

North American Wireless Messaging – Trends for 2003

a report by

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Short message service (SMS), also known as wireless text messaging in North America, has been wildly popular in Europe and many Asian countries for several years. However, until mid 2002, North American carriers had not seen anywhere near the volume of messages that their European counterparts were enjoying – especially the revenue potential.

SMS is still by far the key driver behind (mobile) data revenues. According to Informa, the top revenue earners have been Smart Communications (at 38% of total average revenue per user (ARPU)) and Globe Telecom (at 33% of total ARPU), both of the Philippines, handling phenomenal daily traffic volumes. Other top-ranking carriers in Europe are Telenor (20%) of Norway, Telefonica Moviles of Spain (15.3%) and D2 Vodafone (15.2%) of Germany, all of whom are CMG Wireless Data Solutions customers along with Globe Telecom. It is also interesting to note that NTT DoCoMo is ranked at fourth place (with 19.8%), with the majority of this revenue generated via its proprietary mobile Internet data service, i-mode.

Currently, the European ARPU is said to be around 11%, distinctly separating the average messaging performers to the messaging out-performers. Clearly, SMS has the potential to help put a halt to declining ARPU and to contribute to the carrier's bottom line. At the end of 2001, in the US and Canada, SMS was not interoperable among carriers and among differing technologies. SMS interoperability across North America was still incomplete, end-user penetration low and further steps to drive SMS revenue were just beginning. In other words, the foundation from which to open up the total messaging market so that subscribers could communicate without restrictions, was not yet in place.

In many regions, multiple wireless carriers operate parallel networks. Some are Code Division Multiple Access (CDMA), some are Global System for Mobile communications™ (GSM), some are Time Division Multiple Access (TDMA) or Integrated Digital Enhanced Network™ (iDEN). In many markets in the US customers have as many as six to eight wireless carriers from which to choose, all running different types of networks.

The 'texting' craze originated in Western Europe led by the Scandinavian countries, but caught on in other parts of the world like wildfire. The Philippines is a phenomenal example. The attraction of SMS lies in its simplicity, immediacy and cost-effectiveness, bringing a message across quickly and succinctly. Interactivity makes it even more appealing (and profitable). SMS can generate a huge proportion of a carrier's total revenue, the majority of which (90%) is currently derived directly from simple person-to-person (P2P) messaging. The same is expected for premium messaging and services that offer consumers rich (self-generated multimedia) content. This will represent a sharing of experiences in every sense of the word, breaking all global communication boundaries, though the physical boundaries first need to be removed.

In regions where there is an extensive and diverse mixture of wireless carriers and the networks they operate, SMS fails to live up to its promise as a low-cost, easy-to-use, communications medium, as subscribers are limited to 'their own backyard' as it were. Only being given the ability to 'communicate' with subscribers on the same network or with someone who uses the same wireless carrier, in the same country is a sure and certain dampener to mass adoption of a service.

Growing Interoperability – The Primary Reason for SMS Acceptance

Since early 2002, inter-carrier SMS vendors began to interconnect carriers in the US and Canada. Companies such as CMG Wireless Data Solutions, InphoMatch, a Verisign/Mobilespring and Wireless Services Corporation now provide services to North American carriers to route their short messages to other carriers. In January and February 2002, the various inter-carrier SMS providers came together, along with support from the SMS Forum and the Cellular Telecommunications Industry Association (CTIA), to determine the technical requirements of such an interconnection or peering. It was crucial that inter-carrier SMS providers interconnect among themselves in order to create a seamless network throughout North America. In other words,

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competitors must partner with each other in order for the entire effort to be successful.

The interoperability effort resulted in a doubling of North American SMS traffic during the first half of 2002. As of June 2002, monthly SMS messages in the US exceeded one billion during the period of one month. Within months of launching inter-carrier SMS services, AT&T Wireless saw a 50% increase in SMS traffic. VoiceStream (now T-Mobile USA), Cingular and Verizon Wireless posted similar escalating numbers. In Canada, the inter-carrier volume increased by almost 300% from the launch in April 2002 in a period of just six months.

In October 2002, the *AT&T Wireless Quarterly Results* press release indicated specifically that SMS contributed to their ARPU growth:

“ARPU was \$61.60 in the third quarter, a 2.0 percent increase from the \$60.40 reported for the second quarter. For the second consecutive quarter this year, ARPU increased sequentially. The company said the increase in ARPU was primarily the result of seasonally higher roaming revenue as well as fewer lower-ARPU reseller subscribers in the subscriber base, pricing actions, increased data revenues from SMS and the introduction of new revenue sources such as international roaming...”

In the US, InphoMatch, Mobilespring/Verisign, and WSC represent around 90% of subscribers and CMG represents over 98% of the Canadian subscribers (approximately 12 million).

The next logical step is to extend inter-carrier SMS interoperability globally, offering subscribers the means to communicate with subscribers outside of the Americas. In late 2001, global interoperability movements began to stir in the region. In Brazil, CMG provided inter-carrier SMS for such companies as TCS and Global Telecom, Maxitel and Telebahia. As of October 2002, more than six million Brazilian wireless subscribers now enjoy inter-carrier SMS and these numbers continue to grow. Other inter-carrier vendors such as Inphomatch and TSI are very active in South America.

In Hong Kong, a similar scenario is in place, providing inter-carrier SMS to the six carriers. Many of Japan's carriers are now providing inter-connection with competitor networks.

The leading inter-carrier SMS providers: CMG, Inphomatch, Mobilespring/Verisign and Wireless Services Corporation will continue to encourage 'continental peering' and globalisation of communication mechanisms. The estimated global inter-carrier SMS market is estimated to be

between US\$250million and \$350 million for 2003 and 2004. Carriers will demand more global connectivity – especially as SMS, and now multimedia messaging services (MMS), are taking off in every corner of the globe. In addition to this, the next SMS wave currently being experienced in some parts of Europe and the Asia-Pacific region in the form of premium or value-added services. P2P messaging is just the beginning.

During 2003, a consolidation of messaging inter-connections into several global hubs, operated by joint inter-carrier SMS partnerships with SMS Centre (SMSC) vendors and the carriers themselves is expected. By the end of 2003, it should be entirely possible for a subscriber to send a short message to virtually any other subscriber, regardless of technology, carrier or part of the world. The same will hold true for MMS – the attraction of full-colour images will only be maximised if users can share them with other subscribers.

Many view global SMS capabilities as a must, in that it can save on expensive international voice calls and helps to build a loyal following for 3G services and beyond. Carriers who focus on building customer loyalty now by providing useful and reliable services will be the winners in the end. Furthermore, as inter-carrier 'chat' or 'chat groups' form, along with wireless instant messaging capabilities and mobile communities, this means that global communications will become commonplace. Additionally, as the physical boundaries between countries are broken down, global branding will play an even more critical role.

Premium SMS – New Uses for an Old Reliable

While the main focus of SMS in North America has been handset-to-handset interoperability, which has largely been resolved, subscribers will start seeing newer and more exciting SMS-based services. These value-added services will offer users all sorts of information, entertainment, m-commerce facilities, banking applications, etc. aimed at providing subscribers with useful and relevant content while on the move.

A premium SMS service can be defined as a mobile-originated (MO) message that acts as a request for information/service/content, then the one or more mobile-terminated (MT) responses (sent as additional SMS messages) that the initial MO message triggers. They may be 'sent to' (delivered) to a short code, usually defined by the carrier, e.g. '444' or '5001'. Behind the short code are various types of application servers that pass the input (the subscriber's MO message) and create the response (the MT message, to

be sent to the subscriber). Common short codes are essential if carriers want to maximise premium services such as mobile marketing campaigns or SMS-TV in a certain region. Control over third-party content and the delivery and billing of these services also requires special attention. After all, the road to customer loyalty requires careful management of the 'ultimate customer experience'.

In North America, the carriers control the access of the various premium SMS providers to their subscriber base. Furthermore, there is no common short code for the US and Canada. That said, as of late 2002, an initiative is moving forward in Canada to establish a range of common short codes for the entire country. This initiative is a joint project, under the auspices of the Canadian Wireless Telecommunications Association (CWTA). No date has yet been given as to when common short codes will be implemented, but the idea of the common short code is a powerful one.

Similar work is being undertaken by the SMS Forum to establish guidelines and implementation architecture for administering and accessing common short codes. Several of the top-five US-based carriers are working with the SMS Forum to establish these guidelines. Once implemented, common short codes will enable subscribers, regardless of air technology or carrier, to send short messages to a single, short number. Applications such as national polls, media-sponsored contests or interactive voting games will be accessible to all subscribers. Furthermore, large corporations (such as airlines) are more apt to spend marketing dollars if they can provide their SMS content via common short codes.

For payment of ring tones, graphics and such, most carriers already offer a means of paying for this content as an addition to the subscriber's phone bill. Pre-paying as a preferred payment option is also extremely important for carriers, as this market segment has been shown to be higher users of data services. Prepayment is only just starting to gain more 'exposure' in the US as subscribers demand services that can be paid for up front. Furthermore, the need for realtime rating and charging is essential for premium SMS, and even more pertinent in the multimedia world. It also links us back to making basic text messaging services available to a complete addressable market. An example of this is prepaid roaming. If the infrastructure is built, the users will come, as has clearly been seen with interoperability agreements.

Many carriers are already partnering with content providers and other institutions to offer various notification services in America such as credit card account notifications, weather updates, flight notifications and more. Many services such as Yahoo!,

MSN and American Airlines also offer pseudo SMS-based notifications, currently free of charge.

The Road to Multimedia Messaging

Many think that MMS will ultimately diminish the use of SMS or that MMS represents next-generation SMS. In the distant future, this may become true; however, for the foreseeable future, MMS is a new type of messaging, enabling origination of richer content such as full-colour photographs, graphics, polyphonic sounds, along with traditional text. As of late 2002, true MMS has not been deployed in North America, yet picture messaging such as that promoted by AT&T Wireless and Sprint PCS has reached the marketplace and is likely to form the springboard to MMS.

SMS will still be required as the notification media of choice to indicate that a new MMS is available and as a means of multimedia message receipt for legacy handsets. Furthermore, SMS is still a very inexpensive and relatively new manner for subscribers to communicate in emerging markets. Other research suggests that users will still want to send messages with plain text, so there will still be a market, albeit smaller, for basic SMS in the future.

Currently, of the almost 140 million US subscribers, around 20 million have sent an SMS message at some time. Consequently, there is still plenty of room for growth around basic P2P SMS and, in turn, premium SMS services.

SMS will continue to enjoy popularity and growth for several years before new MMS services make a real impact on the market and handsets fall to the mid-to-low price range. Basic text and picture messaging will bridge the gap from 2G to 3G, providing a healthy revenue stream that can be used to aid the development of next-generation networks and educate users on new services.

Frost & Sullivan believe that SMS should still be given equal attention as enhanced messaging service (EMS) and MMS, as text messaging will act as a transitory technology. In order to address the total messaging market (now and in the future), a strong and successful SMS business model must be in place. It will be those carriers who made the decision to invest in a quality SMS platform (reliable, robust and future-proof platforms) early on, that will secure long-term holistic messaging success and return on investment much faster.

2G and 2.5G data services will provide the springboard for carriers to lead their customers into the 3G world, creating loyalty in the future 3G-subscriber base before it exists.

2003 – A Year of Change

Messaging in North America is evolving daily. Still, North American subscribers can expect the following wireless messaging capabilities in 2003:

- **Full continental interoperability** – All mobile subscribers will be able to exchange messages between the US and Canada, as well as many other countries in the world – and not just GSM interoperability, but TDMA and CDMA interoperability as well. Expect the level of P2P SMS usage to keep increasing as more of the general population learns about it and adopts it in their everyday lives. As in Europe and Asia, it is the younger generations (14 to 25 year olds) that are the most enthusiastic about SMS. However, evidence shows that the older generation, along with business users, are catching at an extremely fast rate.
- **Additional acceptance and usage of EMS** – Many handsets already support this capability and most SMSCs already support concatenated billing required for EMS. Most carriers charge the same price per EMS segment as a single SMS, however, this may become an obstacle for adoption of the service as the price may become prohibitive. This could also be detrimental in the take-up of MMS. As a further means of expression, such as simple graphics, tunes and character formatting, subscribers are likely to boost their own messaging usage. Mainstream subscribers should be using at least one EMS style feature before the end of 2003 if the carriers manage pricing and promotion effectively.
- **Further usage of premium SMS** – Institutions and providers will unilaterally offer SMS-based notifications such as airline gate/boarding announcements, flight changes, weather updates, credit card notifications, important e-mail notifications, news headlines, etc. Smart carriers will also ensure that they offer a response mechanism or further information sources from the message delivered will be those that benefit from increased SMS traffic. For example, if the subscriber asks for the nearest Chinese restaurant, the answer could include other services such as a restaurant booking facility or a list of directions to the restaurant.
- **Consolidation from the viewpoint of services and SMS vendors** – There are numerous inter-carrier SMS providers, SMSC vendors and premium SMS content providers. Consolidation among several is likely, due to today's extreme business climate, and wireless is no exception. The ultimate result of this will be integrated and managed services. Subscribers should not feel the short-term impact; however, towards the end of 2003, there will be newer and better premium services that might not have been possible otherwise.
- **Specialised premium SMS services** – such as gaming, voting, enterprise applications, etc. and payment support will make their debut. Specialty subscription-based applications for industry will also become more prevalent and subscribers are likely to see SMS gaming and polling in conjunction with other media outlets such as television, radio and print. For example, a print advertisement, product packaging or poster might describe a contest in which the subscriber is to respond to a question or to participate in a poll. Similar usage of television media will enable participants to send messages to a number so that the message appears in a scrolling bar at the bottom of the television screen such as seen in Europe with MTV. Still more media-based SMS will consist of gaming with results posted or announced on the live television voting show. With the debut of country-wide short codes, this type of SMS usage is highly likely. Look for some country-wide short codes – probably in Canada first. In the US there are groups, such as the SMS Forum, that are actively discussing common short codes.
- **Location-based messaging** – Using the infrastructure in place for Enhanced 911 (E911) will begin to become available to subscribers. If the subscriber's location can be determined, message content such as traffic reports, locations of establishments such as restaurants, automated teller machines, banks and other businesses can be sent to the subscriber. Furthermore, location-based gaming also becomes possible. Although privacy concerns are paramount in the Americas, all location-based messaging services will be opt-in for subscribers, further alleviating any privacy concerns. If, however, a provider or carrier tries to use a subscriber's location to send coupons or other content to a handset without any subscriber opt-in, this would effectively kill any chance for location-based messaging to gain a foothold in North America. Emergency services will also benefit from the E911 developments.
- **MMS will start to appear** – The growth of MMS is dependant on price and promotions of service as well as MMS-capable handsets. MMS will grow quickly if it is made affordable to the subscriber and it will most likely catch on with a core set of subscribers, then grow more rapidly in 2004 and 2005. Both the carriers and subscribers need education on how to promote MMS and make it a 'must have' for the subscribers. For 2003 and probably 2004, MMS will not replace SMS as the messaging medium of choice.

Overall, in 2003, the messaging market will steadily evolve. SMS acceptance in the Americas – both for P2P communication and premium SMS will continue to grow as it has done in other mature and emerging markets. For 2002, it was the implementation of SMS interoperability; for 2003, it will be a building and consolidation of the groundwork that was set during 2002 – opening up the full addressable messaging market and removing all communication boundaries. SMS, the ARPU ‘angel’ will continue to reach new heights the world over. ■

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