

Peer-specific Redirection for TURN

`draft-williams-peer-redirect-01`

Presenter: Brandon Williams, Akamai
Co-Author: Tirumaleswar Reddy, Cisco

Problem Statement

- Bad relay selection can lead to performance problems (e.g. triangle routing), but the issue can't be detected until both peers are known.
- A TURN service with a large set of relay servers could easily work around the problem, but ...
- STUN provides the `ALTERNATE-SERVER` attribute, but TURN only uses it with allocate request error responses.

Solution Summary

- Allow ALTERNATE-SERVER to be sent in responses to ChannelBind and CreatePermission requests.
- Define CHECK-ALTERNATE attribute for backward compatibility support and controlling usage semantics.
- Define XOR-OTHER-ADDRESS attribute to identify the peer's mapped address when permission is requested for its relay address.

Comments on Version 00

- The problem is simple, but the solution seems complicated.
- Why is CHECK-ALTERNATE needed?
- Why is XOR-OTHER-ADDRESS needed?

Updates in Version 01

- Provides more detailed guidance on attribute usage to justify the perceived complexity.

Goals for the Internet Draft

- The authors see this capability as critical for a broadly distributed 3rd party TURN service. Use can even make relay the best option.
- The working group has no milestone for this effort, but the charter seems to allow adoption of any draft intended to better support WebRTC.
- The authors would like the draft to be adopted by the working group.

Next Steps

- Call for WG adoption.
- Evaluate ICE to ensure this functionality can be effectively used.