Carrying Q.850 Codes in Reason Header Fields
in SIP (Session Initiation Protocol) Responses

Abstract

   Although the use of the SIP (Session Initiation Protocol) Reason
   header field in responses is considered in general in RFC 3326, its
   use is not specified for any particular response code. Nonetheless,
   existing deployments have been using Reason header fields to carry
   failure-related Q.850 cause codes in SIP responses to INVITE requests
   that have been gatewayed to Public Switched Telephone Network (PSTN)
   systems. This document normatively describes the use of the Reason
   header field in carrying Q.850 cause codes in SIP responses.

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.

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   and how to provide feedback on it may be obtained at
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Table of Contents

1. Overview

   Although the use of the SIP (Session Initiation Protocol) Reason
   header field in responses is considered in general in RFC 3326
   [RFC3326], its use is not specified for any particular response code.
   Nonetheless, existing deployments have been using Reason header
   fields to carry failure-related Q.850 [Q.850] cause codes in SIP
   responses to INVITE requests that have been gatewayed to PSTN
   systems. This document normatively describes the use of the Reason
   header field in SIP responses to carry Q.850 [Q.850] cause codes.

2. Terminology

   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].

   This document uses terms from [RFC3261].

3. Applicability

   This document allows SIP responses to carry Reason header fields as
   follows:

      Any SIP Response message, with the exception of a 100 (Trying),
      MAY contain a Reason header field with a Q.850 [Q.850] cause code.

      The Reason header field is not needed in the 100 (Trying)
      responses, since they are transmitted hop by hop, not end to end.
      SIP responses with Reason header fields carrying values other than
      Q.850 [Q.850] cause codes are outside of the scope of this
      document.

4. Security Considerations

   This specification allows the presence of the Reason header field
   containing Q.850 [Q.850] cause codes in responses. The presence of
   the Reason header field in a response does not affect the treatment
   of the response. Nevertheless, there could be situations where a
   wrong Q.850 [Q.850] cause code could, for example, cause an
   announcement system to play the wrong information. To avoid such
   situations, it is RECOMMENDED that this header field be protected by
   a suitable integrity mechanism. The use of transport- or network-
   layer hop-by-hop security mechanisms, such as Transport Layer
   Security (TLS) or IPsec with appropriate cipher suites, can satisfy
   this requirement.

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   of this document.

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   Thomas Belling, who provided helpful comments, feedback, and
   suggestions.

6. Normative References

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