#### WHITE PAPER

# MessagePhone: adding value to users & operators in emerging markets

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#### ABOUT SYNCHRONICA

Synchronica plc is a leading developer of next-generation mobile messaging solutions based on open industry standards. The award-winning product portfolio includes the flagship product Mobile Gateway, providing push email, synchronization, instant messaging, backup & restore and mobile connectivity to social networks. Synchronica's products are white-labelled and offered by mobile operators in emerging and developed markets to provide mass-market messaging services increasing data revenues and reducing churn.

Synchronica's Mobile Gateway provides a unique multi-protocol gateway combining Push IMAP, SyncML, ActiveSync, Email-to-MMS and Email-to-SMS, delivering push email and synchronization to literally any mobile phone currently in the market without requiring an additional client to be downloaded. Expanding Instant Messaging to mobile devices, Mobile Gateway establishes carrier-branded IM communities using the industry-standard XMPP and provides gateways to popular internet IM communities connecting any IMPS enabled handset.

Headquartered in England, Synchronica also maintains a development centre in Germany, in addition to a regional presence in the USA, Hong Kong and Dubai. Synchronica plc is a public company traded on the AIM list of the London Stock Exchange (SYNC.L). For further information please visit www.synchronica.com.

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## **Abstract**

This white paper examines the MessagePhone and provides an analysis of how the device will be positioned to meet the particular needs of emerging markets. The device is being launched at a time when mobile network operators face new levels of competitive intensity and continue to battle against rising churn rates. Throughout this paper we refer to Africa and Latin America as examples of the MessagePhone's target markets, although the device would also be appropriate for parts of the Asia Pacific and Eastern Europe regions.

Low PC penetration across Africa and Latin America means there is a gap in the market from which mobile operators can benefit as mobile internet is poised to become the main internet connection of the future. Given the need to send emails and browse the web is as real in emerging markets as anywhere else in the world, and within the mid-to-low end of the market as much as at the high-end of the market, the addressable market for the MessagePhone is significant.

Not only will the MessagePhone appeal to the affordable aspirations of many customers across Africa and Latin America, but it will also allow the operator to be in control of the identity management of its subscribers, and to act as a value-added provider, thereby increasing the overall value of its service and brand. At a time when mobile network operators are competing with a growing number of other operators for market share as well as facing competition from adjacent players such as Google and Nokia, not to mention fighting for a share of wallet with the FMCG sector, the ability to be seen as a value-added provider is a key benefit for operators.



## Section A: The device proposition

### Device description

There are two MessagePhone models due to be launched on 10 February 2010, the QS150 and the higher spec QS200. The launch of the devices represents a collaboration between software solutions provider Synchronica and Korean ODM KCMobile (KCM), with Synchronica taking the lead on the project and handset distributor Brightstar powering the global sales and distribution. Manufactured in China and using Mediatek's chipset platform, the devices will be sold to operators directly with the carrier taking the brand.

Figure 1: MessagePhone QS150



- Messaging and browsing device with camera (0.3 megapixel) and MP3
- 2.2" QVGA 262K TFT LCD
- 2.5G (GPRS) GSM tri-band, not quad-bandContact list and Calendar Synchronization
- BOLT Web Browser, IM Client and Social Networking
- Support for Java MIDP 2.0
- QWERTY keyboard
- 10MB user memory
- MicroSD card slot (up to 4GB)
- 5.5h talk time, 17d standby

Figure 2: MessagePhone QS200



- Messaging and browsing device with camera (1.3 megapixel),
   MP3. Bluetooth and FM radio
- 2.2" QVGA 262K TFT LCD
- 2.75G (GPRS/EDGE) GSM quadhand
- Bundled Push email service (users can have up to 5 email accounts)
- Contact list and Calendar Synchronization
- BOLT Web Browser, IM Client and Social Networking
- Support for Java MIDP 2.0
- QWERTY keyboard
- 32MB user memory
- 5.5h talk time, 17d standby

Source: Synchronica

Synchronised with Synchronica's Mobile Gateway, implemented within the network of a partner operator, the MessagePhone enables emails to be pushed to the device as well as supporting IM,



and of course, SMS and MMS. The primary appeal for the MessagePhone is its messaging and web browsing capabilities.

## Device testing

Following a testing of the QS200 device, below are the key findings from Informa Telecoms & Media:

Figure 3: Selected findings from Informa Telecoms & Media testing

Categories	Comments
Physical attributes	<ul> <li>Suitable shape size for fitting on one hand. Does not feel too heavy.</li> <li>Durable plastic coating. Well laid out keyboard with good spacing between keys.</li> <li>QWERTY keyboard can be customised to operator requirements (eg Arabic alphabet).</li> <li>Well proportioned screen size in terms of its width and height and the size of the device.</li> </ul>
User interface	<ul> <li>Easy to navigate with clear icons and a friendly menu arranged in a logical order.</li> <li>Generally low number of clicks to operate functions.</li> <li>One click write email and one click read email enables fast access to email.</li> </ul>
Messaging	<ul> <li>Emails can be pushed to device. Device synchronised with Synchronica Mobile Gateway which is implemented with operator.</li> <li>Email synchronisation can be set up on the device without the need of logging into a PC.</li> <li>Instant messaging capability offered.</li> </ul>
Browsing	<ul> <li>Default preloaded browser is from BOLT although Opera mini can also be downloaded.</li> <li>Lack of 3G means that website can take some time, but this is likely to be less of an issue in target markets.</li> <li>Possible to download video clips and view offline.</li> </ul>
Саттега	1.3 megapixel resolution means camera photos are often not very crisp. The low resolution, however, is not a major deterrent in emerging markets.
Battery	<ul> <li>Li-ion 1000mAh battery. Talktime ranges from 3hrs to 8.5hrs averaging at 5.5hr. Standby time at more than 17 days.</li> <li>Long battery life important for emerging markets. QS200's battery life is of a suitably long length.</li> </ul>

Source: Informa Telecoms & Media



## Section B: The device strategy

#### A device built for its time

#### **Consumer Benefits**

Mobile phone users in Africa and Latin America are using messaging services on an increasingly regular basis (see Fig 4 below). The versatility of accessing messages and emails on the move in addition to the ability to browse the internet without access to an internet café is increasingly attractive to consumers. With appropriate pricing, this device can ensure that the mid-to-low end of the market can also take advantage of this flexibility.

According to research conducted by Informa, the total number of data subscribers in Africa and Latin America grew by 28% y-o-y and 21% y-o-y respectively to reach approximately 30 million in both regions by September 2009. The same research study revealed that in Latin America, 70 billion SMS were sent during 3Q09, up by 35% on the corresponding period in 2008. This equates to each subscriber in Latin America sending on average approximately 50 SMS per month.

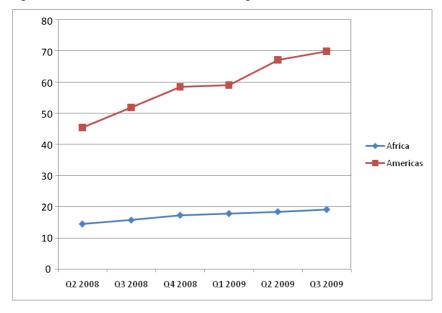


Figure 4: SMS Total Traffic (billions of messages), 2008-3009

Source: World Cellular Information Service - Informa Telecoms & Media

This growth in messaging suggests that there is an opportunity for operators to tap into the mobile email and IM space at the lower end of the market as well as at the higher end.

By far the largest market in Africa in terms of SMS users is South Africa. Whilst Informa believes that there were in excess of 13 million active SMS users in 2009, this figure is expected to grow to approximately 22 million in 2014. Within the messaging segment, mobile email is expected to



show the strongest growth from 300,000 users in 2008 to over 4.3 million in 2014. The number of IM users is also expected to rise to 4.7 million in 2014.

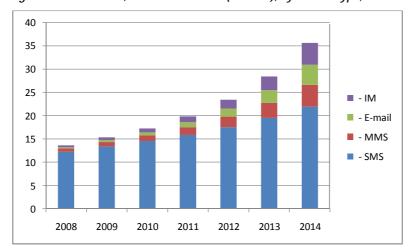


Figure 5: South Africa, mobile VAS users (millions), by service type, 2008-2014

Source: Informa Telecoms & Media

In addition to cheaper data tariffs, low-end mobile phones are expected to be available in South Africa for as little as US\$10 and multimedia devices for around US\$40 in the coming years. This will be a key driver for the increased adoption and usage of mobile VAS by subscribers in the country.

Furthermore, mobile social networking and community-type services are seeing strong subscriber adoption and usage in South Africa. Most of these services are IM-based and the introduction of cheap GPRS data by operators, even for prepaid users, is a key driver for the increased usage of these services.

#### **Operator Benefits**

Aside from the MessagePhone appealing to the changing needs of consumers in emerging markets, the device provides benefits to operators desperate to offset falling voice revenues by increasing the size of revenues generated from data services, and to retain existing custom at a time when users are becoming more fickle. According to data collected by Informa, churn in Africa was approximately 4.8% in September 2009, and in some of the region's most competitive markets, such as Kenya and Tanzania, churn reached 9.2% and 11.4% respectively.

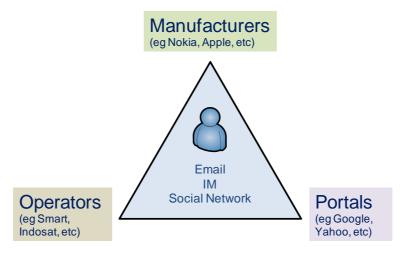
Creating a more "sticky" service is therefore imperative for operators. The MessagePhone allows carriers to differentiate themselves by white-labelling the devices and messaging services. This brings the benefit to the operator of owning the relationship with the end-user, which is imperative to the battle for identity management (see Fig 6 below) and the battle against churn.



In another benefit to operators, as the underlying Mobile Gateway messaging platform is open to virtually any device of any manufacturer, carriers are able to extend the service across their entire subscriber base.

Figure 6: Fight for Managing the User Identity

Mobile Operators, Manufacturers and Portals All Want to Manage User



Source: Synchronica

#### Market Position

Analysing ongoing research into the global handset market, as conducted by Informa, we looked at a range of QWERTY devices with similar functionalities, available in a number of emerging markets and at a similar price point (as shown in Fig 7 below).

Both in terms of functionality and price, the OS200 looks to be well positioned. Cost-wise, the device competes very well, although the prices of other devices listed below is likely to drop over time. Whilst it is interesting to note that the list of models below includes a Blackberry (8100 Pearl), which is available in Nigeria for NGN22,500 (US\$152), this is a SIM-free price and will not have some of the available functionality when bought from the operator.

Whilst the Alcatel One Touch 800A available in Colombia for COP269,900 (US\$132) and LG Tribe available in Nigeria for NGN19,500 (US\$128) has a higher camera resolution than that of the QS200, neither have push email functionality, and it is this that is key to the proposition of the MessagePhone.

It is also worth noting that none of the devices listed below had Flash, which means that videostreaming is not available in any of these competing devices.



Figure 7: A comparison study of selected QWERTY devices in a range of emerging markets

Manu-	Message					
facturer	Phone					
	(KCM)	Alcatel	LG	Motorola	Motorola	RIM
		One Touch				
		800A; One	LG-KS360;	_		Blackberry
Model	QS200	Touch Tribe	Tribe	Q	Q8	8100; Pearl
Techno-	GSM8/9/18	00140 /40 /40	GSM9/18/1	CDMA8/	GSM8/9/18/1	GSM8/9/18/1
logy	/19	GSM8/18/19	9	19	9	9
Emerging						
Market	4.5.1					
Country Example	Africa, LatAm	Colombia	Nigeria	Mexico	Indonesia	Nigeria
Dec 09	LatAIII	COIOITIDIA	ivigeria	MEXICO	indonesia	Nigeria
Price	Nat	Net	Net		Nat	Net
(type)	Not subsidized	Not subsidized	Not subsidized	Subsidized	Not subsidized	Not subsidized
Dec 09	Estimated	COP269,900	NGN19,500	MEP 1,999	IDR1,600,000	NGN24,000
price	US\$90-120	(US\$133)	(US\$128)	(US\$154)	(US\$152)	(US\$158)
EV-DO	No	No	No	Yes	No	No
EDGE	Yes	Yes	Yes	No	Yes	Yes
GPRS	Yes	Yes	Yes	Yes	Yes	Yes
FM radio	Yes	Yes	Yes	No	Yes	No
Flash	No	No	No	No	No	No
SMS	Yes	Yes	Yes	Yes	Yes	Yes
MMS	Yes	Yes	Yes	Yes	Yes	Yes
POP3,						
IMAP						
email	Yes	Yes	Yes	Yes	Yes	Yes
Push						
email	Yes	No	No	Yes	Yes	Yes
IM	Yes	Yes	No	No	No	Yes
	Li-lon	Li-lon	Li-lon	Li-lon	Li-lon	Li-lon
Battery	1000mAh	850mAh	800mAh	1130mAh	1130mAh	900mAh
Max						
talktime						
(min)	over 510	540	300	240	336	240
Standby	400	450	420	212	200	240
time (min)	over 408	450	430	212	300	360
Camera						
resolu- tion	1.3	2.0	2.0	1 2	1 2	1 2
Bluetooth	Yes	Yes	2.0 Yes	1.3 Yes	1.3 Yes	1.3 Yes
USB						
USB	Yes	Yes	Yes	Yes	Yes	Yes

Source: World Cellular Handset Tracker - Informa Telecoms & Media



## Section C: The addressable market

#### Population size by income levels

Not aimed at the bottom end of the market, the MessagePhone will appeal instead to the mid-to-low end of the population. It is worth emphasising that the device will be competing with those models priced in the range above (see Fig 7), rather than the ultra-low cost devices now on the market, such as the Sagem my101L and ZTE C310 devices available in Colombia and Nigeria respectively for less than US\$15.

To illustrate the potential size of this market, and using historical published UN figures, Informa has taken four African countries and estimated the proportion of the population with an annual income of US\$2,000-10,000. The graph below suggests that the MessagePhone will indeed address a significant market. In Ghana, Kenya and Nigeria, over 40% of the population falls into this income category, and in Kenya and Nigeria, this proportion is set to grow over the next three years.

60%
50%
40%
20%
10%
Egypt Ghana Kenya Nigeria

Figure 8: Percentage of population with annual income of US\$2,000-US\$10,000 in selected African markets, 2009-2012

Source: World Cellular Information Service - Informa Telecoms & Media

## Mobile subscription numbers, revenues and terminal sales forecasts in Africa

At a time when mobile subscription numbers continue to grow across the target markets of Africa and Latin America, mobile phone operators should be confident that they can at least maintain the share of wallet that many already command.

Nowhere is this more the case than in Africa where Informa forecasts that the total number of subscriptions will rise from just over 483 million in 2009 to approximately 780 million in 2014 as subscription penetration reaches 68%. This growth will be driven by the continued rise in multiple-SIM ownership, but also the accelerated push from operators to reach out to rural areas.



We should expect that prepaid subscriptions will account for over 95% of the entire market in 2014.

When assessing the size of the African mobile market in terms of service revenues, it is interesting also to note that Informa's forecasts suggest annual data revenues in Africa will increase from US\$4.6 billion in 2009 to US\$10.6 billion in 2014, accounting for 18.5% of total service revenues, as compared to less than 10% in 2009. Growth of Africa's data market will be driven by a number of factors including the landing of a series of new undersea cables on the coasts of the continent, the growing number of high-speed networks, a new range of data services available, and a greater number of affordable data devices.

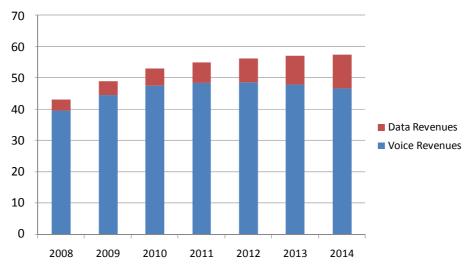


Figure 9: Africa, mobile voice and data revenues (US\$bn) forecasts, 2008-2014

Source: World Cellular Information Service, Informa Telecoms & Media

Informa expects that the number of handsets sold in Africa will increase from about 100 million in 2009 to over 147 million in 2014. Interestingly, until 2012, Informa expects 80% of these handset sales will be for 2G devices, mainly from Nokia and ZTE. However, 2.5G handsets are expected to form the bulk of these sales from 2010.

Indeed, Nokia is in the midst of launching a portfolio of handsets aimed at the replacement-device market as it believes that the initial focus on low-cost handsets for first-time buyers in Africa is changing as consumers develop more advanced requirements. Samsung too has plans to challenge hard in Africa by focusing its marketing on consumer aspirations.

## Mobile subscription numbers, revenues and terminal sales forecasts in Latin America

In terms of mobile usage, Latin America is already a saturated market with little room for further new growth, compared to Africa. Indeed, the region already has a subscription penetration of approximately 90%, a figure likely to increase to 110% in 2014. Like Africa, if not to the same



extent, the Latin American region will remain dominated by the prepaid market, accounting for over 80% of all subscriptions.

More significant to the opportunity afforded by the Latin American region is the extent to which data usage is on the increase, as shown by data as a percentage of total service revenues increasing to over 17% as of September 2009, up by three percentage points in the space of 15 months.

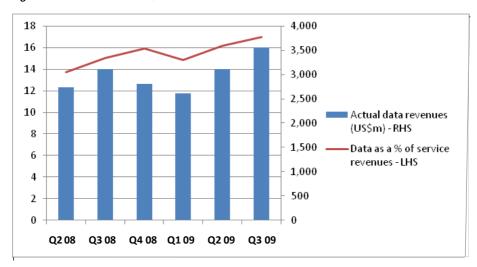


Fig 10: Data Revenue Growth, Latin America 2008-09

Source: World Cellular Data Metrics - Informa Telecoms & Media

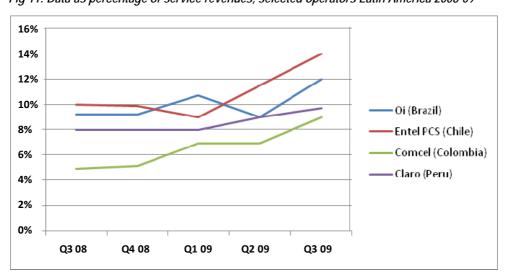


Fig 11: Data as percentage of service revenues, selected operators Latin America 2008-09

Source: World Cellular Data Metrics - Informa Telecoms & Media

Much of this growth in data revenues has come about as a result of Latin American operators investing in technology migration, but also in carriers trying to come to terms with increased competition levels and a rise in churn. Data has been seen by many operators (see Fig 11 above)



as a means to offset any decline in voice revenues, but also as a way to differentiate from competitors.

Although text messaging has been largely responsible for this growth, non-SMS data now accounts for just over half of all data revenues in Latin America and accounted for just over US\$1.8 billion in the third guarter of 2009.

### Global handset market segmentation

Informa forecasts that annual handset sales will grow at a CAGR of 3.3% from 1.19 billion in 2008 to 1.44 billion in 2014. Device replacement rates in many developed markets will continue to slow, so growth will be reliant on subscriber growth in emerging markets. There are also significant differences in growth rates between different segments of the handset market.

The sale of basic phones will fall rapidly between now and 2014 due to the growing number of replacement sales and the reduction in cost and improved features offered by low-feature devices (larger colour displays, improved graphics and cameras). Furthermore, with HSDPA becoming common in low-feature handsets within two to three years, vendors will be encouraged to include more advanced full HTML browsers, widgets and, from 2012 onwards, Web runtime on these devices, which will help to halt their decline.

The total sales of feature-rich handsets will grow strongly over the next five years, rising from 323 million in 2009 to over 870 million in 2014. Driving this will be the sale of new smartphones, which will account for almost 40% of new handsets sold in 2014. But the sale of feature-rich non-smartphones is also set to accelerate markedly from 2010 with the use of widgets and mobile Web runtime.

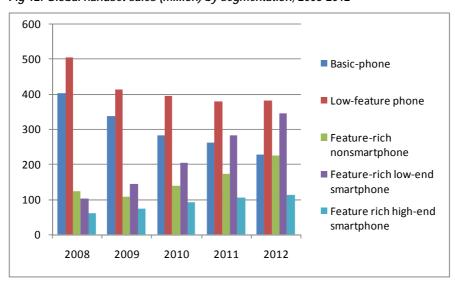


Fig 12: Global handset sales (million) by segmentation, 2008-2012

Source: Future Mobile Handsets - Informa Telecoms & Media



# Section D: MessagePhone position in global handset market

This is a device aimed squarely at the needs of consumers in emerging markets. However, this is not just another low-cost handset, but a model aimed directly at the mid-to-low end of the marketplace, which aims to bring value to both the consumers and operators active in emerging markets.

What is it that sets it apart from other devices aimed at emerging markets? And why is it so appropriate for the dynamics of emerging markets? Informa concludes as follows:

- Aimed at the mid-to-low end of the marketplace, this device with its strong messaging capabilities (including push email and IM) plays on the ongoing rise in mobile internet usage in emerging markets where PC penetration is low.
- Mobile operators around the world have to offset an ongoing decline in voice revenues (and therefore ARPU), and so data services are becoming ever more central to the strategic direction of operators. Mobile email, IM and mobile internet will all become increasingly popular data services over the next five years.
- Churn represents a huge problem to mobile operators across emerging markets as competition becomes more intense and dual SIM-ownership becomes more prevalent. Churn in Africa is particularly high and the ability for operators to offer something that is "sticky" in terms of value-added services is paramount to current operational strategies.
- As the MessagePhone allows operators to white-label the device, operators are able to control the relationship with the end-user, which is imperative in the battle for identity management and the battle against churn. Identity management is being fought over by operators, device manufacturers and portals, and it is imperative for operators that they win this battle if they want to avoid becoming a dumb pipe.
- > The bundled Mobile Gateway Email and IM platform can be opened to support devices of any other manufacturer, providing an operator-friendly service, while many other messaging services are device-dependent and lock users to the manufacturer brand.
- Compared to other devices in the same price range, and available in other emerging markets, the QS200 is well positioned. It will compete well in terms of price, and its push email functionality will be important to its success.
- Africa represents a strong target market for the device as the region continues to grow quickly in terms of new subscriptions and data usage. Multiple SIM-ownership and operators reaching out to rural areas will drive subscription growth whilst data usage will be aided by the landing of new submarine cables across the continent, the growing number of high-speed networks in the region and a greater number (and range) of affordable devices being made available.
- > The number of handsets sold in Africa will grow quickly, with 2.5G handset sales forming the bulk of sales from 2010. A growing number of these handsets will be aimed



- at the replacement market as consumers develop more advanced communications requirements.
- A more mature target market, Latin America also represents a great opportunity as operators in the region continue to invest heavily in technology migration and focus on limiting churn. Data revenues are becoming instrumental to operator strategies with carriers in the region recording impressive data revenues as non-SMS data account for over 50% of all data revenues.
- > As device replacement rates in developed markets continues to slow, growth in handset sales will be reliant on subscriber growth in emerging markets, as well as more advanced requirements from relatively new users.

