Representing Multi-Value Time in MANETs

draft-clausen-manet-timetlv

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Specifies....

- Single-octet representation of time value
- Multi-value TLV structure
- VALIDITY_TIME TLV
- INTERVAL_TIME TLV
Time Structure

- \( t = (1 + \frac{a}{16}) \times 2^b \times C \)
- \( a \) & \( b \) encoded in one octet as \( (16 \times b + a) \)
- \( C \) is a shared constant

Time code for \( t=5 \) with \( c=(1/16) \):

```
0 0 1 1 1 0 0 1 0 0 0
```

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TLV Structure

- Single value:
  - `<t_default>`

- Multi value:
  - `<t_1><d_1><t_2><d_2>....<t_n><d_n><t_default>`
What’s it used for?

- Flooding TC messages:
  - each 2 sec. within d=4
  - each 30 sec network-wide.

- VALIDITY_TIME (3 x interval):
  - \(<t_1=6><d_1=4><t_{default}=90>\)

- Demonstrated use in:
  - FSR, Fuzzy-sighted LS, ...

- Extended from RFC3626

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Why a Separate I-D?

- OLSRv2 (multi-hop)
- NHDP (single-hop)
- SMF, DYMO, ....

- Goal:
  - Issue as WG document;
  - Proceed to WGLC