                   Indicating Supported Media Features Using
                          Extensions to DSN and MDN

Status of this Memo

   This document specifies an Internet standards track protocol for the
   Internet community, and requests discussion and suggestions for
   improvements. Please refer to the current edition of the "Internet
   Official Protocol Standards" (STD 1) for the standardization state
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1. Abstract

   There is a need in Internet mail and Internet fax for a recipient to
   indicate the media features it supports so that messages can be
   generated by senders without exceeding the recipient's abilities.

   This memo describes a format for generating Message Disposition
   Notifications [RFC2298] and Delivery Status Notifications [RFC1894]
   which contain such information. This information can be used by
   senders to avoid exceeding the recipient's capabilities when sending
   subsequent messages.

2. Introduction

   The extensions described in this document can be used in Message
   Disposition Notifications [RFC2298] or Delivery Status Notifications
   [RFC1894], as appropriate for the implementation.

   Note that both DSNs and MDNs have drawbacks: DSNs are not available
   between all senders and receivers, and MDNs require the receiver to
   disclose message disposition information (or, if using the "denied"
   disposition-type, the time the disposition notification was
   generated).

   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 [RFC2119].

3. Extensions for use by DSN and MDN

    The following extension is available to both DSN [RFC1894] and MDN
    [RFC2298] messages.

    For a DSN message, the following per-recipient fields are defined
    (section 2.3 of [RFC1894]). For an MDN message, the following
    extension fields are defined (section 3.1 of [RFC2298]). Using the
    language of [RFC2234]:

        extension-field   = media-features CRLF

        media-features   = "Media-Accept-Features" ":"
                               media-feature-tags
        media-feature-tags = <*text as defined below,
                               with LWSP wrapping>

    The <media-feature-tags> are defined in separate schema documents
    which MUST utilize the language described in [SYNTAX]. The schema
    MUST be registered following the registration requirements of
    [RFC2506].

3.1. Examples

    The following examples assume there is a schema document which
    defines the tags shown.

3.1.1. Paper-size and Color

    Assuming there is a schema document which describes the tags paper-
    size and color, the following example is valid:

        Media-Accept-Features: (& (paper-size=a4) (color=binary))

3.1.2. UA-Media, Paper-size, and Color

    Assuming there is a schema document which describes the tags paper-
    size, color, and grey:

        Media-Accept-Features: (& (| (paper-size=a4) (paper-size=letter))
          (| (& (color=grey) (dpi=200) (dpi-xyratio=200/100))
          (& (color=limited) (dpi=200) (dpi-xy=200/100)))

4. MTA Implmentation Recommendation

    If the recipient's MTA determines that a message cannot be processed,
    the recipient's MTA is strongly encouraged to reject the message with
    a status code of 5.6.1 [RFC1893]. This status code may be returned

in response to the end-of-mail-data indicator if the MTA supports
reporting of enhanced error codes [RFC2034], or after message
reception by generating a delivery failure DSN ("bounce").

5. Security Considerations

Inaccurate media feature information could cause a denial of service,
causing subsequent messages to be sent which the recipient is unable
to process.

The media feature information could be inaccurate due to a malicious
attack (spoofed DSN or MDN) or misconfiguration.

6. Acknowledgments

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assistance with this document, and especially Larry Masinter, Graham
Klyne, and Ned Freed.

7. References

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