DetNet WG

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Online Agenda and Slides at:
https://datatracker.ietf.org/meeting/101/session/detnet

WG Information:  https://datatracker.ietf.org/wg/detnet/
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Definitive information is in the documents listed below and other IETF BCPs. For advice, please talk to WG chairs or ADs:

• BCP 9 (Internet Standards Process)
• BCP 25 (Working Group processes)
• BCP 25 (Anti-Harassment Procedures)
• BCP 54 (Code of Conduct)
• BCP 78 (Copyright)
• BCP 79 (Patents, Participation)
• https://www.ietf.org/privacy-policy/ (Privacy Policy)

Also see: http://www.ietf.org/about/note-well.html:
Meeting Administrativia

• Audio Streaming/Recording
  o Please speak only using the microphones
  o Please state your name before speaking

• Joint minute taking  Please contribute
  o http://tools.ietf.org/wg/detnet/minutes

• Jabber:
  o detnet@jabber.ietf.org

• Online Agenda and Slides at:
  o https://datatracker.ietf.org/meeting/101/session/detnet

• Blue sheets
  o Please add your name
Agenda – Session 2

11:50-14:30 Friday Afternoon session I

# Start Time Information
0 11:50  5  Title: Intro, WG Status, Draft Status
   Presenter: Chairs
   Draft:
1 11:55  10  Title: Intro: DetNet Data Plane Encapsulation -- Resolving open issues
   Presenter: Chairs
2 12:05  130  Title: WG Discussion: DetNet Data Plane Encapsulation -- Resolving open issues
   Led by: Balázs Varga/Jouni Korhonen/Norm Finn
3 14:15  15  Title: Wrap up: DetNet Data Plane Encapsulation -- Resolving open issues
   Presenter: Chairs
4 14:30  10  Title: Time permitting: IGP-TE Extensions for DetNet Information Distribution
   Presenter: X uesong Geng, Mach Chen
Adjourn 14:30
DetNet Data Plane Discussion

• Data plane definition is the keystone deliverable in charter
• Data plane alternatives completed September 2016
  ○ Multiple options evaluated
• Design team initial I-D published March 2017
  ○ WG version published in October
• Three virtual interims calls held in January

• Time to agree on core DetNet Data Plane Encapsulations!
Focusing Today’s Discussion

• Reminder: DetNet services
  1. Congestion protection and latency control: usage of allocated resources (queuing, policing, shaping).
  2. Explicit routes: select/apply the flow specific path.

• Core DetNet scenarios (over simplified)
  0 TSN over DetNet
  0 IPvX end to end service
    • Over compatible sub-net technologies (e.g., TSN and MPLS)
Focusing Today’s Discussion

Key questions for today:

1. Do we have agreement on DetNet/MPLS encapsulation?
   - With and without PREF

2. Do we have agreement on the simplified IP approach for v4 and v6?
   - Proposed at Interim 2 – Existing IP headers, PREF at sub-net level only

• Other topics to consider – at least agree on approach
  - DetNet/IP over MPLS
  - Queuing
  - Aggregates
  - OAM
  - Transport protocol impact (Transport = TSV area)
• TSN Service is end to end (i.e., bridged, DetNet-aware L2VPN)
• DetNet Service is edge to edge
  1. Congestion protection and latency control: usage of allocated resources (queuing, policing, shaping).
  2. Explicit routes: select/apply the flow specific path.
• Includes PREF

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**TSN over DetNet**

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<th>TSN End System</th>
<th>Edge Node</th>
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**IP over TSN**

**TSN over D-CW**

**MPLS**

**TSN Domain 1**

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**IETF DetNet WG**

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Simplified IPvX End to End Service

- DetNet Service is end to end, could be edge-to-edge
  1. Congestion protection and latency control: usage of allocated resources (queuing, policing, shaping).
  2. Explicit routes: select/apply the flow specific path.

- Service protection is per link/sub net

Time to confirm: no end-to-end (IP) PREF an acceptable simplification for the initial DetNet IP solution.
### Unified CW IPvX End to End Service

**DetNet Service is end to end (host to host)**

1. Congestion protection and latency control: usage of allocated resources (queuing, policing, shaping).
2. Explicit routes: select/apply the flow specific path.

*Currently off the table as an initial solution*

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![Diagram with labels](chart.png)
Wrap Up

Key Conclusions:

• DN-PW/MPLS
  o Non PREF*
  o PREF*

• IPv{4|6} DetNet
  o Baseline
  o IP over MPLS

• L2VPN/TSN over MPLS

• IP host
  o With TSN-like subnet
  o With non-TSN subnet

• Other topics
  o Queuing
  o Aggregates
  o OAM
  o Transport protocol impact (Transport = TSV area)
Next Steps

• Document split
• Capture results of this discussion
  o Text writing assignments?
  o Update, then confirm changes on list
  o Timing?
• Plan for addressing open topics?
• Working meetings?
  o Frequency, openness, reporting?
• Interim
  o Physical or virtual?
  o When?