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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB 33473-2016

**General technical requirements of handover interface for
instant communication service**

即时通信业务H1接口总体技术要求

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Foreword

All technical contents of this standard is mandatory. This standard was drafted in accordance with rules GB/T 1.1-2009 given. Please note that some of the content of this document may involve patents. The issuing authority of this document does not assume responsibility to identify these patents. The standard proposed by the People's Republic of China Ministry of Industry and Information Technology. This communication standard by the National Standardization Technical Committee (SAC/TC485). Drafted by: China Information and Telecommunications Research Institute. The main drafters. Lin Meiyu, Jiang Jian, Wu Hong Jian, Yang Bin, Zhang Yuanjing, Wu Shao-hung. HI IM service interfaces in general technical requirements

1 Scope

GB 33473-2016 is the Chinese national standard on general technical requirements of

handover interface for instant communication service, in the field of telecommunications and audio-video engineering. It carries no /T suffix, which in the Chinese system means compliance is mandatory: a product or a practice within its scope has to meet it to be lawfully made, sold or carried out in China. It was issued on 30 December 2016 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1 January 2017. Classification: ICS 33.030, CCS M19. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This standard specifies the basic requirements of real-time communication services HI Interface IP-based networks provide, network architecture, logo, HI interfaces to Summing safety requirements. This standard applies to IP-based instant messaging services provided by the network.

2 Normative references

The following documents for the application of this document is essential. For dated references, only applies to the version dated paper Pieces. For undated references, the latest edition (including any amendments) applies to this document. IETF RFC 3261 SIP. Session Initiation Protocol (SIP. SessionInitiationProtocol) Shibian IETF RFC 3325 for Session Initiation Protocol (SIP) for the yet to be demonstrated in the trusted network of privately extension [Private ExtensionstotheSessionInitiationProtocol (SIP) forAssertedIdentitywithinTrustedNetworks] 3 terms, definitions and abbreviations

3.1 Terms and Definitions The following terms and definitions apply to this document. 3.1.1. Instant messaging service provider instantcommunicationserviceprovider Providing a point-to-multipoint communication features of the service provider. 3.1.2. Instant messaging service instantcommunicationservice Relying on relevant business instant messaging service provider.

Note. multimedia sessions such as Internet business.

3.1.3 Network multimedia session services IPmultimediaservice Relying on IP data network, providing point to point, multipoint real-time multimedia session services, including voice and video communications.

3.1.4 Submit interfaces handoverinterface Instant messaging service provider technical interface, also known as HI interfaces, including HI1, HI2 and HI3 three interfaces.

3.1.5 Management module administrationfunction Submit function module gateway handling HI1 interface.

3.1.6 Intermediary function module medicationfunction Submit function module gateway handling HI2 and HI3 interface.

3.1.7 Transmission of information transportrelatedinformation For maintenance, testing HI interfaces and protection purposes, information sent on HI2 interface.

3.1.8 Target relevant information interceptrelatedinformation Target use instant communication service-related information, including information related to a communication (e.g., communication connection attempt fails), business-related letter Information (such as the user's business management), and location information.

3.1.9 Communication content contentofcommunication In addition to the target information, instant messaging business interaction between the target user and other users or network element information.

Note. multimedia sessions such as network traffic content.

3.1.10 Encumbrance retaineddata Instant messaging service provider retained within its network data associated with a particular business. Retained data typically includes several business use Data, user data, device data, submit data gateway and billing data.

3.1.11 Submit enforcement facilities lawenforcementmonitoringfacility And submit a gateway connected to collect and submit the results to submit the results of processing equipment.

3.1.12 First session acommunicationssession Initiate session establishment process request to begin the end of this session from the network side.

4 Basic requirements

4.1 HI basic principles of interface HI interfaces should follow the relevant national laws and regulations. Communication between the activities of non-target user, should not trigger submit function. And the device does not allow any access to instant communications service providers (hereinafter referred to as SvP) sensitive data domain, including LEMF feature Configuration information, and submit a gateway between the LEMF and certificate authentication parameters, target information, such as data retention SvP domain. In SvP network Inside, it should adopt the necessary measures to ensure the security of sensitive data, such as encrypted storage. SvP available to business users, should support the HI interface functions; but not yet available for SvP SvP business and existing business flow Information process is not obtained, we do not need to get back to provide through additional process. If the LEA has to SvP other than those specified in this standard Useful information can be reported by extensive information field. HI interface includes HI1, HI2, HI3 interfaces, message interfaces, and three function completely different content delivery, and should be independent of each other. Communication process, if SvP network involved in the encryption process, the communication should be submitted SvP decrypted content.

If encryption is not a SvP Network and provide SvP can not obtain a key, decryption is not required SvP. If two target users communicate with each other, the two targets were submitted results should be reported process. With the development and updating of technology needs, HI interfaces should be extended.

4.2 Functional requirements HI interfaces should support real-time (quasi real time) to submit features, namely real-time (quasi real time) to the active process of communication with the user through the contents of the target HI interfaces submitted to the LEMF. HI interface shall support queries and query results submitted to the LEMF SvP domain for retained data. By submitting content SvP HI interfaces include. target-related information (IRI), transmission of information (TRI), the communication content (CC) and left Stored data (RD) and the like. Further, SvP be obtained by HI instruction information submitted interface, comprising target identifier, the end time of submission, The LEMF address.

5 Network Architecture

Figure 1 shows the network architecture filed interface. SvP domain includes network elements, retained the database and submit the gateway network element which includes all relevant business server providing the service. considering Various forms of networking is SvP different, the business form may be provided also vary, for the convenience of management, the gateway requires submission of each side using SvP Formula provides centralized delivery interfaces, each network element without using an interface provided separately submission. Submit gateway management functions including AF, IRI intermediary function module and CC/RD mediation modules. Retained database, network elements and interfaces for submitting SvP internal network between the gateway Network interface. SvP interaction between HI Facility LEMF via an interface with law enforcement to submit. The standard only specifies the interface provided by the gateway HI submit demands to not within the scope of this standard internal network interface. HI interface includes HI1, HI2, HI3 interfaces three interfaces. Which, HI1 for the management interface for submitting and gateway between the LEMF Delivery management instruction; reporting the HI2 interface to the target interface information for submission to the LEMF gateway submitted IRI message, alarm and failure TRI maintenance such heartbeat message class; HI3 interface to the communications and reporting interfaces for data retention, for submission to the CC filed gateway LEMF And retention of data. Figure

7 HI interface requirements

7.1 HI1 interface requirements HI1 interface is bidirectional. LEMF by sending delivery command interfaces HI1, such as activation, deactivation, etc., and receives from the interface means HI

1 So that response information. For real-time submission of IRI and CC (near real-time), we need to provide the following information to SvP.