NADA implementation experiences

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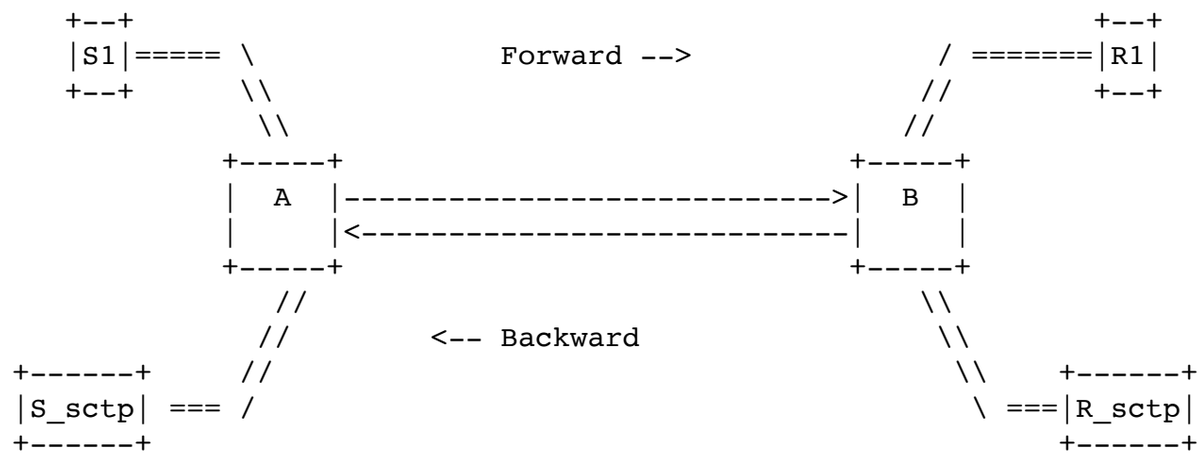
Intro

- NADA implementation in Omnet++/INET
- updated to draft-ietf-rmcat-nada-09
- This presentation should serve as an independent validation of the NS3 model
  —> https://github.com/cisco/ns3-rmcat

Setup

- Focus on draft-ietf-rmcat-eval-test-07 test case 5.6:
  Media Flow Competing with a Long TCP flow

- We use SCTP instead of TCP: New Reno CC, maybe different ACK strategy



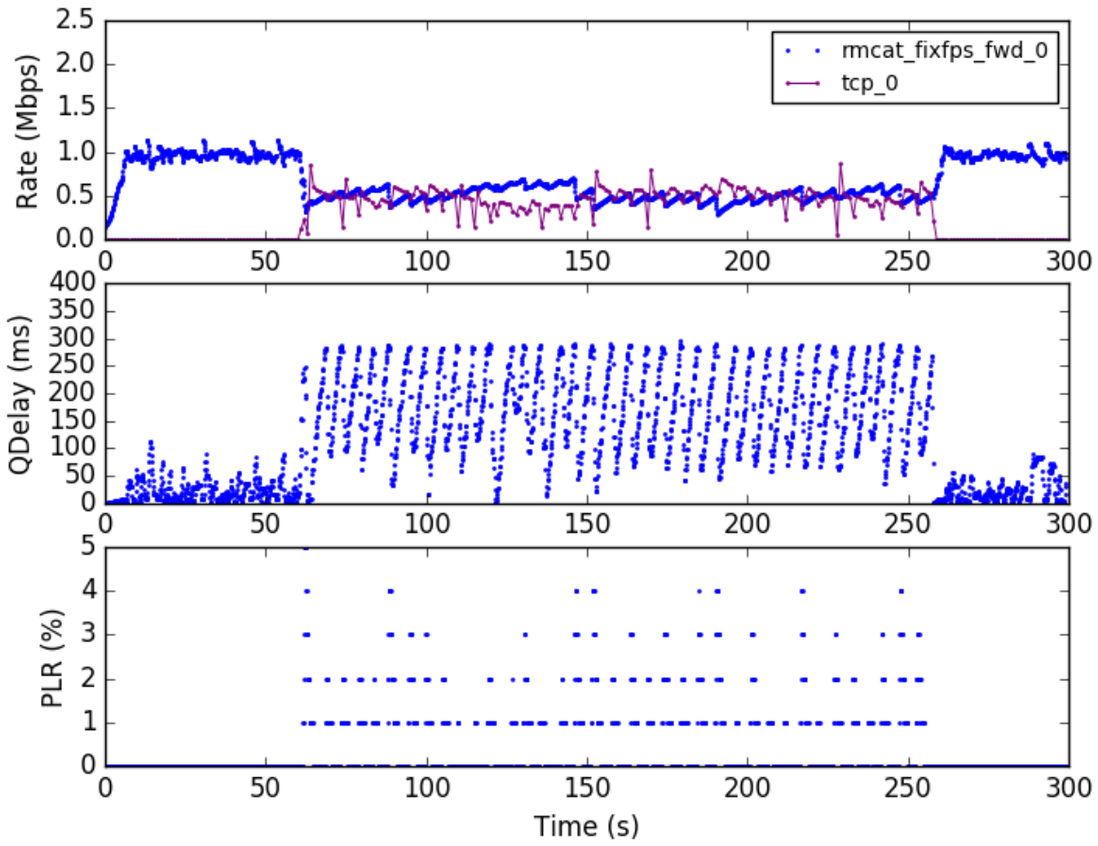
- 1 Mbps Bottleneck, 60ms pDelay, 300 ms max. qDelay
  (no jitter)

- Prefect fixed fps video encoder

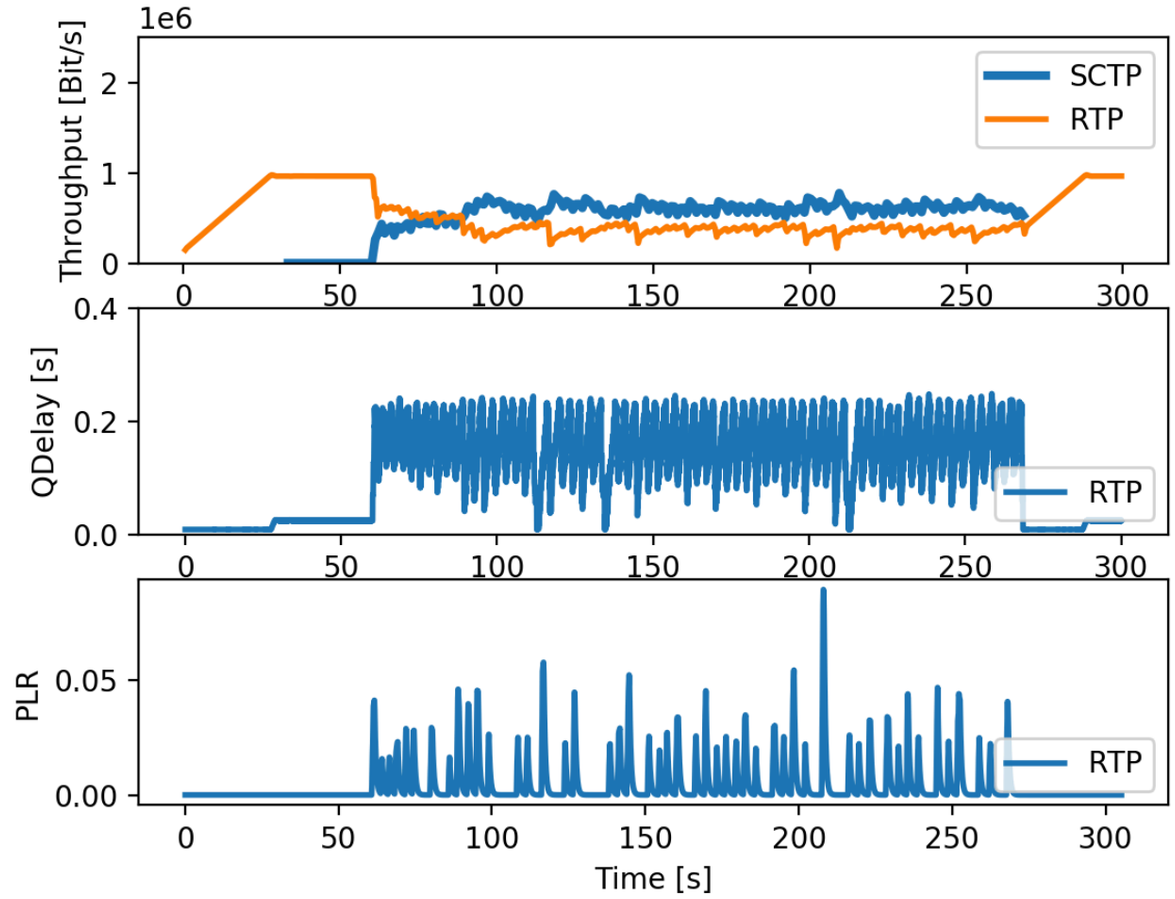
- Currently no accelerated ramp up mode

Test Case 5.6

NS3



Omnet++/INET



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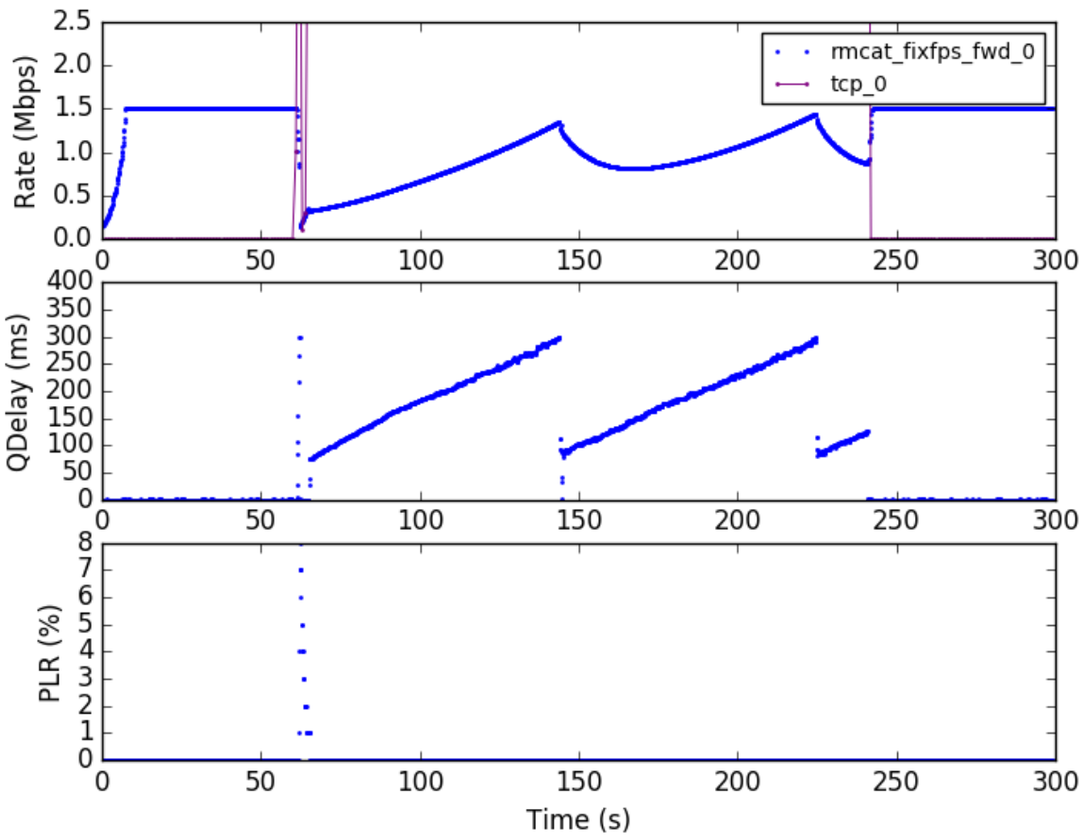
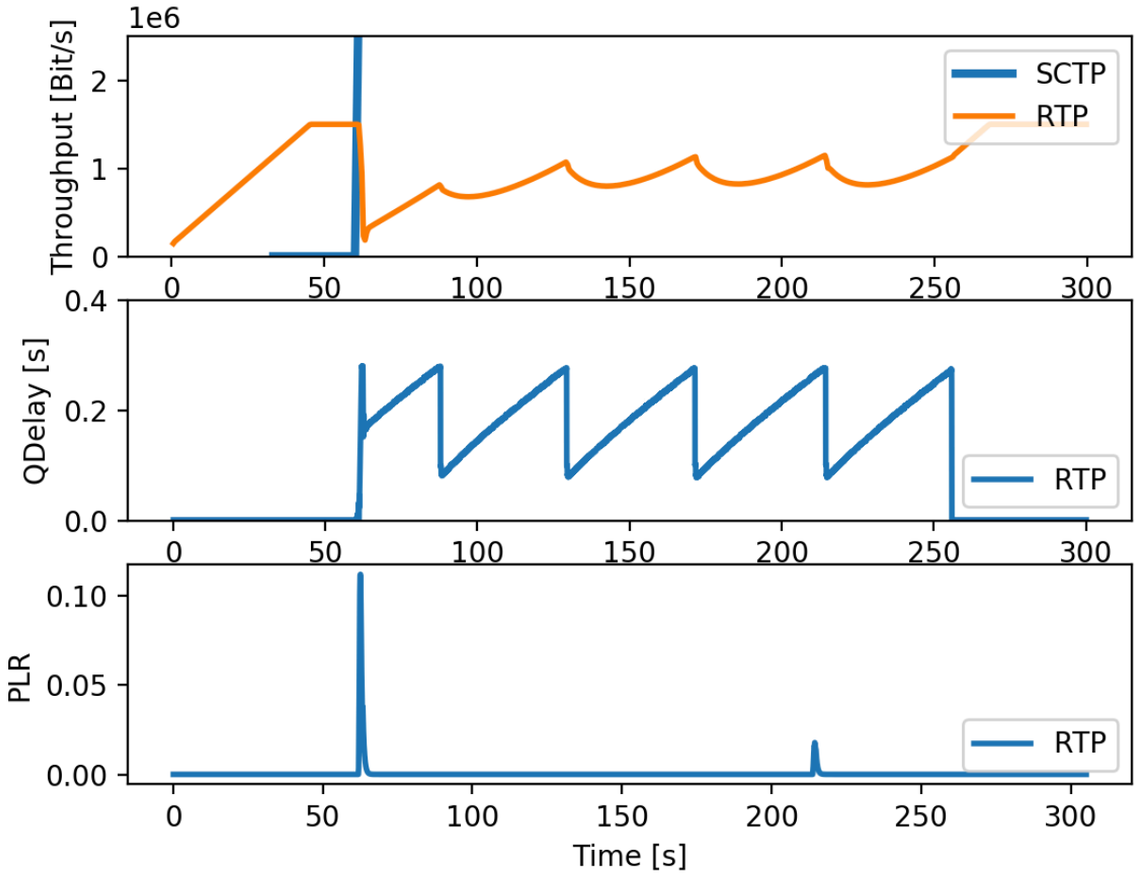
Test Case 5.6

NS3



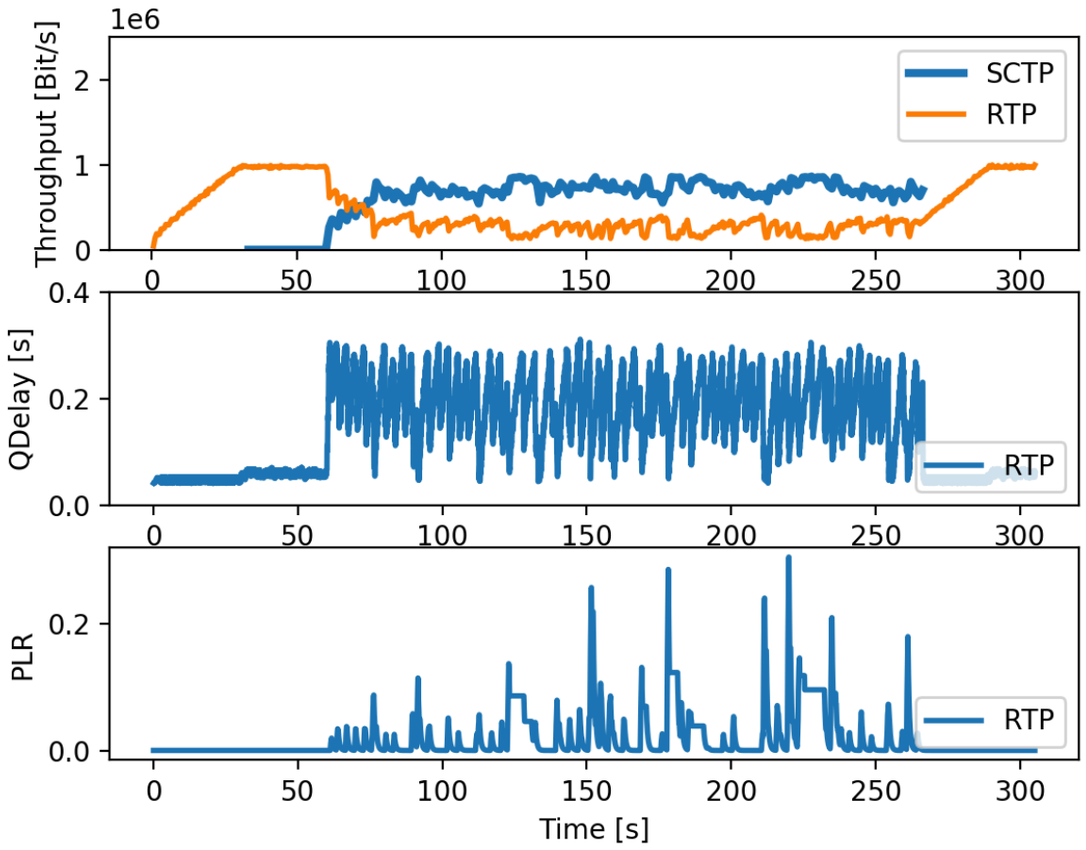
Omnet++/INET



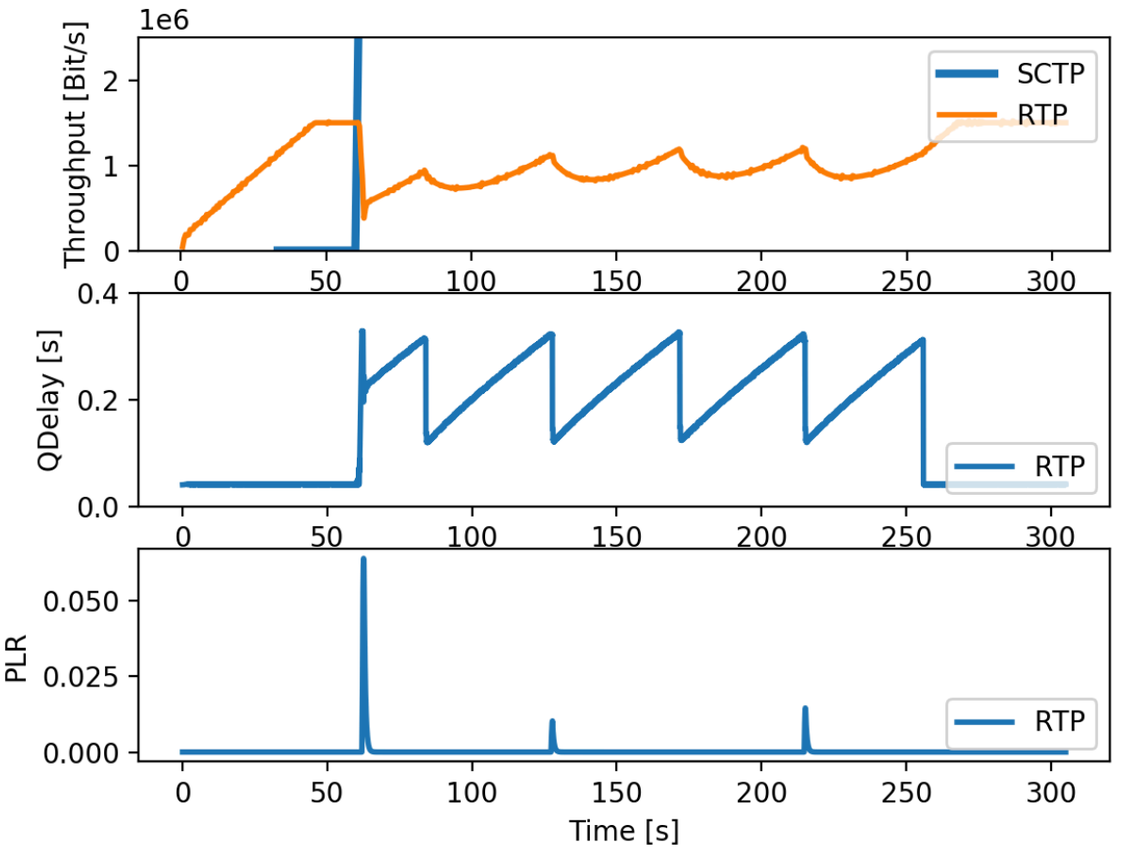
- 10 Mbps Bottleneck, 60ms pDelay, 300 ms max. qDelay

Test Case 5.6 (trace based)

1Mbps



10Mbps



- Cisco syncodec - Trace based with scaling (Foreman_lookahead_1)

Conclusion

- Evaluated large parameter spectrum
- Both implementations seems to behave identically
- Feel free to ask for specific simulation scenario.