

# SGA-HR

## Home Router for SMS Service

### Let each Terminated SMS Count in the Account

Mobile operators settle up with each other for mobile terminated text messages. Usually Operator A (whose subscriber sends the SMS) pays a fee to Operator B (which terminates the SMS). When a subscriber of Operator B is in roaming position, it is the visited Operator Z that receives the payment and this fee does not always end up with Operator B.

The SGA Home Router changes this latter scenario and allows Operator B to get payments for all mobile terminated SMS traffic received by its roaming subscribers.



### Building a Business Case

Let us assume that the HLR of an operator processes 5 million *SRI4SM* requests a day from outside its network and only 3% of them find the recipient subscriber in roaming position - this still adds up to 150,000 such text messages daily. Multiplying this number with a small SMS termination fee, the revenue in question sums up to a noticeable figure.

A more exact estimation on the business value for this case requires knowledge about the number of the operator's outbound roamers, the number of text messages they receive from partner operators, and the SMS termination fees.

### Configuration Requirements

In order to put the new scenario to work, SGA-HR needs to be hooked up to receive *SRI4SM* and *ForwardSM* messages arriving from outside the network. This requires new message forwarding rules to separate these messages from all other related messages.

If your network or STP provider does not support route separation by message type, there are further alternatives to solve this issue – AITIA is here to assist you.



#### AITIA International, Inc.

Czetz J. utca 48-50., H-1039 Budapest, Hungary  
Tel.: +36 30 397-8303, +36 1 453-8080 Fax: +36 1 453-8081  
E-mail: [sga@aitia.ai](mailto:sga@aitia.ai)  
[sga.aitia.ai](http://sga.aitia.ai)

# SGA-HR

## Home Router for SMS Service

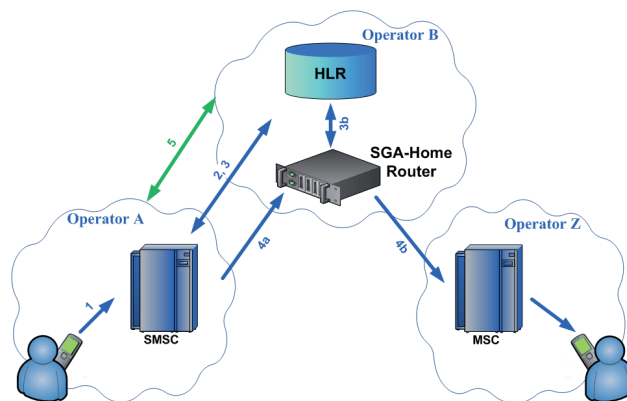
### Terminating SMS in the Visited Network

Currently the SMS sent from another operators' subscriber to your outbound roaming subscriber is terminated in the visited network in the following way:

- (1) Subscriber A submits the SMS, which ends up in SMSC-A
- (2) SMSC-A enquires HLR-B on the whereabouts of subscriber B (*SRI4SM*)
- (3) HLR-B responds with address of the visited (foreign) MSC
- (4) SMSC-A delivers the SMS to the foreign MSC (*ForwardSM*)
- (5) Operator A and Operator Z account for the mobile terminated SMS

### The Home Router changes the end of this scenario as follows:

- (3a) SGA-HR receives the *SRI4SM* request
- (3b) SGA-HR retrieves the real location of subscriber B from HLR-B
- (3c) HLR-B responds with address of SGA-HR, acting as an MSC
- (4a) SMSC-A delivers the SMS to SGA-HR (*ForwardSM*)
- (4b) SGA-HR forwards the SMS to the foreign MSC
- (5) Operator A and Operator B account for the terminated SMS



This scenario is different from the previous one: it is now Operator B (whose subscriber receives the SMS) that gets the SMS termination fee. Operator B does not have anything to declare to Operator Z because operators usually do not pay this fee for their own subscribers.

### Optional SMS Fraud Detection

SGA-HR can screen SMS fraud cases that are targeting your subscribers as SMS receiving parties. Since SGA-HR is capable of intercepting all *SRI4SM* requests and *ForwardSM* messages, AITIA's SMS Fraud Detection logic can be applied to eliminate this type of messages. For further details please see our SMS Fraud Detection product, SGA-SMSFD.

### AITIA Telecommunications References



**AITIA International, Inc.**

Czetz J. utca 48-50., H-1039 Budapest, Hungary

Tel.: +36 30 397-8303, +36 1 453-8080 Fax: +36 1 453-8081

E-mail: sga@aitia.ai

[sga.aitia.ai](http://sga.aitia.ai)