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Closing the RTP Payload Format Media Types Registry

Abstract

The working group process and the authors of RTP payload formats have sometimes failed to ensure that the media types are registered in the IANA "RTP Payload Format Media Types" registry as recommended by RFC 8088. To simplify the process and rely only on the "Media Types" registry, this document closes the RTP payload- specific registry. In addition, it updates the instruction in RFC 8088 to reflect this change.

Status of This Memo

This is an Internet Standards Track document.

This document is a product of the Internet Engineering Task Force (IETF). It represents the consensus of the IETF community. It has received public review and has been approved for publication by the Internet Engineering Steering Group (IESG). Further information on Internet Standards is available in Section 2 of RFC 7841.

Information about the current status of this document, any errata, and how to provide feedback on it may be obtained at <https://www.rfc-editor.org/info/rfc9751>.

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Acknowledgments
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1. Introduction

Sometimes, authors defining new Real-time Transport Protocol (RTP) payload formats forgot to specify registration of the format's media type in the "RTP Payload Format Media Types" registry [RTP-FORMATS] as recommended by [RFC8088]. In practice, this has no real impact. This registry is not used for any purpose other than to track which media types actually have RTP payload formats, which can be done through other means.

It is required that media types be registered in the "Media Types" registry [MEDIA-TYPES] to identify the format in various signalling usages, avoid collisions, and reference the defining specifications.

To resolve this situation, this document:

- * updates the "RTP Payload Format Media Types" registry to include known RTP payload formats at the time of writing,
- * closes the "RTP Payload Format Media Types" registry to future registrations and lists this RFC as a reference, and
- * removes from [RFC8088] the instruction to register RTP payload formats in the "RTP Payload Format Media Types" registry.

The origins of the "RTP Payload Format Media Types" registry, as referenced in [RTP-FORMATS], are unclear. The registry cites [RFC4855] as providing the instructions for its maintenance. However, upon reviewing RFC 4855, no text has been found that defines the registry's purpose and operational rules. Further attempts to trace the registry's creation have failed to uncover any references to its establishment. It is likely that the registry was created based on email correspondence or at the request of an Area Director. Consequently, there is no known specification for this registry that requires updating upon its closure.

2. Update to How to Write an RTP Payload Format

The IANA Considerations section of "How to write an RTP Payload Format" (Section 7.4 of [RFC8088]) mandates that RTP payload formats shall be registered in the "RTP Payload Format Media Types" registry. The following paragraph is updated as shown below, thus removing the need for media types to be registered in the "RTP Payload Format Media Types" registry. Note that this update does not impact the rest of RFC 8088's status as an Informational RFC.

OLD:

```
| Since all RTP payload formats contain a media type specification,
| they also need an IANA Considerations section. The media type
| name must be registered, and this is done by requesting that IANA
| register that media name. When that registration request is
| written, it shall also be requested that the media type is
| included under the "RTP Payload Format media types" sub-registry
| of the RTP registry (http://www.iana.org/assignments/rtp-parameters).
```

NEW:

```
| Since all RTP payload formats contain a media type specification,
| they also need an IANA Considerations section. The media type
| name must be registered, and this is done by requesting that IANA
| register that media name in the "Media Types" registry
| (https://www.iana.org/assignments/media-types/).
```

3. IANA Considerations

IANA has added the following RTP payload types to the "RTP Payload

Format Media Types" registry [RTP-FORMATS].

Media Type	Subtype	Clock Rate (Hz)	Channels (audio)	Reference
application	flexfec			RFC 8627
audio	EVRCNW	16000		RFC 6884
audio	EVRCNW0	16000		RFC 6884
audio	EVRCNW1	16000		RFC 6884
audio	aptx			RFC 7310
audio	opus	48000		RFC 7587
audio	G711-0			RFC 7650
audio	flexfec			RFC 8627
text	flexfec			RFC 8627
text	ttml+xml			RFC 8759
video	VP8	90000		RFC 7741
video	AV1	90000		[AV1-Media-Type]
video	HEVC	90000		RFC 7798
video	smpte291			RFC 8331
video	VVC	90000		RFC 9328
video	EVC	90000		RFC 9584
video	flexfec			RFC 8627

Table 1: Payload Types Added to the RTP Payload Format Media Types Registry

IANA has updated the following entries in the "RTP Payload Format Media Types" registry [RTP-FORMATS].

Media Type	Subtype	Clock Rate (Hz)	Channels (audio)	Reference
audio	MP4A-LATM			RFC 6416
video	MP4V-ES	90000		RFC 6416

Table 2: Payload Types Updated in RTP Payload Format Media Types Registry

IANA has also closed the "RTP Payload Format Media Types" registry [RTP-FORMATS] to any further registrations. IANA added the following to the registry note:

NEW:

| This registry has been closed; it was considered redundant because

| all RTP payload formats are part of the [Media Types registry]
| (<https://www.iana.org/assignments/media-types>). See RFC 9751 for
| further details.

In addition, IANA updated the note in the "RTP Payload Format Media Types" registry [RTP-FORMATS] as follows:

OLD:

| Registration procedures and a registration template can be found
| in [RFC4855].

NEW:

| It was previously stated that registration procedures and a
| registration template can be found in [RFC4855]. As documented in
| RFC 9751, this is not the case.

4. Security Considerations

This document has no security considerations as it defines an administrative rule change.

5. References

5.1. Normative References

[AV1-Media-Type]
IANA, "video/AV1",
<<https://www.iana.org/assignments/media-types/video/AV1>>.

[MEDIA-TYPES]
IANA, "Media Types",
<<https://www.iana.org/assignments/media-types>>.

[RFC8088] Westerlund, M., "How to Write an RTP Payload Format",
RFC 8088, DOI 10.17487/RFC8088, May 2017,
<<https://www.rfc-editor.org/info/rfc8088>>.

[RTP-FORMATS]
IANA, "RTP Payload Format Media Types",
<<https://www.iana.org/assignments/rtp-parameters>>.

5.2. Informative References

[RFC4855] Casner, S., "Media Type Registration of RTP Payload
Formats", RFC 4855, DOI 10.17487/RFC4855, February 2007,
<<https://www.rfc-editor.org/info/rfc4855>>.

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