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Content Duration MIME Header Definition

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 and status of this protocol. Distribution of this memo is unlimited.

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Overview

This document describes the MIME header Content-Duration that is intended for use with any timed media content (typically audio/* or video/*).

1. Abstract

This document describes the MIME header Content-Duration that is intended for use with any time varying media content (typically audio/* or video/*). The length of time is represented in seconds without any units indication.

2. Content-Duration Header Field

Time varying media contents, for example, a spoken voice message or a video clip, have an inherent time duration. Many audio and video encodings may include their duration as header information or may allow accurate calculation based on the byte length of the data. However, it may be useful to present the time duration of the content in a MIME header to allow its simple determination without dealing with the actual content.

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 [REQ].

2.1 Syntax

The Content-Duration field's value is a single number specifying the time duration in seconds of the content. Formally:

```
duration := "Content-Duration" ":" 1*10DIGIT
```

Note that practically (though highly unlikely in MIME media), the upper bound on the numerical value of the time duration is $(2^{31} - 1)$ or 2147483647.

2.2 Semantics

This field represents the time duration of the associated time varying media content. The time duration is noted in seconds with no units tag. The time value should be exact, however the exact value of the time duration cannot be known without opening the content and playing it. If an exact value must be known, then the latter method should be used. This mechanism simply allows placing a sender determined time duration value in the header for easy access.

Though there are several ways to present this duration to the recipient (e.g. with the inbox headers, when audio attachment opened), the actual use of this field on reception is a local implementation issue.

2.3 Example

In this example the content duration represents 33 seconds:

```
Content-Duration: 33
```

3. VPIM Usage

The Content-Duration header field for the audio/32KADPCM sub-type is a useful component of the VPIM specification [VPIM2]. All VPIM Messages MUST contain this sub-type to carry the audio of a voice message. It may be useful in some instances (e.g. viewing on a simple MIME or non-MIME desktop) to have the time duration of the voice message available without having to open the audio content.

4. Security Considerations

This definition introduces the option of explicitly identifying the time duration of an audio/* or video/* content outside of the binary data that forms the content. In some environments (though likely not the majority), the identification of the actual time duration in a header field may be a security issue and as a result should not be noted. Reliance on the time indicated in this header field cannot be trusted for the purposes of determining the exact size of the data. The exact length of the data must be determined by examining the data itself.

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6. References

- [MIME2] Freed, N., and N. Borenstein, "Multipurpose Internet Mail Extensions (MIME) Part Two: Media Types", RFC 2046, November 1996.
- [VPIM2] Vaudreuil, G., and G. Parsons, "Voice Profile for Internet Mail - version 2", RFC 2421, September 1998.
- [REQ] Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", BCP 14, RFC 2119, March 1997.

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