Residence Time Measurement

draft-mirsky-mpls-residence-time-00

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Problem Statement

- Residence Time time it takes a packet to traverse a node
- Clock synchronization protocols, i.e. IEEE-1588v2, may use residence time
- MPLS Packet Delay Measurement RFC 6374 includes propagation delay – not useful

Proposed Solution

- New G-ACh Residence Time Measurement
- Scrath pad 8 bytes (same size as Correction Field in IEEE 1588v2)
- Optional payload, e.g. PTP packet

0001	Version	Reserved	Residence Time Measurement Channel ID
Scratch Pad (8 bytes)			
Payload			

Alleged Benefits

- No special purpose LSP or PW context to transport clock synchronization packets
- Can be used by IEEE 1588 v2 end-to-end Transparent Clock, as well as NTPv4, if the latter is extended to use residence time correction
- Fully backward compatible with existing LSRs

Next steps

- Add examples of RTM used by IEEE 1588v2
- Solicit comments & feedback from the WG