Generic MPLS Time Correction Field

Access

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Generic header

It would have been great if I could have found an acronym GUY (to match GAL)

The idea is that instead of a 1588-specific CF mechanism
we can make a generic MPLS mechanism
that can be applied to *any* MPLS packet

This would enable us to
- apply CF to any 1588 over MPLS encapsulation
- apply CF to NTP or TIME or …
- measure 1-way delay

Two encapsulation possibilities :
- follow-up CF using GAL
- in-packet CF

Using follow-up CF in GAL

MPLS label stack
GAL label 13
ACH (first nibble=0001)
correction field

The follow-up message follows each packet to be corrected
The mechanism for associating with followed packet is TBD

Using generic in-packet CF

MPLS label stack
new header – first nibble TBD, header length
correction field
original payload

This will require coordination with PWE
who control the "first nibble" registry

Signaling

The signaling
- OSPF
- IS-IS
- RSVP-TE

can be carried out similarly to in draft-ietf-tictoc-1588overmpls