draft-ietf-nvo3-encap-00

Encap Design team

IETF99 Prague July, 2017

Changes from 01 ⇒ draft-ietf-nvo3-encap-00

- draft-dt-nvo3-encap-01 has been adopted as NVO3 WG draft

- Remove Backwards compatibility w/ VxLAN.

- Remove issues with extending bit flags under GUE.

- Extend recommendation for control plane to have WG consider developing a separate draft on guidance for option processing and control plane participation.

- Clarify transit node role in extension processing and ordering

- Clarify in TLV vs Bit Fields section that there are some implementations with options that allows different software like mac learning and security handle different options.

draft-ietf-nvo3-encap-00

- Add to design team recommendations the following:
  - The implemented Geneve options today in production.
  - The new HW supporting Geneve TLV parsing.
  - How the DT has addressed the usage models while considering the requirements and implementations in general that includes software and hardware.
  - Clarification for "early bit assignments" with:
    - Given that half the bits are already assigned in GUE, a widely deployed extension may appear in a flag extension, and this will require extra processing, to dig the flag from the flag extension and then look for the extension itself.
  - Clarification for "not flexible enough to address the requirement of variable length and different subtypes" with: Requirements came from OAM, Telemetry and even security extensions, all require variable length option.

draft-ietf-nvo3-encap-00

- Add Requirements for OAM considerations for:
  - Alternate marking for performance measurements that need 2 bits in the header. T
  - The need of the current OAM bit in the Geneve Header.
  - Further discussions on OAM usage models and justification needed for either adding or removing the OAM bit(s)
- Recommend Geneve to follow fragmentation recommendations in overlay services like PWE3, and L2/L3 VPN recommendation to guarantee larger MTU for the tunnel overhead https://tools.ietf.org/html/rfc3985#section-5.3

draft-ietf-nvo3-encap-00

- Request Geneve to provide a recommendation for critical bit processing – text could look like how critical bits can be used with control plane specifying the critical options.
- Given that there is a telemetry option use case for a length of 256 bytes, Recommend Geneve to increase the Single TLV option length to 256.
    - This was discussed during the WG meeting and there was no consensus on the usage model or effect a change. Further discussions needed.
- Change DTLS reference in the dt-encap document and replace it with ESP/DTLS or DTLS/IPSEC
- Recommend the WG to work on security options for Geneve.

Next steps

Consider further comments/discussions in the mailing list and update as needed.

Thank you