

# Current Burst Gap related Drafts

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# Overview

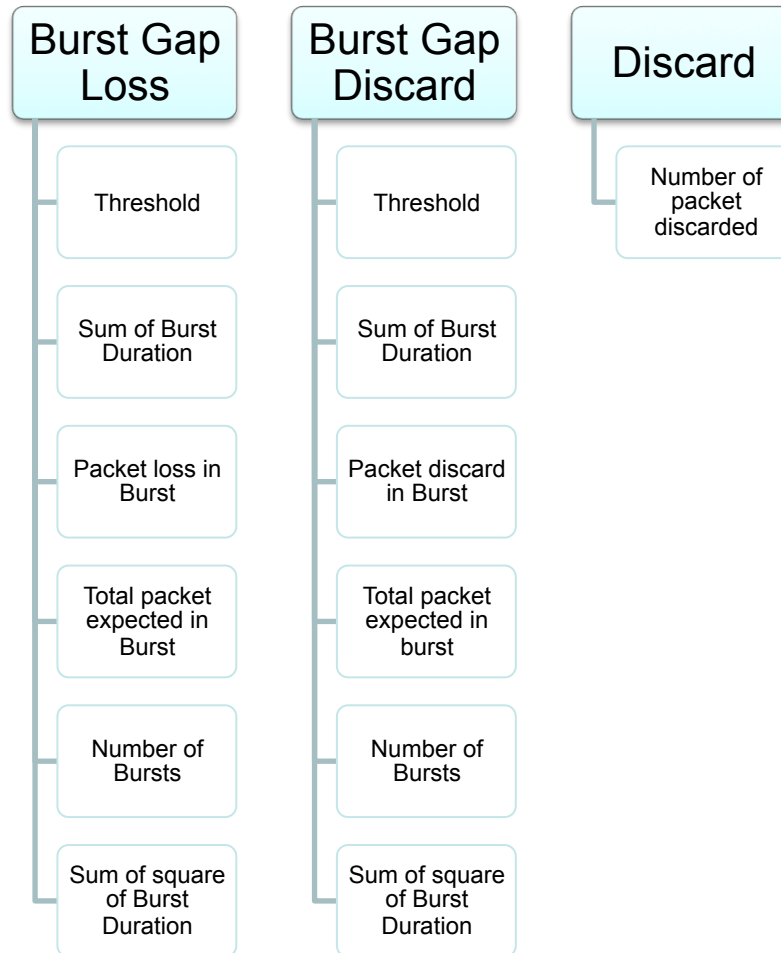
- Two Burst Gap drafts:
  - draft-ietf-xrblock-rtcp-xr-burst-gap-loss-00
  - draft-ietf-xrblock-rtcp-xr-burst-gap-discard-00
- One Burst Gap related draft (Discard Draft)
  - draft-ietf-xrblock-rtcp-xr-discard-00
- One Burst Gap Summary draft
  - draft-zorn-xrblock-rtcp-xr-al-stat-03
- Background
  - Discard draft discusses discard basic metric
  - Two Burst Gap drafts discusses burst gap related basic metric.
  - Burst Gap Summary draft add dependency to both Discard draft and two burst Gap drafts.
  - Four drafts all focus on transport related terminal metrics.
  - 00 version contains a few changes
  - Follow consensus to draft-ietf-avtcore-monarch

# Common Changes since 00

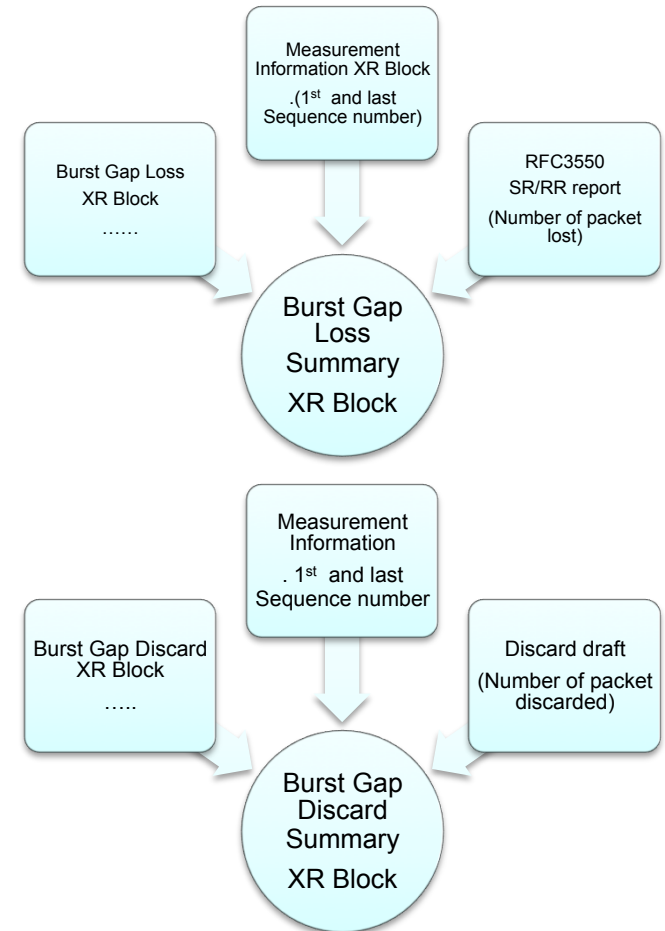
- Remove tag field in Block header
- Add SSRC field in the Block payload.
- Remove the reference to tag field that is related to measurement identity draft.
- Fix typo on the New XR Block Type value.
- Reference update.

# Metrics overview

1. No dependency between three metric Block
2. Uses a time window to differentiate packet loss and packet discard
3. Uses Gmin or Threshold to distinguish Gap and Burst.
4. Discard metric is used to calculate gap discard rate defined in Burst Gap Loss Summary XR Block of Draft-zorn-xrblock-rtcp-xr-al-stat



## Dependency overview



# Issue- combined loss/discard

- This comment is applied to burst gap loss draft and burst gap discard draft.
- Option 1: Yes
  - A combined loss/discard draft is more useful for QoE assessment
  - Most of measurement results in two draft are redundant
    - E.g., Threshold, Sum of Burst duration, Total packet expected in the burst,.....

```

Op
Re
- 0 1 2 3 4 5 6 7 0 1 2 3 4 5 6 7 0 1 2 3 4 5 6 7 0 1 2 3 4 5 6 7
- +-----+-----+-----+-----+-----+-----+-----+-----+
- | BT=NBGD | I | resv. | | block length = 5 | |
- +-----+-----+-----+-----+-----+-----+-----+-----+
- | SSRC of Source | | | | | | | | | | | | | | | | | | | | | | | |
- +-----+-----+-----+-----+-----+-----+-----+-----+
- | Threshold | | | | | | | | | | | | | | | | | | | | | | | |
- +-----+-----+-----+-----+-----+-----+-----+-----+
- | Packets Discarded in Bursts | | | | | | | | | | | | | | | | | |
- +-----+-----+-----+-----+-----+-----+-----+-----+
- | ...Packets expected in bursts | | | | | | | | | | | | | | | | | |
- +-----+-----+-----+-----+-----+-----+-----+-----+
- | ...Squares of Burst Durations (ms-squared) | | | | | | | | | |
- +-----+-----+-----+-----+-----+-----+-----+-----+
    
```

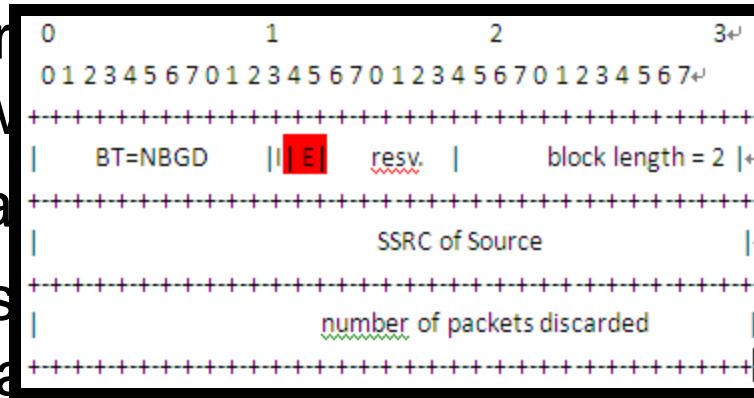
– Break the following rule:

“contain a single metric or a small number of metrics relevant to a single parameter “

- Delete redundant data from burst Gap discard draft and only keep packet discard in burst metric.
- combine Loss/discard is required, sent together.

# Issue – early vs late discard

- This comment is applied to both burst gap discard draft and discard draft.
- Pro:
  - identify early discard and determine what the cause was
  - In some cases, early discard is not supported.
  - It will be useful for congestion control and Multipath (MPTCP)
- Con:
  - None
- Action:
  - Is there any consensus to distinct early discard from late discard?



# Comments on potential extension to burst gap drafts

- These proposed extensions are applied to burst gap loss draft and burst gap discard draft.
- Is there a need to add Time Since Last Burst into burst gap drafts?
  - Helpful to know when the last substantial loss/discard burst occurred relative to the report time
  - But we may estimate time such last burst based on measurement interval carried in the measurement information XR Block?
- Is there a need to add Max burst length into burst gap drafts
  - Max burst length is important as this is the period that impacted the user most
  - This represents the “worst” period from a QoE perspective
- Is there a need to add average burst and gap loss/discard rates without keeping and reporting sums/ sums of squares of burst duration?

# Follow Up

- Question?
- WGLC to the following drafts:
  - draft-ietf-xrblock-rtcp-xr-burst-gap-loss-00
  - draft-ietf-xrblock-rtcp-xr-burst-gap-discard-00
  - draft-ietf-xrblock-rtcp-xr-discard-00