DetNet Control Plane Signaling

draft-trossen-detnet-control-signaling-00

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RECAP: Premise of the Draft

"This document provides solutions for control plane signaling, in accordance with the control plane framework developed in the DetNet WG. The solutions cover **distributed, centralized, and hybrid signaling** scenarios in the TSN and SDN domain. We propose changes to RSVP IntServ for a better integration with Layer 2 technologies for resource reservation, outlining example API specifications for the realization of the revised RSVP (called **RSVP-detnet** in the document)"

- Main draft contribution is control plane signaling along scenario for 'bridged Ethernet with LRP/RAP L2 signaling' with L3 signaling based on first proposal for RSVP-DeteNet

RECAP: General Structure

Main focus of current work

Main proposal for aligning L3 with L2 signaling (more later)

For future revisions – contributions welcome

Feedback Received So Far

- What is the scenario here? TSN over DetNet? DetNet over TSN?
  -> will be addressed in new use case section
- Clarify relation to TSN-specific data plane drafts
  -> will clarify in revised API descriptions (see also reply to list by Franz)
- Clarify use of flow information model
  -> will clarify in revised API descriptions (see also reply to list by Franz)
- Clarify terminology
  -> will be addressed in next version of contribution

Next Steps

Move from ‘bridged Ethernet’ scenario in v0 to more broadly show how RSVP-detnet proposal would integrate into controller framework, i.e.,

- Focus main contribution on RSVP-detnet proposal
  - Show design rationale
  - Outline example interactions
  - Present clearer use cases

- Align with Malis et al in terms of supported control plane architectures
  - https://tools.ietf.org/html/draft-malis-detnet-controller-plane-framework-05

Next Steps: Revised Structure

1 Introduction

2 Use Cases
- TSN as L2 technology with bridged TSB-based Ethernet, addressing terminology comments

3 Supported Control Plane Architectures
- Mainly summary of chapter 3 in https://tools.ietf.org/html/draft-malis-detnet-controller-plane-framework-05

4 Design Rationale
- Combination of current Sections 2.2, 2.4 and 2.5

5 RSVP-detnet
- API based on current Section 2.6, addressing received feedback on flow information model
- Protocol specification

6 Example Interactions
- Based on current Section 2.3 and linking to new Section 2

7 Security Considerations

8 IANA Considerations

9 Conclusion

10 References

Feedback & Comments are highly welcome!

…including co-authors and contributions!