3GPP TSG SA WG3 Security — S3#20 **S3-010478**

16 - 19 October, 2001, Sydney, Australia

3GPP TSG-SA WG3 LI ***Tdoc S3LI01_096***
Saarbrueken, Germany, 21-23 August 2001

CR-Form-v3

CHANGE REQUEST

⌘ **33.107** **CR** **xxx** ⌘ rev **-** ⌘ Current version: **3.3.0** ⌘

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

Proposed change affects: ⌘ (U)SIM ☐ ME/UE ☐ Radio Access Network ☐ Core Network ☒

Title:	⌘	Correct the MO-SMS and MT-SMS events
Source:	⌘	S3-LI
Work item code:	⌘	Lawful Interception stage 2
Date:	⌘	July 31, 2001
Category:	⌘	**F** By consensus
Release:	⌘	R99

Use one 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 one 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)

Reason for change:	⌘	Currently, 33.107 states that the MO-SMS and MT-SMS events are to be reported to the LEA if and only if the SMS transfer is successful (to the MS for MT-SMS and to the SMSC for MO-SMS). However, the requirement in the US is that the message be sent to the LEA whether or not the transmission is successful.
Summary of change:	⌘	SMS sections are reworded so that the event can be optionally sent to the LEA after an "SMS delivered" positive acknowledge is received from the MS or the SMCS, or immediately after a SMS message is received from the SMCS or the MS, regardless of its delivery acknowledgement status. The change indicates that the determination of when the SMS events should be sent to the LEA is dependent on national regulatory requirements.
Consequences if not approved:	⌘	GSM and UMTS systems deployed in the US would not be compliant with the FCC requirement that SMS messages are transmitted to the LEA whether or not they are sucessfully delivered to their ultimate destination.

Clauses affected:	⌘	6.2; 6.3.4.1; 7.1; 7.4.7; B.10
Other specs affected:	⌘	☐ Other core specifications ⌘ ☐ Test specifications ☐ O&M Specifications
Other comments:	⌘	

****** FIRST MODIFIED SECTION ******

6.2 Provision of CC - Short Message Service

Figure 14 shows an SMS transfer from the 3G MSC to the LEMF. Quasi-parallel to the delivery from / to the mobile subscriber a message, which contains the contents of the SMS with the header, is generated and sent via the Delivery Function 2 to the LEMF in the same way as the Intercept Related Information.

The IRI will be delivered to the LEMF:

- for a SMS-MO. Dependent on national requirements, delivery shall occur either ~~,~~ when the 3G MSC receives the SMS from the target MS, or when the 3G MSC receives notification that the SMS-Centre successfully received~~s~~ the SMS.~~;~~
- for a SMS-MT. Dependent on national requirements, delivery shall occur either~~,~~ when the ~~MS~~ 3G MSC receives the SMS from the SMSC, or when the 3G MSC receives notification that the target MS successfully received the SMS~~.~~

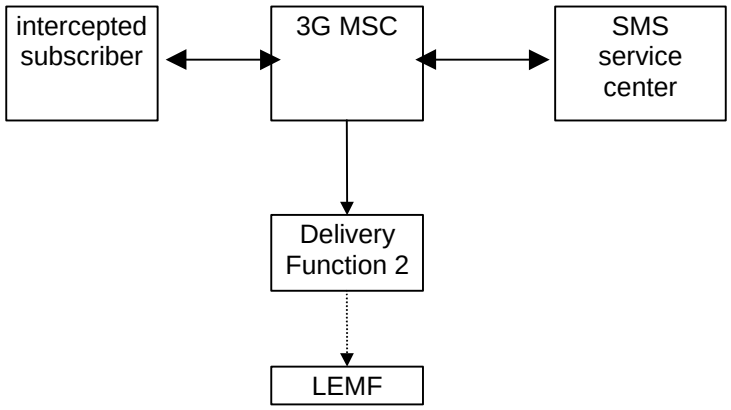

Figure 14: Provision of Content of Communication - Short Message Service

****** NEXT MODIFIED SECTION ******

6.3.4.1 SMS

For MO-SMS the event is generated in the 3G MSC. Dependent on national requirements, event generation shall occur either when the 3G MSC receives the SMS from the target MS or when the 3G MSC receives notification that the SMSC successfully receiveds the SMS; for MT-SMS the event is generated in the 3G MSC. Dependent on national requirements, event generation shall occur- either when the 3G MSC receives the SMS from the SMSC or when the 3G MSC receives notification that the target MS successfully receiveds the message. This information will be delivered to the DF2 if available:

Observed MSISDN
Observed IMSI
event type
event date
event time
Location Information
SMS Message

****** NEXT MODIFIED SECTION ******

7.1 Provision of Intercept Product - Short Message Service

Figure 19 shows an SMS transfer from the 3G SGSN node to the LEA. Quasi-parallel to the delivery from / to the mobile subscriber a message, which contains the content and header of the SMS, is generated and sent via the Delivery Function 2P to the LEA in the same way as the Intercept Related Information.

The IRI will be delivered to the LEA:

- for a SMS-MO. Dependent on national requirements, delivery shall occur either when the 3G SGSN receives the SMS from the target MS or when the 3G SGSN receives notification that the SMS-Centre successfully receiveds the SMS.;
- for a SMS-MT. Dependent on national requirements, delivery shall occur either when the 3G SGSN receives the SMS from the SMS-Centre or when the 3G SGSN receives notification that the target MS successfully receiveds the SMS.

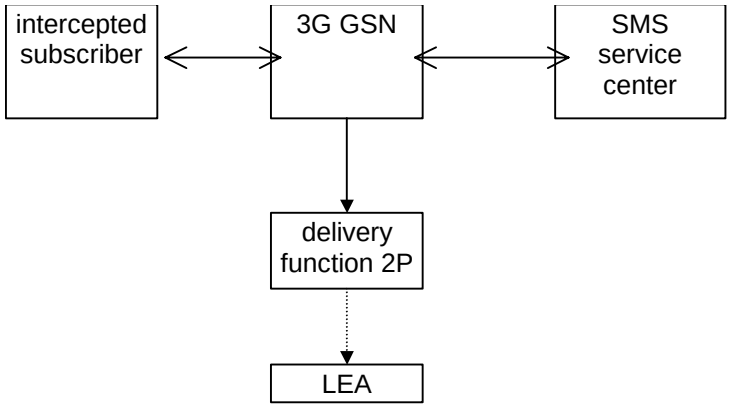

Figure 19: Provision of Intercept Product - Short Message Service

****** NEXT MODIFIED SECTION ******

7.4.7 SMS

For MO-SMS the event is generated in the 3G SGSN. Dependent on national requirements, event generation shall occur either when the 3G SGSN receives the SMS from the target MS or when the 3G SGSN receives notification that the SMS-Centre successfully receiveds the SMS; for MT-SMS the event is generated in the 3G SGSN. Dependent on national requirements, event generation shall occur either when the 3G SGSN receives the SMS from the SMS-Centre or when the 3G SGSN receives notification that the target MS successfully receiveds the message. This fields will be delivered to the DF2P if available:

Observed MSISDN
Observed IMSI
Observed IMEI
Event Type
Event Time
Event Date
Routing area code
SMS
IAs (if applicable)

****** NEXT MODIFIED SECTION ******

B.10 SMS

Figure B.9 and B.10 show the interception of a Mobile-terminated SMS. Figure B.11 and .B12 show the interception of a ~~and a~~ Mobile-originated SMS. ~~transfer where~~ In all the scenarios, the mobile subscriber (A) is the target for interception.~~.~~

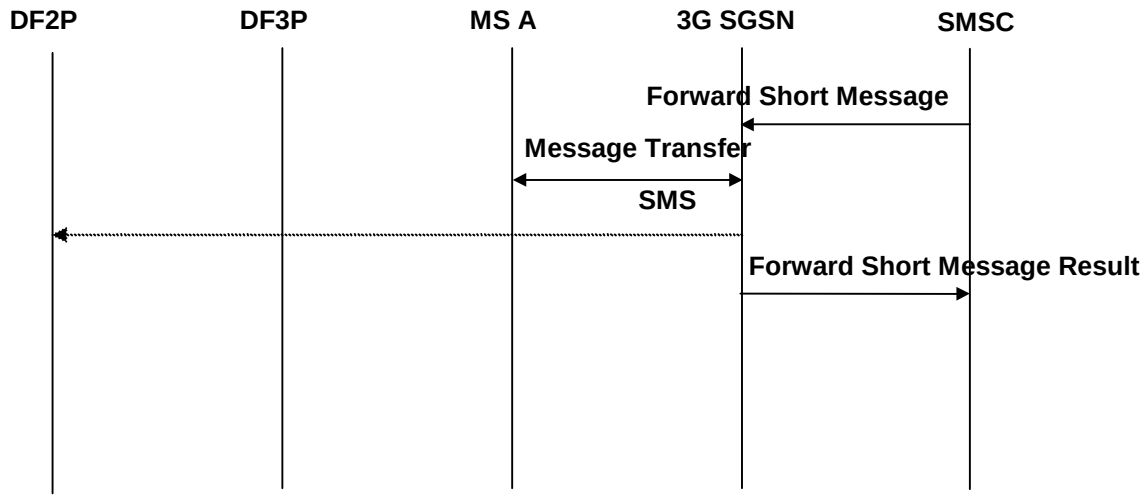

Figure B.9: ~~Interception of a Mobile-terminated SMS transfer~~MT-SMS interception after 3G SGSN receives notification of SMS delivery to MS(A)

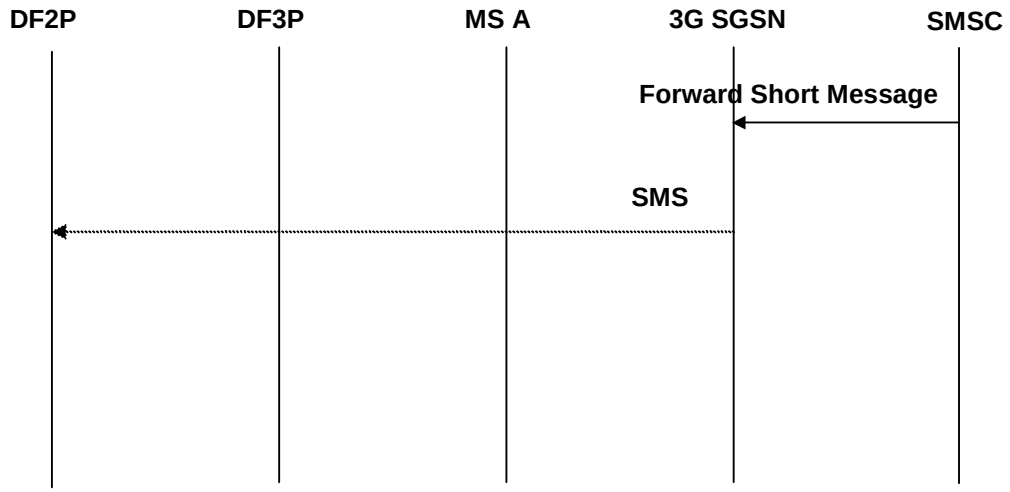

Figure B.10: MT-SMS interception after 3G SGSN receives SMS from SMSC

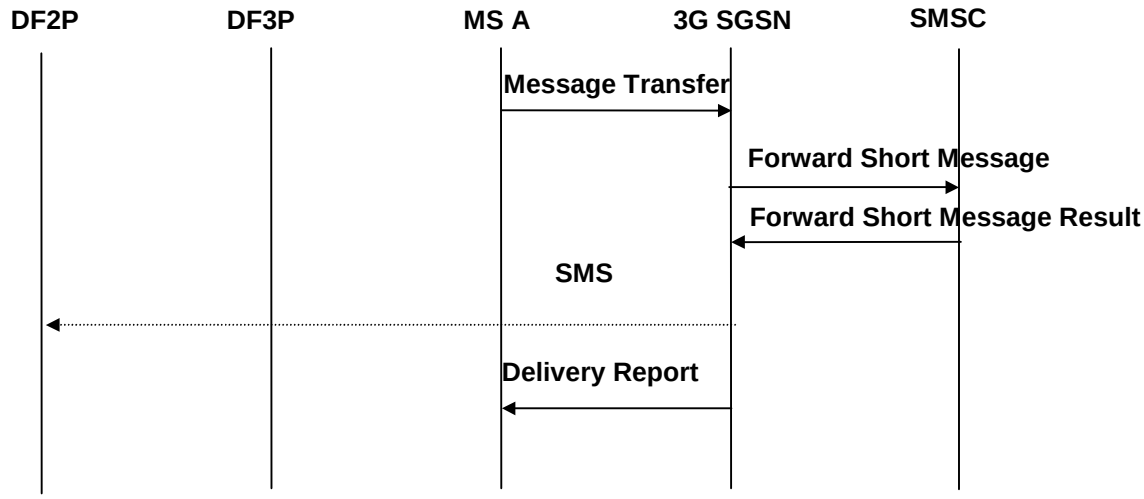

Figure B.110: ~~Interception of a Mobile-originated SMS transfer~~MO-SMS interception after 3G SGSN receives notification of SMS delivery from SMSC

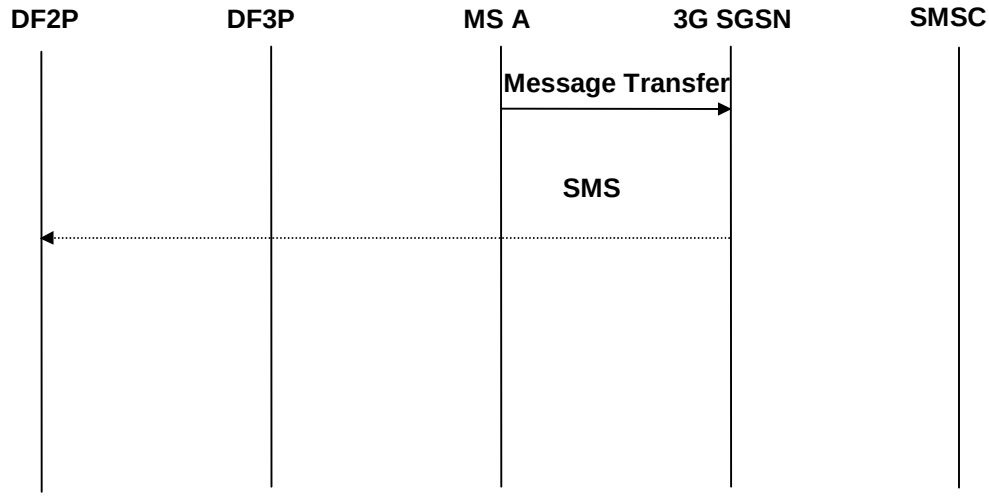

Figure B.12 MO-SMS interception after 3G SGSN receives SMS from MS(A)