

Large BGP Community

draft-heiz-idr-large-community-00

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Benefits

- Today's RFC1997 communities are 4 octets each. 2 for ASN and 2 to indicate the action.
- With 4 octets for the ASN, it is mapped one to one to your actual globally unique assigned ASN. Clean name space! No more 23456.
- With 8 octets for the action, you can easily create opaque action code points: you have room for a "target" and an "action"

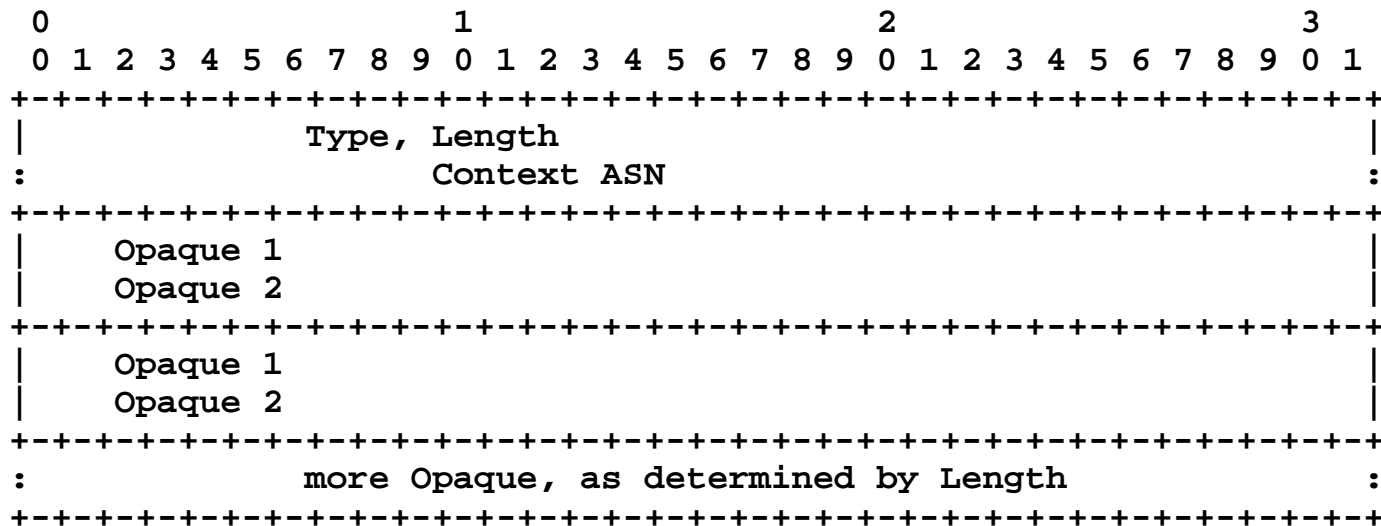
Examples:

- "2914:199036:303" (In NTT: prepend 3 times to 32-bit AS 199036)
 - **(currently not possible** with NTT's standard BGP Communities)
- "2914:65535:3000" (In NTT: lower local preference in region X)
 - Currently done by putting private ASNs in the Global Administrator Field (**65530:3000**) – potential for clashes

Format

- Each community is 8 octets long.
- They are grouped by context ASN under a header inside a wide community BGP attribute.

Encoding



This header from Wide Communities

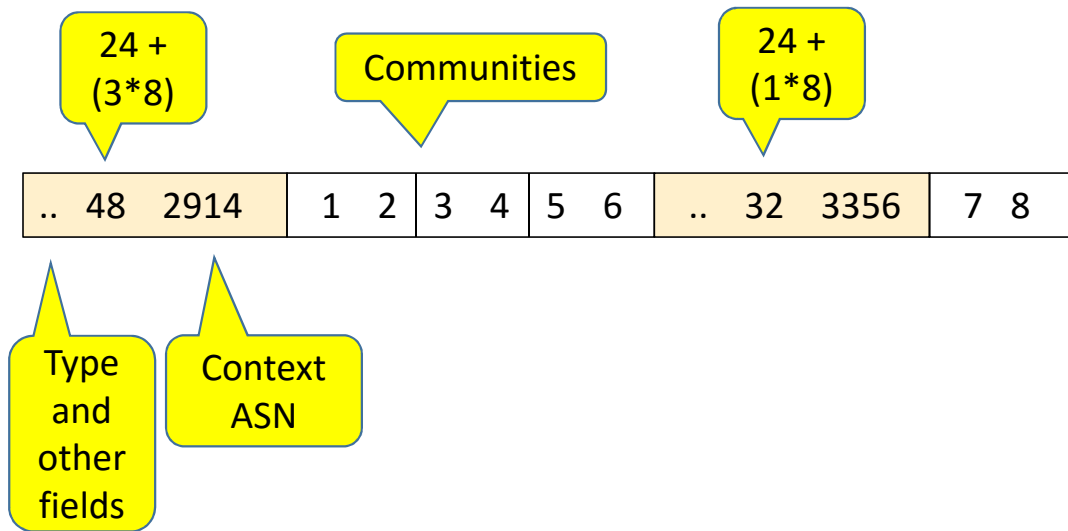
Length determines how many communities

Textual Representation

- Each community is represented as a:b:c
- a, b and c are each a non-negative decimal integer
 - a – ASN
 - b – Opaque 1
 - c – Opaque 2

Example

- (2914:1:2), (2914:3:4), (2914:5:6), (3356:7:8)



Thanks

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