# ETSI TS 129 231 V13.0.0 (2016-01)


**Digital cellular telecommunications system (Phase 2+);
Universal Mobile Telecommunications System (UMTS);
Application of SIP-I Protocols to Circuit Switched (CS) core network architecture;
Stage 3
(3GPP TS 29.231 version 13.0.0 Release 13)**

3GPP A GLOBAL INITIATIVE
GSM® GLOBAL SYSTEM FOR MOBILE COMMUNICATIONS

Reference
RTS/TSGC-0429231vd00

Keywords
GSM,UMTS

***ETSI***

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# Foreword

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# 1 Scope

The present document describes the protocols to be used when SIP-I is optionally used as call control protocol in a 3GPP CS core network on Nc interface, see 3GPP TS 23.231 [1]. The SIP-I protocol operates between (G)MSC servers. The SIP-I architecture consists of a number of protocols. The following types of protocols are described: call control protocol, resource control protocols and user plane protocol for this architecture. The architecture complies with the requirements imposed by 3GPP TS 23.231 [1] and TS 23.153 [2].

Interworking of SIP-I on Nc to external networks is described by TS 29.235 [3].

The present document is valid for a 3rd generation PLMN (UMTS) complying with Release 8 and later.

# 2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
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[1] 3GPP TS 23.231: "SIP-I based Circuit Switched Core Network ; Stage 2".

[2] 3GPP TS 23.153: "Out of Band Transcoder Control; Stage 2".

[3] 3GPP TS 29.235: "Interworking between the 3GPP CS domain with SIP-I as signalling protocol and other networks".

[4] ITU-T Recommendation Q.1912.5: "Interworking between Session Initiation Protocol (SIP) and Bearer Independent Call Control protocol or ISDN User Part".

[5] IETF RFC 2046: "Multipurpose Internet Mail Extensions (MIME) Part Two: Media Types".

[6] IETF RFC 3966: "The tel URI for Telephone Numbers".

[7] IETF RFC 2976: "The SIP INFO method".

[8] IETF RFC 3204: "MIME media types for ISUP and QSIG Objects".

[9] IETF RFC 3261: "SIP: Session Initiation Protocol".

[10] IETF RFC 3262: "Reliability of Provisional Responses in the Session Initiation Protocol (SIP)".

[11] IETF RFC 3264: "An Offer/Answer Model with the Session Description Protocol (SDP)".

[12] IETF RFC 3311: "The Session Initiation Protocol (SIP) UPDATE Method".

[13] IETF RFC 3312: "Integration of Resource Management and Session Initiation Protocol (SIP)".

[14] IETF RFC 3323: "A Privacy Mechanism for the Session Initiation Protocol (SIP)".

[15] IETF RFC 3325: "Private Extensions to the Session Initiation Protocol (SIP) for Network Asserted Identity within Trusted Networks".

[16] IETF RFC 3326: "The Reason Header Field for the Session Initiation Protocol (SIP)".

[17] IETF RFC 4566: "SDP: Session Description Protocol".