



**Digital cellular telecommunications system (Phase 2+) (GSM);
Universal Mobile Telecommunications System (UMTS);**

LTE;

IP Multimedia Subsystem (IMS)

Application Level Gateway (IMS-ALG)

- IMS Access Gateway (IMS-AGW) interface:

Procedures descriptions

(3GPP TS 23.334 version 15.1.0 Release 15)



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1 Scope

Annex G of 3GPP TS 23.228 [2] gives out an IMS Application Level Gateway (IMS-ALG) and IMS Access Media Gateway (IMS-AGW) based reference model to support NAPT-PT, gate control and traffic policing between IP-CAN and IMS domain.

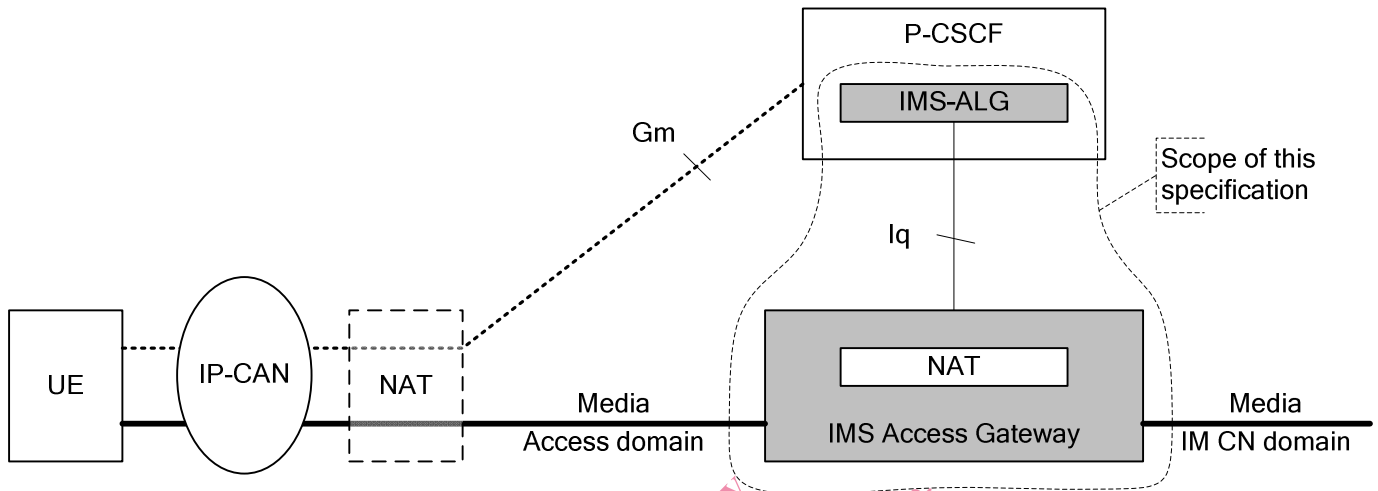


Figure 1.1: Scope of the specification

Figure 1.1 illustrates the reference model for Iq:

- the dashed line represents the IP signalling-path with SIP (at Gm) as call/session control protocol between the UE and the P-CSCF (IMS-ALG);
- the bold, horizontal line represents the IP media-path (also known as (IP) bearer-path or (IP) data-path; the notion 'media' is used as generic term for "IP application data"); and
- the vertical line represents the Iq control-path with H.248 as gateway/policy control protocol between the IMS-ALG and the IMS-AGW (H.248 messages are transported over IP).

The Iq reference point is between the P-CSCF (IMS-ALG) and the IMS-AGW. It conveys the necessary information that is needed to allocate, modify and release (IP) transport addresses.

The present document defines the stage 2 description for the Iq reference point. The stage 2 shall cover the information flow between the P-CSCF (IMS-ALG) and IMS-AGW. The protocol used over the Iq interface is the gateway control protocol according ITU-T Recommendation H.248 (which is specified for Iq by an H.248 profile according 3GPP TS 29.334 [3]).

2 References

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[1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

[2] 3GPP TS 23.228: "IP Multimedia Subsystem (IMS), stage 2".

- [3] 3GPP TS 29.334: "IMS Application Level Gateway (IMS-ALG) – IMS Access Gateway (IMS-AGW) Iq interface, stage 3".
- [4] IETF RFC 2663: "IP Network Address Translator (NAT) Terminology and Considerations".
- [5] 3GPP TS 32.260: "Telecommunication management; Charging management; IP Multimedia Subsystem (IMS) charging".
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- [11] 3GPP TS 24.229: "IP Multimedia Call Control Protocol based on SIP and SDP".
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- [14] IETF RFC 3711: "The Secure Real-time Transport Protocol (SRTP)".
- [15] IETF RFC 5124: "Extended Secure RTP Profile for Real-time Transport Control Protocol (RTCP)-Based Feedback (RTP/SAVPF)".
- [16] IETF RFC 3168: "The Addition of Explicit Congestion Notification (ECN) to IP".
- [17] IETF RFC 6679: "Explicit Congestion Notification (ECN) for RTP over UDP".
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- [26] IETF RFC 6714: "Connection Establishment for Media Anchoring (CEMA) for the Message Session Relay Protocol (MSRP)".
- [27] IETF RFC 4583: "Session Description Protocol (SDP) Format for Binary Floor Control Protocol (BFCP) Streams".
- [28] IETF RFC 5246: "The Transport Layer Security (TLS) Protocol Version 1.2".
- [29] IETF RFC 793: "Transmission Control Protocol – DARPA Internet Program – Protocol Specification".
- [30] IETF RFC 4145: "TCP-Based Media Transport in the Session Description Protocol (SDP)".
- [31] IETF RFC 4582: "The Binary Floor Control Protocol (BFCP)".

- [32] IETF RFC 6347: "Datagram Transport Layer Security Version 1.2".
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- [34] IETF draft-schwarz-mmusic-sdp-for-gw-04: "SDP codepoints for gateway control".
- Editor's note: The above document cannot be formally referenced until it is published as an RFC.**
- [35] GSM Association RCC.07: "Rich Communication Suite 5.1 Advanced Communications Services and Client Specification, Version 2.0, 03 May 2013".
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