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). This is a significantly greater ratio than in 2012, when 1.1 messages per month sent by SMS would need to be downloaded; otherwise SMS would directly. In order to communicate, the requisite app A WhatsApp customer cannot message a WeChat user. An OTT service requires all parties to have the same app. A subscriber cannot message a subscriber of a different instant messaging service. Incompatible with each other. Communication via an instant messaging service is as a signal for one correspondent to start conversing 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 SMS over roaming to purchased mobile data package so that they can 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 involved. Facebook’s communications services for mobile devices may help drive mobile advertising revenues.

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.

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 phone. There are 3.2 billion unique mobile subscribers that can send and receive SMS. 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 used.

176 The volume for SMS and MIMKest are estimated based on existing knowledge, conversations with industry players and forecasts of the number of disposable MIM providers have been included: WhatsApp, Line, Viber, Tango, WeChat, Snapchat, WeMe, and KakaoTalk. Upon installation, most of these services, create a user account using one’s phone number as a username. Subscription-free versions of these services may only be available in some countries and may have been included based on this analysis.

177 OTT messaging traffic will be twice the volume of P2P SMS traffic by end 2013, Infonetics, 24 April 2013. See: http://blogs.infonetics.com/030105013/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 protocol providers have been included: WhatsApp, Line, Viber, Tango, WeChat, WeChat, WeMe, and KakaoTalk. Upon installation, most of these services, create a user account using one’s phone number as a username. Subscription-free versions of these services may only be available in some countries and may have been included based on this analysis.

179 SMS revenues in 2013 reached $120 billion in 2013, equivalent to approximately 50 times the total revenues from all MIM services. See: Global annual SMS revenues will be US$23 billion less $96.7 billion by 2018. See: Global annual SMS revenues will decline to US$ 7 billion by 2018. See: Global annual SMS revenue will be US$10 billion less by 2018, Infonetics, 14 November 2013. See: http://www.infonetics.com/press-releases-and-news/annual-sms-revenues-will-be-usd7-billion-by-2018-for-more-information-on-revenue-for-major-NM-P-over-the-top-SMS-service-providers-have-been-excluded-from-this-analysis.

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 achieved\textsuperscript{186}. 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 subscriber\textsuperscript{187}. Other providers have included virtual goods or games in their offering, and their revenues are growing fast\textsuperscript{188}. 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 marketing\textsuperscript{189}. 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 2014\textsuperscript{190}. 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 more than 1,000 times larger than a text-only MIM. Therefore, the advent of MIM will shrink SMS’s volumes and revenues have grown in tandem\textsuperscript{191}.

However over the past few years, global SMS and MIM services and revenues have grown in tandem\textsuperscript{192}. 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 SMS\textsuperscript{193}. 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 an example of some of the APIs that a carrier could exposing.

### Source
Deloitte analysis based on publicly available information\textsuperscript{196}

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

### Figure 5: Approximate file sizes by type MIM message

<table>
<thead>
<tr>
<th>Type of MIM message</th>
<th>Approximate size (in KB)\textsuperscript{199}</th>
</tr>
</thead>
<tbody>
<tr>
<td>Text-only MIM (approximately 150 characters)</td>
<td>10</td>
</tr>
<tr>
<td>Photo</td>
<td>100</td>
</tr>
<tr>
<td>Audio file (one minute long)</td>
<td>150</td>
</tr>
<tr>
<td>Video file (one minute long)</td>
<td>12,000</td>
</tr>
</tbody>
</table>

### 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 slow\textsuperscript{197}.

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)\textsuperscript{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-billing’ process, 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.

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\textsuperscript{184} For a description of Apple’s Message, see: Messages Underlying testing international for Facebook News Feed, 14 December 2013: https://www.apple.com/jp/iphone/articles/
\textsuperscript{185} Snapchat’s planned commercialization move based on the approach by WeChat, generating revenue from in-app transactions and gaming services. See: Chilling With Mr Snapchat, BBC, 14 December 2013: https://www.bbc.co.uk/1/
\textsuperscript{187} On Google Play and Apple App Store, What’s the first year of use, including initial registration and $5/6 billion in revenue at Q2 2013. The level of WW, 8 August 2013: http://messaging-asap.com/applications-for-marketers.aspx; Messaging platforms for mobile: WW 15 July 2013: http://clubs.technology.com/l16/6/16/technol-
\textsuperscript{188} One study has found some evidence of the impact of advertising of MIM services. The survey stated that SMS provider users were no more likely. The two most popular choices were WhatsApp and BBM, both of which had launched above the legal compliance of the study countries. See: MIM delivery rate. The American Enterprise Institute, 22 December 2013: http://messaging-asap.com/applications-for-marketers.aspx; Messaging platforms for mobile: WW 15 July 2013: http://clubs.technology.com/l16/6/16/technol-
\textsuperscript{189} There are several ways for operators to respond to the negative long-term outlook for SMS. Its importance should be neither overlooked nor underestimated.
\textsuperscript{191} For a description of Apple’s Message, see: Messages Underlying testing international for Facebook News Feed, 14 December 2013: https://www.apple.com/jp/iphone/articles/
\textsuperscript{192} 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 achieved\textsuperscript{186}. 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 subscriber\textsuperscript{187}. Other providers have included virtual goods or games in their offering, and their revenues are growing fast\textsuperscript{188}. 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 marketing\textsuperscript{189}. 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.

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Figure 5: Approximate file sizes by type MIM message
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 at a rate of six percent per annum over 2013-2017\(^{200}\). 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.

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196 The average B2C type has been obtained by overlaying various files on WhatsApp. The highest possible B2C type is WhatsApp, which has data on WhatsApp 1.5M. See: WhatsApp API, WhatsApp, 2016: http://developer.whatsapp.com

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 are evolving. Some countries 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 legal processes (federated login), and customer data. In the mobile world, APIs are now merging APIs that enable messaging or data to be obtained from the operator network 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: Ovum, 2013: http://www.ovum.com/managed-apps/

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-oneapi/; AT&T Developer Program, APIs: See: OneAPI, GSMA, 2013: http://www.gsma.com/oneapi/

200 Ovum expects A2P SMS traffic to grow at a rate of six percent CAGR between 2013-2017, which suggests that overall SMS traffic will decline in overall messaging traffic. Over 1.4 trillion A2P SMS messages are forecast for 2013, rising to 2.19 trillion messages by 2018. International roaming fees are forecast to increase by a further 30 percent between 2013 and 2018. See: Ovum, 2013: http://www.ovum.com/2013/11/1/global-sm-s-review-will-industry-ever-recover/

201 Source: Deloitte research using various publicly available sources\(^{199}\).

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Figure 6: Examples of carrier APIs

![Diagram of carrier APIs](https://via.placeholder.com/150)

- **Authentication**: Create strong authentication support for larger in-app purchases or access to sensitive data or restricted virtual locations.
- **Speech enablement**: Enable speech to text and text to speech via operator to minimize app processing overhead.
- **Location**: Create opt-in location awareness: supports friend proximity functions and location sensitive advertising.
- **Device Specifications**: Allow OTT app provider to interrogate make & model of subscriber device.
- **Add-to-Bill**: Allow in-app purchases to be added to subscribers’ monthly bill or deducted from prepaid top-up.
- **Click-to-Call**: Create in-app link to OTT service provider’s customer support line or that of a third party.
- **Call Management**: Allow in-app use of carrier voice services based on subscriber’s phone number or virtual OTT service-specific number.
- **Messaging**: Create an in-app link to allow SMS/MMS messaging (send messages to non-users of OTT application).
- **Contacts Look-Up**: Create opt-in to allow other users of the OTT service in contacts look-up.
- **Targeted Advertising**: Create opt-in access to customer data and attributes for in-app advertising and targeted app-cross selling.

Source: Deloitte research using various publicly available sources\(^{199}\).