the guidelines described in RFC1930 "Guidelines for the creation, selection and registration of an Autonomous System (AS).

7.2 Eligibility for an AS Number assignment

It is important to determine which sites require unique AS Numbers. Sites which do not require a unique AS Number should use one or more of the AS Numbers reserved for private use. Those numbers are: 64512 - 65535 and 4200000000 - 4294967294 (RFC1930, RFC6996 and possible future updates).

In order to qualify for an AS number, the requesting organization must be an AFRINIC resource member and fulfill one of the following requirements:

7.2.1 A unique routing policy or

7.2.2 Interconnection with one or more other ASNs which requires a globally unique ASN.

An organization will also be eligible if it can demonstrate that it will meet any of the above criteria upon receiving an ASN (or within the following six months).

References

- ARIN and LACNIC don't require multihoming.
- An equivalent proposal reached consensus in APNIC47.
- RIPE requires it, however a proposal to amend that is also being submitted.