

BFD Extension for DetNet

Remote Defect Indication (RDI)

Draft-huang-detnet-rdi-01

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Background

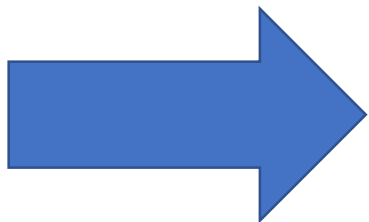
- DetNet provides **reliable** packet delivery service.
- Strict QoS **Requirements** of DetNet includes:
 - Deterministic bounded **end-to-end latency**.
 - Strict packet **loss ration**.
 - Bounded **out-of-order packet delivery**.
- DetNet OAM requires quick defect **detection** and **dissemination**.
 - Dtection of violation.
 - Dissemination – Remote Defect Indication(RDI)
- Existing practice: Bidirectional Forwarding Detection (BFD)
 - Forwarding plane
 - Detect and report failures



Not specific for DetNet-domain defects

Looking at DetNet-Specific Defects

- Detection
 - [Out of scope]
- Dissemination/Notification/RDI
 - Latency : **not defined**
 - Out-of-order: **not defined**
 - Loss: **insensitive as triggered by BFD**



No EXPLICIT DetNet-specific defect **indicators**

Define Detnet-Specific Defect Indicators

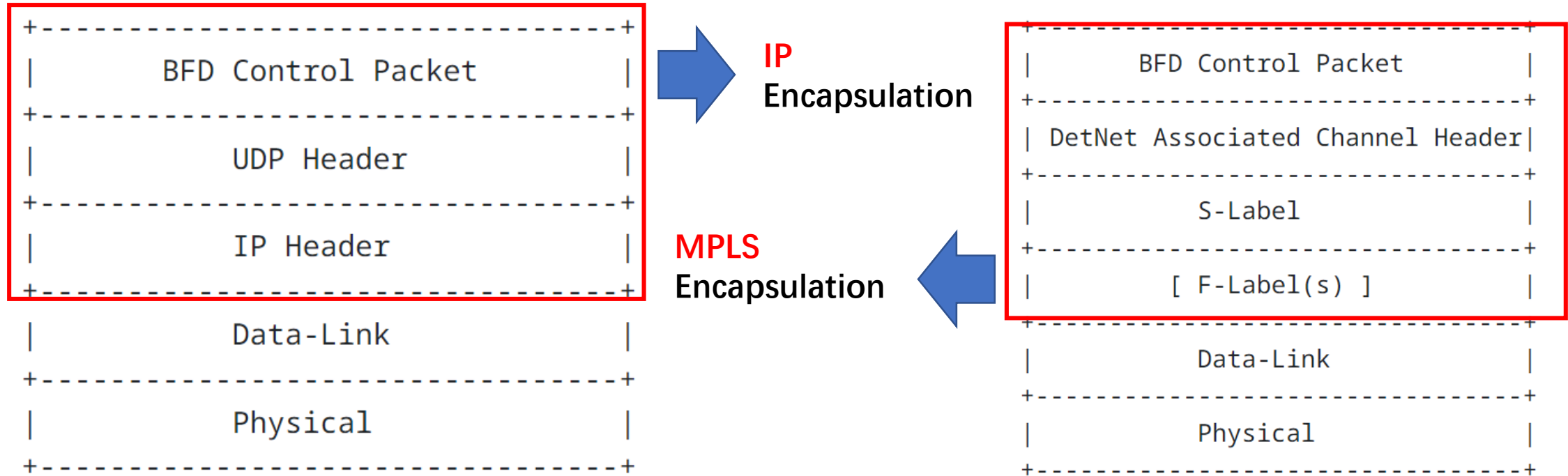
- **Ratio of out-of-order packets**
- **Packet latency**
- **Ratio of packet loss**

BFD Extension for RDI

- Append **DetNet specific error codes**

Value	BFD Diagnostic Code Name
TBD1	Packet_Misorder_Ratio_Limit_Reached
TBD2	Packet_Latency_Limit_Reached
TBD3	Packet_Loss_Ratio_Limit_Reached

Encapsulation: IP/MPLS



Next Steps

- Collecting comments and improving the draft.

Thank you