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3RD GENERATION PARTNERSHIP PROJECT 2 "3GPP2"

# **Callback to an Emergency Call Origination**

Stage 1 Requirements

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#### **REVISION HISTORY**

Revision	Description of Changes	Date
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Rev 0 v0.2	TSG review resolution and V&V version	April 2010
Rev 0 v1.0	Initial Publication	TBD

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#### 1 1 INTRODUCTION AND SCOPE

This document specifies the access network requirements for Callback to an Emergency Call Origination (CECO). These requirements pertain to 1x Circuit Switched (1xCS) calls routed to a 1xCS access network and 1xCS calls routed to a non-1xCS access network. For example, the requirements pertain to Circuit-Switched Fall Back (CSFB) for a Long Term Evolution (LTE) access network. The requirements are subject to regional regulation.

#### 9 2 INFORMATIVE REFERENCES

References are either specific (identified by date of publication, revision
identifier, and version number) or non-specific. For a specific reference,
subsequent revisions may not apply. For a non-specific reference, the
latest revision applies.

- 14 The document references which are applicable to this specification15 include the following:
- 16[1]3GPP TS 23.002, 3rd Generation Partnership Project; Technical Specification17Group Services and Systems Aspects; Network architecture.

#### 18 3 **DEFINITIONS AND ABBREVIATIONS**

19 The terms and abbreviations which are used within this specification are 20 defined as follows:

#### 21 3.1 Definitions

Callback to an Emergency Call Origination: is a call request that was
 initiated by an emergency service provider, e.g., Public Safety Answering
 Point (PSAP), police station, fire department, poison control, to a mobile
 station that had previously originated an emergency call.

#### 26 **3.2** Abbreviations

The terms and abbreviations which are used within this specification are defined as follows:

Term	Definition
1x	$cdma2000^{@1} 1x$
1xCS	1x Circuit Switched
3GPP2	Third Generation Partnership Project 2
CECO	Callback to an Emergency Call Origination

 $<sup>^1</sup>$  cdma2000<sup>®</sup> is the trademark for the technical nomenclature for certain specifications and standards of the Organizational Partners (OPs) of 3GPP2. Geographically (and as of the date of publication), cdma2000<sup>®</sup> is a registered trademark of the Telecommunications Industry Association (TIA-USA) in the United States.

Term	Definition
CSFB	Circuit Switched Fallback
IWS	Interworking Solution
LTE	Long Term Evolution
MSC	Mobile Switching Center
MSCe	Mobile Switching Center emulation
PSAP	Public Safety Answering Point

#### 1 4 GENERAL FEATURE DESCRIPTION

2 Callback to an Emergency Call Origination (CECO) occurs when an 3 emergency service provider (e.g., PSAP, police station, fire department, 4 poison control) initiates a call request to a mobile station that had 5 previously originated an emergency call. The callback could be initiated, 6 for example, due to a dropped call scenario (the emergency call 7 origination was abnormally released due to deteriorating radio 8 conditions) or the need by the emergency service provider to obtain 9 further information about the emergency situation after the emergency 10 call origination was released normally.

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11 5 DETAILED REQUIREMENTS
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12 "Shall" and "shall not" identify requirements to be followed strictly to conform to this document and from which no deviation is permitted. 13 14 "Should" and "should not" indicate that one of several possibilities is 15 recommended as particularly suitable, without mentioning or excluding 16 others, that a certain course of action is preferred but not necessarily 17required, or that (in the negative form) a certain possibility or course of action is discouraged but not prohibited. "May" and "need not" indicate a 18 course of action permissible within the limits of the document. "Can" and 19 20 "cannot" are used for statements of possibility and capability, whether 21 material, physical or causal.

22 5.1 General CECO Requirements

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# 23 CECO-01: The serving MSCe/MSC shall provide a CECO indication to 24 the 1xCS access network if all of the following conditions apply:

- a. the serving Mobile Switching Center emulation (MSCe) or Mobile Switching Center (MSC) determines that a call termination is a CECO,
- b. the serving MSCe/MSC is serving the mobile station to which the
  CECO is addressed,

$\frac{1}{2}$	<ul> <li>c. the mobile station to which the CECO addressed is served by a 1xCS access network,</li> </ul>
3	d. regional regulations apply.
4 5	Note: How the serving MSCe/MSC determines that a call termination is a CECO is outside the scope of this document.
6 7	<b>CECO-02:</b> Where required by regional regulation, the 1xCS access network shall support receiving a CECO indication.
8 9 10	<b>CECO-03:</b> The serving MSCe/MSC shall provide a CECO indication to the 1xCS Interworking Solution (IWS) if all of the following conditions apply:
11 12	a. the serving MSCe/MSC determines that a call termination is a CECO,
13 14	b. the serving MSCe/MSC is serving the mobile station to which the CECO is addressed,
15 16	c. the mobile station to which the CECO is addressed is served by a 1xCS IWS described in 3GPP TS 23.002 [1],
17	d. regional regulations apply.
18 19	Note: How the serving MSCe/MSC determines that a call termination is a CECO is outside the scope of this document.
20 21	<b>CECO-04:</b> Where required by regional regulation, a 1xCS IWS described in 3GPP TS 23.002 [1] shall support receiving a CECO indication.

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