

# 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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# Meeting Administrivia

- Webex:

<https://ietf.webex.com/ietf/j.php?MTID=mca0b929db5297a5867bc7585429ad35b>

- Joint minute taking

≡ **Please contribute**

◦ <http://etherpad.tools.ietf.org:9000/p/notes-ietf-interim-2018-detnet-03>

- Online Agenda and Slides at:

◦ <https://datatracker.ietf.org/meeting/interim-2018-detnet-03/session/detnet>

- Blue sheets

◦ **Please add your name to etherpad**

# Issues

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

# Agenda

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

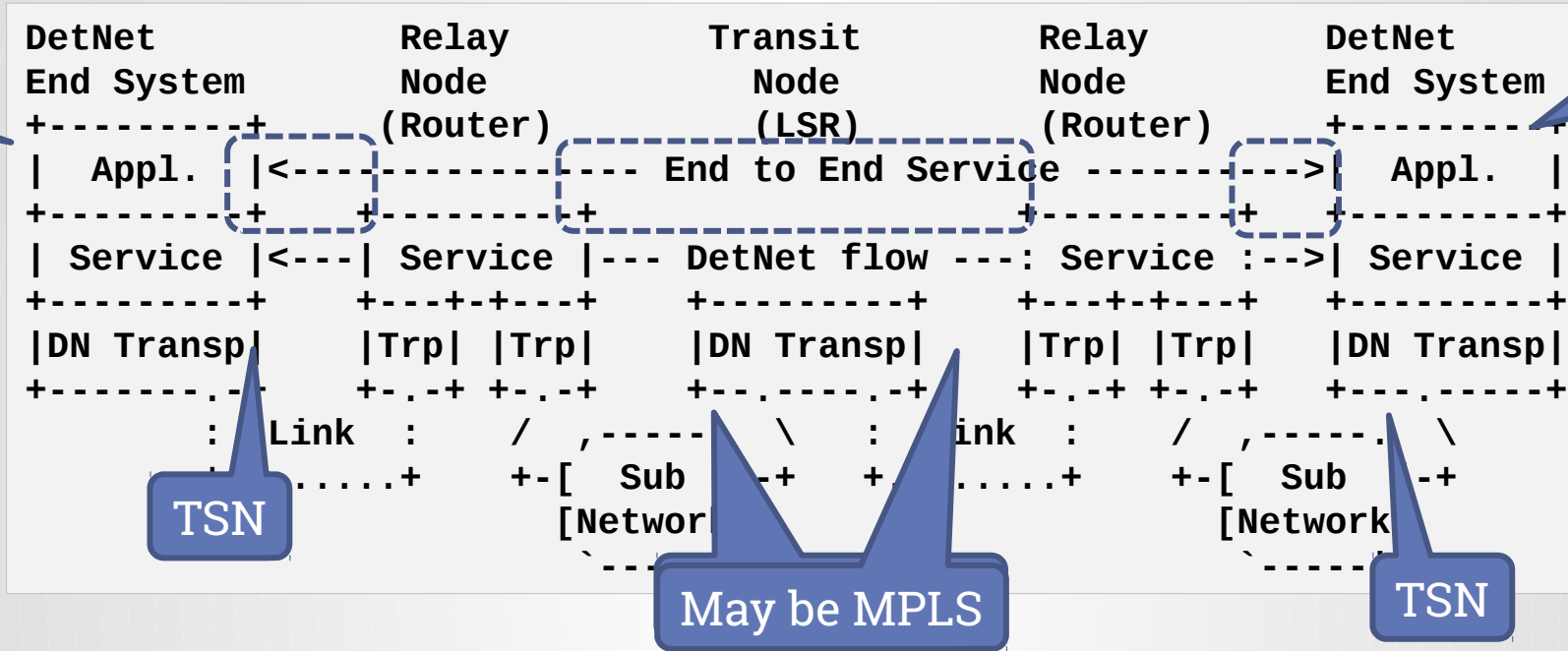
**Session should be less formal, and discussion oriented!**

- **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:
  - 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.
  3. Service protection: recognize DetNet compound and member flows for replication and elimination.
- Detnet scenarios (simplified)
  - IPvX end to end service
  - 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

3. Service protection: recognize DetNet compound and member flows for replication and elimination.

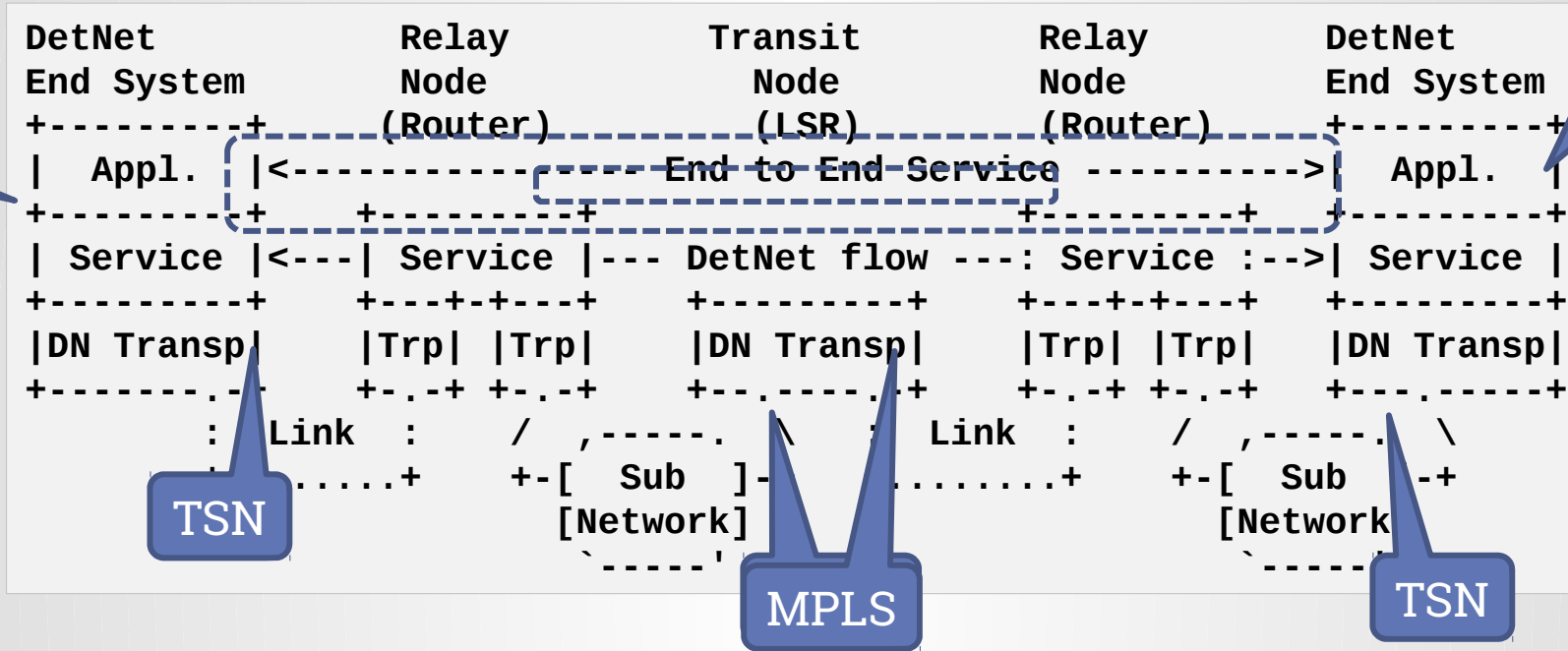
**Question: Is no end-to-end (IP) PREF an acceptable simplification for the initial DetNet IP solution?**

Application  
L4 Transport  
D-CW/PW  
IP  
TSN

# Unified CW IPvX End to End Service

Application  
L4 Transport  
D-CW/PW  
IP  
TSN

Pref  
Domain



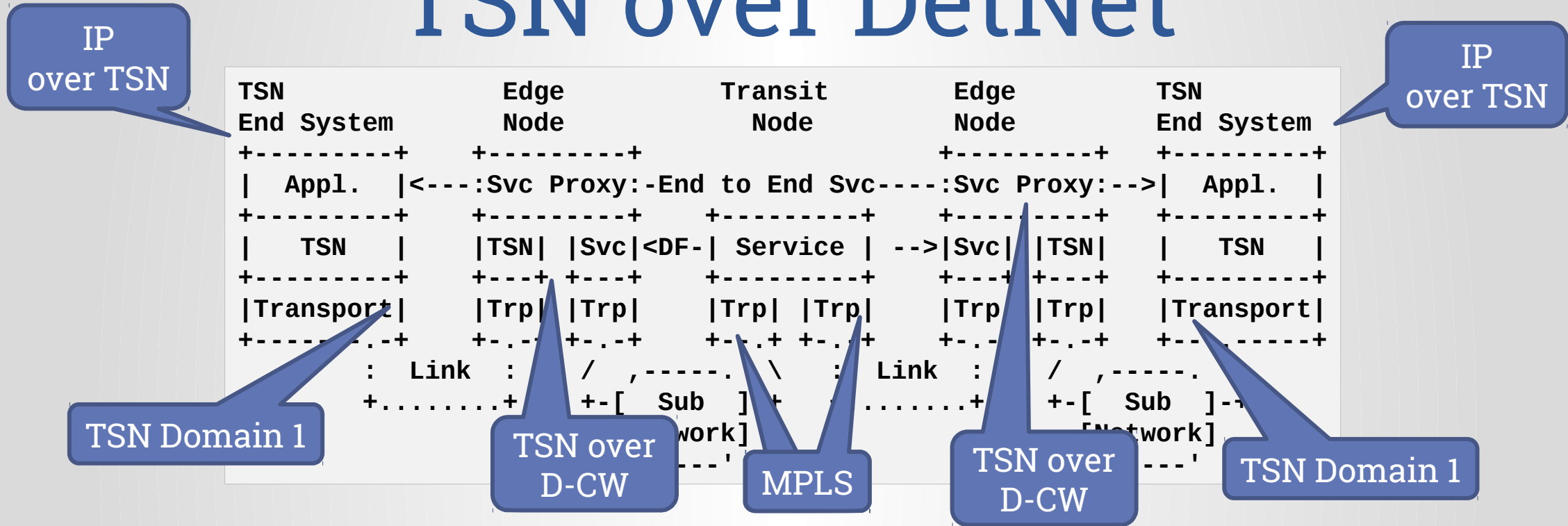
Based on  
Balazs Varga  
contribution

## • 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.
3. Service protection: recognize DetNet compound and member flows for replication and elimination.



# TSN over DetNet



- TSN Service is end to end
- 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.
  3. Service protection: recognize DetNet compound and member flows for replication and elimination.

# Open discussion

...

# Some Open Questions

- How do we move beyond PREF discussions?
  - 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.
      3. Service protection: recognize DetNet compound and member flows for replication and elimination. **≡ PREF**
  - 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.
  - 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?