



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 14.6.0 Release 14)



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Keywords

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## Foreword

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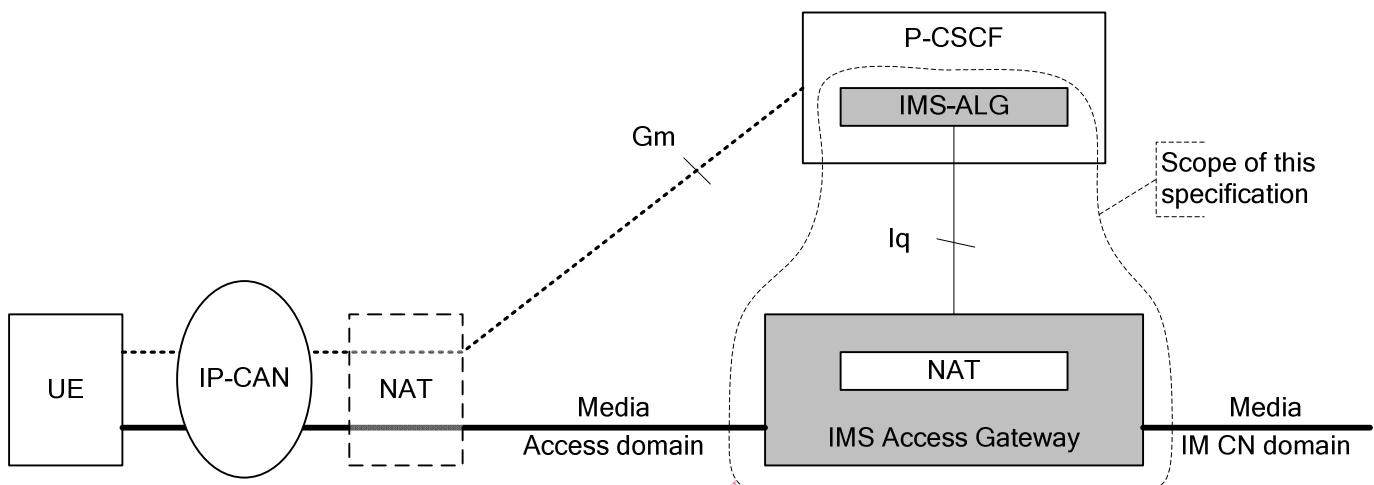
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## 1 Scope

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".
- [6] IETF RFC 3556: "Session Description Protocol (SDP) Bandwidth Modifiers for RTP Control Protocol (RTCP) Bandwidth".
- [7] IETF RFC 3605: "Real Time Control Protocol (RTCP) attribute in Session Description Protocol (SDP)".
- [8] 3GPP TS 23.205: "Bearer independent circuit-switched core network; Stage 2".
- [9] ITU-T Recommendation H.248.1 (05/2002): "Gateway Control Protocol: Version 2" including the Corrigendum1 for Version 2 (03/04).
- [10] IETF RFC 2216: "Network Element Service Template".
- [11] 3GPP TS 24.229: "IP Multimedia Call Control Protocol based on SIP and SDP".
- [12] 3GPP TS 33.328: "IMS Media Plane Security".
- [13] IETF RFC 4568: "Session Description Protocol (SDP) Security Descriptions for Media Streams".
- [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".
- [18] 3GPP TS 23.237: "IP Multimedia subsystem (IMS) Service Continuity; Stage 2".
- [19] 3GPP TS 24.237: "IP Multimedia subsystem (IMS) Service Continuity; Stage 3".
- [20] 3GPP TS 29.162: "Interworking between the IM CN subsystem and IP networks".
- [21] 3GPP TS 26.114: "IP Multimedia Subsystem (IMS); Multimedia Telephony; Media handling and interaction".
- [22] 3GPP TS 22.153: "Multimedia Priority Service".
- [23] IETF RFC 5285: "A General Mechanism for RTP Header Extensions".
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