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PROPOSAL DATA:

Policy Proposal Title: ASPLAIN notation for 32-bit ASNs
Policy Proposal Type: LACNIC
Id (if exists): LAC-2009-03
Version: 1

Proposal Summary:

The proposed policy seeks to modify the current policy for the “Allocation of Autonomous System Numbers (ASN)” [1] in order to adopt the “asplain” decimal value representation as the textual notation to use for 32-bit AS numbers (within the 0 – 4294967295 decimal range). This representation is being used by LACNIC since 28 January, 2009.

Rationale:

To comply with the new “as plain” format for AS numbers according to RFC 5396 [2], modifying the current “asdot2” format for the representation of 32-bit ASNs. This change is based on the almost unanimous support of the use of “asplain” on the part of the operator community, as it is the format which is most compatible with current operating systems, it provides lower resistance to the deployment and adoption of 32-bit AS numbers, and it does not break the regular expression applied to the AS-PATH attribute. To avoid confusion, a single “asplain” textual notation is useful for documentation, systems configuration, reports, and external tools and information repositories.

Notation

It is proposed to identify AS numbers using the “asplain” decimal value representation textual syntax scheme (within the 0 – 4294967295 decimal range) which represents the number as its decimal value, without any field delimiter, corresponding to the lack of any internal structure required by the use of AS numbers in the inter-domain routing context. Consequently, a 32-bit AS number of value 65546 (decimal) would be identified as “65546”.

Proposal Text:

Original text:

3. Allocation of Autonomous System Numbers (ASN)

3.1 Terminology

16-bit AS numbers were defined in RFC 1930 and integers ranging from 0 to 65535 will be used for their identification. Likewise, 32-bit AS numbers were defined by RFC 4893 and the following syntax will be used for their identification: <high order 16-bit value in decimal format>.<low order 16-bit value in decimal format>.

Consequently, the following terminology will be adopted to refer to 16-bit and 32-bit ASNs:

- "16-bit only AS Numbers" refers to AS numbers in the range 0 – 65535
- "32-bit only AS Numbers" refers to AS numbers in the range 1.0 – 65535:65535 (decimal range 65.536 – 4.294.967.295)
- "32-bit AS Numbers" refers to AS numbers in the range 0.0 – 65535:65535 (decimal range 0 – 4.294.967.295)

Proposed text:

3. Allocation of Autonomous System Numbers (ASN)

3.1 Terminology

16-bit AS numbers were defined in RFC 1930 and, integers ranging from 0 to 65535 will be used for their identification. Likewise, 32-bit AS numbers were defined by RFC 4893 and, integers ranging from 0 to 4294967295 will be used for their identification. In both cases the “asplain” decimal value representation defined in RFC 5396 will be used.

Consequently, the following terminology will be adopted to refer to 16-bit and 32-bit ASNs:

- "16-bit only AS Numbers" refers to AS numbers in the range 0 – 65535
- "32-bit only AS Numbers" refers to AS numbers in the range 65536 – 4294967295
- "32-bit AS Numbers" refers to AS numbers in the range 0 – 4294967295

ADDITIONAL INFORMATION:

Timetable:

Working Group:

Related Previous Proposals:

References:

[1] Allocation of Autonomous System Numbers (ASN),

<http://www.lacnic.net/sp/politicas/manual4.html>

[2] RFC 5396: Textual Representation of Autonomous System (AS) Numbers,

<http://www.rfc-editor.org/rfc/rfc5396.txt>

Change log: