Update on draft-ietf-soc-overload-rate-control

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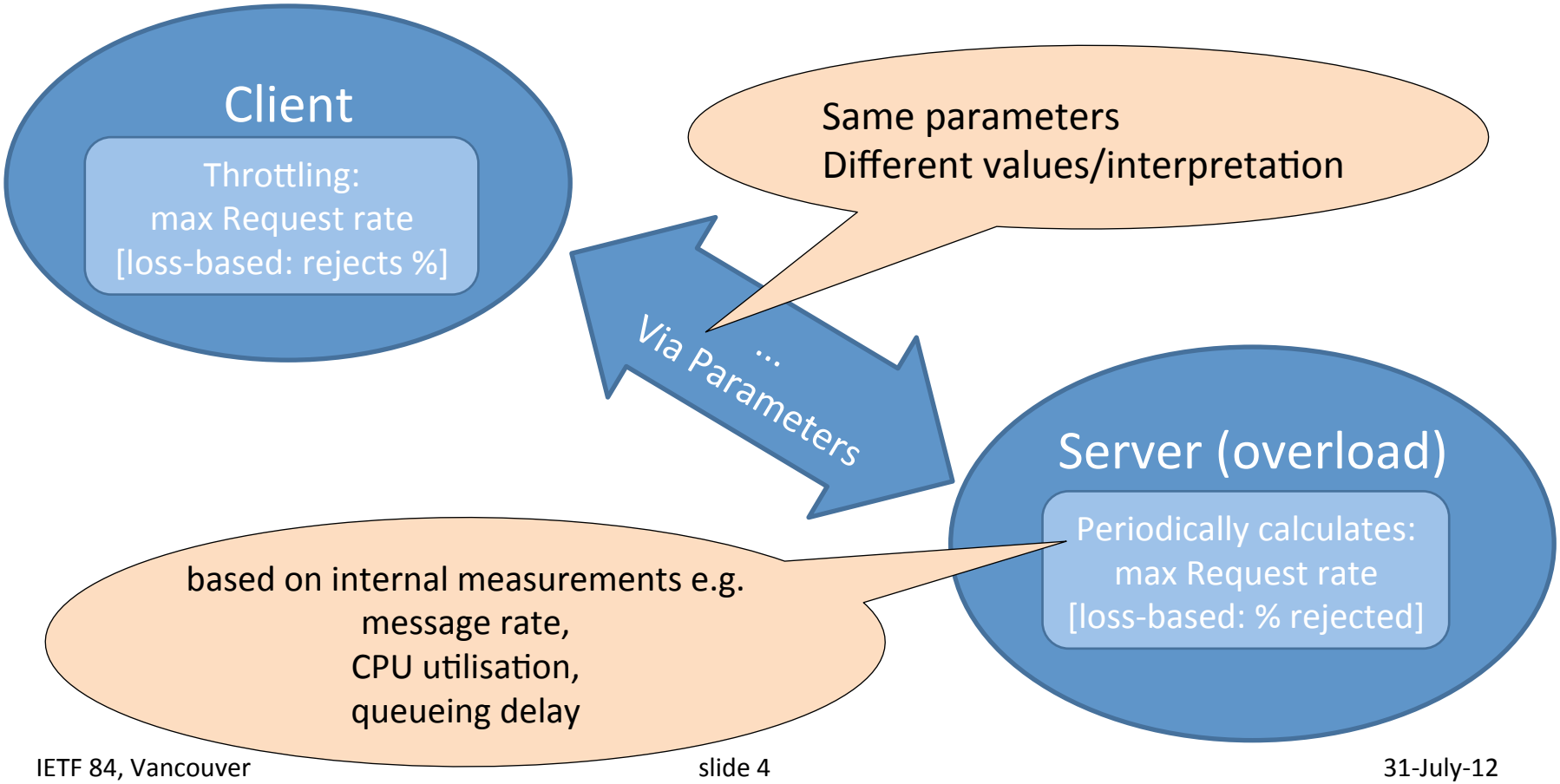
Introduction

- Last SOC meeting IETF83
  - Phil gave an overview of draft-ietf-soc-overload-rate-control
- Since then we received a few comments
  - Editorial changes
  - Clarification of Leaky Bucket parameters selection
  - Addition of pseudo code
- All comments were addressed in draft-ietf-soc-overload-rate-control-02

Refresh

- Rate-based overload control approach
  - Mitigates congestion in SIP networks
  - Addresses loss-based control limitations
    - capacity guarantees…
  - Conforms to *draft-ietf-soc-overload-control* signalling scheme
- draft-ietf-soc-overload-rate-control-02 available

Refresh: Commonality & Differences loss-based, rate-based



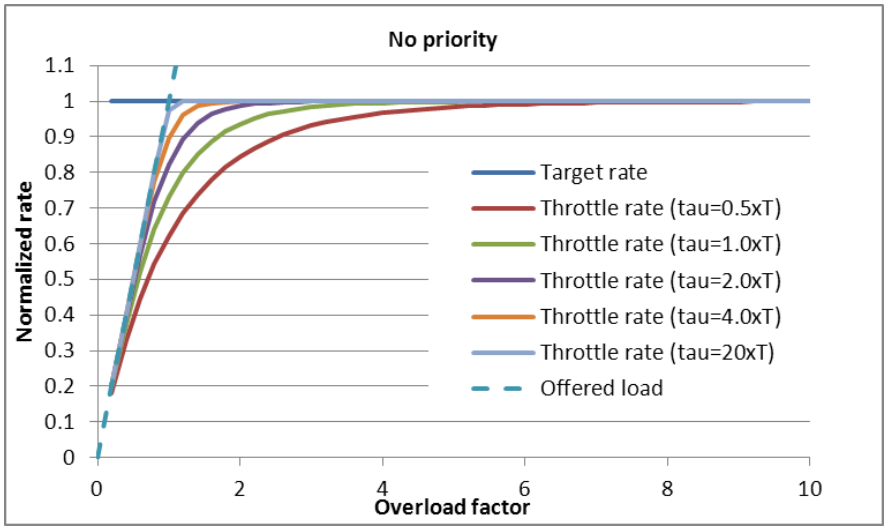
Refresh: rate control Server operation

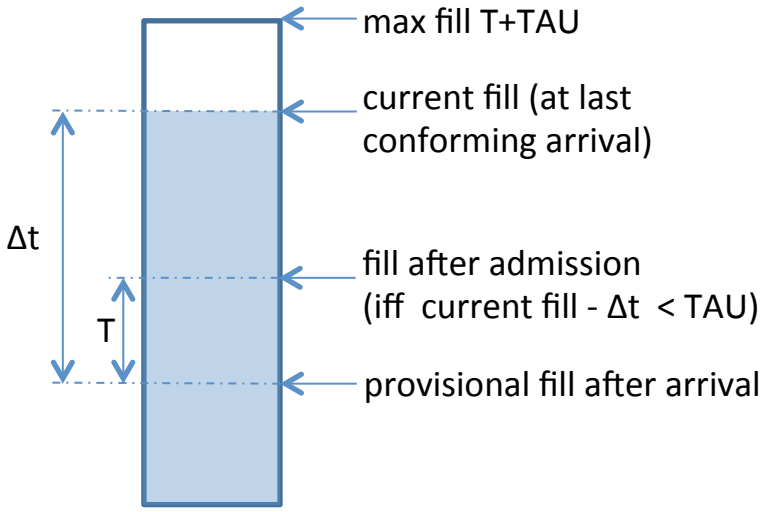
- Server MUST periodically evaluate its overload state, estimate a target SIP request rate for each client, and send the new target rate to the specific client.
  - Algorithm for estimating rate is out of scope

Refresh: rate control Client operation

- Illustrative Client algorithm based on [ITU-T Rec. I.371] Annex A Leaky Bucket algorithm
- Two parameters: T and TAU
  - Target inter-arrival time T = 1 / [Server target rate]
  - Tolerance parameter TAU
  - Priority scheme relies on two tolerance parameters
    - TAU1 & TAU2
- Target rate is sent from the Server to the Clients using the proposed mechanism
- The values TAU, TAU1 and TAU2 are static and set in advance (or if they need to be changed, that is done by some other mechanism)

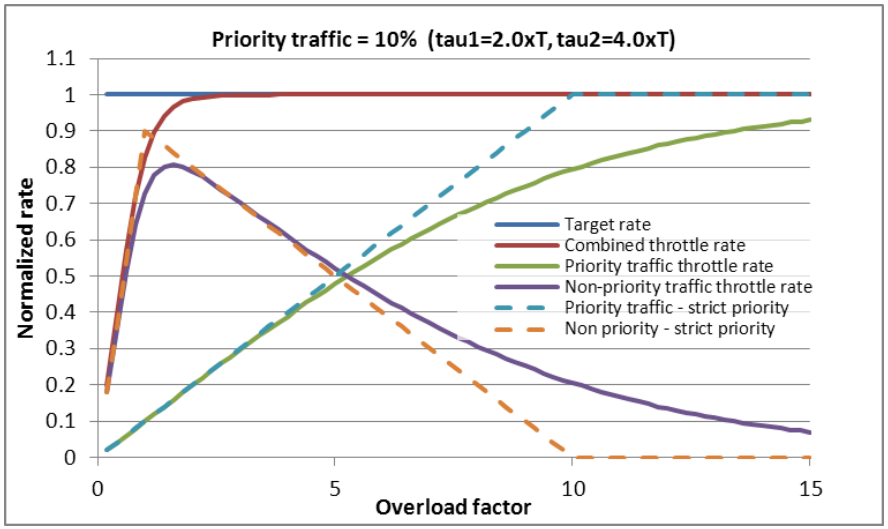
Sensitivity on parameters: no priority

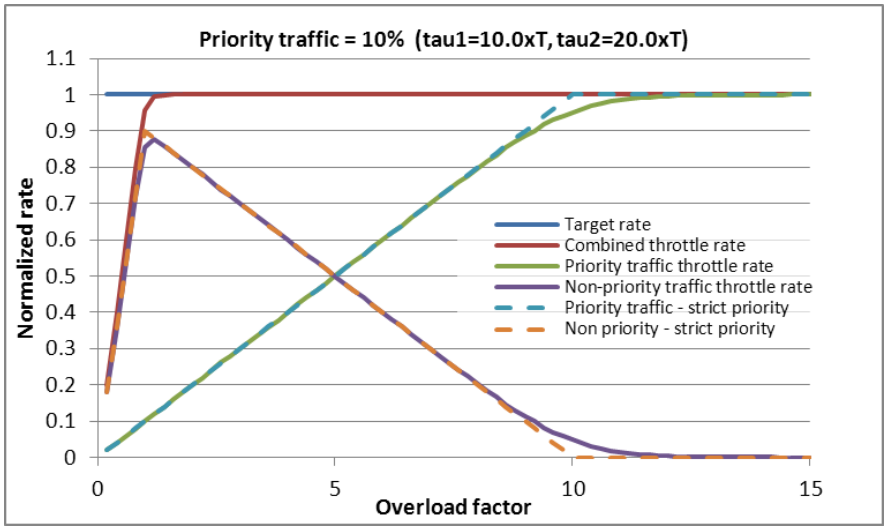




- Tolerance parameter TAU can assume any positive value
- A new SIP request is forwarded to the server iff the provisional content of the bucket is less than or equal to the limit value TAU
  - The larger TAU the more tolerance to deviations from the inter-departure interval T and the larger the tolerance to burst size

Sensitivity on parameters: priority





- Tolerance parameters TAU1 & TAU2 can assume any positive value
  - TAU1 (non-priority traffic) <= TAU2 (priority traffic)
  - TAU1 = TAU2 is equivalent to no priority
  - The larger TAU2 – TAU1, the closer to strict priority
- TAU1 influences combined throttle rate the same as TAU does when no priority are set

Conclusions

- Open discussion on draft-ietf-soc-overload-rate-control