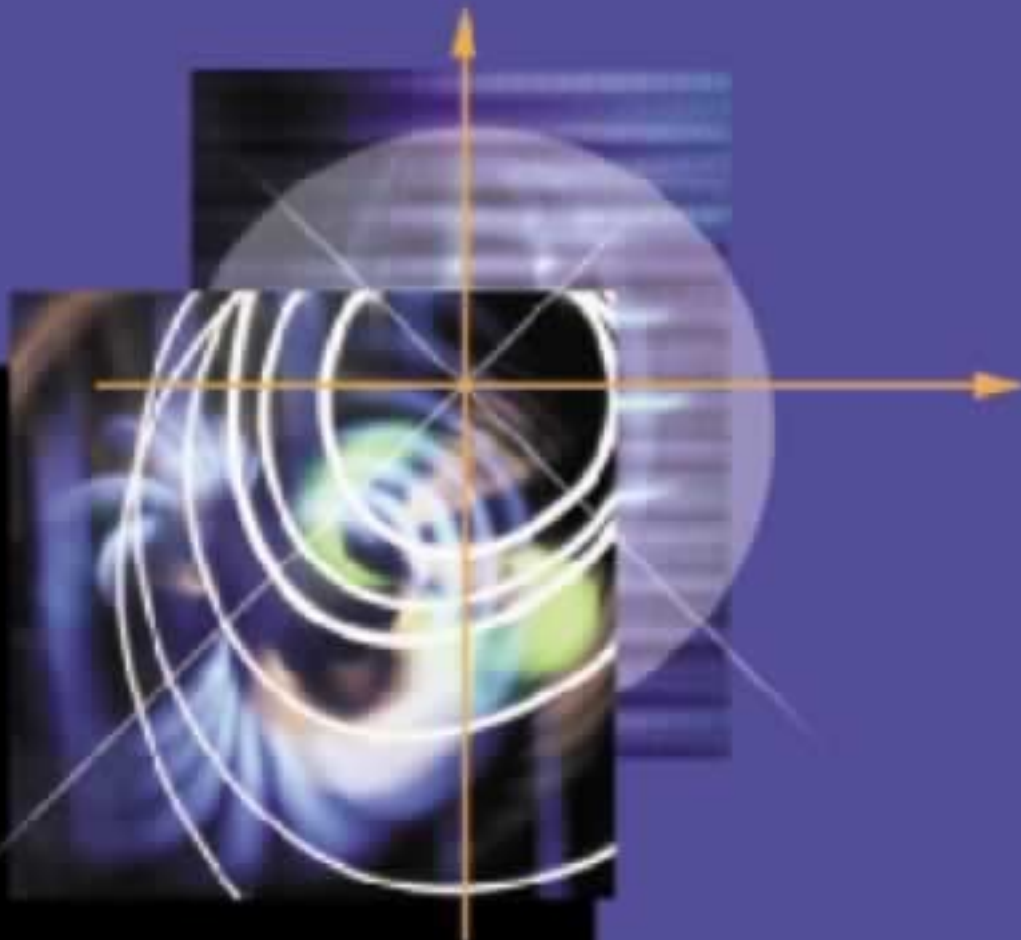


Global Mobile Dialogue™

GSA Newsletter : Issue Eleven : March 2005

Mobile news highlights for the decision-maker



3G Subscriber Growth Takes Off

The number of WCDMA subscribers globally is rapidly approaching 20 million, and has doubled in the last 6 months. NTT DoCoMo announced that the number of subscribers to its WCDMA-enabled FOMA service passed 10 million on February 21, 2005, less than three and a half years since the service was launched. However, it is in Europe that 3G growth has been most pronounced, with many WCDMA networks entering commercial service over the past few months. According to GSA, 66 operators are today offering commercial services in 31 countries. A further 9 networks are at the pre-commercial stage. This means that the majority of the 134 licensed WCDMA operators have now brought 3G services to market, or are very near to doing so. It also means that WCDMA is the world's most successful 3G technology.

3G services are in strong demand by enterprises and the mass market. Subscriber growth is now driven by a wider range of competitive service offerings, a wider variety and improved availability of terminals in the market, and maturing technology.

GSA's "3G/WCDMA model variety and availability" survey completed on February 25, 2005 identified 139 WCDMA devices, which means that the number of new model announcements tripled in the past 8 months alone. Several phones and PC cards made their debut at the 3GSM World Congress, with more suppliers coming into the market. GSA confirms that at least 25 suppliers have announced WCDMA user devices.

Several operators are deploying combined WCDMA-EDGE networks for 3G services delivery. EDGE and WCDMA are complementary technologies, and ensure the best user experience of 3G services throughout an operator's network, shortening time to market, and making the most efficient use of CAPEX (capital expenditure) and other key resources, while reducing (OPEX) operational expenditure. The list of 36 WCDMA-EDGE operators are included in the panel opposite:

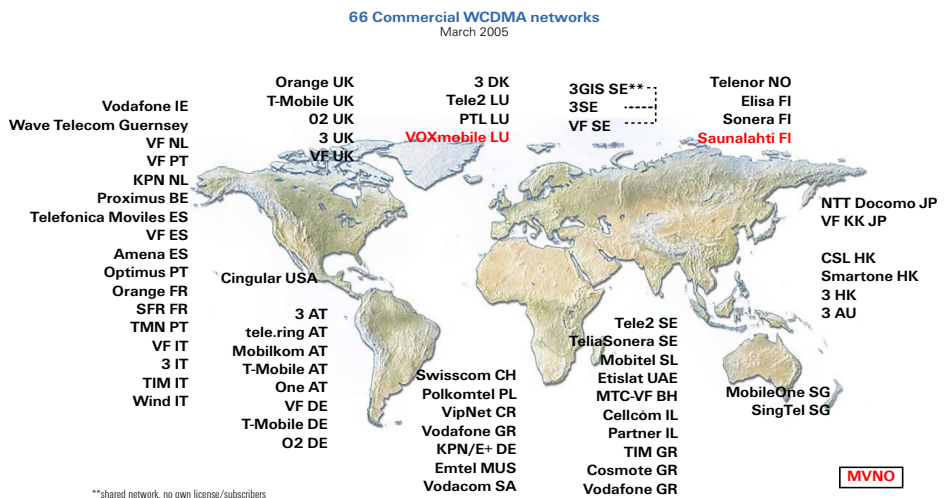


Figure 1: Commercial WCDMA Operators - March 9, 2005

Source: GSA

(The full list of commercial and pre-commercial WCDMA networks is contained in the WCDMA Fact Sheet www.gsacom.com)

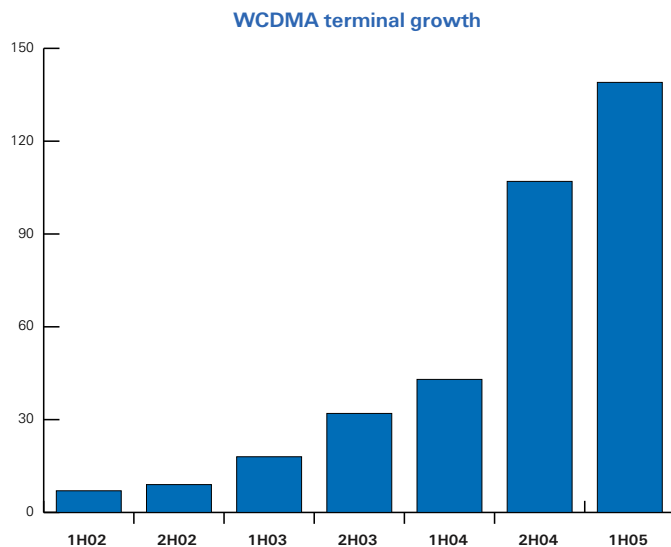


Figure 2: 139 WCDMA devices in the market - February 25, 2005

Source: GSA

Ålands Mobiltelefon, Finland	MTC Vodafone, Bahrain	T-Mobile, Czech Republic
Batelco, Bahrain	MTN, South Africa	T-Mobile, Hungary
Cellcom, Israel	Netcom, Norway	T-Mobile, USA
Cingular Wireless, USA	Orange, France	Telfort, Netherlands
CSL, Hong Kong	Orange, Romania	TeliaSonera, Denmark
Dialog GSM, Sri Lanka	Orange Slovensko, Slovak Republic	TeliaSonera, Finland
Elisa, Finland	Oskar Mobile, Czech Republic	TeliaSonera, Sweden
EMT, Estonia	Pannon GSM, Hungary	TIM Hellas, Greece
Eurotel Praha, Czech Republic	Polkomtel, Poland	TIM, Italy
Eurotel Bratislava, Slovak Republic	Rogers Wireless - Fido, Canada	VIP Net, Croatia
GPTC, Libya	Si. Mobil - Vodafone, Slovenia	
Maxis, Malaysia	Swisscom, Switzerland	
Mobilkom Austria	Telenor, Norway	

The globalization of EDGE has entered the mainstream. According to GSA research to March 4, 2005 a total of 131 operators in 76 countries are deploying the EDGE upgrade on their GSM/GPRS networks. Today 63 commercial networks are delivering enhanced data services in 41 countries in all continents.

EDGE subscriptions have rapidly increased, for the same reasons as WCDMA. A total of 90 EDGE-enabled devices are announced, which has tripled over the past 6 months. EDGE is a standard feature in most new data-enabled phones, with several new models launched at the 3GSM World Congress in February 2005. A similar story of more suppliers entering the market can be seen.

WCDMA and EDGE Evolution

High Speed Downlink Packet Access – HSDPA delivers a similar boost for WCDMA as EDGE does for GPRS. HSDPA boosts the air interface capacity by 2 times and delivers a 5-fold increase in data speeds in the downlink direction. HSDPA also shortens round-trip time between network and terminals and reduces variance in downlink transmission delay. Commercial release of HSDPA is anticipated from end 2005. All WCDMA operators are expected to deploy HSDPA. The upgrade path from WCDMA to HSDPA is easy, as base stations only require a software upgrade. Today's GSM scale economies will be available with HSDPA in the coming years. Several manufacturers demonstrated HSDPA solutions at 3GSM World Congress.

EDGE Evolution

The GSM community believes that further GSM/EDGE evolution is vital to support the continuity of operations and business performance of single (GSM/EDGE) and integrated (GSM/EDGE/WCDMA) networks. EDGE Evolution is envisaged to bring an average 2-3 times increase in data speeds compared to EDGE data rates today, higher voice and data capacity, and improved spectral efficiency. The leading GSM/3G suppliers Ericsson, Nokia and Siemens are fully committed to bringing the benefits of EDGE Evolution to the marketplace. The operators are also interested in EDGE Evolution as a cost effective way of increasing data rates to their customers, and to maximise network performance, services' coverage and customer opportunities.

76 Countries with EDGE deployments

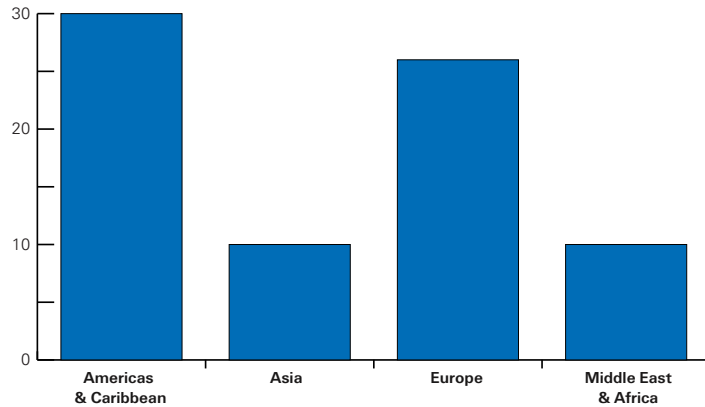


Figure 3: 76 countries with EDGE Deployments - March 4, 2005
Source: GSA

90 EDGE terminal launches

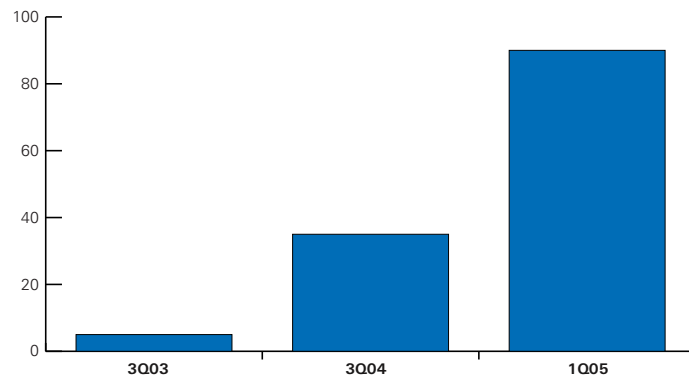


Figure 4: 90 EDGE terminal launches - March 4, 2005
Source: GSA

GSA launched an initiative in March 2005, beginning with a press release on March 10th, to raise industry awareness of the benefits, and to secure standardization by 3GPP of the key enablers in future releases of the standards, such that productization can be expected in the 2007 timeframe.

GSA Announces Next GSM/EDGE Steps to Enhance Service Continuity with EDGE Evolution

March 10th, 2005: GSA - Global mobile Suppliers Association, announces its support for the new 3GPP study items on EDGE Evolution. EDGE Evolution is envisaged to bring on average 2-3 fold data speeds compared to EDGE rates today, higher voice and data capacity and improved spectral efficiency.

With deployment of WCDMA accelerating globally, 3G services are in strong demand by enterprises and the mass market. Many operators are deploying a combined WCDMA/EDGE network strategy for delivery of 3G services. EDGE Evolution is a natural complement to HSPA (High Speed Packet Access) which will enhance WCDMA data rates and capacity, ensuring the best user experience of advanced wireless mobile broadband services.

Alan Hadden, President, GSA, explains: "EDGE Evolution is an important step for single mode GSM and multimode GSM/WCDMA operators to support their current business and to the service continuity in GSM networks. EDGE Evolution is envisaged to only have a low impact on the existing EDGE capable GSM networks, however, it will lower service delivery costs considerably and make new services and higher data revenues possible. When it comes to WCDMA/HSPA subscribers, they can roam outside WCDMA/HSPA coverage and still use the services they are accustomed to."

Leading GSM/3G suppliers Ericsson, Nokia and Siemens are fully committed to bringing the benefits of EDGE Evolution to the marketplace. The first standardization release, 3GPP release 7, is envisaged to be ready in 2006.

Ulf Ewaldsson, VP GSM Product Management at Ericsson, sees the further evolution of EDGE as yet another step into the direction of fully 2G/3G integration: "With the enhancements in WCDMA towards high speed packet access, the EDGE evolution provides the necessary service seamlessness as it is expected by the end users."

Giuseppe Donagemma, Vice President, Radio Networks, Nokia, supports Hadden's view. "Nokia supports EDGE Evolution work as we see it being beneficial to the mobile user experience as well as offering a possibility for the operators to increase their revenues, in particular with new real time services that require higher bitrates, lower latency and higher capacity. EDGE Evolution is complemented by the GSM voice enhancements, delivered to end users and operators with the same easy GSM/EDGE upgrades. We expect the WCDMA evolution to HSPA to be one of the key drivers for the EDGE Evolution."

Peter Giese, Head of Siemens Product Line Management for GSM/EDGE Radio Access Networks, said: "Siemens remains fully committed to providing a long term evolution of their GSM/EDGE networks that allows operators to optimize the revenue potential over the next decade and at the same time helping to protect the investment made."

Leading GSM/3G mobile network operators are also interested in EDGE Evolution. "TIM is pleased to see that both EDGE and WCDMA radio technologies are evolving further, supporting very well the TIM network strategy of having both technologies in parallel use to maximize network performance, services' coverage and customer opportunities" said Luca Luciani, TIM (Telecom Italia Mobile) Executive Vice President International Operation.

Tommy Ljungren, Technical Director of TeliaSonera Sweden's Mobile Networks, confirms the importance of further EDGE evolution, adding that "EDGE is a very cost effective way to quickly increase the data rates to TeliaSonera's customer base. EDGE is viewed as a complement to our WCDMA and WLAN networks. For TeliaSonera EDGE will play an important role in our realisation of "Always Best Connected" where our current and future customers get a seamless service experience through the most suitable access technology available in each location."

Kris Rinne, Chief Technology Officer, Cingular Wireless added: "Cingular is always interested in technology upgrades that enhance the operation of our network and the wireless experience of our customers. As one of the first carriers to offer commercial EDGE service, we are glad to see the continued support and evolution of GSM/EDGE from carriers and vendors throughout the world."

World GSM News

GSM Reaches 1.3 billion users end February 2005

GSM is confirmed globally as the fastest growing technology, with 276.5 million new subscribers added in 2004. CDMA gained 49 million new subscribers in the same period. GSM added 79.5 million subscribers during Q4 2004 bringing a year-end total of 1,268 million subscribers globally. GSM grew at the rate of 26 million subscribers each month during Q4 2004 and accounts for 75% of the world's cellular market and over 80% of current net additions. There are 626 GSM networks commercially operational in 199 countries/territories.

The number of GSM subscribers more than doubled in Latin and Central America during 2004.

GSM continues to lead APAC mobile subscriber growth, adding over 98 million new subscribers in 2004. China remains the largest market with 288 million GSM subscribers by the end of 2004. Rapid growth in India pushed the number of GSM subscribers to 37.6 million and 80% share of new connections during 2004.

GSM gained the highest share of net additions in the USA of 55% of all technologies during 2004. At the end of the year the GSM total stood at 54.9 million, of which 50.78 million are in the USA. In Europe the total number of GSM subscribers reached 559 million by end 2004. Russia climbed to 67 million. Growth continued in Eastern Europe – up 57.8 million, with Western Europe adding 31 million GSM subscribers in 2004.

The GSM Association announced at the 3GSM World Congress the results of a tender for the supply of handsets for the "Ultra-Low Cost" segment for the emerging markets. The operators participating in this first procurement round were AIS Telecom, Bharti Televentures, Globe Telecom, Maxis Mobile, Orascom, SingTel Mobile, Smart Communications, Telenor Mobile and Turkcell. The initial volume target for the first six months, once shipments begin, is 6 million.

World cellular subscribers by technology

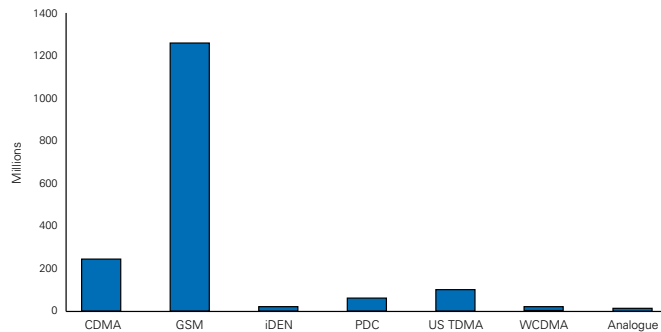


Figure 5: World cellular subscribers by technology - 31 December, 2004

Source: Informa Telecoms and Media

Mobile Subscriber Growth in Latin and Central America

Americas excluding USA & Canada

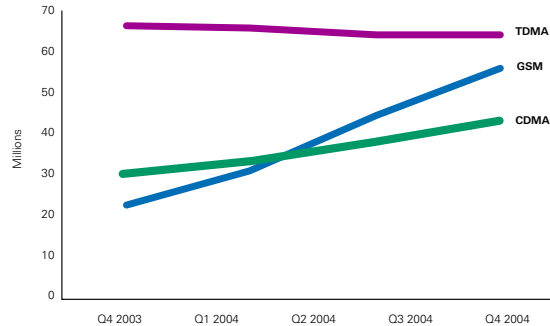


Figure 6: Mobile subscriber growth in Latin and Central America

Source: Informa Telecoms and Media

Mobile Subscribers Growth in China

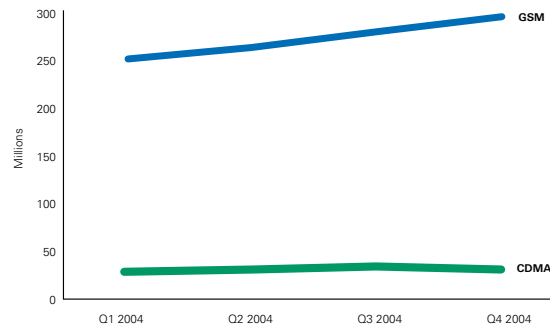


Figure 7: Mobile subscriber growth in China

Source: Informa Telecoms and Media

Mobile Subscribers Growth in India

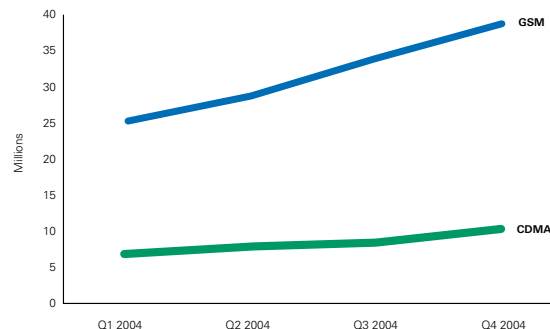


Figure 8: Mobile subscriber growth in India

Source: Informa Telecoms and Media

Messaging Update

The cumulative revenue from mobile data services earned by the 30 leading operators reached USD 10 billion during Q3 2004. It can be seen from the chart that data services revenue is growing on a wide front.

GPRS is leading global mobile data subscriber growth.

Over 270 operators around the world have launched MMS. A dramatic shift towards camera phones in EMEA market took place in 2004, achieving 56% of the market. During Q3 2004, close to 40 million of 62 million phones shipped (Source: Canalys) i.e. two-thirds, were camera phones. Color screens are now found on over 80% of devices in Europe (compared to 49% in Q3 2003) and almost three-quarters of new European mobiles are camera-phones, according to IDC. Camera phones achieved year-on-year growth of over 600% to total 72% of phones sold (compared to 11% in Q3 2003). The volume of mega pixel camera phones also began to grow in Q3 2004.

The total number of SMS sent in the UK in 2004 reached a new record of 26 billion, according to figures released by the Mobile Data Association. The 2.5 billion sent in January 2005 was up 15.7% on the previous January.

72% of women prefer texting rather than talking according to a survey conducted by ICM Research during January 7-9, 2005. The survey also revealed that over one third of over 65's are regular texters.

Comment: texting is no longer considered impersonal. The study also breaks the stereotype of seniors being techno phobic

Data Revenue
Actual 3Q 2004

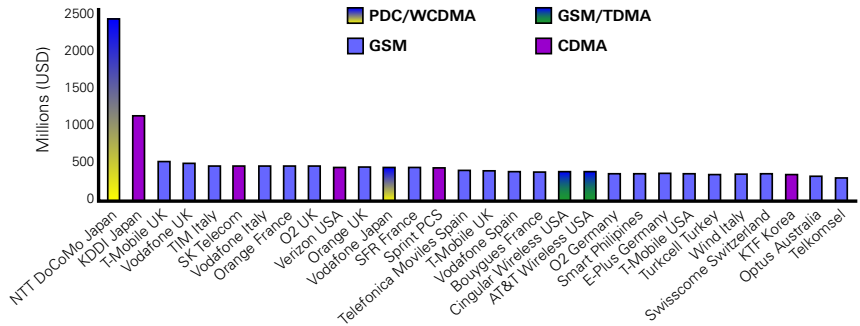


Figure 9: USD 10 billion revenue from mobile data in Q3 2004

Source: Informa Telecoms and Media's World Cellular Data Metrics

GPRS is leading global mobile data subscriber growth

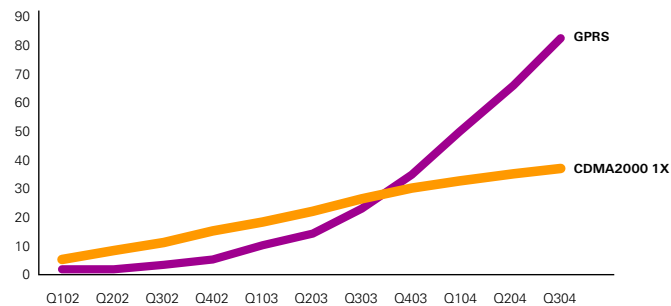


Figure 10: Global mobile data subscriber growth

Source: Informa Telecoms and Media's World Cellular Data Metrics

MMS Launches Jan 2003 - December 2004

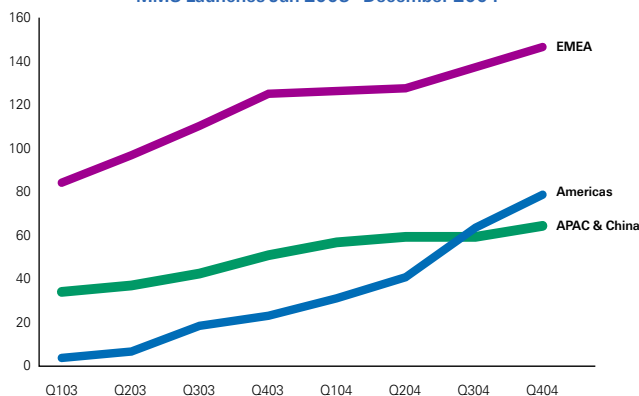


Figure 11: MMS launches January 2003 - December 2004

Source: Informa Telecoms and Media

Interoperability

The GSM Association has brought together 13 key vendors and operators to ensure the quality and interoperability of new multimedia services enabled by SIP (Session Initiation Protocol). The first results were seen in a test campaign completed in February 2005. The trial builds on the existing GRX model by adding SIP hubbing to enable global interoperability.

Growth News

71.9% of world's mobile phones already on GSM

Global handset sales in 2004 grew 30% in 2004 according to Gartner Inc.

The company predicts growth will continue in 2005 to reach 730 million units, after achieving 674 million in 2004. The company said, "In emerging markets the major battle ground will be the sub-USD 50 handset arena."

Telecom.TV reports that a rapid proliferation of mobile casinos, lotteries and sports betting services

should see gross revenues from mobile gambling mushroom to over USD 19.3 billion by 2009, according to a new report from Juniper Research. In Europe, mobile gambling revenues are expected to rise from USD 202 million in 2004 to over USD 7.2 billion in 2009. Asia Pacific is expected to contribute with the largest share of gross revenues (with 39%).

Juniper Research reports that mobile adult content is expected to increase by over 50% to USD 1.01 billion in 2005.

GfK Asia says that the pan-Asian mobile phone market surged 19% in 2004, and predicts a further rise of 12% in 2005. The report surveyed China, Hong Kong SAR, India, Indonesia, Korea, Malaysia, Singapore, Taiwan, Thailand and Vietnam. In China alone, 1,286 different handset models were launched under 48 brands.

According to **Forrester Research**, the mobile data services market in the US has grown from zero to a market worth up to USD 1.5 billion by end-2006

Chinese mobile phone manufacturing production is forecast to exceed 500 million handsets in 2005, according to a report from the National Development and Reform Commission in China.

Forrester Research "Central and Eastern Europe Mobile Forecast 2005 – 2010" points to CEE becoming an important market for mobile value added services, such as mobile commerce. Accession countries are gaining purchasing power, and in many countries additional mobile licensing is foreseen. Increased operator activity, improving mobile infrastructure, and expected growth of GDP will all combine to cause a surge in subscriber growth.

According to **Cellular News**, a new report in the **Vodafone Policy Paper Series "Africa: The Impact of Mobile Phones"** shows that business models for mobile communications that are based on accessibility play an important role in developing economies. The report confirms that Africa has seen faster growth in mobile telephone subscriptions than any other region. Sir

Julian Horn-Smith, Deputy Chief Executive of Vodafone Group, launched the 70-page report in London. For example, it states that 97% of people in Tanzania can access a mobile phone, while only 28% could access a fixed line. Mobiles save people living in rural communities the financial costs and time involved with travel, improving opportunities for contact and relationships.

Gareth Jones, Chief Operating Officer, 3 UK, confirmed that over 10 million music videos were watched by customers on their mobiles following the launch of its video jukebox service just 6 months previously.

BMI has released predictions that the ring tones market in the USA will exceed USD 500 million retail sales in 2005, compared to USD 245 million in 2004, and just USD 68 million in 2003

A new report from **Pyramid Research "Mobile Messaging Trends in Latin America"** confirms that mobile messaging in Latin America is emerging as a key growth opportunity for operators in the region, as a result of falling tariffs, improved network interconnectivity, more affordable data-enabled handsets, and fresh and innovative content.

3GSM World Congress

VIP Lunch for GSM/3G Operators - Cannes

Over 50 VIP guests from the global operator and vendor community participating at the 3GSM World Congress enjoyed a memorable lunch organised by GSA in one of the finest restaurants in Cannes Old Harbour. One operator senior executive remarked "GSA has done a great deal to promote the closer inter-working of vendors and operators within a common environment - a direction in which we can all benefit!" while another "came to the realization that the GSA has a bigger role to play in providing all operators more insight on what is happening especially on 3G, GPRS/EDGE, WCDMA, and data applications across all markets."



Forthcoming Events

Key forthcoming GSM/3G regional and international industry events supported by GSA:

- MMS Congress, March 14-17, Barcelona (organised by IIR)
- Convergence India, March 22-24, New Delhi (Exhibitions India)
- Prepaid Mobile World Asia, April 19-20, Hong Kong (IBC Asia)
- 3GPP PCG and OP, April 21-22, Cancun (3GPP)
- Strategically Deploying HSDPA, April 25-28, Lisbon (IIR)
- South Asia Mobiles Summit, April 27-28, Colombo (IBC Asia)

Latest Resources

New papers, reports, industry data, and media coverage

Visit www.gsacom.com to download these regularly updated resources

- GSM/3G Market Update
- GSM/3G Statistics – downloadable charts and graphs for reports and presentations
- WCDMA Fact Sheet – including status of deployments globally
- WCDMA Devices – details all products shipping or announced
- EDGE Operators Worldwide
- EDGE Devices – details all products shipping or announced
- EDGE Platforms
- Push to Talk – Opinion Paper
- Adaptive Multi Rate coder – Opinion Paper
- New Revenue Generating Services
- GSA Chapters
- GSA in the News – featured articles
- GSA media coverage

Service Success Story: NewBay Mobile Blogging drives MMS explosion for SETAR

SETAR NV, a leading mobile operator in the Caribbean, has seen explosive growth in MMS since launching NewBay's FoneBlog service in 2004. The mobile blogging and multimedia album service provides a fun, community mobile service that forms the core MMS offering for SETAR. Since launch, it has surpassed all expectations in MMS traffic and activity, achieving 30% penetration and an average of 5 MMS messages and 3.5 MB of WAP data per subscriber per month. SETAR subscribers are already addicted to taking pictures and instantly posting them via short code direct to their own personal websites from their camera phones. The service is branded Waw! Blog

Editorial

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