Discovery of path characteristics using STUN draft-reddy-tram-stun-path-data-01

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Problem to solve

 How to prioritize ICE candidate pairs based on path characteristics?

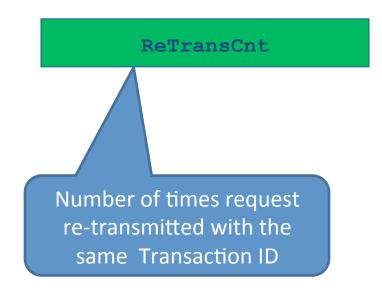
Issues with STUN

 STUN can be used to discover the path characteristics but STUN responses from retransmitted requests are indistinguishable.

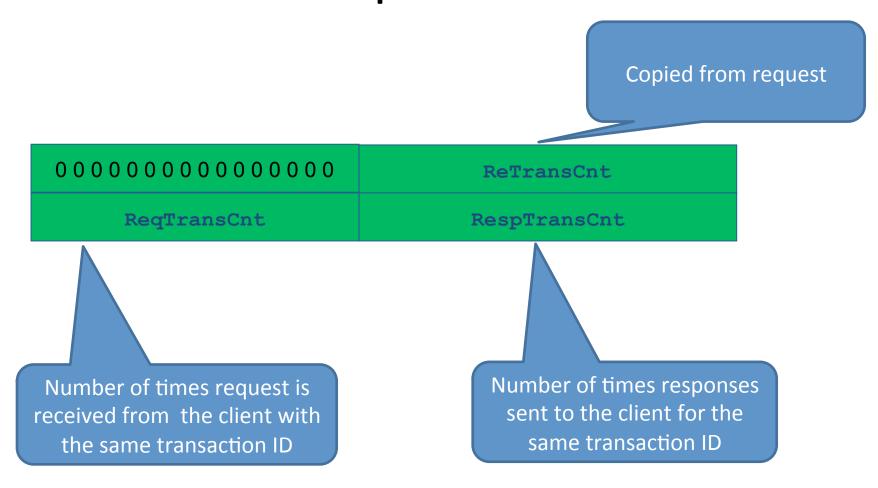
Proposal

- Extend STUN to distinguish STUN responses to retransmitted requests.
- Measure path characteristics like RTT and packet loss in each direction between endpoints.

PATH-CHARACTERISTIC Attribute in request



PATH-CHARACTERISTIC Attribute in response



Other benefits

- Determine the priority amongst relayed candidates when multiple TURN servers are discovered.
- Interfaces for the MPRTP sub-flows can be chosen according to the path characteristics discovered using STUN.

Discovery of path characteristics using STUN

Ready for adoption?