Network Working Group Internet-Draft

Intended status: Informational

Expires: November 1, 2015

C. Jennings Cisco April 30, 2015

WebRTC Dependencies draft-jennings-rtcweb-deps-07

### Abstract

This draft will never be published as an RFC and is meant purely to help track the IETF dependencies from the W3C WebRTC documents.

## Status of This Memo

This Internet-Draft is submitted in full conformance with the provisions of BCP 78 and BCP 79.

Internet-Drafts are working documents of the Internet Engineering Task Force (IETF). Note that other groups may also distribute working documents as Internet-Drafts. The list of current Internet-Drafts is at http://datatracker.ietf.org/drafts/current/.

Internet-Drafts are draft documents valid for a maximum of six months and may be updated, replaced, or obsoleted by other documents at any time. It is inappropriate to use Internet-Drafts as reference material or to cite them other than as "work in progress."

This Internet-Draft will expire on November 1, 2015.

# Copyright Notice

Copyright (c) 2015 IETF Trust and the persons identified as the document authors. All rights reserved.

This document is subject to BCP 78 and the IETF Trust's Legal Provisions Relating to IETF Documents (http://trustee.ietf.org/license-info) in effect on the date of publication of this document. Please review these documents carefully, as they describe your rights and restrictions with respect to this document. Code Components extracted from this document must include Simplified BSD License text as described in Section 4.e of the Trust Legal Provisions and are provided without warranty as described in the Simplified BSD License.

## 1. Dependencies

The key IETF specifications that the W3C GetUserMedia specification normatively depends on is: [I-D.ietf-rtcweb-constraints-registry], [RFC2119].

```
The key IETF specifications that the W3C WebRTC specification normatively depended on are: [I-D.ietf-rtcweb-alpn], [I-D.ietf-rtcweb-audio], [I-D.ietf-rtcweb-data-channel], [I-D.ietf-rtcweb-data-protocol], [I-D.ietf-rtcweb-jsep], [I-D.ietf-rtcweb-rtp-usage], [I-D.ietf-rtcweb-security-arch], [I-D.ietf-rtcweb-transports], [I-D.ietf-rtcweb-video], [I-D.ietf-rtam-turn-third-party-authz], [RFC2119], [RFC3264], [RFC3388], [RFC5245], [RFC7064], [RFC7065] and informatively depends on [I-D.ietf-rtcweb-overview], [I-D.ietf-rtcweb-security], and [I-D.ietf-mmusic-trickle-ice].
```

In addition 3GPP work normatively depends on [I-D.alvestrand-rtcweb-gateways].

```
These IETF drafts in turn normatively depend on the following drafts: [I-D.ietf-rtcweb-fec], [I-D.ietf-payload-flexible-fec-scheme], [I-D.ietf-mmusic-trickle-ice], [I-D.nandakumar-mmusic-proto-iana-registration], [I-D.ietf-avtcore-multi-media-rtp-session], [I-D.ietf-avtcore-rtp-circuit-breakers], [I-D.ietf-avtcore-rtp-multi-stream-optimisation], [I-D.ietf-avtcore-rtp-multi-stream], [I-D.ietf-mmusic-msid], [I-D.ietf-mmusic-sdp-bundle-negotiation], [I-D.ietf-mmusic-sdp-mux-attributes], [I-D.ietf-payload-rtp-opus], [I-D.ietf-payload-vp8], [I-D.ietf-rtcweb-alpn], [I-D.ietf-rtcweb-security], [I-D.ietf-rtcweb-stun-consent-freshness], [I-D.ietf-tls-applayerprotoneg], [I-D.ietf-tram-alpn], [I-D.ietf-tsvwg-sctp-dtls-encaps], [I-D.ietf-tsvwg-sctp-dtls-encaps], [I-D.ietf-tsvwg-sctp-prpolicies], [I-D.ietf-tsvwg-sctp-prpolicies], [I-D.ietf-tsvwg-sctp-prpolicies], [I-D.ietf-jose-json-web-algorithms].
```

Right now security normatively depends on [I-D.ietf-rtcweb-overview].

The drafts webrtc currently normatively depends on that are not WG drafts are: [I-D.martinsen-mmusic-ice-dualstack-fairness], [I-D.nandakumar-mmusic-proto-iana-registration].

```
A few key drafts that the work informatively depends on: [I-D.alvestrand-rtcweb-gateways], [I-D.hutton-rtcweb-nat-firewall-considerations],
```

```
[I-D.ietf-avtcore-multiplex-guidelines],
I-D.ietf-avtcore-rtp-topologies-update],
I-D.ietf-avtcore-srtp-ekt], [I-D.ietf-avtext-rtp-grouping-taxonomy],
I-D.ietf-dart-dscp-rtp], [I-D.ietf-mmusic-trickle-ice],
I-D.ietf-rmcat-cc-requirements],
I-D.ietf-rtcweb-use-cases-and-requirements],
I-D.kaufman-rtcweb-security-ui], [I-D.lennox-payload-ulp-ssrc-mux],
I-D.nandakumar-rtcweb-sdp], [I-D.roach-mmusic-unified-plan],
I-D.ietf-rtcweb-audio-codecs-for-interop],
I-D.westerlund-avtcore-multiplex-architecture].
```

## 1.1. Time Estimates

The following table has some very rough estimates of when the draft will become an RFC. Historically these dates have often taken much longer than the estimates so take this with a large dose of salt.

	L
I ETA	Draft Name
[RFC6904]	[I-D.ietf-avtcore-srtp-encrypted-header-ext]
[RFC7007]	[I-D.ietf-avtcore-avp-codecs]
[RFC7022]	[I-D.ietf-avtcore-6222bis]
[RFC7064]	[I-D.nandakumar-rtcweb-stun-uri]
[RFC7065]	[I-D.petithuguenin-behave-turn-uris]
[RFC7160]	[I-D.ietf-avtext-multiple-clock-rates]
[RFC7301]	[I-D.ietf-tls-applayerprotoneg]
[RFC7350]	[I-D.ietf-tram-stun-dtls]
[RFC7443]	[I-D.ietf-tram-alpn]
PubReq	[I-D.ietf-payload-vp8]
l PubReq	[I-D.ietf-rtcweb-data-channel]
l PubReq	   [I-D.ietf-rtcweb-data-protocol]
l PubReq	   [I-D.ietf-rtcweb-security-arch]
l PubReq	[I-D.ietf-rtcweb-security]
I	I I

PubReq [I-D.ietf-rtcweb-stun-consent-freshness] PubReq [I-D.ietf-tsvwg-sctp-dtls-encaps] Pubreq [I-D.ietf-payload-rtp-opus] PubReq [I-D.ietf-tsvwg-sctp-prolicies] WGLC [I-D.ietf-rtcweb-overview] WGLC [I-D.ietf-rtcweb-video] 2015 Jan [I-D.ietf-rtcweb-constraints-registry] 2015 Jan [I-D.ietf-rtcweb-transports] 2015 Feb [I-D.ietf-mmusic-sdp-bundle-negotiation] 2015 Feb [I-D.ietf-mmusic-sdp-mux-attributes] 2015 Feb [I-D.ietf-rtcweb-alpn] 2015 Feb [I-D.ietf-tsvwg-sctp-ndata] 2015 Mar [I-D.ietf-mmusic-msid] 2015 Mar [I-D.ietf-mmusic-sctp-sdp] 2015 May [I-D.ietf-rtcweb-audio] 2015 May [I-D.ietf-rtcweb-jsep] [I-D.ietf-avtcore-multi-media-rtp-session] [I-D.ietf-avtcore-rtp-circuit-breakers] [I-D.ietf-avtcore-rtp-multi-stream-optimisation] [I-D.ietf-avtcore-rtp-multi-stream]	PubReq	[I-D.ietf-rtcweb-rtp-usage]
Pubreq [I-D.ietf-payload-rtp-opus] PubReq [I-D.ietf-tsvwg-sctp-prpolicies] WGLC [I-D.ietf-rtcweb-overview] WGLC [I-D.ietf-rtcweb-video] 2015 Jan [I-D.ietf-rtcweb-constraints-registry] 2015 Jan [I-D.ietf-rtcweb-transports] 2015 Feb [I-D.ietf-mmusic-sdp-bundle-negotiation] 2015 Feb [I-D.ietf-mmusic-sdp-mux-attributes] 2015 Feb [I-D.ietf-rtcweb-alpn] 2015 Feb [I-D.ietf-tsvwg-sctp-ndata] 2015 Mar [I-D.ietf-mmusic-msid] 2015 Mar [I-D.ietf-mmusic-sctp-sdp] 2015 May [I-D.ietf-rtcweb-audio] 2015 May [I-D.ietf-rtcweb-jsep] [I-D.ietf-avtcore-multi-media-rtp-session] [I-D.ietf-avtcore-rtp-circuit-breakers] [I-D.ietf-avtcore-rtp-multi-stream-optimisation]	PubReq	[I-D.ietf-rtcweb-stun-consent-freshness]
PubReq [I-D.ietf-tsvwg-sctp-prpolicies]  WGLC [I-D.ietf-rtcweb-overview]  WGLC [I-D.ietf-rtcweb-video]  2015 Jan [I-D.ietf-rtcweb-constraints-registry]  2015 Jan [I-D.ietf-rtcweb-transports]  2015 Feb [I-D.ietf-mmusic-sdp-bundle-negotiation]  2015 Feb [I-D.ietf-mmusic-sdp-mux-attributes]  2015 Feb [I-D.ietf-rtcweb-alpn]  2015 Feb [I-D.ietf-tsvwg-sctp-ndata]  2015 Mar [I-D.ietf-mmusic-msid]  2015 Mar [I-D.ietf-mmusic-sctp-sdp]  2015 May [I-D.ietf-rtcweb-audio]  2015 May [I-D.ietf-rtcweb-jsep]  [I-D.ietf-avtcore-multi-media-rtp-session]  [I-D.ietf-avtcore-rtp-circuit-breakers]  [I-D.ietf-avtcore-rtp-multi-stream-optimisation]	PubReq	[I-D.ietf-tsvwg-sctp-dtls-encaps]
WGLC [I-D.ietf-rtcweb-overview] WGLC [I-D.ietf-rtcweb-video] 2015 Jan [I-D.ietf-rtcweb-constraints-registry] 2015 Jan [I-D.ietf-rtcweb-transports] 2015 Feb [I-D.ietf-mmusic-sdp-bundle-negotiation] 2015 Feb [I-D.ietf-mmusic-sdp-mux-attributes] 2015 Feb [I-D.ietf-rtcweb-alpn] 2015 Feb [I-D.ietf-rtcweb-alpn] 2015 Mar [I-D.ietf-tsvwg-sctp-ndata] 2015 Mar [I-D.ietf-mmusic-msid] 2015 May [I-D.ietf-mmusic-sctp-sdp] 2015 May [I-D.ietf-rtcweb-audio] 2015 May [I-D.ietf-rtcweb-jsep] [I-D.ietf-avtcore-multi-media-rtp-session] [I-D.ietf-avtcore-rtp-circuit-breakers] [I-D.ietf-avtcore-rtp-multi-stream-optimisation]	Pubreq	[I-D.ietf-payload-rtp-opus]
WGLC [I-D.ietf-rtcweb-video]  2015 Jan [I-D.ietf-rtcweb-constraints-registry]  2015 Jan [I-D.ietf-rtcweb-transports]  2015 Feb [I-D.ietf-mmusic-sdp-bundle-negotiation]  2015 Feb [I-D.ietf-mmusic-sdp-mux-attributes]  2015 Feb [I-D.ietf-rtcweb-alpn]  2015 Feb [I-D.ietf-rtcweb-alpn]  2015 Mar [I-D.ietf-mmusic-msid]  2015 Mar [I-D.ietf-mmusic-sctp-sdp]  2015 May [I-D.ietf-rtcweb-audio]  2015 May [I-D.ietf-rtcweb-jsep]  [I-D.ietf-avtcore-multi-media-rtp-session]  [I-D.ietf-avtcore-rtp-circuit-breakers]  [I-D.ietf-avtcore-rtp-multi-stream-optimisation]	PubReq	[I-D.ietf-tsvwg-sctp-prpolicies]
2015 Jan   [I-D.ietf-rtcweb-constraints-registry]   2015 Jan   [I-D.ietf-rtcweb-transports]   2015 Feb   [I-D.ietf-mmusic-sdp-bundle-negotiation]   2015 Feb   [I-D.ietf-mmusic-sdp-mux-attributes]   2015 Feb   [I-D.ietf-rtcweb-alpn]   2015 Feb   [I-D.ietf-tsvwg-sctp-ndata]   2015 Mar   [I-D.ietf-mmusic-msid]   2015 Mar   [I-D.ietf-mmusic-sctp-sdp]   2015 May   [I-D.ietf-rtcweb-audio]   2015 May   [I-D.ietf-rtcweb-jsep]   [I-D.ietf-avtcore-multi-media-rtp-session]   [I-D.ietf-avtcore-rtp-circuit-breakers]   [I-D.ietf-avtcore-rtp-multi-stream-optimisation]	WGLC	[I-D.ietf-rtcweb-overview]
2015 Jan	WGLC	[I-D.ietf-rtcweb-video]
2015 Feb  [I-D.ietf-mmusic-sdp-bundle-negotiation] 2015 Feb  [I-D.ietf-mmusic-sdp-mux-attributes] 2015 Feb  [I-D.ietf-rtcweb-alpn] 2015 Feb  [I-D.ietf-tsvwg-sctp-ndata] 2015 Mar  [I-D.ietf-mmusic-msid] 2015 Mar  [I-D.ietf-mmusic-sctp-sdp] 2015 May  [I-D.ietf-rtcweb-audio] 2015 May  [I-D.ietf-rtcweb-jsep]   [I-D.ietf-avtcore-multi-media-rtp-session]   [I-D.ietf-avtcore-rtp-circuit-breakers]   [I-D.ietf-avtcore-rtp-multi-stream-optimisation]	2015 Jan	<pre>[I-D.ietf-rtcweb-constraints-registry]</pre>
2015 Feb [I-D.ietf-mmusic-sdp-mux-attributes] 2015 Feb [I-D.ietf-rtcweb-alpn] 2015 Feb [I-D.ietf-tsvwg-sctp-ndata] 2015 Mar [I-D.ietf-mmusic-msid] 2015 Mar [I-D.ietf-mmusic-sctp-sdp] 2015 May [I-D.ietf-rtcweb-audio] 2015 May [I-D.ietf-rtcweb-jsep] [I-D.ietf-avtcore-multi-media-rtp-session] [I-D.ietf-avtcore-rtp-circuit-breakers] [I-D.ietf-avtcore-rtp-multi-stream-optimisation]	2015 Jan	[I-D.ietf-rtcweb-transports]
2015 Feb   [I-D.ietf-rtcweb-alpn]   2015 Feb   [I-D.ietf-tsvwg-sctp-ndata]   2015 Mar   [I-D.ietf-mmusic-msid]   2015 Mar   [I-D.ietf-mmusic-sctp-sdp]   2015 May   [I-D.ietf-rtcweb-audio]   2015 May   [I-D.ietf-rtcweb-jsep]   [I-D.ietf-avtcore-multi-media-rtp-session]   [I-D.ietf-avtcore-rtp-circuit-breakers]   [I-D.ietf-avtcore-rtp-multi-stream-optimisation]	2015 Feb	<pre>[I-D.ietf-mmusic-sdp-bundle-negotiation]</pre>
2015 Feb	2015 Feb	[I-D.ietf-mmusic-sdp-mux-attributes]
2015 Mar [I-D.ietf-mmusic-msid]  2015 Mar [I-D.ietf-mmusic-sctp-sdp]  2015 May [I-D.ietf-rtcweb-audio]  2015 May [I-D.ietf-rtcweb-jsep]  [I-D.ietf-avtcore-multi-media-rtp-session]  [I-D.ietf-avtcore-rtp-circuit-breakers]  [I-D.ietf-avtcore-rtp-multi-stream-optimisation]	2015 Feb	[I-D.ietf-rtcweb-alpn]
2015 Mar [I-D.ietf-mmusic-sctp-sdp] 2015 May [I-D.ietf-rtcweb-audio] 2015 May [I-D.ietf-rtcweb-jsep] [I-D.ietf-avtcore-multi-media-rtp-session] [I-D.ietf-avtcore-rtp-circuit-breakers] [I-D.ietf-avtcore-rtp-multi-stream-optimisation]	2015 Feb	[I-D.ietf-tsvwg-sctp-ndata]
2015 May [I-D.ietf-rtcweb-audio]  2015 May [I-D.ietf-rtcweb-jsep]  [I-D.ietf-avtcore-multi-media-rtp-session]  [I-D.ietf-avtcore-rtp-circuit-breakers]  [I-D.ietf-avtcore-rtp-multi-stream-optimisation]	2015 Mar	<pre>[I-D.ietf-mmusic-msid]</pre>
2015 May   [I-D.ietf-rtcweb-jsep]     [I-D.ietf-avtcore-multi-media-rtp-session]     [I-D.ietf-avtcore-rtp-circuit-breakers]     [I-D.ietf-avtcore-rtp-multi-stream-optimisation]	2015 Mar	[I-D.ietf-mmusic-sctp-sdp]
<pre>[I-D.ietf-avtcore-multi-media-rtp-session] [I-D.ietf-avtcore-rtp-circuit-breakers] [I-D.ietf-avtcore-rtp-multi-stream-optimisation]</pre>	2015 May	[I-D.ietf-rtcweb-audio]
<pre>[I</pre>	2015 May	[I-D.ietf-rtcweb-jsep]
		<pre>[I-D.ietf-avtcore-multi-media-rtp-session]</pre>
		[I-D.ietf-avtcore-rtp-circuit-breakers]
[I-D.ietf-avtcore-rtp-multi-stream]		<pre>[I-D.ietf-avtcore-rtp-multi-stream-optimisation]</pre>
		<pre>[I-D.ietf-avtcore-rtp-multi-stream]</pre>
[I-D.ietf-tsvwg-rtcweb-qos]		[I-D.ietf-tsvwg-rtcweb-qos]
[I-D.nandakumar-mmusic-proto-iana-registration]		[I-D.nandakumar-mmusic-proto-iana-registration]
[I-D.ietf-rtcweb-fec]		[I-D.ietf-rtcweb-fec]

 	<pre>  [I-D.ietf-jose-json-web-algorithms]</pre>
j I	[I-D.ietf-httpbis-tunnel-protocol]
İ	[I-D.martinsen-mmusic-ice-dualstack-fairness]
	[I-D.ietf-mmusic-trickle-ice]
1	[I-D.ietf-payload-flexible-fec-scheme]

### 2. References

### 2.1. Normative References

- [I-D.ietf-avtcore-6222bis]

  Begen, A., Perkins, C., Wing, D., and E. Rescorla,

  "Guidelines for Choosing RTP Control Protocol (RTCP)

  Canonical Names (CNAMEs)", draft-ietf-avtcore-6222bis-06

  (work in progress), July 2013.
- [I-D.ietf-avtcore-avp-codecs]

  Terriberry, T., "Update to Remove DVI4 from the Recommended Codecs for the RTP Profile for Audio and Video Conferences with Minimal Control (RTP/AVP)", draft-ietf-avtcore-avp-codecs-03 (work in progress), July 2013.
- [I-D.ietf-avtcore-multi-media-rtp-session]
   Westerlund, M., Perkins, C., and J. Lennox, "Sending
   Multiple Types of Media in a Single RTP Session", draft ietf-avtcore-multi-media-rtp-session-07 (work in
   progress), March 2015.
- [I-D.ietf-avtcore-rtp-circuit-breakers]
  Perkins, C. and V. Singh, "Multimedia Congestion Control:
  Circuit Breakers for Unicast RTP Sessions", draft-ietfavtcore-rtp-circuit-breakers-09 (work in progress), March 2015.
- [I-D.ietf-avtcore-rtp-multi-stream]
   Lennox, J., Westerlund, M., Wu, W., and C. Perkins,
   "Sending Multiple Media Streams in a Single RTP Session",
   draft-ietf-avtcore-rtp-multi-stream-07 (work in progress),
   March 2015.

- [I-D.ietf-avtcore-srtp-encrypted-header-ext]
  Lennox, J., "Encryption of Header Extensions in the Secure Real-Time Transport Protocol (SRTP)", draft-ietf-avtcore-srtp-encrypted-header-ext-05 (work in progress), February 2013.

- [I-D.ietf-mmusic-sdp-mux-attributes]
  Nandakumar, S., "A Framework for SDP Attributes when
  Multiplexing", draft-ietf-mmusic-sdp-mux-attributes-08
  (work in progress), January 2015.

- [I-D.ietf-payload-vp8]
   Westin, P., Lundin, H., Glover, M., Uberti, J., and F.
   Galligan, "RTP Payload Format for VP8 Video", draft-ietf-payload-vp8-14 (work in progress), March 2015.

- [I-D.ietf-rtcweb-constraints-registry]

  Burnett, D., "IANA Registry for RTCWeb Constrainable
  Properties", draft-ietf-rtcweb-constraints-registry-02
  (work in progress), March 2015.
- [I-D.ietf-rtcweb-data-channel]
   Jesup, R., Loreto, S., and M. Tuexen, "WebRTC Data
   Channels", draft-ietf-rtcweb-data-channel-13 (work in
   progress), January 2015.
- [I-D.ietf-rtcweb-data-protocol]
  Jesup, R., Loreto, S., and M. Tuexen, "WebRTC Data Channel
  Establishment Protocol", draft-ietf-rtcweb-dataprotocol-09 (work in progress), January 2015.

- [I-D.ietf-rtcweb-rtp-usage]
  Perkins, C., Westerlund, M., and J. Ott, "Web Real-Time Communication (WebRTC): Media Transport and Use of RTP", draft-ietf-rtcweb-rtp-usage-22 (work in progress), February 2015.
- [I-D.ietf-rtcweb-security-arch]
   Rescorla, E., "WebRTC Security Architecture", draft-ietf rtcweb-security-arch-11 (work in progress), March 2015.
- [I-D.ietf-rtcweb-stun-consent-freshness]
  Perumal, M., Wing, D., R, R., Reddy, T., and M. Thomson,
  "STUN Usage for Consent Freshness", draft-ietf-rtcwebstun-consent-freshness-11 (work in progress), December 2014.
- [I-D.ietf-rtcweb-video]
   Roach, A., "WebRTC Video Processing and Codec
   Requirements", draft-ietf-rtcweb-video-04 (work in
   progress), February 2015.

- [I-D.ietf-tram-alpn]
  Patil, P., Reddy, T., Salgueiro, G., and M. PetitHuguenin, "Application Layer Protocol Negotiation (ALPN)
  Labels for Session Traversal Utilities for NAT (STUN)
  Usages", draft-ietf-tram-alpn-08 (work in progress),
  November 2014.
- [I-D.ietf-tram-stun-dtls]
  Petit-Huguenin, M. and G. Salgueiro, "Datagram Transport Layer Security (DTLS) as Transport for Session Traversal Utilities for NAT (STUN)", draft-ietf-tram-stun-dtls-05 (work in progress), June 2014.
- [I-D.ietf-tram-turn-third-party-authz]
  Reddy, T., Patil, P., R, R., and J. Uberti, "Session Traversal Utilities for NAT (STUN) Extension for Third Party Authorization", draft-ietf-tram-turn-third-party-authz-15 (work in progress), April 2015.

- [I-D.ietf-tsvwg-sctp-ndata]
  Stewart, R., Tuexen, M., Loreto, S., and R. Seggelmann,
  "Stream Schedulers and User Message Interleaving for the
  Stream Control Transmission Protocol", draft-ietf-tsvwgsctp-ndata-03 (work in progress), March 2015.
- [I-D.ietf-tsvwg-sctp-prpolicies]
  Tuexen, M., Seggelmann, R., Stewart, R., and S. Loreto,
  "Additional Policies for the Partial Reliability Extension
  of the Stream Control Transmission Protocol", draft-ietftsvwg-sctp-prpolicies-07 (work in progress), February
  2015.

- [I-D.nandakumar-mmusic-proto-iana-registration]
  Nandakumar, S., "IANA registrations of SDP 'proto'
  attribute for transporting RTP Media over TCP under
  various RTP profiles.", draft-nandakumar-mmusic-protoiana-registration-01 (work in progress), February 2015.
- [I-D.nandakumar-rtcweb-stun-uri]
  Nandakumar, S., Salgueiro, G., Jones, P., and M. PetitHuguenin, "URI Scheme for Session Traversal Utilities for
  NAT (STUN) Protocol", draft-nandakumar-rtcweb-stun-uri-08
  (work in progress), September 2013.
- [I-D.petithuguenin-behave-turn-uris]
  Petit-Huguenin, M., Nandakumar, S., Salgueiro, G., and P.
  Jones, "Traversal Using Relays around NAT (TURN) Uniform
  Resource Identifiers", draft-petithuguenin-behave-turnuris-08 (work in progress), September 2013.
- [RFC2119] Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", BCP 14, RFC 2119, March 1997.
- [RFC3264] Rosenberg, J. and H. Schulzrinne, "An Offer/Answer Model with Session Description Protocol (SDP)", RFC 3264, June 2002.
- [RFC3388] Camarillo, G., Eriksson, G., Holler, J., and H.
  Schulzrinne, "Grouping of Media Lines in the Session
  Description Protocol (SDP)", RFC 3388, December 2002.
- [RFC5245] Rosenberg, J., "Interactive Connectivity Establishment (ICE): A Protocol for Network Address Translator (NAT) Traversal for Offer/Answer Protocols", RFC 5245, April 2010.
- [RFC6904] Lennox, J., "Encryption of Header Extensions in the Secure Real-time Transport Protocol (SRTP)", RFC 6904, April 2013.
- [RFC7007] Terriberry, T., "Update to Remove DVI4 from the Recommended Codecs for the RTP Profile for Audio and Video Conferences with Minimal Control (RTP/AVP)", RFC 7007, August 2013.

- [RFC7022] Begen, A., Perkins, C., Wing, D., and E. Rescorla,
   "Guidelines for Choosing RTP Control Protocol (RTCP)
   Canonical Names (CNAMEs)", RFC 7022, September 2013.
- [RFC7064] Nandakumar, S., Salgueiro, G., Jones, P., and M. Petit-Huguenin, "URI Scheme for the Session Traversal Utilities for NAT (STUN) Protocol", RFC 7064, November 2013.
- [RFC7065] Petit-Huguenin, M., Nandakumar, S., Salgueiro, G., and P.
  Jones, "Traversal Using Relays around NAT (TURN) Uniform
  Resource Identifiers", RFC 7065, November 2013.
- [RFC7160] Petit-Huguenin, M. and G. Zorn, "Support for Multiple Clock Rates in an RTP Session", RFC 7160, April 2014.
- [RFC7301] Friedl, S., Popov, A., Langley, A., and E. Stephan,
   "Transport Layer Security (TLS) Application-Layer Protocol
   Negotiation Extension", RFC 7301, July 2014.
- [RFC7350] Petit-Huguenin, M. and G. Salgueiro, "Datagram Transport Layer Security (DTLS) as Transport for Session Traversal Utilities for NAT (STUN)", RFC 7350, August 2014.
- [RFC7443] Patil, P., Reddy, T., Salgueiro, G., and M. Petit-Huguenin, "Application-Layer Protocol Negotiation (ALPN) Labels for Session Traversal Utilities for NAT (STUN) Usages", RFC 7443, January 2015.

## 2.2. Informative References

- [I-D.alvestrand-rtcweb-gateways]
  Alvestrand, H. and U. Rauschenbach, "WebRTC Gateways",
  draft-alvestrand-rtcweb-gateways-02 (work in progress),
  March 2015.
- [I-D.hutton-rtcweb-nat-firewall-considerations]
  Stach, T., Hutton, A., and J. Uberti, "RTCWEB
  Considerations for NATs, Firewalls and HTTP proxies",
  draft-hutton-rtcweb-nat-firewall-considerations-03 (work
  in progress), January 2014.
- [I-D.ietf-avtcore-multiplex-guidelines]
   Westerlund, M., Perkins, C., and H. Alvestrand,
   "Guidelines for using the Multiplexing Features of RTP to
   Support Multiple Media Streams", draft-ietf-avtcore multiplex-guidelines-03 (work in progress), October 2014.

- [I-D.ietf-avtcore-rtp-topologies-update]
   Westerlund, M. and S. Wenger, "RTP Topologies", draft ietf-avtcore-rtp-topologies-update-06 (work in progress),
   March 2015.
- [I-D.ietf-avtcore-srtp-ekt]
  Mattsson, J., McGrew, D., and D. Wing, "Encrypted Key
  Transport for Secure RTP", draft-ietf-avtcore-srtp-ekt-03
  (work in progress), October 2014.
- [I-D.ietf-avtext-rtp-grouping-taxonomy]
   Lennox, J., Gross, K., Nandakumar, S., and G. Salgueiro,
   "A Taxonomy of Grouping Semantics and Mechanisms for Real Time Transport Protocol (RTP) Sources", draft-ietf-avtext rtp-grouping-taxonomy-06 (work in progress), March 2015.
- [I-D.ietf-rmcat-cc-requirements]
  Jesup, R. and Z. Sarker, "Congestion Control Requirements for Interactive Real-Time Media", draft-ietf-rmcat-cc-requirements-09 (work in progress), December 2014.
- [I-D.ietf-rtcweb-use-cases-and-requirements]
  Holmberg, C., Hakansson, S., and G. Eriksson, "Web Real-Time Communication Use-cases and Requirements", draftietf-rtcweb-use-cases-and-requirements-16 (work in progress), January 2015.

- [I-D.roach-mmusic-unified-plan]
   Roach, A., Uberti, J., and M. Thomson, "A Unified Plan for
   Using SDP with Large Numbers of Media Flows", draft-roach mmusic-unified-plan-00 (work in progress), July 2013.
- [I-D.westerlund-avtcore-multiplex-architecture]
  Westerlund, M., Perkins, C., and H. Alvestrand,
  "Guidelines for using the Multiplexing Features of RTP",
  draft-westerlund-avtcore-multiplex-architecture-03 (work
  in progress), February 2013.

Author's Address

Cullen Jennings Cisco

Email: fluffy@iii.ca