TCP IW10 in Low Bandwidth Networks

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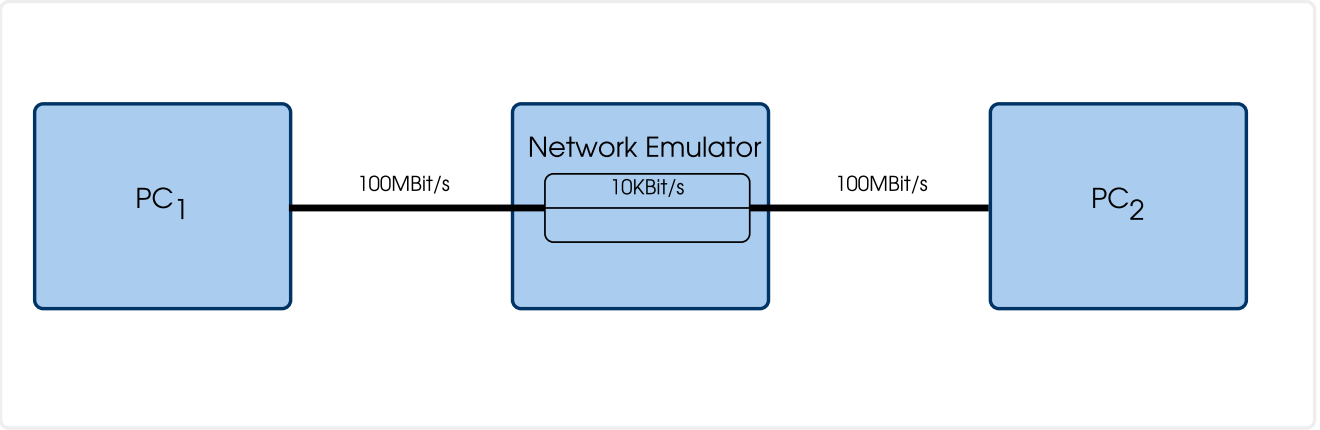
Emulation Setup



Scenarios

- One flow (IW3 to IW10)
- One (responsive) background flow, n short-lived flow (IW3 to IW10)

Metrics

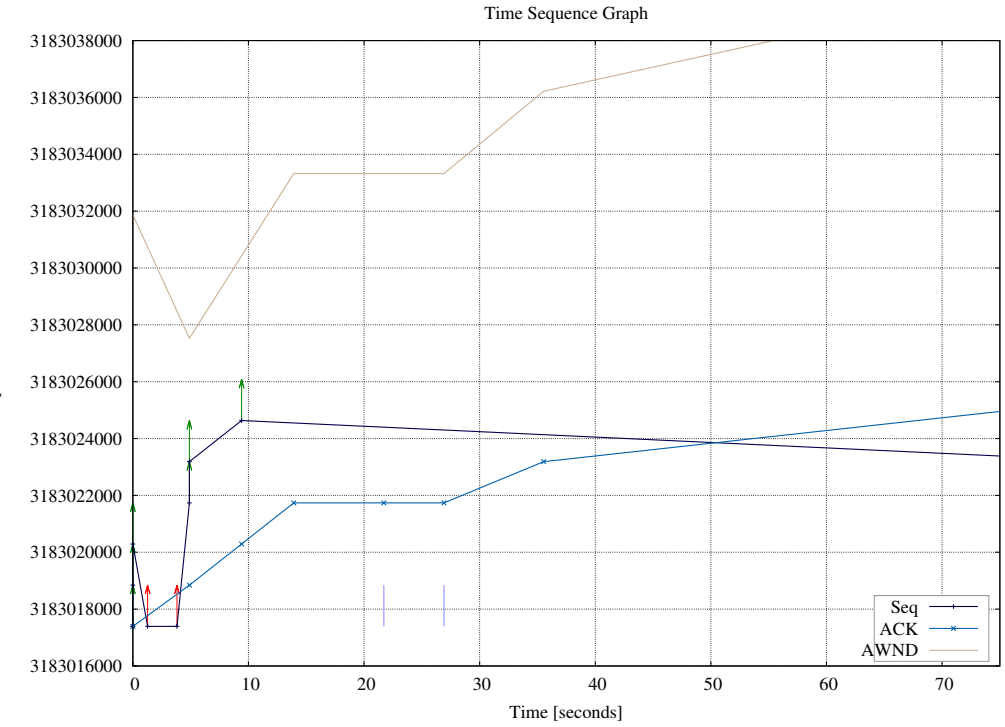
- Efficiency
  - $\frac{\text{Number of total packets}}{\text{Retransmission}}$
- Transfer time
- Queue behavior
- Fairness (Jain's fairness index)

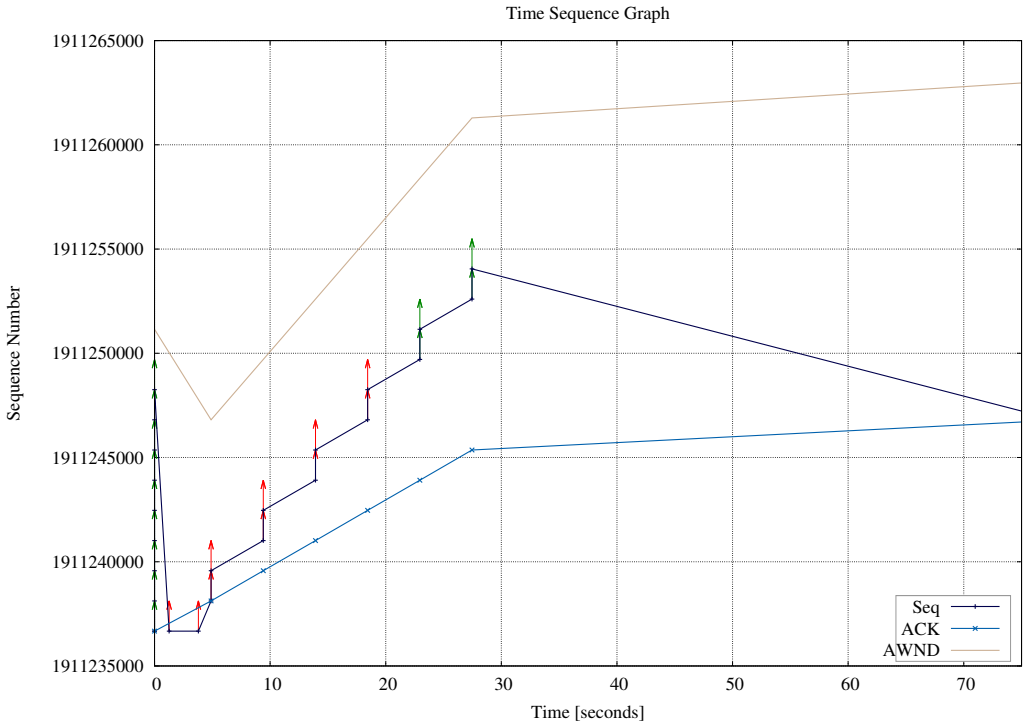
Focus

- Bandwidth: $\leq$ 10000 Byte/s
  - Note: large latency comes from low bandwidth
- Queue Disc:
  - FIFO (tail drop, head drop)
  - Special AQM queues

Start-Up Behaviour

- Bandwidth: 1000 Byte/s
- FIFO (tail drop)
- Queue length: ∞
- 100 kbyte bulk transfer





Whole Picture

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- FIFO (tail drop)
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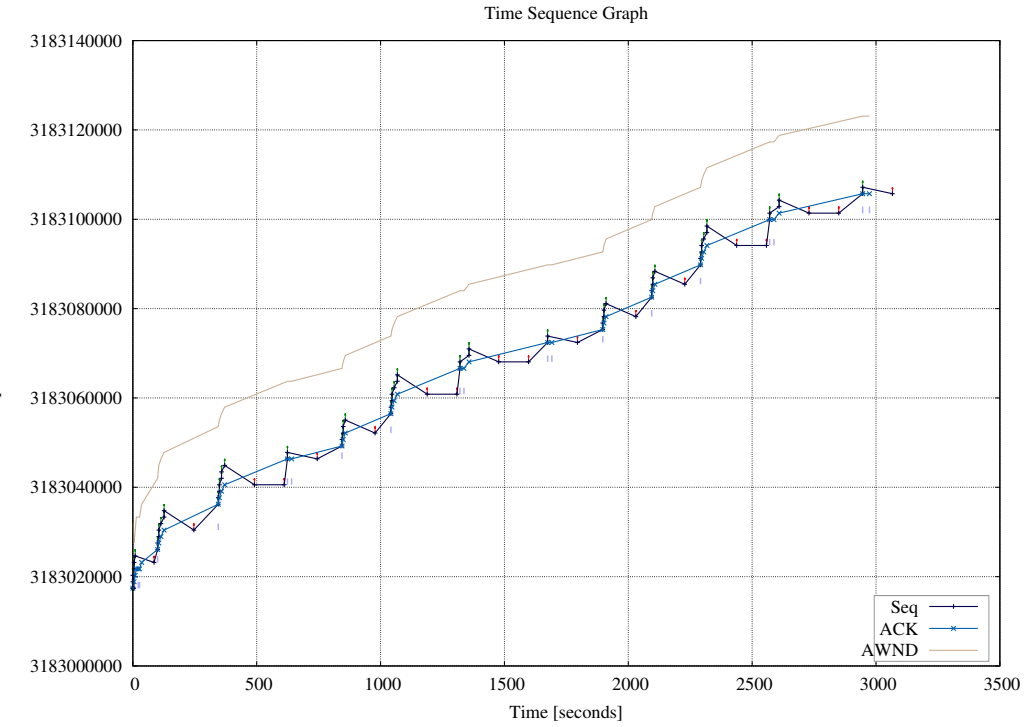

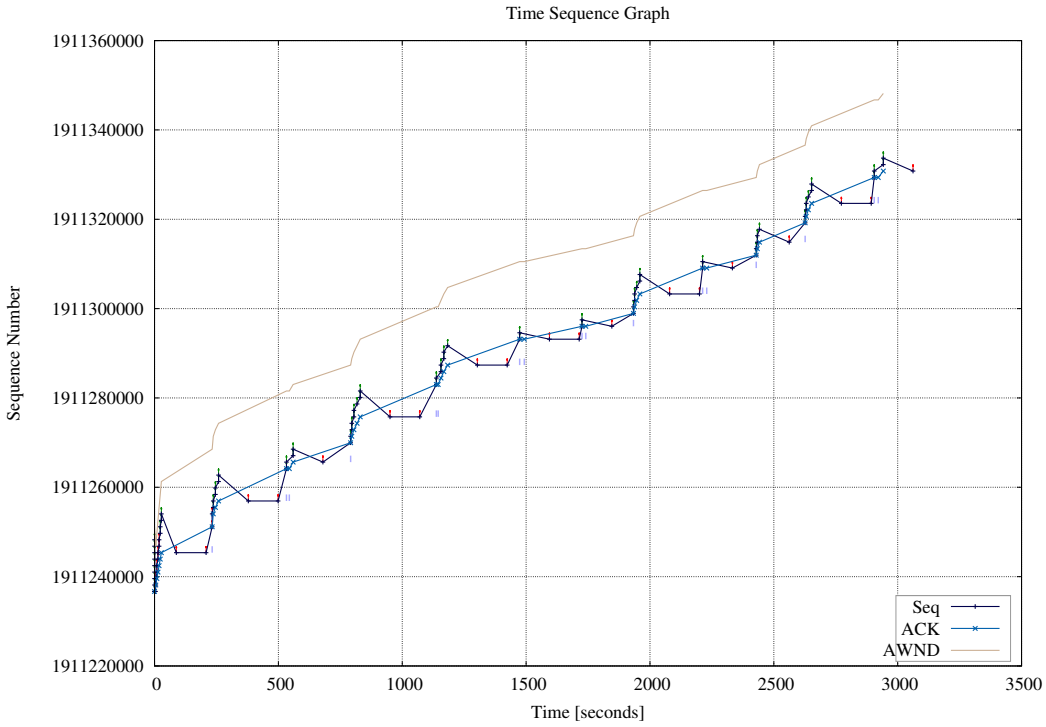

Summary

- We did not observe „major“ negative impact of IW10
- We do not believe that the IW should be a function of time

Thank You!

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