DetNet WG

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Online Agenda and Slides at:
https://datatracker.ietf.org/meeting/interim-2018-detnet-03/session/detnet

WG Information: https://datatracker.ietf.org/wg/detnet/
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Also see: [http://www.ietf.org/about/note-well.html](http://www.ietf.org/about/note-well.html)

Note: RFC8179 published May 2017
Meeting Administrativia

• Webex: https://ietf.webex.com/ietf/j.php?MTID=mca0b929db5297a5867bc7585429ad35b
• Joint minute taking
   Please contribute
• Online Agenda and Slides at:
  ◦ https://datatracker.ietf.org/meeting/interim-2018-detnet-03/session/detnet
• Blue sheets
  ◦ Please add your name to etherpad
Resolving Data Plane Open Issues

• General desire to work through issues in WG at a faster/higher bandwidth pace
  0 More frequent than in person meetings
• Failed initial try at in person meeting
  0 Travel budget/availability remains a concern for most
• Current plan: periodic working meetings
  0 Frequency
    • Weekly for an hour?
    • Every 2 weeks for 1-2 hours?
• Extended meeting at IETF 101
  0 Friday until 1:30 or 2pm (based on room availability)
• Considering in person interim between 101 and 102
  0 Based on progress through IETF101
Agenda

1500GMT – Scheduled to 1.5 hours, but can run over 30 minutes if needed

Session should be less formal, and discussion oriented!

- Administrativa (chairs)
- Draft status update (authors)
  see https://tools.ietf.org/html/draft-ietf-detnet-dp-sol
  https://github.com/jounikor/draft-dt-detnet-dp-sol
- Contributions to address open issues (contributors)
- Next steps, including future meetings
Focusing Today’s Discussion

• Key open question:
  0 IP end to end support
    • Converging on D-CW/MPLS service and PR-EF, so not focus of today’s discussion

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

• Detnet scenarios (simplified)
  0 IPvX end to end service
  0 TSN over DetNet
**Simplified IPvX End to End Service**

- DetNet Service is end to end
  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

**Question:** Is no end-to-end (IP) PREF an acceptable simplification for the initial DetNet IP solution?
• DetNet Service is end to end
  1. Congestion protection and latency control: usage of allocated resources (queuing, policing, shaping).
  2. Explicit routes: select/apply the flow specific path.

**Question: Is addition of D-CW/PW on end hosts acceptable?**
### TSN over DetNet

<table>
<thead>
<tr>
<th>TSN End System</th>
<th>Edge Node</th>
<th>Transit Node</th>
<th>Edge Node</th>
<th>TSN End System</th>
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</tbody>
</table>

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

- TSN Service is end to end
- DetNet Service is edge to edge

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IP over TSN

TSN over D-CW

MPLS

TSN over D-CW

IP over TSN

TSN Domain 1

TSN Domain 1
Open discussion
Some Open Questions

• How do we move beyond PREF discussions?
  o PREF is just an option for DetNet flows
    • DetNet function related scenarios:
      1. Congestion protection and latency control: usage of allocated resources (queuing, policing, shaping).
      2. Explicit routes: select/apply the flow specific path.

  o Current solution text primarily covers item 3!
    • Have section 7, but also have:
      5.6.1. Congestion protection
      TBD.
      5.6.2. Explicit routes
      TBD.

  o Perhaps focus on non-PREF text between now and IETF 101?
Some Open Questions

- **IP handling -- Current proposal**
  - Limit DetNet flow identification/support to existing header
    - 5-tuple, DSCP
  - Implies no DetNet PREF for IP end stations
  - Other DetNet services can still be provided end-to-end
  - PREF can be provided at the subnet level
    - DetNet/MPLS or TSN/802.1cb
  - Is this acceptable?

- **Timing of document split?**
Next Steps

• Next working meeting
  • ~2 weeks for 1-2 hours?