The Session Initiation Protocol (SIP) Accept-Disposition Header Field
draft-camarillo-sip-accept-disposition-00.txt

Abstract

This document defines the SIP Accept-Disposition header field. User agents use this header field to indicate the disposition types they support.
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1. Introduction

SIP [5] messages consist of an initial line (request line in requests and status line in responses) a set of header fields and an optional message body. The message body of a SIP message can be divided into various body parts and is encoded using the MIME (Multipurpose Internet Mail Extensions) [1] format. Body parts are described using header fields such as Content-Disposition, Content-Encoding, and Content-Type, which provide information on the contents of a particular body part.

In particular, the Content-Disposition header field, defined in RFC 2183 [3] and extended by RFC 3261 [5], describes how to handle an individual body part. Examples of disposition types used in SIP in the Content-Disposition header field are 'session' and 'render'.

RFC 3204 [4] defines the 'handling' parameter for the Content-Disposition header field. From Section 6 of RFC 3204:

"This document also defines a Content Disposition parameter, "handling". The handling parameter, handling-parm, describes how the UAS should react if it receives a message body whose content type or disposition type it does not understand. If the parameter has the value "optional", the UAS MUST ignore the message body; if it has the value "required", the UAS MUST return 415 (Unsupported Media Type). If the handling parameter is missing, the value "required" is to be assumed."

RFC 3204 identifies two situations where a UAS (User Agent Server) needs to reject a request with a body part whose handling is required:

1. if it has an unknown content type.
2. if it has an unknown disposition type.

If the UAS did not understand the content type of the body part, it can add a Accept header field to its 415 (Unsupported Media Type) response listing the content types that the UAS does understand. Nevertheless, there is no way for a UAS that does not understand the disposition type of a body part to inform the UAC (User Agent Client) about the disposition types that are understood by the UAS.

This document defines the Accept-Disposition header field, whose semantics and associated protocol behavior is similar to those of the Accept header field, but applies to disposition types instead of to content types.
Note that the same content type can be associated to different disposition types in different body parts. A UAS may support a particular content type but only a subset of all the disposition types that are associated to it.

2. Terminology

In this document, the key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "NOT RECOMMENDED", "MAY", and "OPTIONAL" are to be interpreted as described in BCP 14, RFC 2119 [2] and indicate requirement levels for compliant implementations.

3. The Accept-Disposition Header Field

The Accept-Disposition header field can appear in requests and in responses. When it appears in a request, this header field contains the disposition types supported by the UAC. When it appears in a response, this header field contains the disposition types supported by the UAS. The following is the ABNF (augmented Backus-Naur Form) for the Accept-Disposition header field:

```
Accept-Disposition = "Accept-Disposition" HCOLON
                     [ disposition-type *(COMMA disposition-type) ]

disposition-type   = disp-type *( SEMI disp-param )
```

Section 25.1 of RFC 3261 provides the ABNF for 'disp-type' and 'disp-param'. The IANA registers values for these parameters under the registry for Mail Content Disposition Values and Parameters.

An empty Accept-Disposition header field means that no disposition types are acceptable.

The following is an example of an Accept-Disposition header field:

```
Accept-Disposition: render, session
```

4. User Agent Behavior

UACs and UASs MAY add an Accept-Disposition header field to their requests and responses to inform the other end of the disposition types they support.

UASs generating a 415 (Unsupported Media Type) because a body whose handling was required and had an unknown disposition type MUST return a list of acceptable content types using the Accept-Disposition header field.
A UAC that receives a 415 (Unsupported Media Type) response with an Accept-Disposition header field SHOULD retry sending the request only using disposition types listed in the Accept-Disposition header field.

5. Security Considerations

Attackers may attempt to add or remove Accept-Disposition header fields, or modify their contents. UAs receiving a request or a response modified in such a way by an attacker may be fooled to believe that the other end does not support a particular disposition type. In this case, the UA would refrain from using a service that is actually available. Receivers of such messages may also be fooled to believe that the other end supports a disposition type that is not really supported. In this case, the UA would attempt to use a server that is not available and therefore will fail, wasting resources unnecessarily.

It is therefore RECOMMENDED that integrity protection be applied to the contents of the Accept-Disposition header field. RFC 3261 describes how to integrity-protect header fields using S/MIME.

6. IANA Considerations

This document defines a new SIP header field: Accept-Disposition. This header field needs to be registered by the IANA in the SIP Parameters registry under the Header Fields subregistry.

7 Normative References


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Acknowledgment

Funding for the RFC Editor function is currently provided by the Internet Society.