
Source: SA WG3

Title: 3 CRs to 33.107: Correct the MO-SMS and MT-SMS events
(Rel-99, Rel-4, Rel-5)

Document for: Approval

Agenda Item: 7.3.3

Spec	CR	Rev	Phase	Cat	Subject	Version-Current	Version-New	Doc-2nd-Level
33.107	012		R99	F	Correct the MO-SMS and MT-SMS events	3.3.0	3.4.0	S3-010514
33.107	013		Rel-4	A	Correct the MO-SMS and MT-SMS events	4.1.0	4.2.0	S3-010515
33.107	014		Rel-5	A	Correct the MO-SMS and MT-SMS events	5.0.0	5.1.0	S3-010516

CHANGE REQUEST

⌘ **33.107 CR 012** ⌘ 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:	⌘ SA WG3		
Work item code:	⌘ Lawful Interception stage 2	Date:	⌘ July 31, 2001
Category:	⌘ F By consensus	Release:	⌘ R99
	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)

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 successfully delivered to their ultimate destination.

Clauses affected:	⌘ 6.2; 6.3.4.1; 7.1; 7.4.7; B.10		
Other specs affected:	⌘ <input type="checkbox"/> Other core specifications <input type="checkbox"/> Test specifications <input type="checkbox"/> 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 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.

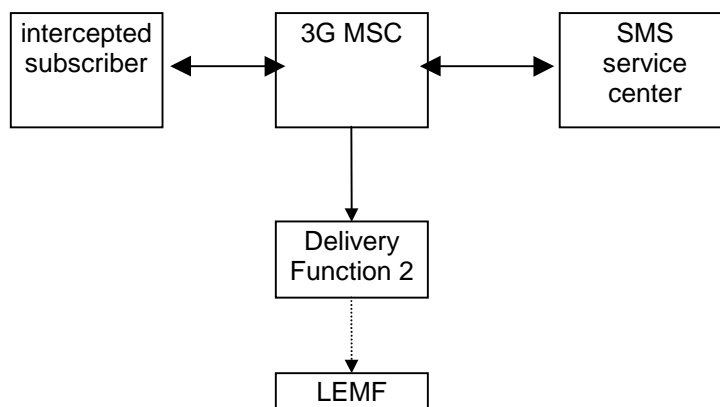


Figure 14: Provision of Content of Communication - Short Message Service

**** 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.

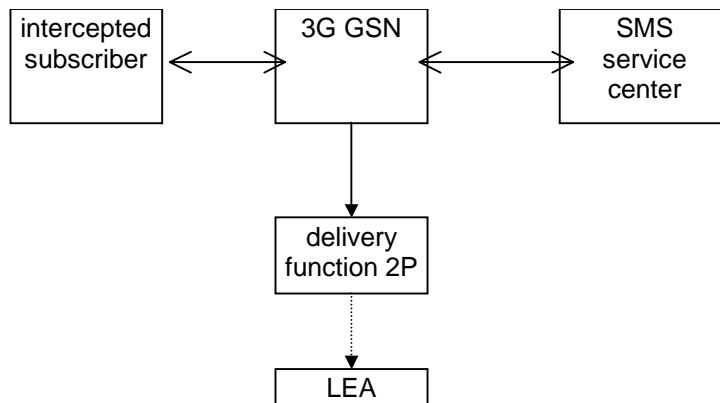


Figure 19: Provision of Intercept Product - Short Message Service

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

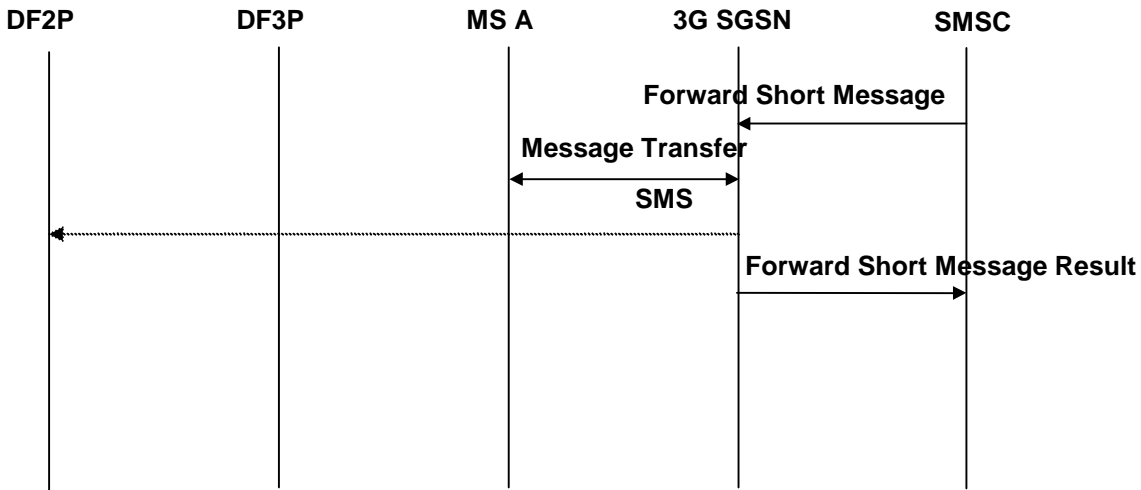


Figure B.9a: Interception of a Mobile-terminated SMS transfer MT-SMS interception after 3G SGSN receives notification of SMS delivery to MS(A)

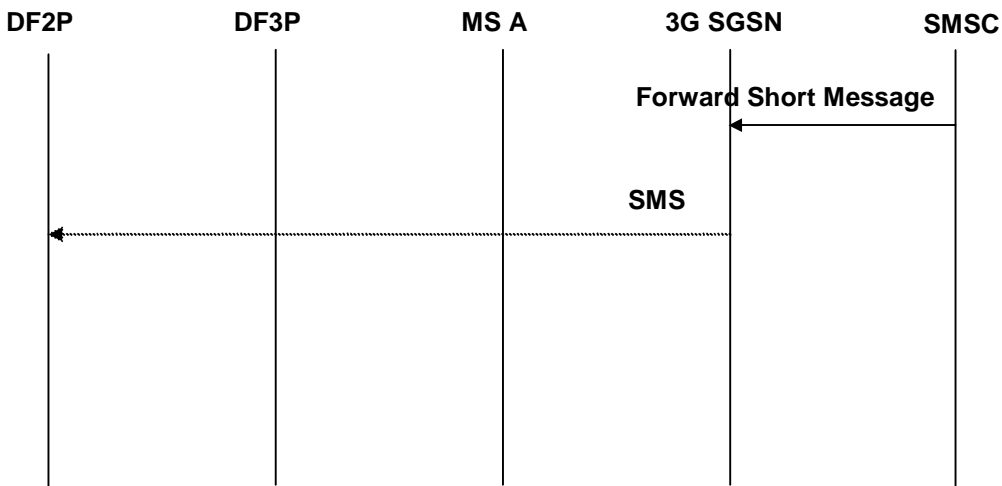


Figure B.9b: MT-SMS interception after 3G SGSN receives SMS from SMSC

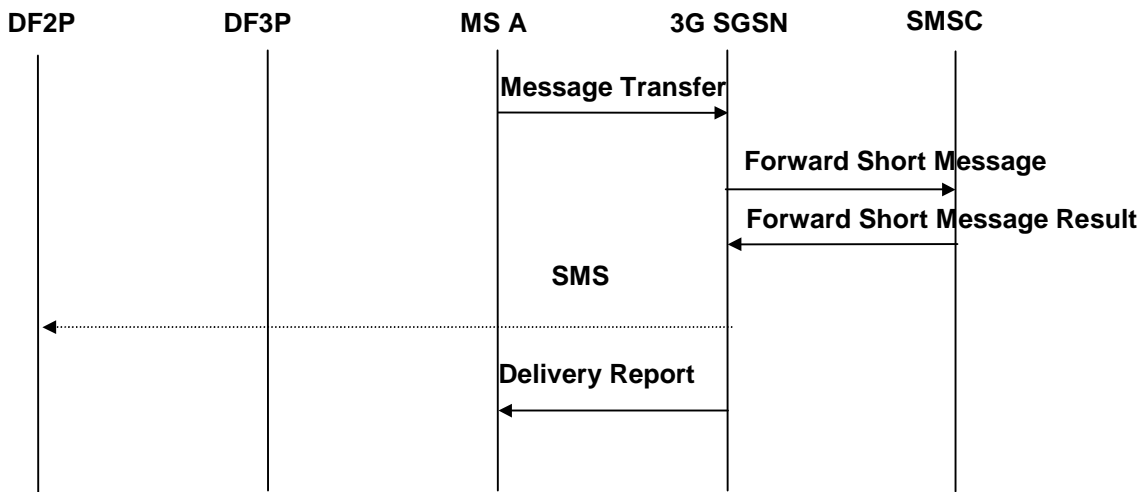


Figure B.10a: Interception of a Mobile-originated SMS transfer
MO-SMS interception after 3G SGSN receives notification of SMS delivery from SMSC

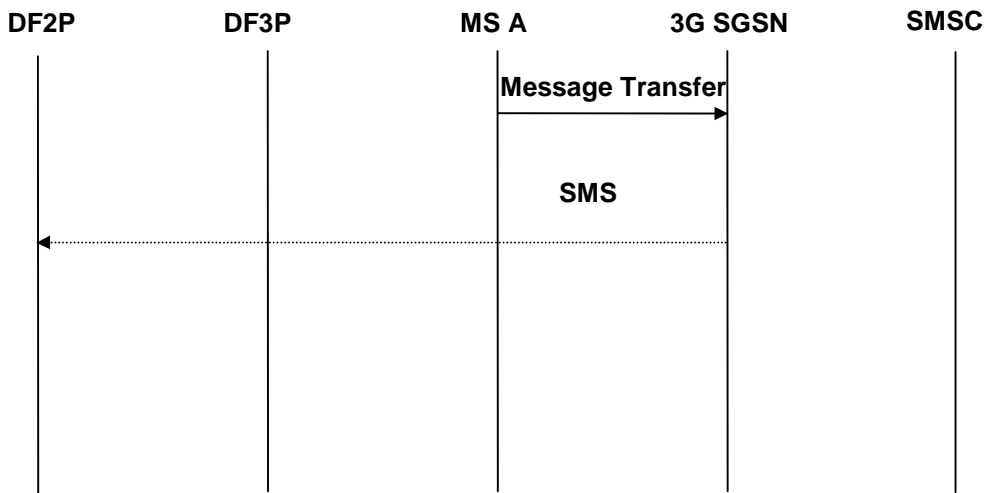


Figure B.10b: MO-SMS interception after 3G SGSN receives SMS from MS(A)

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CHANGE REQUEST

⌘ **33.107 CR 013** ⌘ rev **-** ⌘ Current version: **4.1.0** ⌘

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:	⌘ SA WG3		
Work item code:	⌘ SEC1-LI	Date:	⌘ July 31, 2001
Category:	⌘ A By consensus	Release:	⌘ REL-4
	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)

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 successfully delivered to their ultimate destination.

Clauses affected:	⌘ 6.2; 6.3.4.1; 7.1; 7.4.7; B.10	
Other specs affected:	⌘ <input type="checkbox"/> Other core specifications <input type="checkbox"/> Test specifications <input type="checkbox"/> 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 Server 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 receiveds the SMS;
- for a SMS-MT. Dependent on national requirements, delivery shall occur either, when the 3G MSCMS receives the SMS from the SMSC, or when the 3G MSC receives notification that the target MS successfully received the SMS.

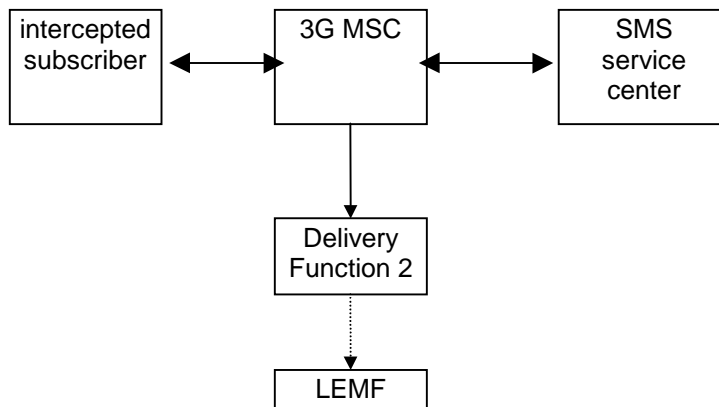


Figure 14: Provision of Content of Communication - Short Message Service

**** NEXT MODIFIED SECTION ****

6.3.4.1 SMS

For MO-SMS the event is generated in the 3G MSC Server. Dependent on national requirements, event generation shall occur either when the 3G MSC Server receives the SMS from the target MS or, when the 3G MSC Server receives notification that the SMSC successfully receiveds the SMS; for MT-SMS the event is generated in the 3G MSC Server. Dependent on national requirements, event generation shall occur either when the 3G MSC Server receives the SMS from the SMSC or when the 3G MSC Server 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
Network Element Identifier
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 2 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.

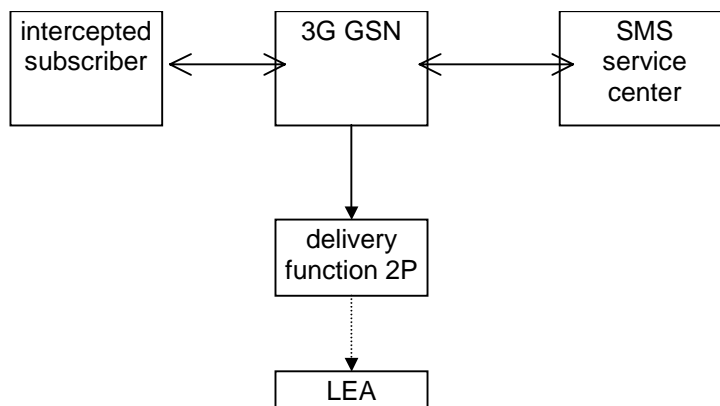


Figure 19: Provision of Intercept Product - Short Message Service

**** 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 DF2 if available:

Observed MSISDN
Observed IMSI
Observed IMEI
Event Type
Event Time
Event Date
Network Element Identifier
Location Information
SMS
IAs (if applicable)

B.10 SMS

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

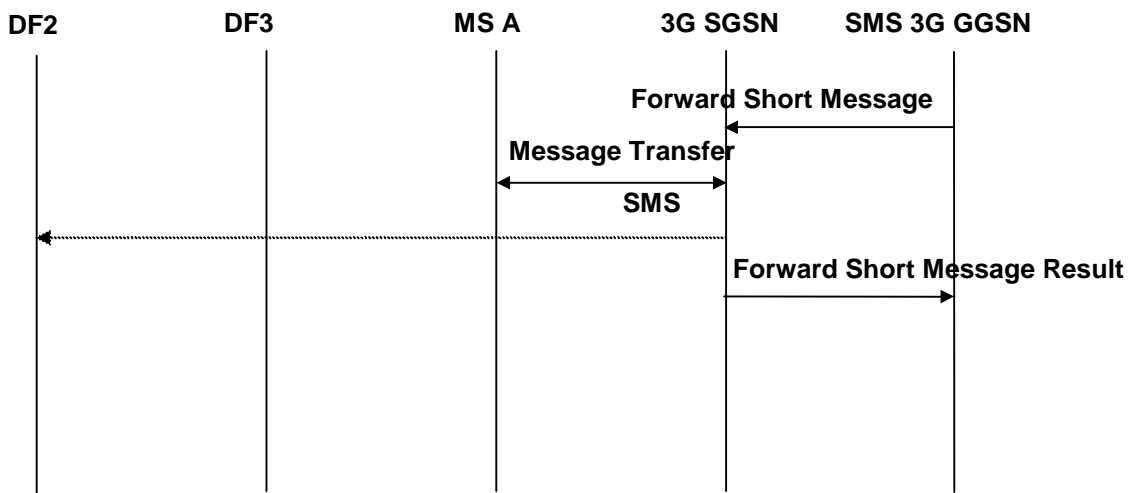


Figure B.9a: Interception of a Mobile-terminated SMS transfer MT-SMS interception after 3G SGSN receives notification of SMS delivery to MS(A)

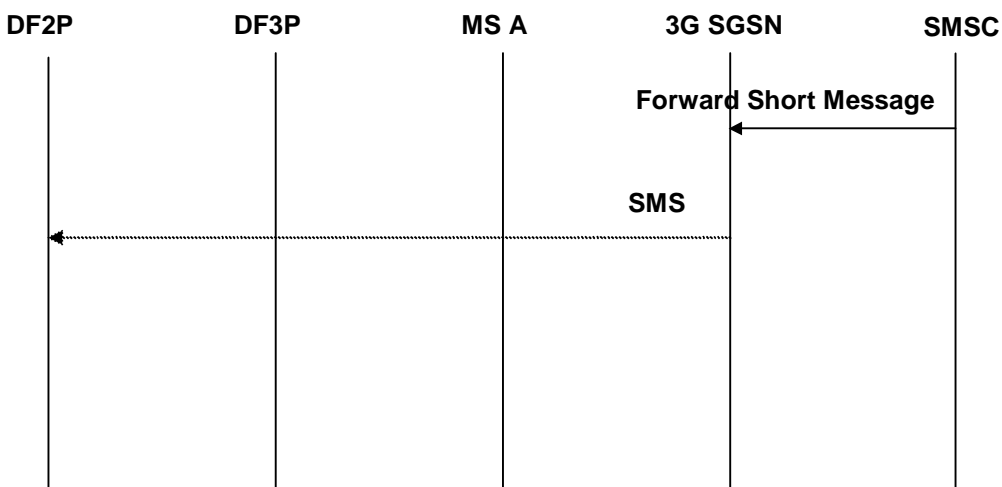


Figure B.9b: MT-SMS interception after 3G SGSN receives SMS from SMSC

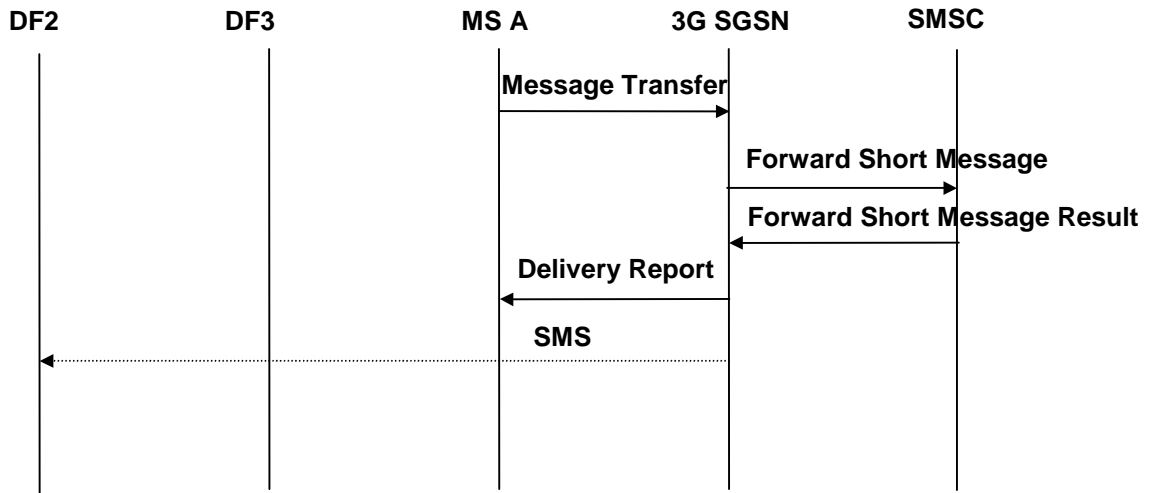


Figure B.10a: Interception of a Mobile-originated SMS transferMO-SMS interception after 3G SGSN receives notification of SMS delivery from SMSC

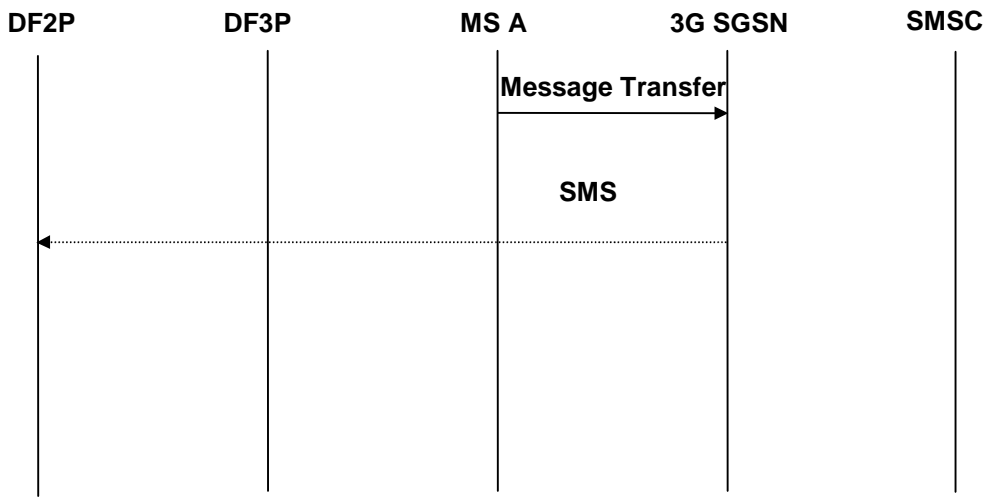


Figure B.10b MO-SMS interception after 3G SGSN receives SMS from MS(A)

CR-Form-v3

CHANGE REQUEST

⌘ **33.107 CR 014** ⌘ rev **-** ⌘ Current version: **5.0.0** ⌘

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

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

Title:	⌘ Correct the MO-SMS and MT-SMS events		
Source:	⌘ SA WG3		
Work item code:	⌘ SEC1-LI	Date:	⌘ September 5, 2001
Category:	⌘ A By consensus	Release:	⌘ REL-5
	<p><i>Use <u>one</u> of the following categories:</i></p> <p>F (correction) A (corresponds to a correction in an earlier release) B (Addition of feature), C (Functional modification of feature) D (Editorial modification)</p> <p>Detailed explanations of the above categories can be found in 3GPP TR 21.900.</p>		<p><i>Use <u>one</u> of the following releases:</i></p> <p>2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) REL-4 (Release 4) REL-5 (Release 5)</p>

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 successfully delivered to their ultimate destination.

Clauses affected:	⌘ 6.2; 6.3.4.1; 7.1; 7.4.7; B.10										
Other specs affected:	<table style="border: none;"> <tr> <td style="width: 15px;"><input type="checkbox"/></td> <td>Other core specifications</td> <td style="width: 15px;">⌘</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Test specifications</td> <td></td> </tr> <tr> <td><input type="checkbox"/></td> <td>O&M Specifications</td> <td></td> </tr> </table>	<input type="checkbox"/>	Other core specifications	⌘	<input type="checkbox"/>	Test specifications		<input type="checkbox"/>	O&M Specifications		
<input type="checkbox"/>	Other core specifications	⌘									
<input type="checkbox"/>	Test specifications										
<input type="checkbox"/>	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 Server 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 receiveds 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.

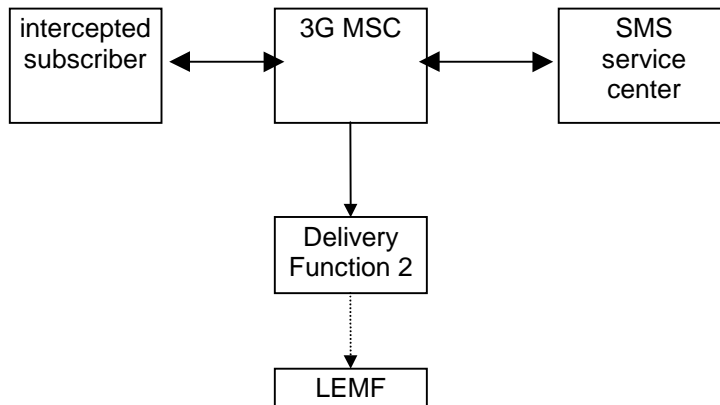


Figure 14: Provision of Content of Communication - Short Message Service

**** NEXT MODIFIED SECTION ****

6.3.4.1 SMS

For MO-SMS the event is generated in the 3G MSC Server, Dependent on national requirements, event generation shall occur either when the 3G MSC Server receives the SMS from the target MS or, when the 3G MSC Server receives notification that the SMSC successfully receiveds the SMS; for MT-SMS the event is generated in the 3G MSC Server, Dependent on national requirements, event generation shall occur either when the 3G MSC Server receives the SMS from the SMSC or when the 3G MSC Server 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
Network Element Identifier
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 2 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.

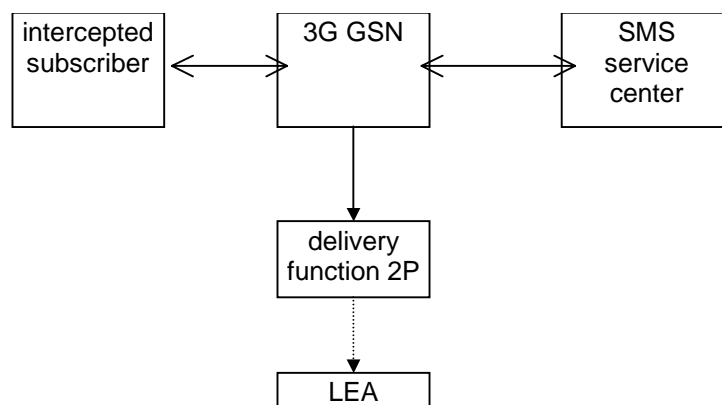


Figure 19: Provision of Intercept Product - Short Message Service

**** 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 DF2 if available:

Observed MSISDN
Observed IMSI
Observed IMEI
Event Type
Event Time
Event Date
Network Element Identifier
Location Information
SMS
IAs (if applicable)

B.10 SMS

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

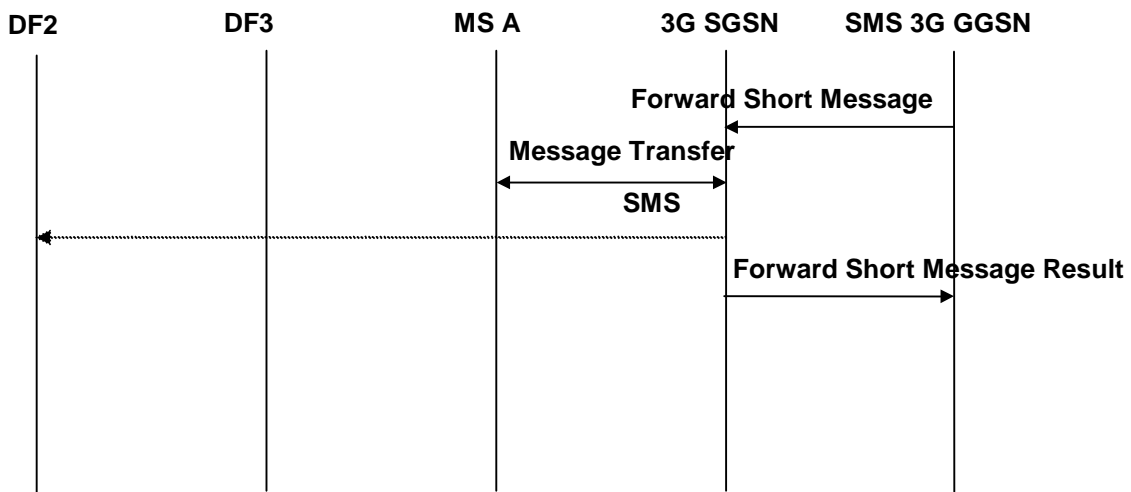


Figure B.9a: Interception of a Mobile-terminated SMS transfer MT-SMS interception after 3G SGSN receives notification of SMS delivery to MS(A)

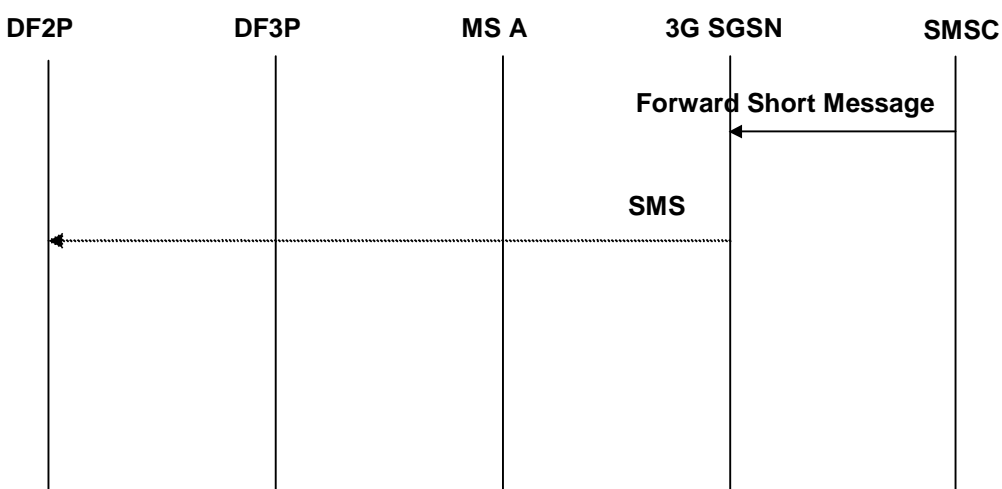


Figure B.9b: MT-SMS interception after 3G SGSN receives SMS from SMSC

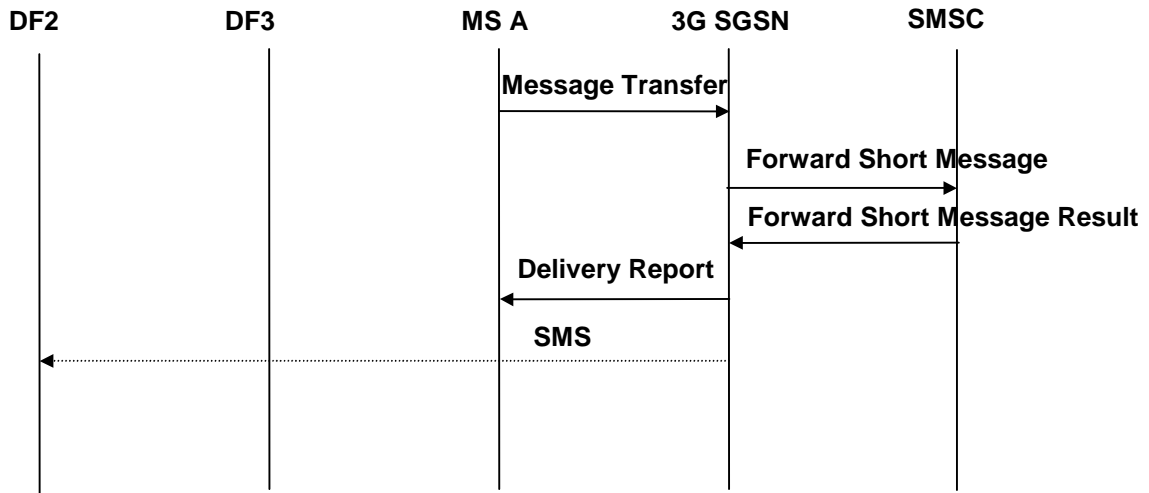


Figure B.10a: Interception of a Mobile-originated SMS transfer
MO-SMS interception after 3G SGSN receives notification of SMS delivery from SMSC

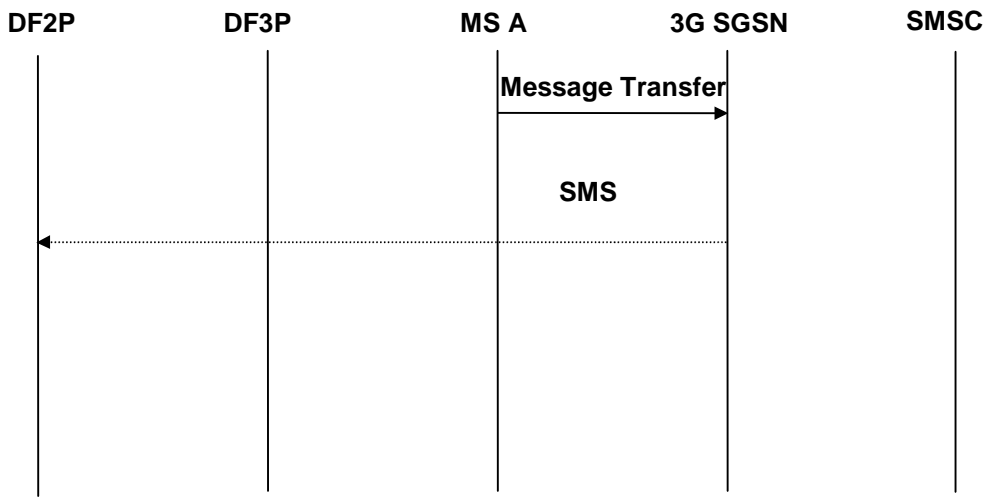


Figure B.10b: MO-SMS interception after 3G SGSN receives SMS from MS(A)