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R. Jesske  
L. Liess  
Deutsche Telekom  
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Carrying Q.850 Codes in Reason Header Fields in SIP (Session Initiation  
Protocol) Responses  
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#### Abstract

Although the use of the Reason header field in responses is considered in general in RFC3326, its use is not specified for any particular response code. Nonetheless, existing deployments have been using Reason header fields in responses to carry Q.850 cause codes for failure 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 cause codes.

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## 1. Overview

Although the use of the Reason header field in responses is considered in general in RFC3326[RFC3326], its use is not specified for any particular response code. Nonetheless, existing deployments have been using Reason header fields in responses to carry Q.850 [Q.850] cause codes for failure 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 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 code are outside of the scope of this document.

## 4. Security Considerations

This specification allows the presence of the Reason 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 is protected by a suitable integrity mechanism. The use of transport or network layer hop-by-hop security mechanisms, such as TLS or IPSec with appropriate cipher suites, can satisfy this requirement.

## 5. IANA Considerations

No IANA actions are required

## 6. Acknowledgments

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## 7. Normative References

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## Authors' Addresses

Roland Jesske  
Deutsche Telekom  
Heinrich-Hertz-Strasse 3-7  
Darmstadt, 64307  
Germany

Phone: +4961515812766  
EMail: r.jesske@telekom.de

Laura Liess  
Deutsche Telekom  
Heinrich-Hertz-Strasse 3-7  
Darmstadt, 64307  
Germany

Phone: +4961515812761  
EMail: Laura.Liess@telekom.de

