DORMS Cluster

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Overview

- Updates since 123:
  - draft-ietf-mboned-dorms-06 → 08
  - draft-ietf-mboned-cbacc-05 → 06
  - draft-ietf-mboned-ambi-04→ 05

Overview – DORMS

- Discovery Of Restconf Metadata for Source-specific multicast
- Use reverse DNS of multicast sender IP to find DORMS server
- DORMS server provides Metadata about Multicast channel
- Using Restconf for retrieval
- Metadata is extensible, none defined in this doc
- Acts as core for the other two docs

Overview – CBACC

- Circuit Breaker Assisted Congestion Control
- Network circuit breaker as described in RFC8084
- Allows intermediate nodes to prune multicast channels to adhere to limits
- Uses bitrate metadata provided by DORMS

DORMS – Changes since 123

- Received and addressed three early reviews (OPS, GENART and YANGDOCTORS)
- Thanks to Nabeel Cocker, Peter Yee, Reshad Rahman and Med
- All only had minor issues
- Still waiting for SECDIR review
- Ready for last call

CBACC – Changes since 123

- Updated based on previous reviews
- Still has a lot of open issues
- Presented congestion control part on Monday at CCWG
- Will take the discussion to the mailing list
- Goal is to be more intelligent in two ways:
    - Refuse join in the first place if it would lead to congestion
    - Act like a circuit breaker and react to ”actual” congestion

CBACC – Changes since 123

- Additionally, we want to simplify the trigger function:

"The trigger function orders the monitored flows according to a fairness function and a within-sender priority ordering (chosen by the sender as part of the CBACC metadata). When flows are blocked, they're blocked in order until the aggregate bitrate of the permitted flows do not exceed the oversubscription thresholds monitored by the CB node."

"Flows from a single sender MUST be ordered according to their priority field from the CBACC metadata when compared with each other. This takes precedence over the fairness function ordering, since certain flows from the same sender may need strict priority over others."

CBACC – Changes since 123

- Some options for priority:
  - Keep as is
  - Change or extend to stream dependency groupings, i.e. Streams a,b,c are all or nothing
  - Remove completely; possibly reintroduce later as a different DORMS extension

Overall new vision for DORMS/CBACC

- We want to get to a point where we can achieve the following:
  1. Middle boxes to act as circuit breakers and pre-cogs (preemptively refuse expensive joins)
  2. Middle boxes to signal to a network controller that a particular stream is too expensive
  3. Clients get metadata from the network controller about which streams are available, and which will be refused/culled
  4. Clients make intelligent decisions based on that, e.g. switch to lower rate streams
- Part one can be solved in CBACC
- Part two needs other signaling mechanism
- Not clear how to best handle part 3; DORMS works if DNS resolver is provider-hosted but not if a public one is used