

**Telecommunications and Internet converged Services and
Protocols for Advanced Networking (TISPAN);
NGN Architecture to support emergency communication
from citizen to authority**

[Endorsed document 3GPP TS 23.167, Release 7]



Reference

DTS/TISPAN-02022-NGN-R1

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Foreword

This Technical Specification (TS) has been produced by ETSI Technical Committee Telecommunications and Internet converged Services and Protocols for Advanced Networking (TISPAN).

1 Scope

The present document provides the ETSI endorsement of the 3GPP TS 23.167 [1].

The present document defines the architectural description for emergency services in the IP Multimedia Core Network Subsystem (IMS), including the elements necessary to support IP Multimedia (IM) emergency services

The present document covers also the Access Network aspects that are crucial for the provisioning of IMS emergency services.

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 and/or edition number or version number) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies.

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

- | | |
|-----|---|
| [1] | 3GPP TS 23.167 (Release 7): "3rd Generation Partnership Project; Technical Specification Group Services and System Aspects; IP Multimedia Subsystem (IMS) emergency sessions (Release 7)". |
| [2] | ETSI TS 102 424: "Telecommunications and Internet converged Services and Protocols for Advanced Networking (TISPAN); Requirements of the NGN network to support Emergency Communication from Citizen to Authority". |

3 Definitions and abbreviations

For the purposes of the present document, the terms, definitions and abbreviations given in [1] apply.

4 Endorsement notice

The elements of 3GPP TS 23.167 [1] apply, with the following modifications:

Replace references as shown below.

Reference in 3GPP TS 23.167 [1]	Modified reference
3GPP TS 22.101	ETSI TS 102 424 [2]

Clause 3.1 Definitions

Add the following at the end of the definition of IP-Connectivity Access Network:

In the context of the present document and an NGN, this can be read as a combination of the Network. (NASS), (RACS) and the transfer functions as described in ES 282 001.

Clause 4.1 Architectural Principles

After item 7, add the following:

NOTE: For NGN fixed access, the additional emergency registration is for further study. Therefore, the handling of the emergency Public User Identity is not necessary for emergency communications for the NGN fixed access in this release.

Clause 6.1 UE

Add the following as the first paragraph of the section:

The steps described below applies to UEs that are able to detect that a user is requesting an emergency session: In case the UE is not able to detect that the user is requesting an emergency session, the session establishment will from the UEs perspective proceed as the establishment of an ordinary multimedia session.

NOTE: For NGN fixed access, the handling of the emergency Public User Identity is for further study. Therefore, the UE is not required to handle the emergency Public User Identity for emergency sessions in this release.

Clause 6.2.1 Proxy-CSCF

After the first bullet item, add the following:

NOTE: For NGN fixed access, the emergency registration using an emergency Public User Identity is for further study. Therefore, the handling of an emergency Public User Identity is not required at the P-CSCF for this release.

Delete the third bullet item "Reject/allow unmarked emergency requests".

After the eighth bullet item, add the following:

NOTE: For NGN fixed access, the use of an emergency Public User Identity is not mandatory. Therefore, the statement above will include the usage of the normal Public User Identity instead of the emergency Public User Identity in this release.

Clause 7.1.1 UE Detectable Emergency Session

After NOTE 2 that follows item 5 add the following:

NOTE 2a: For NGN fixed access, the mechanisms and procedures for discovery of a local P-CSCF that is suitable for use in emergency sessions, are for further study. Therefore, the ordinary procedures for P-CSCF discovery may be used.

Clause 7.1.2 Non UE Detectable Emergency Session

After the second bullet item starting "Alternatively, the P-CSCF may allow" add the following:

NOTE: For NGN fixed access, the second alternative is always to be used. Therefore, the emergency Public User Identity will not be used in the emergency sessions for fixed NGN access.

New Annex ZA (normative): Call back of Emergency Session

At the end of the document add the following new annex:

Annex ZA (normative): Call back of Emergency Session

NOTE: The PSAP can return a call to the UE, via the S-CSCF in the home network, using existing basic call procedures. Procedures for a real Emergency call back is a GAP for this release.
Alternative methods and procedures for establishing an emergency call back session, e.g. via the E-CSCF in the local network, is for further study

New Annex ZB (informative): Examples of Network Connection Model for Emergency services

At the end of the document add the following new annex:

Annex ZB (informative): Examples of Network Connection Model for Emergency services

This annex provides typical examples of network connection model to support emergency services. The annex clarifies the NGN Release 1 ability to support emergency services depending on the network connection model. It also clarifies which network is responsible for the connection to PSAP.

Three connecting cases using the TISPAN NGN are described as follows.

ZB.1 Non roaming

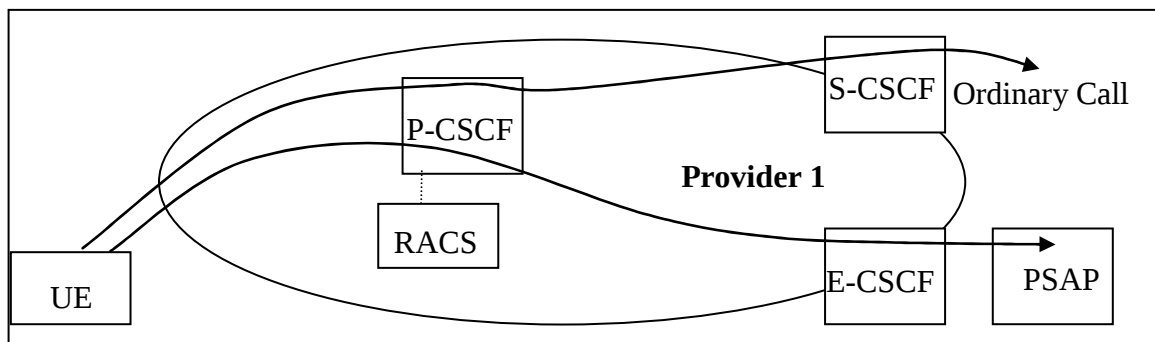


Figure ZB.1

The Figure ZB.1 shows the case where the Provider 1 network handles both ordinary calls and emergency calls to be connected to PSAP.

Provider 1 takes the responsibility on the connection to PSAP.

This is one of the network connection model case provided by TISPAN NGN Release1 Emergency services.

ZB.2 Roaming at IMS level

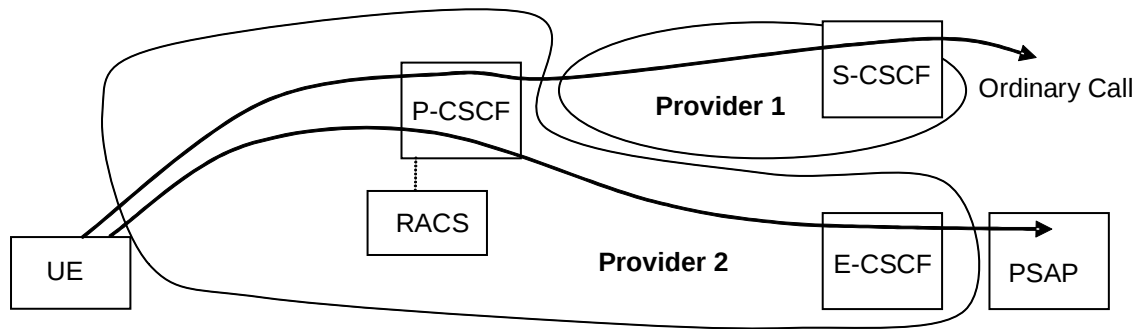


Figure ZB.2

Figure ZB.2 shows the case where Provider 1 network handles ordinary calls and the other Provider 2 network handles emergency calls to be connected to PSAP.

The P-CSCF is located in Provider 2. Thus this is a case of IMS level roaming.

Provider 2 Network takes the responsibility on the connection to PSAP.

This is one of the network connection model case provided by TISPAN NGN Release1 Emergency services.

ZB.3 Roaming at the Access Network level

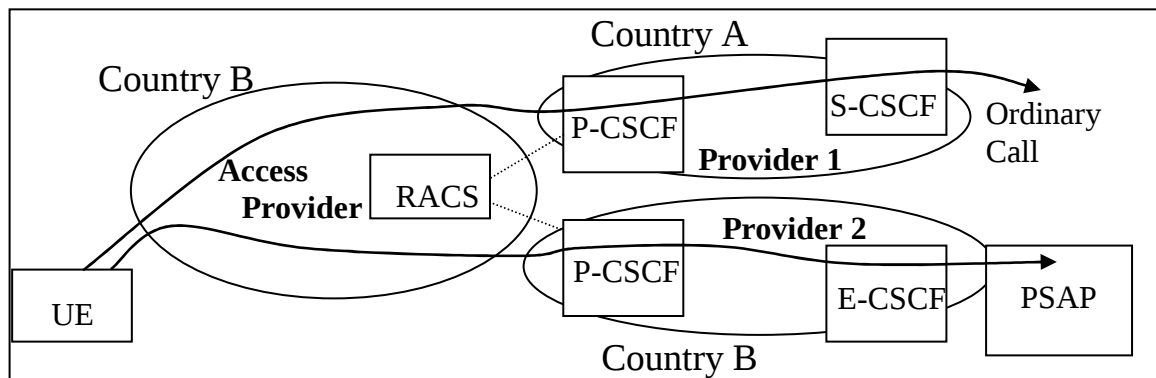


Figure ZB.3

Figure ZB.3 shows the case where Provider 1 network handles ordinary calls using their own P-CSCF, and the other Provider 2 network handles emergency calls to be connected to PSAP using their own P-CSCF.

P-CSCFs are located in both Provider 1 and 2 respectively. This is a case of Access Network level roaming.

Access Provider and Provider 2 jointly takes the responsibility on the connection to PSAP.

In this case, it is necessary to clarify the mechanism on how UE selects the P-CSCF providing emergency services. As the current architecture of UE and the access network does not provide or handle any information on which P-CSCF has the ability to connect to PSAP for the serving user, enhancements in the UE and the access network is needed to support this case.

Therefore, this network connection model case is out of scope of the TISPAN NGN Release1 Emergency services.

History

Document history		
V1.1.1	October 2006	Publication