BGP Extra Extended Community

draft-heitz-idr-extra-extended-community

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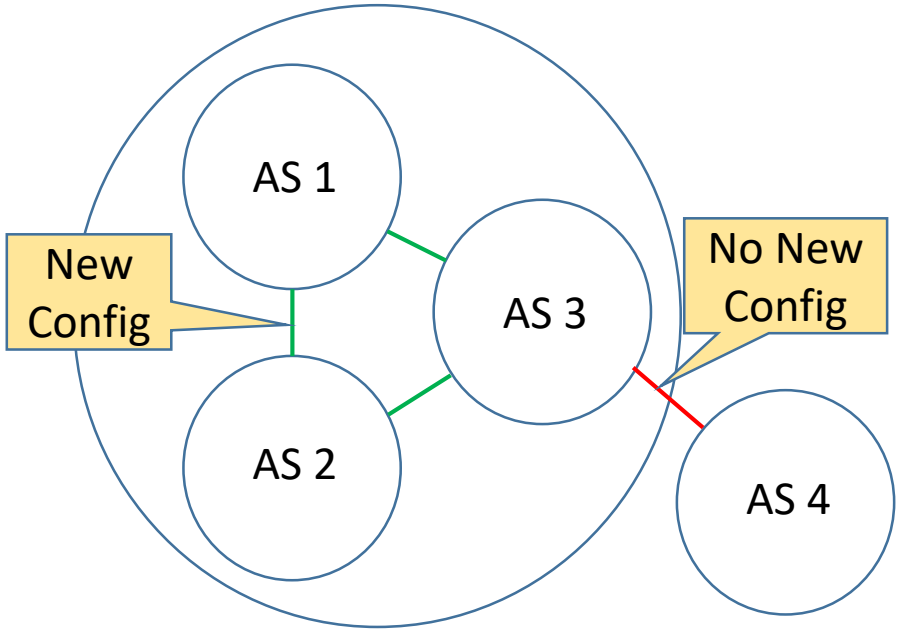
eXtra eXtended Community (XXC)

- Why Extended Community?
  - Easier to enhance than to invent brand new.
- 24 octets. Why fixed length?
  - Easier to enhance Extended Community code.
- Why bigger?
  - Easier to auto-derive by combining multiple existing identifiers:- reduce configuration.

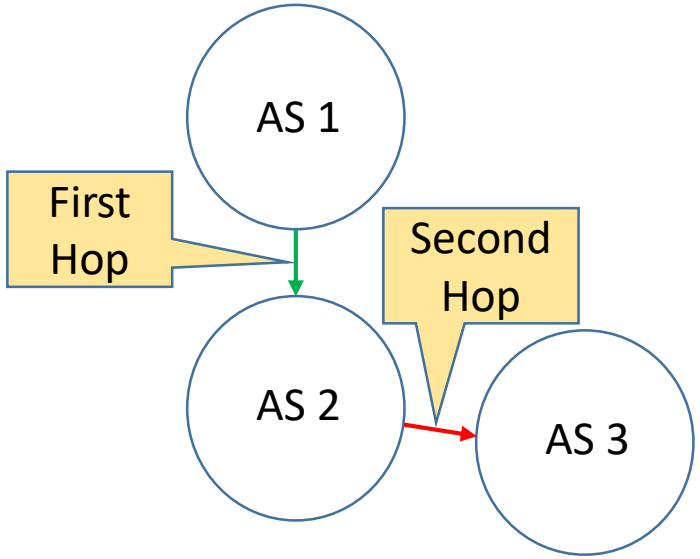
New Transitivity

Coarse grained, to prevent accidental distribution to the entire Internet, but still covers major use cases.
Use route-policy for fine grained distribution.

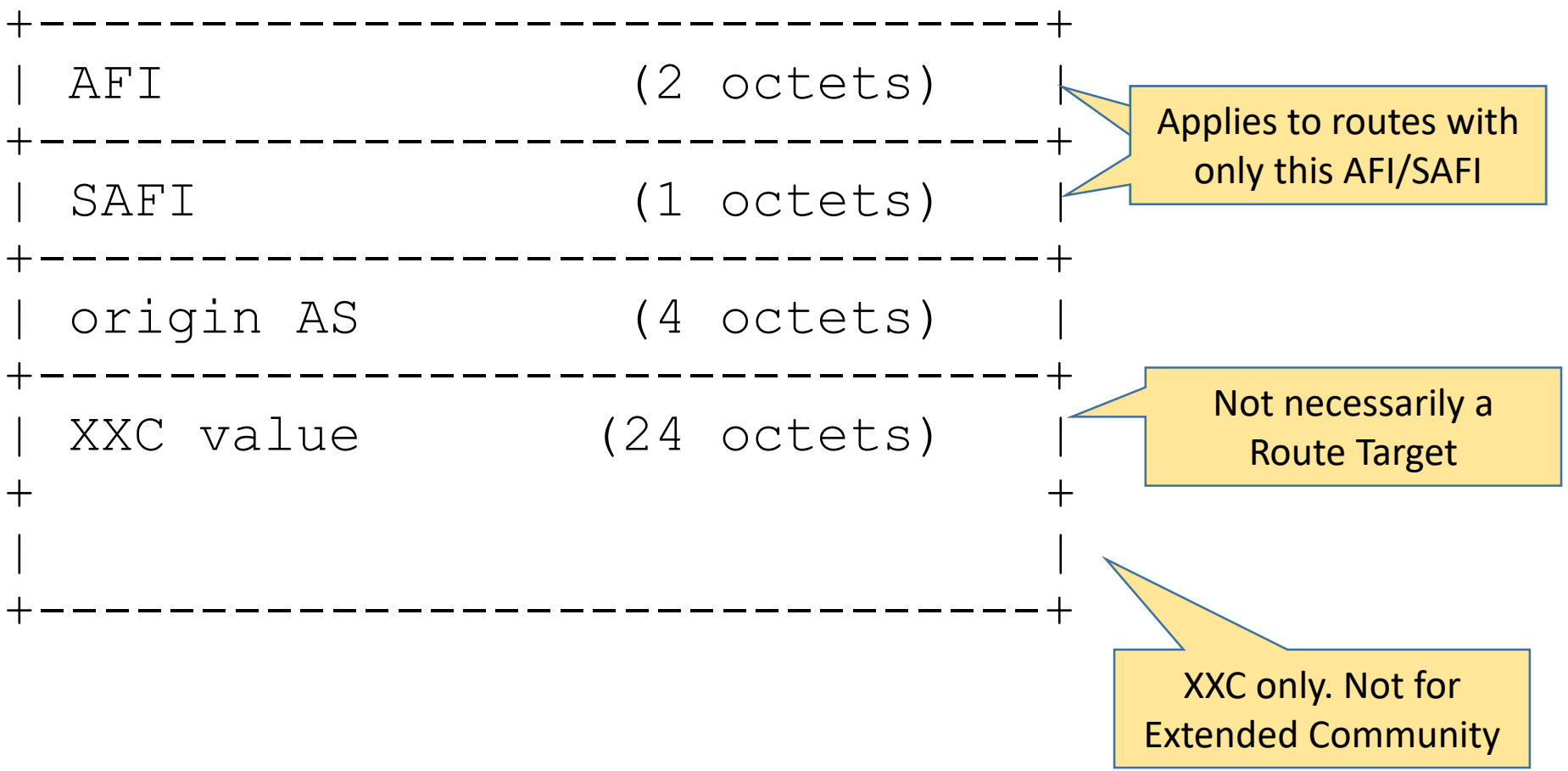
- Administration Transitive
  - Non-Transitive, except when session is configured as “Same-Admin”



- One Time Transitive
  - For your neighbor only
  - Link-Bandwidth and LLGR_STALE could use this.



RT Constraint



XXC Types

- AS-Specific (4 octet AS only)
- IPv4-Address-Specific
- IPv6-Address-Specific
- EVPN

Type/sub-type copied from Extended communities.
Just a suggestion. Can structure it differently.
Sub-Type not optional, unlike in RFC 4360.

EVPN XXC Sub-Types

- EVI Route Target
- ES-Import Route Target
- ESI-EVI Route Target
- Overlay Route Target

New size allows the use of the complete Ethernet Tag ID and ESI.

The new EVPN Route Targets are to be used in addition to the existing Route Targets, not as a replacement.