RETURN

IETF 98

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Reminder: Why

RFC 7478, Section 2.3.5.1:

An enterprise ... deploy[s] a TURN server that straddles the boundary between the internal and the external network. ... The WebRTC functionality will need to utilize both network specific STUN and TURN resources and STUN and TURN servers provisioned by the web application.
Reminder: How

Browser

Web Traffic

WebRTC Media

HTTP(S) CONNECT proxy

RETURN proxy

NAT/FW

HTTP proxy port

Candidate

Network edge

HTTP(S) web traffic

TURN encapsulated
References: TURN Auto-discovery

7.2. Recursively Encapsulated TURN

WebRTC endpoints SHOULD treat any TURN server discovered through the mechanisms described in this specification as an enterprise/gateway or access network server, in accordance with Recursively Encapsulated TURN [I-D.ietf-rtcweb-return].
Note that when a RETURN proxy is configured for the interface associated with the default route, Mode 2 and 3 will cause any external media traffic to go through the RETURN proxy. While the RETURN approach gives the best performance, a similar result can be achieved for non-RETURN proxies via an organization firewall policy that only allows external WebRTC traffic to leave through the proxy (typically, over TCP). This provides a way to ensure the proxy is used for any external traffic, but avoids the performance issues of Mode 4, where all media is forced through said proxy, for intra-organization traffic.
Change from -01 to -02

For strategies to choose the best interface for communication with a proxy, see
<xref target="I-D.reddy-mmusic-ice-best-interface-pcp"></xref>. Similar considerations apply when connecting to an application-specified TURN server in the presence of physical and virtual interfaces.

Mechanisms for configuring a RETURN proxy SHOULD allow configuring a proxy that only applies to connections made from a single physical interface. This is useful to optimize efficiency in modes 2 and 3 of
<xref target="I-D.ietf-rtcweb-ip-handling"></xref>."
WGLC?