              IANA Registration of the 'image' Media Type
               for the Session Description Protocol (SDP)

Abstract

   This document describes the usage of the 'image' media type and
   registers it with IANA as a top-level media type for the Session
   Description Protocol (SDP). This media type is primarily used by SDP
   to negotiate and establish T.38 media streams.

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 5741.

   Information about the current status of this document, any errata,
   and how to provide feedback on it may be obtained at
   http://www.rfc-editor.org/info/rfc6466.

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1. Overview

   In an earlier version of the SDP specification [RFC2327] of
   packetized media types, such as those used with the Real-time
   Transport Protocol (RTP) [RFC3550], share the namespace with
   Multipurpose Internet Mail Extensions (MIME) media types registry
   [RFC4288] [RFC4289] (i.e., "MIME media types"). This is in contrast
   to the latest version of the SDP specification [RFC4566], which
   requested that an SDP-specific media type registry be created and
   maintained by IANA. The top-level SDP media content types registered
   by RFC 4566 [RFC4566] are 'audio', 'video', 'text', 'application',
   and 'message'. A glaring omission from this list is the 'image'
   media type.

   The 'image' media type is an existing top-level MIME media type and
   is widely used in SDP implementations for setting up T.38 Real-Time
   Facsimile [T38] media streams. This media type is extensively
   referenced by examples in ITU-T T.38 [T38] and IETF Standards Track
   documents like RFC 4145 [RFC4145]. The following example shows the
   media description of a T.38 media stream as commonly found in a
   Session Initiation Protocol (SIP) [RFC3261] INVITE; it contains an
   SDP offer for T.38 over both UDP Transport Layer (UDPTL) and TCP.
   For the sake of brevity, only the SDP body of the SIP INVITE request
   is displayed in this example.

```
     v=0
     o=alice 53655765 2353687637 IN IP4 pc33.example.com
     s=SDP image example
     c=IN IP4 192.0.2.2
     t=0 0
     m=image 49170 udptl t38
     a=T38FaxVersion:0
     a=T38MaxBitRate:14400
     a=T38FaxRateManagement:transferredTCF
     a=T38FaxMaxBuffer:262
     a=T38FaxMaxDatagram:90
     a=T38FaxUdpEC:t38UDPRedundancy
     a=sendrecv
     m=image 49172 tcp t38
     a=T38FaxRateManagement:localTCF
```

   The purpose of this document is to register with IANA the 'image'
   media type as a top-level SDP media type. This ensures seamless
   continuity with documentation that uses the 'image' MIME media type
   and the previously registered MIME media sub-types like 'image/t38'
   [RFC3362] that are used as SDP media descriptors for T.38 [T38].

   This document complies with the request of Section 8.2.1 of RFC 4566
   [RFC4566] that indicates:

      The same rules should apply for media names as for top-level media
      content types, and where possible the same name should be
      registered for SDP as for MIME. For media other than existing
      top-level media content types, a Standards Track RFC MUST be
      produced for a new top-level content type to be registered, and
      the registration MUST provide good justification why no existing
      media name is appropriate.

2. Conventions Used in This Document

   The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT",
   "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this
   document are to be interpreted as described in RFC 2119 [RFC2119].

3. IANA Considerations

   IANA has registered an 'image' token in the media sub-registry of the
   Session Description Protocols (SDP) Parameters registry. This
   registration contains the required information elements outlined in
   the SDP registration procedure defined in Section 8.2.8 of RFC 4566
   [RFC4566].

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   (2) Name being registered (as it will appear in SDP): image

   (3) Long-form name in English: image

   (4) Type of name ('media', 'proto', 'fmt', 'bwtype', 'nettype', or
        'addrtype'): media

   (5) Purpose of the registered name:

           The 'image' media type for the Session Description Protocol
           is used to describe a media stream whose content consists of
           one or more separate images that require appropriate hardware
           to display. The media subtype further describes the specific
           format of the image. Currently, the 'image' media type for
           SDP is used ubiquitously by the SIP control protocol to
           establish T.38 media streams.

   (6) Specification for the registered name: RFC 6466

4. Security Considerations

   The 'image' media type registered by this document in the SDP
   parameters registry maintained by IANA is primarily for use by the
   offer/answer model of the Session Description Protocol [RFC3264] for
   the negotiation and establishment of T.38 [T38] media streams using
   SIP [RFC3261]. This additional SDP media type does not introduce any
   security considerations beyond those detailed in Section 7 of RFC
   4566 [RFC4566].

   The security vulnerabilities in T.38 [T38] and its associated
   transport protocols (TCP [RFC0793], UDP [RFC0768], and RTP [RFC3550])
   are well documented in each of their respective specifications. The
   ability to exchange images other than T.38 can expose the recipient
   to potentially malicious executable code.

5. Acknowledgements

   Thanks go to the chairs of the IETF Multiparty Multimedia Session
   Control (MMUSIC) working group (Miguel A. Garcia and Flemming
   Andreasen) for their guidance, encouragement, and the creation of the

      media type registry. Special thanks to Miguel A. Garcia for his
      thorough and insightful review of the many draft revisions of this
      document.

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      MMUSIC working group, especially the detailed and thoughtful comments
      and corrections of Keith Drage, Yasubumi Chimura, Kevin P. Fleming,
      Bert Greevenbosch, and Gonzalo Camarillo.

      The author would also like to acknowledge the considerable efforts of
      Kevin P. Fleming and the members of the Fax-over-IP (FoIP) TG in the
      SIP Forum that contributed to the new revision of the ITU-T T.38
      Recommendation that prompted the need to register the 'image' media
      type for SDP.

6. References

6.1. Normative References

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6.2. Informative References

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