

The application/ISUP media type

Status of this document

This document is an Internet-Draft and is in full conformance with all provisions of [Section 10 of RFC 2026](#).

Internet-Drafts are working documents of the Internet Engineering Task Force (IETF), its areas, and its working groups. Note that other groups may also distribute working documents as Internet-Drafts.

Internet-Drafts are draft documents valid for a maximum of six months and may be updated, replaced, or obsoleted by other documents at any time. It is inappropriate to use Internet-Drafts as reference material or to cite them other than as "work in progress."

To view the entire list of current Internet-Drafts, please check the "1id-abstracts.txt" listing contained in the Internet-Drafts Shadow Directories on ftp.is.co.za (Africa), ftp.nordu.net (Northern Europe), ftp.nis.garr.it (Southern Europe), munnari.oz.au (Pacific Rim), ftp.ietf.org (US East Coast), or ftp.isi.edu (US West Coast).

Abstract

This document proposes the definition of an application/ISUP media type, according to the rules defined in [RFC 2048](#).

1. Motivation

Many signalling exchanges between telephony switches follow the "ISDN User Part of Signalling System No. 7" (ISUP), that the ITU defines in recommendation Q.761, Q.762, Q.763 and Q.764, or one of its national variants. As gateways between the Internet and the public, there is a need to transport ISUP messages as "content" or "body parts" of Internet messages.

This memo proposes a definition of an "application/ISUP" media type,

according to the rules defined in [RFC 2048](#).

This memo does not attempt to define when and how such messages could be used.

2. The application/isup media type

The corresponding media type is defined by the following information:

Media Type name: application
Media subtype name: ISUP
Required parameters: none
Optional parameters: variant, headers
Encoding considerations: binary or base64
Security considerations: see [section 5](#).
Published specification: ITU recommendation Q.763

The variant parameter is used to denote the presence of a "national variant" of the ISUP protocol. The syntax of this parameter is defined by the following ABNF notations (as defined in [RFC 2234](#)):

```
parameter = "content" "=" value  
value = DQUOTE national-variant-code DQUOTE
```

The national variant code is normally set to the 2 upper case letter country-code of the nation defining the variant, such as "BR" for Brazil.

The format of the ISUP message is specified in Q.763. Messages conforming to this specification include five parts: the Routing label, the Circuit identification code, the Message type code, the Mandatory fixed part, the Mandatory variable part and the Optional part. The "headers" parameter is used to identify whether the body part includes the Routing label and the Circuit Identification Code (CIC). The syntax of this parameter is defined by the following ABNF notations:

```
parameter = "header" "=" header-value  
header-value = (DQUOTE "routing" DQUOTE)  
              / (DQUOTE "CIC" DQUOTE)  
              / (DQUOTE "none" DQUOTE)
```

The value "routing" indicates that both the routing label and the CIC are included in the body part. The value "CIC" indicates that the routing label is not included, but that the CIC is included. The value "none" indicates that neither the routing label nor the CIC are included.

3. References

- [1] ITU-T, Recommendation Q.761, "Functional Description of the ISDN User Part of Signalling System No. 7", (Malaga-Torremolinos, 1984; modified at Helsinki, 1993)
- [2] ITU-T, Recommendation Q.762, "General Function of Messages and Signals of the ISDN User Part of Signalling System No. 7", (Malaga-Torremolinos, 1984; modified at Helsinki, 1993)
- [3] ITU-T, Recommendation Q.763, "Formats and Codes of the ISDN User Part of Signalling System No. 7", (Malaga-Torremolinos, 1984; modified at Helsinki, 1993)
- [4] ITU-T, Recommendation Q.764, "Formats and Codes of the ISDN User Part of Signalling System No. 7, ISDN User Part Signalling Procedures", (Malaga-Torremolinos, 1984; modified at Helsinki, 1993)
- [5] Crocker, D., P. Overell, "Augmented BNF for Syntax Specifications: ABNF", [RFC 2234](#), November 1997.
- [6] Freed, N., J. Klensin, J. Postel. "Multipurpose Internet Mail Extensions (MIME) Part Four: Registration Procedures." [RFC 2048](#), November 1996.

4. Authors' Addresses

Christian Huitema
Bellcore
MCC 1J236B
445 South Street
Morristown, NJ 07960
U.S.A.

Phone: +1 973-829-4266
EMail: huitema@bellcore.com

