



Short messaging services versus instant messaging: value versus volume

Deloitte predicts that in 2014 instant messaging services on mobile phones (MIM) will carry more than twice the volume (50 billion versus 21 billion per day) of messages sent via a short messaging service (SMS)¹⁷⁶. This is a significantly greater ratio than in 2012, when 1.1 instant messages were sent for every text message¹⁷⁷. It might be supposed that the growth in MIM is coming at the expense of SMS and mobile carriers. However despite the burgeoning volumes of messages carried over MIM platforms¹⁷⁸, we expect globally SMS to generate more than \$100 billion in 2014, equivalent to approximately 50 times the total revenues from all MIM services¹⁷⁹.

So MIM services may win the battle for volume in 2014, but SMS will be victorious in global revenue terms. We expect SMS to continue to generate significantly greater revenues than MIM even as far out as 2017, by which point global SMS revenues are expected to have started falling¹⁸⁰. We would also expect MIM services on mobile phones to continue to substitute not just for SMS, but all other forms of communication, from e-mail to phone calls.

Text messaging's superior revenue-generating ability is due to three main factors: ubiquity, infrequency and price.

SMS is the one messaging standard common to almost every mobile phone¹⁸¹. There are 3.2 billion unique mobile subscribers that can send and receive SMS¹⁸². MIM is popular, but it requires a smartphone, tablet or MP4 player. It also needs a mobile data plan, or a connection to a Wi-Fi network. Both are ubiquitous in some regions in the world, but in some markets, such as most of the African region, only a minority has mobile broadband, and even fewer have fixed broadband.

Further, many over-the-top (OTT) providers are incompatible with each other. Communication via an OTT service requires all parties to have the same app. A WhatsApp customer cannot message a WeChat user directly. In order to communicate, the requisite app would need to be downloaded; otherwise SMS would have to be used¹⁸³.

Some MIM services only work with a single brand of phone. When sending a message to someone using a different manufacturer's phone, SMS is the choice by default.

While SMS is common to all smartphones, most smartphones are likely to send far fewer SMSs than MIM messages in 2014. But the relative infrequency of sending SMS compared with MIM may be a key reason why SMS is able to generate greater value. Mobile phone users may be relatively insensitive to SMS tariffs as they send few text messages relative to those sent via MIM services. Feature phone users may send few messages via their phones. For both types of mobile phone, users may be willing to spend 10 cents per message on the assumption that in a given month they would send fewer than 10 messages.

It is also important to note that while MIM and SMS are based around messaging that is predominantly text based, there are subtle but fundamental differences which engender different behaviors. MIM is based around two-way communication and an interchange of quick-fire responses. Presence awareness often acts as a signal for one correspondent to start conversing with another – or multiple others. Further, instant messaging's origins are as a free-of-charge PC-based service. By contrast SMS is more about individual, paid-for messages, for sending information.

Smartphone users travelling abroad may prefer to use text messaging, as it may be cheaper while roaming to send an SMS than to purchase a mobile data package so as to be able to send and receive MIM. And some users may simply not have mobile data roaming enabled.

MIM's lower direct revenues may also be due to the provider's business model. Some MIM services are a value-added offering to all users of a manufacturer's device. For example Apple's iMessage service is a feature of the device ecosystem and there is no subscription involved¹⁸⁴. Facebook's communications services for mobile devices may help drive mobile advertising revenues.

176 The volume for SMSs and MIMs sent are estimated based on existing knowledge, conversations with industry players and published industry forecasts including: Chat apps have overtaken SMS by message volume, but how big a disaster is that for carriers?, Gigaom, 29 April 2013. See: <http://gigaom.com/2013/04/29/chat-apps-have-overtaken-sms-by-message-volume/>. Of this quantity, the market leader WhatsApp has by far the highest volume, with a claimed 27 billion messages sent per day, which on its own is greater than the volume of text messages. See: WhatsApp hits new record after processing 27 billion messages in one day, The Next Web, 13 June 2013: <http://thenextweb.com/mobile/2013/06/13/whatsapp-is-now-processing-a-record-27-billion-messages-per-day/>.

177 OTT messaging traffic will be twice the volume of P2P SMS traffic by end-2013, Informa, 29 April 2013. See: <http://blogs.informamdm.com/12851/news-release-ott-messaging-traffic-will-be-twice-the-volume-of-p2p-sms-traffic-by-end-2013/>.

178 For the purposes of this prediction, the following instant messaging services/providers have been included: WhatsApp, Line, Viber, Tango, WeChat, Snapchat, iMessage, Nimbuzz and KakaoTalk. Upon installation, most of these services, create a user account using one's phone number as username. Social networking services for which MIM is a subordinate component have been excluded from this analysis.

179 SMS revenues in 2013 reached \$120 billion in 2013 and are forecast to decline to \$96.7 billion by 2018. See: Global annual SMS revenues will be US\$23 billion less by 2018, Informa, 14 November 2013: <http://www.informa.com/Media-centre/Press-releases-news/Latest-News/Global-annual-SMS-revenues-will-be-US23-billion-less-by-2018/>. For more information on revenues for major MIM players, see: Snapchat Could Learn From The Explosive Growth In This Messaging App's Sticker And Ad Revenue, Business Insider, 17 December 2013: <http://www.businessinsider.in/Snapchat-Could-Learn-From-The-Explosive-Growth-In-This-Messaging-Apps-Sticker-And-Ad-Revenue/articleshow/27546896.cms>; Kakao to be Listed Next Year, BusinessKorea, 7 January 2014: <http://www.businesskorea.co.kr/article/2851/kakao-ipo-kakao-to-be-listed-next-year>.

180 Ovum anticipates SMS revenues to start declining as of 2017. See: Global SMS revenues will decline after 2016, Ovum, 11 November 2013: <http://ovum.com/2013/11/11/global-sms-revenues-will-decline-after-2016/>.

181 2G CDMA handsets do not support text messaging.

182 Definitive data and analysis for the mobile industry, GSMA Intelligence, November 2013. See: <https://gsaintelligence.com/>.

183 A global survey of MIM users found that 58 percent of respondents had more than one MIM app installed on their phone. In Indonesia the average was 4.2 apps. See: Study: Facebook Messenger still reigns in the U.S. but other countries look to WhatsApp, Gigaom, 26 November 2013: <http://gigaom.com/2013/11/26/study-facebook-messenger-still-reigns-in-the-us-but-other-countries-look-to-whatsapp/>.

Some services such as WhatsApp seem to be focused, at least for now, on capturing the largest possible user base, and are not focused on revenue. Other services such as Snapchat may focus more on the value from accumulating large volumes of users, to whom value-added services can subsequently be sold¹⁸⁵.

In 2014 it is very likely that trillions of MIMs will be sent in place of a text message. But it is also very likely that, billions of times per day, MIMs will also be sent instead of e-mail, tweets or other forms of communication such as phone and video calls.

SMS's significant revenues and margins in 2014 are likely to contrast with the challenges facing some standalone MIM service providers. Competition between MIM providers may prevent significant profitability from being achieved¹⁸⁶. With some providers relying on revenues from app purchases or one-off annual fees, average revenue per customer is low. For example, WhatsApp charges a dollar a year per subscriber¹⁸⁷. Other providers have included virtual goods or games in their offering, and their revenues are growing fast¹⁸⁸. For example Line generates about 69 cents per customer per quarter from in-app purchases, advertising and games¹⁸⁹. As more services become available and competition increases, some providers are forced to buy TV ad space to raise awareness, rather than relying on free viral marketing¹⁹⁰. Indeed the MIM business model may face substantial challenges in 2014, and the upper limit on revenues may be surprisingly low: a MIM provider with seven billion users, charging a dollar per year, would have a fraction of SMS' global revenues.

MIM and SMS are likely to be regarded as direct competitors in 2014¹⁹¹. One analyst estimated that in 2013, MIM depleted SMS revenues by \$32 billion. A single text message costs a few cents to send, but an MIM consisting of 200 characters of text may generate about 0.01 cents if the subscriber is paying \$10 per gigabyte, and the MIM provider may not earn anything from this¹⁹². Given the rising volumes of MIM messages in 2014, the implicit loss might be even higher¹⁹³. However over the past few years, global SMS and MIM volumes and revenues have grown in tandem¹⁹⁴.

But while MIM may be taking revenue from mobile operators in the form of lost text messaging revenues, it may also be driving demand for mobile broadband. And in 2014, revenues for mobile broadband may overtake SMS¹⁹⁵. While it is difficult to assign an exact value for the impact of instant messaging on the take-up of mobile broadband, it is sizable, and should become larger still over time, as MIM services are used increasingly to send large audio and larger video files. A one minute-long video sent via MIM is more than 1,000 times larger than a text-only MIM (see Figure 5 for approximate file sizes by different type of messages).

Figure 5: Approximate file sizes by type MIM message

Type of MIM message	Approximate size (in KB)*
Text-only MIM (approximately 150 characters)	10
Photo	100
Audio file (one minute long)	150
Video file (one minute long)	12,000

Source: Deloitte analysis based on publicly available information¹⁹⁶

* File sizes are considerably compressed when sent via an MIM application and will not reflect its actual size.

Bottom line

Text messaging's heyday is approaching but in 2014 it should still generate significant margin for the mobile industry. Its importance should be neither overlooked nor underestimated.

There are several ways for operators to respond to the negative long-term outlook for SMS.

One would be to try and create an operator-owned OTT MIM to rival the existing providers. For this to work as well as SMS, it would need to be a global standard; if the industry relies on opt-ins on a per carrier basis, adoption is likely to be too slow¹⁹⁷.

A further option would be to incorporate MIM-type features into SMS, such as by replicating the ability to send messages to groups easily, and to include audio and video clips. Presence functionality may also help.

A third option would be, rather than compete with MIM services, to encourage their adoption, so as to increase take-up and usage of mobile data. Carriers should evaluate the merits of exposing network and data assets to OTT players via APIs (Application Programming Interfaces)¹⁹⁸. Carrier APIs allow third parties to integrate their applications and services more closely with the mobile device, the SIM card and elements of the network. Functionality ranges from in-app advertising through to 'add-to-bill' processing, which allows the value of in-app purchases, such as emoticons, stickers and games, to be added to the monthly phone bill. Given that MIM services tend to have low consumer loyalty, carriers could help improve the dynamics of OTT MIM, whilst at the same time positioning themselves to capture a share of MIM revenues. Figure 6 provides an example of some of the APIs that a carrier could expose.

- 184 For a description of Apple's iMessage, see: Messages Unlimited texting Unlimited fun, Apple, website as accessed on 16 December 2013. <https://www.apple.com/ios/messages/>
- 185 Snapchat's planned commercialization model is based on the approach used by WeChat, generating revenue from in-app transactions and gaming services. See: Chatting With Mr Snapchat, BBC, 14 November 2013. <http://www.bbc.co.uk/news/technology-24925932>
- 186 For a discussion on the business models for instant messaging services, see: BBM app hits 10m downloads on rival phones, Financial Times, 23 October 2013. <http://www.ft.com/cms/s/0/7555ea62-3bcc-11e3-b85f-00144feab7de.html?siteedition=uk&axzz-2kvbMDy4d> (Registration required)
- 187 On Google Play and Apple App Store, WhatsApp is free in the first year of installation and \$0.99/year. See: iTunes Preview, Apple, 2013. See: <https://itunes.apple.com/gb/app/whatsapp-messenger/id310633997>; WhatsApp Messenger, Google Play, 2013. https://play.google.com/store/apps/details?id=com.whatsapp&hl=en_GB
- 188 Line's revenues increased by 45.3 percent in one quarter and 348.9 percent year-on-year. See: Japanese messaging firm LINE brings in \$132 million in revenue for Q2 2013, The Next Web, 8 August 2013. <http://thenextweb.com/apps/2013/08/08/line-corp-brings-in-132m-of-revenue-in-q2-2013-as-its-messaging-app-contributes-7/>
- 189 In Q3 2013, Line recorded a revenue of \$194 million and had 280 million registered users. See: Line app is still growing, brings in \$194 million in revenue in Q3, Tech in Asia, 7 November 2013. <http://www.techinasia.com/line-app-financials-q3-2013-sees-revenue-194-million-bucks/>
- 190 One study has found some evidence of the impact of advertising of MIM services. The survey asked which MIM provider users would switch to if their current provider were no longer available. The two most popular choices were WeChat and Line, both of which had launched above the line ad campaigns in some of the study countries. See: Mobile instant messaging: The killer app and its implications for marketers, Campaign India, 29 May 2013. <http://www.campaignindia.in/Article/344951,mobile-instant-messaging-the-killer-app-and-its-implications-for-marketers.aspx>; Messaging apps escalate their global, BGR, 15 July 2013. <http://bgr.com/2013/07/15/messaging-app-analysis-whatsapp-line/>
- 191 There are many articles which suggest SMS is being adversely affected by MIM services. Traditional SMS destroyed by BBM and WhatsApp IM apps, Know your mobile, 14 August 2013. See: <http://www.knowyourmobile.com/network/21020/traditional-sms-destroyed-bbm-and-whatsapp-im-apps>. Also, see: It's official: chat apps have overtaken SMS globally. The cash cow is dying. Time for telcos to wake up & smell the data coffee, Twitter, 29 April 2013. <https://twitter.com/NeelieKroesEU/statuses/328779137206587394>
- 192 The price per gigabyte (GB) of mobile broadband varies considerably, by region, by operator and over time. As of January 2013, one study noted a range of \$3.80 to over \$40. See: At \$22 per GB, N. America is 2nd most expensive region for mobile broadband, study finds, Fierce Wireless, 30 January 2013. <http://www.fierewireless.com/tech/story/22-gb-n-america-2nd-most-expensive-region-mobile-broadband-study-finds/2013-01-30>
- 193 Delta Partners estimate that the expected revenue loss due to OTT services such as Viber, Kakao Talk, WhatsApp could cost operators as much as \$40 billion in 2014. See: Understanding data economics: The top-line impact of OTTs, Delta Partners Group, November 2013. http://www.deltapartnersgroup.com/our_insights/whitepapers/understanding-data-economics
- 194 OMG! Texting turns twenty, Economist, 3 December 2012. See: <http://www.economist.com/blogs/graphicdetail/2012/12/daily-chart?fsrc=scrn/fb/wl/dc/omgtexting> (requires a subscription to read the full article)
- 195 According to analyst firm Ovum, mobile data is forecast to overtake SMS as the largest contributor to non-voice revenues for operators in 2014. See: Mobile data revenue to overtake SMS next year - Ovum, Ovum, 29 April 2013. <http://www.mobilenewscoop.co.uk/2013/04/29/mobile-data-revenue-to-overtake-sms-next-year-ovum/>

Figure 6: Examples of carrier APIs



Source: Deloitte research using various publicly available sources¹⁹⁹.

A final option for carriers would be to encourage the usage of SMS as a bearer for application to person messages (A2P), which are used to send personalized messages to individuals, from advice of bank balance, to warning of a delay to a flight, to a reminder for a medical appointment. One analyst has estimated that A2P messaging volumes could grow an average six percent per annum over 2013-2017²⁰⁰.

Standalone MIM service providers aiming to maximize revenues may need to diversify their income streams. Some providers may become content platforms. In Asia Pacific, companies such as KaKao and LINE are monetizing their significant installed bases by positioning their service as a platform for games, virtual goods and advertising. Deloitte estimates that revenues generated for MIM service providers from games bought or played on their platforms and other virtual goods, such as stickers, will be worth over \$1 billion in 2014 – a significant sum, albeit still a fraction of revenues generated by SMS services. Standalone MIM providers may also want to generate additional revenue from advertising, but this might cause some users to change their service.

196 The average file types have been obtained by sending various files via WhatsApp. The highest possible file that can be sent via WhatsApp is 16 MB. See: WhatsApp FAQ, WhatsApp, 2013: <http://www.whatsapp.com/faq/iphone/20964587>

197 When it comes to innovating new services, the scale and complexity of the global mobile industry means that decision-making is inevitably slow, and the standards that underpin the industry's uniformity have often acted as a straightjacket. Though some carriers have delivered innovative services in isolation, as a group, they have struggled to cooperate in the development and deployment of new services, especially for data. It may well be that trying to negotiate a common MIM messaging standard for operators is simply too hard.

198 An application programming interface (API) specifies how software components and databases interact with each other. In the online world, APIs are used by social networking companies, for example, to give third parties access to their login processes (federated login), and customer data/attributes. In the mobile world, operators are now exposing APIs that relate to location, messaging, customer support and customer attributes. In most instances, APIs are presented as a library that can include specifications for data structures and other variables. For more information see: OneAPI, GSMA, 2013: <http://www.gsma.com/oneapi/>

199 The content of the diagram is based on existing knowledge, industry conversations and publicly available information, such as: GSMA, OneAPI: <http://www.gsma.com/oneapi/>; AT&T Developer Program, APIs: <http://developer.att.com/developer/basic-Template.jsp?passedItemid=12500043>

200 Ovum expects A2P SMS traffic to grow at a rate of six percent CAGR between 2013-2017, which compares to a three percent CAGR decline in overall messaging traffic. Over 1.4 trillion A2P SMS messages are forecast for 2013, rising to 2.19 trillion messages by 2018. However, revenues from A2P SMS will not balance the decline from person-to-person (P2P) SMS revenues. See: Global SMS revenues will decline after 2016, Ovum, 11 November 2013: <http://ovum.com/2013/11/11/global-sms-revenues-will-decline-after-2016/>

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