

BGP Tunnel Encapsulation Attribute IETF 99, Prague

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Motivation

- IDR WG draft
- Went thru WGLC
 - Lots of discussion happened on the mailing list
- Goal is to provide the draft update and clarifications on the received comments/suggestions with a hope to close the WGLC



Implementation Status

- Multiple implementations exist
- Cisco and Juniper have implementations in support of draft-previdi-idr-segment-routing-te-policy, with real deployments planned
- Work on implementation reports is in progress
 - All vendors are encouraged to fill in the implementation report

RFC5566 Implications

- Draft obsoletes RFC5512, which is a normative dependency of RFC5566
 - RFC5566 is primarily about the use of IPsec tunnels
- Clearly a need to update RFC5566
- Should be done as a separate effort
 - Outside the scope of the current draft

Other Suggestions

- Need for some Sub-TLVs to have a 2-Octet length field
 - Good Idea and has been incorporated
- Sub-TLV for IPv4 DS field has been defined but not for IPv6 DS
 - Don't read too much into this
 - Draft does not intend to define every sub-TLV that might ever be useful
 - New sub-TLVs can always be defined in new drafts; this is expected



Other Suggestions (Cont'd)

- Barebones Tunnel TLV
 - “barebones”: tunnel type and endpoint specified, but no other encapsulation information is signaled
 - Rev 5:
 - “don’t use barebones tunnel TLV, use Encapsulation Extended community instead
 - Provides backwards compatibility with applications that already use Encapsulation EC
 - Rev 6 loosens rule, allowing both barebones TLV and Encaps EC to be present. Encaps EC still needed for backwards compatibility



Other Suggestions (Cont'd)

- Suggestion to carry only single Tunnel TLV in Tunnel Encapsulation attribute
 - But ability to specify choice of tunnels is important feature!
 - Simplest and most straightforward way to signal a choice of tunnels is with multiple Tunnel TLVs in the attribute

Need for D-MAC Field in NVGRE Sub-TLV

- Used to specify Destination Mac Header field of inner Ethernet header
- Suggestion to follow proposal similar to <https://tools.ietf.org/html/draft-yong-l3vpn-nvgre-vxlan-encap-00>
 - Draft expired for 4+ years
 - Current encapsulation TLV in accordance with RFC7637
- Preference is to leave it as is unless wg consensus is otherwise.

Next Steps



- Close on the implementation reports
 - Consider closing the wglc/reissue the call
- Get the draft towards standardization