Connect-World

Dan Ford
Vice President,
Product Marketing,
Oracle Communications

Message to the World –
the voyage from SMS to Twitter

CONTENTS

CONNECTIONS

Connections

Messaging started as a humble means of sending through to a remote party an essential bit of text when all other means of contact failed. Now it is the medium of choice, with great variety of message media, bare text or enveloped in applications. Text messaging evolved to include other media in MMS (*Multimedia Messaging Service*), but the short and snappy text has its own attraction, as evident from the huge following of Twitter. Yet, the real ugly-duckling-to-swan story is the emergence of SNS (*Social Networking Service*) tools, which are essentially based on Internet-based 'rich' messaging. Therefore, if Twitter is the new SMS, image-based SNS is the incarnation of MMS via the web.

Internet messaging tools, including various IM (*Instant Messaging*), Facebook and Twitter, are eating into mobile operators' revenues from SMS, as noted in Azerbaijan. Nevertheless, greater global connectivity and better interoperability through global alliances enhance business activities and raise the GDP (*Gross Domestic Product*) rate in the region. Despite the tremendous success of SNS, good old SMS is still going strong. It is unique in its reliability and reachability - always gets there and is always read at the other end. With global connectivity gateways, SMS can reach users even when they are roaming, on any mobile handset, without the Internet and without the need to opt-in first.

Delivering SMS from the cloud and hosting the service in developing countries help to increase its ubiquity and lower the bar for local operators to enter the market. While SMS P2P (*person to person*) is popular, A2P (*apps to person*) and P2A (*Person to apps*) now serve the business sectors in ever-increasing volumes. Even government and health sectors favour SMS, due to its simplicity and guaranteed delivery. These attributes also help Twitter to arrive in a timely fashion, when its 140 characters ride piggyback over the 160 SMS characters, to reach users who are not always connected to the Internet.

Although well established, SMS can still be enhanced, not only with richer media using MMS, but also with the service 'wrap'. The success of BlackBerry Messaging highlights the desirability of IM features, like group chatting and self-cleaning after a chat. These features can be emulated on ordinary handsets when using USSD (Unstructured Supplementary Service Data), thus harmonising messaging capabilities while using legacy technology. Current technology could be extended further with users creating their own text content to share via SMS with an interest group that they build up. Numerous 'Long Tail' SMS apps can be created by anyone, generating more SMS revenues that can be shared with the content creators as incentives.

RCS (*Rich Communication Suite*) is not a direct descendant of SMS, but it is considered as the Telecom answer to web SNS tools. Many believe that it is coming too late to oust giants like Twitter and Facebook. Others argue that native clients in devices, carrier grade delivery and assured interoperability, such as won SMS its popularity, will pave the way to its success. Operators have already received a wake-up call and need to proceed with implementations. Given the popular SNSs that are already there, RCS value can only be realised if it links to these sites and provides a seamless converged messaging service.

Richer media in messaging opens up opportunities of new applications. In this edition, a novel advertising campaign for Coca-Cola in India is described. It targeted youth via SNS on mobiles by sending an advertisement with a 'teaser' video clip of a popular Bollywood star. This created a buzz and a viral spread through SNS messaging, thus reaching much wider audience.

Another example of a messaging application described in this edition is the rich media content that can be chosen by users to be played during the screen 'dead time', when waiting for a call connection or a reply message. This 'ringtone' media can be selected by either party and the content can be automatically fed from the users' SNS sites.

Social networks appeal to the high communicators, mainly youth, but the habit remains as they enter the workforce and want to connect personal phones to the corporate network. This leads to 'consumerisation', where employees bring their own devices. It saves the enterprise the cost of devices but it also raises serious risks to corporate data integrity and network security that must be addressed.

Lifestyle messaging is by now affecting all market segments. Users begin to look for a consolidated service that permits interaction of different social tools and has compatibility with SMS as it evolves to RCS. The messaging world is not only transforming, but it seems to grow even wider in the range of services, applications and media that it supports.

Rebecca Copeland,
Editor,
Connect-World
editor@connect-world.com

Azerbaijan's journey towards mobile broadband services

by Prof. Dr Ali M. Abbasov, Azerbaijan's Minister of Communications and Information Technologies

Azerbaijan has identified ICT as one of its focus areas. Indeed, there has been good progress in privatising Telecom and encouraging foreign investment. Since 3G licences were granted recently, the popularity of various IP-based messaging has increased, but SMS is still the prime vehicle for promotions, broadcasting interaction and banking services. Unlike some countries, devices are not subsidised in Azerbaijan, but smartphone penetration is on the rise as prices begin to fall. As new communication satellite services are launched, Azerbaijan will not only improve its own trans-continent connectivity, but will also maintain its historical Silk Road role as an important transit link between Europe and Asia.

Prof. Dr Ali Abbasov is Azerbaijan's Minister of Communications and Information Technologies. He received an engineering degree from Moscow Energy Institute in Automatic Control and a PhD degree from the Ukraine Sciences Academy in computer sciences-microelectronics and served as a professor in informatics at the Azerbaijan Technical University. He has a long and distinguished career in academia, education and the public sector as Director of the Institute of Information Technologies of the National Academy of Sciences (1991-2000); Rector of Azerbaijan State Economic University (2000-2004); Member of Azerbaijan National Parliament and of the Parliamentary Assembly of the Council of Europe (2001-2004); Minister of Communications and Information Technologies (2004-present).

As Minister, Prof. Dr Ali Abbasov pays special attention to the acceleration of transition to the information society and formation of the digital economy, e-government solutions and new technologies, development of broadband services and human recourses in Azerbaijan. He is an initiator of national and regional-level projects such as 'Trans-Eurasian Super Information Highway', 'Regional Innovation Zone' and 'Aerospace'. He has also played a particular role in the establishment and further development of Internet in Azerbaijan.

Abbasov is a full member of the National Academy of Sciences of Azerbaijan and Fellow of the IEEE as well as Commissioner of the Broadband Commission for Digital Development.

After recovering independence in 1991 the Republic of Azerbaijan has successfully leveraged its historical role in the oil and gas industry. A boom in oil-related revenues had the potential to dramatically increase the GDP[1] over the last decade, stimulating the development of other sectors. The Government has implemented tangible measures to diversify the economy in order to prepare for the eventual depletion of energy reserves. Several state programs in various sectors including ICT, tourism, construction and agriculture gave the economy a boost in 2010. Non-oil economic growth was strong in 2010 at 7.6 per cent, compared to 3 per cent a year earlier, largely encouraged by high public investment spending[2].

In line with the Government's plans for diversification it is considered a priority to encourage foreign investment into the country. Incentives have been set to simplify the business registration procedures. In the IFC's (*International Finance Corporation's*) 'Doing Business 2011', Azerbaijan is positioned well in starting up a business, registering property, protecting investors, enforcing contracts and obtaining access to credit. More progress is being made with the registration period for foreign companies through benefiting e-service applications. However, the largest challenge remains the excessive document requirements for international trade, customs procedures, time required and high costs for transactions.

In recent years, the ICT sector has played an increasingly important role in the socio-economic development of Azerbaijan. In recognition of that important role, the Government has identified ICT as one of the priority sectors of the national economy, and has taken significant steps towards the formation of an information society and knowledge-based economy. These

O3b Networks Bridges the Global Bandwidth Gap

Breakthrough satellite fleet to deliver affordable broadband to emerging markets

Steve Collar, CEO, O3b Networks

Global IP traffic is expected to increase four fold over the next five years. O3b Networks is committed to driving down the per megabit cost of connectivity, opening the door to the broadband boom across the Asia-Pacific region, Africa, Latin America, the Middle East and other emerging markets.

Isolated countries and communities around the world are increasingly demanding broadband speeds readily available and enjoyed in places like Singapore and Sydney. The Cook Islands is a favorite getaway destination among vacationing New Zealanders and Australians determined to leave it all behind for a while. Reluctantly they even give up their high-speed broadband. Fast, affordable Internet access is out of reach across this remote country, including the main island of Rarotonga - until now.

Telecom Cook Islands has secured a large chunk of bandwidth from O3b Networks to provide Cook Islands businesses, 15,000 residents and more than 100,000 annual tourists with speedy web access. O3b Networks is set to initiate its satellite-delivered service to the Cook Islands in mid 2013, following the launch of O3b's initial global constellation of eight Medium Earth Orbit (*MEO*) satellites.

More Bandwidth, Minimal Latency

"O3b's affordable, high-speed capacity will open the door to new opportunities and businesses that come with Internet speeds five to six times faster than our current broadband capabilities on the islands," noted Jules Maher, CEO of Telecom Cook Islands. The country's provider of integrated communications services signed a long-term agreement with O3b to utilize the Ka-band satellite operator's bountiful bandwidth and its new fully-managed O3b*Trunk* solution.

Launched last month, O3b*Trunk* is a scalable, bundled IP trunking product designed to deliver affordable, fiber like capacity anywhere within 45 degrees north and south of the equator. O3b*Trunk* pricing and scalability will eliminate cost barriers to broadband and what Maher calls the "curse of remote distances" in emerging and underserved

O3b's Tier-1 antenna and gateway terminal in tests at ViaSat in Atlanta

markets. "The days of painfully slow download speeds and frustrating user experiences are numbered on the Cook Islands," said Maher. "Soon our businesses, residents and visitors will have the same capabilities to reach out to the rest of the World as other connected countries and communities around the globe," Maher added. "It's tremendously exciting and represents a historic milestone."

"O3b delivers more bandwidth at lower latencies and costs," explained Steve Collar, O3b Networks CEO. "That's a powerful formula for telecom service providers determined to quench the growing thirst for broadband and connectivity in the countries, regions and communities they serve."

Fiber from the Sky

"Using O3b*Trunk*, a broad range of service providers can simply select the speed of the connection they want and we provide them with

the fully-managed solution," noted John Finney, Chief Commercial Officer for O3b. "We really are providing a solution that no one else can deliver," he added. "There's no need for cell towers or fiber infrastructure with O3b. An operator can quickly and easily deploy fast broadband or 3G and 4G services, using O3b's mobile backhaul and our IP trunking product suite O3b*Trunk*," Finney said.

The nearest terrestrial fiber to the Cook Islands is in Tahiti, realistically out of reach for the isolated islands nation. O3b combines the reach of satellite with the speed of fiber at a price capable of making the Internet a truly global experience.

"O3b offers amazing technologies, the equivalent of having a fiber cable dropping from the sky," Maher said. "The arrival of O3b and the high-speed broadband and enhanced mobile capabilities it represents greatly increases the incentives for a broad range of businesses to consider moving to the Cook Islands," he added. While the tourism industry drives most business on the islands, Maher is already hearing about interest among some high-tech firms looking to relocate.

New Connections, New Opportunities

Remote inland countries and communities throughout Latin America, Africa, Asia and the Middle East share the challenges facing the Cook Islands. Ozonio recently signed a deal with O3b to deliver broadband
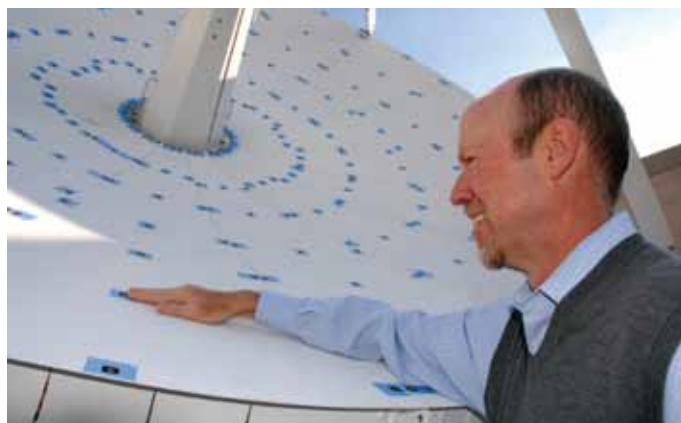
Senior VP, Ground Systems at O3b, Jay Bloom checks surface alignment on Tier-1 antenna

to the unconnected and underserved villages and towns throughout the Brazilian state of Amazonas. Netcom Africa will use O3b's high-capacity, low-latency connectivity to enable Internet access, email, phone and mission-critical data delivery to and from oil and gas rigs off the coast of Nigeria.

"O3b bandwidth will allow us to offer a quality of service to our oil and gas customers operating in the Niger Delta region that was never possible before," said Netcom Africa's Group EVP and CTO Yen Choi. In South Africa, Mavoni Technologies is going to deliver highly anticipated broadband at fiber-like speed to the provinces of Limpopo, Mpumalanga and the Northern Cape, where more than 2,000 rural schools will be connected. They're just a few examples of innovative telcos and ISPs around the world that have signed on with O3b.

Featuring steerable antennas, O3b satellites offer tailored beams that can be moved virtually anywhere customers need them. That level of unparalleled flexibility will help enable emerging regions to tweak and bolster coverage as it's required. Bandwidth options, from 100Mbps to 1.2Gbps, are a big draw. Already more than one-third of the capacity across O3b's initial fleet of eight MEO satellites is sold. O3b announced last month it has raised $137 million in new financing to add four more satellites and nearly double the capacity of its growing fleet in 2014.

Countdown to the O3b Launch

O3b's highly-skilled technical team is working across three continents to develop and deploy the hardware and software designed to deliver O3b's mission to make the Internet accessible and affordable for all. O3b is shipping its first three gateway antennas to Greece, with installation set to start in January.

"2012 will certainly be a year full of important O3b milestones leading up to our launch in early 2013," said Collar. "It's exciting to know that soon our gateways and satellites will be delivering the high-capacity, IP bandwidth that will ultimately play an integral role in transforming the emerging markets," Collar added. "We're counting down to the launch of something very special."

For more information about O3b Networks and O3b*Trunk*, visit www.o3bnetworks.com. ●

O3b gateway and Tier-1 antenna are in system tests at ViaSat in Atlanta, USA

developments are reflected by the private sector's share of the overall ICT market, which has soared from 67.3 per cent in 2003 to 80.0 per cent in 2011. Moreover, all of the market players have been very active in investing. ICT-related investment has reached $2.0 billion since 2004, 25 per cent of which was FDI (*foreign direct investment*).

The largest FDIs in the ICT sector have been in mobile telephony, followed by a number of companies with fixed line operations, Internet and cable TV distribution. In 2007 the public shares in two mobile operators - Azercell and Bakcell - were privatized. In 2009 Azerfon, the country's youngest mobile operator signed a Partner Market Agreement with Vodafone to ensure Vodafone's presence in the local market of Azerbaijan. Mobile broadband increased significantly after Azerfon was granted a 3G licence, recently followed by Azercell and Bakcell.

For the first half of 2011, the number of subsciptions per 100 inhabitants reached 110, which was higher than the world average by 1.4 times. However, the average Minutes-of-Use is one of the lowest in the CIS region . The reason behind it is the increasing popularity of various Internet-based IM applications such as iMessage, BBM, Twitter, Google Voice, and Facebook messaging. Yet peer-to-peer SMS still holds the majority of value-added services since the premium ones are widely used in broadcast media, promotion campaigns, banking and student admissions. Micro-billing services are becoming trendy among young people and subscribers who don't have a banking account.

Through the recommendations of the Ministry of Communications and Information Technologies in 2011, the mobile operators have switched into the new manat-based billing system which ended a major area of complains from subscribers, giving them permission to manage their phone calls properly and control their account balance. Enabling number portability is also expected to boost the mobile data and mobile broadband.

The market is moving from a traditional mobile Voice to one with mobile broadband. The demands for smart-phones and various mobile applications have been noticeably increased. It is important that both content and applications are developed with local tastes, interests and ICT literacy in mind. There is no subsidy market in

Azerbaijan as operators are reluctant to deal with the risks of subscribers' instability. The challenges of custom clearance, warehousing and cash payment for handsets also hamper practicing of the device subsidy model.

However, the annual growth of the local smartphone market is about 15 per cent and it is highly competitive. The development of tourism and particularly Eurovision, the popular song contest to be held in Baku, has considerably endorsed the investment to expand further and strengthen the 3G networks and promotional applications. Despite the fact that the use of cell services and the price of advanced handsets remain expensive for the average Azerbaijan consumer, prices are coming down as a result of greater competition, with companies launching incentive schemes to attract new customers and to retain existing ones.

Development of the efficient provision of e-government services is also expected to open up further opportunities for advanced applications and ensure transparent and prompt online interactions. Based on Microsoft's solution, the 'National Electronic Digital Signature' has been introduced. It has a positive impact on the development of e-services and the provision of information security. Business and financial services are gradually going online. E-payment systems are in active service and hundreds of merchants are now connected.

Another remarkable fact in the development of the Azerbaijan's telecom infrastructure will be the satellite program supervised by state-owned Azercosmos OJSC. The first step in that program is to launch Azerspace-1, the region's first telecommunications satellite. The satellite will upgrade the quality of TV broadcasting and telecommunications not only in Azerbaijan but also throughout the Eurasia and CIS regions and will transform Azerbaijan into a major relay site for signal transmission between Europe and Asia. The satellite's footprint will cover Eastern Europe, Central Asia, and Africa. Azerbaijan is going to use only a quarter of the Azerspace-1 capacity, while the rest will be available for leasing. Azercosmos plans to launch a second satellite, Azerspace-2, in 2015, which will expand Azerbaijan's satellite capacity further.

By strengthening regulatory frameworks and embarking on strategic initiatives to expand

domestic and international connectivity while improving citizens' capacities to access and utilize broadband, Azerbaijan has the potential to create an infrastructure that supports its development of the knowledge-based business and helps diversify its economy. As a part of the historical Silk Road, today Azerbaijan continues playing its traditional role as a transit country for the number of emerging opportunities for the development of the region. ●

Alliance to enable the journey towards future messaging

by Andrew Kwok, Chairman,Conexus Mobile Alliance and President, International Business, Hutchison Telecommunications (Hong Kong) Limited

The Conexus alliance of major operators in Asia-Pacific (*APAC*) believes that the journey from SMS to Twitter and other mobile data apps is paved by high-performance connectivity and affordable services, not just attractive applications. The Alliance ensures that connectivity is achieved globally by assisting interworking projects across members and by promoting collaborative initiatives such as the WAC. The journey is well on its way in Asia, and mobile operators must be able to retain their crucial role in the delivery of the new media.

Andrew Kwok, Chairman of Conexus Mobile Alliance, has served as a board member of the Alliance since its establishment in 2006. As Chairman, Andrew continues to focus on enhancing members' competitiveness in international roaming and corporate mobile services, plus forming strategic alliances and partnerships worldwide. Andrew is a veteran in the international telecommunications industry with more than 25 years of experience. He has assumed outstanding leadership in the development of international business for a number of telecommunications giants.

Currently, Mr Kwok is the Senior Vice President of the International Business Division of Hutchison Telecommunications (Hong Kong) Limited (HTHK), a leading integrated telecommunications service operator based in Hong Kong. Since joining the Company in 2002, he has been the head of the International Business Division, and presently oversees the international carrier data and voice businesses as well as international corporate business. Andrew has played a pivotal role in extending the company's worldwide reach and establishing its strong foothold in Asia, North America, and Europe with 18 overseas offices. Today, HTHK continues to rise in stature as a prominent global telecommunications operator.

Prior to this, Mr Kwok was the Vice President and Managing Director of Teleglobe Asia, managing its operations in more than 25 countries in Asia. He also held various management positions at MCI International in Asia, Hong Kong Telecom International and Cable & Wireless (HK).

Who could have predicted twenty years ago, when the first text message was sent, that we would now be living in an exponentially growing world of apps, tweets and video-bites generated by an array of stylish smartphones and tablets? That first SMS message was sent over Vodafone's GSM network in the UK on on December 3, 1992, and said simply: "Merry Christmas." It started a revolution in the way we communicate and was sent from a personal computer used by Neil Papworth of the Sema - now Mavenir Systems - to an Orbitel 901 handset held by Richard Jarvis of Vodafone.

The SMS concept was developed by Friedhelm Hillebrand and Bernard Ghillebaert in a Franco-German GSM tie-up in 1984. Some 28 years later, and despite explosive growth in app-equipped smartphones, SMS is still the medium of choice for many. That's why an estimated 8 trillion SMS text messages were sent last year alone.

Worldwide, around 200,000 SMS messages are sent every single second, so about half-a-million were sent while you were reading this line - and that's to say nothing of all the Skype and What's App traffic constantly traversing the world. Internet messaging keeps growing explosively over the mobile network, but completely bypasses the traditional operator-based messaging gateway. If the medium is the message, the message is loud and clear - the way we communicate is evolving at a rapid pace and mobile operators must stay ahead of the game if they are to be part of the future.

That 'future' began in 2008 when Apple introduced its App Store. Analysts at Berg Insight described the move as "the disruptive force", changing the market forever. Apple offered a simplified way for developers to market their data wares and notched up ten million downloads in the first week of App Store operation. It also changed the way mobile content is managed. Not so long ago, the market was dominated by operator-controlled voice calls and SMS messages. Now, the spotlight is on apps and data sharing. There is no question that a new revolution is under way. In March last year, Nomura Equity Research said Asia was driving the global smartphone trend, and predicted that revenue growth would rise from 19.5 per cent at the time to 23.3 per cent over the following three years.

However, if Apple and Android could once have boasted that they had a closer relationship with end-users than network

operators, those providers are now developing apace to contribute more and offer a whole range of innovative digital services, including their own apps - all demonstrating that they are much more than just a delivery mechanism. Operators, who are making strenuous efforts to leverage their assets, establish co-operative relationships with leading service providers. Such assets are network enhancements, customer location information, billing and payment relationships with customers as well as performance uplifts and differentiation.

An example of the way forward is the Wholesale Applications Community (*WAC*), an open global alliance made up of the world's largest mobile phone network operators and manufacturers, dedicated to making it easier for developers to create and distribute compelling digital content. WAC was formed to help standardise the mobile applications ecosystem by leveraging its group scale to introduce global initiatives and simplify submission, distribution and settlement processes for developers. As a not-for-profit organisation, WAC's mission is to deliver innovative developer tools based on industry-standard web technologies that allow developers to maximise revenue, reach and usage. Operators in the Conexus Mobile Alliance - Asia's leading mobile coalition - are crucially important to WAC as members.

Whether using Skype, tweeting, Facebook messaging, sharing MP3s, uploading video bites and photos or downloading apps, data services are at work and they are transforming the market. Customers now focus on service providers and hardware that will give them the biggest 'bang for their buck' in the new data era. US-based ABI Research predicts 44 billion cumulative downloads will take place by 2016 - five billion in 2014 alone - while Ovum forecasts that downloads will top 45 billion by 2016, generating revenues of US$7.7 billion.

On the issue of app-enabled hardware, Berg Insight says 70 per cent of all handsets sold in 2015 will be smartphones - at a time when Apple iOS and Android are expected to be providing more than 62 per cent of all applications, with Windows Phone in third place. Although the application revolution was sparked by Apple in 2008, industry analysts tell us that change is nigh. Berlin-based app research company Xylogic, for example, predicts that Android's application download rate will overtake Apple's by June 2012. The research company says that Apple apps led with 1.45 billion downloads

to Android's 640 million in August 2011, but Android's app growth rate is on course to overtake Apple this year. In fact, that's already happened in the Czech Republic, Poland and Portugal.

So, what are the reasons for this huge growth in the data-sharing market and the mobile app ecosystem? What can service providers do to help consumers benefit from the increasing availability of mobile and other data applications? At Conexus, we contend that there is more to this phenomenal growth than just exciting software and fashionable hardware. If services are not affordable, or they don't work satisfactorily, they won't be popular for long - so we believe coverage and affordability to be crucial.

Industry reports often claim that the mobile data boom is driven by the rise of smartphones and mobile applications, but we believe availability of connectivity via 3G/HSPA+ and Long Term Evolution (*LTE*) known as 4G is also essential to popularising seamless data services. It is important that affordable and predictable usage plans give customers the peace of mind to use data services in a way that is as natural and unhesitant as watching TV.

Conexus members are at the forefront when it comes to enhanced services and continuous network improvement, using HSPA+ and/or LTE developments. For example:
- Japan's DOCOMO has announced a tie-up with South Korea's KT Corporation to use Near Field Communication (*NFC*) technologies to develop cross-border services for mobile payments, mass-transit tickets, promotional coupons and other services.
- Hutchison Telecom Hong Kong runs an HSPA network that boasts speeds of up to 42Mbps, and has made considerable progress in developing an LTE capability.
- Thailand's True Money has won support for its 'Banking's Last Mile' project and aims to open 10,000 new payment locations, leveraging mobile phone technologies to make it more convenient for consumers in the country to enjoy enhanced services.
- Smart Communications in the Philippines has launched the world's first WAC application, which will eventually allow foreign mobile network subscribers to transfer prepaid credits to a Smart subscriber in the Philippines.

Stimulating mobile data usage is one of the alliance's key challenges, so we have engaged in a number of strategic partnerships and implemented several key initiatives to

expand coverage and facilitate affordable use of voice, video and data roaming. In May last year, Conexus established a strategic collaboration with HTC, a leader in device innovation and design, to explore development of smartphones and other handhelds that can benefit from the Conexus approach to customer-friendly data-roaming plans and user-friendly roaming features. Then in June, we announced the launch of a new Android application that made it easier and more convenient for roaming travellers to connect to Conexus member networks. Once connected, users served by Conexus members benefit from popular, daily flat-rate data roaming tariff plans - applicable to all our operators in most member countries.

The alliance currently enjoys a presence in thirteen countries and regions across Asia Pacific, including Guam, Hong Kong, India, Indonesia, Japan, Korea, Macau, Commonwealth of the Northern Mariana Islands, the Philippines, Singapore, Taiwan, Thailand and Vietnam. In September, Conexus teamed up with Vodafone to enhance the roaming experience for a combined customer base of more than 600 million, while addressing the global requirements of multinational corporations. Over time, Vodafone's agreement with Conexus will include partnerships with FarEasTone (Taiwan), Hutchison Telecom (Hong Kong), NTT DOCOMO (Japan), Smart (the Philippines), StarHub (Singapore) and TrueMove (Thailand). Vodafone and Conexus also intend to expand partnerships with remaining Conexus members, such as KT in South Korea.

The Conexus Mobile Alliance is continuing to explore strategic alliances and partnerships globally, wherever both members and end-users benefit. While we have come a long way in Asia since the formation in 2006, the Conexus' vision has even greater aspirations. Not only do we aim to be the preferred mobile alliance group in the world - in terms of customer base and geographical reach - but we also plan to score the highest level of mobile service customer satisfaction in corporate and consumer markets.

In short, we are committed to providing customers with a seamless and affordable experience, as they progress on the journey from an era dominated by voicemail and SMS messages to the exciting new world of apps, tweets and video-bites. As the world changes and new services emerge, next generation operators will be working hand-in-hand to take the telecoms industry to the next exciting level. ●

PTC'12

HARNESSING DISRUPTION
Global, Mobile, Social, Local

15–18 JANUARY 2012
Hilton Hawaiian Village® Beach Resort & Spa
Honolulu, Hawaii USA
www.ptc.org

Featured Participants

Ron Box
CEO
Telecom Authority of Fiji (TAF), *Fiji*

Kent Bressie
Partner
Wiltshire & Grannis LLP, *USA*

Steve Collar
CEO
O3b Networks
The Netherlands

Douglas Cunningham
President
Arctic Fibre, *Canada*

Mark Dankberg
Chairman & CEO
ViaSat, *USA*

Hany Gabriel
Managing Director, Service Provider
Asia-Pacific, Cisco Business Solutions Group,
Cisco, *Singapore*

Steven Goh
CEO & Co-founder
mig33, *Singapore*

Marc Halbfinger
CEO
PCCW Global, *Hong Kong SAR*, *China*

Stephen Ho
CEO, CITIC Telecom CPC and President
China Enterprises Communications,
Hong Kong SAR, *China*

Will Hughs
CEO & President
Telstra International, Americas, *USA*

Vivek Jhamb
CEO, Wholesale Business
Vodafone, *India*

Harvey Koeppel
Executive Director
Center for CIO Leadership, *USA*

Matthias Kurth
President
Federal Network Agency for Electricity,
Gas, Telecommunications,
Post and Railway (BNetzA), *Germany*

Brian Lavallee
Director
Submarine Industry Marketing
Ciena, *Canada*

John Lindsay
General Manager
Regulatory & Corporate Affairs
Internode, *USA*

Holger Magnussen
SVP, International Carrier
Sales & Solutions (ICSS)
Deutsche Telekom AG, *Germany*

Kevin Martin
Former Chairman,
FCC and Partner
Patton Boggs LLP, *USA*

Robin Mersh
CEO
Broadband Forum

Christian Michaud
SVP, Product Marketing
Tata Communications, *Canada*

Leo Mondale
Managing Director
Global Xpress Program
Inmarsat, *Switzerland*

Neil Montefiore
CEO
StarHub Ltd, *Singapore*

Virat Patel
Managing Director
ITN Venture Consulting, *Singapore*

Ross Patterson
Telecommunications Commissioner
New Zealand Commerce Commission
New Zealand

David Schropfer
Founding Partner & Chief Analyst
Mobile Commerce
The Luciano Group, *USA*

Suresh Sidhu
Group Chief Officer
Enterprise and Global Business
Dialog Telekom, *Sri Lanka*

Gary Smith
President & CEO
Ciena, *USA*

Phil Spector
EVP & General Counsel
Intelsat, *Bermuda*

Nicole Starosielski
Assistant Professor
Department of Communications
& Affiliate
Geography Department,
Miami University – Ohio, *USA*

Kara Swisher
Co-producer & Co-host
D: All Things Digital
The Wall Street Journal

Jack Waters
CTO
Global Networks Services
Level 3 Communications, *USA*

Joe Weinman
Worldwide Lead
Communications, Media, and
Entertainment Industry Solutions
Hewlett-Packard, *USA*

Tetsuo Yamakawa
Vice-Minister, Policy Coordination
Ministry of Internal Affairs and
Communications (MIC), *Japan*

Best registration rates available through 15 December 2011

www.ptc.org

PACIFIC TELECOMMUNICATIONS COUNCIL

Messenger service - the new rage in emerging markets

by Yogesh S. Bijlani, Country Head, India & GM APAC, Telenity

Innovation in the well-established SMS field is not easy. However, the success of BlackBerry Messenger and iPhone messaging highlights gaps between SMS and IM (*Instant Messaging*) that can be filled with a novel USSD-based IM. This service combines the BlackBerry style self-deleting and group chat features with the iPhone's visualised dialogue. The service is delivered using USSD (*Unstructured Supplementary Service Data*), which is a commonplace, proven technology that retains the SMS reliability attribute. As this is current technology, the service is compatible with any handset and any mobile network and can complement SMS rather than replace it.

Yogesh Bijlani is Country Head of India and General Manager APAC in Telenity. As Country Head, India and GM of Asia Pacific, Mr Bijlani focuses on the day-to-day business operations and leads the business development and sales operations activity in the region. Placing increased focus on customers, partners and alliances, Mr Bijlani is responsible for broadening Telenity's footprint in the region across Messaging, Value Added Services (VAS), Mobile Marketing and Service Delivery Platform (SDP) solutions.

Mr Bijlani has over 18 years of business and technical expertise including regional management, sales and marketing of telecom network solutions in India and throughout South Asia. Having a mix of strategic insight, an analytical mind-set and a strong technical background, Mr Bijlani has a sharp understanding of the market needs for new services and technology deployments and has been actively involved in the convergence of entertainment and Internet on the mobile.

Yogesh Bijlani holds an MBA from Indira Gandhi National Open University and Bachelor degrees in Electronics and Telecommunications from Pune University in India.

Short Message Service (*SMS*) has long become part of our daily communication. A phenomenon that started as just another form of communication, that is, as an alternative to a voice call, slowly crept into our lives and has now become an integral part of the way we keep in touch with our social and professional network. Despite its massive usage and the growth of new segments like P2A (*Peer-to-Application*) for interactivity in televoting and A2P (*Application-to-Peer*) for subscription services of various genres like news, stocks, entertainment and sports, the cornerstone of SMS continues to be P2P (*Peer-to-Peer*) communication.

In spite of exponential growth in message volumes in emerging markets like India, there has been limited innovation in this space. This is highlighted by the success of Blackberry in India in the consumer segment, solely driven by their successful Blackberry Messenger service. The youth consumer segment has adopted this service especially for the messaging capability that provides peer-to-peer communication without the inconvenience of deleting the messages from their inbox and the additional flexibility of group messaging and status updates. In a very short span of time, the Blackberry consumer base in India became much larger than the enterprise user base that was the traditional target segment for this product! This highlights the potential of a messenger service that is device agnostic and is generally available as a service from operators.

We should pause and ask ourselves at this point: exactly what type of a messenger service has potential with a large base of end-users? It has to support the following properties: (1) be available on-the-go; (2) be available on any device; (3) connect members from different income groups; (4) be charged as a flat fee and not fee per message; and (5) be addressed via handlers that consumers have adopted.

Running SMS through these five criteria shows why it is so popular and why its dominance has almost stalled further innovation in the mobile messaging space. Well, if SMS already satisfies those criteria, any improvement on SMS should come from improving on the deficiencies of SMS while maintaining its advantages.

Messaging is a broad term capturing different types of requirements. Sometimes, people send messages of important information that should be kept in the inbox. This is what SMS normally does. However, often, people send messages of information with time-limited value. It is like a perishable product. Such a message should be consumed quickly and then disappear, as it has no future value. Indeed, chatting is a prime example of this. Messages exchanged in a chat session lose their value almost as soon as the chatting ends. Subscribers now have to clean up their inbox after the chat, almost like doing the dishes after dinner is over. This is clearly an area where SMS can be improved upon.

Another improvement to SMS has been demonstrated on the iPhone with its context keeping of the messages last exchanged in 'I-said, you-said' form. This visualization is commonly found in the popular instant message clients of the fixed Internet. Merely seeing an incoming message in isolation hardly underlines the chatting experience. Chatting, by definition, implies a two-way conversation via an exchange of messages. Displaying not only the last received message (as SMS does) but also visualizing a history of recent messages that are sent and received is helpful for two reasons: it emphasizes the chatting activity visually and it implicitly acknowledges what has been delivered, almost implying a delivery confirmation. Such attributes are helpful in 'tele'-communications where users are generally deprived of the benefit of eye contact.

What does all of this add up to? We are talking about instant messaging on the mobile network using regular handsets. This has to be a service that is session-based, that shows up on any mobile phone and disappears without leaving a mark on an inbox. We are talking about instant message (*IM*) service over USSD (*Unstructured Supplementary Service Data*)!

A quick test confirms that IM over USSD does satisfy the five criteria required for success: it is available on the go; works on any device; can connect people in any income group; can be charged with a flat fee; and can be addressed via the popular mobile telephone number. To find a role next to

GSMA

MOBILE.™
WORLD CONGRESS

Barcelona | 27 February - 1 March 2012

REDEFINING
MOBILE

Our industry is redefining "mobile". No longer limited only to communications, mobile is now a force transforming our world in an unprecedented way. Mobile connects, entertains, informs and inspires us, ultimately changing how we live and who we are. Mobile World Congress is the global epicentre of this redefinition as our participants enable, lead and accelerate it.
Join us in **Redefining Mobile!**

www.MobileWorldCongress.com

SMS and be able to coexist with it, IM over USSD also avoids leaving undesired deposits in an inbox for 'chatty stuff' like sending an address of a restaurant, which is more in the SMS 'turf'. Finally, IM over USSD presents the chat with a session context on any handset model displaying recently exchanged messages stored on the server.

IM over USSD would be the closest experience on the mobile network to services such as BlackBerry Messenger or to IM clients on the fixed Internet, but it is open to all handsets rather than only to a certain brand of smartphones. It would not challenge the pillars of mobile messaging but it would coexist with the rest of the popular services. This is innovation in mobile messaging that is an enhancement of the subscriber experience which is meaningful for a large enough subset of all users, and has its own place among other popular forms of messaging.

There are two counter-arguments to IM over USSD. One is whether end-users actually like to use USSD-based services and the other is whether the network can spare the precious radio access network channels for anything but voice. The first argument clearly is a regional- or country-dependent matter.

Some markets have not even heard of USSD and this service will not fit naturally there. On the other hand, there are many other markets in the world where USSD is quite a popular access channel for different services. Such markets would provide a more suitable environment for IM over USSD.

As for the second counter-argument, the utilization of USSD channels will still be backed by a revenue-generating activity. From a business point of view, operators would decide for themselves whether they want to allow any VAS traffic such as IM over USSD to take capacity away from their overall USSD bandwidth. On the radio access network side, configurations are possible that give precedence to voice control over other purposes. This is a case-by-case decision but the early indication is that most networks do have the free capacity that IM over USSD requires.

IM over USSD has further business use cases such as in the customer support space. Operators may develop business models where enterprises can reach their subscribers via interactive menus. This could lead to applications such as ticket purchasing, checking balance or payment due date on an account, ordering household necessities such

as bottled water or inquiring on a forgotten password via USSD.

SMS continues to be the dominant application for mobile messaging. However, in the gap from SMS to Twitter on mobile handsets, there may be opportunities to be exploited, especially in the emerging markets where mobile data plans are still not purchased at mass levels. IM over USSD could play a complementary role to SMS in seizing these new opportunities. ●

SMS: Boosting capabilities with SaaS integration

by Hugh Spear, CEO and Founder, Dialogue Communications

SMS enjoys tremendous success in personal messaging, but surveys show that businesses begin to understand the value of it, too. Although smartphones and mobile web apps are on the rise, SMS is still unique and can deliver messages reliably to a wide audience. New opportunities are now opening in the A2P (*Application-to-Person*) arena, through targeted, personalised and focused messaging, which is particularly effective for advertising. Integrating SMS capabilities within the Cloud SaaS applications helps businesses to develop these opportunities and scale up their operations smoothly.

Hugh Spear founded Dialogue Systems, alongside Paul Griffiths in 1994, which became Dialogue Communications Ltd in 1995. As Dialogue's first employee, Mr Spear has played an active part in almost every element of the business from creating, developing, selling and supporting the first products, to overseeing the growth of the company into a multinational organisation employing over 50 people and providing services in multiple territories.

In 2004 Mr Spear moved to Australia to set-up Dialogue Communications. He now lives in Sydney with his wife and two children. Following the death of Paul Griffiths in 2007, Mr Spear took up the position as Dialogue's CEO. He travels regularly between the Dialogue offices in order to continue his hands-on role in both the UK and Australia, and drive the company's corporate strategy.

Hugh Spear has an MSc in Organisational Psychology and an MSc (Distinction) in Software Engineering.

With over 200,000 text messages sent every second, and approximately six trillion sent in 2010[1] alone, the mobile revolution and the growth of SMS are undoubtedly continuing to evolve at a rapid rate. Portio Research[2] estimates that SMS is used by four billion consumers worldwide and that global SMS traffic will exceed ten trillion in 2013. With this exponential growth and the fact that 50 per cent of texts sent in the US alone are sent by those over 35[3], it is clear that SMS is no longer just a teen cult. Businesses are increasingly starting to adopt SMS as a medium to deliver business-to-business and business-to-consumer communication services.

It's all in a message

In the current climate with business budgets shrinking, SMS is taking hold as an alternative, low-cost and effective mobile communication channel and as such it needs to be included as an essential part of the communication strategy. SMS can be used for a host of business needs including sales promotions, brand building, CRM, loyalty and retention campaigns and as a direct response tool for TV, radio or print advertising. It is essential to integrate SMS with other communication channels, including social media (Twitter, LinkedIn, etc.), email and telephone, as these are also proved to be valuable resources.

The beauty of SMS is that it is simple and clear, and - with 90 per cent of all SMS read within three minutes - it's immediate. This is in stark contrast with email, where there's a low read rate and in turn often a low response rate. Furthermore, and unlike other mobile marketing channels, SMS is intimate and can engage with audiences as individuals. Knowing audience habits enables businesses to create highly personalised and targeted messages. This provides the opportunity for instantaneous communication with new and existing customers, staff, suppliers and partners and can be targeted so that they are received at a time when recipients are more likely to respond.

Customers do not like to be considered as just a number, so marketers need to segment and differentiate in their approach. SMS allows you to engage personally with your customers to encourage a significantly higher success rate. Marketing directly to a person's phone enables true one-to-one contact - intimate marketing, something that other mediums cannot match. Add in the fact that 98 per cent of messages received are opened and read,[4] and you have an incredibly reliable and powerful communications tool.

SMS and SaaS

Understanding that businesses have a need for bespoke add-ons to function within their cloud software is key. Today the cloud computing industry is in high growth. Primarily, many businesses are utilising the various cloud solutions which are available in the market place to scale up their operations, because these cloud solutions enable them to be flexible with the usage of software licences. They also benefit from automatic updates of the systems without actually needing to purchase additional expensive software.

When integrated with SaaS (*Software-as-a-Service*) applications, SMS can be enhanced further. Predictably, this option has significantly increased in popularity within the past five years. The SaaS global market is expected to grow by 33.1 per cent CAGR over the 2010-2016 period, with an aggregate of US$156 billion over the same period[5].

SaaS integration boosts companies' capabilities by building an instant two-way communication tool which can be used alongside other channels. This tool is crucial for communicating with audiences as it enables companies to conduct two-way conversations. As well as sending SMS globally, they can also interact with their clients by allowing them to respond back to messages which can then be logged against each contact's records. Adding SMS to SaaS applications enhances the communication facilities, allowing users to communicate using several channels, but where the essential part is within one application and where all the data is stored centrally.

SMS in SaaS is on the rise, especially with the SMS cloud connector arena. In fact, smart businesses are already using SMS within their SaaS applications and are reaping the benefits of a unified operational system. As more businesses understand that integration with other communication channels is a simple process, we will undoubtedly see an increased uptake in the use of this solution particularly as companies strive to provide the end-user with a full solution, including a dedicated central location to host consolidated and up-to-date data.

This was highlighted by a recent survey which was conducted by Dialogue Communications with its SaaS partner, NetSuite, the world's leading provider of cloud-based business management software. The survey discovered that 79 per cent of sampled businesses had mobile communication as part of their communication strategy for 2011 - 2012. Dialogue also asked if the businesses currently invested in mobile advertising, such as apps and mobile banners - with 36 per cent saying 'yes' and 64 per cent saying 'no'.

The results also showed that 21 per cent of the businesses were using text messaging for customer communication while 79 per cent did not. Although this is a low figure, the results of the survey highlighted that businesses understand that they need to adopt mobile/SMS as part of their overall communication strategies but only 21 per cent were actually using text messaging as part of their communication channel.

At the end of 2010[6] nearly 70 per cent of Americans preferred to use text messaging compared to 30 per cent of individuals who used email, and only 17 per cent who utilised instant messaging. Similarly over 80 per cent of Europeans used SMS in the same time period, in contrast to 14 per cent who favoured instant messaging and 22 per cent who emailed. However in Japan, 54 per cent of mobile users prefer application compared to 42 per cent who use SMS.

Looking to the future

Despite the huge popularity of person-to-person messaging, an increase in application to person (*A2P*) messaging is on the horizon. According to Juniper Research, revenue from application generated mobile texts will cross US$70 billion by 2016[7]. The implications of this mean that A2P SMS revenue could potentially overtake person-to-person messaging, as the strategic focus for players within the mobile messaging ecosystem shifts from communication between individuals to sending and receiving service-enabling messages, such as service alerts and reminders.

SMS is one of the oldest value-added services and is unrivalled in comparison to other communication channels and messaging mediums. Virtually every mobile handset in the world can send and receive SMS and this cannot be matched by any web mobile applications. Even though sales of smartphones continue to rise, figures show that they only represent 21 per cent of the market[8]. Mobile applications are fast becoming popular on smartphones, but users can always switch notifications off. SMS is still unique. SMS messages will always reach the handset and prompt people to read them, so this is still an effective communication tool that should be added to the communication channels.

Key facts and figures

• The first SMS message was sent over the Vodafone GSM network in the United Kingdom on December 3, 1992.

• The first hand-held mobile phone was demonstrated by Dr Martin Cooper of Motorola in 1973, using a handset weighing 2kg.

• Over 200,000 text messages are sent every second.

• Approximately six trillion messages were sent in 2010.

• SMS is used by four billion consumers worldwide and is expected to exceed ten trillion in 2013.

• SMS has become one of the furthest-reaching communication gateways around, reaching up to 70 per cent of the world's population, as opposed to television advertisements and online adverts. ●

[1] Source: The ITU, October 2010 http://www.itu.int/net/pressoffice/stats/2011/02/index.aspx
[2] Source: Portio Research, February 2010 http://www.portioresearch.com/MMF10-14_press.html
[3] Source: Mashable, August 2010 http://mashable.com/2010/08/17/text-messaging-infographic/
[4] Source: Frost & Sullivan, 2010 http://www.panaceamobile.com/2011/04/10-reasons-to-mobilize-our-business/
[5] Source: http://marketintelgroup.com/the-global-market-for-software-as-a-service-saas-technologies-to-top-156-billion-in-the-next-five-years/
[6] Source: mobithinking - Comscore, Feb 2011 http://mobithinking.com/mobile-marketing-tools/latest-mobile-stats
[7] Source: Juniper Research "Mobile Messaging Markets: SMS, MMS, IM & Email Strategies 2011-2016" report
[8] Source: http://mobithinking.com/mobile-marketing-tools/latest-mobile-stats#smartphone-shipments

Back to the future: Rethinking the role of SMS as a revenue-driver in the Asian market

by Michael Kowalzik, CEO, Tyntec

As the Asian mobile market matures, operators are seeking additional revenues from add-value services. They are rediscovering the versatility of SMS, which is a simple, ubiquitous and remarkably resilient service. There is more scope in Asia for application-driven SMS and for enterprise messaging. As the user base grows, operators should also think 'global'- international SMS can be facilitated by partnering with a central SMS hub provider. SMS should be integrated into the IP messaging, maintaining its reputation as a reliable tool, while building on the emerging social network messaging.

Michael Kowalzik joined Tyntec in 2003. His previous experience was in management consulting with a broad background in the financial and telecommunications industry.

Prior to joining Tyntec, Mr Kowalzik was a Director within the Bertelsmann CIO team, leading international strategic projects in the IT and wireless connectivity areas. Here he played a major role as an investment manager and technical advisor for the venture capital company. Prior to this, he was investment manager and interim CEO of internal start-ups at Apollis AG, a venture capitalist firm owned by McKinsey & Company. Before this Mr Kowalzik had several years of extensive experience in management and implementation consulting at Accenture.

Michael Kowalzik holds a master degree in Electrical Engineering from University of Bremen in Germany and MBA from INSEAD, France in 2000.

It is no secret that the mobile market across Asia is booming. News such as Google's decision to launch its latest operating system for mobile devices in the region tallies with the statistics. Industry figures for the end of 2011 have put subscriber numbers at around three billion, with growth predicted to continue at a pace of 20 per cent per year. To put these figures in context: In the Americas, mobile subscription figures totalled 880 million, whilst the number is around 741 million for Europe.

There can be no doubt about the potential and the significance of the Asian telecoms market. Growth in the mobile market in countries such as China and India is strong. This is even more evident now that momentum has returned, following a brief pause in growth as a result of the depressed economy.

Yet strong growth is by no means confined to the large countries in Asia. Countries such as Thailand and Vietnam - where mobile penetration has been comparatively low - are experiencing an explosion in adoption rates. The relatively quick roll-out of mobile coverage in these less developed markets, coupled with marketing and product development lessons adopted from more developed markets, mean strong growth rates are virtually guaranteed.

With such developments in recent years, operators have seen healthy revenue growth and have reinvested the money into network build-outs and customer acquisition strategies. However, as the market continues to solidify and become more developed, competition is increasing. This in turn has given rise to a desire to find new customers amongst the less saturated market of those with less purchasing power, creating a downward pressure on pricing which has resulted in a decrease in ARPU.

Consequently, operators across the region are looking for alternative revenue streams outside the core services of Voice.

Monetise and make up for ARPU loss

This development has led to a large number of new services being adopted and monetised. Data services have been widely viewed as one way of addressing the shortfall and have seen solid pick-up across the region. However, it is SMS with its reliable and ubiquitous nature that is emerging as key revenue-driver. The huge importance of SMS is underlined by figures: by the end of 2011, eight trillion SMS will be sent in Asia, making it the leading mobile messaging format by a significant margin.

In a region with many different standards, patchy data coverage and countless devices, decision-makers are rediscovering the

versatility of SMS and are finding new and creative ways to drive additional business through enterprise SMS services. This includes services such as mobile banking, reminders and alerts, and mobile check-ins.

Enterprise messaging is also set to skyrocket and analyst reports indicate that application-to-person messaging volumes are set to overtake person-to-person messaging on the Asian continent by 2016. This is not only a sign of the importance of enterprise messaging, but also a signal that its value is increasingly understood by businesses.

The benefit of SMS lies in its ubiquity and simplicity. Everyone knows how to create, read, access and use SMS. In addition, it works across all devices and requires no complex user setup. Sending an SMS is simple with the right technology and is almost guaranteed to reach the destination, and crucially, to be read by the recipient.

Capitalize on international messaging

Mobile operators are intrinsically national champions, but when the domestic market becomes saturated, operators need to look for fresh revenue opportunities. This means looking beyond traditional domestic business models and examining the diverse opportunities offered by international markets. Here, there is a revenue opportunity to be found in one of the longest serving network offerings: SMS.

By taking advantage of existing network infrastructure, which is easy and cost-effective to manage, operators can start to generate revenues from consumer and enterprise messaging traffic for relatively little up-front expenditure. The benefits for operators to provide international services are clear. The current volume of international SMS, coupled with its potential for growth, provides a significant revenue opportunity for operators. In comparison with the more fashionable data-based services, SMS requires very little infrastructure investment, is universal and, more importantly, has a user base which dwarfs that of apps, email and other data services by a significant margin.

What's next?

Nevertheless, whilst the benefits of this simple yet versatile technology are clear, there are new developments in the field which mean that decision-makers need to ask some key questions to stay ahead of the curve: What's next for SMS? How will it develop

and be used? How can operators ensure that they are not circumvented and remain part of the revenue cycle? How will businesses use this communication method in the future?

These questions are inextricably linked to the rise of mobile social networking and Internet telephony. For some operators this might seem a threat. For organisations used to direct business relationships, the sort of intermediation required in this field can be a concern. Yet with the right partner, these doubts can quickly be put to rest and operators can shift their focus to the opportunities. Put simply, it is possible for operators to take advantage of an established, revenue-generating service such as SMS and make up for stagnating person-to-person SMS revenues with minimal effort. This is achieved by enabling SMS connectivity for businesses via a partner. By doing so, operators can create new messaging and termination revenues from Internet companies and enterprises that might otherwise have not come into contact with that operator.

Using a strong partner as a gateway to the world

Taking advantage of international SMS as well as the Internet and social media space can be addressed by working closely with a global mobile interaction service provider. Instead of embarking on the complex and lengthy process of signing individual roaming deals with international network operators, local Asian operators can work with one single central hub for SMS delivery which already possesses this capability. This immediately solves the problem of international reach, allowing operators to focus on their core competencies and monetising the revenue streams available to them.

There are two main aspects that any operator needs to consider when signing such a deal:

First, quality is vital. With potentially large volumes from international SMS, the quality of what is delivered on their network is an important factor for the operator. What's more, volumes of SMS can increase drastically, providing a need for a scalable infrastructure in order to deal with both normal and unexpectedly high throughput in order to deliver messages quickly and reliably. In addition, rigorous SLAs (*Service Level Agreements*) and anti-spam policies need to be put in place to support this.

Second, it's important to work with a company that understands the interplay between IP-based communication and the importance of its integration into the 'traditional' telco

world. By working with an expert in the field, operators can fully benefit from Internet telephony and mobile social networking space.

All this adds up to a huge untapped revenue stream for operators, at a time when margins are under increasing threat. Done correctly, using high-quality SMS, operators can generate a significant income boost from these new revenue streams and take advantage of the new communications wave offered by Internet telephony. ●

The unification of 160 to 140

by Kim Hartlev, Chief Technical Officer, Synchronica plc

The surprising success of the 160 characters' long SMS was only matched by the surprising success of Twitter with its 140 characters. This article charts the progress of messaging, from the humble one-to-one text transfer to the social networking tools of today. IM was slow to arrive on mobile phones, but now it spreads virally and inhibits churn. Social networks coupled with mobility are proven immensely powerful. Indeed, they can galvanise the population into rising against dictators, as witnessed in the Arab Spring. The next phase will see consolidation of all of these messaging communities - SMS, email, IM and social networking, in a seamless, convenient and ubiquitous service.

Kim Hartlev is the CTO of Synchronica plc. He has a strong track record in the mobile device management industry, following six years' experience at Mobilethink in Denmark, a specialist in over-the-air (OTA) mobile device configuration solutions. Kim provides the technical vision for the company, ensuring Synchronica's products remain competitive and innovative. He is responsible for leading the development team and managing all quality assurance and testing of Synchronica's award-winning products. He is also responsible for overseeing customization work undertaken for key mobile operator and device manufacturer customers.

Kim Hartlev holds a BSc in Engineering from the Aarhus Engineering College, Denmark.

Some time ago an interview featuring Kelly Osbourne made me smile. Not because it was especially amusing or endearing, but because Kelly had unwittingly illustrated how the process of sharing messages has evolved over such a short time. The Black Sabbath lead singer's daughter articulated it in this way: "I was dating this guy and we would spend all day text messaging each other. He thought that he could tell that he liked me more because he actually spelt the word 'YOU' and I just put the letter 'u'."

Today human interaction, mobile phones, and modern messaging are all intrinsically linked. While it's up for debate whether the relationship between the three comes down to convenience or affordability, what is certain is that barriers, distance and even language are being irreversibly challenged.

That's not all...

In recent history, mobile phones coupled with messaging communities have covered breaking news faster and more accurately than the traditional 24-hour television services. They have brought down governments, despots and dictatorships, while at the same time crashing down barriers between celebrities and their fans.

Mobile telephony is the enabler of this, and many in the mobile space are starting to cash in.

Across its history, mobile telephony has been defined by speed. In the 1980s it was something new, an exciting yet unrefined technology with masses of potential. It fitted perfectly the yuppie stereotype of decadence for which the decade had become notorious. Fast forward to the 1990s and mobile phones

had replaced pagers and two-way radios to become the 'must-have' business tool. Sales reps were often the envy of many as they spoke into their Motorola 5200s. By the time we celebrated the new millennium, there was more to talk about than just the Y2K misadventure. 'Txt spk' had become a new lingo, spurred on by teenagers taking advantage of new prepaid services and consumer-focused devices. Today, thirty years since making their debut, seven billion mobile phones are currently being used and they have become the most accessible way to connect to countless messaging communities.

The unification of 160 to 140 begins with a text

As an accidental success taking many by surprise, mobile messaging started its life as a service limited to the amount of text in this sentence: 160 characters.

SMS grew quickly, supported by subscribers who relished the ability to send, on impulse, a message from their phone. In 2007, within one month of the implementation of legislation which banned smoking in clubs, bars, and restaurants, British mobile operator Orange recorded an increase of 7.5 million SMS messages. Dubbing the phenomenon as 'smexting', Orange attributed it to smokers, who, as a substitute for the social contact being missed while being forced to smoke outside, chose to SMS their acquaintances instead. Others, who used the ban as a drive to quit smoking altogether, admitted to sending mobile messages as a means of distracting themselves from nicotine cravings.

Mobile messaging is of course no longer limited to SMS. A study commissioned by eMarketer provided the first evidence of the addictiveness of email as a channel of communication. Just as consumers continue to use their mobile phones while vacationing, they continue to email, too. According to the study's data, while vacationing, 65 per cent of holidaymakers - across all demographics - regularly check their personal email accounts, and 78 per cent use their mobile phone to do so.

IM's protracted journey

Probably due to pressures from mobile carriers concerned that IM would cannibalise their SMS revenues, mobile device manufacturers were slow to develop IM clients for early products. Capgemini, for instance, revealed in an early study that 19 per cent of the mobile subscribers who said they would be interested in subscribing to mobile IM at the time owned a handset which could not support the service. This has since changed. Today most major device manufacturers embed industry standard IM clients onto their products, and specialist mobile messaging developers build IM gateways into their messaging platforms.

BlackBerry, best known for business-focused services, made its entrance into IM with its proprietary BlackBerry Messaging (*BBM*) service. BBM came onto the market quietly, but has since achieved impressive uptake - especially amongst younger mobile users. Almost by chance, BBM managed to capture a significant user base with many in the market underestimating the power that messaging plays in one's device choice. According to Ofcom, Britain's regulator, some 37 per cent of teenagers own a BlackBerry handset. Recognising the potential, BlackBerry is now looking to drive further uptake for BBM with marketing and advertising campaigns.

The success of BBM has prompted mobile operators to develop their own services. América Móvil's IM service, Claro Messenger, which is based on Synchronica technology, is available throughout all of its operations. The company views Claro Messenger as a churn inhibitor, because customers spread their identities virally and become dependent on the service to stay in touch with their IM contacts. Defecting to a rival carrier would mean they wouldn't be able to use Claro Messenger, resulting in the loss of their IM identity.

Industry analysts agree that within three years, 600 million people worldwide will rely on their mobile phones to access an IM community, generating revenues for operators that will exceed US$2.2 billion. IM has developed its own lingo, and while the world nudges and buzzes from their mobile phones, phrases like BRB (*be right back*) will @TEOTD (*at the end of the day*) become even more commonplace.

Web 2.0 - gate-crashing the party?

Twitter, a popular micro-blogging service, asks a simple question: "What's happening?" It receives some 200 million answers each day from a legion of 360 million 'tweeterers' including celebrity names, such as Britney Spears, Yoko Ono, and Barack Obama.

According to the GSM Association (an industry-body devoted to promoting GSM technology), social networking users spend a greater amount of time accessing accounts from mobile phones than they do from computers. Ironically Twitter is about succinct messages, limiting users to the amount of text in this sentence: 140 characters (less than SMS allows). Have we taken a nostalgic step backwards?

Facebook, another popular social networking service, is embraced by mobile users, too. The service confirms that more than 350 million 'Facebookers' access their accounts from phones and are twice as active as non-mobile users.

Social networks focus on building online communities of people who share common interests or relationships. Using these services, people share news, personal experiences, and provide updates on their mood. Beyond virtual socialisation, these services also played a key role in the recent Middle East uprisings. A call for an Egyptian 'Day of Rage' originated from a Facebook page, while protesters in Bahrain relied on Twitter and their mobile phones to contradict government statements, circulate updates of each demonstration and issue calls for the next one. By coupling mobile phones with social networks, it became simple to rally people very quickly and broadcast frontline news to the world stage.

It's not just the establishment that should feel threatened by the increasing power of social networking. Mobile operators are under attack, too. Towards the end of 2010 Facebook announced aspirations to become a messaging hub for all social networking, IM, SMS and email communications. With this small glimpse into the strategic direction of the world's favourite social networking service, operators ought to feel anxious. Should Facebook's aspirations come to a head, then voice and messaging revenues will be negatively impacted, while operators will see heavy dilution to their value propositions.

Unification holds the key

The solution for operators is to diversify their revenue streams beyond what had typically been considered the foremost killer applications - voice and SMS. Operators across all markets, developed, as well as emerging, are packaging value-added services that are bundled to specific subscriber segments, but using a messaging-community neutral approach. In essence, they are kicking against the growing threat presented to them by social networking services. By offering relevant services that appeal to the needs, interests, and preferences of their customers, operators have unlocked new revenue streams by providing access to the messaging services that their customers demand.

The next step in this journey is unification: consolidating all of these messaging communities - SMS, email, IM and social networking - into a common operator-branded mailbox. With unified messaging, the messaging experience becomes greatly enhanced. It becomes easy to manage all of the messaging services using a single client, providing users with even greater interaction between their favourite messaging services. Incoming Facebook messages could be replied to as an SMS, email messages forwarded as Tweets, IM conversations forwarded as SMS. Contact lists can be shared between messaging services, status updates spread across all of the accounts, and multimedia captured by the phone, uploaded to multiple services at the same time.

Today, device technology already exists to achieve this. With operators and developers working relentlessly on the future of mobile messaging solutions, our journey from 160 to 140 is about to become even more relevant with a new, unified messaging experience, at the very heart of our mobile environment. ●

Where is text style communication going from here?

by Anurag Lal, CEO, Infinite Convergence Solutions

SMS is unique in providing the 'always works' experience. Although other social texting alternatives are attractive to particular groups, they cannot muster universal reach on any handset and require users' prior registration. In 2012 we will see integrated messaging services launched, which will combine the SMS, MMS and IM experience and will have global interoperability via the Rich Communication Suite (*RCS*) standard interfaces. The high cost of introducing this service may be alleviated by service providers hosting it on behalf of many regional operators. Once this evolved messaging is integrated with carriers' core offerings, it may germinate even more novel ways of communicating.

Anurag Lal is the CEO of Infinite Convergence Solutions, a leading provider of mobile messaging and application services. Anurag has over 20 years of leadership experience in technology, IT and telecom services. His role as Director of the United States National Broadband Taskforce, FCC, wherein he contributed towards the development of the first National Broadband plan, has brought him worldwide recognition and elevated his status to being an industry visionary in the field. Prior to this appointment, he was Senior Vice President of Meru Network (NASDAQ: MERU) and Chief Business Development and Sales Officer of iPass Inc (NASDAQ: IPAS). He was part of the core team involved in the IPO of both businesses.

In 2012, text messaging on mobile phones, the most common form of communication on the planet, will evolve into a more social form of communication that will look and perform more like computer-based instant messaging or chat services. The mobile industry and wireless subscribers can look forward to evolved messaging clients that merge the SMS and instant messaging user experiences together, delivering an 'always works' experience today associated with SMS text messaging.

The ITU (*International Telecommunications Union*) estimates that today nearly 87 per cent of the world's population has a mobile phone subscription - that's almost six billion people. When you're dealing with a technology that is so ubiquitous (the ITU estimates that there are five times more mobile than fixed line subscribers, and 2.4 times more mobile users than Internet users), the usage statistics are going to be staggering. Consider this: last year mobile subscribers around the world sent 6.1 *trillion* SMS text messages; that is 16.7 billion per day. Although we don't have the figures for 2011 yet, we can estimate that there will be another two billion *more* text messages sent this year, *per day*. By comparison, Twitter is up to approximately 250 million 'tweets' per day. The number of SMS text messages sent outpaces every other form of text, voice or multimedia communication by at least a factor of two.

Text is firmly established as the default go-to and preferred style of communication. Why? Several factors have come together to make it so, not the least of which is the pervasiveness of cellular services and devices, along with our compulsion to always be connected. This availability and our desire to stay connected drives most of us to keep these devices switched on and within our grasp 24 hours a day, seven days a week. With always-on wireless connectivity enveloping the globe and most wireless devices capable of sending and receiving SMS messages, text messaging reaches anyone who has a mobile phone, anywhere in the world. In most cases, the SMS service is highly reliable and nearly real-time. No other form of communication, with perhaps the exception of voice calls, has these characteristics.

Text goes further in its appeal as it is less intrusive. It's no wonder that text messaging inspires many new forms of communication which are built around social circles and based on a familiar IM and chat style of communication. IM applications, be it Facebook, Tencent QQ, Apple iMessenger, Blackberry BBM or Skype IM, and broadcast types of communication like Twitter, have become a part of many cultures across the globe. These applications go beyond the short 160 character text messages of SMS and offer subscribers instantaneous one-to-one and many-to-many conversations as well as the

SHIFTING EXPECTATIONS

DEFINE YOUR EVOLUTION IN THE WORLD OF CHANGING CONTENT
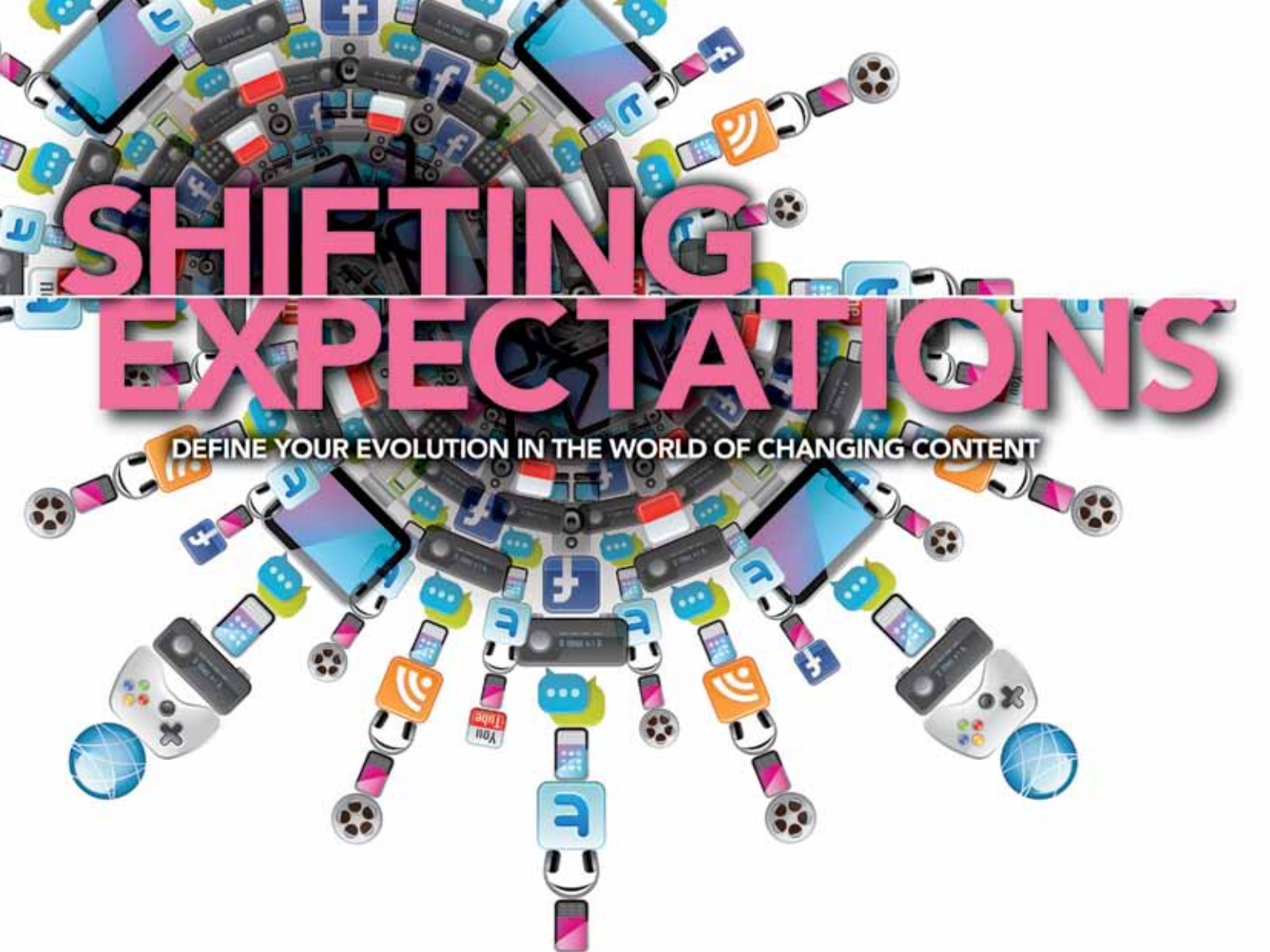
The demand for content anytime, anywhere has set in motion a kaleidoscope of infinite consumption options that are enabling unlimited paradigms for success. From rethinking the creative process to revolutionizing delivery — and, ultimately, redefining the viewer and user experience — no aspect of the content lifecycle has been left untouched. Broader-casting® professionals are leading the evolution by responding to shifts and shaping expectations.

NAB Show,® the world's largest media and entertainment event, delivers a fresh perspective of a rapidly expanding environment, and the innovations fueling growth today and tomorrow. Only here can you design a business model that harnesses the power of a new group of players, emerging technologies and game-changing strategies. Turn shift in your favor and evolve in a marketplace that moves forward with or without you. Register now!

FREE
Exhibits-only Pass
Use code PA04

CONFERENCES April 14–19, 2012 EXHIBITS April 16–19
Las Vegas Convention Center, Las Vegas, Nevada USA

www.nabshow.com

NABSHOW®
Where Content Comes to Life

ability to share pictures, videos, documents and more.

While all of these social network tools provide compelling service to their subscribers, they are limited in their reach and availability in ways that text messaging and voice communication are not. Whether we are discussing mobile or desktop-based IM clients, social network communications services are not part of the operator's core service portfolio. They run over-the-top (*OTT*) on the IP network. Therefore these social network applications won't be present on everyone's mobile device - not even everyone on the same operator's network - so not everyone is available to these social communication groups. They are essentially silos of special interest.

Because they are OTT services, today social network and IM services can only reach about half the number of people that SMS messages can reach. These services also serve only those consumers who opt-in to and are accepted into the specific social group, and therefore it is difficult to add, in real-time, non-members into a discussion. Addressing this accessibility challenge has created markets for solutions that integrate IM user groups into one service, essentially creating a larger social group. However, without becoming part of the operator's core communications' offering, social network applications still lack the global reach and availability that cellular-based services deliver by default.

The next generation of messaging services emerges

This is the year when the industry will witness the evolution of near ubiquitous text messaging into a more robust IM and chat service offered by major mobile network operators as part of their core network-based offering. OEM smartphone and device manufacturers will also roll out evolved messaging clients that merge SMS, MMS, rich content and IM user experiences together. This evolution could be based on, or evolve from, the new Rich Communication Service (*RCS*) standard adopted by GSMA (GSM Association representing the interest of mobile operators in more than 220 countries).

It is likely that service providers will bundle this evolved messaging service with additional services in order to differentiate themselves from competitors, but the primary service will be common across all providers

to ensure its ubiquity, availability, reliability and ability for IM communication to reach across all service providers.

Some of the enhancements will be gateways to social networks and/or OTT applications, enabling a cellular subscriber to join conversations taking place within a social group in which they are not currently a part. We don't ever see social networks going away, but rather believe that they will be integrated into the more widely available and tightly integrated Rich Communication Services provided by the mobile carriers of the world.

The appeal of hosted messaging services grows

SMS and MMS messaging are still experiencing strong growth, particularly in markets where spectrum is just now being made available for advanced 3G services. Not all operators in these markets have the technical and financial resources to roll out both voice and data services. The need for such resources creates demand for hosted messaging service offerings. In this scenario, companies put an SMS and MMS solution into a specific region and offer SMS and MMS services to multiple carriers, thereby lowering the cost, speeding up time to market and providing a richer service portfolio to subscribers. Key attributes of a hosted service offering must include network and service customisation, cost-effective scalability to ensure availability of the service, and a rich set of services that guarantee message delivery to subscribers. We have already seen the move in this direction via the announcement of network sharing deals by numerous operators across the globe.

This approach of lowering the cost of entering the market of SMS and MMS services also applies to more mature operators that are sensitive to the higher CAPEX and OPEX needed for an evolved service like RCS. In the case of RCS, a hosted service solution will make a great deal of sense to many operators, particularly as the service is just rolling out when the need for upgraded clients on all the phones and tablets is greatest.

SMS, MMS, social networking, Twitter and IM services are all still growing and becoming ever more integrated and more prevalent in our personal and professional lives. This has encouraged the creation of many new services, businesses and market opportunities. The converged, multi-network

and multi-function capability of messaging continues to evolve and will become more available and more reliable, as carriers and OTT vendors integrate these new services into their core offerings. When this happens, this will set the stage for even more new ways of communicating and doing business. Get ready, because the world of texting and IM'ing is going to be even more exciting, starting right now. ●

A wake-up call to carriers - Twitter is about to eat your lunch (and they aren't the only ones!)

by Lynn Liu, Founder, President and CEO, Aicent Inc

Twitter's phenomenal growth is powered by SMS, with the 140 character tweets carried by the 160 characters of SMS. However, the costs of bulk SMS are prohibitive and Tweeter is seeking alternatives, perhaps revenue-sharing agreements with mobile operators. In the meantime, Twitter and other social messaging are gaining momentum via data services on smartphones, threatening mobile carriers' future business. In response to this, the RCS initiative is driven forward as an alternative carrier grade social messaging, but can carriers get it right and attract the tweeting crowds? This is their wake-up call. If they do not find their way, the messaging giants will effectively become mobile players, while carriers will be left managing a fat dumb pipe of data.

Lynn Liu is the Founder, President and CEO of Aicent Inc. She founded Aicent in October 2000 with the vision of bridging the IP world and the wireless world through innovative mobile data services. Aicent serves more than 2.5 billion mobile users in 114 countries through more than 150 mobile operators.

Prior to founding Aicent, Ms Liu was a co-founder and COO for GRIC Communications (IPO in Nastaq in 1999). In 1994, she co-founded and held the COO position at Aimnet, a leading Internet service provider in California. Aimnet was acquired by Verio in 1996, now a subsidiary of NTT Communications. Throughout her distinguished career, Ms Liu has established a long string of successes in IP data service development, rollout, market penetration, and corporate leadership.

Lynn Liu has a B.S. from National Taiwan University, and an M.S. in Computer Science from the State University of New York at Stony Brook. She has also attended Executive Programs in the Graduate School of Business of Stanford University.

With coverage in over 84 countries and just about as many mobile operators, Twitter feeds via SMS have become a lucrative business for many mobile network operators. In many cases they can collect texting fees on both the send and receive ends. However, with the continual evolution and acceptance of smartphones globally, mobile operators are starting to realise that alternative methods of sending and receiving Twitter and other social media updates are now available to their customers, allowing them to bypass SMS and ultimately resulting in decreased revenues for the operator.

However, mobile operators will not stand idle and watch their revenues decline without taking some form of action. Operators will begin to fight back with strategies designed to regain this lost SMS traffic. Some are already in play.

With 140 character limitations, tweets are ideally suited to be delivered via a 160 character SMS, making them a natural extension of a mobile carrier's SMS content and thereby driving increased two-way traffic. Tweet volumes have been growing globally since 2007 and by January 2010 already exceeded 50 million tweets a day. This large volume emphasises the commercial relationship between the mobile carrier and social media giant Twitter.

Interestingly, during the early part of 2008 when the social media duo Twitter and Facebook started gaining popularity worldwide, mobile carriers in only eight countries had two-way SMS relationships with Twitter. This number quickly snowballed to over 84 carrier relationships in 80 plus countries, as carriers realised the power of social media sites. Twitter in particular suddenly became a popular outlet not only for personal communities, but also for communicating world events from political arenas like the protests in Iran, to sporting events including the Olympics and the FIFA World Cup. These global events drove a significant increase in messaging volume among micro-blogging sites with Twitter leading the way.

Now with a greater understanding of the market forces that have been drawing Twitter and mobile operators closer together, what can we determine of the nature of

these private commercial relationships? In 2008 Twitter made a financial decision to suspend outbound SMS notifications in the UK and other European countries due to the prohibitive costs for bulk SMS delivery charges. Since then, Twitter has moved to direct relationships with local carriers in individual countries. It is difficult to fully understand the commercial constructs between Twitter and these operators (a noted example would be O2 UK, stating that they do not charge any interconnection or termination fees to Twitter). However, this author surmises that some of these direct operator relationships are likely to be revenue-sharing in nature, developed under the umbrella of a broader commercial context.

So, why would a discussion of these private commercial arrangements between Twitter and mobile carriers be important in the context of this article? Simply, because these arrangements underpin the symbiotic relationships balanced between the two. Twitter needs to reach its subscribers, but cannot afford to absorb the costs of paying for each Tweet sent by its users via SMS. Operators want to drive more messaging volume within its subscriber base -- in many cases exceeding the monthly bundled free message plans, thereby increasing ARPU. Once one is able to understand this simple relationship, it is possible to understand the risks that a mobile carrier would face under the following trends:

1. increasing smartphone penetration within its subscriber base, especially 'data guzzling' iPhones;
2. increasing use of over-the-top (*OTT*) apps to send and receive Tweets instead of an SMS;
3. and, Twitter improving the usability and friendliness of its web and app-based features.

Given that these trends are real and very apparent, one could gaze into the immediate future and make the premise that the day Tweets get delivered via smartphone apps, will be the day that mobile carriers become increasingly a dumb fat pipe, transporting immense amounts of data. This is becoming evident with the recent surge of apps, including apps that have full integration with Twitter, circumventing the need to utilize SMS and instead pushing instant messages across the data pipe.

Twitter itself continues to push this envelop with the development and refinement of its own app, as well as making their web interface friendlier to smartphone users. As this happens, Twitter will become more of a

service provider with the ability to establish direct commercial relationships with the end-user. As if there haven't been enough analysts out there predicting the demise of the traditional mobile carrier, this nightmare scenario for mobile carriers would be ranked right up there within the top five, the others being Facebook, Google, Apple and Skype. Certainly, Twitter has never commented nor demonstrated significant moves into behaving like a mobile virtual network operator; however, when looking at the underside of the broader scheme of Web and Phone 2.0, these are worrisome times to be a mobile carrier.

So... what is a mobile carrier to do? Certainly there is still a lot of stickiness and value in the mobile ecosystem to retain subscribers and drive down churn. Some examples would be the RCS initiative within the GSMA community, piloted by the likes of Vodafone. The RCS initiative was developed, in part, to help carriers evolve and take advantage of the trend of subscribers becoming more community-centric. As a result, this initiative promotes converged communications and interoperability among mobile carriers. At its simplest level, these new RCS services now constitute the mobile carrier's way of embracing social media and messaging. One could call this, 'carrier grade social messaging'…

It's encouraging to see that tier-1 mobile carriers have taken social media and mobile IM to heart, with features like presence-enabled phone books, video chats, and shared white boarding. Of course, it remains to be seen whether they are able to price these features at attractive enough bundles to make them compelling and if these features by themselves are enough to attract the crowds. So far, we believe that these services are still priced too high to draw critical mass. It might be educational to note some lessons learned resulting from the failure of 3G Video Calling and why that never gained any traction.

Yet other carriers have also demonstrated success working with Skype, by offering special Skype-embedded phones. A case-in-point being Hutchison 3 UK which has served to demonstrate that a mobile carrier can successfully embrace an over-the-top IP app and use it to grow subscriber customer base and its ARPU. Some key lessons that one can draw in such an exercise are to never double charge your customers and to never be unduly worried about revenue cannibalisation. Other mobile carriers in the Asian markets have started to market their own house-branded phones preloaded with Facebook and eBuddy

(a popular MSN Messenger IM app), aiming to drive up data ARPU. (These house phones typically emanate out of factories in China.)

For now, the jury's still out deciding who and which types of MNO social media models will eventually win out. Some predictions we (how dare we?) would like to make: Consider this as a wakeup call. MNOs will take too long to truly understand the dynamics of Web and Phone 2.0 and by the time they do, one of the social media giants, perhaps Twitter, will have already taken the world by storm by becoming a global MNO, using content and social media to drive amazing adoption rates. Cloud Phones anyone...? ●

Democratizing SMS content creation to build user communities

by Dinesh Saparamadu, Founder and CEO, hSenid Mobile

SMS has been used to deliver simple content (alerts, votes, quizzes) for some time, but now there is an opportunity of User Generated Content (*UGC*) on SMS. This service is based on blending web technology with mobile technology, where large number of applications can be accommodated with little incremental cost. Provided that application creation is simple and requires no programming skills, anyone could generate content and share it with a community of followers. Thus, UGC on SMS is said to 'democratise' SMS content. Revenues from numerous Long Tail services created by this ecosystem can far outweigh the total revenues from few traditional SMS content providers.

Dinesh Saparamadu is the Founder and CEO of hSenid Group of companies, which he originally founded 14 years ago, after returning from the USA. In the United States, where he lived for over ten years, he worked at Pepsi-Cola, Aetna life and Casualty, in various fields of Information Technology. Mr Saparamadu leads hSenid Mobile to provide cutting-edge Telecom software and service delivery solutions for mobile operators in emerging markets. He directs hSenid Mobile's vision for simplifying the mobile operator's back-end systems so that a rich array of mobile content and services is available for subscribers to enjoy.

hSenid Mobile was named at the Red Herring Global 100 Award as one of the most promising private IT companies in the world. hSenid Mobile's flagship solution - the Cloud Telco Application Platform, won the m-Infrastructure award at the mBillionth South Asian Awards recently, for creating an eco-system of Telecom & Mobile applications/content for the masses.

Mr Saparamadu is the current Chairman of SLASSCOM, IT & BPO Chamber in Sri Lanka. He also serves on many advisory boards on IT education, competitiveness, and IT policy.

Dinesh Saparamadu holds a Computer Engineering B.Sc. and Computer Science Masters from University of Bridgeport in USA.

Since the world's first text message - 'Merry Christmas' from Neil Papworth to Richard Jarvis in December 1992 - SMS turned into a highly popular text-based complementary mode of personal mobile communication. It has evolved from being a personal tool to a major business-related communication facility.

Text-based content delivery via SMS has been popular for a while but the content has always been created and controlled by established entities, such as mobile operators, media houses, large content providers and aggregators, and not by the ordinary, non-technical subscribers, who would like to share uninhibited forms of creativity with someone out there.

Meanwhile the mushrooming communities of online social networks have brought about two important lifestyle changes. One is the transition into a participatory culture in which users co-create the content they wish to share and consume, and the other is the freedom of users to choose the space in which they wish to share their content. Users today chat, gossip, blog, vote, tag, distribute on-the-fly and participate in communities that cater to their needs.

Placing User Generated Content (*UGC*) on an SMS platform, with its ubiquitous nature, offers a great potential. The technology platform should combine web-based content technology and mobile delivery technology to offer an easy way for subscribers to create their own applications and reach their communities.

Why UGC on SMS?

Ubiquitous… Widespread… Affordable… Popular…

These are just a few of the reasons why SMS is a preferred platform of communication. The same features will encourage UGC on SMS to blossom. SMS cuts across boundaries and communities and always gets there - a

"The operator can become a host for an abundance of apps and content rather than a limited range governed by established content providers."

particularly significant feature in emerging market. SMS is available on any mobile device, compared with other technology, such as the smartphone, which serves only those who can afford them. Using SMS enables anyone to participate in an eco-system of knowledge-sharing and disseminate textual content to anyone.

What about the technology to make it happen?

For UGC to be realized on SMS, we need an environment that simplifies the whole process of content creation. Taking a leaf out of the online social media phenomenon, SMS will have to provide a similar infrastructure for SMS-UGC to succeed. It must have quick and convenient access, easy set-up and an even easier method to send out, share and receive messages.

The system needs to provide full convergence of web and mobile technologies, with a simple-to-use wizard to aid application creation without any form of programming. This can go a long way in encouraging creative, yet non-technical, aspiring content providers. The online wizards for content creation could be based on the most commonly used SMS content methods such as alerts, voting or quizzes, to enable easy understanding, bring familiarity and encourage take up.

A new breed of content providers

A user-friendly environment can generate significant interest, starting with the early adopters testing it out, followed by the rest. Content creators can come from all walks of life. They can include a university student who wishes to conduct a snap poll to elect a union president, or an inventive housewife who wants to enlighten those interested with some clever cooking tips. Content may be generated by a multinational enterprise or a very small business, wanting to alert customers to new product launches or special offers and discounts. With its universal reach and simplicity, the technology to enable UGC on SMS must accommodate content-creators from the full spectrum of life, thus democratizing SMS content creation.

The Long Tail serving the underserved

Democratizing SMS content and app creation creates opportunities for Long Tail services that cater to the most remote market segments. The ultimate success is an eco-system where everyone has content for his or her own liking to engage with, leading to communities of followers around specific areas of interest. Traditionally, SMS content would not be produced, for instance, for a group of housewives from a small neighbourhood subscribing to content from one of their own, dealing with something as personalized as family trips, counselling, etc. However, this should be the true essence of democratized UGC on SMS.

Potential business models

The onus of coming on board, creating content, and developing and sustaining a community of followers is on the content providers. To incentivize them and accelerate the uptake of the eco-system, they should be rewarded with a share of the revenue they help to generate, in proportion to the size of the following that they are able to attract. Enterprises creating content can have a different model, to sponsor the content that is going out on behalf of their following, so as to fulfil their commercial objectives.

Where do mobile operators stand in all of this?

The operator can become a host for an abundance of apps and content rather than a limited range governed by established content providers. To illustrate the unexploited potential mobile operators have if they democratize content creation, let us look at a simple business case comparing traditional SMS content and the UGC on SMS. An operator may have had ten established SMS apps generating 30,000 messages a day, which is a total of 300,000 messages. In the case of UGC on SMS, they may find 10,000 SMS apps, each with maybe an average of 300 messages a day, totalling 3,000,000 messages, that is, ten times as much!

The sustainability of the UGC on SMS model depends on limiting capital expenditure and reducing incremental costs to the operator. With a web-based platform that can accommodate thousands of apps with minimum incremental costs, the operator does not need to spend precious time on each application, to decide whether it is going to be a hit or not. The operator would simply launch the application and watch how it performs, instead of playing a guessing game.

Additionally, since the application has very low incremental cost, even if it generates only a few messages per year, it can still be considered to be profitable. ●

Marketing battleground shifting to a new frontier: mobile media mobile makes the world go round

by Anuj Khanna Sohum, Founder and Chairman, Affle Group

The arrival of rich media on smart mobile handsets is marked by advertising gravitating towards mobiles and the social networking space. The Asian messaging market is growing fast, and, with it, opportunities for mobile advertising. In a case study in India, advertisements were packaged with compelling youth content and launched ten days before the first TV broadcast. This attracted youth as the target market, and encouraged them to share the ad-content with friends, thus using the viral spread aspect of social networks.

Anuj Khanna Sohum, 33, is a serial entrepreneur. He founded Affle in 2006 with the bold ambition of becoming a global leader in the mobile media space. He started his first company at the age of 20 when he was in the undergraduate programme in computer engineering, on a Singapore Airlines scholarship, at the National University of Singapore. Anitus Technologies, Sohum's first company, was acquired by the publicly listed Malaysian conglomerate MCSB and rechristened myMCSB. His second company, SecLore, which dealt with information security, was acquired by Herald Logic in 2007.

Mr Sohum has a keen interest in driving technological innovations. He enjoys the challenge of making sense out of emerging technologies and transforming those into businesses. At Affle, he also leads the product and business strategy for the company. He has in-depth understanding of the mobile media ecosystem and a passion for studying user interaction with mobile devices. Using his entrepreneurial acumen, he is able to leverage both technology and user insights with a view to building Affle into a scalable media business.

Mr Sohum is an evangelist in the realm of mobile technology. He actively participates in industry forums to further the cause of the mobile media industry and towards improving standards and practices. In 2009, he was elected Director for the Mobile Marketing Association APAC Region.

Mr Sohum is an alumnus of the National University of Singapore, Electrical and Computer Engineering and the Stanford University, Graduate School of Business.

When you analyse layers of consumer behaviour, or study the usage of mobile apps across ecosystems, it does not come as a big surprise that our fundamental need to be social drives the mobile world. People are using multitudes of apps but communications and messaging remain the mainstay of the mobile world.

Simple, Short Message Service (*SMS*) has assumed a much loftier role today and has evolved into Social Messaging Services. Simple messaging has transformed from just 160 black and white characters to rich multi-media messaging with colours and icons. Thus engaging, or rather engrossing, consumers with messaging is transforming mobile phones to devices of choice for consumption of entrainment, communications and content; in

other words - consumption of powerful media, the mobile media. An influx of smartphones, feature phones behaving like smartphones, smarter networks 2.5G, third generation (*3G*), fourth generation (*4G*) and ambient wireless fidelty (*WiFi*) networks have slowly but steadily contributed to the transformation of mobile phones to media devices.

Asian giants

The developing world is experiencing mass penetration of Internet-enabled and Internet-connected mobile devices. Markets like Indonesia, China and India are experiencing a mobile evolution which is vastly different from the West. As per Google, India already has the second biggest mobile Internet user base in the world and ranks third in

the world for the usage of social media, as reported by Socialbakers.

These three dominant Asian markets have general similarities in the way the mobile media markets have grown. Elaborating on consumer behaviour using India's example, Indian consumers are now hooked on mobile Internet, with messaging and social media engagement being their primary preoccupation while on the move. This generates great opportunities for product brands to be marketed during conversations at any time and in any place. It is no surprise, therefore, that in the recent AdAsia 2011 event, which was held in India in November 2011, the focus was the immediate requirement to rewrite the rules for advertising to withstand the increasing impact

of the new media trend and the mass adoption of the mobile social media.

Mobile as a media

Mobile media provides the power to the advertisers to engage with consumers on their favourite platform and use the advantages of locational marketing, with the possibility of an immediate result. Businesses are aware of this change and are proactively diverting greater marketing spends towards mobile. Typically it is the large brands who are leading the adoption of mobile marketing. Here is a case study where Affle and Coca-Cola partnered to clock a few 'firsts' in the Indian market.

Coke leads the way for others to follow

Affle and Coca-Cola launched a promotional campaign for a viral spread of a newly launched Coca-Cola commercial. India, with a large number of young mobile users accessing the Internet over mobile, formed the perfect market for the campaign.

Marketing objectives

Owing to a very competitive market, Coca-Cola in India invests heavily in advertising to gain a greater share of the consumer market. In order to make its new advertising campaign more compelling for its young, digitally savvy consumers, Coca-Cola launched for the first time a commercial featuring a popular Bollywood actor, which was previewed via digital social media platforms ten days before its release on television. The objective was to reach the maximum number of users in a minimum time frame and create a buzz around the new commercial before its television launch.

Strategy: mobile social networking for viral marketing

A deeper study of social media behaviour among young consumers suggested that they deeply desired to stand out amongst their peers in their group and wanted to be the first ones to do new things like catching a new movie, listening to the latest album or even watching the latest ad on TV. Sharing these 'firsts' socially was equally important to them. Catering to this primal instinct of the young gave the campaign strong viral and social 'legs'.

The study also indicated that these target consumers were heavy users of mobile messaging and social networking, as well as gaming through their devices.

Combining these two insights, a campaign was launched across these touch points, to grab relevant 'eyeballs'. Creative media elements were designed with interesting content that prompted users to view the ad and share it with their friends.

In addition to the TV screening of the commercial, engaging the digital platform provided a positioning opportunity to Coca-Cola. The use of this medium positioned them as a forward-looking brand with which the younger crowd is happy to be associated.

Execution - young consumers turned up in droves

Coca-Cola's message communication was integrated across Affle's popular messaging application to allow consumers to interact on rich media banner ads in different ways. Users could view the ad on their handset on a single click. Coca-Cola's message was further integrated with the other content feeds in a non-intrusive manner.

Providing Coca-Cola's communications exclusivity for a time period across the app, ensured that the brand could communicate exclusively with its Target Audience. To engage the audiences further and to promote viral spread, a social gaming element in the form of a Leaderboard was incorporated in the campaign. Users could earn points for interacting with the brand communication and compete with one another on the leaderboard for a chance to win 'cool goodies'.

Mining the mobile internet: - Two key advertising destinations were identified to be targeted on Mobile Internet:

- *Carrier portals:* As a popular destination for mobile content download for young subscribers, the largest carrier portal in the country, with over eight million unique users, was chosen to integrate the Coke message.

- *Social networking destinations:* Interactive banners were also seamlessly integrated across popular youth-centric social networking destinations like MCampus (the largest campus-based SNS mobile portal in India), Frenzo (a leading SNS Portal) and Ebuddy (a leading chat aggregator).

Users clicking on these banners were re-directed to a central WAP destination where the ad was made available for download

at a single click. Communication across media formats encouraged users to refer the advertisement to their friends to drive viral spread. Users just needed to enter the mobile number of the friend with whom they wanted to share the ad and a system-generated SMS was sent to the friend with a link to view the ad.

The communication also gave users an option of sharing the advertisement on their Facebook and Twitter pages to enhance the viral component of the campaign. In only ten days, the campaign registered twelve million impressions or twelve million people were exposed to the campaign. A high Click Through Rate (*CTR*) of over 3.5 per cent was achieved. Around 140,000 people viewed the commercial and referred it further to 112,000 friends.

Embracing mobile media

Mobile media is bound to become more significant to marketers. A number of factors will contribute to its growth. Handset ownership in Asia is well below the Western markets. With more young people acquiring mobiles, there is going to be an increase in messaging and social activity, leading to many more consumers joining the addressable market for brand targeting.

Availability of rich media will lead to brand marketing through in-app interactivity, leading to emergence of specialized creative agencies for mobile advertising. The ultimate salvo will be in 'Location-based brand messaging' where consumers will be reminded to buy a brand of shampoo a few meters away from the product display. If you have not started your digital/mobile journey it's not too late. Starting sooner than later will however make a big difference. ●

Bringing the social context into mobile voice and messaging services

by Jonathan Medved, co-founder and CEO, Vringo

'Communication is going social'. For Generation Y (*Youth*), voice and messaging must involve their social context, as social networking becomes the most important activity of the day. This is true particularly for mobile smartphones in Asia, where time spent on SNS via mobiles is growing fast. This opens up a new opportunity to exploit 'dead time' when users gaze at the screen, waiting for a call to connect or a message response to appear. Young multi-tasking users would enjoy sharing relevant content before-during-after communication, which, due to its social context, enriches the interaction.

Jonathan Medved is the co-founder and CEO of Vringo (NYSE-Amex: VRNG), a leading provider of software platforms for mobile social and video applications. Vringo's latest app, Facetones, creates an automated video slideshow using friends' photos from social media websites, which is played each time a user makes or receives a mobile call. Vringo's Facetones™ product has been launched by Verizon in the US, NTT Docomo in Japan, Telefonica in Latin America and Europe, together with the Chinese Handset Manufacturer ZTE.

Before founding Vringo, Mr Medved was a leading venture capitalist who has invested in over 60 technology companies. His companies included Shopping.com (acquired by Ebay), Answers.com (acquired by Summit) and Mobile Access (acquired by Corning). Prior to this, he built several successful technology start-ups including Accent Software (went public on Nasdaq) and MERET Optical Communications (sold to Amoco).

Despite the explosion of mobile applications, games and next generation mobile services, voice and messaging services still represent over 70 per cent of mobile operator revenues. While there has been much attention focused on the threat to these revenues from commoditization by IP-based voice and messaging services, there has been little attention to the threat to carrier voice and messaging represented by possible consumer irrelevance if these services stay outside of the critical context of today's social network services (*SNS*). Not only will these SNS offer 'free IP-based alternatives' to the traditional tariffed voice and messaging service, but social network driven voice and messaging alternatives will provide a richer and more relevant communication experience to the consumer. If the mobile operator does not take immediate steps to integrate social context into their traditional voice and messaging offerings, the future will be challenging indeed.

The threat and the promise of social networks

For most consumers, SNS are the primary frame of reference for their social graph. For younger people especially, a large proportion of their social activity revolves around their social network. Even offline socializing often stems from online interactions - ideas are discussed, events are created, contacts are invited, and after the event friends are brought up to speed with updates and photos, which are shared online and commented on. So engaged are Generation Y with Facebook that research shows 48 per cent of people from 18 to 34 years of age check Facebook as they wake up and 28 per cent check their Facebook on their smartphone before getting out of bed[1]. Perhaps of greater concern to the operator is that 57 per cent of users talk to people more online than they do in real life[2]. As the social network becomes the primary communication tool, operators need to address the following question: If young

From the 2011 Chadwick Martin Bailey Consumer Pulse
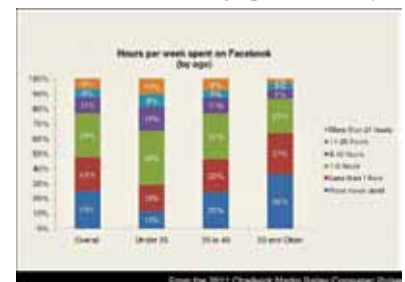
people were faced with giving up either their social network or the phone call capability on their phone, which would they choose?

A graph from Consumer Pulse[3] shows that 52 per cent of people under 35 years of age spend from one to ten hours per week on Facebook.

Operators are facing a tremendous challenge to keep voice and messaging services relevant - social networks have already moved to mobile, and in a big way. As of September 2011, Facebook had over 350 million users accessing their site via mobile phones[4]. This represents nearly 50 per cent of their user base socially networking from their handsets. If this growth increases, then it's likely that by 2013/14 Facebook will be described as a mobile company. In fact: "Facebook expects mobile to be the main source of its next billion users as Smartphones become more powerful and the value of adding social tools to devices is realized"[5]. There also seems to be something about the ability to connect to the social networks from handsets which has led to an increase in time spent on the site via mobile users. Research shows that people who engage with the social networking site via mobile devices are twice as active as people who engage via computers.[6]

Communication is going social

The above statistics demonstrate that all communication is going social. This has been highlighted by the recently announced partnership of Skype and Facebook. This partnership represents the future of communications, one in which all communication is socially connected, full of rich content, which is immediate, and more often than not, free. Already more than 50 per cent of Skype calls are video. People still want verbal communication, but this trend shows that they also want to incorporate the social context around those conversations. Communication via voice and messaging within social media sites is a natural function and normal behaviour. The social context after, during, and post the call or messaging session will give the callers or 'texters' a richer experience. With the social network as the enabler of the call or the message, interesting news, pictures, events and anecdotes will not only be shared verbally but enjoyed digitally by each party at the same time. So where does this leave traditional phone calls and SMS?

[3] http://www.socialquickstarter.com/content/103-10_facts_about_consumer_behavior_on_facebook
[4] Mobile Maketing Watch, Sep 2011 (http://www.mobilemarketingwatch.com/facebook-now-claims-350m-mobile-users-says-its-now-working-with-475-mobile-operators-18736/)
[5] Mobile Business Briefing, Nov 16, 2011, "Facebook's next billion users to be driven by mobile", http://www.mobilebusinessbriefing.com/articles/facebooks-next-billion-users-to-be-driven-by-mobile/19477/
[6] Boyd, E.B, "Why is Facebook® Pushing Mobile? Users Are 2 Times More Active Than Desktop-Only Users: CTO, Fast Company, Jan. 25, 2011.

> **"Today's smartphones are defined by their high-quality, large screens which enable them to display visually rich content, way beyond the traditional display of simple contact details and short messages such as caller ID that is standard in legacy devices."**

The solution lies in the ability to bring the social context (the engaging rich experiences from SNS) into the voice and messaging environments. Facilitating this requires integration with the most overlooked and primary social network - the phones' address book. Currently, phone books are not fully synced with existing social network services. Mobile SNS are accessed as applications and not wholly incorporated into traditional phone or messaging clients. The key to success in this space lies in the ability to incorporate the social context within the organic, natural moments of normal phone use - phone calls and messages. Furthermore, there exists a perfect opportunity to do this with today's smartphones, through exploiting a major untapped piece of smartphone real-estate.

Utilize smartphones' 'dead time'

Today's smartphones are defined by their high-quality, large screens which enable them to display visually rich content, way beyond the traditional display of simple contact details and short messages such as caller ID that is standard in legacy devices. Yet for most handsets, the phone call or messaging screens are still 'dead time'. Nothing really happens on the screen during the time you call a friend and wait for them to answer or when they call you, nothing happens on-screen during the call itself and nothing happens following call completion. At most, their name, number, static image and even a 'status' might be displayed when receiving an incoming call. Yet phones keep getting smarter, screens keep getting better, networks keep getting faster and today's users should be able to easily access the social information about friends before, during and after the call. The younger generation is constantly multi-tasking electronically and combining various types of messaging and social interactions within single platforms. They need more stimulation and context to keep their interest in a process, and so the natural next step is to incorporate their social environments within the context of the call or messaging environments.

However, as we mentioned previously, this experience has to be organic, not driven by special diallers or by launching an app before engaging with the phone's call or messaging client. The social context has to be delivered to the user without any effort on their part, because it would be contrary to the ease of use and simplicity required to make the action natural. Everyone knows how to make a phone call or message, and similarly the social context should be provided to the user without the need for any extra steps. Additionally, users need to be able to enjoy their contacts' social information without requiring their contacts to download or install anything on their end. Consumers are already suffering from SNS diversity fatigue and would need the service to be able to bring what's already 'out there' directly to their communication session.

What does a socially connected call or message look like?

We've discussed the reasons and approaches for delivering socially connected, rich, visual information to the call and the benefits that it would bring to both carriers and consumers alike, but what does it look like in practice? Today the first applications are being launched which allow users to enhance conversations with dynamic content (pictures and other media), messages, updated statuses, news feeds, locations, and other socially rich visual content. This turns their phones' 'dead moments' into socially active messaging opportunities. These enhancements will flow to the phone call or SMS session automatically from one's social network posts. The phone should display information from multiple SNS and will enable the user to engage with their contact at the end of the call via a post-call message to any number of social platforms.

In this model, users can also personalize and customize their voice and messaging sessions, by beginning conversations with "Happy birthday - see I didn't forget! Great pics of you at the party!" and finishing off calls with a post to their contacts' 'wall' or a message with the details of the event they discussed. Every call will include the ability for both sides to see what the other has been up to, where they have been, critical news, and other salient social information being shared naturally and seamlessly during both SMS and phone call sessions. This social enhancement will not only transform calls between people but improve the interaction with enterprises where you will soon be engaged visually with news, information and advertisements while waiting on hold or speaking to a company's agent.

Integrating this social context within existing voice and messaging infrastructure will provide consumers with a richer experience, drive more voice and messaging revenue and renew the relevance of the voice and messaging services. ●

Unifying the digital lifestyle

by Dan Ford, Vice President, Product Marketing, Oracle Communications

Digital life is now in full swing and with it, the transformation from traditional media into the new, social-based, cloud-based mobile and interactive style. Communications service providers (*CSPs*) are now engaged in a "battle for a place in the social cloud". They must differentiate to boost shrinking revenues while optimising their networks to ensure quality delivery. Major CSPs, like Verizon and Orange, begin to offer combined means of messaging by opening APIs and encouraging partners, in an effort to grab a share of this landslide towards unified digital life.

Dan Ford is the Vice President, Product Marketing, Oracle Communications. Dan Ford leads global marketing for Oracle Communications and brings to his role more than 20 years of product marketing, sales and strategy experience in the communications and software industries.

Prior to joining Oracle, Dan ran marketing for Rearden Commerce and led Siebel Systems' Communications, Media & Energy industry business unit. Earlier in his career, Dan also held sales and product marketing leadership positions at AT&T and GTE (now Verizon).

Dan holds a BA in Economics from Stanford University, an MBA from the Wharton Business School, and an MA in International Studies from the University of Pennsylvania.

We live in an ever-changing, digitally connected world. We create and consume an increasing volume of content on a daily basis and have a strong desire to share that content with friends, family, colleagues, customers, and others. On any given day, millions of photographs and videos are taken and shared via Facebook, Instagram, YouTube, and iCloud, among others. This content is in turn consumed, and often redistributed, on an assortment of always-connected mobile devices, connected televisions and connected gaming platforms that make up the fabric of our evolving digital lifestyle.

This evolution is further reflected in how quickly and completely we have converted to the digital medium. Music is primarily consumed in digital format - so much so that CDs and the cassette tapes and vinyl records before them have essentially disappeared - and DVDs for video are soon to follow. More and more written pages are turned digitally. Public libraries now offer digital lending for an increasing number of titles, and the digital transformation of the newspaper and magazine industries is well underway.

This transition of content into bits and bytes has had a profound effect in shaping consumer expectations around the immediate and pervasive access to content. Such expectations have spread into the tools we use to communicate. Take for example the impact of mobile instant messaging services - such as iMessage, Facebook Messenger, and BlackBerry Messenger, to name a few - that are challenging the primacy of SMS. At the same time, users want the ability to communicate across different channels in mid-conversation - changing tools and/or medium as they choose.

Social networks are spearheading this drive towards convergence, unifying how communications in all its forms are made available by combining the various communication methods into a single service, thereby becoming a comprehensive communication platform. In all this - where is the communications service provider? While many CSPs trail behind over-the-top innovators, there's still time to close the gap. However, CSPs must quickly innovate and

evolve their platforms such that they reduce the friction inherent in multi-network, multi-system and multi-faceted communication and collaboration.

CSPs face several imperatives in this changing landscape:

1) *Delivering a differentiated customer experience* - Provide services that are innovative and relevant to their user base; give customers control over how they manage, access and pay for their service and application portfolio; and understand better customer usage behaviour (e.g. apply business analytics) to support real-time actions to prevent churn and grow revenue.

2) *Increasing revenue* - Rapidly create and deliver new services to remain competitive and bridge the demands of the marketing department with the delivery capabilities of the network.

3) *Developing new partnering models* - develop how to sell to, and sell through partners, as competing and partnering with over-the-top (*OTT*) providers, providing relevant APIs for application developers and supporting multiple business models become critical.

4) *Optimizing networks* - Ensure that network resources are fairly allocated, such that consumers receive the quality of service they expect while paying for what they use.

CSPs must improve their ability to innovate and differentiate, and can do so by simplifying life for their customers and giving them increased choice and control over the services they use. These service attributes must also transcend the cloud as consumers and businesses alike are leveraging both private and public clouds at an increasing rate. The ability to innovate and differentiate cannot be made in isolation or without protecting the network,

We're increasingly seeing operators letting their customers manage all communication from one platform and aggregate their existing social communications into one service. This service synchronizes messages and contacts from multiple sources so all devices are kept in sync across their multiple access points, websites and applications. This has proven to be a valuable tool creating a stronghold for the CSP to provide a differentiated and valuable service to their customers.

We are also seeing an increased investment from CSPs in partner ecosystems where developing partner relationships, providing

partner self-servicing and exposing core communications assets are the focus. Better terms and streamlined approval process have been critical to engaging developers' interest. Exposure of communication assets is being accomplished through APIs. Orange, for example, is implementing strategies that offer core communication APIs for click to call, SMS, MMS, voicemail, location, email and more. These APIs are the interfaces that allow web or mobile applications to be enriched with communication services for both business and consumer applications. Not only does this create a more seamless environment, but it is creating new business opportunity for Orange. The company now offers an SMS campaign capability which lets businesses of all sizes target and deliver tailored offers to subscribers across the network.

Verizon Wireless has a similar approach with Verizon APIs called my-VoIP, my-presence, my-Location, and my-compute. Verizon is pushing forward to present these APIs via the cloud as a Platform as a Service (*PaaS*) and then deliver the resulting applications to end-users as Software as a Service (*SaaS*). This will be a critical area for CSPs as they need to move quickly to ensure their core communication assets don't get left behind in the cloud. It is apparent that Apple, Google, Microsoft and others are already deploying their own platforms and communication assets to create their own sticky services and brand loyalty. We will be watching as CSPs battle for a place in the 'social cloud'.

As cable operators deliver triple and quadruple play offerings, more are unifying and differentiating their subscribers' communications experience to limit churn. Messaging in the form of email, SMS, voice mail, etc., are made available on all end points: TV set-top-box, web and mobile. Calendaring services extend the DVR scheduler from the confines of the set-top-box, in essence mobilizing it. Presence-based rules guide the delivery of important messages such as alerts on the TV screen. CSPs who already provide these types of services will soon unify them with social networks, so that viewers can share their opinions with their friends online while watching live television. This is just another extension of the digital lifestyle, as we routinely engage in interactive socialisation during live broadcasts. We already see Tweets being read by broadcasters on shows like CNBC and Sports Halftime, but the next step is the automatic posting of such feeds with the option for viewers to filter them

based on individual preferences. Services like these can help operators retain and grow their subscriber base, and create new revenue opportunities.

Social networks and the integrated experience they provide are here to stay. CSPs must push ahead with differentiated services that leverage their extensive networks, broad customer base, and emerging cloud services. CSPs have the ability to deliver a more unified experience and play a more significant role in the revenue chain. For CSPs to avoid a future as a dumb pipe, inaction is no longer an option. ●

The IT security threats and opportunities posed by 'Bring Your Own IT'

by Patrick Oliver-Graf, Director, NCP engineering

Initially SMS was perceived as a second-best option to calling. Now, with a growing array of smart devices and available media 'bites', the attraction of this social media messaging is so great that employees do not wish to part with it even at work. This started a trend of 'bring-your-own-IT' to the workplace. Employees now demand to get connected to the corporate network and applications. This 'consumerisation' may well increase productivity, but will also bring new risks to corporate data integrity and network security. Businesses must re-consider their security policies and available tools, such as VPN to mobile devices and data encryption.

Patrick Oliver Graf has a proven track record of growing business and generating tremendous returns during more than 17 years in the marketplace of high technology and security. As International Sales Director of NCP he is responsible for expanding NCP's global business. Besides that he is General Manager at NCP, Inc. in Mountain View, CA and is responsible for NCP's North America operations.

Prior to NCP, Mr Graf was International Sales Director and Vice President Marketing at HOB, where he successfully built an entire global distribution and reseller channel. He has also established the North and South America operations with subsidiaries and distributors.

Sending a note has never been easier, with people of all ages and seniority today being able to send an SMS message around the world for just a few pennies. Initially, users perceived SMS messaging as merely a tool for keeping track of their children's whereabouts and did not foresee the trend for instant, non-invasive, text-based communication that was about to unravel before them. Within the last decade or two, we have seen communication tools enhanced to a level that far exceeds any previous predictions. The result is a growing appetite for the messaging and increasing reliance on 24/7 dialogue at the finger tips.

The demand for tools that exchange interactive 'text bites' of communication is continuously growing, due to the flexibility and cost savings they offer over other traditional forms of communication, such as the telephone. Globalisation has also had a major impact on the need for cost-effective media that enables people to interact with others around the globe, instantly and affordably, both in their personal lives and in their corporate roles.

This demand has led to the success of a number of social media sites, including the ubiquitous Facebook, Twitter and LinkedIn, which enable users to interact using 'text bites' of communication very easily, while on the move and at their own leisure. So, what impact has this had on the adoption of new communication tools and the way we use them?

Independent analyst house, Gartner, has stated that consumerisation is now the primary driver of the mobile space, and warns that CIOs must be ready to embrace a range of more flexible approaches to their mobile strategy. The growth of smartphones is expected to rocket in 2012, with Gartner predicting sales of smartphones to reach 645 million in 2012. Gartner also states that more of these devices will find their way into enterprises as employees entering the organisation will expect to be allowed to use them. Further still, Gartner estimates that 18 billion apps will be downloaded in 2011, up 114.5 per cent from 2010 and will rise to 31 billion in 2012.

These statistics highlight a clear change in society, particularly in the way we are accessing information and communicating with one another. The consumerisation of IT is already having a huge impact on the corporate world. Employees are using their own personal mobile devices in the workplace and behaving more like

consumers. They demand a wider variety of devices and strategies, such as 'Bring Your Own IT' at work, to enable them to operate more freely and in many cases, more effectively. This trend has put a great strain on IT departments, who not only have to handle the growing demand from employees to get their personal devices connected to the corporate network, but also have to tackle the major IT security risks involved in doing so.

Allowing employees to use their personal devices to connect to the corporate network and access corporate data insecurely could be potentially damaging to a company. In 2011 alone, we saw a number of cases where corporate data had been lost, leaked or hacked. The most notable is the Sony crisis, where they had to announce that the personal details of 77 million Playstation users might have been stolen by hackers. Not only did this tarnish the company's brand, it had also a negative impact on its share price, which dropped significantly. The challenge for CIOs is therefore to ensure complete data and network security when accessing the corporate data or the corporate network using a personal mobile device.

There appears to be a grey area over whose responsibility it is to ensure that employees' personal mobile devices are fully secure when accessing the corporate network. It is also unclear whether it falls under the CIO's role to ensure that all employee personal mobile devices are connected to the network. It is in both the employees' and employer's interest to ensure that corporate data and the network integrity remain secure at all times. However, it is the CIO's role to ensure that an effective strategy is in place to manage the use of personal mobile devices at work. Those choosing to ignore the shift in work ethic may be left to face the consequences, with unsecure devices jeopardising data and network security, potentially becoming the next public case where customer data has been lost or compromised.

One of the major factors affecting whether an organisation implements a good strategy is the cost involved. Many organisations will see initiatives such as 'Bring Your Own IT' to work as yet another strain on their IT budgets. With severe cuts being made across all departments, it is likely that IT security will suffer. Although many departments are vetoing the use of personal mobile devices in the workplace, they are not investigating whether they can indeed be used securely. Ensuring that all corporate data and the corporate network are fully secure is paramount to the success of an organisation that puts its customers first.

The benefits of implementing a good 'Bring Your Own Device' to work strategy will, in effect, increase an organisation's competitiveness by improving both customer service and employee morale. The flexibility of being able to use a personal mobile device at work or remotely is a clear advantage for many companies, with employees being able to access all the information they need and respond more efficiently. Research conducted by Citrix Online revealed that companies typically saw a 30 per cent rise in employee productivity.[1]

The days when companies had to provide corporate smartphones, a laptop and a tablet PC (which is a rising trend today) are coming to an end - potentially freeing up thousands of pounds of a company's IT budget. To ensure that a 'Bring Your Own IT' strategy is effective, IT security needs to be at the forefront of the business' priorities and importantly, the CIO's agenda. This includes enforcing clear policies covering IT security, management and HR.

There are a number of technologies that can help to manage workplace technology. Companies should seek an IT security tool that will ensure secure operations both in and out of the office, with staff being able to access and share vital data securely across both corporate networks and external networks. A Virtual Private Network (*VPN*) technology does exactly this, by enabling users to access their data and corporate network via a secure connection, encrypting data at the source and delivering it safely.

All VPN tools currently on the market contain IPsec (*Internet Protocol Security*) functionalities, a protocol suite for securing Internet Protocol (*IP*) communications. However, there are differences in IPsec solutions, which businesses need to take in to consideration. A quality VPN tool should have an IPsec protocol-stack, which matches all the IETF objectives and supports all IPsec standards. Such tools should be easily configured and compatible with popular operating systems, including Android - enabling seamless roaming for applications that are always online. Businesses can ensure complete data security whether employees are using the corporate network or working remotely from a hotspot from a personal mobile device by implementing an IPsec VPN technology that supports all peripheral and central components, as well as systems in all remote access environments.

Workplace technology and the rise of 'Bring Your Own IT' to work trends will present a number of challenges and opportunities in 2012. IT security will climb up the business agenda, and although there will always be a number of companies that do not support the change, those that do will benefit from the flexibility and cost efficiencies it brings. As further developments in technology and mobile devices arise, it is likely that trends such as 'Bring Your Own IT' to work will become even more integral to the wider business strategy, and the importance of IT security - including preventing data loss and leakage - will become an issue acknowledged not only by CIOs, but employees at all levels. ●

[1] http://www.personneltoday.com/articles/2011/07/29/57835/what-is-it-consumerisation-and-why-does-it-matter-to-employers.html

☑ **YES!** Send me the following *Connect-World* issues

☑ **Africa & the Middle East issue**

☑ **Latin America issue**

☑ **North America issue**

☑ **EMEA issue**

☑ **ICT Global Challenges issue**

☑ **Asia-Pacific issue I, II & III (3 issues)**

☑ **Europe issue I & II (2 issues)**

☑ **India issue**

A total of 11 issues for the publishing year of 2011, at a special discounted rate of £100. Online subscription also available.

Subscribe to receive your copy now!!

Subscription Form

Title (Mr/Mrs/Miss): _____ Name*: _____

Company*: _____ Job Title*: _____

Address*: _____ City*: _____

State/Province: _____ Postcode/Zip*: _____

Country*: _____ Telephone*: _____

Fax: _____ Email*: _____

(Fill all fields marked *)

Check preferred subscription medium

☐ **Online** - Digital Magazine £15 (11 issues, Online download PDF)

☐ **UK** - Printed Magazine for UK subscribers £95 (11 issues hard copy by post)

☐ **Europe** - Printed Magazine for Europe subscribers £100 (11 issues hard copy by post)

☐ **Foreign** - Printed Magazine for Rest of the World subscribers £115 (11 issues hard copy by post)

☐ **Corporate** - Printed Magazine for Corporate subscribers (11 issues hard copy by post)
- sign my company up for a two-years subscription to *Connect-World* series of magazines with an additional 15% discount. Please charge my credit card once a year until I notify you otherwise. I'll get the same low subscription rate I've chosen above for as long as I am a subscriber. Please note: all corporate subscriptions must be pre-paid. Please provide your credit card information when placing your order.

Note: Please allow up to 4 weeks for mailing of first issue.

Please charge my:

☐ Visa   ☐ MasterCard   ☐ American Express

Card Number: _____ Expiry Date: _____/_____(MM/YYYY)

Signature: _____

Bill me later

☐ Tick here if you want us to bill you later. Available only to domestic UK addresses.

Please sign _____ and send back by:-

Email: info@Connect-World.com or
Post: InfoComms Media Ltd., 1 & 2 Riverside Offices, 17 Towcester Road, London E3 3ND, UK.

Deliver a ubiquitous experience across the PC, TV and mobile device

**Hosting**   **Media & Entertainment**   **Telecommunications**

Screens are the common user interfaces through which consumers and business users access services and content, whether in the office, at the home, or on the go. Microsoft's heritage is in creating these operating platforms, all of which deliver a rich, familiar experience, across the PC, TV or mobile device. By offering a range of consumable devices to which service providers can deliver a multitude of services, Microsoft is uniquely positioned to work together with operators to make the converged lifestyle a reality.

Software is driving the telecommunications industry forward towards the goal that no matter where you are, you should be able to take your world with you. Microsoft has the breadth of technology assets to bring that idea to life and, as we work together with operators to continue to drive innovation, the combination of software plus services will deliver the best choice to consumers and businesses.

For more information : **http://www.microsoft.com/serviceproviders**

Microsoft®
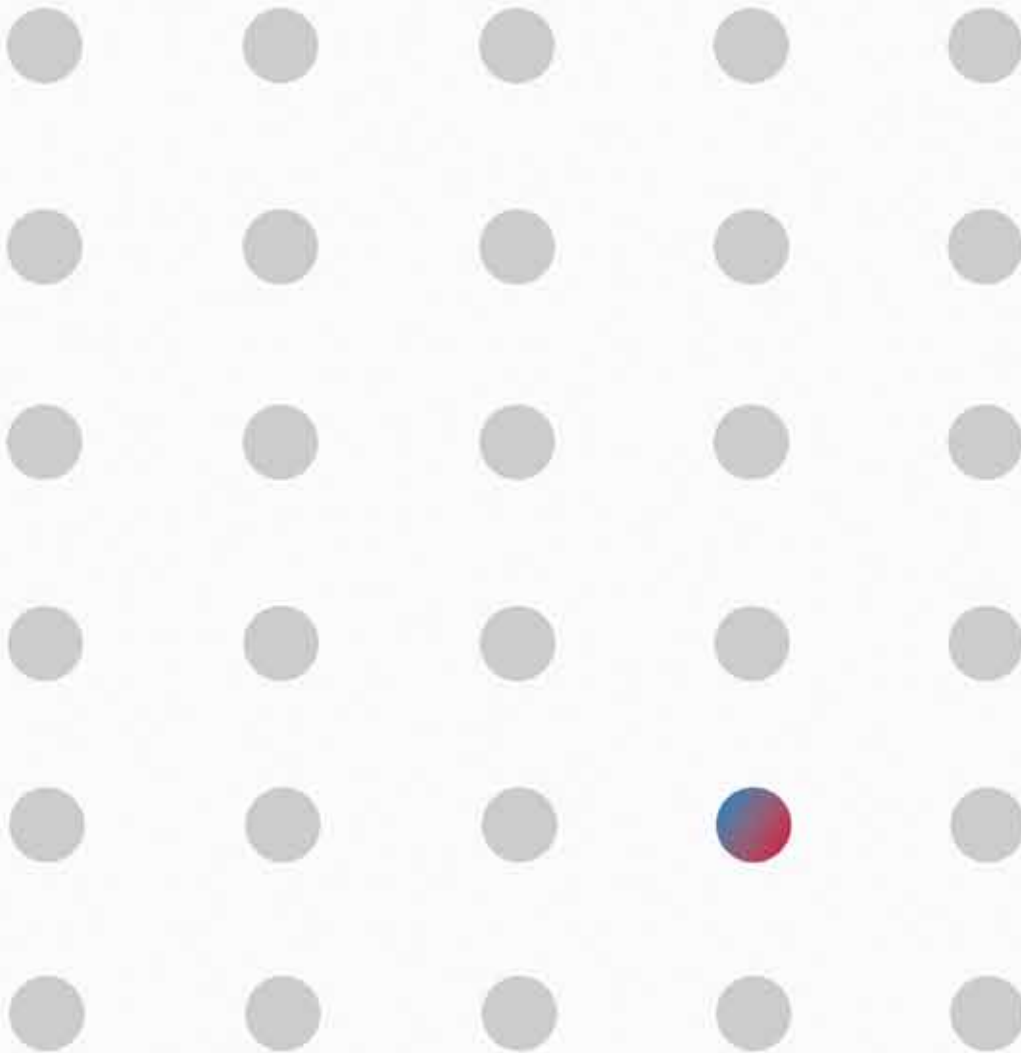
**EVERY SUCCESS BEGINS
WITH AN OPPORTUNITY**

At Ericsson we see support systems as strategic tools to turn
opportunity into value. Let us share our view on OSS/BSS.

www.ericsson.com/opportunitysupportsystems

OPPORTUNITY
SUPPORT SYSTEMS
OSS/BSS

ericsson.
com

ERICSSON