UiO : University of Oslo

Shared Bottleneck Detection for Coupled Congestion Control for RTP Media Update (draft-ietf-rmcat-sbd-04)

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[simula . research laboratory]

Outline

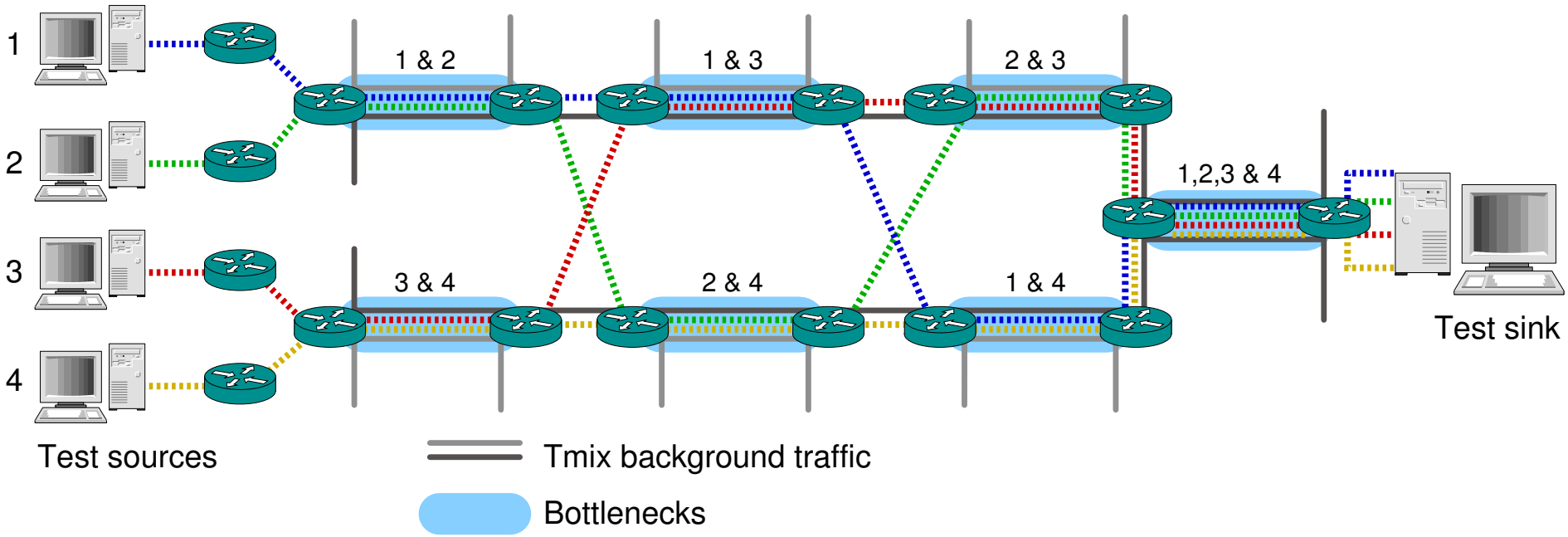
- Changes 03 $\rightarrow$ 04
- Quantitative experimental results

Key changes in WG-03/4

Revisions

- Section outlining feedback requirements in the three possible scenarios.
- Reference Zhang's convex-hull algorithm for estimating and removing relative clock skew.
- Suggest skew_est based on previous T with no freq_est as an alternative for correcting the clock skew in situations where it is high. This is reliable, but noisier.

Quantitative Statistics – Simulation setup



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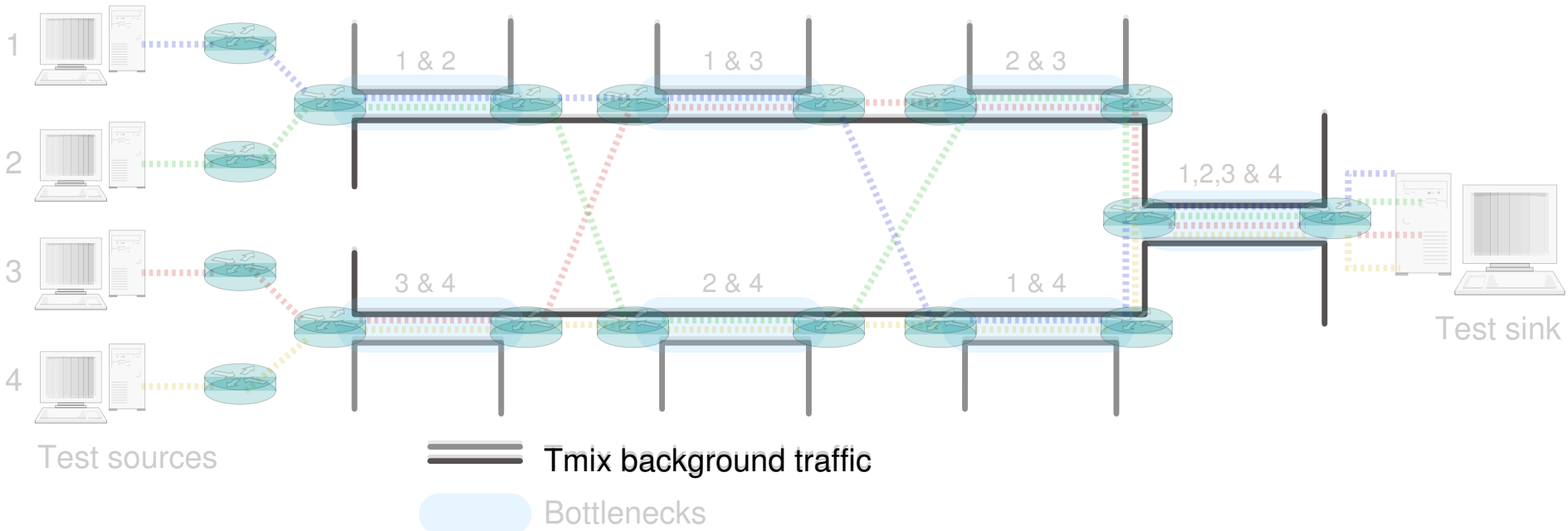

- Background traffic based on real traffic traces
  - > 90%
  - each iteration has different bottleneck traffic

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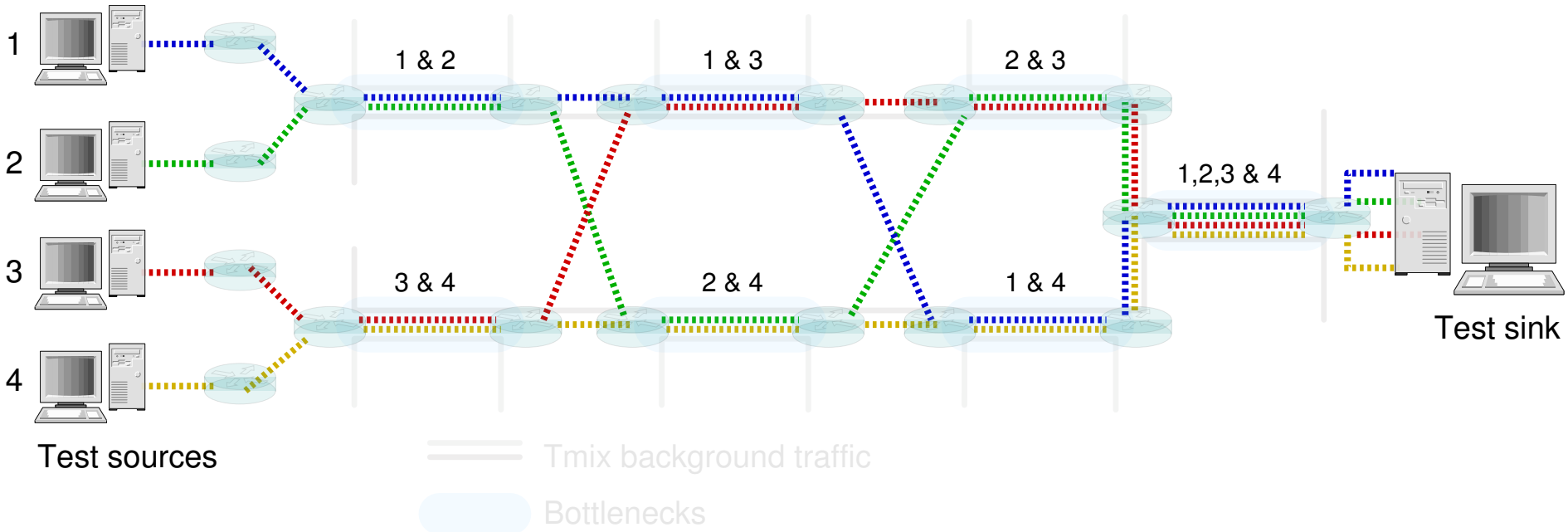

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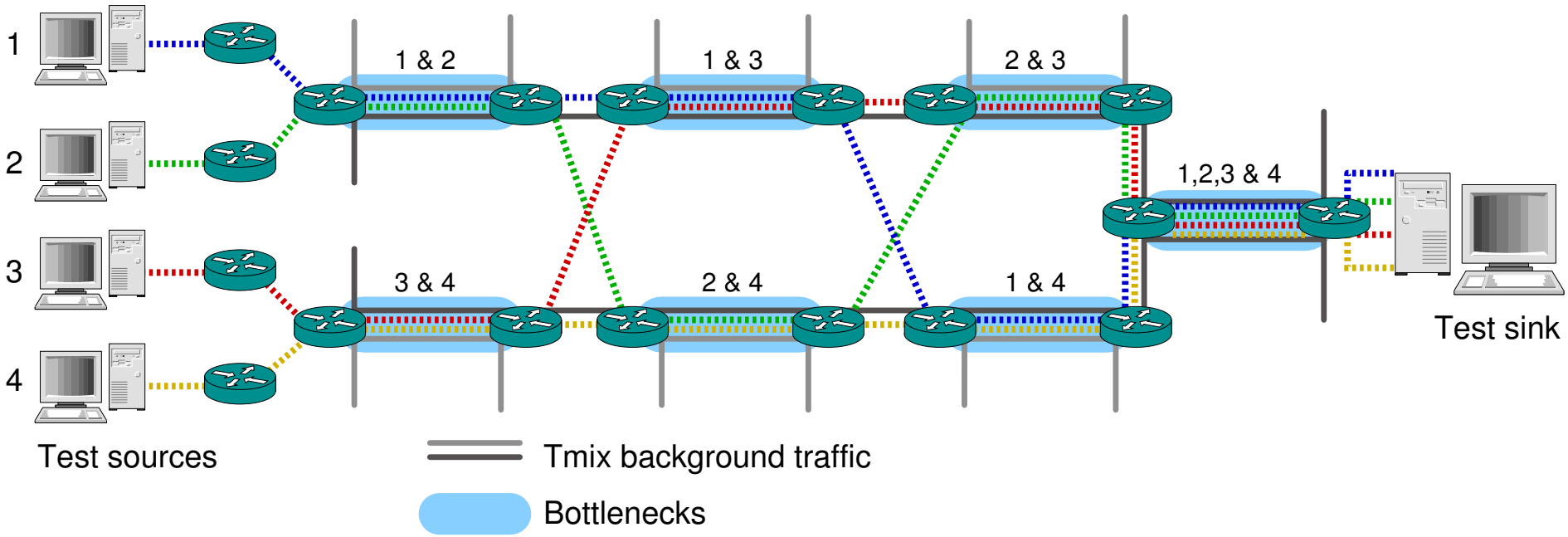
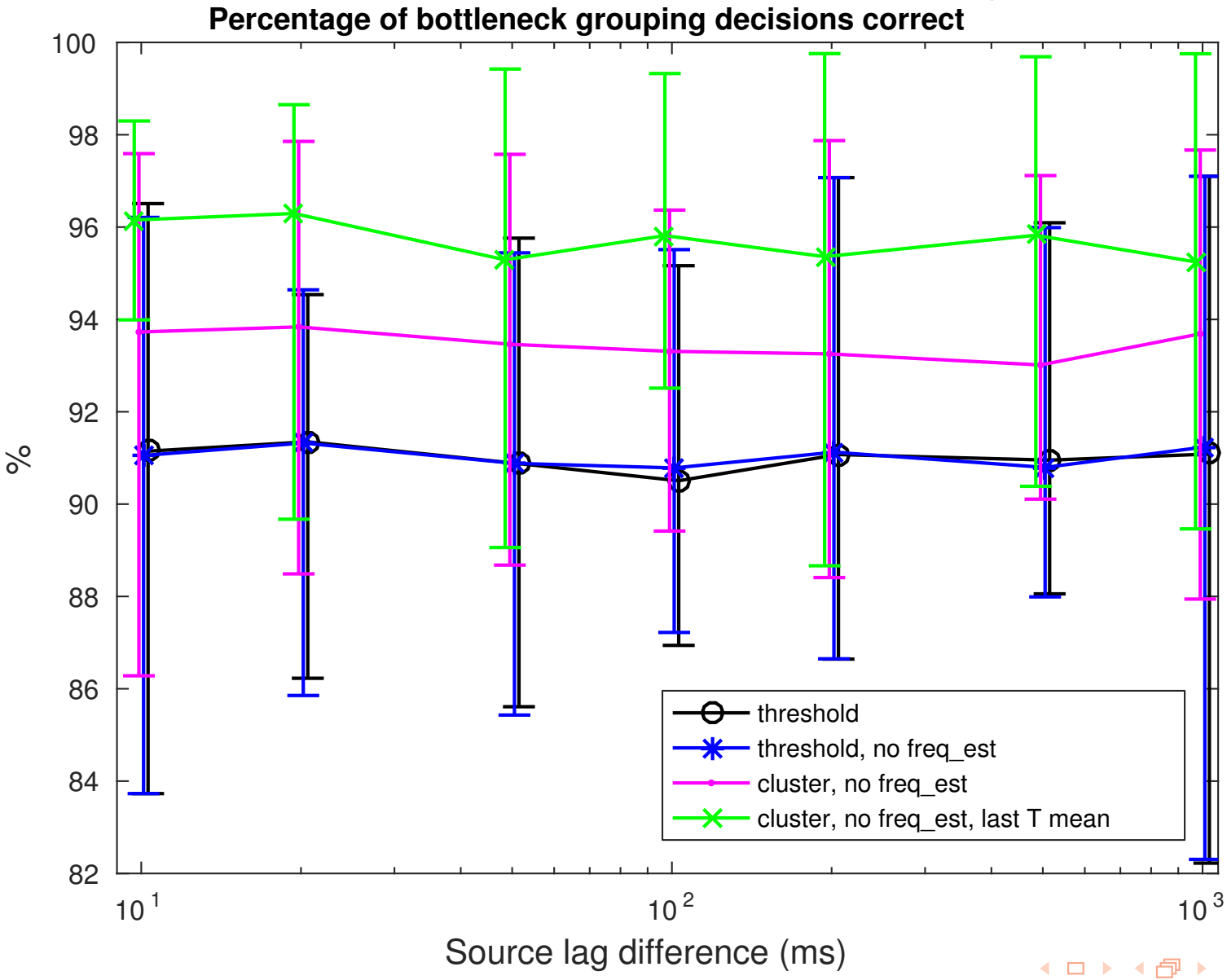


- Background traffic based on real traffic traces
  - > 90%
  - each iteration has different bottleneck traffic
- Flows 1 & 2 send at twice the rate of 3 & 4
- Various combinations of bottlenecks activated

Results % +'ve correct — $\frac{100 \times \mathbf{pos}}{(\mathbf{pos}+\mathbf{falseneg})}$



Notes

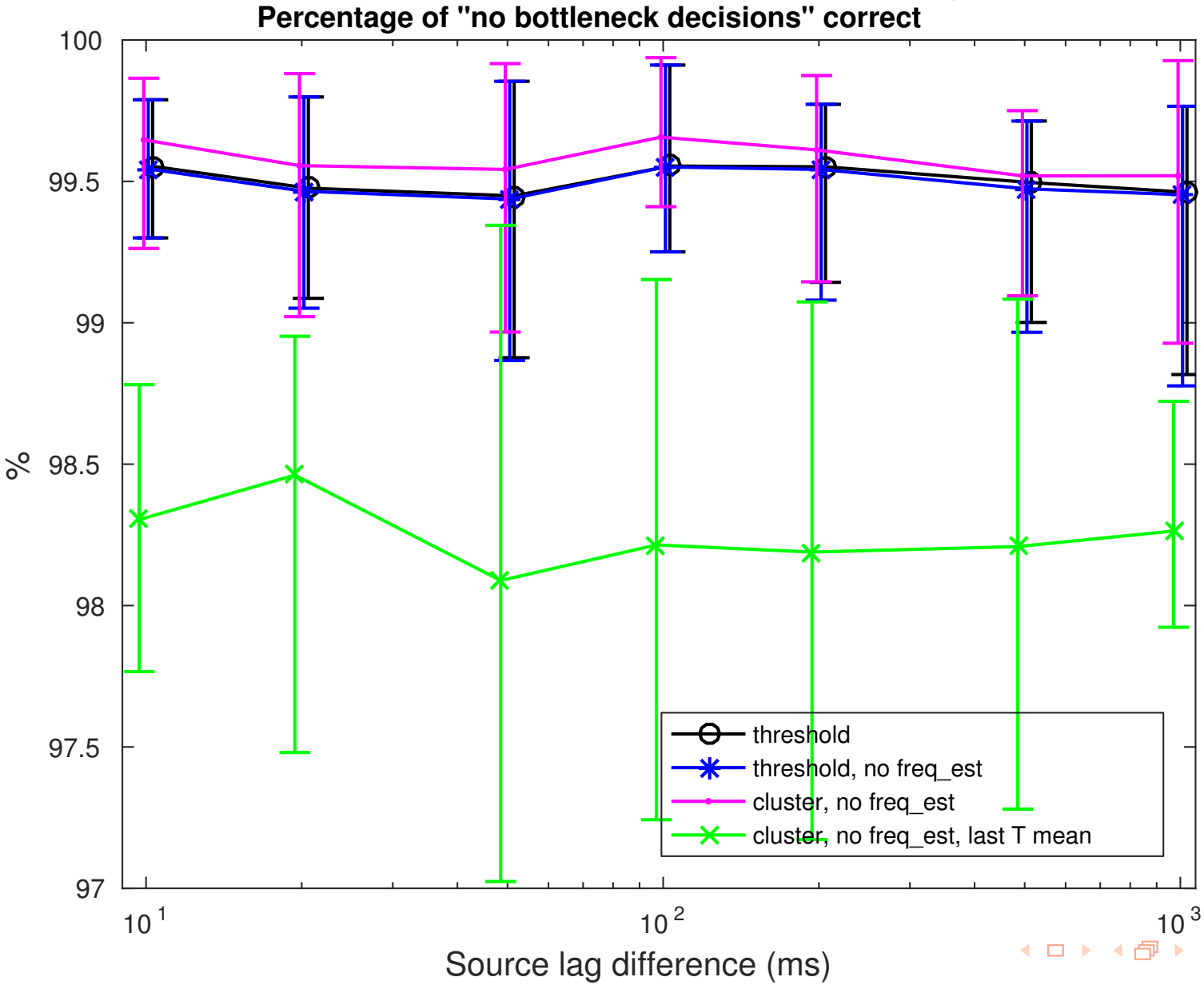
points offset for clarity

error bars span all data

Accuracy wrt BN Q

- $>$ 0 for 50% T
- stable

Results % -'ve correct — $\frac{100 \times \mathbf{neg}}{(\mathbf{falsepos} + \mathbf{neg})}$



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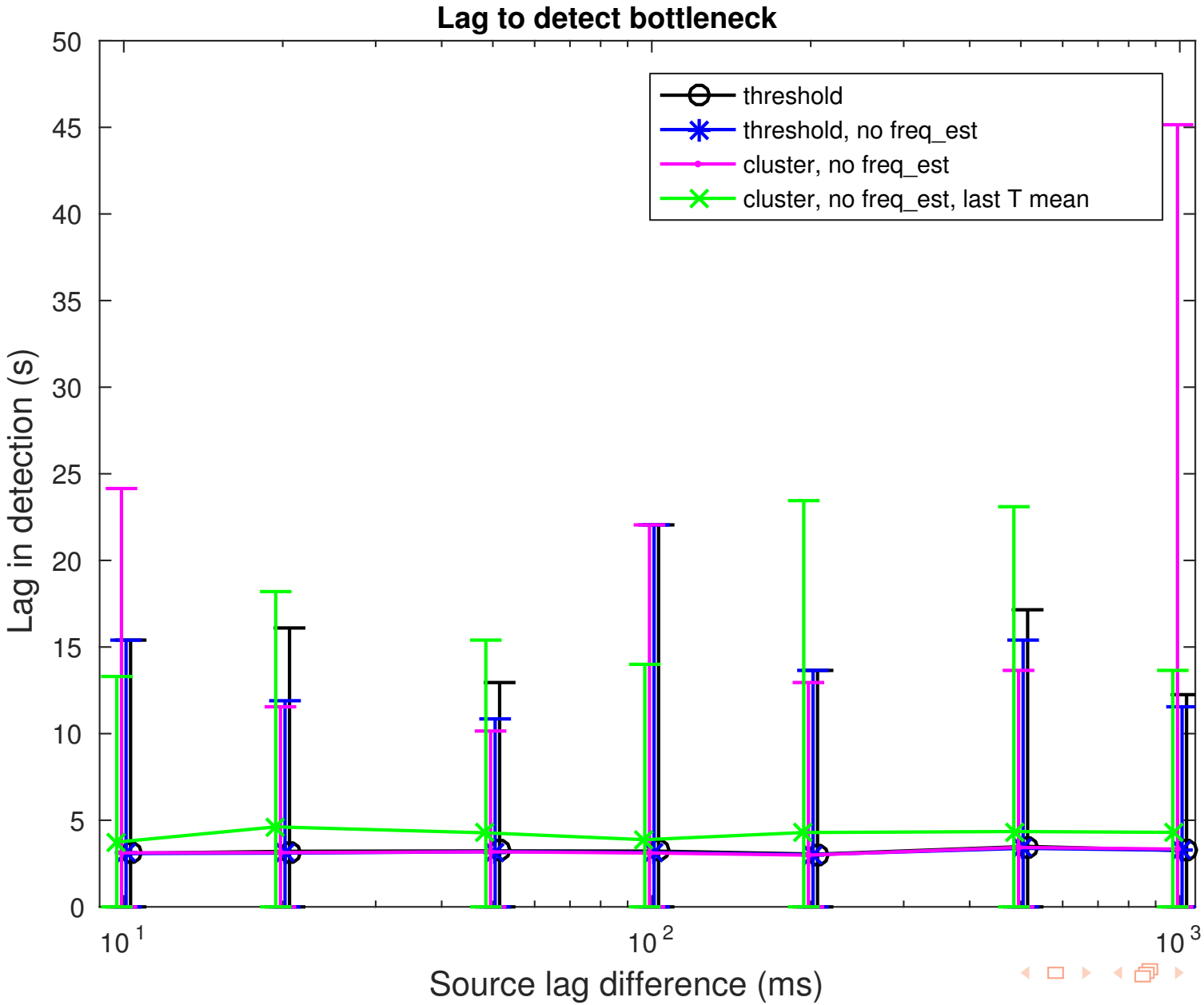
Results lag detecting bottleneck



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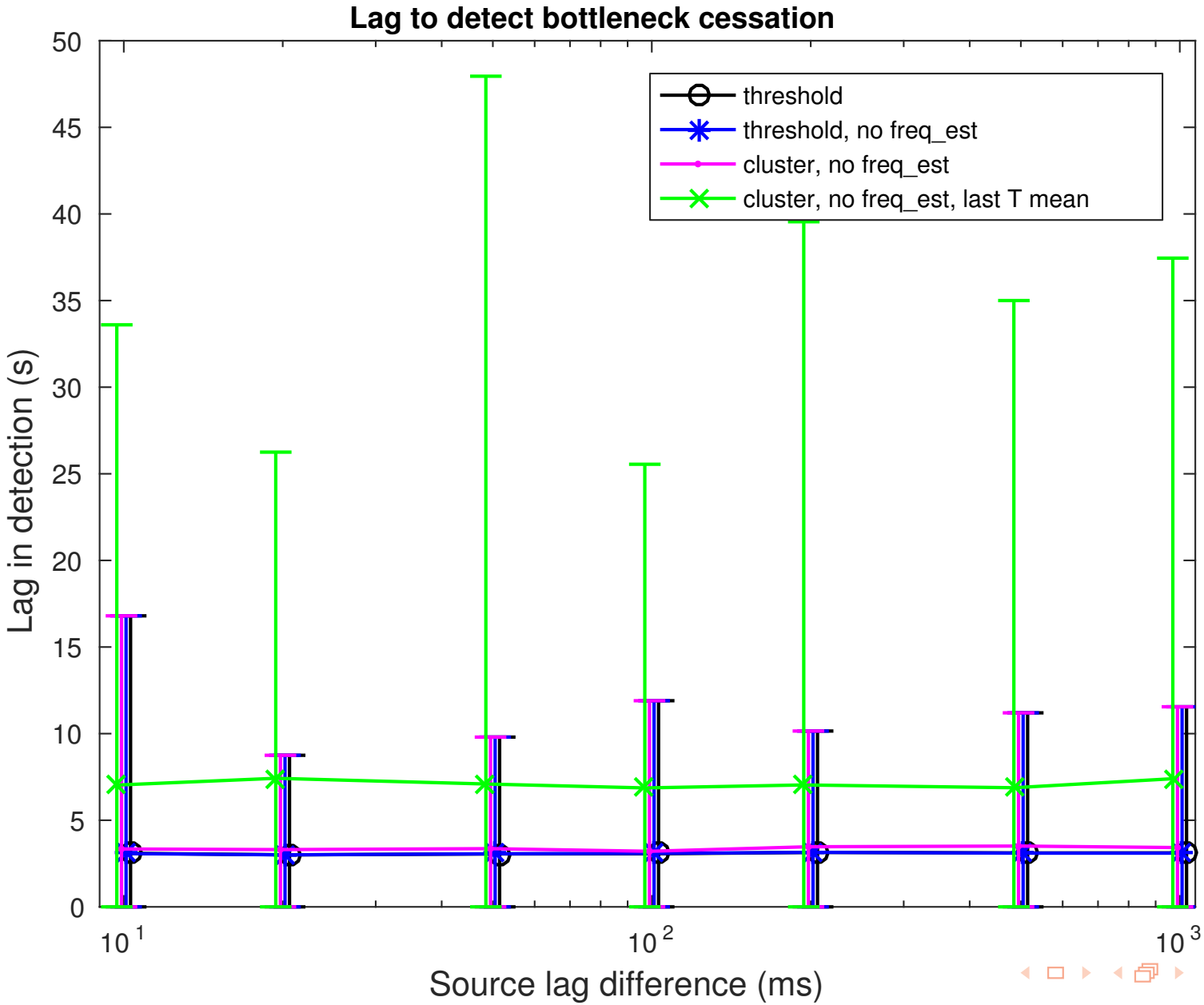
Results lag detecting bottleneck cessation



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Conclusions

Status

- We think the document is ready for working group last call.