



Agreement for International SMS Hubbing Services
7.0
12 March 2012

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Agreement for International SMS Hubbing Services

Between

<Operator A>,

Having its registered address:

.....

(Hereinafter referred to as "Client Operator")

And

< [SMS Transit Service Provider] >
having its registered address:

.....

(Hereinafter referred to as "SMSIP")

(Together "the Parties")

1 Introduction

1.1 The SMSIP operates the SMS Hubbing Service (the Service) as defined in Annex 1 hereto (Definitions) which enables the international transit of SMS sent between telecommunications networks.

1.2 Upon the terms and subject to the conditions set out in this Agreement for International SMS Hubbing Services (the Agreement'), the Parties wish to establish terms and conditions for:

The supply of the Service and other associated services by the SMSIP to the Client Operator whereby the SMSIP agrees to convey SMS received from the Client Operator System to the Participating Operator's Systems run by each Participating Operator either directly or via Third Party/ies SMSIP System for delivery to a Recipient Device; and The provision of SMS Termination Services and other associated services by the Client Operator to the SMSIP whereby the Client Operator agrees to convey SMS received from the SMSIP System to a Recipient Device and whereas (for the avoidance of doubt) SMS sent from the SMSIP System to the Client Operator System may be:

- Data received by the SMSIP from the Participating Operator System of a Participating Operator Elected by the Client Operator; or
- Data received by the SMSIP System from a Participating Operator Elected by the Client Operator via a Third Party SMSIP System.

2 Definitions and Interpretation

2.1 In addition to those words and expressions otherwise defined in this Agreement, the definitions set out in Annex 1 shall apply in respect of this Agreement unless the context otherwise requires.

2.2 The parties will be compliant with the Open Connectivity High Level Requirements and SMS Hubbing Architecture IR.75, version 7.0 of the 9th March 2007, and will do their best endeavour to be compliant with their future versions.

2.3 The Annexes, including the Overview of the Annex Structure, constitute an integral part of the Agreement. In case of discrepancy between different parts of the Agreement the following order of interpretation shall be applied:

- The main body of this Agreement;
- The Annexes

2.4 In case of additional requirements, exceptions and/or contradictions between the Agreement and any of the Technical Specifications or GSM Association Permanent Reference Documents, the provisions of the Agreement shall prevail.

2.5 The headings of this Agreement are for the convenience of reference only and shall in no way limit or affect the meaning or interpretation of the provisions of the Agreement.

3 Access

- 3.1 The Parties shall connect and keep connected the SMSIP System and the Client Operator System in accordance with the provisions of this Agreement (including the annexes hereto).
- 3.2 The SMSIP will provide the Service based on both kind of connectivity/technology: SMPP and SS7.
- 3.3 The Parties shall mutually determine and agree upon the appropriate method of interconnection, i.e. SS7 or IP.
- 3.4 The responsibility over the connection between the SMSIP and the Client Operator will be dependent upon the way such connection has been agreed by the Parties and consequently established.
- 3.5 The level of performance of the connectivity between the Client Operator and the SMSIP shall be covered by an SLA, relevant to said connectivity and is outside the scope of this Agreement.

4 SMS Hubbing Service

- 4.1 The SMSIP shall, in it's own name and on its own account and behalf:
 - Provide to the Client Operator the Service in accordance with the provisions set out in this Agreement (including the Annexes hereto);
 - Procure the necessary additional SMS Hubbing services from Third Party SMSIPs;
 - In order to facilitate the Successful Routing of SMS (i) from the Client Operator System to the Participating Operator System of a Participating Operator which elects to receive SMS traffic from the Client Operator by means of the Service provided by the SMSIP; and (ii) from the Participating Operator System of a Participating Operator Elected by the Client Operator to the Client Operator System, with a level of performance in line with the Service Level Agreement attached hereto.
- 4.2 **[OPTIONAL]** The Client Operator shall use the Service in accordance with the applicable Operational Procedures (Annex 14 hereto) and Technical Description (Annex 16 hereto).
- 4.3 The Client Operator shall provide to the SMSIP the Client Operator's SMS Termination Service, in line with the Annex 7 and 16 hereto, e.g. the Interconnection and Operational Procedures in relation to SMS received from the SMSIP in respect of which an Elected Participating Operator is the Originating Operator.
- 4.4 The list of Participating Operators Elected by the Client Operator shall be updated on a monthly basis in accordance with the procedures described in Article 6 hereto.
- 4.5 Upon request from the SMSIP, the Client Operator shall provide forecast information in accordance with Annex 15 hereto.

4.6 Neither Party shall send any SMS to the other Party's System which originates from a third party's telecommunications network other than:

- (In the case of the SMSIP) SMS originating from a Customer of a Participating Operator who is Elected by the Client Operator; and
- (In the case of the Client Operator) an entity (i.e MVNOs, ISPs) provided that the Client Operator has entered into a separate agreement with such MVNO to provide mobile virtual network services by means of the Client Operator System and provided that the traffic is inter-personal traffic only.

4.7 The SMSIP has responsibility in the end-to-end service delivery. Therefore the SMSIP chooses the routing to be used for the delivery of the Client Operator's traffic up to the Elected Participating Operator's network, provided that the QoS levels remain unchanged.

4.8 Nothing in this Agreement shall be construed as imposing any requirement or obligation upon the Client Operator to convey SMS to the SMSIP System.

5 Service commencement and SMS Interworking commencement

5.1 The commencement of the Service and of SMS Interworking will be scheduled by mutual consent of the SMSIP and the Client Operator (Service Commencement Date).

5.2 In relation to the commencement of the SMS Interworking and without prejudice to the other obligations of the Parties set out in this Agreement:

- The SMSIP shall be under no obligation to provide the Service in respect of any Participating Operator until the Service Commencement Date in respect of that Participating Operator has passed; and
- The Client Operator shall be under no obligation to provide the Client Operator's SMS Termination Service in respect of any Participating Operator Elected by the Client Operator until the Service Commencement Date in respect of that Participating Operator has passed.

6 Participating Operator Termination Charges / Election of Participating Operators

6.1 The SMSIP agrees to convey the Client Operator's SMS traffic received from the Client Operator System to the Participating Operator's Systems run by each Participating Operator either directly or via any Third Party SMSIP.

6.2 The SMSIP shall list in Annexes 10 to 12 the following information:

- All Participating Operators, Elected or not by the Client Operator, accessible through the SMSIP directly or indirectly (i.e. through Third Party/ies SMSIP)
- The Participating Operators Termination Charges (in the currency of the Participating Operator, and in the Invoicing Currency, together with the

exchange rate used for any necessary conversions from the currency of the Participating Operator to the Invoicing Currency.)

- The Participating Operators Service Parameters.

The information detailed in Annexes 10 to 12 is the information existing as of the Effective Date.

6.3 No less than seven (7) days before the beginning of each Invoice Period, the SMSIP shall provide the Client Operator with a list (which is deemed to automatically amend Annexes 10 to 12) setting out all information from Annexes 10 to 12, and updates thereto, and the following information:

- Any new Participating Operators and their corresponding Termination Charges (in the currency of the Participating Operator, and in the Invoicing Currency, together with the exchange rate used for any necessary conversions from the currency of the Participating Operator to the Invoicing Currency) and their Service Parameters.
- On request the SMSIP will provide its Client Operator the list of Participating Operators accessible directly or indirectly as well as the list of one way or two-way traffic destinations.
- Indication on whether or not the Participating Operator is considered an OC Compliant Destination. Non-compliant destinations included within the list must also include the appropriate reason for non-compliance.

6.4 With respect to each Invoice Period, the currency conversion methods and dates for determining the currency exchange rate to be used by the SMSIP to make any necessary currency conversions with respect to any Participating Operator Termination Charges shall be in accordance with the guidelines defined in GSMA PRD BA.11.

6.5 In response to the receipt by the SMSIP of the list mentioned above in section 6.3, the Client Operator may :

[SELECT BETWEEN]:

[DEFAULT MECHANISM] OPT-OUT Mechanism: X days prior to the commencement of the Invoice Period to which the list relates, notify the SMSIP of any Participating Operator contained in the list in respect of which the Client Operator does not wish to have SMS Interworking activated via the SMSIP. Participating Operators shall be deemed to be Elected for the purposes of this Agreement provided that such a notice is not given in respect of them by the Client Operator to the SMSIP prior to the commencement of the Invoice Period to which the list relates.

or

[ALTERNATIVE MECHANISM] OPT-IN Mechanism: X days prior to the commencement of the Invoice Period to which the list relates, notify the SMSIP of any Participating Operator contained in the list in respect of which the Client Operator does wish to have SMS Interworking activated via the SMSIP. Participating Operators shall be deemed to

be Elected for the purposes of this Agreement provided that such a notice is given in respect of them by the Client Operator to the SMSIP prior to the commencement of the Invoice Period to which the list relates,

6.6 The Mechanism as defined in clause 6.5 is the mechanism by default agreed between the Client Operator and the SMSIP at the signature of this Agreement and can be changed at any time upon a new written agreement between the Parties.

6.7 In respect of the establishment of SMS Interworking between the Client Operator and a new Participating Operator Elected by the Client Operator:

- The SMSIP shall commence the provision of the Service on and from beginning of the Invoice Period following the election of the Participating Operator notified by the Client Operator to the SMSIP (Service Commencement Date) and may commence charging for such services on and from the same date;
- The Client Operator shall (without prejudice to any other obligations it may have under this Agreement) be under no obligation to provide the Client Operator's SMS Termination Service in respect of that Elected Participating Operator unless and until the Service Commencement Date has passed.

6.8 Each Party may remove any Participating Operator from the list of Participating Operators set out in Annexes 10,11 (and if the Participating Operator in question is Elected, also Annex 12) at any time upon at least sixty (60) days' prior written notice (where such notice is given by the Client Operator) and at least thirty (30) days' prior written notice (where such notice is given by the SMSIP). As a result, with effect from the expiry of such notice:

- Neither Party shall have any further obligation to provide the Service in respect of the Participating Operator specified in the notice;
- and
- The Parties shall be deemed to have amended this Agreement by deleting references to that Participating Operator from Annex 10 and 11 and (if the Participating Operator in question is Elected also Annex 12).

7 Suspension

7.1 The SMSIP may without liability at any time and with immediate effect suspend part or all of the operation of the Service in respect of the Client Operator or a Participating Operator where, in the SMSIP's reasonable opinion:
The relevant Party is using the SMS Interworking in a way which is fraudulent, unlawful or unauthorized;
The SMSIP suspects or has reason to suspect fraudulent, unlawful or unauthorized use of the SMS Interworking or the Service by the Client Operator, by Customers or by a Participating Operator or by a Third Party SMSIP.

The Client Operator, a Customer or Participating Operator or Third Party SMSIP is using equipment or utilizing the SMS Interworking or the Service in a way which damages or is likely to cause damage to the SMSIP's or to the Client Operator's System or any part thereof.

7.2 In the event that the SMSIP suspends the operation of the Service (in whole or in part) pursuant to this Article, the SMSIP shall as soon as reasonably practicable provide to the Client Operator written reasons for such suspension.

7.3 The SMSIP may without liability suspend part or all of the operation of the Service in respect of a Participating Operator where, in the SMSIP's reasonable opinion it is not commercially viable for the SMSIP to provide the Service as a result of a deduction or withholding tax being applicable to the payment of charges by the Client Operator in respect of the termination of SMS on that Participating Operator's Network. The SMSIP shall give the Client Operator as soon as reasonably practicable of any suspension of the Service pursuant to this Article. The SMSIP ensure that any such notice is given in writing and includes full details of the reasons for any such suspension.

7.4 If deduction or withholding tax applied to the payment of charges by the Client Operator makes the Service not commercially viable with respect of the termination of the SMS on any Elected Participating Operator's Network, the SMSIP may modify the charges accordingly. Prior to any modification of the charges, the SMSIP should send a notice to the Client Operator providing for the two alternative solutions of:

A suspension of the Service as per this article

A proposal for charges modification

7.5 The Client Operator may without liability at any time and with immediate effect suspend part or all of the operation of the Client Operator's SMS Termination Service in respect of one or more Participating Operators Elected by the Client Operator where, in the Client Operator's reasonable opinion:

The SMSIP, a Participating Operator or a Third Party SMSIP is using equipment or utilizing the Client Operator's Termination Service in a way which is fraudulent, unlawful or unauthorized;

The Client Operator suspects or has reason to suspect fraudulent, unlawful or unauthorized use of the Client Operator's Termination Service by the SMSIP, a Participating Operator or a Third Party SMSIP.

The SMSIP, a Participating Operator or a Third Party SMSIP is using equipment or utilizing the Client Operator's SMS Termination Service in a way which damages or is likely to cause damage to the Client Operator System or any part thereof.

7.6 In the event that the Client Operator suspends the operation of the Client Operator's SMS Termination Service (in whole or in part) pursuant to this Article, the Client Operator:

Shall promptly provide to the SMSIP written reasons for such suspension;

and

The Client Operator will notify the SMSIP of such suspension within 24 hours after having identified any event pursuant to this Article. Following such notification it will be the SMSIP's responsibility to not transmit any message to the Client Operator (in total or with respect to the Elected Participating Operator to whom the termination service has been suspended – depending upon the notification received by the Client Operator). Should a message be sent, the Client Operator will be entitled to withhold payment to the SMSIP in order to recover all costs incurred in providing refunds to the Customers, if any.

7.7 The Client Operator may also without liability suspend part or all of the operation of the Client Operator's SMS Termination Service in respect of one or more Participating Operators Elected by the Client Operator in the following circumstances:

Where authentication of the Originating Operator is not possible.

In the event that there is an exceptional and unexpected change in the number of SMS transferred to the SMSC of the Client Operator by any Originating Operator via the Service, where such suspension is necessary in the reasonable opinion of the Operator to protect the Client Operator System, in which case the Client Operator shall give notice to the SMSIP prior to the suspension taking effect as soon as reasonably practical;

For the purposes of remedial or preventative maintenance or enhancement of the Client Operator System (e.g. remedial to include maintenance jobs when a failure occurs, for example breakdown)

7.8 Provided that the Client Operator shall use all reasonable endeavours to keep such suspension to a minimum and that the Client Operator shall use its reasonable endeavours to give as much written notice as possible to the SMSIP prior to the suspension taking effect, detailing why the suspension of service is necessary. The Client Operator shall inform the SMSIP as soon as the reason for the suspension has been overcome and provision of the Client Operator's SMS Termination Service may be restored.

7.9 The use of the SMS Hubbing Service or the Client Operator's SMS Termination Service, for sending unsolicited communications for fraudulent, deceptive or misleading purposes or for marketing or advertising purposes without lawful grounds, is prohibited.

7.10 In the event of the receipt by either Party of unsolicited SMS sent by any Originating Operator where such SMS have content in contravention with any legal or regulatory requirements or where such unsolicited flow of SMS causes the Client Operator Customer's complaints, the Client Operator shall notify the SMSIP that unsolicited messages are being received by the Client Operator's Customers and shall provide the SMSIP with all reasonable information and assistance so that the SMSIP may inform the Originating Operator and the Originating Operator may take appropriate action.

7.11 The other Party shall take action in a timely manner and in any event in no more than 24 hours from the date of receipt of a communication pursuant to this Article, to prevent the flow of unsolicited SMS. In addition, if the unsolicited SMS continue

beyond the above timescale of twenty four (24) hours, the other Party may without liability suspend the provision of the Client Operator's SMS Termination Service or the SMS Hubbing Service as applicable in whole or in part upon written notice with immediate effect. Following any such suspension, the Client Operator shall recommence providing the Client Operator's SMS Termination Service or the SMS Hubbing Service as applicable (or the part thereof which has been suspended under this Article) as soon as the other Party gives written notice that the proper and effective actions have been taken to prevent further instances of unsolicited SMS.

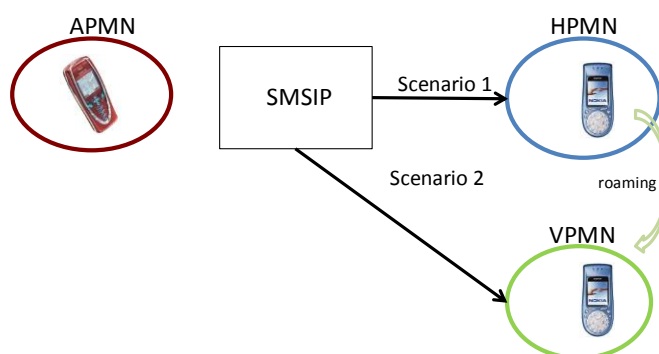
8 SMS Interworking scenarios and Charges and Payment

8.1 SMS Interworking Scenarios:

A) SMS MT sent by SMSIP to Client Operator network

Scenario 1: SMS MT sent by SMSIP's SMS-G to Client Operator's network.

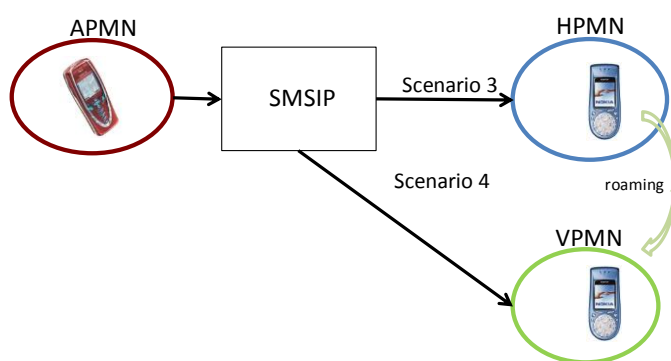
Scenario 2: SMS sent by SMSIP's SMS-G to Client Operator's Customers, roaming in another Operator.



B) SMS MO sent by Client Operator to SMSIP:

Scenario 3: SMS MO are sent by Client Operator to SMSIP and delivered by SMSIP to the Elected Participating Operator where the recipient Customer is the Elected Participating Operator's network.

Scenario 4: SMS MO are sent by Client Operator to SMSIP and delivered by SMSIP or a Third Party SMSIP to the visited Operator (actual destination network) where the recipient Customer of the Elected Participating Operator is roaming.



The following charges shall apply:

Scenario 1: The SMSIP shall pay to Client Operator the Client Operator Termination Charge (i.e. HPMN Termination Charge) as set out in Annex 8;

Scenario 2: This scenario involves international roaming. The Client Operator Termination Charge set out in Annex 8 should not be applied as this scenario involves international roaming SMS traffic which is governed by the existing Permanent Reference Documents (“PRDs”) of the Billing, Accounting and Roaming Group (“BARG”) and the relevant charging principles of the International GSM Roaming Agreement between the mobile networks involved.

Should the VPMN decide to charge SMSIP (directly or via a Third Party SMSIP) for this scenario of International Roaming, the choice is to be made between 2 options:

[A – CASCADE BILLING] The SMSIP will revert such cost (i.e. VPMN Termination Charge) to the Elected Participating Operator (APMN) from whose network the traffic has been originated.

[B –CHARGING BASED on HPMN] For simplicity sake, the SMSIP will charge the Elected Participating Operator (APMN) for the Client Operator Termination Charge i.e. HPMN Termination Charge as in Scenario 1.

Scenario 3: The Client Operator shall pay the SMS Hubbing Transit Charge as set out in Annex 9 and the Termination Charge (i.e. HPMN Termination Charge) set out in Annex 11 of the Elected Participating Operators terminating the traffic.

Scenario 4: This scenario involves international roaming. The Client Operator shall pay the SMS Hubbing Transit Charges as set out in Annex 9 and the following terms shall apply: the VPMN Termination Charge set out in Annex 11 should not be applied as this scenario involves international roaming SMS traffic which is governed by the existing Permanent Reference Documents (“PRDs”) of the Billing, Accounting and Roaming Group (“BARG”) and the relevant charging principles of the International GSM Roaming Agreement between the mobile networks involved.

Should the VPMN decide to charge SMSIP (directly or via a Third Party SMSIP) for this scenario of International Roaming, the choice is to be made between 2 options:

[A - CASCADE BILLING]: The SMSIP will revert such cost (i.e. VPMN Termination Charge) to the Client Operator from whose network the traffic has been originated.

[B - CHARGING BASED on HPMN] For simplicity sake, the SMSIP will charge the Client Operator for the Elected Participating Operator Termination Charge i.e. HPMN Termination Charge as in Scenario 3.

8.2 The SMSIP must not charge any extra fee to the Client Operator in the case where the traffic to/from the Elected Participating Operators is routed via Third Party(ies) SMSIP. All necessary interconnections with any Third Party SMSIP involved in the traffic transmission to/from the Elected Participating Operators will be implemented by the SMSIP without any additional cost imposed on the Client Operator.

8.3 All charges shall be invoiced and paid effectively in [state currency]. Such charges shall be payable on and from the Service Commencement Date and shall be payable only in respect of Chargeable Events.

8.4 The SMSIP shall notify the Client Operator, by means of the list provided for in Article 6 hereto and by written notification, of any increase by any existing Participating Operator to its Participating Operator Termination Charges at least seven (7) calendar days prior to the Invoice Period in which such revisions shall become effective.

8.5 The Client Operator shall notify the SMSIP of any proposed increase to the Client Operator Termination Charges at least seven (7) calendar days prior to the Invoicing Period in which such revisions shall become effective

8.6 The SMSIP may increase the SMS Transit Charges at least seven (7) calendar days' prior to an Invoice Period in which such increase shall become effective.

8.7 The SMSIP shall provide the Client Operator with an invoice in respect of each Invoice Period within one calendar month from the end of the relevant Invoice Period. Such invoice shall set out the following information in respect of the relevant Invoice Period:

- The applicable invoice period to which the Charges applies;
- The number of which were Successfully Delivered to each Elected Participating Operator together with the Participating Operator Termination Charges for each;
- The SMS Transit Charges for the number of SMS routed via the Service which were Successfully Delivered.

8.8 Within fourteen (14) calendar days from the end of each Invoice Period, the Client Operator shall endeavour to provide the SMSIP with an invoice setting out the total number of SMS which were Successfully Delivered to the Recipient Devices subscribed to its network routed by the SMSIP from the Participating Operators Elected by the Client Operator together with the Client Operator Termination Charges accrued in respect of the relevant Invoice Period.

8.9 [OPTIONAL] The SMSIP shall within one calendar month of the end of each Invoice Period make available on a reporting website (the address of which will be notified by the SMSIP to the Client Operator) or through adequate reports, the details of the number of Successful SMS Delivery routed by the SMSIP in the Invoice Period to each Elected Participating Operator. Additional reporting details shall be provided from time to time by the SMSIP.

8.10 The Parties agree to net-off payment of monthly invoices.

8.10.1 The creditor Party (the "Billing Party") shall issue a net amount settlement statement (the "Settlement Statement") to the debtor Party (the "Paying Party") on or before the thirtieth (30th) calendar day from the end of each Invoice Period detailing the net amount due to the Billing Party. Invoices shall be issued by the Billing Party pursuant to this Agreement on a monthly basis for all sums payable by the Paying Party in consideration of the Chargeable Events occurring during the Invoice Period, along with detailed daily SMS traffic reports and the amounts due, within thirty (30) days following the end of the Invoice Period. The Settlement Statement shall be payable by the Paying Party within thirty (30) days following confirmation of the receipt of the Settlement Statement (the "Due Date"). Payment shall be made in Euros, by telegraphic transfer to the Billing Party's bank account mentioned on the Settlement Statement. Bank charges or fees shall be borne by the Paying Party.

8.10.2 Any undisputed amount shall be paid regardless of whether the Paying Party is paid by its clients and Customers or not. If the Paying Party fails to pay any amount due hereunder by the Due Date then the Billing Party shall be entitled to charge and receive interest at the rate of one and a half per cent (1.5%) per per month or the highest rate allowed by law, whichever is lower, following notification remained without effect during 10 days.

8.10.3 In the event that the Paying Party disputes the accuracy of a Settlement Statement or the Paying Party disputes the volume or number of SMS traffic sent to the Billing Party or the Charges applicable to those SMS, as notified to it by the Billing Party, it will as soon as practicable and in any case before the Due Date, notify the Billing Party in writing (including within its notice all details reasonably necessary to substantiate its claim). After the Due Date a Settlement Statement shall not be disputed. Neither Party may raise a dispute over the accuracy of an invoice where the discrepancy is for a value less than or equal to 5% of the invoice value and in such circumstances shall pay the relevant invoice(s) in full.

8.10.4 The Parties shall consult in good faith to try to resolve the dispute. Failing resolution by the Due Date of the Settlement Statement, then, the undisputed amount of the Settlement Statement shall be paid by the Paying Party. In case the dispute cannot be solved within 30 days following the Due Date, then each Party may choose to settle this dispute in accordance with Article 20.1. Any costs incurred by the Paying Party in relation to a dispute shall be paid by the Paying Party unless the disputed Settlement Statement is established to have been incorrect. In the event the Settlement Statement is incorrect, then the Billing Party shall pay all reasonably incurred external costs incurred by the other in justifying the dispute that have the prior approval of the Paying Party. Any undisputed sum thus found to be due or overpaid shall be promptly paid

by the Paying Party or refunded by the Billing Party (including any interest payable or paid pursuant to this Article as the case may be). Subject as set out below and irrespective of whether an invoice was disputed, the Billing Party shall maintain and retain for a period of at least six (6) months (as or longer, if and as required by law) following the end of the Invoice Period to which the invoice relates, true and accurate books of account and information contained in or on discs, tapes, documents or other records as may reasonably be required by such chartered accountant(s) for calculation or verification of the amounts payable under such invoice which shall include reasonable billing summary reports.

8.11 Notwithstanding the reference of any dispute for investigation and determination under Article 23, if the amount in dispute represents less than five percent of the total amount of the invoice (excluding VAT), the invoiced amount shall be payable in full pending the resolution of the dispute. If the amount in dispute represents **[a certain percentage to be agreed by partners]** or more of the total amount of the invoice (excluding VAT) the disputed amount may be withheld pending resolution of the dispute and for the avoidance of doubt, any undisputed balance and interest payable thereon shall remain payable in full. For further information, please refer to binding PRD IN.15 "Interworking Services Billing Disputes Process"

Document PRD IN.13 has been edited as a guideline for those parties willing to implement a standardised "Bulk Data SMS" file format.

For further information, please refer to PRD IN.13 which includes general rules for minimum information to be included, suggested formats and procedure for exchanging data.

9 Transparency.

9.1 The SMSIP will transport and handle the Client Operator's traffic end-to-end in a transparent way, i.e. with full transparency on the routing and on the charging.

9.2 Transparency on the routing:

The routing used by the SMSIP to deliver the Client Operator's traffic must be made transparent to the Client Operator (either online or offline). All parties involved in the delivery of the Client Operator's traffic shall be fully visible to the Client Operator.

The Parties will be compliant with the "Open Connectivity SMS Hubbing Architecture", version 7.0 of the 9th January 2007: the SMSIP must transmit the MCC/MNC of the originated operators, as described in the paragraph 7.5.3 of this technical document, in order to guarantee a full routing transparency.

9.3 Transparency on the charging:

The pricing applied by the SMSIP to the Client Operator will transparently show all price components. This means that the Elected Participating Operators' Termination fees and the SMS Transit Charge shall be fully visible to the Client Operator.

Termination rates shall only be defined by the Client Operator and not by the SMSIP. The SMSIP shall disclose the termination rates set by the Client Operator in all relevant documentation, e.g. coverage lists, charging addendum to AA.71.

Therefore, the SMSIP shall, upon request by any Third Party SMSIP or any Participating Operator, involved in the traffic routing, provide in a timely manner written confirmation from the Client Operator that he agrees with the termination rate communicated by the SMSIP on the Client Operator's behalf.

This means that the SMSIP shall not combine the Elected Participating Operator's Termination fees and the SMS Transit charges related to the supply of the Service to the Client Operator on a per country or regional basis, e.g. blended rates.

Also in this case, as the Termination rates can only be defined by the Elected Participating Operators, the SMSIP is not entitled to set the termination rates on their behalf.

Therefore, the SMSIP shall, upon request by the Client Operator or by any Third Party SMSIP, provide written confirmation from the Elected Participating Operators that they agree with the termination rate disclosed by the SMSIP to the Client Operator.

10 Taxes [OPTIONAL]

The Parties agree to comply with the provisions of Annex [2] in respect of Taxes.

11 Financial Security [OPTIONAL]

The Parties agree to comply with the provisions of Annex [3] in respect of financial security.

12 Insurance [OPTIONAL]

The Parties agree to comply with the provisions of Annex [4] in respect of insurance.

13 Confidentiality

13.1 The Parties hereby agree to treat all Confidential Information as confidential and agree not to disclose such Information in any manner whatsoever, in whole or in part except as provided in this Article. The other Party shall not use any Confidential Information other than in connection with the discussions between the Parties and any transactions resulting there from, or for the borrowing of funds or obtaining of insurance, in which case the lenders or insurance companies are obliged to undersign a confidentiality undertaking which has the equivalent content as this Article before receiving the Confidential Information. Each Party shall be liable in accordance with this Article towards the other Party in respect of any unauthorized disclosure of Confidential Information made by the lender or by the insurance company to whom it has disclosed Information.

13.2 The Parties shall disclose Confidential Information only to their directors, employees, professional advisers and agents who need to know such Confidential Information for the purposes of providing services under this Agreement and any transaction resulting there from, or for the borrowing of funds or obtaining of

insurance and who are informed of the confidential nature of such Confidential Information.

13.3 In addition to the above, Confidential Information and the contents of this Agreement may be transmitted to governmental, judicial or regulatory authorities, as may be required by any Governmental law, judicial or regulatory authority.

13.4 **OPTIONAL** In the event that the SMSIP wishes to disclose Confidential Information to potential customers of the Service and/or to the agents, sub-contractors and professional advisers of such potential customers, such disclosure shall be limited to:

- The names of the Client Operator and the Participating Operators;
- The Client Operator Termination Charges and the Participating Operator Termination Charges; and
- The Client Operator Service Parameters and the Participating Operator Service Parameters.

In any case, prior to the disclosure of any of the above information, the SMSIP shall have to inform the Client Operator, by sending a prior written notification to the Client Operator's proper contact points indicated in the Annex 6 to this Agreement, stating name and address of the entity having requested such information and/or the entity to whom such information will be disclosed and the reason and purpose of such disclosure. The SMSIP shall not proceed with the disclosure of any Confidential information until the Client Operator shall have notified in writing to the SMSIP its consensus to the disclosure.

13.5 For the purposes of this Agreement, information and the contents of this Agreement shall not be considered to be Confidential Information if such information is:

- In or passed into the public domain other than by breach of this Article; or
- Known to a receiving Party prior to the disclosure by a disclosing Party; or
- Disclosed to a receiving Party without restriction by a third party having the full right to disclose; or
- Independently developed by a receiving Party to whom no disclosure of Confidential Information relevant to such Information has been made.

13.6 This Article 14 shall survive the termination of this Agreement for a period of 5 (five) years but shall not in any way limit or restrict a disclosing Party's use of its own Confidential Information.

14 Data Privacy, Telecommunications Laws and Regulations

14.1 Each Party shall comply with any applicable data protection laws and laws and regulations of telecommunications services (including telecom secrecy and lawful interception) governing the provision of the Service and shall, irrespective of any Article hereto, indemnify and hold harmless the other Party from and against all costs or expenses of any kind arising out of any claim or demand brought by any person as a result of any breach or alleged breach of such data protection laws and telecommunications laws or regulations.

14.2 **[OPTIONAL]** The Parties shall comply with the provisions of Annex [5] in respect of data privacy and telecommunications laws and regulations.

14.3 Notwithstanding this Article and Article 15 hereto, the Client Operator will give access to the SMSIP to the information stored in the Client Operator's HLR, whenever such access is necessary for a proper functionality of the Service e.g. the SMSIP asking for SRI needed to route the Client Operator's traffic. Access by the SMSIP to the Client Operator's HLR shall be limited to the purpose of getting the sole information necessary to deliver the Service to the Client Operator.

15 Fraud Prevention

The Parties shall comply with the procedures and provisions concerning fraudulent or unauthorised use of the Service set out in the GSM Association Permanent Reference Documents and in Annex 17.

16 Liability of the Parties

16.1 Except for gross negligence or wilful intent (including fraudulent misrepresentation), each Party shall only be liable in case of fault, whereas the total aggregate liability of each Party for direct damages in connection with this Agreement shall under no circumstances exceed the total amount [To be completed by the Parties] .

16.2 **Notwithstanding the preceding sentence, the liability of each Party** shall in any case be excluded for employees or other auxiliary persons, as well as for indirect and consequential damages, including loss of profit and loss of data ***[please note that this liability exclusion for indirect and consequential damages may not be enforceable in case of gross negligence or wilful intent].***

16.3 A Party's liability shall not be limited for death or personal injury resulting from its negligence or the negligence of its employees, agents or contractors while acting in the course of their employment or for any other liability to the extent that it cannot be limited by law.

16.4 Save for the limitations in this Article, nothing in the foregoing shall in any way restrict the liability of either Party for the actions of its employees.

17 Force Majeure

17.1 Non-performance of either Party's obligations pursuant to this Agreement or delay in performing same shall not constitute a breach of this Agreement if, and for as long as, it is due to a force majeure event, including, but not being limited to, governmental action, or requirement of regulatory authority, lockouts, strikes, shortage of transportation, war, rebellion or other military action, fire, flood, natural catastrophes, or any other unforeseeable obstacles that a Party is not able to overcome with reasonable efforts, or to non-performance of obligations by a sub-contractor to a Party pursuant to any of the aforementioned reasons.

17.2 The Party prevented from fulfilling its obligations shall, on becoming aware of such event, inform the other Party in writing of the nature of such force majeure event, the date and time at which the force majeure event started, the expected duration of the

force majeure event and the likely effects of the force majeure on its ability to perform its obligations, as soon as possible. In addition, the Party affected by a force majeure event shall make all reasonable effort to mitigate the effects of such event on the performance of its obligations. If the force majeure event continues for more than sixty (60) days, either Party shall have the right to terminate this Agreement with immediate effect by written notice.

17.3 If the affected Party fails to inform the other Party of the occurrence of a force majeure event as set forth above, then such Party thereafter shall not be entitled to refer such events to force majeure as a reason for non-fulfilment. This obligation does not apply if the force majeure event is known by both Parties or the affected Party is unable to inform the other Party due to the force majeure event.

18 Term and Termination

18.1 This agreement shall come into force on the Effective Date and shall continue in force (unless otherwise terminated earlier in accordance with its terms) for a period of one (1) year from the Effective Date (i.e. the "Initial Term") and shall continue thereafter unless and until terminated by one Party upon at least three months' written notice given to expire at the end of the Initial Term or at any time thereafter.

18.2 In addition to the conditions of this Article, this Agreement may be terminated as follows:

By the mutual agreement of the Parties evidenced in writing; or

- By one of the Parties, with immediate effect, if the other party is in material breach of the Agreement and does not or is not capable of remedying such breach within sixty (60) days of receipt of a written notice by the other Party to such effect; or
- By one of the Parties, with immediate effect, if the other Party becomes bankrupt or insolvent or goes into liquidation (other than for the purpose of solvent reconstruction or amalgamation) or has a receiver, administrator, trustee or similar officer appointed in respect of all or part of its business and assets or otherwise ceases to be a validly existing corporation or if that other Party enters into any composition or arrangement with its creditors and that other Party is not able to ensure performance of its obligations under this Agreement by a guarantee from a first class bank, payable on first written demand; or

18.3 In case of unauthorized use of the Service, taken into consideration Articles 9 and 16 of this Agreement, if the Party causing the problem or on whose network the problem is originated is not able to remedy such unauthorized use within thirty (30) days from receipt of a written notice to such effect, the Party suffering the unauthorized use shall be entitled to terminate the Agreement.

18.4 Subject to this Article, this Agreement can be terminated, immediately in the event a final order by the relevant governmental authority revoking or denying renewal of the license(s) or permission to operate a public telecommunications network(s) granted to either Party, or any other license necessary to operate the Service(s), takes effect

provided however that where such cause of revocation or denial is capable of remedy, this termination only occurs if such cause is not remedied within thirty (30) days of receipt of a written notice by the other Party to such effect.

19 Changes to the Agreement, Annexes and Addenda

Any amendments and/or additions to this Agreement and/or Annexes and/or Addenda shall be valid only if made in writing and signed by duly authorized representatives of both Parties hereto.

20 Intellectual Property Rights

20.1 "Intellectual Property Rights" means, for the purposes of this Agreement, rights in, and in relation to, any patents, registered designs, design rights, trade marks, trade and business names (including all goodwill associated with any trade marks or trade and business names), copyright and related rights, moral rights, databases, domain names, semi conductor and other topography rights and utility models, and including the benefit of all registrations of, applications to register and the right to apply for registration of any of the foregoing items, each for their full term (including any extensions or renewals thereof) and where ever in the world enforceable; and trade secrets, confidentiality and other proprietary rights, including rights to know how and other proprietary technical information.

20.2 Each Party shall retain full title and ownership with regard to such Party's or its subcontractors' Intellectual Property Rights insofar as any such Intellectual Property Rights may be required in order for either Party to provide or to make use of the Service and other associated services referred to in this Agreement.

20.3 Nothing in this Agreement shall be deemed or construed as a transfer of title or ownership nor as the granting of any licence, right to use and/or as giving rise to any encumbrance of any kind with regard to either Party's Intellectual Property Rights.

20.4 Where Intellectual Property Rights are developed by a Party in connection with performance of this Agreement, then in the absence of any other agreement between the Parties, the ownership of such Intellectual Property Rights shall remain with the Party who developed the same provided that in consideration of entering into this Agreement the other Party shall have a non exclusive licence, irrevocable at no cost to use the Intellectual Property Rights if necessary for the purposes and the duration of this Agreement.

21 Miscellaneous

21.1 Successors and Assigns This Agreement is personal to the Parties hereto and (except by operation of law) neither Party shall assign, transfer, charge, encumber or otherwise deal with the whole or any part of this Agreement or its rights or obligations hereunder without the prior consent in writing of the other Party which consent shall not be unreasonably withheld or delayed.

21.2 Subcontractors For the avoidance of doubt, nothing in this Agreement shall prevent either Party from appointing sub-contractors to perform work in connection with the

performance of its obligations under this Agreement, provided that the Party shall remain fully responsible for the acts and omissions of sub-contractors as if they were his own.

- 21.3 No waiver Failure by any Party at any time or times to require performance of any provisions of the Agreement shall in no manner affect its rights to enforce the same, and the waiver by any Party of any breach of any provisions of this Agreement shall not be construed to be a waiver by such Party of any succeeding breach of such provision or waiver by such Party of any breach of any other provision hereof.
- 21.4 Provisions severable If any part of this Agreement or any Annex hereto is held to be invalid or unenforceable, such determination shall not invalidate any other provision of this Agreement or Annexes hereto; and the Parties shall attempt, through negotiations in good faith, to replace any part of this Agreement or Annexes hereto so held to be invalid or unenforceable. The failure of the Parties to agree on such replacement shall not affect the validity of the remaining parts of the Agreement.
- 21.5 No Partnership The Parties hereto declare that it is not the intention of either of them to enter into a joint venture with each other hereby and nothing herein shall be deemed to constitute a partnership between the Parties hereto or constitute one Party the agent of the other for any purpose whatsoever.
- 21.6 No Publicity Without prejudice to Article 13 above, or the right of either Party to publish this Agreement or any part of thereof in order to comply with any legal or regulatory obligation upon it, neither Party shall make any press announcements or publicise the existence or contents of this Agreement or any part of it in any way except with the written consent of the other Party;
- 21.7 Trade Marks and Service Marks For the avoidance of doubt, nothing in this Agreement shall be deemed or construed as granting to either Party any right or licence to use any trade or service marks of the other Party in connection with the promotion of its services or for any other reason.
- 21.8 Precedence In the event of any inconsistency between the numbered Articles of this Agreement and Annexes hereto, the numbered Articles of this Agreement shall prevail.
- 21.9 Previous Agreements between the Parties This Agreement supersedes and prevails over all previous agreements, understandings or commitments made between the Parties or representations made by either Party whether oral or written relating to the subject matter thereof.
- 21.10 Notices Any notice or other communication required to be given for the purposes of this Agreement shall be given by letter sent by acknowledgement of receipt of courier or by facsimile transmission immediately confirmed by a letter sent by courier.

21.11 Any notice sent for the purposes of this Agreement shall, if addressed to the Client Operator be sent to the contact person as stated in Annex [6] and if addressed to the SMSIP, be sent to the contact person as stated in Annex [6] or to such other address and/or **facsimile** number as may be notified in writing by either Party to the other.

21.12 Any notice sent by courier or personally delivered shall be deemed (in the absence of evidence of earlier receipt) to have been delivered 3 calendar days after its despatch. Any notice given by facsimile transmission shall be deemed to have been delivered:

- On the same day of its transmission once transmission is actually received (with evidence given by a facsimile delivery report) and provided it is sent prior to 2pm in the recipient's time zone
- On the next working day after its transmission, if transmission is actually made at or after 2pm in the recipient's time zone, (and provided transmission is actually received with evidence given by a facsimile delivery report)

22 Choice of Law

The Agreement and any matters relating hereto shall be governed by and construed in accordance with the law of Switzerland.

23 Dispute Resolution & Arbitration

23.1 The Parties agree to seek to resolve any dispute arising out of this Agreement in accordance with the following escalation procedures before commencing the arbitration procedures described below.

23.2 The contact persons of both parties defined in Annex 6 hereto, shall work in good faith to try to resolve the dispute within thirty (30) days from the date that a Party first gives notice that a dispute has occurred.

23.3 If the contact persons fail to reach an agreement on the dispute within thirty (30) days, the dispute shall be referred to more senior persons within the respective companies who shall try to resolve the dispute within a further thirty-day period. If no resolution is found each Party is entitled to commence the arbitration proceedings described below.

23.4 All disputes in connection with this Agreement shall be finally settled under the Rules of Conciliation and Arbitration of the International Chamber of Commerce (ICC) by one (1) arbitrator appointed in accordance with the said Rules.

The place of arbitration shall be [**To be completed by the Parties**] and the proceedings shall be conducted in the [**To be completed by the Parties**] language. The award shall be final and binding and the Parties hereby waive all means of recourse to the courts of any country.

24 Overview of the Annex Structure

Annex number	Annex name
1	Definitions
2	Tax
3	Financial Security
4	Insurance
5	Data Privacy
6	Contact details
7	Client Operator SMS Termination Service
8	Client Operator Termination Charges
9	SMS Transit Service Charges
10	Participating Operators and Participating Operator Termination Charges
11	Participating Operator Service Parameters
12	Participating Operators Elected by the Client Operator
13	SMS Service Level Agreement
14	SMS Test Plan and Operational Procedures
15	Forecasting
16	Interconnection and Technical Description
17	Fraud Prevention

25 Signatures

SIGNED on behalf of each of the Parties by their duly authorised signatories the day month and year first above written:

Signed

Printed Name:

Title:

For and on behalf of the Client Operator

Signed

Printed Name:

Title:

For and on behalf of the SMSIP

ANNEX 1 – DEFINITIONS

For the purpose of this Agreement the following terms shall have the meanings set forth in their respective definitions, unless a different meaning is called for in the context of another provision in the Agreement:

“**3GPP Standard**” means 3GPP TS 23.040, as amended from time to time;

“**Agreement**” shall mean this Agreement for SMS Hubbing Services together with the Annexes;

“**APMN**” stands for Associated Public Mobile Network.

“**Charges**” means the Participating Operator Termination Charges, the Client Operator Termination Charges and the SMS Transit Charges;

“**Chargeable Event**” Each Party should charge the SMS received from the other Party upon Successful SMS Delivery. Concatenated SMS are billed as separate standard SMS of 160 characters. SMS sent to multiple recipients shall be billed separately for each recipient; for avoidance of doubt, the transmission or receipt of a delivery report or a read report shall not be regarded as a chargeable event;

“**Client Operator**” means a Network Operator that has a commercial relationship with the SMSIP in order to have SMS Interworking with Elected Participating Operators;

“**Client Operator Service Parameters**” [OPTIONAL] means the service parameters and service restrictions relating to the SMS Termination Service provided by the Client Operator as set out in Annex 7;

“**Client Operator System**” [OPTIONAL] means the communications systems operated by the Client Operator as set out in Annex 7;

“**Client Operator Termination Charges**” or “**Participating Operator Termination Charges**” means the Client Operator’s charges or Participating Operator’s charges for the provision of the SMS Termination Services set out in the Annexes 8 and 11 as amended from time to time;

“**Confidential Information**” means all financial, business and technical or other data and all other information (whether written, oral or in electronic form or on magnetic or other media) concerning the business and affairs of a Party that the other Party obtains, receives or has access to as a result of the discussions leading up to or the entering into or the performance of this Agreement and shall include the content of this Agreement;

“**Customers**” shall mean a subscriber or any entity of the retail communications services offered by the Client Operator or any Participating Operator, capable of originating an SMS MO and/or receiving an SMS MT.;

“**Destination**” means any Elected Participating Operator on whose network the recipient Customer is registered and thus the SMS traffic has to be terminated;

“**Effective Date**” means the latest date (dd/mm/yy) of signature of this Agreement when this Agreement enters into force;

“Elected” in respect of a Participating Operator means elected as SMS Interworking Partner by the Client Operator in accordance with the procedures set out in Article 6;

“GSM Association Permanent Reference Documents” or “GSMA PRD” means a document noted as such by the EMC to the General Assembly and listed as such by Headquarters on the list of Permanent Reference Documents referred to on the GSMA website. <http://www.gsmworld.com/>;

“HPMN” stands for Home Public Mobile Network.

“Invoicing Currency” means the currency in which Participating Operator Termination Charges are to be invoiced and paid as set out in Article 9;

“Invoice Period” means 00:00:00 AM (GMT) on the first day of a calendar month until 23:59:59 PM (GMT) on the last day of a calendar month;

“Key Performance Indicator (KPI)” means any parameter out of those indicated in the Annex 13, to be used to measure the level of performance of the SMS Transit Service offered by the SMSIP.

“OC Compliant Destination” shall mean a Participating Operator which fulfills all the conditions below for message interworking through an SMSIP:

- Technical transparency of the client operator must be made available in the operator’s capacity as either origin or destination
- Transparency of termination rates is made available to the SMSIP, and upon request, to the Participating Operator.
- The operator shall, upon request by any Third Party SMSIP or any Participating Operator, involved in the traffic routing, provide in a timely manner written confirmation that he agrees with the termination rate communicated by the SMSIP on the participating operator’s behalf.
- Uses an agreement that is based on GSMA OC requirements , such as the GSMA AA71 agreement template for SMS hubbing, and abides by its clauses
- Complies with anti-fraud procedures defined by GSMA
- Provides all necessary technical information to enable timely trouble shooting
- Is able to either (a) perform itself all end-to-end tests described in the appropriate IREG documentation or (b) provide test SIM cards to the SMS hub for the hub to perform all end-to-end tests, thus ensuring that the services offered function correctly.
- Uses SMPP or SS7 for SMS hubbing, or uses another SMS messaging protocol on the private interface with the hub (such as UCP instead of SMPP) only if the OC High Level Requirements are not violated in any way.

“Operator” means a telecommunications service provider intended as a mobile or fixed telecommunications Operator or ISP operating a telecommunications system and network to offer Person to Person communications services;

“Operational Procedures” means the operational procedures set out in Annex 14;

“Originating Device” in respect of an SMS means a handset or terminal device registered on the Client Operator System or on a Participating Operator System from which that SMS originates;

“Originating Operator” in respect of an SMS means either the Client Operator or a Participating Operator (as the context requires) upon whose System the Originating Device in respect of that SMS is registered;

“Participating Operator” means an Operator which has entered into a Participating Operator Agreement with the SMSIP or with a Third Party SMSIP and listed in Annex 11 as amended or replaced from time to time;

“Participating Operator Service Parameters” [OPTIONAL] means the service parameters and service restrictions relating to the SMS Termination Service provided by a Participating Operator as set out in Annex 12;

“Participating Operator System” means the public telecommunications system operated by a Participating Operator from time to time;

“Performance Reporting or QoS report” meaning the SMSIP report to the Client Operator on the actual performance of its Transit Service, based on the KPIs defined in the Annex 13 Service Level Agreement in order to follow the fulfilment of such SLA;

“Quality” or “QoS” means the level of performance of the Service as per the provisions of Annex 13.

“Recipient Device” in respect of an SMS means a handset or terminal device registered on the Client Operator System or on an Elected Participating Operator System to which that SMS is addressed;

“Recipient Operator” in respect of an SMS means either the Client Operator or the Elected Participating Operator (as the context admits or requires) upon whose System the Recipient Device has a subscription;

“Scheduled Maintenance Window” in accordance with the provisions of Annex 13, it is a maximum half-hour-per-day maintenance window for which the SMSIP notifies the Client Operator in advance with a minimum 15 days prior written notice to the customer. Service availability and performance may be affected during this window however the SMSIP shall agree with the Client Operator on a timeframe minimizing Service impact. Cumulated Maintenance time shall not exceed a maximum amount of 14 hours per year. The Client Operator reserves its right to refuse a scheduled event given an important reason. A scheduled event is only approved and may be carried out if both partners agree on it, in accordance with the provisions of Annex 13;

“Service Credit” means a compensation or remedy provided by the SMSIP to the Client Operator, following a case of no compliance with a certain level of performance (KPI), as set out in Annex 13.

“Service Commencement Date” in respect of the establishment of SMS Interworking between the Client Operator and a Participating Operator Elected by the Client Operator means the date agreed between the Parties when the Service is ready for use meaning that (i) all of the agreed tests have been completed to the reasonable satisfaction of both Parties; and (ii) both the Client Operator and that Elected Participating Operator are able to send to and receive SMS and bill and be billed appropriately in respect of such traffic;

“Service Level Agreement” means the service level agreement set out in the Annex 13;

“Short Message” or “SMS” shall mean a short message service conforming to GSM 03.40 enabling text message of up to 160 characters to be transferred and/or originated, on compatible communications devices and fixed devices connected to the systems of the Parties;

“SMS-C” means the function responsible for the relaying and store-and-forwarding of an SMS between a Client Operator and an Elected Participating Operator. The list of sending SMS-Cs applicable for each of scenarios of Article 9 of this Agreement is set out in the corresponding Annexes to this Agreement;

“SMS-G” means the gateway operated by the SMSIP to offer the Service to a Client Operator and the Participating Operators. The list of SMS-G applicable for each of scenarios of Article 9 of this Agreement is set out in the corresponding Annexes to this Agreement;

“SMSIP System” means the communications systems operated by the SMSIP in connection with the provision of the SMS Transit Service and associated services;

“SMSIP Transit Charges” means the SMSIP’s charges for the provision of the SMS Transit Service as set out in Annex 10 as amended from time to time;

“SMS MO” shall mean the transfer of an SMS from the Originating Operator’s Customer through any of the SMS-Cs set out in the applicable Annex in accordance with this Agreement.

“SMS MT” shall mean the transfer of an SMS from the SMS-C to the Recipient Operator’s Customer.

“SMS Hubbing Service” means the SMS Transit Service and the SMS Termination Service;

“SMS Interworking” is the relationship between the Client Operator and the Elected Participating Operator(s) for the exchange of SMS, established through the Service offered by the SMSIP;

“SMS Termination Service” means:

- The termination of SMS onto a Recipient Device, provided by the Client Operator pursuant to this Agreement;
- and/or
- The termination of SMS onto a Recipient Device, provided by an Elected Participating Operator to be obtained by the SMSIP and offered to the Client Operator pursuant to this Agreement;

“SMS Transit Service” means:

The transit of SMS between the Client Operator and the Elected Participating Operators, provided by the SMSIP to the Client Operator pursuant to this Agreement, or provided by the SMSIP to a Participating Operator pursuant to a Participating Operator Agreement

“Successful Routing” shall be interpreted as follows, in line with ETSI TS 102 250-5 V.1.1.1:

- In respect of SMS routed from the Originating Operator to the Recipient Operator via the SMSIP only (and for the avoidance of doubt, not via a Third Party SMSIP in addition), “Successful Routing” shall be deemed to have occurred upon receipt of delivery report by the SMSIP within 175 seconds of the transmission of the SMS in question; or
- In respect of SMS routed from the Originating Operator to the Recipient Operator via Third Party/ies SMSIP and the SMSIP,

“**Successful Routing**” shall be deemed to have occurred in respect of an SMS if delivery report issued by the Second SMSIP is received by the First SMSIP within 175 seconds of the transmission of the SMS in question confirming receipt by the Second SMSIP of a delivery report from the Recipient Operator (and for these purposes “**First SMSIP**” shall mean whichever of the SMSIP and the Third Party SMSIP receives the SMS in question directly from the Originating Operator and “**Second SMSIP**” shall mean whichever of the SMSIP and the Third Party SMSIP receives the SMS in question from the First SMSIP for delivery to the Recipient Operator); same will apply in the case of a third SMSIP involved in the traffic delivery.

“**Successfully Routed**” shall be interpreted accordingly;

“**Successful SMS Delivery**” : if the SMS is delivered via SS7, Successful delivery is confirmed by a Successful MT Forward SM Acknowledgement sent by the Terminating Operator (or by the Third Party’s SMSIP involved in the traffic termination) to the Client Operator’s SMSIP; This confirms that the SM has been successfully delivered onto the Recipient Device. If the SMS is delivered via SMPP, Successful Delivery is confirmed by a Submit_SM_RESP sent by the Terminating Operator (or by the Third Party’s SMSIP involved in the traffic termination) to the Client Operator’s SMSIP. This confirms that the SM has been successfully delivered on the Terminating Operator’s SMSC not on the Recipient Device;

“**System**” means the SMSIP System, the Client Operator System and/or a Participating Operator System as the context may require and “Systems” shall be construed accordingly;

“**Technical Specifications**” shall mean the technical specifications defined and adopted by 3GPP (Third Generation Partnership Project), including the ETSI technical specifications defined and adopted by 3GPP;

“**Term**” means the period during which this Agreement remains in force;

“**Test Plan**” means the test plan set out in Annex 14 as described as such;

“**Third Party SMSIP**” means a provider of an SMS transit service (other than the SMSIP);

“**Third Party SMSIP System**” means the communications system operated by a Third Party SMSIP in connection with the provision of the SMS transit service provided by the SMSIP to the Client Operator;

“**Unsolicited Messages**” shall mean:

- A situation where Commercial SMS or other SMS are sent to the Client Operator's Customers or to the Participating Operator's Customers without their prior consent, as required by national law and/or
- A situation where Commercial SMS or other SMS are sent to the Client Operator's Customers or to the Participating Operator's Customers encouraging them directly or indirectly to call or send a SMS or other electronic communication to a premium rate number and/or
- A situation where any unlawful or fraudulent SMS are sent to the Client Operator's Customers or to the Participating Operator's Customers.
- For the purpose of this Agreement "Commercial SMS" means SMS designed to promote, directly or indirectly, the goods, services or image of any person pursuing a commercial activity or exercising a regulated profession.

"VPMN" stands for Visited Public Mobile Network.

ANNEX 2 – TAX

ANNEX 3 – FINANCIAL SECURITY

ANNEX 4 – INSURANCE

ANNEX 5 – DATA PRIVACY, TELECOMMUNICATIONS LAWS & REGULATIONS AND LAWFUL INTERCEPTION

[Please list National Data Privacy, Telecommunications Laws & Regulations and Lawful Interception requirements which have impact on the provision of Service under this Agreement]

ANNEX 6 – CONTACT DETAILS

ANNEX 7 – CLIENT OPERATOR SMS TERMINATION SERVICE

[Full details to be provided by the Mobile Operator]

Client Operator Service Parameters

ANNEX 8 – CLIENT OPERATOR TERMINATION CHARGES

ANNEX 9 – SMS TRANSIT SERVICE CHARGES

ANNEX 10 – PARTICIPATING OPERATORS AND PARTICIPATING OPERATOR TERMINATION CHARGES

Participating Operators and Participating Operator Termination Rates

ANNEX 11 – PARTICIPATING OPERATOR SERVICE PARAMETERS

ANNEX 12– PARTICIPATING OPERATORS ELECTED BY THE CLIENT OPERATOR

[Insert Table of Participating Operators Elected by the Mobile Operator]

ANNEX 13 – SERVICE LEVEL AGREEMENT

1 Purpose

This document is intended to define the applicable bilateral Service Level Agreements (“SLA”) related to the Service agreed by and between Client Operator and SMSIP as defined in the Agreement, understanding that the Service rendered by the SMSIP has the aim to transit and terminate the Client Operator’s International SMS traffic.

2 Scope and Assumptions

The scope of this SLA is intended to enable end to end Quality in the Service to the Customer in a way that all commitments of the SMSIP are valid from the Originating Operator’s network up to the Recipient Operator’s network whatever technical solution is used and operated by the SMSIP.

To achieve this goal this document defines a set of Key Performance Indicators (KPIs) that provide a measurement of the level of Quality of Service (QoS) associated to the Service rendered by the SMSIP

It is the full responsibility of the SMSIP to provide the end-to-end quality as described in this SLA.

In order to achieve End-to-End quality all parties involved in the message flow should be compliant with the requirements expressed on this document. On this regard the SMSIP acts as a single point of interconnection for the Originating Operator to reach the Recipient Operator on a technical and commercial level, also in the case where Third Party SMSIPs are involved in the traffic delivery onto the Recipient Operator’s network.

According to this concept of end-to-end quality it is recommended that no more than one Third Party SMSIP is involved in the traffic delivery (even though it is recognised that in certain situations related with MNP and roaming a second Third Party SMSIP may be involved in the traffic delivery).

Each SMSIP and Client Operator are free to choose any technology for QoS and transport as long as this meets the general requirements specified in this document.

The GSMA does not recommend the use of a particular technology. MAP over SS7 offers advantages in terms of reliable delivery reporting, whereas SMPP over IP offers cost benefits. This document covers the use of both technologies in all SS7, all IP and in hybrid environments.

This document also assumes that the well-known QoS terminology is understood.

SMSIPs can share a common technical SMS Hub platform where an Open Connectivity Compliant back to back agreement is ruling their commercial relationship. Therefore in this this case, SMS Hubbing destinations proposed by those SMSIPs can be considered as Open Connectivity Compliant.

Even if the shared technical SMS Hub platform is involving more than one SMSIP, that will be understood as one SMSIP between the traffic origination point and the traffic termination point.

For avoidance of doubt, the described rule above of maximum of two SMSIPs (M2H rule) between the traffic origination point and the traffic termination point will be understood as maximum of two technical SMS Hub platforms.

Further the SMS Hubbing Requirements and details on End to End Quality and on the M2H rule are laid out in the IN.08 SMS Hubbing Handbook, chapter 3 and in IN17.

It will be considered out of scope the following circumstances:
Service suspension in accordance with the terms of the SLA.

3 SLA Definitions

Please refer to the Agreement Annex 1 Definitions.

4 QUALITY OF SERVICE

4.1 Service Connectivity Options and Technical Requirements.

When SS7 is the connectivity option chosen, a prerequisite to SMS Transit Service Provision is a connection to either the SMSIP's Signalling Service, or to a signalling service of a Third Party signalling provider connected to the SMSIP's network. Furthermore when both the Originating and Recipient Operators are connected to a SMSIP through SS7, the SMSIP and Third Party SMSIP will also connect through SS7.

When IP is the connection method chosen, a prerequisite to SMS Transit Service Provision is a connection to either the SMSIP's IP Transit Service, or to the IP Transit service of a Third Party IP provider connected to the SMSIP.

All KPIs are defined and must be calculated for the traffic sent and received by each network operator (i.e. the Originating Operator or the Recipient Operator) or couple of network operators (i.e. the Originating Operator and the Recipient Operator).

For example if there are three network operators (A, B and C) exchanging SMS messages, there will be six sets of KPIs: A-B, B-A, A-C, C-A, B-C and C-B. The KPIs shall not be calculated for the total of the traffic, but for the traffic exchanged on each leg: A-B, B-A, A-C, C-A, B-C and C-B.

4.2 Key Performance Indicators

It is recommended that all KPIs listed hereto, are included in the SLA clinched between the SMSIP and the Client Operator. However the actual list of KPIs to be used:

- To measure the QoS in the relationship between the SMSIP and the Client Operator
- To be included in the monthly reporting from the SMSIP to the Client Operator
- To calculate any Service Credits to be granted to the Client Operator

is to be agreed between the Parties of the Agreement.

The full list of possible theoretical KPIs can be found in IN.08 SMS Hubbing Handbook.

4.2.1 SMS Transit Service Availability

SMS Transit Service Availability applies to the service offered by the SMSIP from the Originating Operator’s network up to the Recipient Operator’s network.

Availability on the access is determined by the relevant SMSIP type of connection.

Calculating Availability: The parameter SMS Transit Service Availability describes the percentage of time that the SMS Transit Service is carrying its function out properly (see calculation below).

$$\% = \frac{A_m - B_m}{A_m} \times 100$$

where:

A_m = Number of hours in Month of SMSIP’s SMS Transit Service Availability

B_m = Number of hours when SMSIP’s SMS Transit Service is unavailable (excluding planned outages)

SMS Transit Service Unavailability time begins at time of detection of unavailability by either the SMSIP or the Client Operator whichever the earlier and ends at time of service restoration.

SMS Transit Service availability means that the SMSIP is able to transit and terminate the Client Operator’s traffic to the Elected Participating Operator’s network.

4.2.2 SMS Transit Service Availability per Destination

SMS Transit Service Availability Per Destination applies to the service offered by the SMSIP from the Originating Operator’s network up to the Recipient Operator’s network. This indicator reflects possibility for the Client Operator to access a particular destination included in the Service offered by the SMSIP.

Availability on the access is determined by the relevant SMSIP type of connection.

Calculating Availability: The parameter SMS Transit Service Availability Per Destination describes the percentage of time that the SMS Transit Service is carrying its function out properly for destination x (see calculation below).

where:

$$\% = \frac{A - B}{A} \times 100$$

Am = Number of hours in Month of SMSIP's SMS Transit Service Availability for destination x

Bm = Number of hours when SMSIP SMS Transit Service is unavailable for destination x (excluding planned outages)

SMS Transit Service Per Destination Unavailability time begins at time of detection of unavailability of destination x by either the SMSIP or the Client Operator whichever the earlier and ends at time of service restoration for destination x.

SMS Transit Service Per Destination availability means that the SMSIP is able to transit and terminate the Client Operator's traffic to a specific Elected Participating Operator's network.

4.2.3 Maximum Time to Restore the Service

The maximum time to restore the Service in case of network or Service errors or faults shall be calculated on a monthly basis and shall depend on the severity of the fault.

The Maximum Time to Restore the Service required is measured per hours and shall differentiate per type of fault:

Critical Faults: X hours, in the X % of the cases.

Major Faults: X hours, in the X% of the cases.

Minor Faults: X hours, in the X% of the cases.

In the case of Minor Faults, the average restore time can be used as an alternative

4.2.4 Service Provisioning Timeframes

This defines the average timeframes for a SMSIP to perform and undertake certain activities in respect of provisioning/commissioning new customers and services. Such as :

Maximum Time to Turn On a New Destination that is included in the SMSIP connectivity list, assuming that the new destination (Elected Participating Operator) accepts traffic from the Client Operator.

Maximum Time to Modifying existing Client Operator data

It represents an indication of the commitment of a SMSIP to commission new customers and new services for existing customers expeditiously.

4.2.5 Service indicators for SS7 Connection Type

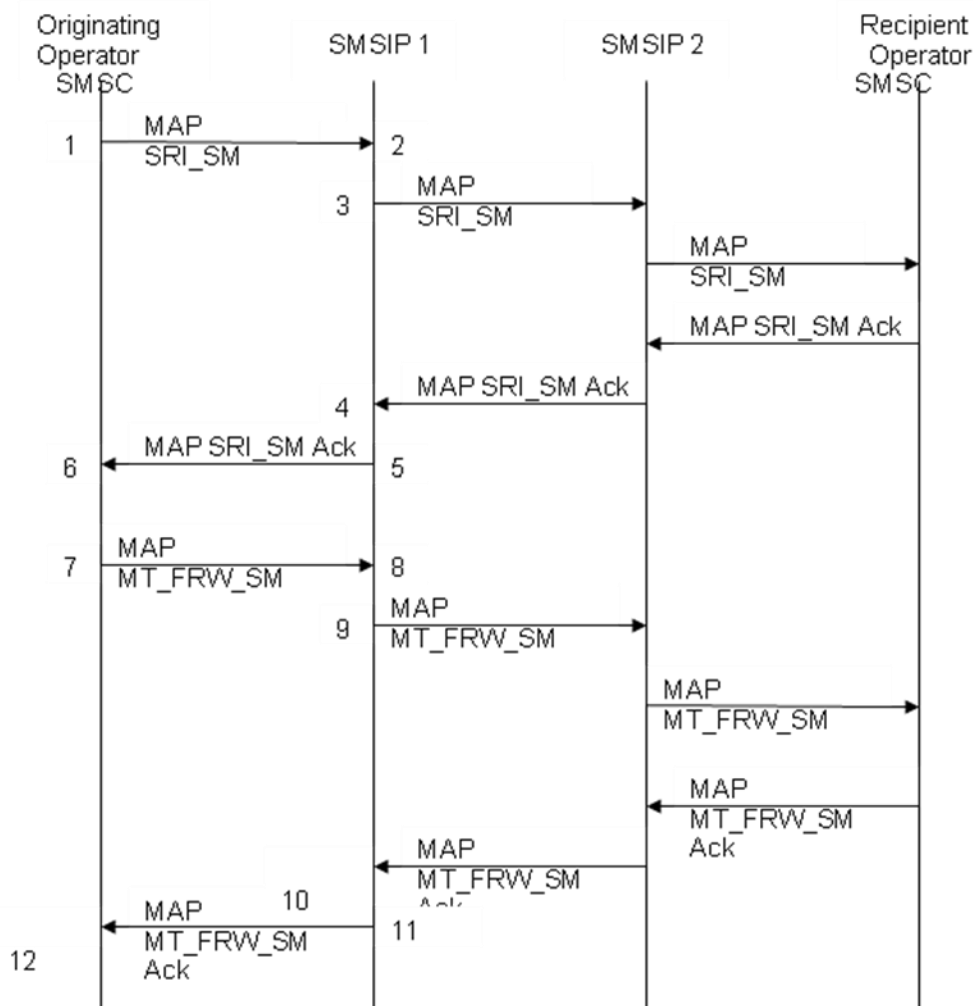


Fig.1: SS7 Connection

- SRI Message Failure Ratio [%]

Abstract definition: The parameter *SRI Message Failure Ratio* describes the percentage of cases where the SMSIP receives the SRI request from the Originating Operator (MAP SRI_SM) but it does not send an (regardless of the status=OK or error) acknowledgement (MAP SRI_SM Ack) to the Originating Operator

This parameter is measured between Trigger 2 and Trigger 5 in Fig.1.

Abstract equation:

$$\text{SRI Message Failure Ratio [\%]} = 100 * \left(1 - \frac{\sum \text{Ack Sent to Origin Operator}}{\sum \text{SRI received from Origin Operator}} \right)$$

- SRI Message Process Time [s]

Abstract definition: The parameter *SRI Message Process Time* describes the time from receiving the message from the origin SMSC (Map SRI_SM) until sending the acknowledgement to the origin SMSC (MAP SRI_SM Ack).

This parameter is measured from Trigger 2 until Trigger 5 in Fig. 1.

Abstract equation:

$$SRI\ Message\ Process\ Time\ [s] = \frac{\sum_{Ack\ sent} t_{Ack_sent\ to\ origin} - t_{SRI_received\ from\ origin}}{\sum Ack\ Sent\ to\ origin}$$

- SMS Message Failure Ratio [%]

Abstract definition: The parameter *SMS Message Failure Ratio* describes the percentage of cases where the SMSIP receives the SMS from the Originating Operator (MAP MT_FRW_SM) but it does not send an (regardless of the status=OK or error) acknowledgement (MAP MT_FRW_SM Ack) to the Originating Operator.

This parameter is measured between Trigger 8 and Trigger 11 in Fig.1.

Abstract equation:

$$SMS\ Message\ Failure\ Ratio\ [%] = 100 * \left(1 - \frac{\sum Ack\ Sent\ to\ Origin\ Operator}{\sum SMS\ Received\ from\ Origin\ Operator} \right)$$

- SMS Message Process Time [s]

Abstract definition: The parameter *SMS Message Process Time* describes the time from receiving the message from the Originating Operator (Map MT_FRW_SM) until sending the acknowledgement to the origin SMSC (MAP MT_FRW_SM Ack).

This parameter is measured from Trigger 8 until Trigger 11 in Fig. 1.

Abstract equation:

$$SMS\ Message\ Process\ Time\ [s] = \frac{\sum_{Ack\ sent} t_{Ack_sent\ to\ origin} - t_{SMS_received\ from\ Origin}}{\sum Ack\ Sent\ to\ origin}$$

- SMS Overall Transmission Time[s]

Abstract definition: The parameter *SMS Overall Transmission Time* describes the time from receiving the MAP Send Routing Info message (MAP SRI_SM) from the SMSC origin until sending the MAP MT Forward Short Message Ack back to the SMSC origin.

This parameter is measured from Trigger 2 until Trigger 11 in Fig. 1.

This parameter can only be evaluated for those SMS messages successfully delivered to the Recipient Operator. An SMS message is considered as being delivered to the Recipient Operator based on the reception of the MAP MT_FRW_SM Ack message from the SMSIP1 (trigger 10) as illustrated in Figure 1 above.

Abstract equation:

$$SMS\ Overall\ Transmission\ Time\ [s] = \frac{\sum_{SMS_{sent}} t_{SMS_Ack_sent\ to\ SMSCOrigin} - t_{SRI_received\ from\ SMSCOrigin}}{\sum SMS\ Successfully\ Sent\ to\ Recipient\ Operator}$$

4.2.6 Service indicators for SMPP Connection Type

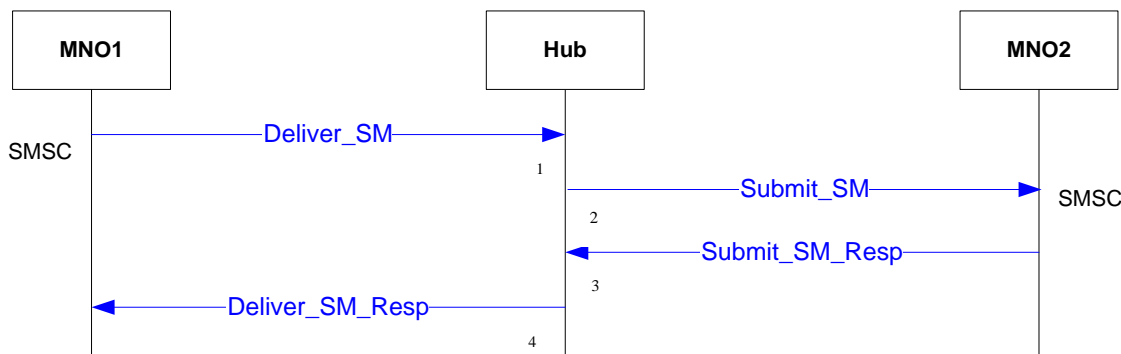


Fig.2: SMPP Connection

- SM Message Failure Ratio [%]

Abstract definition: The parameter *SM Message Failure Ratio* describes the percentage of cases where the SMSIP receives the SM request from the Originating Operator (Deliver_SM) but it does not send an (status=OK or error) acknowledgement (Deliver_SM_Resp) to the Originating Operator.

This parameter is measured between Trigger 1 and Trigger 4 in Fig.2.

Abstract equation:

$$SM\ Message\ Failure\ Ratio\ [%] = 100 * \left(1 - \frac{\sum Ack\ Sent\ to\ Origin\ Operator}{\sum SM\ received\ from\ Origin\ Operator} \right)$$

- SM Message Process Time [s]

Abstract definition: The parameter *SM Message Process Time* describes the time from receiving the message from the origin SMSC (Deliver_SM) until sending the acknowledgement to the origin SMSC (Deliver_SM_Resp).

This parameter is measured from Trigger 1 until Trigger 4 in Fig. 2.

Abstract equation:

$$SM\ Message\ Process\ Time\ [s] = \frac{\sum_{Ack\ sent} t_{Ack_sent\ to\ origin} - t_{SM_received\ from\ origin}}{\sum Ack\ Sent\ to\ origin}$$

4.2.7 Service indicators for Hybrid Connection Type SS7 to SMPP

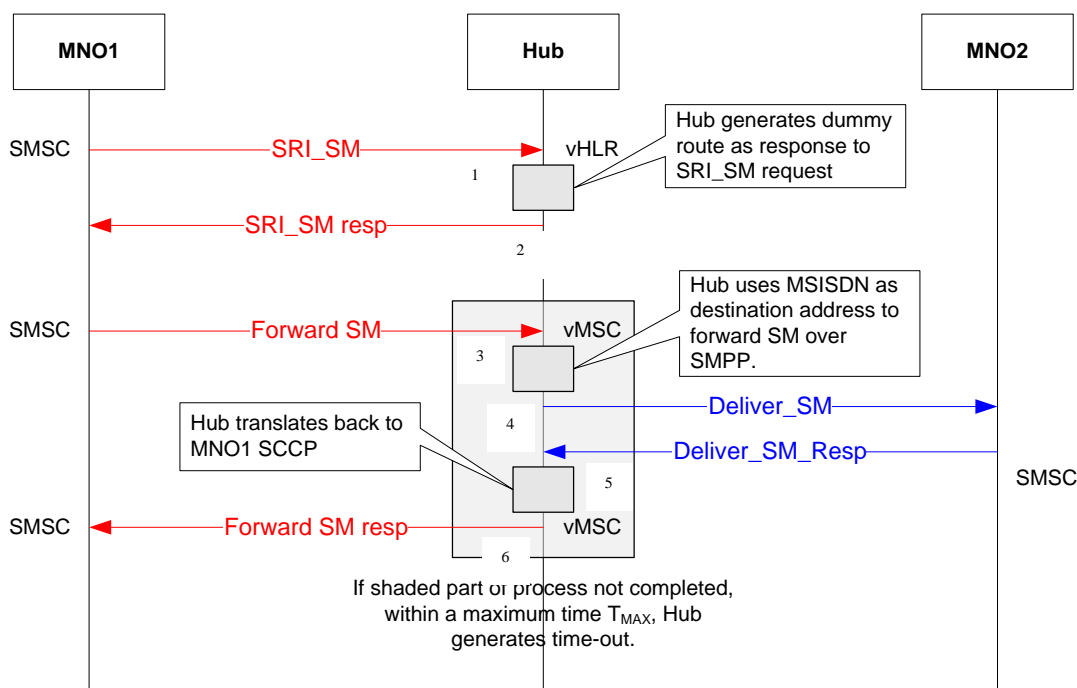


Fig.3: Hybrid Connection. SS7 to SMPP

- SMS Message Failure Ratio [%]

Abstract definition: The parameter *SMS Message Failure Ratio* describes the percentage of cases where the SMSIP receives the SMS from the Originating Operator (MAP MT_FRW_SM) but it does not send an (status=OK or error) acknowledgement (MAP MT_FRW_SM Ack) to the Originating Operator.

This parameter is measured between Trigger 3 and Trigger 6 in Fig.3.

Abstract equation:

$$\text{SMS Message Failure Ratio [\%]} = 100 * \left(1 - \frac{\sum \text{Ack Sent to Origin Operator}}{\sum \text{SMS Received from Origin Operator}} \right)$$

- SMS Message Process Time [s]

Abstract definition: The parameter *SMS Message Process Time* describes the time from receiving the message from the origin operator (Map MT_FRW_SM) until sending the acknowledgement to the origin SMSC (MAP MT_FRW_SM Ack).

This parameter is measured from Trigger 3 until Trigger 6 in Fig. 3.

Abstract equation:

$$\text{SMS Message Process Time [s]} = \frac{\sum t_{\text{Ack_sent to origin}} - t_{\text{SMS_received from Origin}}}{\sum \text{Ack Sent to origin}}$$

4.2.8 Service indicators for Hybrid Connection Type SMPP to SS7

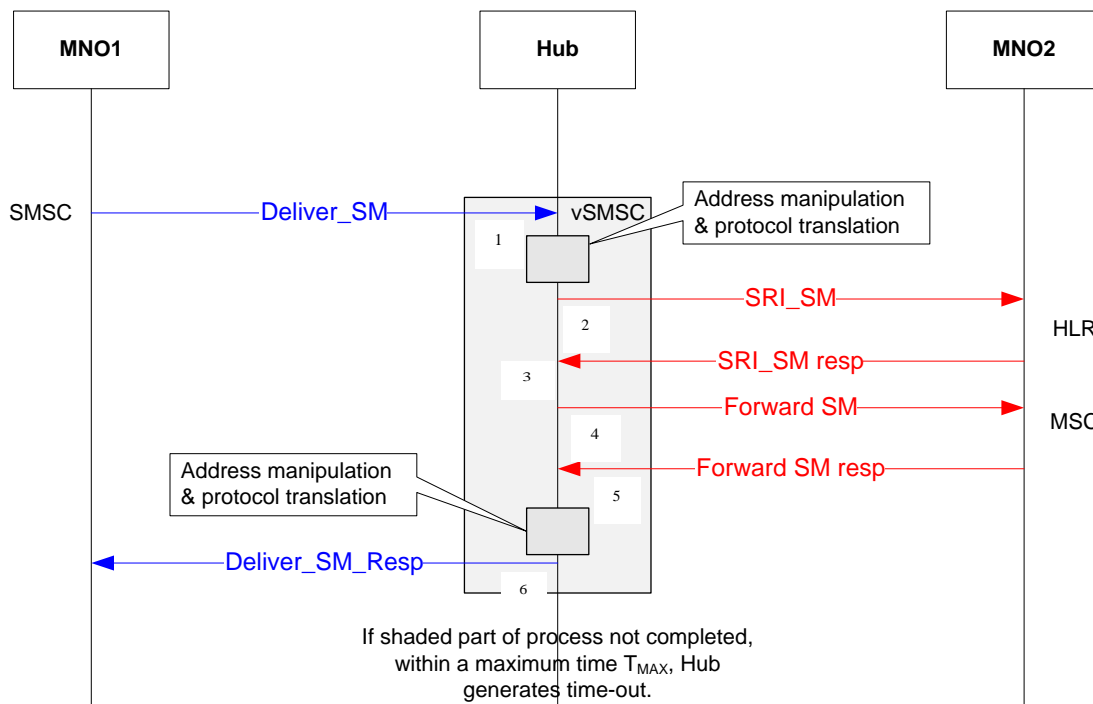


Fig.4: Hybrid Connection. SMPP to SS7

- SM Message Failure Ratio [%]

Abstract definition: The parameter *SM Message Failure Ratio* describes the percentage of cases where the SMSIP receives the SM request from the Originating Operator (Deliver_SM) but it does not send an (status=OK or error) acknowledgement (Deliver_SM_Resp) to the Originating Operator.

This parameter is measured between Trigger 1 and Trigger 6 in Fig.4.

Abstract equation:

$$SM \text{ Message Failure Ratio } [\%] = 100 * \left(1 - \frac{\sum Ack \text{ Sent to Origin Operator}}{\sum SM \text{ received from Origin Operator}} \right)$$

- SM Message Process Time [s]

Abstract definition: The parameter *SM Message Process Time* describes the time from receiving the message from the origin SMSC (Deliver_SM) until sending the acknowledgement to the origin SMSC (Deliver_SM_Resp).

This parameter is measured from Trigger 1 until Trigger 6 in Fig. 4.

Abstract equation:

$$SM \text{ Message Process Time [s]} = \frac{\sum_{Ack \text{ sent}} t_{Ack \text{ sent to origin}} - t_{SM \text{ received from origin}}}{\sum Ack \text{ Sent to origin}}$$

4.3 SMSIP Commitments

4.3.1 KPIS

4.3.1.1 Generic KPIS

KPI	Recommended Value	
SMS Transit Service Availability	X%	
SMS Transit Service Availability Per Destination	X%	
Maximum Time to Restore Service	Critical	4 hours 95% of the time
	Severe	8 hours 90% of the time
	Warning	24 hours 90% of the time
Service Provisioning Time Frame	Turn on a new destination	X days
	Modifying existing Client Operator data	X days

4.3.1.2 KPIS per Connection Type

KPI	Recommended Value	
SS7 Connection Type	SRI Message Failure Ratio	X%
	SRI Message Process Time	X secs
	SMS Message Failure Ratio	X%
	SMS Message Process Time	X secs
	SMS Overall Transmission Time	X secs
SMPP Connection Type	SM Message Failure Ratio	X%

	SM Message Process Time	X secs
Hybrid SS7 to SMPP Connection Type	SMS Message Failure Ratio	X%
	SMS Message Process Time	X secs
Hybrid SMPP to SS7 Connection Type	SM Message Failure Ratio	X%
	SM Message Process Time	X secs

In order to be consistent with PRD IR75 (section 8.4.4), the KPIs hereafter cannot be used for a service credit purpose unless a new temporary error code is introduced on SMPP standard.

4.3.2 Fault Reporting Procedure

Severity of Error	Initial Feedback	Update Interval	Incident Report
Critical	30 minutes	1 hour	4 days
Severe	30 minutes	4 hours	4 days
Warning	30 minutes	1 working day	N/A

Incident Reports should only be sent under request.

5 QUALIFYING FAULTS

When according to the Mobile Operator’s own measurement, the average daily level of QoS falls below the KPIs, the Mobile Operator may raise a “Qualifying Fault”

The Mobile Operator may request the SMSIP to handle and investigate all qualifying faults, and to commit to resolve ___% of them within ____ hrs when the fault lies in its own network.

When according to the Mobile Operator’s own measurement, the average weekly or monthly QoS level falls below the KPIs, the Mobile Operator is entitled to raise a “**qualifying weekly/monthly fault**”.

The Mobile Operator may request the SMSIP to handle and investigate all qualifying weekly/monthly faults, and to commit to resolve ___% of them within ___ hours when the fault lies in its own network.

6 Service Credits

This section of the SLA is intended to regulate the Service Credit and/or Performance Remedies that may be applied by the Client Operator as a result of the SMSIP failure to meet these minimum KPI commitments.

Should the MPR or other source of information agreed between the SMSIP and the Client Operator show that the actual level of performance achieved in the relevant period deviates from the commitments specified in this SLA (KPIs' target values indicated in section 6 hereto), the Client Operator reserves the right to:

- Request a Service Credit. The precise amount of Service Credits to be applied by the SMSIP to the Client Operator for the relevant period is to be agreed by the parties e.g. deduct x% from the total out payment due to the SMSIP for the month in question. The Service credit will be applied through a credit note relating to the concerned month; and/or
- to cease its obligations under the Agreement, e.g. to continue to route traffic to the SMSIP on the effected destination(s).

The Parties agree that the KPIs subject to Service Credit procedure are:

-
-
-
-

(List of KPIs from Service Quality Requirements section hereto agreed between the SMSIP and the Client Operator to be used for calculation of Service Credits according to this SLA)

In six months time the Parties may review the agreed KPIs list in the light of adding/removing KPIs.

A Service Credit may not apply, following agreement between the Parties, to a specific KPI or to all KPIs where the number of SMS to an Elected participating Operator or to all Elected Participating Operators is below xxxxx SMS per month,

Service Credits Claim Procedure: in order to claim for a Service Credit, the Client Operator shall notify the SMSIP of the request of Service Credit, no later than the period agreed between the Parties, with the following information:

- KPIs affected
- Amount of credit claimed

For the avoidance of doubt, Service Credit shall not apply in the following instances:

- the Agreement (Force Majeure)
- Degradation of performance on the affected route/s for the period in question is found to be the result of originating and/or terminating end performance or end customer behaviour which effects the successful delivery of the call;

7 Operation & Maintenance – FAULT MANAGEMENT

7.1 Introduction

This section details the operational processes and measures to be put in place by the Carrier and the Mobile Operator to guarantee the proper functioning of the Service in line with the requirements of this Agreement and SLA.

The terms used in the Service Level Agreement between the Carrier and the Mobile Operator have the same meaning in this Operations and Maintenance Section unless otherwise stated.

7.2 Central Notification Addresses

Each Party must name a central entity (single point of contact) who shall fulfil the duties in the notification processes in case of faults affecting the Service.

This contact must be available 24 hours a day at a single telephone contact number.

They have to be competent in operational issues for directly connected switch interconnect (The Service).

They have to have remote access to decentralised operational network elements as well as relevant access to tools, resources and knowledgebase to solve problems.

24 x7 Reference Details	Carrier Details	Mobile Operator Details
Contact Point		
Telephone Number		
Facsimile Number		
Email Address		

7.3 Fault Classification

The Carrier shall open a trouble ticket in the case of any fault on the Service reported by the Service Mobile Operator or as identified by the Carrier. The appropriate severity level shall be assigned to each trouble ticket. There are three levels of severity:

- Critical Errors (see clause 4.2.9.1)
- Major Errors (see clause 4.2.9.2)
- Minor Errors (see clause 4.2.9.3).

7.4 Fault Reporting Procedures

7.4.1 Fault Reporting by the Mobile Operator

The Carrier shall provide a fault reporting capability that is available 24x7x365. This contact is set out in Clause 8.2

Suspected faults on the Service shall be reported to the Carrier's contact in clause 8.2.

Reporting of fatal faults shall be also followed by a phone call to the same contact.

Faults will be logged and each call will be time-stamped and allocated a unique call reference number in the Carrier trouble ticket system to be used for all progress updates. To allow further tracking of each fault reported the Mobile Operator will also state its internal reference number when reporting any fault.

Whenever a fault is reported the below information has to be given:

- Company name
- Name, telephone number and email of the person reporting the fault

- Mobile Operator's contact name, telephone number and email, if different from the above
- Mobile Operator's Fault Trouble Ticket Number
- Physical location of the fault if identified.
- Details of the fault
- Any environmental conditions, such as a power failure, that may be causing the fault
- Severity
- Carrier traffic details should be included if available.

7.4.2 Fault Reporting by the Carrier

The Carrier shall quickly inform the Mobile Operator's contact (see clause 8.2) by telephone and email of any fatal fault, no matter in which part of the systems involved the fault occurs.

7.5 Fault Resolution

The Carrier shall immediately start proper fault handling intervention actions and inform the Mobile Operator accordingly, in line with the procedure stated within **clause 8.4**.

The time interval shall start from the moment when the TT is opened.

Both Parties shall provide each other with the agreed progress updates as reported in **clause 4.3.2** above.

The minimum information required in the update is:

- Expected resolution date/time
- Any information as to the cause of the fault
- All actions undertaken to date
- Any further information required
- Results of end-to-end measurement if applicable.

If the Carrier cannot resolve a fault within the defined MTRS targets, the Carrier shall allocate extra resources, via an escalation procedure, to achieve its resolution.

In all cases, if the fault is not resolved within the timeframe agreed from when a trouble ticket is opened and there is a degradation of the Service quality level the Mobile Operator reserves the right to re-route the traffic to another Carrier.

7.6 Escalation Procedure

Both Parties must name contact persons as single points of contact for escalation (such as, Fault Reporting Points). The escalation procedure can be delayed at the discretion of the Fault Reporting Points for a mutually agreed period when the fault has been identified and is being addressed by engineering staff of the appropriate Party.

Non service-affecting faults will not be escalated outside of working ours.

The recipient of the trouble ticket may escalate a fault in advance of the times set out below if it requires further information to progress the fault and that information has not been provided within a reasonable timescale.

If the Carrier cannot resolve a fault within the estimated time, then an escalation procedure will be initiated.

Escalation procedure is applied to all fault cases related to the services referred to in this contract. Only these can be the subject of an escalation that deals with persons with higher decision-making power.

If an escalation criterion listed is fulfilled, escalation can take place to the next higher level following expiration of the escalation period. The escalation period is the time that must pass before a change can take place from one level to the next.

In some cases certain faults need not be escalated automatically. A case can occur where the investigation of a fault is in progress and any escalation out of hours would serve no practical purpose. Both parties are to use reasonable and mutually agreed judgment regarding the benefit of escalating a particular fault.

All escalation between the Mobile Operator and the Carrier must be accomplished using the following steps:

Escalation Level	Carrier	Mobile Operator
Level I	<name, email, phone#>	<name, email, phone#>
Level II	<name, email, phone#>	<name, email, phone#>
Level III	<name, email, phone#>	<name, email, phone#>

Note: Non-service affecting faults will not be escalated outside of normal working hours.

Fault Status	Max Escalation Time to Level II	Max Escalation Time to Level III
Fatal	<Time>	<Time>
Severe	<Time>	<Time>
Warning	<Time>	<Time>

7.7 Official Status Information

After the initial information, updates in accordance with clause 4.3.2 will apply. On any reasonable request by either Party, the Central Notification Addresses are able to give information on the status of the trouble/problem.

7.8 Fault Clearance Procedures

Only the Central Notification Addresses can issue an official fault clearance (closure of trouble ticket for fault resolution).

If one Party's Central Notification Address closes a trouble ticket for fault resolution and informs the other Party thereon and the other Party does not complain about the fault still being there, such fault will be classified as «cleared» and the «Response and Restoration Time Clock» are stopped.

7.9 Duration of a Fault

The duration of a fault is the elapsed time between the Failure Start Time and the Failure Clear Time where:

Failure Start Time = Any failure is deemed to start from the precise time of day (to the nearest minute) that the alarm condition first arises on the Carrier's own telemetry systems or is reported to the Carrier by the Mobile Operator.

Failure Clear Time = A failure is deemed to have cleared at the precise time of day (to the nearest minute) that Carrier notifies the Mobile Operator that service has been restored to normal.

7.10 Communications

The Carrier will communicate to the Mobile Operator's contact points the following events within the timescales below:

- Planned Outages (including product upgrades/updates): minimum [state number of days agreed between parties].days of prior written notice. If such timescales is not respected, the work will be considered as an unplanned outage, such as, a fault.
- Communication of Suspension of the Service: maximum as soon as reasonably possible

Parties agree that:

- Emergency situations shall be expedited.
- Where an event is planned, each Party is required to notify the other in advance of full details concerning that event. A brief explanation of the operation shall be included and the impact or risk of impact, in the Service shall be always specified.

7.11 Planned Outages, Product Updates/Upgrades

Before any planned work is undertaken that may affect the Service, each Party shall give notice to the other Party (receiving Party).

Unless agreed otherwise all planned works shall be made [insert day] through [insert day] (if working days) between 00:00 and 06:00 am local time.

In all cases described above, each Party's network management organization will take action to reduce disruption of traffic flows to the minimum.

Carrier shall inform the Mobile Operator of a special who sll be available during the time the Carrier carries out work which may affect the Mobile Operator's traffic. Upon the Mobile Operator's request this contact will provide information on the status of the work being carried out.

Both Parties reserve their right to refuse a scheduled event for a good reason. In such a case the Parties will postpone the work to a later date which need not fit into the time slot for planned works.

Advice of proposed planned work shall be notified for example, by e-mail. Within 1 working day after receipt the receiving Party shall acknowledge receipt of the advice (for example, by a return e-mail). Only if the receiving Party fails to acknowledge the receipt, the originating Party shall call the contact number of the receiving Party and ask for a "GO" or "NO GO" decision. The originator shall not carry out the work as long as the receiving Party has not reacted to the notice at all (otherwise the work will be considered as an unplanned work/outage, such as, an MTRS impacting fault).

If a new release (for example, Software) does not work properly for any reason, then Carrier will have a proven rollback process in order to revert the system back to it's original working state. In such a case, the time to restore the proper functionality of the Service shall be taken into account when measuring the MTRS levels.

The Parties shall make no changes to their systems and any outage is defined as fatal during this freeze period: ____ (set out days and time zone, for example, 24 December – 26 December).

7.12 Fault Handling Performance Reporting

7.12.1 General Provisions

This section details the reports that shall be supplied and measured.

The Carrier shall send its report to the Mobile Operator not later than on the 10th calendar day of the month following the month to which the report applies.

The Mobile Operator shall validate this report not later than the 20th calendar day of the month following the month to which the report applies.

Reports and validations shall be emailed to the other Party's contact set out below:

Carrier's contact details	Mobile Operator's contact details
Fill in name, position, email	Fill in name, position, email

Either party may change contact names by providing written notice to the other Party seven days in advance of the change being valid.

In the event there is a discrepancy in the reporting of the KPI, between the reports provided by the Carrier, and the Mobile Operator's own measurements, then the Parties will agree the reconciliation process to follow.

7.12.2 Monthly Fault Report

The Carrier shall supply to the Mobile Operator a monthly "Fault Report" with the following information (for each trouble ticket) included:

- Date and hour of the receipt of information pertaining to each fault notified
- Date and hour of acknowledgement of receipt of fault notification;
- Date and hour of fault resolution (and notification).
- Carrier Trouble Ticket No
- Mobile Operator Trouble Ticket No
- Priority
- Brief description of the problem
- Brief description of cause of the problem
- Start Fault Date & Time
- Response Date & Time
- Resolution Date & Time
- Time to Restore the Service

7.12.3 Monthly Review Fault Report

Based on the fault report the Carrier shall supply a monthly review fault report including the following statistics for the past month and the past 6 months in total:

- Reporting Party
- Reporting Period (calendar month)
- Faults by severity and terminating Mobile Operator
- Number of open tickets at the end of the reporting period
- Number of tickets opened during the reporting period
- Number of tickets closed during the reporting period
- Average resolution time based on the closed tickets during the reporting period
- Number of opened fatal trouble tickets

7.12.4 Monthly Traffic Report

The Carrier shall provide a monthly traffic report which lists:

- The total volume of traffic transmitted
- The maximum amount of traffic transmitted during the busiest hours
- The average according with size definition

7.12.5 Monthly Quality of Service Report (= Monthly Performance Report = MPR)

The Carrier shall provide a MPR which lists hourly values for the KPIs. The values will be measured 24x7.

8 Operations & Maintenance – Non-fault Management

8.1 Service Management

Such Customer Care Service shall be provided on Non-Faults situations to include, non-fault related operational problems, operations and maintenance routines and documentation, pricing and billing queries and technical information.

This service shall be provided Monday – Friday, 0900 – 1700 (of Carrier local time) excluding Public Holidays.

8.2 Traffic Management

The Mobile Operator commits to providing traffic forecasts at mutually agreed intervals. The traffic forecasting provisions shall be used for dimensioning the transport capabilities of the Carrier network and the Carrier termination capabilities on the Terminating Mobile Operators. They shall not have any binding effect unless otherwise agreed between the Carrier and the Mobile Operator in writing.

8.3 Participating MNO Management

Pursuant to the provisions for Election and Activation of the Participating Mobile Operators, the Mobile Operator may request the Carrier from time to time to activate the Interworking between its own network and a new Terminating Mobile Operator not included in the Carrier list of Participating Mobile Operators.

In such cases, the Carrier shall inform the Mobile Operator within one month from his request, of the road map for implementation of the Interworking between the Mobile Operator and the required Terminating Mobile Operator.

If feasible, the Carrier shall offer this as a directly connected Terminating Mobile Operator to his own service, otherwise shall use a Third Carrier to implement the required Service to the required Terminating Mobile Operator in the shortest possible time.

At mutually agreed intervals the Carrier shall provide the Mobile Operators with its forecasts on the activation of new Terminating Mobile Operators. Those forecasts shall be used by the Carrier for implementing all necessary technical and charging parameters and by the Mobile Operator for systems configuration.

8.4 Maintenance Operations management

Where an outage is planned by the Mobile Operator or the Carrier, the Party causing the outage is required to notify the other with full details concerning the outage. A brief explanation of the operation shall be included and the impact or risk of impact on the service shall be always specified.

The Carrier shall periodically conduct maintenance test to check:

- The proper functionality of the Mobile Operator's connection to the Carrier's platform;
- The Interworking between the Mobile Operator and its Terminating Mobile Operators

The Parties will mutually agree, and document in the relevant Service Schedule, the appropriate maintenance tests to be performed including the allocation of any costs.

8.5 Parameter Change Notification & Contact Points Update

Parties shall agree at signature of their Agreement on ad hoc timing for notification of network and billing parameters' change & contact points' update.

8.6 Connection between Carrier System and the Mobile Operator's System

The Carrier shall designate an account manager(s) as a contact for the Service.

The account manager shall co-ordinate all technical and implementation operations with the Mobile Operator and shall report weekly to them on the project progress.

8.7 Operating Period

The Carrier shall designate an account manager to manage all technical and rollout operations required when a new Terminating Mobile Operator has to be activated.

This shall take place from the moment the Mobile Operator requests to implement the service with that new terminating Mobile Operator and until 1 month after the relevant Commencement Date.

9 SLA Review

Both Parties agree to attend regular meetings to assess the quality performance of the Service rendered by the SMSIP to the Client Operator. Additionally, these meetings can produce agreements (for example SLA updates) to improve quality.

The SMSIP agrees to support the development of quality measurements undertaken, as considered appropriate.

An important step is the definition of a common methodology and accepted parameters for calculating requested performance indicators. To better evaluate the QoS data received from SMSIP, SMSIP will present the data regarding Client Operator's origin or destination of the traffic.

The Mobile Operator and the SMSIP agree to perform a review of the SLA's QoS benchmark levels every 6 months to verify the necessity to update such levels in order for them to be always in line with the current technology and market trends

ANNEX 14 – TEST PLAN AND OPERATIONAL PROCEDURES

Introduction

This document provides a summary of the process of setting up and operating the service. It is a guide only and should be used to produce a detailed process that contains the required information that will be specific to the Client Operator and the SMSIP.

Process Summary

This process for setting up and operating the service is divided into 2 main phases as follows:

Phase 1 – Technical Process of setting up and testing of the service prior to the commencement of the live service

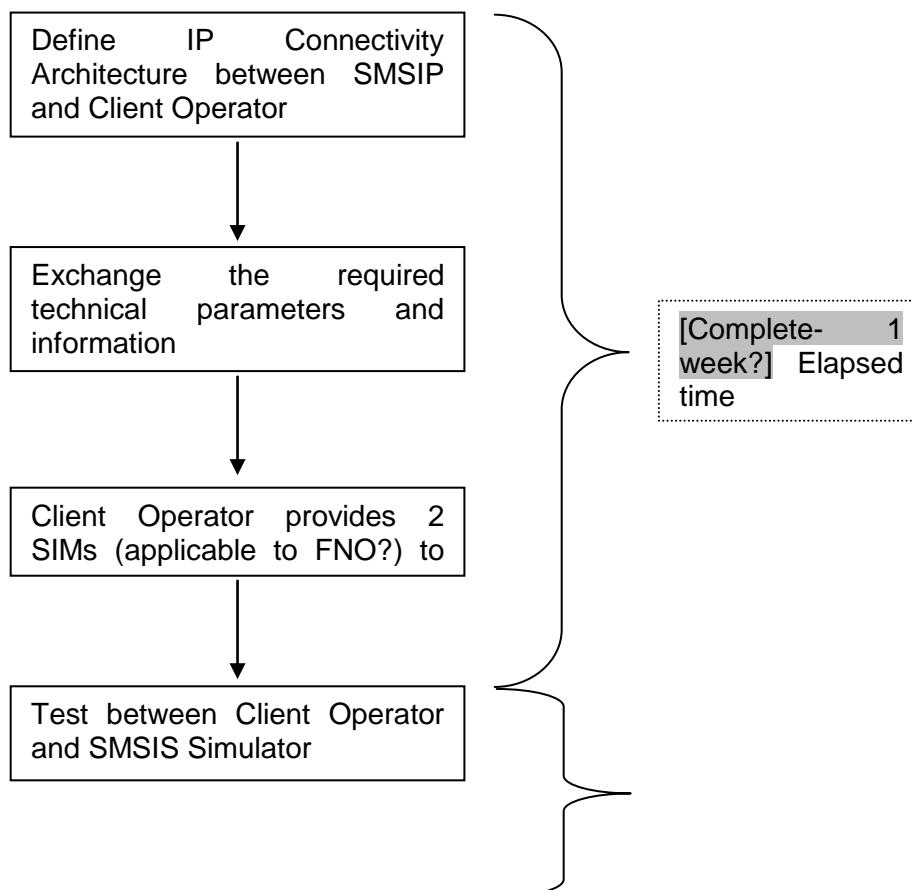
Phase 2 – Operational Process is the on-going commercial and technical aspects of operating the service

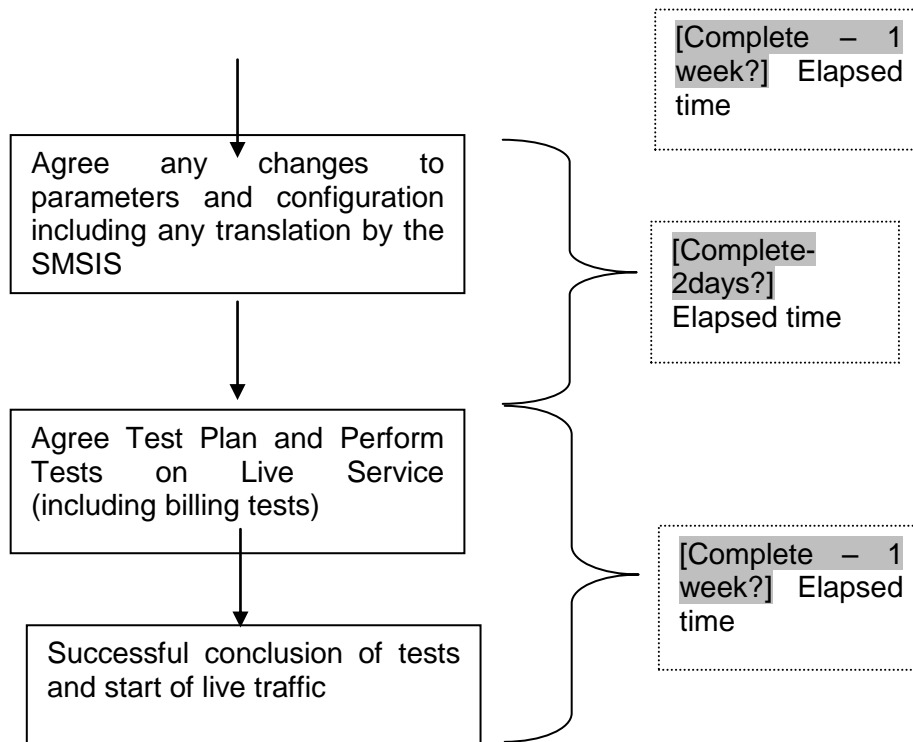
Note: The rest of this document contains estimates of how long various steps in the process will take. These are estimates only, for the purpose of guidance only, and may vary in practice.

These phases are summarised below:

Phase 1 – Technical Process of Set-up and Testing

Overview





Description

Client Operator and SMSIP to define Connectivity

The Client Operator and the SMSIP agree the technical architecture for the connectivity between the SMSIP System and the Client Operator System.

Client Operator and SMSIP exchange technical parameters and billing information

This relevant technical information may be gathered using a standard template document agreed between the Parties which will contain at least the following:

- Client Operator IR.21 which contains
- Contact information
- IP connectivity details
- SMTP-DNS information
- SM4 parameters
- Routing method
- Trace
- Test numbers and SIM cards information (applicable to FNO?)
- SMS handset configuration
- Billing information

The Client Operator will provide two SIMs to the SMSIP for the purpose of testing. With these SIMs from the Client Operator, the SMSIP shall perform the activation tests with each new

Participating Operator connected via the hub with the Client Operator. (check applicability of this step for FNO)

The test plan will be agreed based on a sub-set of the tests outlined in Appendix A of this document. Tests shall be performed by the SMSIP using the test SIM cards provided by the Client Operator. .

In the case where the Client Operator would prefer to perform the tests on its own, he will promptly inform the SMSIP.

As a minimum, tests will include the following: To be completed

The SMSIP will provide a test report to the Client Operator covering the test cases run and the results. This will include the CDRs and a test bill if required.

In the case where the Client Operator is performing the tests on its own, the test report will be delivered by the Client Operator to the SMSIP.

Timeline: To be completed

Upon positive completion of the activation tests by the SMSIP (or to the Client Operator as the case may be) , testified by the sending to the Client Operator (or to the SMSIP as the case may be) of a positive test report, the Parties will agree on a Service Commencement Date for SMS Interworking between the Client Operator and the Elected Participating Operator in respect of which the Service has been tested in accordance to the procedure mentioned above.

Upon activation of the Service between the Client Operator and the tested Elected Participating Operators, the procedures detailed in Articles 5 "Service Commencement and SMS Interworking Commencement", Article 6 "Participating Operators' Charges/ Election of Participating Operators" and 9 "SMS Interworking Scenarios and Charges and Payment" fully apply as well as the rest of the provisions included in this Agreement.

APPENDIX A – TEST SPECIFICATION

Please refer to GSMA PRD IR.XX for the relevant tests

ANNEX 15 – FORECASTING

ANNEX 16 – INTERCONNECTION AND TECHNICAL DESCRIPTION

[Include technical configuration, architecture, links and points of connection]

ANNEX 17 – FRAUD PREVENTION

Information on Fraud Prevention Procedures (Operator Confidential)

To be completed by Fraud Forum
Definition of criteria of suspected fraud:

High Usage Reports will be sent by secure Email

High Usage Reports will be received by secure Email

Contact Point for combating fraudulent use of Services

<Operator>

<Additional

info.>
address>

<Postal

<Postcode>

<COUNTRY>

Contact person:

<Name>

Telephone: <+xx xx xx xx xx> (Operator: <+xx xx xx xx xx>)

Fax: <+xx xx xx xx xx>

Internet Address: xxx.xxxx@xxx.xxx.xxx.xx

Service hours: <.....>

DOCUMENT MANAGEMENT

Document History

Version	Date	Brief Description of Change	Approval Authority	Editor Company /
0.1	11 May 2006	First discussion draft based on AA.70 SMS Hubbing Agreement	IWG EMC	
0.2	6 June 2006	Updated following first comments from SMS Hubbing volunteers	IWG EMC	
0.3	23 June 2006	Updated definitions	IWG EMC	
0.4	2 August 2006	Complete revision and update	IWG EMC	
1.0	16 November 2006	Finalised version	IWG EMC	
2.0	7 May 2007	CR001 to AA.71 – Change to make AA71 Unrestricted	IWG EMC	
2.1	16 July 2008	CR002 to AA.71 – Change to add reference to OC High Level Requirements	IWG EMC	Frederic PIERRE – SFR
2.2	02 December 2008	CR004 to AA.71 – Change to add clarifications on transparency CR003 to AA.71 – Change to add clarifications on the charging of Read/Delivery report	IWG eVote Dec 2008 EMC #69	Frederic PIERRE – SFR
3.0	July 2009	CR 005 to AA.71 Clarify maximum end to end rule (IWG Doc 10_008) CR 006 to AA.71 Stronger wording to prevent hubs charging additional fees when routed via a hub (IWG Doc 10_010) CR 007 to AA.71 Compliant destination (IWG Doc 10_039Rev1)	IWG #10 & EMC	Frederic PIERRE – SFR
4.0	4 December 2009	CR 009 SLA Reduction (IWG 11_022) CR 008 Two Way Destination (IWG 11_016)	IWG #11 EMC #78	Frederic PIERRE – SFR
4.1	28 May 2010	CR 010 Aligning currency conversion rules with BA11 (IWG 12_012)	IWG #12 EMC	Frederic PIERRE – SFR
5.0	21 July 2010	- CR010 to AA71	IWG #12	Frederic

Version	Date	Brief Description of Change	Approval Authority	Editor Company /
		Simplification and reduction (IWG 12_035) - CR011 to AA.71 Charging Principles for Interworking whilst roaming (IWG 12_036)	EMC	PIERRE SFR –
6.0	20 December 2010	- IWG Doc 13_016 CR 013 to AA.71 Charging Principles for Interworking whilst Roaming - IWG Doc 13_018 CR 014 to AA.71 Reference to IN.17 - IWG Doc 13_021 CR 015 to AA.71 Change to 80 days notice period	IWG #13 EMC	Frederic PIERRE SFR –
7.0	March 2012	DAG Doc 89_009 MCR016 to AA.71 on references to IW billing exchange & dispute PRDs	IWG #15 EMC	Frederic PIERRE SFR –

Other Information

Type	Description
Document Owner	IWG
Editor / Company	Frederic PIERRE / SFR