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Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work. In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of the joint technical committee is to prepare International Standards. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights.

ISO/IEC TR 12861 was prepared by Ecma International (as ECMA TR/96) and was adopted, under a special “fast-track procedure”, by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, in parallel with its approval by national bodies of ISO and IEC.

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Introduction

This Technical Report is one of a series of Ecma publications that explore IP-based enterprise communication involving Corporate telecommunication Networks (CNs) (also known as enterprise networks) and in particular Next Generation Corporate Networks (NGCN). The series particularly focuses on inter-domain communication, including communication between parts of the same enterprise, between enterprises and between enterprises and carriers. This particular Technical Report discusses issues related to user identities and routing and builds upon concepts introduced in ISO/IEC TR 12860.

This Technical Report is based upon the practical experience of Ecma member companies and the results of their active and continuous participation in the work of ISO/IEC JTC 1, ITU-T, ETSI, IETF and other international and national standardization bodies. It represents a pragmatic and widely based consensus. In particular, Ecma acknowledges valuable input from experts in ETSI TISPAN.

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Information technology — Telecommunications and information exchange between systems — Next Generation Corporate Networks (NGCN) — Identification and routing

1 Scope

This Technical Report is one of a series of publications that provides an overview of IP-based enterprise communication involving Corporate telecommunication Networks (CNs) (also known as enterprise networks) and in particular Next Generation Corporate Networks (NGCN). The series particularly focuses on session level communication based on the Session Initiation Protocol (SIP) [4], with an emphasis on inter-domain communication. This includes communication between parts of the same enterprise (on dedicated infrastructures and/or hosted), between enterprises and between enterprises and public networks. Particular consideration is given to Next Generation Networks (NGN) as public networks and as providers of hosted enterprise capabilities. Key technical issues are investigated, current standardisation work and gaps in this area are identified, and a number of requirements are stated. Among other uses, this series of publications can act as a reference for other standardisation bodies working in this field, including ETSI TISPAN, 3GPP, IETF and ITU-T.

This particular Technical Report discusses session level user identification and routing. It uses terminology and concepts developed in ISO/IEC TR 12860. It identifies a number of requirements impacting NGN standardisation and concerning deployment of enterprise networks.

The scope of this Technical Report is limited to communications with a real-time element, including but not limited to voice, video, real-time text and instant messaging.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

[1] ISO/IEC 11571:1998, *Information technology — Telecommunications and information exchange between systems — Private Integrated Services Networks — Addressing*

[2] ECMA TR/86, *Corporate Telecommunication Networks — User Identification in a SIP/QSIG Environment*

[3] ISO/IEC TR 12860:2009, *Information technology — Telecommunications and information exchange between systems — Next Generation Corporate Networks (NGCN) — General*

[4] IETF RFC 3261, *SIP: Session Initiation Protocol*

[5] IETF RFC 3263, *Session Initiation Protocol (SIP): Locating SIP Servers*

[6] IETF RFC 3323, *A Privacy Mechanism for the Session Initiation Protocol (SIP)*

[7] IETF RFC 3325, *Private Extensions to the Session Initiation Protocol (SIP) for Asserted Identity within Trusted Networks*

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[8] IETF RFC 3327, *Session Initiation Protocol (SIP) Extension Header Field for Registering Non-Adjacent Contacts*

[9] IETF RFC 3608, *Session Initiation Protocol (SIP) Extension Header Field for Service Route Discovery During Registration*

[10] IETF RFC 3761, *The E.164 to Uniform Resource Identifiers (URI) Dynamic Delegation Discovery System (DDDS) Application (ENUM)*

[11] IETF RFC 3966, *The tel URI for Telephone Numbers*

[12] IETF RFC 4474, *Enhancements for Authenticated Identity Management in the Session Initiation Protocol (SIP)*

[13] IETF RFC 4916, *Connected Identity in the Session Initiation Protocol (SIP)*

[14] IETF RFC 4967, *Dial String Parameter for the Session Initiation Protocol Uniform Resource Identifier*

[15] IETF RFC 5031, *A Uniform Resource Name (URN) for Emergency and Other Well-Known Services*

[16] IETF draft-ietf-sip-gruu-15, *Obtaining and Using Globally Routable User Agent (UA) URIs (GRUU) in the Session Initiation Protocol (SIP)*

NOTE At the time of publication of this Technical Report, the IETF had approved draft-ietf-sip-gruu-15 as a standards track RFC but had not published the RFC and had not allocated an RFC number. If the draft is no longer available, readers should look for the RFC with the same title.

[17] ITU-T Rec. E.164, *The international public telecommunication numbering plan*

[18] ITU-T Rec. H.350, *Directory services architecture for multimedia conferencing*

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