

Source: SA1

Title: CRs to 22.071 on Velocity Service Description and Introducing A-GNSS concept to extend A-GPS to include GALILEO (Rel-6)

Document for: Approval

Agenda Item: 7.1.3

Meeting	SA Doc	TS No.	CR No	Rev	Rel	Cat	Subject	Vers. Current	Vers New	SA1 Doc
SP-26	SP-040735	22.071	072	-	Rel-7	C	Velocity Service Description	7.0.0	7.1.0	S1-040987
SP-26	SP-040735	22.071	071	-	Rel-7	C	Introducing A-GNSS concept to extend A-GPS to include GALILEO	7.0.0	7.1.0	S1-040973

CR-Form-v7

CHANGE REQUEST

⌘ **22.071 CR 071** ⌘ rev **-** ⌘ Current version: **7.0.0** ⌘

For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.

Proposed change affects: UICC apps ME Radio Access Network Core Network

Title:	⌘ Introducing A-GNSS concept to extend A-GPS to include GALILEO		
Source:	⌘ SA1 (Orange)		
Work item code:	⌘ A-GNSS	Date:	⌘ 14/10/2004
Category:	⌘ C	Release:	⌘ Rel-7
	Use <u>one</u> of the following categories: F (correction) A (corresponds to a correction in an earlier release) B (addition of feature), C (functional modification of feature) D (editorial modification) Detailed explanations of the above categories can be found in 3GPP TR 21.900 .		Use <u>one</u> of the following releases: 2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) Rel-4 (Release 4) Rel-5 (Release 5) Rel-6 (Release 6)

Reason for change:	⌘ The 3GPP LCS specification should introduce the GNSS concept, extending the GPS concept to include GALILEO. This follows the approval of the Work Item on this topic approved at SA1#24.
Summary of change:	⌘ When mentioned other than as an example of location method, GPS is replaced by GNSS, stating that GNSS can either be GPS or GALILEO Introduced the definition of GNSS
Consequences if not approved:	⌘ Mobile operators will not be able to take advantage of the improvements provided by GALILEO especially when combined with GPS for MS location

Clauses affected:	⌘ Section 3.1, Section 4.1 (Functional requirements / High level requirements)										
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"> </td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;"> </td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;"> </td> <td style="text-align: center;">X</td> </tr> </table>	Y	N		X		X		X	Other core specifications Test specifications O&M Specifications	⌘
Y	N										
	X										
	X										
	X										
Other comments:	⌘										

<< Modified sections >>

3.1 Abbreviations

For the purposes of the present document, in addition to 3GPP TR.21.905, the following abbreviations apply:

LCS	Location Service
<u>GNSS</u>	<u>Global Navigation Satellite System</u>
NA-ESRD	North American Emergency Services Routing Digits
NA-ESRK	North American Emergency Services Routing Key
NANP	North American Numbering Plan

NOTE: In the present document, acronyms are used in the text as if they are read either in their fully expanded form or in their alphabet names with no consistent principle.

4.1 High Level Requirements

The following high level requirements are applicable:

- 1 The supporting mechanisms should incorporate flexible modular components with open interfaces that facilitate equipment interoperability and the evolution of service providing capabilities.
- 2 The network should be sufficiently flexible to accommodate evolving enabling mechanisms and service requirements to provide new and improved services.
- 3 It shall be possible to provide multiple layers of permissions to comply with local, national, and regional privacy requirements.
- 4 Multiple positioning methods should be supported in the different Access Networks, including (but not limited to) U-TDOA, E-OTD, IPDL-OTDOA, Network Assisted GNSS (e.g. Network Assisted GPS or Network Assisted GALILEO) and methods using cell site or sector information and Timing Advance or RoundTrip Time measurements.
- 5 The location determining process should be able to combine diverse positioning techniques and local knowledge when considering quality of service parameters to provide an optimal positioning request response.
- 6 It should be possible to provide position information to location services applications existing within the PLMN, external to the PLMN, or in Mobile Equipment;
- 7 Support should be provided for networks based on an Intelligent Network architecture (i.e. with specific support for CAMEL based Location Services).
- 8 Support may optionally be provided to enable the routing of emergency calls based on the geographic coordinates (latitude and longitude) of the calling party.
- 9 It shall be possible to provide the originating party's serving cell id to the LCS client.

TSG-SA WG1 #26
Sophia Antipolis, France, 11th → 15th, 2004

S1-040987
Agenda Item: 10.2

CR-Form-v7.1	
CHANGE REQUEST	
⌘ 22.071 CR 072 ⌘ rev - ⌘ Current version: 7.0.0 ⌘	

For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.

Proposed change affects: UICC apps ME Radio Access Network Core Network

Title:	⌘ Velocity Service Description		
Source:	⌘ SA1 (LCS sub working group)		
Work item code:	⌘ LCS-R7	Date:	⌘ 11/10/2004
Category:	⌘ C	Release:	⌘ Rel-7
	Use <u>one</u> of the following categories:		Use <u>one</u> of the following releases:
	F (correction)	Ph2 (GSM Phase 2)	
	A (corresponds to a correction in an earlier release)	R96 (Release 1996)	
	B (addition of feature),	R97 (Release 1997)	
	C (functional modification of feature)	R98 (Release 1998)	
	D (editorial modification)	R99 (Release 1999)	
	Detailed explanations of the above categories can be found in 3GPP TR 21.900 .		Rel-4 (Release 4)
			Rel-5 (Release 5)
			Rel-6 (Release 6)
			Rel-7 (Release 7)

Reason for change:	⌘ Many location-based services such as turn-by-turn directions rely upon knowing the UE's velocity (speed and heading). Velocity is already defined in TS 23.032, but is not included in any messaging definitions.
Summary of change:	⌘ 1) Ensure that velocity can be available from the LCS Server to the LCS Client 2) Examples in Annex B where velocity is useful
Consequences if not approved:	⌘ LCS clients will not be able to use velocity-dependent services

Clauses affected:	⌘ 4.2.2, Annex B5.1										
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;">X</td> <td></td> </tr> <tr> <td></td> <td style="text-align: center;">X</td> </tr> <tr> <td></td> <td style="text-align: center;">X</td> </tr> </table>	Y	N	X			X		X	Other core specifications	⌘ TS 44.031, TS 25.331, TS23.271, TS 25.305, TS 48.008, TS 48.071, TS 49.031
Y	N										
X											
	X										
	X										
		Test specifications									
		O&M Specifications									
Other comments:	⌘ Related discussion paper: S1-040863										

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at <http://www.3gpp.org/specs/CR.htm>. Below is a brief summary:

- 1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under <ftp://ftp.3gpp.org/specs/> For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

*****FIRST CHANGE*****

4.2.2 Velocity

Velocity is the combination of Speed and Heading (~~bearing~~direction) of a Target UE. ~~The LCS Server may provide the Velocity of an UE.~~It shall be possible for a UE to provide its velocity to the locationLCS server.

For Value Added Services and PLMN Operator Services, the following is applicable:

Provision of the velocity of a target UE is application driven. Location Services may allow an LCS Client to request or negotiate the provision of velocity.

For Emergency Services there is no requirement to provide velocity.

*****NEXT CHANGE*****

B5.1 Navigation

The purpose of the navigation application is to guide the handset user to his/her destination. The destination can be input to the terminal, which gives guidance how to reach the destination. The guidance information can be e.g. plain text, symbols with text information (e.g. turn + distance) or symbols on the map display. If the handset's velocity is available in addition to its position, real-time, adaptable turn-by-turn directions can be provided. The instructions may also be given verbally to the users by using a voice call.

Note: this may involve a service provider giving verbal directions to a lost motorist, or providing periodic short text messages (possibly using SMS), in addition to, or as an alternative to the provision of a graphic map.

This can be accomplished through carrying a mobile phone that has location technology capabilities down to a few feet. Less granularity impedes the applicability of this functionality.

This service can either be menu driven from a handset using SIM Application Toolkit or a WAP based terminal with a map application running – similar to a GPS system. A central server may handle all mapping of locations, and may save specific locations (i.e., favorite fishing holes).

*****END OF CHANGES*****