Hybrid Two-step telemetry collection method
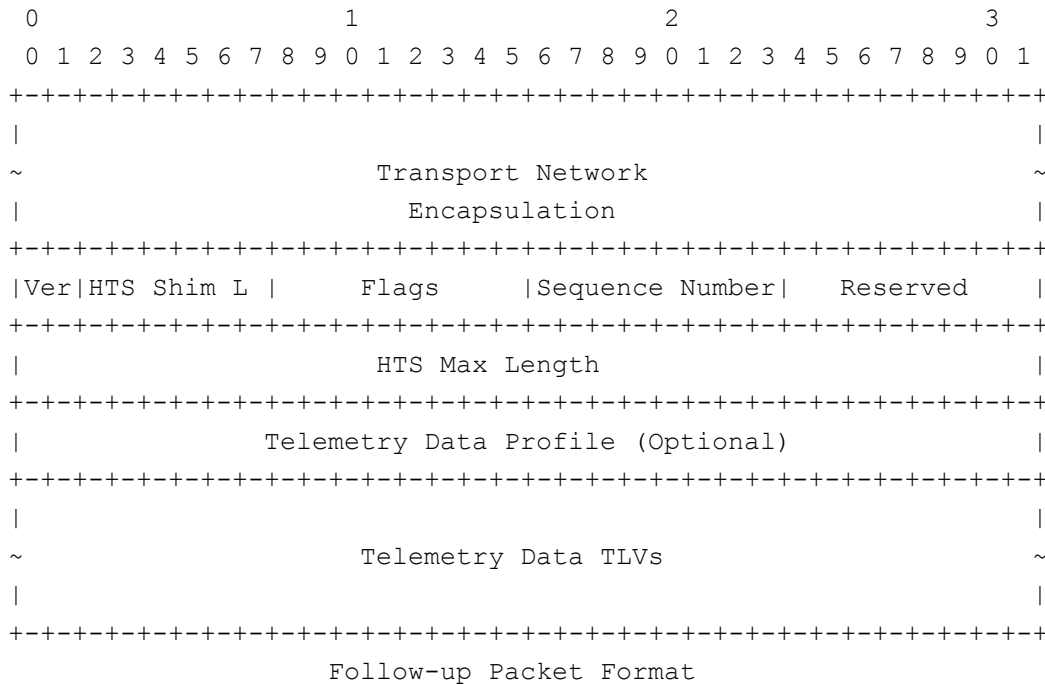
draft-mirsky-ippm-hybrid-two-step

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Updates

- HTS Max Length field
- HTS flow identification
- Upstreaming HTS
- Welcome Pascal Thubert as a co-author

HTS Max Length

```
 0                   1                   2                   3
 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
|                                                               |
~                   Transport Network                          ~
|                     Encapsulation                            |
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
|Ver|HTS Shim L |    Flags       |Sequence Number|   Reserved   |
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
|                     HTS Max Length                            |
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
|              Telemetry Data Profile (Optional)                |
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
|                                                               |
~                   Telemetry Data TLVs                         ~
|                                                               |
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
                  Follow-up Packet Format
```

- Reserved is one octet-long field. It MUST be zeroed on transmission and ignored on receipt.
- HTS Max Length is four octet-long field. The value of the HTS Max Length field indicates the maximum length of the HTS Follow-up packet in octets. An operator MUST be able to configure the HTS Max Length field's value. The value SHOULD be set equal to the path MTU.

Upstreaming HTS

HTS Ingress node

HTS Egress node

A

B

C

D
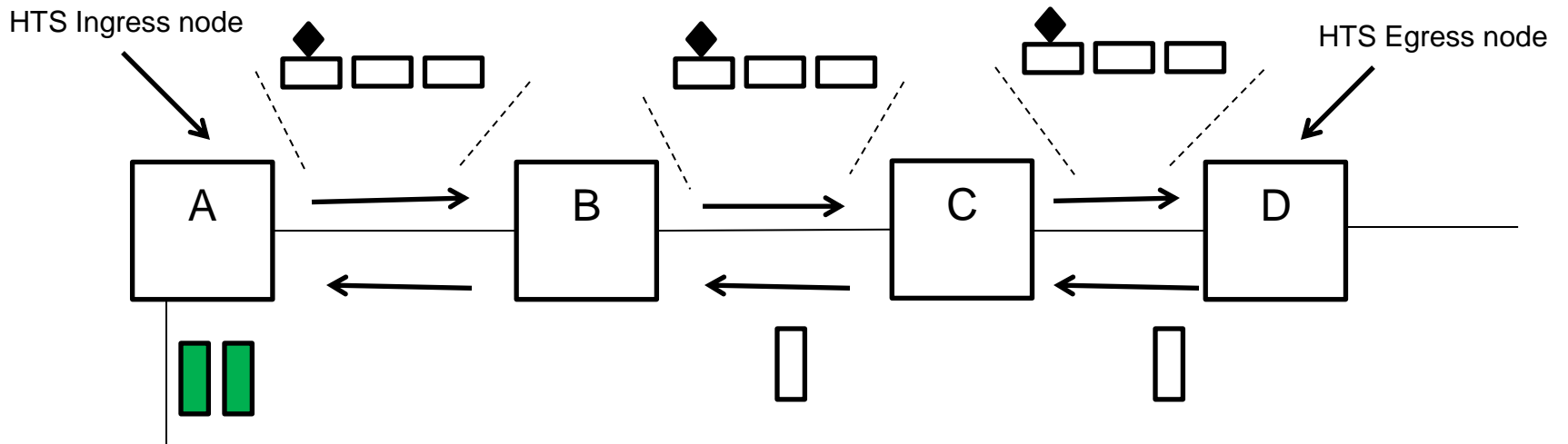
Packet

HTS Trigger

HTS Follow-up Packet

On-path telemetry information

4

HTS Characteristic Information

- Characteristic information MUST be sufficient to associate an HTS Follow-up packet with the monitored data flow

- Characteristic information MAY be obtained from the trigger packet or constructed by the node that originates the follow-up packet.

- Examples of HTS characteristic information:
  - a list of SIDs in a Segment Routing domain;
  - Base Header, Service Path Header, and Context Headers (if used in the trigger packet) in an SFC NSH domain;
  - IOAM Trace option header in an IOAM domain.

Next steps

- Your comments, suggestions, questions always welcome and greatly appreciated
- WG adoption

Thank you