



Published: September 2007

Author: Infogile Technologies

***Mobile phones today have moved beyond their fundamental role of communication devices and have graduated to become an extension of the persona of the user. We are witnessing an era when users buy mobile phones not just to be in touch, but to express themselves, their attitude, feelings & interests.***

***Customers continuously want more from their phone. They use their cellular phones to play games, read news headlines, surf the Internet, keep a tab on astrology, and listen to music, make others listen to their music, or check their bank balance.***

***Thus, there exists a vast world beyond voice that needs to be explored and tapped and the entire cellular industry is heading towards it to provide innovative options to their customers. Spoilt by choice, the mobile phone subscribers are beginning to choose their operators on the basis of the value added services they offer. The increased importance of VAS has also made content developers burn the midnight oil to come up with better and newer concepts and services.***

***One of the many new Value Added Services is mobile lottery. Mobile phone users can now play the lottery on their mobile phone without the hassle of going to convenience store to buy lottery ticket. GPRS is emerging as the winner because GPRS enabled services allow the user to pay per kilobyte of data received.***

***This white paper provides a detailed analysis of the evolving market opportunity for mobile lotteries and casino games.***

## White Paper Overview

### Abstract

This paper describes the basic concepts, services offered, market survey and technology which enables Mobile Lotteries. Over the last few years, the mobile and wireless market has been one of the fastest growing markets in the world and it is still growing at a rapid pace.

As average revenue per user decrease from voice drops, and voice becomes commoditized, Telcos are increasingly looking at data as an additional revenue stream. The end users have also embraced VAS and it contributes between 5-10% of the revenues of different Telcos. Thus Mobile VAS has become an important element in the growth of mobile telephony in India.

This opens up huge markets for lottery operators interested in offering value added services. With mobile technology, lottery operators can offer their services on customer's cell phones even when they are stuck in traffic.

### Document Audience

This document is primarily intended for Marketing, Sales, Product Support, Internet Services Group, Project Engineering and anyone who is interested in Mobile Gaming.

## Introduction to Mobile Lottery

Mobile Lottery, the most talked about mobile entertainment services offers great potential for rapid market growth as the various barriers to market development diminish. Lottery has always been a lucrative business, with the UK's Betting Office Licensees Association (BOLA) estimating that global gaming, in all its forms, is worth around about US\$1,000bn. The traditional methods of betting such as casino gaming, sports events and playing lottery games are increasingly being augmented with electronic forms of betting, most notably using the Internet, where casino services (such as [www.888.com](http://www.888.com)) and betting services (such as [www.williamhill.co.uk](http://www.williamhill.co.uk)) are already generating substantial revenues. The next progression in this process is to transfer these and similar services to the mobile handset.

However, betting services via the mobile are a relatively new phenomenon, with their deployment plagued by a plethora of cultural and regulatory hurdles. Nevertheless, some analysts have argued that such services could well be the "killer apps" that mobile has been seeking, and that betting could well become a multi-billion dollar business. In either event there is a strong market for mobile phone betting.

## Types of Services

The organized gaming sector, while easy to consider as a whole, is in fact made up of at least three distinct sectors: casino style, lotteries and sports betting.

### Casino Style

In appearance and user experience, this is very much like the current crop of mobile games, with colorful graphics that allow the user to play poker, roulette, craps, and black jack and so on using their mobile handset. This can be simply for fun, or it can incorporate an element of betting against the 'machine' via the service provider.

### Lotteries

More than 90 per cent of the population of the UK and United States have at sometime played a lottery (in its traditional paper form) at least once, with in the order of 80 per cent playing regularly. Coupling this huge market for lotteries with the immediacy and penetration of the mobile phone is a logical and lucrative proposition, both for existing lottery operators and alternative providers. Juniper, a market research company, believes that lottery services will explode across all regions of the world within the next five years and will generate vast revenues.

### Sports Betting

The final strand of the organized gaming rope is that of sports betting, whereby the player bets on the outcome of a sporting event such as a football game or a horse race, although it can cover anything that a bookmaker is prepared to take a bet on, such as whether it will snow on Christmas Day in London and so on. This area of gaming has particular interest to those looking to exploit the mobile channel, since it may offer the opportunity not only to allow players to place a bet about the outcome of a particular event, but also to dynamically bet through their handset as to the outcome of particular events within the game itself, such as whether a certain player will score before half time. This is wholly dependent on the technology being

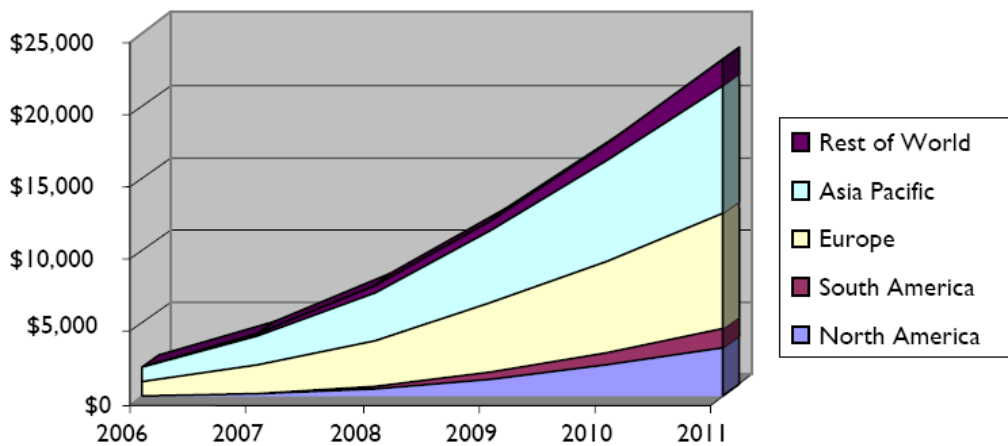


Mobile gaming market is still in its infancy - UK Ladbrokes was the first major betting company to announce launching of a mobile lottery. Current market is virtually untapped and several market researching agencies are pointing to mobile games as a very dynamic and lucrative market in the future. Worldwide revenues for gaming on mobile phones will reach \$16bn by 2008 and lottery sales from gaming phones are expected to reach slightly more than \$5bn by 2008 (estimated by Alexander Resources).

available to allow it, but every indication points to the presence of significant numbers of 'always on' GPRS and 3G users by 2007/2008, particularly in the more developed markets to make this happen.

### The Market for Mobile Gaming

Taking all types of mobile gaming services together, Juniper Research estimates that the mobile gaming market will be worth just under \$2bn in terms of total wagers placed per year, by the end of 2006. This will grow rapidly through to 2011, giving a total market figure of over \$23 billion in the final forecast year. These figures could be even larger if more liberal gaming environments are introduced in key countries, particularly in North America.



Total Revenue from Mobile Gaming (Casino, Lotteries & Betting)  
Regional forecast 2006-11 (\$m)

The largest geographic market throughout the forecast period is estimated to be Asia Pacific, although it should be noted that the most active individual country market for mobile gaming is currently the UK. The second largest market is estimated to be in Europe, with the other three geographic regions a considerable way behind. Europe and Asia Pacific are estimated to contribute similar revenues over the forecast period, although with different business mixes. Asia Pacific is forecast to grow from \$966 million in 2006 to \$8.8 billion in 2011, with the European market growing from \$950 million to \$7.9 billion in 2011.

	2006	2011
North America	\$0	\$3,340
South America	\$34	\$1,328
Europe	\$950	\$7,940
Asia Pacific	\$966	\$8,818
Rest of the World	\$40	\$1,765
<b>Total</b>	<b>\$1,991</b>	<b>\$23,190</b>

Source: Juniper Research

### Market Drivers

Key drivers for mobile gaming are: the inherent desire to bet in some sectors of the population; rapidly advancing mobile network and handset technology; the inherent advantages of mobile communications in terms of convenience and pervasiveness;

### Mobile Gaming Market

- Betting and Casino services are expected to be worth around US \$ 6.9bn and \$4.6bn respectively by 2009.
- Lotteries will account for 40% of mobile gaming market with revenues of US \$ 7.9bn

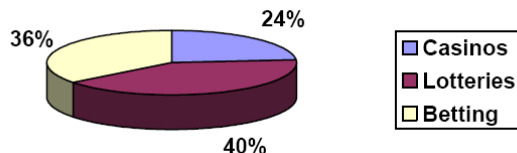
### Market Drivers

- Inherent desire to bet
- Rapidly advancing mobile network and handset technology
- Inherent advantages of mobile communications in terms of convenience and pervasiveness
- Continued growth of mobile communications subscriber base.

*The most convincing and inherent advantage of the mobile platform is in the fact that it allows access anywhere and anytime.*

and the continued growth of the mobile communications subscriber base, particularly in the Asia Pacific region.

People like to bet, to the extent that taken to extreme it can be seen as an addictive habit that can be extremely damaging to the individuals involved and to those around them. In moderation it can be great fun, providing an added dimension to games playing and sports and event appreciation.



As with most mobile value added data services, technology is both an enabler and a constraint. It depends on the market you are in, and where you are within it. There is no doubt that the more sophisticated gaming services, such as complex casino games and some sports book applications benefit tremendously from the higher bandwidth and improved handset capability that goes with 2.5G and 3G services. As the pace of deployment of these services increases around the world the technical environment for an enjoyable mobile gaming experience for end users will become more commonplace.

The most convincing and inherent advantage of the mobile platform is in the fact that it allows access anywhere and anytime. A mobile user has immediate access to his/her mobile for most part of the day and in most countries in most locations. This opens up a new manner of gaming which has not been possible before – ‘on-the-spot’ betting, including “in-event” betting. It also opens up the market for “casual” betting, that is a form of entertainment to fill time. The biggest growth is expected in the mobile gaming market, delivering low stake games for the mass market.

Added to the inherent advantages of the mobile channel for some forms of gaming is the impetus provided by the continued growth of the mobile subscriber base. This is particularly relevant in the Asia Pacific region and in other developing markets. Also relevant as a driver for mobile gaming even in more saturated markets, is the migration of existing subscriber bases to 3G networks.

### Mobile Lottery

The lottery is played in simple steps.

- A person starts the mobile lottery application and selects date and time of lottery draw.
- In the next step he selects his winning numbers and sends the numbers to lottery centre through SMS.
- A person gets the acknowledgement message.
- If the person wins, he’s automatically notified by SMS
- In addition to this, a person can check the winning numbers, his previous play history and his credit balance.



A sign that mobile games have been taken seriously is that use of wireless, handheld gaming devices at hotel-casinos in Nevada has been officially approved in August this year - Gamers will be able to wager via PDA-like devices anywhere on hotel property.

### Drivers

- Desire to gamble
- Growing disposable incomes
- Technology improvement
- Availability/ convenience
- Increasing mobile penetration
- Mobile user profile
- Privacy



A sample screen shot of mobile phone based application

## Technology

General Packet Radio Service (GPRS) is a Mobile Data Service available to users of Global System for Mobile Communications (GSM) and IS-136 mobile phones. GPRS data transfer is typically charged per megabyte of transferred data, while data communication via traditional circuit switching is billed per minute of connection time, independent of whether the user has actually transferred data or has been in an idle state. GPRS can be used for services such as Wireless Application Protocol (WAP) access, Short Message Service (SMS), Multimedia Messaging Service (MMS), and for Internet communication services such as email and World Wide Web access.

GPRS is packet-switched, which means that multiple users share the same transmission channel, only transmitting when they have data to send. Thus the total available bandwidth can be immediately dedicated to those users who are actually sending at any given moment, providing higher use where users only send or receive data intermittently. It provides moderate speed data transfer, by using unused Time division multiple access (TDMA) channels in for example the GSM system.

Mobile Lotto technology enables you to play lotto or any other lottery game on your mobile anytime and anywhere. Mobile Lotto as an advanced and flexible system based on SMS/ GPRS technology, can be implemented in lotteries that already run Lotto games on traditional way (terminals or can be established as an entirely new lottery game. Mobile Lotto is only one of sales channels when Lotto is already established. Mobile Lotto is easy to connect to lottery central computer without any change in an existing operation. Sales database with the tickets bought via mobile phones is added to database of tickets sold via terminals creating a unique database for the drawing.

If Mobile Lotto is set up as a stand alone operation all stages of the game are supported with software. SMS uses the popular text-messaging standard to enable mobile application based gaming. The way this works is that the customer sends information by sending an SMS containing date, time, winning number and number of tickets to a pre-specified number. The customer gets an acknowledgement from lotto house. An SMS based service is hosted on a SMS gateway that further connects to the Mobile service providers SMS Centre. There are a couple of hosted IP based SMS gateways available in the market and also some open source ones like Kannel. Benefits of using GPRS include fast access time, higher speeds, less cost for most services, global access, always connected always online, user friendly and pay only for transferred data volume.

## Constraints

Despite the compelling drivers for mobile gaming services, there remain significant constraints on market development. The principle constraint is regulation.

Lottery is a regulation constrained industry. Government bodies at all levels have taken an interest in the regulation of gaming in the "public interest". Quite rightly both government bodies and the industry itself have sought to establish the right balance between regulation and market freedom, in order to encourage "responsible betting". Other regulations exist in some markets as much to protect vested interests as public interest. Whatever the reason for regulation, it is here to stay and will remain a constraint on market development.

Linked to regulation is age verification. The whole industry is keen to prevent under-age lottery, which is a significant risk because of the large base of young mobile users. Apart from ethical concerns, the lottery service provider is intimidated by the daunting prospect of an under-age betting scandal that could damage the entire industry and limit its take-off. Therefore, robust age verification is the cornerstone of all new lottery-related legislation and self-regulatory codes.

The potential for mobile gaming revenues is \$19bn by 2009 (combining lottery, mobile games and mobile sports betting) - of which casinos will take 24%, lotteries will take 40% and betting will take 36%.

### **Constraints**

- Regulation
- Age verification
- User confidence
- Payment processing
- Supply side conservatism
- Speed of advanced network roll out
- Handset capability and availability
- Usability

Another significant constraint to market development is winning the trust of the customer. There are various aspects to this. Ultimately, there has to be complete faith in the fairness, reliability and security of the lottery service offered and in the associated payments processing. As the industry achieves more legitimacy and users become more familiar with the operation of the services available, trust will increase – barring major scandals. Industry participants are well aware of this and seek all means to police their own activities and to make services easy and fun to use.

Branding plays an important role in user confidence. Users are more likely to trust lottery services offered through a recognized brand, such as a global mobile network operator (MNO), or a well known online gaming provider, or bookmaker. In turn the brand owners want to retain brand value, so are reluctant to do anything that they feel may diminish it. This in itself will act as a constraint to industry development. A number of participants in the mobile gaming industry are taking a cautious approach to offering mobile lottery services, while business and regulatory models are evolving. This includes some major operators and bookmakers. As indicated above, technology is both an enabler and a constraint to mobile gaming. Whilst 2.5G and 3G roll out is a general enabler, in any specific market delays can become a constraint. Similarly for handsets, where availability of the latest technology models has traditionally lagged network roll out.

Handset availability part, the size of the mobile screen and the usability of the controls will restrict the user experience of mobile lottery services as compared with their online gaming counterparts. This is one of the main reasons why we feel that the mobile channel will develop a dynamics of its own, being the preferred method of gaming for more casual users seeking to fill time with exciting forms of entertainment. In this respect the handset will not be so much a constraint on the overall market as a constraint on the path of development.

A further technology constraint lies in application development. Designing mobile casino games is particularly challenging, demanding good quality graphics, rapid response, security of gaming (including restoration after signal loss) and money handling. A number of developers of online casino gaming solutions for the internet have found porting the application to the mobile environment more challenging than they first thought. This has been a constraint on the early stages of market development, but will diminish over time.

## Conclusion

GPRS (General Packet Radio Service) is the world's most ubiquitous wireless data service, available now with almost every GSM network. GPRS is a connectivity solution based on Internet Protocols that supports a wide range of enterprise and consumer applications. With throughput rates of up to 40 kbit/s, users have a similar access speed to a dial-up modem, but with the convenience of being able to connect from anywhere. GPRS customers enjoy advanced, feature-rich data services such as colour Internet browsing, e-mail on the move, powerful visual communications such as video streaming, multimedia messages and location-based services.

At the moment the scales are fairly evenly balanced between drivers and constraints, with the market striving to establish itself. Over time the balance will swing emphatically to the benefit of the market drivers in all but the most conservative gaming markets. In these regulation is likely to remain the ultimate determinant of market development. The mobile channel has many inherent advantages for the provision of gaming services. It also has some disadvantages. Both will help shape the nature of future services and their speed of uptake. The relative weight of individual drivers and constraints will vary by individual market.



Regulatory restrictions notwithstanding, the potential for mobile gaming revenues is substantial. The three strands of services outlined above will generate revenues of more than US \$19.3bn by 2009 or nearly one-third of all mobile entertainment revenues.

Indeed, should regulators in countries such as the US and china become more liberal in their attitude towards these services, then revenues could far exceed these estimates. Given the ubiquity of mobile handsets, and the desire of many lottery providers to exploit this, then potentially the resulting sales could be substantially higher. As it is, lotteries will be the most successful of all forms of mobile gaming services, accounting for around 40% of all mobile gaming revenues (or nearly US \$7.9bn) by 2009. Already, mobile lottery services are up and running in a number of countries, and their popularity is expected to mushroom in the medium term. The market for these services is potentially vast; it is now up to the service providers and application developers to seize the opportunity.



---

For more information about Infogile products and services, contact the Infogile Sales Information Center at [business@infogile.com](mailto:business@infogile.com). To access information on internet, go to [www.infogile.com](http://www.infogile.com).

© 2007 Infogile Technologies Pvt. Ltd. All rights reserved.

This case study is for informational purposes only. INFOGILE MAKES NO WARRANTIES, EXPRESS OR IMPLIED, IN THIS SUMMARY. Infogile and the Infogile logo are either registered trademarks or trademarks of Infogile Corporation in the United States and/or other countries. The names of actual companies and products mentioned herein may be the trademarks of their respective owners.