

Wholesale SMS

Market Analysis

Introduction

The success of SMS can be attributed to certain unique features of SMS like message storage if the recipient is not available, confirmation of short message delivery and simultaneous transmission with GSM voice, data and fax services.

There is no doubt that the growing trend towards the usage of SMS in bulk has created a window of opportunity to generate substantial revenues from wholesale of SMS. However, this market is still at a relatively nascent stage. Even though a large number of SMS wholesalers are in existence today, the activities of only a few of them are publicized. Northstream's finding, during an investigation into the market to identify the existing and potential wholesalers of SMS, was that the majority of SMS wholesalers have a different core business and their entry into the business of wholesale SMS is purely based on the short term revenue generating potential, due to the high margins from this business as a result of the relatively low upfront investment requirement and low ongoing cost of provisioning.

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About Northstream:

Northstream offers strategies and intelligence to the wireless industry. We cover all aspects of wireless: R&D, technology and business planning, implementation and end user aspects. Northstream has assembled a multinational team with some of the world's best experts and analysts on wireless communication business and technology. Within Northstream you will find a dedicated research team, which follows and analyses the developments in the wireless industry.

In our work as strategic advisors, we work with several of the world's leading operators and system suppliers, e.g. Vodafone, AT&T Wireless Services, NTT DoCoMo, SmarTone, Sonera, Mitsubishi, Ericsson, Microsoft, Nokia and Siemens.

For further details: www.northstream.se

Wholesale SMS Value Web

There is no doubt that the growing trend towards the usage of SMS in bulk has created a window of opportunity to generate substantial revenues from wholesale SMS. However, this market is still at a relatively nascent stage. Even though a large number of SMS wholesalers are in existence today, the activities of only a few of them are publicized. Northstream's finding, during an investigation into the market to identify the existing and potential wholesalers of SMS, was that the majority of SMS wholesalers have a different core business and their entry into the business of wholesale SMS is purely based on the short term revenue generating potential, due to the high margins from this business as a result of the relatively low upfront investment requirement and low ongoing cost of provisioning.

In this analysis, focus has been placed only on those entities in the mobile value web that are either in existence today in the wholesale SMS market, or are viewed as potential participants moving forward (*Figure 1*). The shaded boxes represent the existing or potential players (buyers and sellers) in the wholesale SMS value web.

The Value web technique has been used as a tool to overcome the ambiguity associated with the active players in market for wholesale SMS. 'Value web' is a relatively new term used to highlight the complexity when describing the traditional value chain in the context of mobile services. The wholesale SMS value web is a subset of the mobile value web, created by extracting those entities in the mobile value web which either exist or could potentially participate in the business of wholesale SMS based on Northstream's definition of their core business. It is a very powerful tool for identifying the existing & potential market players and their commercial and strategic relationships with other constituents of the value web based on their position in the matrix.

The shaded boxes in the mobile value web (*Figure 1*) represent the existing or potential players (both buyers and sellers) in the SMS wholesale value web.

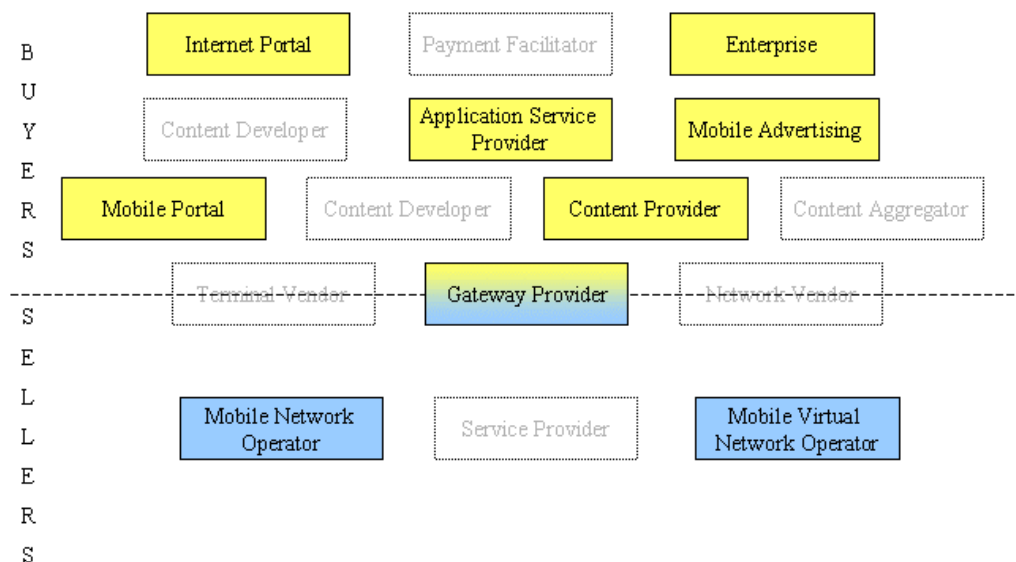


Figure 1 Wholesale SMS value web

Buyers

The units in the SMS wholesale value web, identified as existing or potential buyers of SMS wholesale, are those that would use SMS in one of the following areas which Northstream believe would be the main usage areas for bulk SMS, namely: Messaging, Mobile commerce, Information services, Entertainment, Customer relationship management, Mobile marketing and Work force management.

Sellers

All existing and potential wholesalers of SMS, identified from the value web, have been included under the following two broad categories: Producers & Resellers

- **Producers of SMS:** They own the SMSC, which they use to sell SMS capacity to resellers and users of SMS. Producers of SMS have the advantage of being able to enhance their offering with feature like interactivity, alphanumerical sender and user data header, all of which are growing in importance. They also have control over the messages being sent and received, by operating their own SMSC, placing them in a good position to guarantee service delivery. Example, Network Operators and MVNOs that own an SMSC like Jippii. Producers of SMS in Europe, i.e. network operators and MVNOs, have not placed too much emphasis on developing their SMS wholesale business due to the hassle and high costs associated with managing the business, hence they would prefer to sell to a reseller.
- **Resellers of SMS:** They do not own an SMSC but access SMS capacity from producers of SMS, by owning and operating an SMS Gateway. Their ability to offer enhancements to their basic offering, are restricted by the capabilities of the operator who's SMSC they access. However, they have the advantage over Producers of SMS of being able to enter into multiple operator agreements with multiple operators in different countries, and offer customers the convenience of an international packaged solution at a fixed price and the reliability of multiple routing options arising from access to several operators' SMSCs.

Resellers could be pure or partial resellers. The former plays the role of an intermediary between the producers and buyers of SMS wholesale. All the units positioned above them in the value web (*Figure 1*) could be potential customers and all below are competitors, as they not only supply the gateway to access SMS capacity but also compete with the producers for the same target users. Example, Distefora. The latter invest in the SMS gateway infrastructure in the first place solely to provide a value add to their core business and could potentially include any of the units mentioned under buyers of SMS wholesale. Since these units own the infrastructure required to access an SMSC, they could potentially also use this to resell to others, thereby acting as both customers and competitors to the pure sellers or producers of SMS wholesale. All those below could be potential competitors as they not only supply the gateway with SMS capacity but also compete with them for the same buyers. Thus, one of the interesting findings from the value web analysis was that the same players could be customers of a wholesaler of SMS and potential competitors, indicating the need to exercise caution when analyzing the potential market size.

Opportunities for Wholesale SMS: Usage areas & emerging technologies/applications

A large part of the SMS traffic today is accounted for by person-to-person communications (chat & text messaging).¹ However, there is an increasing trend towards the use of SMS by business users, for both communications and as a bearer for delivery of various types of content. For example, Radiolinja reported that the number of users of SMS for content services increased from 16 to 24% during 2000/2001.² This trend has created a demand from the user groups to purchase capacity in bulk resulting in the concept of wholesale SMS. For example, in April 2001, Vodafone stated that for its German operation D2, nearly one-third of the data revenue, or 5% of the total comes from 'wholesale' SMS services.³

Based on an in-depth analysis of market trends and user behaviour to identify the potential buyers of SMS in bulk (*Figure 1*) and their main usage areas, Northstream conclude that SMS based value added services mainly entertainment, information services and m-commerce will account for an increasing percentage of total SMS revenues and are expected to be the main source of demand for wholesale SMS, at least for the next 2 to 3 years.

Northstream have identified a list of 2G, 2.5G and 3G emerging applications and technologies, which will either substitute or complement wholesale SMS traffic. In view of the expected delays with the roll-out and commercial launch of high speed data networks like GPRS and UMTS and widespread availability of suitable terminals which would support the competing applications like Multimedia services (MMS), Instant messaging & presence services (IMPS) and Internet E-mail, there exists a window of opportunity till about 2004 before a significant part of the traffic being directed towards SMS will be stolen by these other application. Rather in the near term, emerging applications like EMS and Premium SMS will serve to boost the usage of SMS by enhancing its functionality.

The following tables summarize the impact (positive or negative) of emerging technologies (Table 1 Impact of emerging technologies & applications on demand for wholesale SMS) and potential buyers (Table 2 Usage areas of wholesale SMS by identified buyer groups) on the demand for wholesale SMS.

¹ Source: Merrill Lynch report

² Source: Radiolinja Interim Report, 6 month period ended 30th June 2001

³ Source: A week in European Mobile Data Services, Issue 23, Credit Suisse First Boston, June 1st 2001

	Usage areas of SMS wholesale						
Application	Messaging	Mobile Commerce	Entertainment	Information services	Customer relationship	Mobile marketing	Workforce management
EMS	++	++	+++	+		+	
Unified Messaging	+						
MMS	--	--	---	--		--	
IMPS	---						--
E-mail	--			--	--	--	--
Premium SMS		+++	+++	++			

+++ High positive impact --- High negative impact
 ++ Medium positive impact -- Medium Negative impact
 + Low positive impact - Low negative impact

Table 1 Impact of emerging technologies & applications on demand for wholesale SMS

	Usage areas of SMS wholesale						
SMS wholesale buyer group	Messaging	Mobile Commerce	Entertainment	Information services	Customer relationship	Mobile marketing	Workforce management
Portal	0	0	0	0		0	
ASP	0	0	0	0	0	0	0
Enterprise	0	0		0	0	0	0
Content Provider		0	0	0		0	
Mobile advertising			0	0		0	

Table 2 Usage areas of wholesale SMS by identified buyer groups

The above tables, in combination with Northstream's view with regards to the timing of widespread availability of network and terminal support for the emerging applications and technologies, clearly indicate that a huge potential exists for wholesale SMS, especially in the areas of M-commerce, Information services and Entertainment

Future of Wholesale SMS: Ongoing initiatives and expected developments relating to interconnect & revenue sharing

The analysis of the existing and potential buyers of bulk SMS, based on their expected usage pattern, clearly indicates that there is a huge potential market for bulk SMS, especially in areas like m-commerce, information and entertainment services. However, there is a degree of uncertainty surrounding the exact timing associated with regards to resolution of interconnect issues and the ability of operators to enter into mutually acceptable revenue sharing agreements with content providers, which have been identified as the key drivers for the proliferation of this market.

International interconnect

SMS has witnessed a tremendous growth in popularity and usage since the beginning of 2000. As a consequence of the sharp increase in the volume of SMS traffic the revenue resulting from SMS, has increased significantly, together with the focus of network operators in parts of Europe, towards this business. Since it was primarily the escalation in national SMS traffic that boosted the overall SMS traffic, the main concern for network operators during 1999 and 2000 was on domestic interconnect⁴. In the past, the logic behind this focus was that the differences between international outgoing and incoming traffic were too small and therefore the net revenue from interconnect negligible. As a result of this, the cost of sending cross border SMSs was lower than within national boundaries consequently leading to a flourishing cross border wholesale of SMS.

Today, one of the problems facing Network Operators, with the growing popularity of SMS, is the menace of externally originated messages, which could potentially flood the operators network without any revenue gains from interconnect fees. Companies like MTN that offer free SMS, and Swisscom, that offers very low prices, have contributed to this fear. This has resulted in operators in the UK blocking all SMSs originating from Swisscom's SMSC⁵.

Given the awareness of a potential revenue gain for some operators where there exists a lack of symmetry between incoming and outgoing traffic, action is being taken by the Network Operators who stand to benefit from charging of interconnect fees as the volume of incoming SMS traffic onto their network far outweighs the volume of outgoing traffic. Vodafone have for example stated that *"inbound interconnect revenue is an important element of a mobile operators' revenue"*.

In light of some of the ongoing initiatives in the industry with regards to international interconnect, by the operators, who are entering into one to one negotiations with each other to come up with a mutually acceptable solution & by the GSM Association, who have formulated a set of guidelines, Northstream envisage 4 possible development scenarios. It is Northstream's assessment that the most likely development scenario would manifest itself in the following way:

- **SMS interconnect fees are a reality.**

It is Northstream's opinion that international SMS interconnect fees is being implemented and others are following. Network Operators and Northstream's sources within the Network Operator community base this opinion on the initiatives that have already been taken. Swisscom and Omnitel Vodafone have signed an agreement where 0.48 SEK is charged by Omnitel Vodafone for sending an SMS to their subscribers.

- **The agreements are initiated by individual Network Operators.**

There will be no pan-European agreement on interconnect fees at this stage, rather individual measures by Network Operators demanding fees. There is a common trend of the Network Operators starting to follow the guidelines of the GSM Association. There are so far no signs that regulators are going to get involved.

- **The interconnect fees will differ**

Since the guidelines from GSM Association stipulate that operators are free to make agreements by themselves there will probably be some

⁴ OfTel report, Effective Competition Review: Mobile, February 2001, Annex 6

⁵ Mobile Internet, Volume 2, Number 11

differences in interconnect fees. The differences will however initially not be so large that it threatens the overall competitive environment and the differences in prices will be more due to commercial reasons such as specific market pricing, volumes of SMS sent, ownership structure etc. As competition becomes fierce, suppliers of SMS wholesale will try to cut costs.

Northstream believe that the expected impact of the above scenario materializing would be a drop in volume of cross border SMSs due to the increased associated cost of including an interconnect levy and therefore a reduction in the profitability of wholesale SMS business for sellers. However, one of the ways in which a wholesaler could avoid this interconnect fee imposed on cross border SMS traffic and still be in a position to provide its customers with an international solution is by entering into multiple agreements with local operators in different countries.

Revenue sharing agreements

For a number of years some Network Operators have, but to a limited extent, offered a type of SMS that varies in price depending on the content it delivers, called Premium SMS.

A wide variety of services can be offered using Premium SMS like ring tones and pictures. The ability to use SMS in this way, to deliver content to end users, will provide a boost to the uptake of SMS in bulk as M-commerce, information- and entertainment services, take off which use SMS as a bearer for data transactions till the roll out of more advanced and higher speed data networks like GPRS and 3G.

Norway and Finland have been in the forefront of the development and offer a network operator coordinated solution to content providers which allows end users to be billed via the operators billing system and content providers to share the revenue through a separate agreement with operators. The Norwegian Network Operators, have coordinated their account plans so that Content Providers can acquire one number to which all subscribers can send SMSs. Only one account number means easier communication to the customers. The regulator in Finland has regulated the coordination of account plans of the operators since 1999, which has made it easy for Content Provider to acquire the same account number.

In Finland, several Premium SMS services have been tested by operators, for example paying for a Coke using SMS, but these services have not been a major success amongst subscribers. Little more than a year ago, the two Norwegian mobile operators launched Premium SMS message services on a widespread commercial basis that varied in price from 1.5 SEK to 30 SEK. The service has mainly been used in m-commerce for ring tones and logos and it has been a huge success. The developments in Finland for ring tones and logos have, in contrast with paying for Coke, been similar to Norway. The key driver has been the revenue sharing between content providers and network operators.

Premium SMS could become a very large source of income for producers of SMS, i.e., Network Operators and MVNOs, as it would give them an opportunity to charge a premium for the service, over and above what they could have charged for an ordinary SMS. Premium SMS is a huge opportunity for operators to increase their ARPU. In addition, it would also provide content providers the ability to charge for the content delivered using SMS through the network operator's billing system.

One of the reasons given by network operators for the slow implementation of Premium SMS is that they lack the complete billing mechanism for managing such a service. The more important reason has been the unwillingness of network operators to forgo a part of the revenue to content providers. For example, under their present strategy, Telia keep 100% of the revenue generated from services. They have launched their own content web page "Mobile Nation", that uses a variation of Premium SMS, but they do not yet offer this service to other Content Providers.

The unwillingness of operators could seriously hamper the development and growth of this market and thereby the demand for bulk SMS, however, Northstream believes that network operators will abandon this strategy in the near future, as the loss of potential revenue streams will inevitably force them to comply with the demand. The European operators that offer Premium SMS on a commercial basis (other than the Norwegian and the Finnish operators) are: Vodafone UK, T-Mobil, D2 Vodafone and Telefonica. There are however complaints from the content providers that use these services that the interfaces are inflexible, the prices are high and the share of revenue that operators are prepare to forgo is too low. There are some signs that the Swedish operators will cooperate within this area, which will in all likelihood boost the bulk usage of SMS as a bearer for delivering content and other value added services.

Cross border SMS wholesale is difficult, for services that rely on this payment method, since the network that the recipient of the SMS belongs to has to bill for the cost of the MT SMS alternatively receiving the MO SMS and admit the cost on the subscribers bill. The conclusion is therefore that network operators, having a customer base with an existing billing relation, have a clear advantage in capturing this part of the market.

Northstream predicts that Premium SMS, with revenue sharing agreements, will be widely offered by operators throughout Europe in mid-2002 in order to provide the appropriate incentives needed to boost the usage of this service and the uptake of SMS in bulk.

Conclusion

The analysis of the existing and potential buyers of bulk SMS, based on their expected usage pattern, clearly indicates that there is a huge potential market for the bulk usage of SMS, especially so in the areas of M-commerce, Information and Entertainment services and it would be at least 2 to 3 years before SMS loses a share of the traffic being generated, by the identified usage areas, to competing technologies and applications. However, there is a degree of uncertainty surrounding the exact timing associated with regards to resolution of interconnect issues and the ability of operators to implement reverse billing, which have been identified as the key drivers for the proliferation of this market. There has been some amount of activity in a few countries with regards to these two issues but until they are resolved and implemented on a widespread level, the growth in the SMS wholesale market will be limited to only a few of the identified usage areas which do not have any need for operator billing support or are not affected by the present situation with regards to interconnect.

Contact:

Northstream has studied all aspects of **Wholesale SMS**. Please contact us if you would like to find out more about this or about our company and the services we provide.

E-mail us at info@northstream.se or call our local offices at +46 8 564 84 800 (SE) or +33 4 9723 2450 (FR) or +81 3 3560 2401 (JP) or +852 2168 0858 (HK) or +46 70 232 9894 (UK)