Title:	**Proposed WID for the Provision of an Inter-GMLC Interface and other improvements to the LCS Core Network Architecture**
Source:	**SA2**
Agenda item:	**7.2.3**
For:	**Approval**

Work Item Description

Title

 Provision of an Inter-GMLC Interface and other improvements to the LCS Core Network Architecture

1   3GPP Work Area

	Radio Access
X	Core Network
X	Services

2   Linked work items

Stage 3 work is needed within CN4 to enhance MAP. CN4 may also need to develop the GMLC-GMLC interface, or, this GMLC-GMLC interface might be referenced to specifications external to 3GPP (eg LIF).

3   Justification

The currently Location Service architecture does not appear to provide adequate protection against overload in the VPLMN; adequate charging in the VPLMN; and neither does seem to guarantee the correct treatment of privacy within the HPLMN. The specification of dedicated interfaces for inter-GMLC communication is seen as one way to alleviate these problems. For example, a common inter-GMLC interface could route authentication, user privacy, billing and other GMLC to GMLC specific messages directly between these nodes. The provision of a direct interface would also enhance security, enable local regulatory requirements to be applied and improve the "LCS interface" to emergency call handling centres.

The early specification of an inter-GMLC interface is essential to ensure network interoperability and to avoid of non-standard solutions.

4   Objective

To improve the "GMLC architecture" and to complete the standardisation tasks within the affected working groups, in particular the:

- Characterisation of the GMLC to GMLC interface;
- Definition of secure protocols;
- Privacy;
- Billing;
- Provisioning;
- Roaming;
- Provision of routing information e.g. the modification of MAP messages (S2-020646);
- Backward compatibility with the existing R'4 architecture.

Consideration should also be given to increasing commonality between GSM MAP and ANSI-41 MAP communities.

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

Task	Planned Start	Planned Finish
Work Item Revision	Feb/2002	Feb/2002
Work Item Approval		March/2002
Drafting and discussion, updates of specifications	April/2002	Oct/2002
Submission to TSG SA (and CN for approval)		Nov/2002
Possible remaining corrections and clarifications		Jan/2003

5 Service Aspects

Study impact of new architecture on existing location service aspects e.g. QoS parameters. Consider the provision of 3rd party services from anywhere to anywhere.

6 MMI-Aspects

Handling of user notifications to permit the UE to accept or reject location requests from authenticated 3rd parties.

7 Charging Aspects

The handling of billing, accounting and call detail record aspects need to be studied.

8 Security Aspects

Interface and protocol security levels commensurate with the data to be carried across the GMLC-GMLC interface. This should be discussed with SA3.
Service denial aspects.
Legal interception requirements / international considerations and roaming LCS regulatory issues.

9 Impacts

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

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

New specifications						
Spec No.	Title	Prime rsp. WG	2ndary rsp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
xx.xxx	GMLC to GMLC interface	CN 4		16	17	
Affected existing specifications						
Spec No.	CR	Subject		Approved at plenary#		Comments
23.271		Architecture and message flows				
29.002		MAP Messages				Enhancements to the MAP SRI for LCS messages etc.
22.071		General updates				
23.002		General architectural updates				

11   Work item raporteurs

tba

12   Work item leadership

SA2

13   Supporting Companies

Vodafone, mmO2, SignalSoft, Elisa Communications, Ericsson, NTT DoCoMo, Telecom Italia, Nokia, Siemens, Lucent, NEC, One2One Personal Communications

14   Classification of the WI (if known)

This Work Item is a Building Block of the LCS enhancement feature.