

Generic UDP Encapsulation

draft-ietf-intarea-gue-06

draft-ietf-intarea-gue-extensions-05

Reviews

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Clarifications

- Applicability statement needed - *will add*
- Prevent middlebox filtering - *really can't*
- Ref. draft-ietf-intarea-tunnels - *next version*
- Normative reference to GUE extensions draft - *fix next version*
- Lumping tunnels and encapsulation together - *will clarify terminology and applicability*

Issues

- Zero UDP checksum in IPv6
- Congestion control
- Too flexible and extensible
- Why proposed standard?

UDPv6 checksum

- Requirements is version 06
 - UDP checksum is enabled (recommended)
 - GUE checksum is used
 - Else, use Zero UDP checksum following applicable requirements
- Draft doesn't show how to satisfy RFC6936
- Reqs. in section 6.2 of RFC8086 applicable

Congestion considerations

- Section misnamed in draft
- Should be same as RFC8086
- Possible difference is that GUE always carries IP protocol, GRE can carry non-IP
- Adapt section 8 of RFC8086 including TMCE

Too flexible and extensible

- Flag-fields (compared to TLVs)
 - Constrained in several ways
 - Well ordered (both in format and processing)
 - Nothing sent is just ignored
 - Efficient processing (e.g. amenable to TCAM)
 - Resistant to DOS attack
- Protocol field: IP protocol (versus EtherType)
- Transport versus tunnel encap
- Private data

Why proposed standard?

- Intended for general deployment: both in limited domains and Internets (with appropriate requirements for latter)
- Logically an update to GRE
- Substantial review, at least one implementation (Linux), in deployment
- Foo-over-UDP (where foo is any IP protocol)

Questions/comments