Technical Specification Group Services and System Aspects **TSGS#15(02)0142**
Meeting #15, Jeju-do, Korea, 5-14 March 2002

Title:	**Proposed revision of the Location Services WID (Related to Release 6)**
Source:	**SA2**
Agenda item:	**7.2.3**
For:	**Approval**

This contribution contains a proposed update of the WID 'Support of Location Services in Release 5, System and Core Network aspects'.

The present WID on LCS enhancements is split in two, Release 6 related (this document) and Release 5 related (in SP-020141).

Work Item Description

Title: Support of Location Services, System and Core Network aspects in Rel-6

This Work Item describes the enhancements of location services in 3GPP from the system and core network viewpoints.

1   3GPP Work Area

	Radio Access
x	Core Network
x	Services

2   Linked work items

Location Services for GERAN in A/Gb Mode (UID 2436)
LCS for GERAN in Iu Mode (UID 2442)
The 3GPP Generic User Profile
Specification for the Le Interface(SP-010180)
Support of the Presence Service Architecture (S2-012405)
Security aspects of enhanced support for user privacy in location services (SA3)
GMLC - GMLC interface (SA2)

3   Justification

LoCation Services (LCS) provide the mechanisms to support mobile location based services for operators, subscribers and third party service providers.

This Work Item is needed in order to enhance the network support for user privacy in location services and to align between LCS specifications. Also the relationship between privacy functions in LCS and Presence and new types of periodic location reports are covered.

4   Objective

The service description stage 1 specification 22.071 shall be common for all Access Networks. The new LCS service features to be developed or studied are:

- Standardization of the Le interface, alignment of LCS specifications
The task is to align and improve 3GPP LCS specifications with LCS specifications belonging to other forums and to liase with the corresponding forums.

- Enhanced network support for user privacy and subscriber data handling
It should be studied should the network support for enhanced user privacy be made more flexible, e.g. to allow different settings depending on location or time of day. It shall be possible for the user to set or change the location related privacy parameters in the home network. The target UE user shall be protected against unwelcome LCS access from third parties using the codeword and requestor screening functions.
The Technical Report 23.871 shall be completed to finalize open issues and to describe the preferred network architecture for enhanced support for user privacy in location services. The related specifications shall be changed accordingly.

-Relationship between Location Services and Presence service

It should be studied if and how to combine the enhanced privacy functions of Location services with the privacy functions of location information in the Presence service.

- Periodic location reports
Currently only GMLC handles periodic location requests. It should be investigated whether the network elements MSC, SGSN, UE or RNC could handle periodic location reports autonomously.

The detailed LCS time plan is documented in the 3GPP Work Plan.

5   Service Aspects

Yes

6   MMI-Aspects

7   Charging Aspects

8   Security Aspects

The security aspects of enhanced support for user privacy in location service are studied in SA3.

9   Impacts

Affects:	USIM	ME	AN	CN	Others
Yes	x	x	x	x	
No					
Don't know					

10   Expected Output and Time scale (to be updated at each plenary)

New specifications						
Specification No.	Title	Prime rsp. WG	2ndary rsp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
Affected existing specifications						
Specification No.	CR	Subject		Approved at plenary#		Comments
TR23.871		Enhanced support for user privacy in location services		SA#16~~5~~		<u>Release 6 version of TR23.871</u>
22.071		Location Services (LCS); Service description, Stage 1		SA#16		
23.002		Network Architecture		SA#18		
23.271		Functional stage 2 description of LCS		SA#17		

11   Work item raporteurs

Jan Kall, Nokia

12   Work item leadership

TSG SA WG 2.

13   Supporting Companies

Nokia, Elisa Communications, Siemens, Ericsson, Vodafone, NTT DoCoMo and NEC, Lucent, Signalsoft

14   Classification of the WI (if known)

	Feature (go to 14a)
X	Building Block (go to 14b)
	Work Task (go to 14c)

14b   The WI is a Building Block: parent Feature

Building block	Work task	WG
Periodic Location reports	Investigate the implications of generating periodic location reports in MSC/SGSN, RNC or UE	SA2
Standardization of the Le interface, alignment of LCS specifications	Communicate possible needs for alignment or improvement with the corresponding standardization forums.	SA2
Enhanced network support for privacy in location services	Service requirements on enhanced network support for privacy in location services	SA1
	Complete TR 23.871 on Enhanced support for user privacy in location services.	SA2
	Stage 3 of the enhanced network support for privacy including Service Type, Codeword and Requestor concepts	CN, SA2 liaison with other forums
Relationship between Location Services and the Presence Service	Study if and how to combine privacy functions of location information between the Location and Presence services	SA2 & SA1