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Technical Specification

**3rd Generation Partnership Project;
Technical Specification Group Core Network and Terminals;
Telecommunications and Internet converged Services and
Protocols for Advanced Networking (TISPAN);
PSTN/ISDN simulation services
Terminating Identification Presentation (TIP)
and Terminating Identification Restriction (TIR);
Protocol specification
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Foreword

This Technical Specification (TS) was been produced by ETSI Technical Committee Telecommunications and Internet converged Services and Protocols for Advanced Networking (TISPAN) and originally published as ETSI TS 183 008 [18]. It was transferred to the 3rd Generation Partnership Project (3GPP) in in January 2008.

The contents of the present document are subject to continuing work within the TSG and may change following formal TSG approval. Should the TSG modify the contents of the present document, it will be re-released by the TSG with an identifying change of release date and an increase in version number as follows:

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where:

x the first digit:

1 presented to TSG for information;

2 presented to TSG for approval;

3 or greater indicates TSG approved document under change control.

y the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.

z the third digit is incremented when editorial only changes have been incorporated in the document.

1 Scope

The present document specifies the stage three protocol description of the Terminating Identification Presentation (TIP) and Terminating Identification Restriction (TIR) services, based on stage one and two of the ISDN COLP [3] and COLR [4] supplementary services. Within the TISPAN NGN Release 1 Next Generation Network (NGN) the stage 3 description is specified using the IP-Multimedia Call Control Protocol based on Session Initiation Protocol (SIP) and Session Description Protocol (SDP).

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*.

Referenced documents which are not found to be publicly available in the expected location might be found at http://docbox.etsi.org/Reference.

For online referenced documents, information sufficient to identify and locate the source shall be provided. Preferably, the primary source of the referenced document should be cited, in order to ensure traceability. Furthermore, the reference should, as far as possible, remain valid for the expected life of the document. The reference shall include the method of access to the referenced document and the full network address, with the same punctuation and use of upper case and lower case letters.

NOTE: While any hyperlinks included in this clause were valid at the time of publication ETSI cannot guarantee their long term validity.

2.1 Normative references

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

[1] ETSI ES 282 007: "Telecommunications and Internet converged Services and Protocols for Advanced Networking (TISPAN); IP Multimedia Subsystem (IMS); Functional architecture".

[2] ETSI ES 283 003: "Telecommunications and Internet converged Services and Protocols for Advanced Networking (TISPAN); IP Multimedia Call Control Protocol based on Session Initiation Protocol (SIP) and Session Description Protocol (SDP) Stage 3 (3GPP TS 24.229 (Release 7), modified)".

[3] ETSI EN 300 094: "Integrated Services Digital Network (ISDN); Connected Line Identification Presentation (COLP) supplementary service; Service description".

[4] ETSI ETS 300 095: "Integrated Services Digital Network (ISDN); Connected Line Identification Restriction (COLR) supplementary service; Service description".

[5] IETF RFC 3323: "A Privacy Mechanism for the Session Initiation Protocol (SIP)".

[6] IETF RFC 3325: "Private Extensions to the Session Initiation Protocol (SIP) for Network Asserted Identity within Trusted Networks".

[7] IETF RFC 2396: "Uniform Resource Identifiers (URI): Generic Syntax".

[8]   IETF RFC 3966: "The tel URI for Telephone Numbers".

[9]   IETF RFC 3261: "SIP: Session Initiation Protocol".

[10]   ETSI ES 282 003: "Telecommunications and Internet converged Services and Protocols for Advanced Networking (TISPAN); Resource and Admission Control Sub-system (RACS); Functional Architecture".

[11]   IETF RFC 2806: "URLs for Telephone Calls".

[12]   ITU-T Recommendation E.164: "The international public telecommunication numbering plan".

[13]   ITU-T Recommendation I.210: "Principles of telecommunication services supported by an ISDN and the means to describe them".

[14]   ETSI TS 182 006: "Telecommunications and Internet converged Services and Protocols for Advanced Networking (TISPAN); IP Multimedia Subsystem (IMS); Stage 2 description (3GPP TS 23.228 V7.2.0, modified)".

[15]   ETSI TS 183 023: "Telecommunications and Internet converged Services and Protocols for Advanced Networking (TISPAN); PSTN/ISDN simulation services; Extensible Markup Language (XML) Configuration Access Protocol (XCAP) over the Ut interface for Manipulating NGN PSTN/ISDN Simulation Services".

[16]   ETSI ES 283 027:"Telecommunications and Internet converged Services and Protocols for Advanced networking (TISPAN); Endorsement of the SIP-ISUP Interworking between the IP Multimedia (IM) Core Network (CN) subsystem and Circuit Switch (CS) networks (3GPP TS 29.163 (Release 7), modified)".

[17]   IETF draft-ietf-sip-connected-identity-05.txt: Connected Identity in the Session Initiation Protocol (SIP).

[18]   ETSI TS 183 008 V2.7.0: "Telecommunications and Internet converged Services and Protocols for Advanced Networking (TISPAN); PSTN/ISDN simulation services Terminating Identification Presentation (TIP) and Terminating Identification Restriction (TIR); Protocol specification".

3   Definitions and abbreviations

3.1   Definitions

For the purposes of the present document, the following terms and definitions apply:

Breakout Gateway Control Function (BGCF): See ES 282 007 [1].

Call Session Control Function (CSCF): See ES 282 007 [1].

dialog: See RFC 3261 [9].

header: See RFC 3261 [9].

header field: See RFC 3261 [9].

identity information: all the information (RFC 2806 [11] / RFC 2396 [7] / ITU-T Recommendation E.164 [12]) identifying a user, including trusted (network generated) and/or untrusted (user generated) addresses

    NOTE: Identity information takes the form of either a SIP URI (see RFC 3261 [9]) or a "tel" URI (see RFC 3966 [8]).

incoming initial request: all requests intended to initiate either a dialog or a standalone transaction received from the served user

Interrogating-CSCF (I-CSCF): See ES 282 003 [10].

Interconnection Border Control Function (IBCF): See ES 282 003 [10].

Media Gateway Control Function (MGCF): See ES 282 007 [1].

method: See RFC 3261 [9].

Multimedia Resource Function Controller (MRFC): See ES 282 007 [1].

Multimedia Resource Function Processor (MRFP): See ES 282 007 [1].

outgoing initial request: all requests intended to initiate either a dialog or a standalone transaction terminated by the served user

provisional response: See RFC 3261 [9].

proxy: See RFC 3261 [9].

Proxy-CSCF (P-CSCF): See ES 282 003 [10].

public user identity: See TS 182 006 [14], clause 4.3.3.2 and ES 282 003 [10].

request: See RFC 3261 [9].

response: See RFC 3261 [9].

session: See RFC 3261 [9].

(SIP) transaction: See RFC 3261 [9].

Subscription Locator Function (SLF): See ES 282 007 [1].

supplementary service: See ITU-T Recommendation I.210 [13], clause 2.4.

tag: See RFC 3261 [9].

trusted identity information: network generated user public identity information

3.2   Abbreviations

For the purposes of the present document, the following abbreviations apply:

ANM	ANswer Message (ISUP)
AS	Application Server
BGCF	Breakout Gateway Control Function
CDIV	Communication DIVersion
CN	Core Network
CON	CONnect (ISUP)
CONF	CONFerence
CS	Circuit Switched
CSCF	Call Session Control Function
HOLD	communication HOLD
IAM	Initial Address Message (ISUP)
IBCF	Interconnection Border Control Function
I-CSCF (THIG)	Incoming-Call Session Control Function (Topology Hiding Interconnection Gateway)
I-CSCF	Interrogating-Call Session Control Function
IFC	Initial Filter Criteria
IMS	IP Multimedia Subsystem
IP	Internet Protocol
ISDN	Integrated Service Data Network
ISUP MIME	ISDN User Part Multi-purpose Internet Mail Extension
MCID	Malicious Communication IDentification
MGCF	Media Gateway Control Function
MRFP	Multimedia Resource Function Processor
NGN	Next Generation Network
OIP	Originating Identification Presentation

OIR	Originating Identification Restriction
P-CSCF	Proxy-Call Session Control Function
PSTN	Public Switch Telephone Network
S-CSCF	Serving-Call Session Control Function
SIP	Session Initiation Protocol
SLF	Subscription Locator Function
TIP	Terminating Identification Presentation
TIR	Terminating Identification Restriction
UE	User Equipment
XML	Extensible Markup Language

4 Terminating Identification Presentation (TIP) and Terminating Identification Restriction (TIR)

4.1 Introduction

The Terminating Identification Presentation (TIP) service provides the originating party with the possibility of receiving identity information in order to identify the terminating party.

The network shall deliver the Terminating Identity to the originating party on communication acceptance regardless of the terminal capability to handle the information.

The Terminating Identification Restriction (TIR) is a service offered to the connected party which enables the connected party to prevent presentation of the terminating identity information to originating party.

4.2 Description

4.2.1 General description

The Terminating Identification Presentation (TIP) service provides the originating party with the possibility of receiving trusted information in order to identify the terminating party.

The Terminating Identification Restriction (TIR) is a service offered to the terminating party which enables the terminating party to prevent presentation of the terminating identity information to originating party.

4.3 Operational requirements

4.3.1 Provision/withdrawal

4.3.1.1 TIP provision/withdrawal

The TIP service may be provided after prior arrangement with the service provider or be generally available.

The TIP service shall be withdrawn at the subscriber's request or for administrative reasons.

As a general operator policy a special arrangement may exist on a per subscriber basis or on a general behaviour basis whereby the terminating user's identity information intended to be transparently transported by the network is not screened by the network.

4.3.1.2 TIR provision/withdrawal

The TIR service, temporary mode, may be provided on a subscription basis or may be generally available.

The TIR service, permanent mode, shall be provided on a subscription basis.

As a network option, the TIR service can be offered with several subscription options. A network providing the TIR service shall support temporary mode at a minimum. Subscription options are summarized in table 1.

Table 1: TIR subscription options

Subscription option values	Values
Mode	- permanent mode (active for all requests) - temporary mode (specified by the user per request)
Temporary mode default	- presentation restricted - presentation not restricted

4.3.2   Requirements on the originating network side

For originating users that subscribe to the TIP service, if network provided identity information about the terminator is available, and if presentation is allowed, the network shall include that information in the responses sent to the user.

If the presentation of the network asserted identity is restricted due to the TIR service, then the originating user shall receive an indication that the network provided identity was not sent because of restriction.

If the network asserted identity information is not available at the originating network (for reasons such as interworking), then the network shall indicate to the terminating user that the network asserted identity information was not included for reasons other than restriction.

As a national option the originating AS can override the presentation restriction indication and the terminating identity is then presented to the originating subscriber for specific originating access's categories (e.g. police).

4.3.3   Requirements on the terminating network side

As part of the basic communication control procedures specified in ES 283 003 [2], the following requirements apply at the terminating network side in support of the TIP service and the TIR service. Unless noted otherwise, these requirements are meant to apply to responses where the presence of the P-Asserted-Identity and Privacy header fields are allowed. These procedures apply regardless of whether the originating or terminating parties subscribe to the TIP service or the TIR service.

The terminating network shall include network asserted identity information in responses where allowed by ES 283 003 [2]. For TIR subscribers:

- The terminating user may include an indication that it wishes to have the presentation of its identity information restricted, in any response where allowed by ES 283 003 [2].

- If the terminating user has subscribed to the TIR service in the permanent or temporary mode, then the network shall automatically invoke the TIR service for every incoming request.

If the TIR service is not invoked, the network-provided identity shall be considered to be presentation allowed.

4.4   Syntax requirements

The syntax for the relevant headers in the SIP requests and SIP responses shall be as follows:

- The syntax of the P-Asserted-Identity header field shall conform to the requirements in ES 283 003 [2] (RFC 3325 [6] and RFC 3966 [8]).

- The syntax of the Privacy header shall conform to the requirements in ES 283 003 [2] (RFC 3323 [5] and RFC 3325 [6]).

- The Syntax of the option tag "from-change" shall conform to the requirements in IETF draft-ietf-sip-connected-identity-05.txt [17]: Connected Identity in the Session Initiation Protocol (SIP)

4.5 Signalling procedures

4.5.0 General

For user configuration of the TIR service the Ut interface should be used.

See clause 4.9 for further information about the structure of the XML document.

>   NOTE: Other possibilities for user configuration, as web-based provisioning or pre-provisioning by the operator are outside the scope of the present document.

4.5.1 Activation/deactivation

The TIP service is activated at provisioning and deactivated at withdrawal.

The TIR service is activated at provisioning and deactivated at withdrawal.

4.5.1A Registration/erasure

The TIP service requires no registration. Erasure is not applicable.

The TIR service requires no registration. Erasure is not applicable.

4.5.1B Interrogation

For TIP, interrogation is not applicable.

For interrogation of TIR, the Ut interface should be used.

4.5.2 Invocation and operation

4.5.2.1 Actions at the originating UE

A UE that supports the TIP service signalling procedures shall support the receipt, in SIP responses to SIP requests initiating a dialog or for standalone transactions, one or more P-Asserted-Identity headers, each one containing a network-provided identity information of the terminating user.

If no P-Asserted-Identity header fields are present, but a Privacy header field set to "id" was present, then the network-provided identity information was withheld due to presentation restriction.

If neither P-Asserted-Identity header fields nor a Privacy header fields set to "id" are present, then the network-provided identity information was not available (due, for example, to interworking with other networks).

Once a 2xx response is received, the P-Asserted-Identity header field of the first 2xx response is used, e.g. when presenting the identity to the user.

>   NOTE 1: Any P-Asserted-Identity received in a provisional response is outside the scope of this service.

If the originating user is subscribed to the TIP services and wants to receive the TIP the UE shall add the option tag "from-change" to the Supported header field in the initial request.

>   NOTE 2: This option tag is used to indicate that a UA supports changes to URIs in From and To header fields during a dialog. Not setting this indication shows that the UE is not supporting this procedure.

4.5.2.2 Actions at the originating P-CSCF

There are no procedures at the originating P-CSCF relevant to the TIP service or the TIR service.

4.5.2.3 Actions at the S-CSCF serving the originating UE

Procedures according to ES 283 003 [2] shall apply.

NOTE 1: If the Privacy header field set to "id" is included in the response message, this entry should not be removed as described in ES 283 003 [2] clause 5.4.3.2. The priv-value "id" in the Privacy header will be used by the originating UE to distinguish the request of TIR by the terminating user.

NOTE 2: Annex B provides an example of an initial filter criterion that can be applied for the TIP/TIR service.

4.5.2.4 Actions at the AS serving the originating UE

If the originating user is subscribed to the TIP service the AS shall pass the option tag "from-change" in the Supported header field in the initial request if not already received.

If the originating user is not subscribed to the TIP service the AS shall remove the option tag "from-change".

NOTE 1: If the terminating user requests privacy the S-CSCF removes the P-Asserted-Identity header field as part of the basic communication procedures defined in ES 283 003 [2].

If an originating user does not subscribe to the TIP service, any P-Asserted-Identity header fields or Privacy header fields included in the SIP response shall be removed. As a network option, if the originating user has an override category, the AS shall send the P-Asserted-Identity headers and remove the Privacy header fields.

When the Privacy header field is set to "id", with the exception of the cases listed above, the AS should not remove this Privacy header entry.

NOTE 2: The priv-value "id" in the Privacy header will be used by the originating UE to distinguish the request of TIR by the terminating user.

4.5.2.5 Actions at the outgoing I-CSCF (THIG)

Procedures according to ES 283 003 [2] shall apply.

4.5.2.6 Actions at the incoming I-CSCF

Procedures according to ES 283 003 [2] shall apply.

4.5.2.7 Actions at the outgoing IBCF

Procedures according to ES 283 003 [2] shall apply.

NOTE: It is assumed that the IBCF is responsible for stripping the P-Asserted-Identity from the SIP header when interworking with untrusted networks.

4.5.2.8 Actions at the incoming IBCF

Procedures according to ES 283 003 [2] shall apply.

NOTE: It is assumed that the IBCF is responsible for stripping the P-Asserted-Identity from the SIP header when interworking with untrusted networks.

4.5.2.9 Actions at the AS serving the terminating UE

For a terminating user who subscribes to the TIR service in "permanent mode", if a SIP response to a SIP request does not include a Privacy header field, the AS shall insert a Privacy header field set to "id". If the response includes a Privacy header field that is set to "none", the AS shall remove the "none" value from the Privacy header field.

For a terminating user who subscribes to the TIR service in "permanent mode", if a SIP INVITE with a Supported header field including a option tag "from-change", the AS shall remove the option tag "from-change".

For a terminating user who subscribes to the TIR service in "temporary mode" with default set to "restricted", if a SIP response to a SIP request does not include a Privacy header field, the AS shall insert a Privacy header field set to "id".

For a terminating user who subscribes to the TIR service in "temporary mode" with default set to "not restricted" normal procedures apply.

As a terminating network option, if the "no screening" special arrangement does not exist with the terminating user and an UPDATE request is received from the terminating user, then the AS may attempt to match the information in the From header with the set of registered public user identities for the served user. If no match is found, the AS may change the value of the From header in the UPDATE to the public user identity of the served user.

4.5.2.10 Actions at the S-CSCF serving the terminating UE

Procedures according to ES 283 003 [2] shall apply.

NOTE: Annex B provides an example of an initial filter criterion that that can be applied for the TIP/TIR service.

4.5.2.11 Actions at the terminating P-CSCF

Procedures according to ES 283 003 [2] shall apply.

4.5.2.12 Actions at the terminating UE

A terminating UE receiving an initial request including a Supported header field with the option tag "from-change" and supporting the "from-to" change shall sent within a provisional or final response the Supported header with the option tag "from-change".

A terminating UE receiving an initial request including a Supported header field with the option tag "from-change" may send a UPDATE message with a updated from and to header according the rules of draft-ietf-sip-connected-identity-05.txt [17].

The destination UE, if the terminating user wishes to override the default setting of "presentation not restricted" of the TIR service in temporary mode, shall include a Privacy header with privacy type of "id" in any non-100 responses it sends upon receipt of a SIP request.

The destination UE, if the terminating user wishes to override the default setting of "presentation restricted" of the TIR service in temporary mode, shall include a Privacy header with privacy type of "none" in any non-100 responses it sends upon receipt of a SIP request.

NOTE: It is assumed that TIR subscribers support RFC 3325 [6].

4.6 Interaction with other simulation services

4.6.1 Communication session Hold (HOLD)

No impact, i.e. neither simulation service shall affect the operation of the other simulation service.

4.6.2 Terminating Identification Presentation (TIP)

The TIR service shall normally take precedence over the TIP service. The TIP service can take precedence over the TIR service when the originating user has an override category. This is a national matter, the operation of which is outside the scope of the present document.

4.6.3 Terminating Identification Restriction (TIR)

The TIR service shall normally take precedence over the TIP service. The TIP service can take precedence over the TIR service when the originating user has an override category. This is a national matter, the operation of which is outside the scope of the present document.

4.6.4 Originating Identification Presentation (OIP)

No impact, i.e. neither simulation service shall affect the operation of the other simulation service.

4.6.5 Originating Identification Restriction (OIR)

No impact, i.e. neither simulation service shall affect the operation of the other simulation service.

4.6.6 Conference (CONF)

Conference controller: no impact, i.e. neither simulation service shall affect the operation of the other simulation service.

Participants in a conference shall not receive the TIP service information of participants being added to the conference.

4.6.7 Communication DIVersion services (CDIV)

In case of the TIP service if the served (forwarding/deflecting) user selects the option that the originating user is not notified of communication diversion, then the originating user shall receive no diversion notification. In addition, the originating user shall not receive the terminating user's identity information when the communication is answered, unless the originating user has override capability.

In case of the TIP service if the served (forwarding/deflecting) user selects the option that the originating user is notified, but without the diverted-to address, then the originating user shall not receive the terminating user's identity information when the communication is answered, unless the originating user has override capability.

If a diverted-to user subscribes to the TIR service "permanent mode", then the diverted-to user's URI shall not be provided with the notification that the communication has been diverted.

If a diverted-to user subscribes to the TIR service "temporary mode", then the diverted-to user's URI shall not be provided until negotiation with the user has taken place and a positive indication from the user has been received.

In each of the above situations, a originating user that subscribes to the TIP service and who has override capability will not receive the diverted-to user's number as part of the diverting notification information, but can use the override capability in order to receive the terminating identity information when the communication is answered.

4.6.8 Malicious Communication IDentification (MCID)

No impact, i.e. neither simulation service shall affect the operation of the other simulation service.

4.7 Interactions with other networks

4.7.1 Interaction with PSTN/ISDN networks

The interworking described in ES 283 027 [16] shall apply.

Additionally for the 2nd Identity the following procedures shall apply.

4.7.1.1 Interworking at the O-MGCF

For the mapping of IAM to the INVITE Message:

If an Optional forward call indicators parameter in the IAM is received where the bit H Connected line identity request indicator is set to "requested".

Then the option tag "from-change" shall be add to the Supported header field. See table 4.7.1.1.1.

Table 4.7.1.1.1: Mapping of ISUP IAM to SIP INVITE

ISUP Parameter	Derived value of parameter field	Source SIP header field and component	Source Component value
Optional forward call indicator	*Connected line identity request indicator* is set to "requested"	Supported	"from-change"

If a provisional or final response including the option tag "from-change" is received , then the O-MGCF shall:

- if a 200 OK to the INVITE request is received, start timer T_{TIR1}; and

- store the 200 OK response, without interworking it.

otherwise the 200 OK (INVITE) shall be mapped as described within ES 283 027 [16].

If an UPDATE request is received containing a changed From header field before the timer T_{TIR1} expired, then the O-MGCF shall:

- stop timer T_{TIR1};

- map the From header field received in the UPDATE request to the Generic number in the ANM as shown in table 4.7.1.1.2;

- if the UPDATE includes a P-Asserted-Identity header field that is different from the one within the stored 200 OK response, the latest received P-Asserted-Identity header field shall be mapped to the connected number as described within ES 283 027 [16]; and

- map the parameters needed to be mapped of the stored 200 OK response to an ANM as described within ES 283 027 [16], modified by the changed mapping steps of the From and P-Asserted-Identity header fields.

When T_{TIR1} expires, then the stored 200 OK (INVITE) response shall be mapped as described within ES 283 027 [16].

Table 4.7.1.1.2: Mapping of SIP UPDATE to ISUP ANM/CON

ANM/CON	UPDATE
Generic number	From header

**Table 4.7.1.1.3: Mapping of SIP From header field to ISUP Generic Number
("additional connected number") parameter**

Source SIP header field and component	Source component value	Generic Number parameter field	Derived value of parameter field
–	–	Number Qualifier Indicator	"*additional connected number*"
From, userinfo component of URI assumed to be in form "+" CC + NDC + SN	CC	Nature of Address Indicator	If CC is equal to the country code of the country where I-MGCF is located AND the next ISUP node is located in the same country, then set to "*national (significant) number*" else set to "*international number*"
–	–	Number Incomplete Indicator	"*complete*"
–	–	Numbering Plan Indicator	"*ISDN (Telephony) numbering plan (Recommendation E.164)*"
Privacy, priv-value component	Privacy header field absent	Address Presentation Restricted Indicator (APRI)	"*presentation allowed*"
	"*none*"		"*presentation allowed*"
	"*header*"		"*presentation restricted*"
	"*user*"		"*presentation restricted*"
–	–	Screening Indicator	"*user provided, not verified*"
From, userinfo component assumed to be in form "+" CC + NDC + SN	CC, NDC, SN	Address Signals	If NOA is "*national (significant) number*" then set to NDC + SN. If NOA is "*international number*" then set to CC + NDC + SN

4.7.1.2 Interworking at the I-MGCF

For the mapping of INVITE to IAM the Message:

IF an option tag "from-change" is included within the Supported header field of the received INVITE,

THEN the bit H *Connected line identity request indicator* of the Optional forward call indicators parameter in the IAM shall be set to "requested".

**Table 4.7.1.2.1: Mapping of a SIP Supported header field of a SIP INVITE
to the ISUP Optional forward call indicator of a ISUP IAM**

Source SIP header field and component	Source Component value	ISUP Parameter	Derived value of parameter field
Supported	"from-change"	Optional forward call indicator	*Connected line identity request indicator* is set to "requested".

IF a received ISUP ANM includes a ISUP Generic Number ("additional connected number") parameter THEN the I-MGCF shall sent a 200 OK (INVITE) including a option tag "from-change" and an UPDATE as shown in table 4.7.1.2.2.

The to header field of the UPDATE is derived from the P-Asserted-Identity received within the initial INVITE.

Table 4.7.1.2.2: Mapping of ANM Generic Number (*"additional connected number"***)**
to SIP From header field in a SIP UPDATE

ISUP Parameter/field	Value	SIP component	Value
Generic Number Number Qualifier Indicator	"*additional connected number*"	From header field	display-name (optional) and addr-spec
Nature of Address Indicator	"*national (significant) number*"	Addr-spec	Add "+" CC (of the country where the IWU is located) to Generic Number Address Signals then map to user portion of URI scheme used
	"*international number*"		Map complete Generic Number Address Signals used prefixed with a "+" to user portion of URI scheme used
Address Presentation restriction indicator (APRI)	"*presentation allowed*"		No Privacy header or not "*header*" or not "*user*"
	"*presentation restricted*"		"*header*"
Address Signals	if NOA is "*national (significant) number*" then the format of the address signals is: NDC + SN If NOA is "*international number*" then the format of the address signals is: CC + NDC + SN	Display-name (optional)	display-name shall be mapped from Address Signals, if network policy allows it
		Addr-spec	"+" CC NDC SN mapped to user portion of URI scheme used

A received connected number in an ANM shall be mapped to the P-Asserted-Identity as shown in table 21 of ES 283 027 [16] of the UPDATE message.

4.7.2   Interaction with PSTN/ISDN emulation

When interworking with the PSTN/ISDN domain, the following header fields shall be passed without changes:

- P-Asserted-Identity header field; and

- privacy header field.

   NOTE: The SIP header fields are transcoded by the MGCF from and to an ISUP MIME body.

If the network is not trusted the P-Asserted-Identity shall be removed from SIP requests and SIP responses.

4.7.3   Interaction with other IP networks

If the other IP network is a trusted network and the RFC 3323 [5] and RFC 3325 [6] are supported the following header fields shall be forwarded without changes:

- P-Asserted-Identity header field; and

- privacy header field.

If the IP network is not trusted the P-Asserted-Identity header field shall be removed from SIP requests and SIP responses.

4.8 Parameter values (timers)

Symbol	Timeout value	Cause for initiation	Normal termination	At expiry
T_{TIR1}	0,1 – 2 seconds (default 0,1)	On receipt of provisional or final response including the option tag "from-change"	At the receipt of an UPDATE	map the received 200OK to an ANM

4.9 Service configuration

Terminating Identity documents are sub-trees of the simservs XML document specified in TS 183 023 [15]. As such, Terminating Identity documents use the XCAP application usage in TS 183 023 [15].

Data semantics: The semantics of the Terminating Identity XML configuration document is specified in clause 4.9.1.

XML schema: Implementations in compliance with the present document shall implement the XML schema that minimally includes the XML Schema defined in clause 4.9.2 and the *simservs* XML schema specified in clause 6.3 of TS 183 023 [15].

An instance of an Terminating Identity document is shown:

```
<?xml version="1.0" encoding="UTF-8"?>
<simservs xmlns="http://uri.etsi.org/ngn/params/xml/simservs/xcap"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" >

   <terminating-identity-presentation active="true"/>

   <terminating-identity-presentation-restriction active="true">
       <default-behaviour>presentation-restricted</default-behaviour>
   </terminating-identity-presentation-restriction>

</simservs>
```

4.9.1 Data semantics

The TIP service can be activated/deactivated using the active attribute of the <terminating-identity-presentation> service element.

The TIR service can be activated/deactivated using the active attribute of the <terminating-identity-presentation-restriction> service element. Activating the TIR service this way activates the temporary mode TIR service. When deactivated and not overruled by operator settings, basic communication procedures apply.

The behaviour of the temporary mode TIR is configured with the optional <default-behaviour> element. There are two values that this element can take:

- **Presentation-restricted:** configures the service to behave as specified in clause 4.5.2.9 for the case TIR service in "temporary mode" with default "restricted".

- **Presentation-not-restricted:** configures the service to behave as specified in clause 4.5.2.9 for the case TIR service in "temporary mode" with default "not restricted".

4.9.2   XML schema

```xml
<?xml version="1.0" encoding="UTF-8"?>
<xs:schema xmlns:ss="http://uri.etsi.org/ngn/params/xml/simservs/xcap"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
targetNamespace="http://uri.etsi.org/ngn/params/xml/simservs/xcap" elementFormDefault="qualified"
attributeFormDefault="unqualified">
   <xs:element name="terminating-identity-presentation-restriction"
substitutionGroup="ss:absService">
      <xs:annotation>
         <xs:documentation>Terminating Identity presentation Restriction
         </xs:documentation>
      </xs:annotation>
      <xs:complexType>
         <xs:complexContent>
            <xs:extension base="ss:simservType">
               <xs:sequence>
                  <xs:element name="default-behaviour" default="presentation-restricted"
                  minOccurs="0">
                     <xs:simpleType>
                        <xs:restriction base="xs:string">
                           <xs:enumeration value="presentation-restricted"/>
                           <xs:enumeration value="presentation-not-restricted"/>
                        </xs:restriction>
                     </xs:simpleType>
                  </xs:element>
               </xs:sequence>
            </xs:extension>
         </xs:complexContent>
      </xs:complexType>
   </xs:element>
   <xs:element name="terminating-identity-presentation" type="ss:simservType"
substitutionGroup="ss:absService">
      <xs:annotation>
         <xs:documentation>Terminating Identity Presentation
         </xs:documentation>
      </xs:annotation>
   </xs:element>
</xs:schema>
```

Annex A (informative):
Signalling flows

No TIP/TIR service specific signalling flow is necessary in addition to the basic communication control according to ES 283 003 [2].

Annex B (informative):
Example of filter criteria

This annex provides an example of a filter criterion that triggers SIP requests that are subject to initial filter criteria evaluation.

B.1   Originating IFC for TIP service

All outgoing initial SIP requests are forwarded to an Application Server (AS) providing the TIR simulation service under the following conditions:

- The originating user does not subscribe to the TIP service and the AS removes the P-Asserted-Identity header fields and the Privacy header field.

   NOTE: Responses follow the same route as requests, so the responses will also be routed via the AS.

B.2   Terminating IFC for TIR service

The terminating user has subscribed the TIR service, in either permanent or temporary mode.

   NOTE: Responses follow the same route as requests, so the responses will also be routed via the AS.

Annex C (informative):
Bibliography

- ETSI ES 183 025: "Telecommunications and Internet converged Services and Protocols for Advanced Networking (TISPAN); H.248 Non-call related procedures and management system interaction".

Annex D (informative):
Change history

Change history								
Date	TSG #	TSG Doc.	CR	Rev	Subject/Comment		Old	New
2007-08					Publication as **ETSI TS 108 008**			2.4.1
2008-01					Publication as ETSI TS 108 008			2.7.0
2008-01					Conversion to **3GPP TS 24.508**			2.7.1
2008-03	CT#39	CP-080097			Based on the decision in CT#39 version 8.0.0 created by MCC.		2.7.1	8.0.0
2008-06	CT#40	CP-080356	0001		Clarification of usage on permanent mode		8.0.0	8.1.0
2013-06	CT#60	CP-130224	0004	1	From-change for TIP, not TIR		8.1.0	8.2.0