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**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)**



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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 3<sup>rd</sup> generation PLMN (UMTS) complying with Release 8 and later.

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# 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.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

- [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".