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Interconnect charges essential for SMS

The introduction of a small interconnect fee for SMS messaging is essential in an environment where both businesses and consumers rely on SMS messaging for communication purposes.

Currently, there is no SMS interconnect fee agreed between the three local network operators. On an international level, there are still several network operators that are not paying any SMS interconnect fees for terminating messages on local networks.

Individual subscribers can send SMS messages to subscribers on all other local and international networks. These subscribers can also receive SMS messages from phones anywhere in the world. This type of person to person (P2P) traffic is largely symmetrical, and operators are likely to send as many outbound messages as they receive inbound messages. The lack of SMS interconnect fees is not a problem here, and for this reason, when GSM networks started out, networks did not charge each other interconnect fees on SMS at all.

However, SMS messaging as a communications tool for businesses has exploded in recent years. The problem is that business messaging is not symmetrical, and all business messages could potentially originate from a single network. Since networks charge their own Wireless Application Service Providers (WASPs) for messaging, the routing of messages via outside networks (which do not pay a cent) creates the potential for significant revenue loss.

Many businesses have found very innovative and beneficial uses for SMS communication such as transaction notifications, appointment reminders, disaster notifications and progress updates. However, the availability of application to person (A2P) messaging interfaces introduces a significant risk for spam and scams, as message sending can be automated. Subscribers expect their home network to prevent SMS spam and scams. Dealing with spam complaints is a significant cost for operators, and for messages that originate from outside their network, it is more difficult and costly to deal with.

In this environment, the lack of interconnect fees is a double edged sword as it reduces the revenue for a network operator from business messaging and at the same time increases the cost of dealing with abuse.

The argument for local SMS interconnect charges

In South Africa, instead of introducing local SMS interconnect fees, the networks agreed not to compete on A2P business. They essentially allow cross network SMS for their subscribers, but they do not allow cross network SMS for their WASPs. Local WASPs therefore have to contract with all three network operators, Vodacom, MTN and Cell C, to be able to deliver messages to all three, and each network has a monopoly on A2P messaging to their own subscribers.

On one level, this benefits WASPs as they are the only entities that can offer cross network messaging via a single interface. However the lack of competition between operators results in uncompetitive pricing and poor service levels.

The agreement also leaves loopholes wide open. Businesses could bypass home routing by making their messaging appear to be person-to-person messaging by sending from GSM modems.

By introducing a small interconnect charge (50% of bulk charge) for local SMS messaging and by introducing competition between local operators on A2P business, service levels to WASPs will improve, and pricing offered by operators to WASPs will be more competitive. Provided the SMS interconnect fee is significantly lower compared to what consumers pay for messaging (10% of consumer charge), P2P message pricing will remain unaffected, as this traffic is largely symmetrical.

The four UK network operators introduced SMS interconnect fees amongst each other in 2003, and are competing on A2P SMS traffic. It is interesting to note that some UK operators are selling bulk A2P SMS at prices lower than the SMS interconnect rate. In essence, they are subsidising cross network A2P traffic, and making a profit mainly on their on-net A2P traffic.

The argument for international SMS interconnect charges

There are a number of international messaging providers connected to multiple network operators. These providers route messages via the lowest cost routes, which will often be to network operators that pay no interconnect fees.

The only way to prevent revenue loss is for the home network operator to introduce appropriate interconnect fees on SMS with all other international network operators. An international interconnect fee for SMS should be similar than the local bulk charge for A2P messaging.

This will ensure that home routing is the most cost effective, and international messaging providers will have an incentive to be connected to all network operators, or at least one operator in each country. Control over messaging abuse will then be much easier, as the home network will be able to trace all problematic messages via the WASP involved, back to the original sender. In SA, the WASPs involved will have to comply with the WASPA code which governs business messaging, and no messages will be able to bypass the jurisdiction of WASPA.

As there are so many international operators, with some having inadequate control over their infrastructure, the fraudulent use of SMS is also a possibility. Fraudsters with SS7 network access can spoof originating numbers and fake other details in such a way that millions of messages can be sent and then billed to the mobile of a third party. This activity poses a huge financial risk for operators, and requires advanced technical solutions to prevent.

Vodacom has been very pro-active in this regard and has consistently introduced interconnect fees on SMS with operators that are known to terminate SMS messages to its network. Vodacom has also introduced technical measures to block messages where sender -IDs have clearly been manipulated or spoofed. As a result, there has been significantly less (internationally routed) SMS spam on the Vodacom network over the past two years.

There are still large numbers of A2P messages originating internationally, terminating on MTN and Cell C phones locally. In addition, local MTN and Cell C numbers are being spoofed as originating numbers to mask the originating network of messages. This is a major problem for banks, where the spoofing of their SMS originating numbers could be a security risk.