Standalone Module of RMCAT Solution Framework in NS3

draft-zhu-rmcat-framework-00
draft-ietf-rmcat-nada-03

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Motivation

• Reference implementation of the rmcat solution framework as described in the draft (draft-zhu-rmcat-framework-00)

• Standalone, extendable code module in ns3:
  – Shared common service for generating and parsing feedback messages
  – Can plug in different congestion controllers
  – Can plug in different traffic sources (e.g., via the Syncodec sub-module)
Current Supported Functionalities

• Baseline service provided by sender-based controller:
  – Generation of feedback message (pending input from the rmcat-feedback-message draft)
  – Calculation of delay, round-trip-time, packet loss ratio, and receiving rate from feedback messages

• Additional congestion control modules:
  – Dummy fixed-rate controller
  – NADA controller as reference implementation of the draft

• Traffic sources: CBR (default) and Syncodecs

• Test cases: eval-test and wireless-tests (only the WiFi section)
Ongoing Efforts

- In the process of open sourcing the code following similar procedure as previously for *Syncodecs*
- Migrating all evaluations of NADA to this new codebase

- **Suggestion and contributions welcome!** (After we sort out the legal process for open sourcing this)