

MAC Address Withdrawal Over Static PW

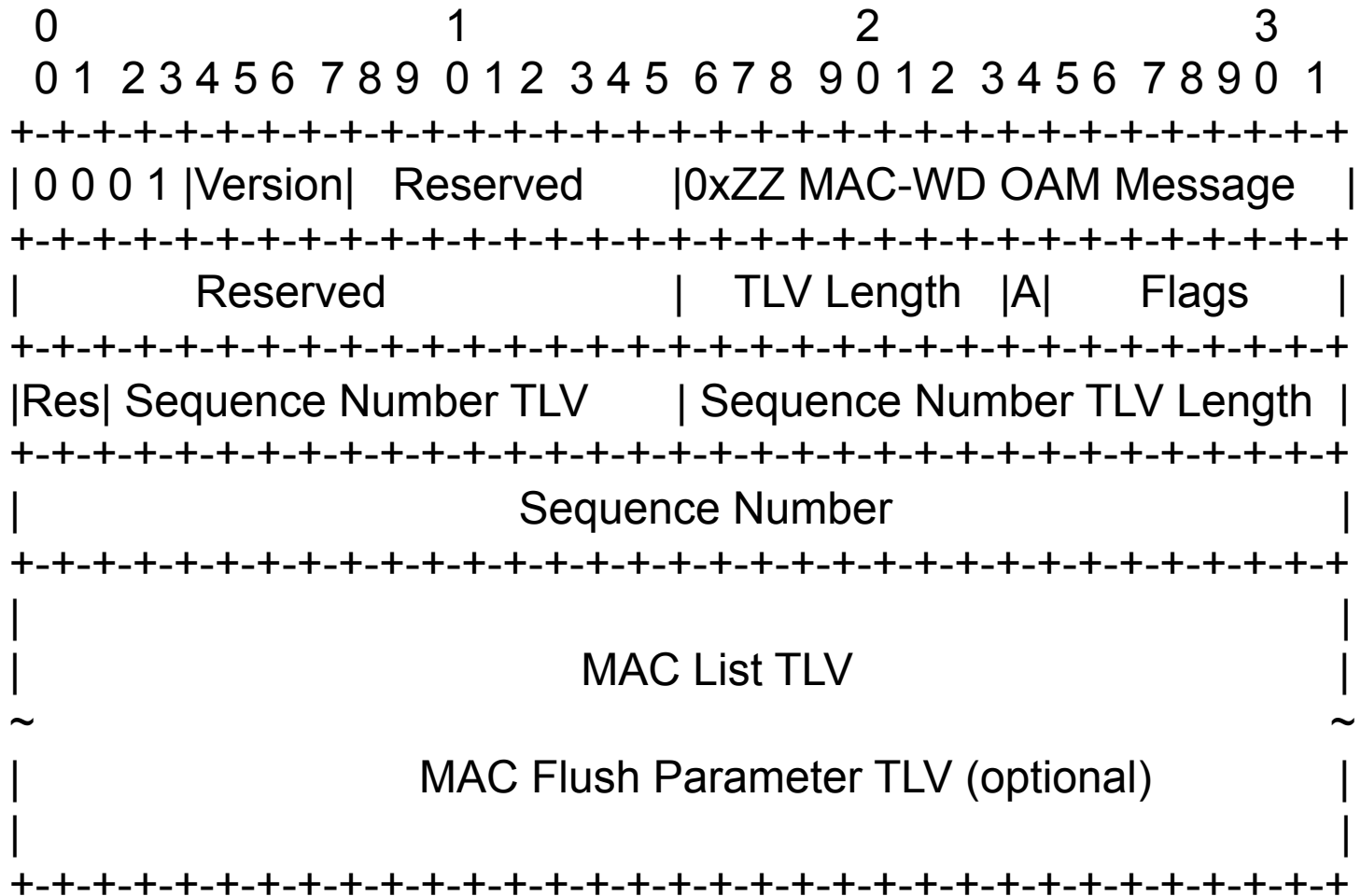
draft-boutros-l2vpn-mpls-tp-mac-wd-01.txt

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Background

- MAC withdraw mechanism over statically provisioned PWs are deployed in VPLS/H-VPLS environment:-
 - Use PW Associated Channel (ACH).
 - A given MAC withdraw notification is not refreshed forever.
 - Acknowledgment of OAM messages is mandatory
 - Duplicate messages are identified using sequence number in order to avoid repeated (unnecessary) flushing of MAC address(es)

MAC Withdraw OAM Message



MAC Withdraw OAM Message (cont'd)

- Message without Sequence Number TLV is dropped
- ACK message (A bit set) does not include MAC TLVs
- Only half of the sequence number space is used. Modular arithmetic is used to detect wrapping of sequence number. When sequence number wraps (i.e., when it becomes 0), all MAC addresses are flushed and the sequence number is reset.

Operation

- A sender re-transmits a MAC withdraw message with a given sequence number if it does not receive ACK for that sequence number
- A receiver always acknowledges any incoming MAC withdraw message (new or duplicate).

Operation (cont'd)

- A receiver processes a MAC withdraw message only if the sequence number of that message is greater than that of the last processed MAC withdraw message.

IANA Allocation

- New channel type (recommended value 0x0023) from the registry named "Pseudowire Associated Channel Types". The description of the new channel type is "Pseudowire MAC Withdraw OAM Channel".
- IANA needs to create a new registry for Pseudowire Associated Channel TLVs, and create an entry for "Sequence Number TLV". The recommended value is 0x0001.

Thank You !