3GPP TSG-T (Terminals) Meeting #21 *TP-030201*
Frankfurt, Germany
17 - 19 September, 2003

3GPP TSG-T2 #22 ***T2-030405***
Cambridge, UK
25 -29 August 2003

Title: **LS – Emergency services using SMS / MMS**
Response to:
Release:
Work Item:

Source: T2
To: SA and T
Cc: SA1

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Attachments: **Document from The Commission of the European Communite (T2-030402)**

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1. Overall Description:

T2 has discussed a document received by ETSI from The Commission of the European Communite concerning emergency services that contains a specific reference to the possible use of SMS for emergency calls.

T2 feels that the use of SMS and indeed MMS for emergencies is worthy of further debate within 3GPP.

To assist a debate, T2 has identified a number of reasons and examples where the use of SMS might be preferable for certain emergency situations.

SMS/MMS is a more discreet way of making an emergency call. An SM is more resilient to radio problems than a speech call.

It would be possible for an observer of an incident to send a SM/MM without drawing attention to themselves by making a voice call. With the increasing popularity of video capture on mobile phones there is a high value in being able to capture the video and sound details of a scene of an incident such as a mugging or traffic incident (e.g hit and run).

As further examples, it would be possible for an emergency SM/MM to be sent as the result of a vehicle impact or fire in a building.

When an SM or MM also has the support of location based information then the value of sending an emergency SM or MM would be considerably enhanced

Clearly, T2 recognises that the provision of emergency services requires considerable planning and integration. Additionally there are issues such as the ability to send an emergency SM or MM without the use of a SIM to be debated.

2. Actions:

To SA and T group.

ACTION: T2 asks SA and T to debate this subject and decide whether further action by 3GPP should be taken at this stage and what those actions should be

3. Date of next T2 Meetings:

T2#23	17-21 Nov 2003	US

COMMISSION OF THE EUROPEAN COMMUNITIES

Brussels, 25/07/2003
C(2003) 2657 final

COMMISSION RECOMMENDATION
of 25/07/2003

on the processing of caller location information in electronic communication networks for the purpose of location-enhanced emergency call services

(Text with EEA relevance)

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THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Directive 2002/21/EC on a common regulatory framework for electronic communications and services (the "Framework Directive"), and in particular Article 19, thereof,

Whereas:

(1) Decision 91/396/EEC on the introduction of a single European emergency call number[1] required Member States to ensure that the number 112 was introduced in public telephone networks as the single European emergency call number by 31 December 1992, with under certain conditions, a possibility for derogation until 31 December 1996.

(2) Directive 2002/22/EC on universal service and users' rights relating to electronic communications networks and services (the "Universal Service Directive")[2], requires public telephone network operators (hereafter "operators") to make caller location information available to authorities handling emergencies, to the extent technically feasible, for all calls made to the single European emergency call number 112. Directive 2002/58/EC concerning the processing of personal data and the protection of privacy in the electronic communications sector (the "Directive on privacy and electronic communications")[3] establishes that providers of public communications networks and services may override the elimination of the presentation of calling line identification and the temporary denial or absence of consent of a subscriber or user for the processing of location data, on a per-line basis for

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1 OJ L 217, 6.8.1991, p. 31.
2 OJ L 108, 24.4.2002, p. 51.
3 Directive 2002/58/EC of the European Parliament and of the Council of 12 July 2002, OJ L 201, 31.7.2002, p. 37.

organisations dealing with emergency calls and recognised as such by a Member State, including law enforcement agencies, ambulance services and fire brigades, for the purpose of responding to such calls.

(3) Although this Recommendation is concerned with location-enhanced 112, it is understood that parallel national emergency call numbers will be enhanced with the same functionality and following the same principles. Organisations operating private telecommunication installations are not affected by this Recommendation.

(4) For the successful implementation of E112 services throughout the Community, implementation issues must be addressed and time scales for the introduction of new systems co-ordinated. The Co-ordination Group on Access to Location Information by Emergency Services (CGALIES) established by the Commission in May 2000 as a partnership of public service and private sector players has allowed players of different sectors to discuss and find agreement on the principles for harmonised and timely implementation.

(5) Following on from the recommendation by CGALIES, providers of the public telephone network or service should use their best effort to determine and forward the most reliable caller location information available for all calls to the single European emergency call number 112.

(6) During the introductory phase of E112 services, application of the best efforts principle is considered preferable to mandating specific performance characteristics for location determination. However, as public safety answering points and emergency services gain practical experiences with location information, their requirements will become more defined. Moreover, location technology will continue to evolve, both within mobile cellular networks and satellite location systems. Therefore, the best effort approach will need to be reviewed after the initial phase.

(7) It is important for all Member States to develop common technical solutions and practices for the provision of E112. The elaboration of common technical solutions should be pursued through the European standardisation organisations, in order to facilitate the introduction of E112, create interoperable solutions and decrease the costs of implementation to the European Union.

(8) A harmonised solution across Europe would serve interoperability for advanced safety applications, such as calls which can be originated manually or automatically by an in-vehicle telematics terminal. These calls can provide additional information, for instance on the number of passengers in a car or bus, on compass-direction, on crash-sensor indicators, on the type of load of

dangerous goods or on health records of drivers and passengers. With the high volume of cross-border traffic in Europe, there is a growing need for a common data transfer protocol for passing such information to public safety answering points and emergency services in order to avoid the risk of confusion or a wrong interpretation of data passed.

(9) The arrangements for forwarding location information by operators to public safety answering points should be established in a transparent and non-discriminatory way including, where appropriate, any cost aspects.

(10) The effective implementation of location enhanced emergency call services requires that the caller's location as determined by the provider of the public telephone network or service is transmitted automatically to any appropriate public safety answering point that can receive and use the location data provided.

(11) Directive 2002/58/EC concerning the processing of personal data and the protection of privacy in the electronic communications sector (the "Directive on privacy and electronic communications")[4] generally requires that privacy and data protection rights of individuals should be fully respected and adequate technical and organisational security measures should be implemented for that purpose. However, it allows the use of location data by emergency services without consent of the user concerned. In particular, Member States should ensure that there are transparent procedures governing the way in which a provider of a public telecommunications network and/or service may override the temporary denial or absence of consent of a user for the processing of location data, on a per-line basis for organisations dealing with emergency calls and that are recognised as such by a Member State.

(12) Actions conducted in the context of the Community action programme in the field of Civil Protection (hereinafter "Civil Protection Action Programme")[5] should aim to contribute to the integration of civil protection objectives in other Community policies and actions as well as to the consistency of the programme with other Community actions. This entitles the Commission to implement actions aiming at increasing the degree of preparedness of organisations involved in civil protection in the Member States, by enhancing their ability to respond to emergencies and improving the techniques and methods of response and immediate aftercare. This may include the handling and use of location information associated to E112 emergency calls by public safety answering points and emergency services.

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4 OJ L 201, 31.7.2002, p. 37.

5 OJ L 327, 21.12.1999, p. 53.

(13) To achieve the objectives of this Recommendation, the need for a continued dialogue between public network operators and service providers and public authorities including emergency services becomes even stronger.

(14) When reporting on the situation of E112 implementation, national authorities should address any relevant technical feasibility issue that hinders the introduction of E112 for specific categories of end-users, as well as the technical requirements for handling emergency calls that may originate from SMS and telematic data services.

(15) The measures set out in this Recommendation are in accordance with the advisory opinion of the Communications Committee set up by Article 22 of Directive 2002/21/EC.

HEREBY RECOMMENDS THAT:

1. Member States should apply the following harmonised conditions and principles to the provision of caller location information to emergency services for all calls to the single European emergency call number 112.

2. For the purposes of this Recommendation, the following definitions should apply:

   a) '**emergency service'** means a service, recognised as such by the Member State, that provides immediate and rapid assistance in situations where there is a direct risk to life or limb, individual or public health or safety, to private or public property, or the environment but not necessarily limited to these situations.

   b) '**location information'** means in a public mobile network the data processed indicating the geographic position of a user's mobile terminal and in a public fixed network the data about the physical address of the termination point.

   c) '**E112'** means an emergency communications service using the single European emergency call number, 112, which is enhanced with location information of the calling user.

   d) **'public safety answering point'** means a physical location where emergency calls are received under the responsibility of a public authority.

3. Member States should draw up detailed rules for public network operators, to include, *inter alia*, the provisions in points 4-9 below.

4. For every emergency call made to the European emergency call number 112, public telephone network operators should, initiated by the network, forward (push) to public safety answering points the best information available as to the location of the caller, to the extent technically feasible. For the intermediate period up to the conclusion of the review as referred to in point 13 below, it is acceptable that operators make available location information on request only (pull).

5. Fixed public telephone network operators should make available the installation address of the line from which the emergency call is made.

6. Public telephone network operators should provide location information in a non-discriminatory way, and in particular should not discriminate between the quality of information provided concerning their own subscribers and other users. In the case of the fixed networks, other users include users of public pay phones; in the case of mobile networks or mobility applications, other users include roamers or visiting users, or, where appropriate, users of mobile terminals which can not be identified by the subscriber or user number.

7. All location information provided should be accompanied by an identification of the network on which the call originates.

8. Public telephone network operators should keep sources of location information, including address information, accurate and up-to-date.

9. For each emergency call for which the subscriber or user number has been identified, public telephone network operators should provide the capability to public safety answering points and emergency services of renewing the location information through a call back functionality (pulling) for the purpose of handling the emergency.

10. In order to facilitate data transfer between operators and public safety answering points, Member States should encourage the use of a common open interface standard, and in particular for a common data transfer protocol, adopted by the European Telecommunications Standards Institute (ETSI), where available. Such a standard should include the necessary flexibility to accommodate future requirements as they may arise, for instance from in-vehicle telematics terminals. Member States should ensure that the interface is best suited to the effective handling of emergencies.

11. In the context of the obligation for E112 services prescribed by the Universal Service Directive, Member States should provide adequate information to their citizens about the existence, use and benefits of E112 services. Citizens

should be informed that 112 connects them to emergency services all across the European Union and that their location will be forwarded. They should also be informed about the identity of the emergency services that will receive their location information and of other necessary details to guarantee fair processing of their personal data.

12. In the context of the continuous evolution of concepts and technologies, Member States are encouraged to foster and support the development of services for emergency assistance, for instance to tourists and travellers and for the transport of dangerous goods by road or rail, including handling procedures for forwarding location and other emergency or accident related information to public safety answering points; to support the development and implementation of common interface specifications in ensuring Europe-wide interoperability of such services; and to encourage the use of location technologies with high precision such as third generation cellular network location technologies and Global Navigation Satellite Systems.

13. Member States should require their national authorities to report to the Commission on the situation of E112 implementation by the end of 2004 so that the Commission can undertake a review taking into account the emerging requirements from public safety answering points and emergency services and the evolutions and availability of technological capabilities for location determination.

14. This Recommendation is addressed to the Member States.

Done at Brussels, 25/07/2003

For the Commission
Erkki Liikanen
Member of the Commission

3GPP TSG-T2 #22
Cambridge, UK
25 -29 August 2003

T2-030402

IP/03/1122

Brussels, 25 July 2003

Commission pushes for rapid deployment of location enhanced 112 emergency services

The European Commission has today adopted a Recommendation that will help the emergency services locate people who call them using the pan-European emergency number 112 that can be dialled in all EU Member States. The efficiency of emergency interventions can be greatly increased by systems providing automatic transfer of location information to emergency centres for both fixed and mobile callers. The Recommendation, which is based on extensive consultation with network operators and emergency authorities, proposes concrete guidelines for setting up such systems.

The share of emergency calls emanating from mobile networks is estimated to be 50% today in the EU and still rising. Although statistics vary widely, conservative estimates indicate that EU-wide, each year over 1 million emergency callers are unable to indicate their location, whilst in several million emergencies, valuable time is lost because wrong or inaccurate location information is provided. Moreover, the widespread use of mobile phones also leads to a very high occurrence of multiple calls referring to the same incident.

All three problems can be addressed with a system forwarding accurate location information of fixed and mobile callers automatically to emergency service centres. With this information, the centres can cross check oral information given by callers, send intervention teams even in cases where callers are unable to describe where they are and separate multiple calls from the same incident site from calls from other (new) incidents and organise the dispatch of intervention teams accordingly. This will allow emergency services to manage their capacity much more efficiently and to shorten response times, thereby increasing the chances of survival and recovery for victims of accidents and crime.

From 25 July 2003, under the Universal Service Directive 2002/22/EC, fixed and mobile network operators are required to provide caller location information to emergency service centres responding to '112' calls, in a manner best suited to the national organisation of emergency systems and within the technological possibilities of the networks. This requirement is an exception to the general rule under EU data protection legislation that caller location information may only be transferred to others with the consent of the user concerned. The exception is justified because in emergency situations the protection of life and health is more important than the protection of privacy.

The Recommendation adopted today proposes a coordinated approach to translate the legal requirements into concrete measures. The Commission wants to ensure that currently available location information and emerging location technologies are made available to emergency services as soon as they offer sufficient reliability. (Within current mobile networks, some location information is already available, and with new technologies this information is becoming more precise, pinpointing the exact whereabouts of a user within a few metres.) Where possible, systems should be based on automatic forwarding of location information to emergency centres. Moreover, Member States should ensure interconnectivity and interoperability between their networks handling emergency calls within the European Union, which is especially important in border areas where mobile networks do not exactly match territorial frontiers and emergency calls can be picked up by networks at the other side of the border. The proposed harmonised approach is also aimed at minimising the overall cost of implementation to all parties, through increased co-operation and the development of common solutions.

The systems will be implemented progressively as available caller location technologies become more sophisticated. By the end of 2004 the Commission will take stock of progress made and assess whether further action at EU level will be needed.