

Final Report for PhonepayPlus

Premium Rate Services: International Markets and Regulation

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Glossary

<i>Acronym</i>	<i>Definition</i>
AANA	Australian Association of National Advertisers (Australia)
ACCC	Australian Competition and Consumer Commission (Australia)
ACMA	Australian Communications and Media Authority (Australia)
ACSEL	L'Association de L'économie Numérique (Association of Digital Economy) (France)
AFMM	Association Française du Multimédia Mobile (French Association of Mobile Multimedia) (France)
AFOM	Association Française des Opérateurs Mobiles (French Association of Mobile Operators) (France)
ANATEL	Agência Nacional de Telecomunicações (National Telecommunications Agency) (Brazil)
ARCEP	L'Autorité de Régulation des Communications Electroniques et des Postes (Regulatory Authority for Electronic Communications and Post) (France)
BMELV	Bundesministerium für Ernährung, Landwirtschaft und Verbraucherschutz (Federal Ministry of Food, Agriculture and Consumer Protection) (Germany)
BNetzA	Bundesnetzagentur (Federal Network Agency for Electricity, Gas, Telecommunications, Post and Railways) (Germany)
CAHK	Communications Association of Hong Kong (Hong Kong)
CCTS	Commissioner for Complaints for Telecommunication Services (Canada)
CMT	Comisión del Mercado de las Telecomunicaciones (Telecommunications Market Commission) (Spain)
ComReg	Commission for Communications Regulation (Ireland)
CRTC	Canadian Radio-television and Telecommunications Commission (Canada)
CSC	Common Shortcode
CSP	Communications Service Provider
CST	Conseil Supérieur de la Télématique (High Council of Information Services) (France)
CTA	Comité de la Télématique Anonyme (Committee of Anonymous Telematics) (France)
CSSTA	Comisión de Supervisión de los Servicios de Tarificación Adicional (Commission for the Supervision of Premium Rate Services) (Spain)
CWTA	Canadian Wireless Telecommunications Association (Canada)
DQ	Directory Enquiry (Service)
DVTM	Deutscher Verband Fur Telekommunikation Und Medien (Germany)
ERB	Etiska Rådet för Betaltelejänster (Ethical Council for premium rate services) (Sweden)
FFT	Fédération Française des Télécoms (French telecoms federation) (France)
ICASA	Independent Communications Authority of South Africa
IDA	Infocomm Development Authority (Singapore)
LME	Loi de Modernisation de l'Economie' (Law of Modernisation of the Economy) (France)
OFTA	Office of the Telecommunications Authority (Hong Kong)

MCS	Mobile content services (Hong Kong)
MEF LATAM	Mobile Entertainment Forum Latin America
Minkomsvyaz	Ministry of Communications and Mass Media (Russian Federation)
MMTE	Hungarian Mobile Marketing and Content Industry Association
MORGAN	Trade association for mobile content services (Sweden)
MoU	Memorandum of Understanding
MVNO	Mobile Virtual Network Operator
NaN	Numbering and Naming (European working group)
NMHH	Nemzeti Média- és Hírközlési Hatóság (National Communications and Media Authority) (Hungary)
PRS	Premium Rate Service
PSMS	Premium Short Messaging Services
MNO	Mobile Network Operator
MVNO	Mobile Virtual Network Operator
NFC	Near Field Communications
NRA	National Regulatory Authority
Roskomnadzor	Federal Service for Supervision in the Sphere of Telecom, Information Technologies and Mass Communications (Russian Federation)
SETSI	Secretaría de Estado de Telecomunicaciones y para la Sociedad de la Información (State Secretary for Telecommunications and for the Information Society) (Spain)
SLA	Service Level Agreement SLA
TAC	Termo de Ajustamento de Conduta (Terms of Adjustment of Conduct) (Brazil)
TIO	Telecommunications Industry Ombudsman (Australia)
TISSC	Telephone Information Services Standards Council (Australia)
TRAI	Telecom Regulatory Authority of India (India)
VAS	Value Added Service
VoIP	Voice over Internet Protocol
WAP	Wireless Application Protocol
WASP	Wireless application service provider (South Africa)
WASPA	Wireless Application Service Providers' Association (South Africa)

1 Executive Summary

This report provides a comparative analysis of premium-rate service markets and regulation in twenty benchmark countries around the world. The report was produced for PhonepayPlus by consultancy Analysys Mason Ltd. during Q2 2011.

1.1 PRS market structure and characteristics

The definition of Premium Rate Service (PRS) varies widely from country to country. In **Hong Kong**, PRS generally refers to premium SMS, while in the **UK**, the definition includes a much broader range of phone-paid services, including PSMS, premium voice, directory enquiries services, WAP billing, real-world and virtual goods, and payments through interactive TV or 'red button' services.

Because there is no consistent definition of PRS and because many regulators do not report regularly on the premium-rate services market, developing an accurate picture of the relative size of different PRS markets is challenging. According to our research, France was the largest PRS market benchmarked in terms of total revenues, generating USD2.66 billion in 2010¹. By comparison, Singapore is the smallest market, worth just USD40 million in 2010. According to our estimates, average PRS revenue per capita (excluding DQ services), for the 20 benchmark countries² was USD4.57 in 2010.

The advent of mobile PRS has fundamentally altered the make-up of PRS markets in developed countries, displacing much of the market away from fixed PRS. Fixed PRS continues to account for approximately half of total revenues from PRS in many mature Western markets – the US, where fixed PRS have never gained popularity, is a prominent exception to this pattern.

After declining in popularity in recent years, premium SMS is experiencing something of a renaissance, driven by the increased popularity of **participation services** (TV voting, sending in comments), as well as **flirt, dating and chat services**. **Real-world payment** for transport ticketing, parking, payment at vending machines etc is another growth driver. PSMS accounts for 30%-65% of PRS revenue in many mature markets.

¹ ARCEP, *Observatoire trimestriel des marchés des communications électroniques en France – 4ème trimestre 2010 - résultats définitifs*. Available at <http://www.arcep.fr/index.php?id=36>.

This figure consists of value-added "voice" services (EUR1309 million), value-added "data" services (EUR657 million), DQ services (EUR134 million). Whilst we believe the ARCEP's definition of the PRS market to be the same or similar to that of PhonepayPlus, it may be that more services are included that we are not aware of. France's market revenue may be considerably larger due to increased propensity to use PRS services, or higher price points for services.

² Australia, Brazil, Canada, France, Germany, Hong Kong, Hungary, India, Ireland, Italy, Malaysia, Netherlands, Russia, Singapore, South Africa, Spain, Sweden, UAE, UK and the US.

Emerging markets tend to generate a majority of their PRS revenues from mobile. In South Africa, around 95%³ of PRS revenue is from mobile. The limited take-up of fixed PRS is due to the limited availability of, and low take-up of, fixed infrastructure in these markets.

At the global level, we have identified and analysed a number of trends that are fundamentally altering the structure of PRS markets, including:

- the digitalisation of content and entertainment services;
- the increased availability of free information and content, which is displacing paid-for options and limiting PRS growth;
- the surge in smartphone adoption;
- the proliferation of social networks and the ever-widening range of micropayment options, some of which are displacing PRS.

1.2 Regulatory framework

The countries which were benchmarked take a variety of approaches to the regulation and monitoring of PRS markets. Broadly, we identified five main regulatory approaches used for PRS market regulation within the 20 countries covered in this study:

- Fixed and mobile markets regulated by the national regulatory authority (NRA); common in mature markets e.g. **France, Spain, Ireland**.
- Fixed and mobile markets regulated by an organisation which is not the NRA; also common in mature markets with highly evolved PRS markets, e.g. **Sweden, UK**
- Fixed market is regulated by the NRA, while the mobile market is regulated by an organisation which is not the NRA or is unregulated, e.g. **Canada**.
- Mobile market is regulated by the NRA, while the fixed market is regulated by an organisation which is not the NRA or is unregulated; common in markets with highly evolved mobile PRS markets and nascent or little-developed fixed markets e.g. **Hong Kong, South Africa**.
- Both the fixed and mobile markets are unregulated; e.g. **Russian Federation**, where PRS are seen as governed by exclusive agreements between the CSP and the consumer.

In most of the benchmark countries a Code of Practice exists and is the main vehicle for governing the PRS market.

In most countries, funding for the regulation of PRS comes from either central government, the NRA (through licence and spectrum fees paid by telecoms operators), or through a levy on PRS transactions.

Most regulators will apply punitive measures to content providers that contravene PRS regulation, and generally follow the steps outlined in Figure 1.1; however, not all regulators have the power to impose all measures – e.g. TISSC (Australia) cannot impose fines.

³ Based on interviews with stakeholders in emerging markets

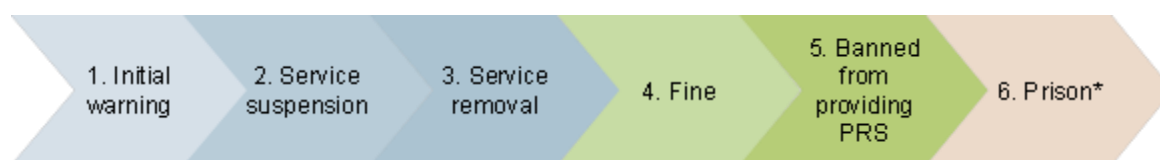


Figure 1.1: Punitive measures imposed by PRS regulators [Source: Analysys Mason, 2011]

The number of complaints made by consumers can provide regulators with a broad idea of the success of their policies and regulatory systems, or the level of consumer (dis)satisfaction. Some regulators publish the numbers of complaints received annually; however, these figures are based on a range of definitions so they are generally not directly comparable. However, it is possible to determine a number of similarities in the types of complaints received, with three major areas of complaints across the benchmark countries including subscription scams, lack of price transparency and under-age access to inappropriate content. At the supra-national level, the GSMA Europe which has co-operated with the European Commission to implement a framework surrounding safer mobile use by younger teenagers.

1.3 Evolution of PRS regulation

Many PRS markets are currently experiencing a period of change, as a result of increased competitive threats and also new opportunities. Notable developments are occurring around the purchase of goods and services within virtual environments (e.g. social networks and games), as well as the use of PRS as a payment mechanism for real-world goods and services (e.g. parking, or purchases from vending machines) which extend beyond the remit of traditional telecoms services.

Figure 1.2 provides an overview of key policy and strategy changes that have either already been made or are expected to be made in the benchmark countries to address the rapidly evolving PRS marketplace.

Country	Regulator	Issue	Solution	Timeframe
UK	PhonepayPlus	PhonepayPlus has recognised the need to adapt to the fast evolving PRS market, driving a need for flexibility and greater convergence (on an international scale).	PhonepayPlus has recently released the 12 th Edition of its Code of Conduct which is now more principle-based and flexible, with a greater focus on the consumer.	September 2011
Ireland	ComReg	Previously relied on a self-regulatory model, but decided this was not providing effective consumer protection	ComReg recently decided to replace this, by taking over regulation in the hope of tightening the regulatory regime, combatting rogue operators and supporting	The Communications Regulation (Premium Rate Services and Electronic Communications Infrastructure) Act 2010 in July 2010

* UAE – In extreme circumstances

			legitimate PRS providers	
Russia	Roskomnadzor	Roskomnadzor has traditionally favoured a light-touch approach, but has recognised that mobile PRS, specifically SMS-short codes, is an area of significant consumer harm.	Roskomnadzor may move towards a stricter level of regulation, which would focus on increased price transparency and consumer awareness.	On-going
India	TRAI	TRAI currently provides limited regulation, but as the Indian PRS market evolves, we expect there will be increased public awareness of the issues within the market	Only after a strong regulatory framework is put in place will India experience the next level of growth in its PRS industry	No details. <i>National Telecom Policy is due to be released at the end of 2011</i>
Italy	AGCOM	AGCOM has taken a number of steps to protect consumers: e.g. price caps and general call barring. Industry stakeholders believe this has had a huge negative impact on spend on PRS	AGCOM is hosting a committee that is assessing these problems, meaning that the regulation may be updated accordingly	Estimated H2 2012
France	ARCEP	ARCEP takes a light-touch approach, with the consequence that price transparency has become an issue	ARCEP illustrated a possible approach to increase pricing transparency using a colour coding system to increase pricing transparency, similar to the one used in CO ₂ emissions charts	n/a
Germany	BNetzA	Consumers are often charged for waiting in a queue to be connected to fixed PRS services, resulting in a large number of complaints	BNetzA has proposed that queuing whilst connected to a PRS number be made free of charge; however, this is pending a decision	Next 3 months

Figure 1.2: Key PRS regulatory policy changes in selected countries [Source: Analysys Mason, 2011]

Historically, changes to existing PRS regulation were often introduced retrospectively as a result of consumer/media pressure. Now, the rapid evolution of the products and services available through phone-paid mechanisms is forcing a step-change in regulatory thinking. Some regulators are attempting to pre-empt the market by developing regulation that will implicitly include any future development in the PRS market. However, it is an almost impossible task to predict all new developments in consumer behaviour and where these may lead the PRS market. It is therefore inevitable that further changes and adaptations will be required in the coming years.

2 Introduction and methodology

This report has been commissioned by PhonepayPlus to provide a benchmark of the PRS markets and regulation in 20 countries across all continents. It provides a broad overview of each market and likely trends in the next 1-2 years, as well as a summary of the regulatory system governing the market.

The purpose of the report is to provide a comparison of regulation and market trends between countries, and to provide insight into the current situation and future development of the phone-paid market for regulators of PRS. It also aims to highlight examples of successful policy implementation and areas of innovation in services offered.

In order to evaluate the market, Analysys Mason has conducted an extensive programme of primary and secondary research. This includes:

- **In-depth interviews** with 15 regulators and 8 stakeholders in the phone-paid services sector, including operators and content providers
- **Internal desk research** based on Analysys Mason's relevant in-house materials, as well as previous research conducted on behalf of PhonepayPlus
- **External desk research** to support the primary research with consumers and stakeholders, with the aim of capturing further information on industry developments

The information gathered from these three strands of research has been used to build a comprehensive view of the current and evolving PRS markets and regulation in each of the benchmark countries.

The remainder of this report is structured as follows:

- Chapter 3 provides a comparative analysis of the 20 countries and highlights trends in the provision and regulation of PRS.
- Chapters 4–23 provide country profiles for each of the countries examined, looking at the market, the regulation and forward-looking trends.

The report includes several annexes containing supplementary material:

- Annex A provides a currency conversion table for use for the purposes of this report.
- Annex B provides further details of industry interviews undertaken.
- Annex C provides the methodology used to estimate the PRS market size where no official figures are available.

3 Comparative section

3.1 PRS market structure and characteristics

3.1.1 Introduction

This section summarises and compares the main trends and regulatory findings from the 20 PRS markets⁵ we have explored in this study. We have identified what is included in the definition of PRS, the size of the markets, revenue generated per capita, and market evolution. In addition, we explore the PRS regulatory framework of each country, identifying the various types of regulatory approach, the fines and complaints procedures, as well as the expected evolution of PRS regulation in the coming years.

Definition of phone-paid services

The definition of PRS varies widely. In **Hong Kong**, it refers simply to mobile premium rate services (i.e. premium SMS). In the **UK**, the definition includes a much broader range of phone-paid services, including PSMS, premium voice, directory enquiries services, WAP billing, real-world and virtual goods, and payments through interactive TV or ‘red button’ services.

Figure 3.1 below provides a comparison of those services that are available and included in each territory’s statutory or industry-led regulation.

⁵ Australia, Brazil, Canada, France, Germany, Hong Kong, Hungary, India, Ireland, Italy, Malaysia, Netherlands, Russia, Singapore, South Africa, Spain, Sweden, UAE, UK and the US

Territory	Market size (USD million)	Revenue per capita (USD million)	Premium voice	Premium SMS	DQ	WAP billing	Virtual goods	Real-world goods	Red button
Australia	275	12.40	●	●	○	○	●	●	
Brazil	690	3.60	●	◐	○				
Canada*	592	17.00	●	○	○				
France	2 661	42.30	●	●	●	◐	◐	●	
Germany	224	2.70	●	●	○	●	○		
Hong Kong	541	76.00	○	●	○			○	
Hungary*	90	9.00	●	●	○				
India	1 100	0.93	●	●	○				
Ireland	73	17.40	●	●	○		○	●	
Italy	825	13.72	●	●	●				
Malaysia*	492	17.00	●	●	○			○	
Netherlands*	310	19.00	●	●	○		○		
Russia	1 300	9.10	○	○	○		○	○	
Singapore	40	7.80	●	●	○		●	●	
South Africa	550	11.00	○	●	○				
Spain	328	7.14	●	●	●				
Sweden	360	38.00	●	●	○		●	●	
UAE*	48	7.00	◐	◐	●				
UK	1 240	18.70	●	●	●	●	●	●	●
US*	1105	4.00	●	●	○		○		

Key: ● – regulated; ◐ – partially regulated; ● – included in future regulation; ○ – available, but unregulated

* Market sizes and revenue per capita are estimates using the methodology described in Annex C.

Figure 3.1: Comparison of PRS definitions by territory [Source: Analysys Mason, 2011]

The terminology used to describe phone-paid services also varies between markets. In **Australia** and **Canada**, fixed PRS are referred to as “190 services” and ‘900/976 services’ respectively – the names allude to the prefixes used to access these services. In **Malaysia**, they are known as ‘Mobile Content Services’. In **France**, fixed incumbent France Telecom has coined various terms for different types of calls, for example, toll-shared numbers (‘Numéro Azur’) and per-minute charged numbers ‘Numéro Indigo’ (Indigo number), which have gained household recognition. Numbers in these ranges supplied by other providers are not allowed to use these brand names.

In the mobile market, terminology also varies between countries.

- In **South Africa**, where a significant proportion of phone-paid services are accessed via mobile devices, such services are referred to as wireless application services (‘WAS’)

- In **France**, for example, mobile PRS are known as ‘SMS+ and MMS+’, a term coined by industry association **French Association of Mobile Multimedia** [in French: Association Française du Multimédia Mobile (AFMM)], which includes the main mobile operators and service providers.

3.1.2 Presentation of market data

Developing an accurate picture of the relative size of the PRS markets across the benchmark countries is challenging, mainly because there is no consistent definition of PRS. For example, some regulators include DQ services within their definition of PRS (e.g. Brazil, France, Italy, Russia and the UK). Since the majority of market sizing figures reported by regulators do not include DQ services, for the purposes of comparison, we have removed this segment where this was clearly identifiable.

In addition, in a small number of countries, information on PRS market size was not available from either primary or secondary research (Canada, Hungary, Malaysia, Netherlands, UAE and US). In these cases we have provided a rough estimation of the market size, based on a benchmarking methodology, which relies on information obtained from other countries, scaled using a number of comparative indicators (see Annex C for methodology).

In view of the disparity between population sizes in the benchmark countries (varying from 5.1 million in Hong Kong to 1.3 billion in India) at the end of 2010, looking at PRS revenue per capita may offer a more meaningful comparative measure than the total PRS market size. In Figure 3.2, we offer a comparison of both PRS market size and per capita PRS revenue metrics for key markets.

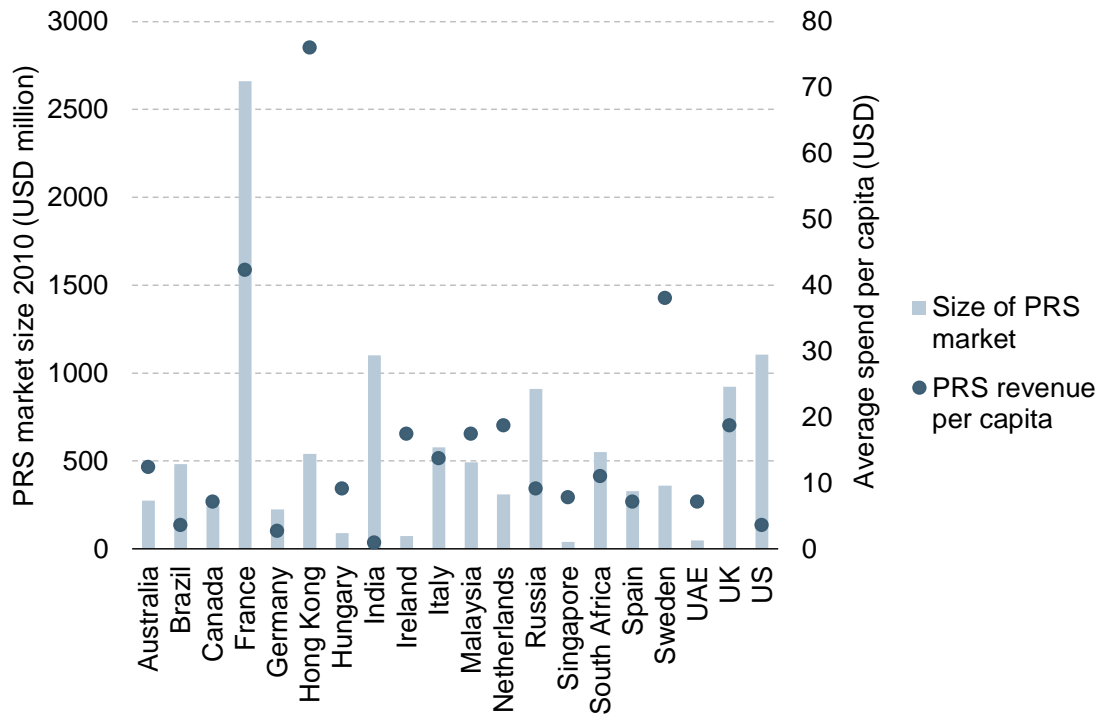


Figure 3.2: Comparison of PRS market size and revenue per capita by territory excluding DQ [Source: Analysys Mason, 2011]

Of the countries benchmarked, the largest PRS market in terms of total revenues is France, generating USD2.66 billion in 2010⁶. By comparison, Singapore is the smallest market, worth just USD40 million in 2010.

Average PRS revenue per capita (excluding DQ services), for the 20 benchmark countries is USD4.57. Hong Kong records the highest level of revenue per capita at USD76⁷, compared to just under USD1 in India.

3.1.3 Market trends and evolution

In mature European countries, along with Canada and Australia, fixed PRS was once the mainstay of total PRS revenues and, in many markets, continues to account for approximately half of total revenues from PRS – the US is a prominent exception to this pattern, where fixed PRS have never gained popularity. However, many fixed phone-paid services are in decline, as interest (both on the part of the consumer and the service provider) has moved to newer services. This is especially the

⁶ ARCEP, *Observatoire trimestriel des marchés des communications électroniques en France – 4ème trimestre 2010 - résultats définitifs*. Available at <http://www.arcep.fr/index.php?id=36>.

This figure consists of value-added “voice” services (EUR1309 million), value-added “data” services (EUR657 million), DQ services (EUR134 million). Whilst we believe the ARCEP’s definition of the PRS market to be the same or similar to that of PhonepayPlus, it may be that more services are included that we are not aware of. France’s market revenue may be considerably larger due to increased propensity to use PRS services, or higher price points for services.

⁷ The revenue per capita in Hong Kong is markedly higher than other markets. This could be due to a number of factors for example a high number of visitors from mainland China using PRS services (which would not be accounted for in population size), high mobile penetration and subscribers using services on each of their handsets..

case as consumers gain access to alternative, competing content that is delivered through the Internet, at greater convenience and quality, and for less cost (or no cost) to the end-user.

Mobile premium rate services (premium SMS) in these markets present a mixed picture. After reaching a relatively stable level of revenue generation in developed markets over the past decade, innovative new services have brought about somewhat of a renaissance in this segment in many mature markets – revenue from PSMS now accounts for between 30%-65% of PRS revenue in many markets. Popular services include participation services (TV voting, sending in comments), flirt, dating and chat. A number of markets show interesting differences:

- Hong Kong has an extremely strong market, but the regulator believes it has peaked and will begin to decline.
- In contrast to most other developed markets, Canada has relatively small PSMS market. By regulating the market, the authorities in Canada hope this will encourage new market entrants in an attempt to expand the industry.

PSMS is also increasingly used for payments for services that are not necessarily delivered through SMS - in other words, real-world goods. Examples of these include paying for parking or train tickets, and more recently, payment for virtual goods. In many European markets, where there is little or no competing infrastructure, users have embraced the simplicity and ubiquity of premium SMS as a payment mechanism for real-world goods. In Sweden, there are a number of innovative use examples, including parking, train tickets and purchasing drinks from vending machines. Later in 2011, the Swedish Postal Service is planning to launch a system that makes it possible to purchase postage stamps via SMS.

In some Asian markets, however, the ubiquity of contactless infrastructure has meant that PSMS payment has failed to take-off. In Hong Kong, for example, 95% of people aged 16-65 own an Octopus card, a rechargeable contactless smart card using near field communication (NFC) technology, which allows users to make electronic payments in shops and for transportation.⁸ Octopus processes over 11 million transactions per day, valued at over HKD100 million (USD12.9 million).

What remains to be seen is how the market for mobile payments will evolve in the coming years. Increasingly parties from a number of industry verticals, including mobile phone manufacturers, billing aggregators, and communications services providers (CSPs) are backing NFC as the mobile payment technology of choice. Technology giants Google and Apple are both exploring NFC capabilities in smartphones, and it is likely that this will confirm contactless payments as the dominant mobile payment mechanism. The popularity of Apple iTunes and Google Android Marketplace may spread into real-world purchasing scenarios, potentially bypassing the mobile operators entirely in the mobile payment value chain. This may shorten or even diminish the chances of premium SMS becoming a mass-market payment system in developed PRS markets.

⁸

<http://www.octopus.com.hk/octopus-for-businesses/benefits-for-your-business/en/index.html>

In emerging markets premium voice services are less popular, and many of the markets we have researched have never enjoyed the same levels of use seen in more mature markets. In many territories there is practically no premium fixed market and this is largely attributed to consumers leapfrogging fixed telecoms services in favour of cheaper and more convenient mobile phone services, and their increased availability.

Emerging markets e.g. South Africa tend to generate a majority of their PRS revenues – around 95%⁹ – from mobile. Mobile PRS are popular in emerging markets due to their simplicity and critical mass-market reach, and lack of alternative offerings that might be available through smartphones and the mobile Internet. The limited take-up of fixed PRS is due to the limited availability of, and low take-up of, fixed infrastructure in these markets.

Trends in premium rate services

On a global scale, we have noted a number of trends that are directly impacting the market for traditional PRS, principally in mature markets, but increasingly in emerging markets as well:

- *Entertainment services are increasingly going digital* – The main context for the on-going shifts in the PRS market lies in the digitalisation of content and entertainment services, as these are increasingly being made available to consumers via IP networks and the Internet.
- *Greater availability of free information and content is displacing paid-for options and limiting PRS growth* – Ad-subsidised and sponsored or promotional content is increasingly accessible on fixed and mobile platforms, and competes with paid-for offerings which are offered via PRS.
- *Smartphones are becoming more prevalent, enabling both mobile Internet access and the use of mobile applications* – The ability to access entertainment and other information services directly using mobile data services is displacing opportunities for traditional phone-paid services, while also creating new opportunities for PRS service providers.
- *Social networks are becoming a central feature of consumer entertainment and information sharing and may significantly impact PRS opportunities* – Consumption of entertainment services is increasingly centred on social networks, which are creating new addressable markets for social games and applications that could present growth opportunities for PRS if the right partnerships are developed. However, at present social network services are primarily monetised by non-phone-based payment mechanisms, including credit/debit cards, PayPal and, increasingly, virtual currencies.
- *Consumers have an ever-widening range of payment options for content and entertainment services* – While phone-paid services have benefited from something of a first-mover advantage as a payment mechanism for digital content, payment processes and mechanisms continue to fragment across platforms. The spread of new platforms and the development of

⁹ Based on interviews with stakeholders in emerging markets

new business models for the provision of digital goods and services are resulting in an increasingly diverse marketplace.

3.2 PRS numbering and tariffing

Numbering

Most of the countries highlighted in this study have established a numbering system for premium rate services, with the purpose of providing a mechanism for recognising such services. This is implemented with varying degrees of complexity:

- Most countries assign a general number range to these services: e.g. 15xx in Ireland; 1900 in Australia.
- Some also assign a specific price range to different price bands: e.g. France assigns a strict pricing structure to each number range.
- Some also assign number ranges based on service type: e.g. Spain assigns numbers to adult, leisure, professional and tele-voting services.

The intention is for consumers to be aware that they are calling/accessing a premium rate service, and even allow them to identify the type of service and the price range that will be applied to the call before initiating the call.

In a number of countries, including Brazil and Italy, a particular number range or prefix is assigned specifically for the purposes of charity donations. In **Brazil**, the 0500 prefix was allocated for charitable donations in February 2010 under Resolution nr. 538. This number range functions differently from other prefixes used for PRS in the country, in that the call charges are capped on a per-minute basis [BRL0.39 per minute (USD0.22)]. Users can donate up to BRL50.00 (USD28.41) per call.

Price regulation

Regulatory bodies have taken various approaches to regulating pricing. Pricing is regulated in a number of markets:

- In **Malaysia**, the cost to access premium voice services numbers is capped by six different pricing bands (A1-A6), as laid out in the Communications and Multimedia Regulations 2002.
- In **Ireland**, Comreg provides guidelines regarding acceptable price ranges per number range, with price caps depending on the service offered: e.g. children's services, competition, virtual chat services.

In other markets, pricing is regulated by the industry, with some regulatory intervention in the form of price caps:

- In **Germany** service providers operating 0900 services are free to assign any price they choose to the number, providing that the total cost of the call does not exceed EUR30 and the per-minute charge does not exceed EUR2.
- In **Brazil**, operators are required to cap individual PRS charges at 25% of the minimum monthly salary. In addition, the total charge for all PRS services consumed within a month should not exceed one month's salary of the user, unless agreed otherwise by the user
- In **Canada**, where mobile PRS is partially deregulated, call costs range from CAD1 (USD1.0) to CAD15 (USD15.5) per minute or more, depending on the service and the provider. To help reduce the risks for 900 callers, the regulator the CRTC has set in place some rate caps, e.g. calls to psychic lines are capped at CAD6 (USD6.2) per minute, and calls for games of chance are capped at CAD5 (USD5.2) per call. It should be noted that these charges are still significant relative to pricing observed in other benchmark countries.

In other markets, including the **Russian Federation** and **Singapore**, there are no pricing restrictions either for fixed or mobile PRS; the industry is left to determine pricing. In Singapore, however, the situation is currently under review by the IDA and may undergo future revision.

Mobile price premium and price transparency

Calls to premium voice services from mobile devices often carry a price premium. How this surcharge is presented to the consumer varies by country:

- In the **Netherlands**, new legislation and regulations that came into effect on 1 October 2008 include transparency requirements that require the service provider to inform the caller of the price of the call. If the tariff for calling a 0900 number exceeds EUR0.15 (USD0.2) per minute, the information service provider must state the maximum charge that will be levied for a call
- In **France**, legislation introduced by ARCEP in January 2010 requires service providers to inform the call of the price of the call for all PRS that exceed EUR0.15 per minute (later updated in January 2011 to include all phone-paid VAS services). However, there was no equivalent for mobile-originated calls; accordingly, to aid transparency, mobile operators jointly set up an IVR service that is accessible free of charge by dialling a four-digit shortcode (3008). This provides the total cost of the call, including both the service charge and the 'airtime' charge; that is to say the premium charged by the mobile operator for the call.
- In **Australia**, the TISSC also requires the service provider to inform the caller of the price of the call and (where relevant) its length; competition lines are, however, exempt from this requirement.
- In **Canada**, the CRTC requires providers of games of chance to inform callers about any available alternative ways of playing that do not involve calling a 900 number, e.g. via a website.

Shortcodes

Shortcodes are less strictly assigned. Many regulatory authorities have left this task to the mobile operators, e.g. in the UK the Shortcodes Management Group takes charge of this task. In other territories where there is no defined numbering policy in place, one short code may be assigned to different services if accessed from a different mobile network. The service or content provider is responsible for ensuring that its service is accessible through a common shortcode on all networks, and this may rely on collaboration between mobile operators.

One result of a more liberal approach to shortcode pricing is that the prices charged to consumers can vary greatly. In **Canada**, for example, premium rate SMS can cost anywhere from CAD0.15 (USD0.154) to CAD10 (USD10.30) per text.¹⁰

3.3 Regulatory framework

3.3.1 National regulation

Introduction

Each territory takes a different approach to the regulation and policing of its PRS markets. An overview is provided in Figure 3.3 below.

Country	Market		Organisation name	Model			Type of organisation			Source of funding				
	Fixed	Mobile		Statutory	Co-regulation	Self-regulation	Formal regulatory authority	Separately designated reg. authority	Industry association	Central government	NRA licence fees e.g. spectrum	Membership fees/industry events	CSPs directly	Transaction levy
Australia	●		ACMA		●		●			●				
		●	TISSC		●								●	
Brazil	●	●	ANATEL	●			●			●		●		
Canada	●		CRTC				●			●	●			
France	●	●	ARCEP	●			●			●				
Germany	●	●	BNetzA		●		●			●				
Hong Kong		●	OFTA	●			●					●		
Hungary	●	●	NMHH	●			●			●				

¹⁰ CCTS (Canada, 2010), *Annual Report 2009-2010*, Available at <http://www.ccts-cprst.ca/wp-content/uploads/2010/01/CCTS-Annual-Report-2009-2010.pdf>

India	● ●	TRAI	●	●	●
Ireland	● ●	ComReg	●	●	●
Italy	● ●	AGCOM	●	●	●
Malaysia	● ●	SKMM	●	●	●
Netherlands	● ●	OPTA	●	●	●
Russia		Roskomnadzor	●	●	●
Singapore	● ●	IDA	●	●	●
South Africa	●	WASPA	●	●	● ●
Spain	● ●	CMT	●	●	●
Sweden	● ●	ERB	●	●	●
UAE	● ●	TRA	●	●	● ●
UK	● ●	PhonepayPlus ¹¹	●	●	●
US	● ●	FCC	●	●	●

Figure 3.3: Comparison of PRS regulation funding by territory [Source: Analysys Mason, 2011]

Regulatory models

Broadly, we have identified five main regulatory approaches used for PRS market regulation within the 20 countries covered in this study:

- Fixed and mobile markets regulated by the national regulatory authority (NRA); common in mature markets e.g. **France, Spain, Ireland**. The level of regulatory involvement, however, varies between countries. The Spanish regulator CMT takes a highly proactive approach to regulating the PRS market, regularly updating its Code of Conduct through national legislation, and working with a number of other government bodies to implement policy. In contrast, the French regulator ARCEP leaves the market to self-regulate to the maximum extent possible.
 - PRS regulation carried out by the NRA can prove to be a highly effective scenario in terms of consumer protection and ensures their best interests are put first.
 - However, some stakeholders have noted that changing or introducing new legislation can be a cumbersome process and depending on the necessary requirements, this may require changes to law which can take years to be approved.
 - If an NRA is too removed from the PRS market, or the measures it imposes are too strong, it may stifle the market.

¹¹ PhonepayPlus is an independent industry-funded regulatory agency operating under delegation from Ofcom, the National Regulatory Authority.

- It would be opportune for regulators in this scenario to involve industry stakeholders in decision making and Code implementations, to ensure that it keeps up with market evolution and does not have an unnecessarily negative impact on revenues.
- Fixed and mobile markets regulated by an organisation which is not the NRA; also common in mature markets with highly evolved PRS markets, e.g. **Sweden, UK**. In Sweden a separate, independent statutory body, the ERB, is responsible for regulating both fixed and mobile PRS. The ERB evolved from a council set up by the fixed incumbent into a body that represents all PRS industry stakeholders, including members of MORGAN, the industry representative body which co-develops the Ethical Code of Conduct.
 - Some NRAs nominate an independent body to carry out day-to-day running of regulation conditional on approval from the NRA, allowing the secondary body to concentrate specifically on the PRS market, while maintaining a level of oversight for the NRA
 - This can make the body more nimble and able to operate in a more proactive way, and industry stakeholders may be happier and more willing to work with such a body.
 - In addition, as an independent body, it may be more open to working more closely with industry representatives when producing Codes.
- Fixed market is regulated by the NRA, while the mobile market is regulated by an organisation which is not the NRA or is unregulated, e.g. **Canada**. The Canadian regulator, CRTC, recently withdrew regulation of the mobile segment of the market, with the aim of driving growth, although from the consumer's perspective there is now greater scope for unscrupulous service providers to exploit the liberal market environment.
 - Regulators are most likely to deregulate a market in order to encourage investment and growth in that market; however, the downside to such a move is the removal of the protection that regulation affords consumers.
 - Unscrupulous service providers may be attracted to a market such as this, as it may be seen as a soft touch, which could lead to detrimental effects on end-users.
 - Whilst scams may be uncommon in territories that generate less revenue, once a significant market has taken hold, it may be necessary for regulators to rethink such a policy.
- Mobile market is regulated by the NRA, while the fixed market is regulated by an organisation which is not the NRA or is unregulated; common in markets with highly evolved mobile PRS markets and nascent or little-developed fixed markets e.g. **Hong Kong, South Africa**.
 - This scenario is common in markets where the fixed segment is less significant, or in some cases practically non-existent; the lack of a significant market makes regulation unnecessary.

- Given the general trend for declines in fixed PRS markets, it is unlikely that markets that do not already have substantial use of premium voice services will see any upturn in the next 1-2 years.
- Both the fixed and mobile markets are unregulated; e.g. Russian Federation, where PRS are seen as governed by exclusive agreements between the CSP and the consumer.
 - Some markets may have not experienced consumer issues with regard to premium rate services, meaning regulators do not see the requirement to implement PRS legislation.
 - Likewise, governments may have a ‘laissez-faire’ policy which discourages regulation
 - Whilst a PRS market may function without or with limited regulation, NRAs or governments may have to rethink this policy either when user numbers reach critical mass, or a well-publicised scam forces the implementation of some form of regulation.

In most of the benchmark countries, the NRA or PRS-specific regulator produces and registers a Code of Practice in conjunction with an industry body. The Code of Practice is then the main vehicle for governing the PRS market.

Funding, budgets and spend

Funding for the regulation of PRS comes from either central government, the NRA (through licence and spectrum fees paid by telecoms operators), or through a levy on PRS transactions. Details are provided in Figure 3.3 above.

Very little information is publically available on the size of individual regulators’ budgets for PRS. In a number of cases, there is no budget ring-fenced for activities relating to the regulation of PRS; funds simply come out of an NRA’s central budget where available, as and when they are required.

Punitive measures

Punitive powers vary greatly across the countries examined, ranging from the extreme example of a potential prison term in UAE, to a relatively light approach to punishment in Sweden whereby a breach of the ERB’s Ethical Rules can only result in the suspension of a content provider’s services. In the case of Sweden, the regulator has actively chosen to take a preventative rather than punitive approach.

The majority of regulators will apply punitive measures to content providers that contravene PRS regulation, and generally follow the steps outlined in Figure 3.4; however, not all regulators have the power to impose all measures – e.g. TISSC (Australia) cannot impose fines.

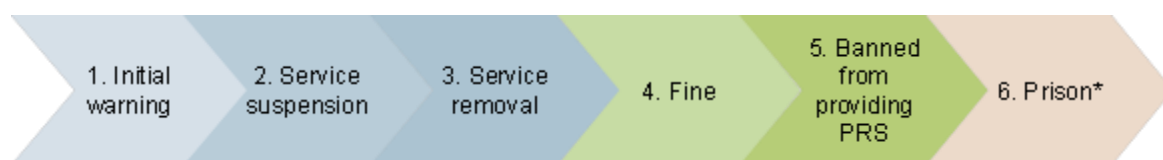


Figure 3.4: Punitive measures imposed by PRS regulators [Source: Analysys Mason, 2011]

We have identified a number of examples of legislators imposing fines on content providers:

- In **Germany**, the FNA reviewed 23 new fine proceedings in 2009 with reference to phone spam and obligations to give price indications and messages. Eleven orders to pay fines were issued; nine of them are already effective in law. Most of the breaches prosecuted had to do with failure to state prices, or stating them inaccurately, when offering PRS.
- In the **Netherlands**, to date, OPTA has assessed a total of 172 premium rate numbers at random, or after receiving consumer complaints through Consuwijzer, a joint OPTA-NMA-Consumer Authority consumer information portal that is an online form for complaints about phone rate information or long telephone queues.
- In **South Africa**, WASPA has received over 11 200 complaints since September 2005, made by both consumers and competing content providers. WASPA has imposed an average fine of ZAR50 000 (USD6850)¹³.
- In **Singapore**, the IDA fined mTouche SGD150 000 (USD115 000) for having failed to inform end users of the cost of receiving a greeting message sent out at Chinese New Year. It also fined ZingMobile SGD2 000¹⁴ (USD1500) for promoting competitions offering attractive prizes such as iPads and iPhones in an effort to trick consumers into accessing or subscribing to PRS.

Generally, liability for breaches of conduct is placed on the content provider – i.e. the party that creates and markets the content. However, in some cases it is the direct or indirect responsibility of the aggregator to ensure the Code of Conduct is complied with:

- WASPA, **South Africa** – since content providers are not obliged to register as members of WASPA, and a Code breach would violate the terms of the contract between the aggregator and the mobile operator, even if a content provider breaches the Code the aggregator is liable.

* UAE – In extreme circumstances

¹³ Available at <http://www.waspa.org.za/code/complaints.php>

¹⁴ Available at http://www.ida.gov.sg/doc/Policies%20and%20Regulation/Policies_and_Regulation_Level3/Enforcement%20Decisions/Determinations%20and%20Enforcement/ZM26Jul10.pdf [Accessed: 13/04/2011]

- IDA, **Singapore** – in 2010, the IDA imposed a SGD10 000 (USD7 500) fine on *Sybase* (a service aggregator) for contravening the Code of Conduct by advertising competitions that tricked consumers into accessing or subscribing to premium rate services¹⁵.

3.3.1 PRS complaints and compensation

The number of complaints made by consumers can provide regulators with a broad idea of the success of their policies and regulatory systems, or the level of consumer (dis)satisfaction. Some regulators publish the numbers of complaints received annually; however, these figures are based on a range of definitions so they may not be directly comparable. For example, the French Federation of Telecoms received a monthly average of 30 000 individual complaints to report malpractice in both fixed and mobile services; the Australian Telecommunications Industry Ombudsman registered 4107 complaints in 2009-10 regarding mobile premium services.

However, it is possible to determine a number of similarities in the types of complaints received. There are key patterns that emerge, and in the subsections below we consider the following:

- subscription scams
- under-age access to inappropriate content
- lack of price transparency.

Subscription scams

Premium rate services in a number of territories in this study have been linked with subscription scams, whereby users believe they are buying a one-off item of content – typically ringtones or information services – but later find out that they have in fact signed up to a weekly or monthly subscription service.

In addition, market players have been known to adopt complicated pricing structures and excessive connection or per-minute charges, meaning users may not be completely aware of how much they are being charged at the point of purchase.

These are by no means unintentional tactics; in fact this trend has occurred in most major PRS markets, and has been facilitated by the relatively low barriers to entry for content provider that already deliver services in other markets. In particular, one regulator noted that some unscrupulous providers forced out of one English-speaking market have then sought to exploit another English-speaking market, which suggests the need for greater dialogue between regulators at the international level.

¹⁵ Available at:
http://www.ida.gov.sg/doc/Policies%20and%20Regulation/Policies_and_Regulation_Level3/Enforcement%20Decisions/Determinations%20and%20Enforcement/Sybase26Jul10.pdf

A number of preventative measures have been put in place by regulatory authorities in response to subscription scams:

- **“STOP” commands**, which allow users to unsubscribe from unwanted PRS subscriptions by responding with the command word “STOP”, have been introduced in a number of markets, including France, Sweden and Singapore. Whilst this does not resolve the issue of having been charged for the cost of the first message, it should prevent any further charges from being applied.
- **‘Double opt-ins’** for subscription services are now mandatory in Australia, Brazil and Canada. In Australia, there has been a sharp reduction in PRS-related complaints, which coincides with the introduction of a double opt-in. Registered complaints fell to 4107 in the period 2009-10, down from 13 692 in the 2008-09 reporting period.¹⁶
- **Automatic barring of PRS services**, e.g. in Italy where the service is blocked by default and the user must request permission to access the service.

These remedies have been imposed with varying degrees of success, and in certain cases have had a huge negative impact on the revenue-generating potential of the market, e.g. in Italy. In regard to this, one content provider we spoke to as part of this research stressed the need for regulation to be carefully considered and proportionate.

Lack of price transparency

Price transparency remains a problem in many markets, in that the consumer is often not aware of the cost of calling the PRS they are accessing. This may be due to:

- the cost of the service is not stated in the promotional material
- the (maximum) cost is not announced at the start of a call
- pricing structures are confusing
- consumers not being aware at which point they will start to be charged for services.

Regulators may impose rules in order to improve transparency, but it is inevitable that some unscrupulous players may slip through the net. As a result, regulators may decide to impose more stringent rules on the PRS market; however, as some regulators have found, it is important that rules do not become too stringent, in a way that restricts investment and stifles the market.

Under-age access to inappropriate content

In **Brazil** and **Sweden**, one of the main topics of complaint comes from parents whose children have – knowingly or unknowingly – subscribed to adult PRS services. In an attempt to discourage this, the Swedish regulator has included provisions to prevent marketing of high cost PRS services to those below the age of 14. This was previously a problem in Australia, but the TISSC and

¹⁶ Telecommunications Industry Ombudsman (Melbourne, Australia, 2011), *2010 Annual Report*. Available at http://www.tio.com.au/publications/annual_reports/ar2010/PDFs/AnnualReport2010Download.pdf

ACMA have both implemented regulations that seek to reduce this problem – including requiring that a PIN be used before content can be accessed – and such measures have proven successful in removing the issue. Brazil as yet has not implemented any regulation.

It must be noted, however, that to a certain degree the problem may be difficult to control: for example, a child may gain access to an adult's PIN, or an older relative or friend may help them to gain access to content.

3.3.2 Supra-national initiatives

In addition to the implementation of PRS regulation at a national level, it has also been known to take place at a supra-national level. An example of this is the GSMA Europe which has co-operated with the European Commission to implement a framework surrounding safer mobile use by younger teenagers.

Due to the adult nature of a large proportion of premium rate services, this framework agreement is highly relevant to this market, and by 2010 there were 83 signatory operators, covering 96% of European Union mobile subscribers. Each country's operators would then seek to develop its own Code of Conduct, e.g. in the UK the 'Code of Practice for the self-regulation of new forms of content in mobiles'. Significant clauses include:

- refraining from offering own-brand adult content
- control of access to adult content where it is supplied by a third party
- customisable parental control
- filters to restrict access to adult Internet content that is out of the operator's control.

3.3.3 Evolution of PRS regulation

PRS as a payment mechanism

Many PRS markets are currently experiencing a period of change, as a result of increased competitive threats and also new opportunities. Notable developments are occurring around the purchase of goods and services within virtual environments (e.g. social networks and games), as well as the use of PRS as a payment mechanism for real-world goods and services (e.g. parking, or purchases from vending machines) which extend beyond the remit of traditional telecoms services.

Historically, changes to existing regulation were often introduced retrospectively as a result of one or more scams that received a lot of bad publicity, as was the case in Australia, Brazil, Hong Kong, Hungary, Singapore, South Africa and Sweden, to name a few. Now the evolution of the products and services available through phone-paid mechanisms is forcing a step-change in regulatory thinking.

Regulators must consider whether non-phone-based services fall within their jurisdiction. An example of this is in **Sweden** where specific content that is delivered through PRS can be censored or blocked. Inherently, it has been possible to keep a record of such content, meaning it can be

audited or provided as evidence should it be necessary. However, since it is now possible to pay through a PRS mechanism for real-world goods that are not delivered through telecoms systems, regulators must ask themselves whether (a) these remain within the remit of a PRS regulator; and (b) it will be possible to regulate such purchases, due to the inability to censor or control them.

Currently, some regulators are attempting to pre-empt the market by developing regulation that will implicitly include any future development in the PRS market. However, it is an almost impossible task to predict all new developments in consumer behaviour and where these may lead the PRS market. It is therefore inevitable that further changes and adaptations will be required in the coming years.

Key policy changes

Since there is a wide variety of regulatory approaches being used in the countries we have examined -- and given the nature of the market and the speed at which it is evolving -- policy review will be required on a regular basis. Below we highlight some of the most significant shifts in regulatory strategy, made in an attempt to address the ever-changing number of issues that face the PRS market. Figure 3.5 provides an overview of a number of key policy and strategy changes that have either already been made or are expected to be made, in the countries examined in this study.

<i>Country</i>	<i>Regulator</i>	<i>Issue</i>	<i>Solution</i>	<i>Timeframe</i>
UK	PhonpayPlus	PhonpayPlus has recognised the need to adapt to the fast evolving PRS market, driving a need for flexibility and greater convergence (on an international scale).	PhonpayPlus has recently released the 12 th Edition of its Code of Conduct which is now more principle-based and flexible, with a greater focus on the consumer.	September 2011
Ireland	ComReg	Previously relied on a self-regulatory model, but decided this was not providing effective consumer protection	ComReg recently decided to replace this, by taking over regulation in the hope of tightening the regulatory regime, combatting rogue operators and supporting legitimate PRS providers	The Communications Regulation (Premium Rate Services and Electronic Communications Infrastructure) Act 2010 in July 2010
Russia	Roskomnadzor	Roskomnadzor has traditionally favoured a light-touch approach, but has recognised that mobile PRS is an area of significant consumer harm	Roskomnadzor may move towards a stricter level of regulation, which would focus on increased price transparency and consumer awareness.	On-going
India	TRAI	TRAI currently provides a limited	Only after a strong regulatory framework is	No details. <i>National Telecom Policy is due to</i>

		layer of regulation, but as the Indian PRS market evolves, we expect there will be increased public awareness of the issues within the market	put in place will India experience the next level of growth in its PRS industry	<i>be released at the end of 2011</i>
Italy	AGCOM	AGCOM has taken a number of steps to protect consumers: e.g. price caps and general call barring. Industry stakeholders believe this has had a huge negative impact on spend on PRS	AGCOM is hosting a committee that is assessing these problems, meaning that the regulation may be updated accordingly	Estimated H2 2012
France	ARCEP	ARCEP takes a light-touch approach, with the consequence that price transparency has become an issue	ARCEP illustrated a possible approach to increase pricing transparency using a colour coding system to increase pricing transparency, similar to the one used in CO ₂ emissions charts	n/a
Germany	BNetzA	Consumers are often charged for waiting in a queue to be connected to fixed PRS services, resulting in a large number of complaints	BNetzA has proposed that queuing whilst connected to a PRS number be made free of charge; however, this is pending a decision	Next 3 months

Figure 3.5: Key regulatory policy changes [Source: Analysys Mason, 2011]

4 UK

- The UK has a mature PRS market with moderate to high levels of revenue per capita on PRS. The PRS market is highly competitive and, in some segments, a saturated market.
- The UK is unusual in having a dedicated PRS regulator - regulation is carried out by PhonepayPlus, who produce, update and enforce a *Code of Practice*, on behalf of the communications regulator Ofcom.
- Regulation in the UK covers premium voice services ('09', '087'), directory enquiry services, premium SMS and WAP billing.
- 'Payfortit' is a WAP billing initiative backed by the four major mobile operators that allows payments to be made through the Internet browser on a mobile handset – this is included within the regulator's remit since the service charges directly to a subscribers phone bill.
- There were a number of high profile PRS scams and scandals in 2007, but these have broadly been dealt with, restoring consumer confidence in the market.
- The UK PRS market has become highly dynamic, with the introduction of a number of innovative new services e.g. paying for real-world and virtual goods that are not delivered directly through a phone; regulator PhonepayPlus is monitoring these to ensure it addresses any future market developments.

4.1 Country snapshot

Population	66.2 million
GDP per capita	USD34 550
Fixed telephony penetration	57.7%
Mobile telephony penetration	127.2%
Size of PRS market	USD1.24 billion
PRS revenue per capita	USD18.68

Figure 4.1: UK overview [Source: Analysys Mason, EIU, company reports, 2011]

4.2 Definition of PRS

In the UK, premium rate services ('PRS') are defined in Section 120 of the Communications Act 2003¹⁷ as outlined in the subsections below:

(7) "A service is a premium rate service if:

¹⁷ UK Government (London, UK, 2003), *Communications Act 2003 c. 21*. Available at <http://www.legislation.gov.uk/ukpga/2003/21/section/120>

a) it is a service falling within subsection (8);

b) there is a charge for the provision of the service;

c) the charge is required to be paid to a person providing an electronic communications service by means of which the service in question is provided; and

d) that charge is imposed in the form of a charge made by that person for the use of the electronic communications service.”

(8) “A service falls within this subsection if its provision consists in

a) the provision of the contents of communications transmitted by means of an electronic communications network; or

b) allowing the user of an electronic communications service to make use, by the making of a transmission by means of that service, of a facility made available to the users of the electronic communications service.”

(14) “References in this section to a facility include, in particular, references to:

a) a facility for making a payment for goods or services;

b) a facility for entering a competition or claiming a prize; and

c) a facility for registering a vote or recording a preference.”

In summary of the above, the term PRS refers to those services that fit the following criteria:

- The service or product provided is charged for by paying for the use of an electronic communications service e.g., by making a voice call, sending an SMS

Unlike the majority of countries covered in this benchmark study, directory enquiries (‘DQ’) services are included within the definition of PRS in the UK; they therefore come under the regulation of PhonepayPlus. DQ was the largest PRS service in the UK in 2010¹⁸.

4.3 PRS market structure and characteristics

Market size

The total UK PRS market generated revenues of GBP816 million¹⁹ (USD1.24 billion) in 2010. This is up slightly from the 2009 market size of GBP810 million (USD1.23 billion), indicating the market as a whole is relatively stable, though service area market share is shifting. Stakeholder

¹⁸ Analysys Mason (London, UK, 2011), *Current and Emerging Trends in the UK Premium Rate Services Market*. Available at http://www.phonepayplus.org.uk/For-Business/~media/Files/PhonepayPlus/Research/2011_CurrentandemergingtrendsintheUKPRSmaket2010AnalysysMasonreport.pdf

¹⁹ All UK revenue figures are provided from the Analysys Mason *Current and Emerging Trends in the UK Premium Rate Services Market* study.

interviews indicate that industry players in the UK believe there will be a steady long-term downward trend in the market.

The largest service areas are directory enquiries (DQ) with revenues of GBP206 million (USD312 million), though this has decreased significantly since 2009, followed by Adult Entertainment generating GBP128 million (USD194 million) in revenue.

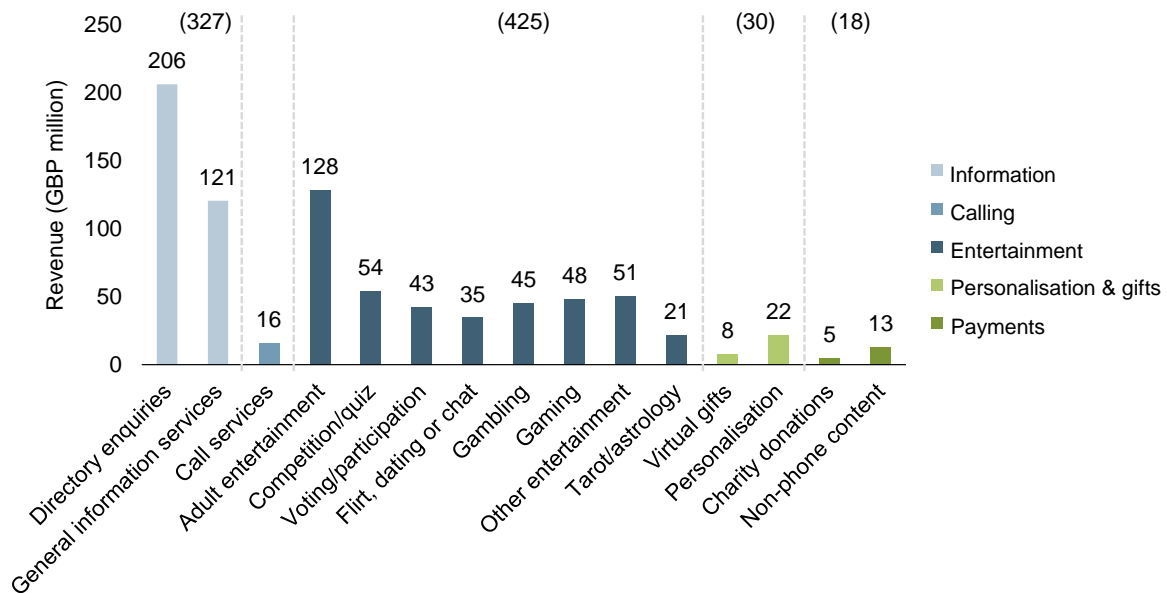


Figure 4.2: 2010 Phone-paid services revenue by service sub-category (GBP million) [Source: Analysys Mason, 2011²⁰]

Many of the PRS service areas within the UK market are relatively mature (e.g. adult entertainment, mobile personalisation, directory enquiries), but there are new emerging service areas that are taking advantage of this form of payment and content delivery (e.g. SMS charity donations, virtual gifts).

PRS services are typically charged on a per-minute basis, at between GBP0.05-1.50 (USD0.08-2.30) per minute from a standard BT landline. For certain PRS services, fixed-charge services or content are also available e.g. GBP0.25 (USD0.38) per information service SMS, GBP0.49 (USD0.75) per directory enquiry call or GBP1.00 (USD1.50) per ringtone download.

Fixed

PRS fixed line services are most commonly accessed by calling numbers starting with '09'. DQ services (also counted as premium-rate services in the UK) have been accessible through 118xxx short codes from fixed lines and mobile, since the liberalisation of the market in 2003. In August 2009, PhonepayPlus also began regulating calls and services accessed through numbers starting with '087' that are charged at GBP0.05 (USD0.08) per minute or above.

²⁰ The revenue figure for charity donations does not include revenue share by network operators that have been waived.

Information providers are legally required to advertise costs when charges to access a service exceed GBP0.50 (USD0.77).

Mobile

All PRS services available to fixed line callers are also available to mobile subscribers; however, mobile operators tend to charge significantly more than the advertised BT landline rate to call these numbers. This is especially the case for third-party directory enquiry services. MNOs have done this in an attempted to out-price more popular competing services in favour of their own, by not applying the levy to their own DQ service. Since, third party services are more commonly used the majority of DQ calls suffer from this levy.

In addition to dialling the standard fixed line services from mobile devices, there are a number of additional services available from the mobile. Five digit short codes ranging from 50000 to 89999 provide access to a wide array of services (e.g. voting/participation, charity donations, information services) through premium SMS and voice. It is also possible to access the services of certain directory enquiry operators by sending an SMS to their 118 xxx short code (e.g. 118 118).

‘Payforit’ is an initiative backed by the four major mobile operators that allows payments to be made through the Internet browser on a mobile handset by a process similar to that of a traditional online store. This is included within the regulator’s remit since the service makes charges directly to a subscriber’s phone bill. The technology recognises the user’s mobile account and applies the charge directly to the subscriber’s mobile phone bill, thus making it within the remit of PhonepayPlus. Payforit has also been extended to allow payments made on a computer, whereby an SMS confirmation code is sent to the user’s mobile phone, which they then enter on the computer.

4.3.1 Communication service providers

Fixed line operators

BT continues to dominate the fixed telephony market and it also leads in the fixed broadband market. It is the incumbent telco in the UK, but is not a significant player in the mobile market, operating as a data-only MVNO, with services typically offered in bundles with its fixed services. The company’s PRS prices serve as a benchmark to the rest of the industry. BT acts as a reseller of PRS numbers and also runs its own directory enquiry service (BT 118 500).

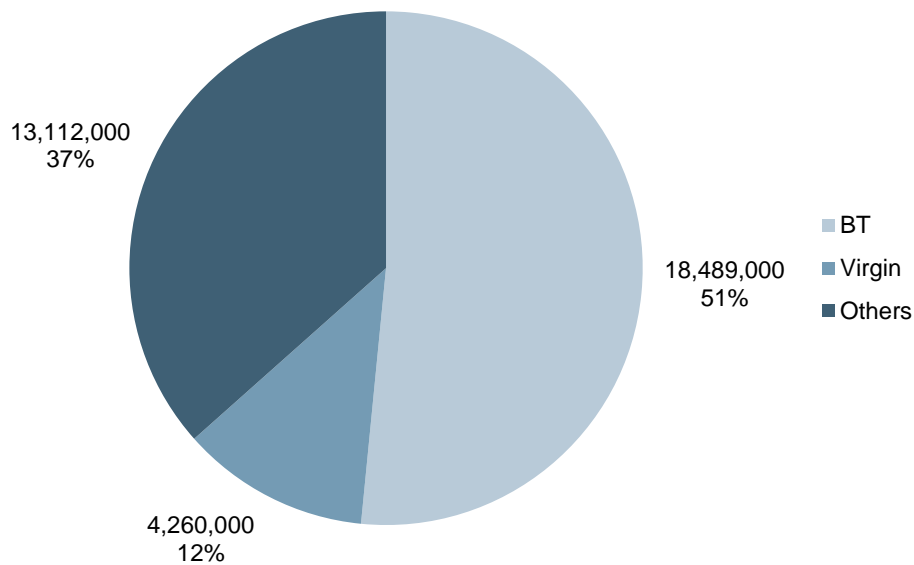


Figure 4.3: UK fixed operators' market share (number of connections) [Source: Analysys Mason, company reports, 2011]

Mobile operators

The main players in the UK market comprise the newly formed joint venture of Orange UK and T-Mobile UK (named Everything Everywhere, although both existing brands will continue to be used), O2, Vodafone, and the much smaller 3UK. The four major operators collaborate in a number of industry bodies that jointly provide premium rate services and self-regulate specific verticals or the PRS market (e.g. Payforit mobile internet payment platform; Short Codes Management Group). Significant mobile virtual network operators (MVNO) include Virgin Media and Tesco Mobile. Most MNOs publish price lists for calling individual '09' PRS on their websites or provide online 'price checkers' to let consumers know the cost of accessing PRS services from their networks.

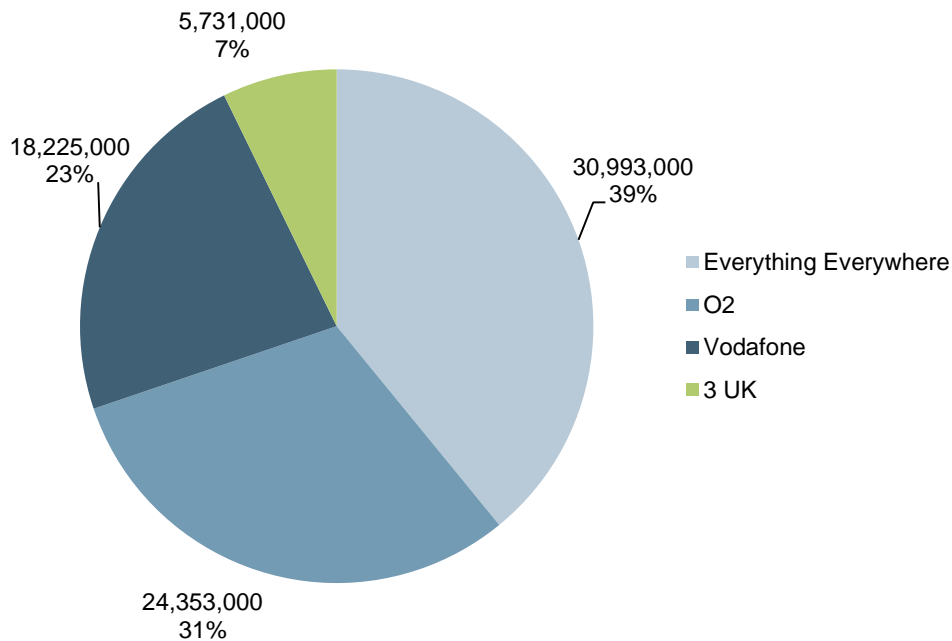


Figure 4.4: UK mobile operators' market share (subscribers) [Source: Analysys Mason, company reports, 2011]

- Everything Everywhere** became the UK's largest mobile operator, both by subscribers and by revenue, following the completion of the merger of Orange and T-Mobile at the start of April 2010. Through its Orange brand, the company also has a significant presence in the FBB market. Orange charges a fixed fee of GBP0.70 (USD1.08) per Orange DQ enquiry compared with connection charges of GBP0.73-2.09 (USD1.12-3.22) and per minute charges of GBP0.31-1.87 (USD0.48-2.88) for non-Orange DQ services
- O2 UK** is the second largest UK MNO in terms of both revenue and market share of active subscribers. It offers a full range of mobile services, FBB access and, since March 2010, fixed-line telephony services. O2 charges GBP1.53-2.04 (USD2.35-3.14) per minute for non-O2 DQ services, compared with GBP0.61 (USD0.94) per minute for its own.
- Vodafone UK** is the British subsidiary of the world's largest cellular operator by revenue. It has little presence in the fixed market in the UK. Charges to non-Vodafone DQ services cost GBP2.00 (USD3.08) per minute, compared with GBP0.85 (USD1.31) per minute for Vodafone's preferred DQ service.
- 3 UK** has a market share of just 7%. In general, its mobile voice pricing strategy is highly competitive. 3 UK charges GBP0.91 (USD1.40) per enquiry to its own DQ service, compared with GBP1.79 (USD2.75) connection and GBP1.79 per minute to BT's DQ service.

4.4 Regulatory framework

4.4.1 Introduction

In the UK, fixed and mobile premium rate services ('PRS') are regulated by PhonepayPlus. The regulator has a budget of around GBP4.2 million (USD6.5 million) per annum, however this is set to decrease in real terms for the 2011/2012 financial year. The budget is funded by a levy on all premium rate service transactions, and is adjusted to account for market size and revenue from fines. Under the Twelfth Edition of the PhonepayPlus *Code of Practice* (due to come into force on 1 September 2011), PhonepayPlus may also receive 'administrative charges' from companies found to be in breach of the Code for the administrative and legal costs of work, including investigations and tribunals, undertaken by PhonepayPlus²¹. Its budget is approved by Ofcom, the independent regulator and competition authority for UK communications industries.

The PRS market is defined in the Communications Act 2003, which stipulates that Ofcom holds responsibility for regulation of premium rate services. However, in December 2007, day-to-day regulatory responsibility was passed to PhonepayPlus (previously known as ICSTIS) who agreed to enforce measures, and act on behalf of Ofcom. The regulators and other PRS stakeholders are outlined in Figure 4.5 below.

Name	Type of Organisation	Remit
PhonepayPlus	Independent regulatory authority	Day-to-day regulation of premium rate services on behalf of Ofcom
Ofcom (communications industries regulator)	Independent regulatory authority	Holds ultimate responsibility for regulating PRS, as mandated in the Communications Act 2003
Action4 [formerly the Premium Rate Association (PRA)]	Industry body	Trade association for the UK premium rate and non-geographic calls industry. They work on various industry issues and consultations and deal with major industry changes. Action4 also ensures that industry views on such matters are represented to the relevant bodies
Association for Interactive Media & Entertainment (AIME)	Industry body	Represents media and entertainment providers, including PRS providers. The body runs PRS training for its members
Direct Marketing Association UK (DMA)	Industry body	The DMA is a trade association for the marketing and communications sector
Federation of Communication Services (FCS)	Industry body	Trade Association for the communications services industry representing businesses delivering products and services to customers by radio, mobile, fixed and IP telephony
Internet Telephony Services Providers' Association (ITSPA)	Industry body	Represents UK-based network operators, service providers and other businesses involved with the supply of VoIP services to business and residential consumers within the UK and across the European Union

²¹ PhonepayPlus (London, UK, 2011), *Notice to Industry: Administrative charges from 1 April 2011*. Available at <http://www.phonepayplus.org.uk/output/news/administrative-charges-from-1-april-2011.aspx>

Mobile Broadband Group (MBG)	Industry body	The role of the MBG, whose members are the network operators in the UK, is to work with consumers, Government, and Regulators to bring about an optimal regulatory environment across a range of issues
Mobile Entertainment Forum (MEF)	Industry body	Global trade association of the mobile media industry, working on behalf of its diverse membership to drive mobile entertainment adoption, shape regulation and deliver competitive advantage to its members
Mobile Marketing Association (MMA)	Industry body	Represents all players in the mobile marketing value chain
Short Codes Management Group	Industry body	Standardises the assignment of mobile short codes
UK Competitive Telecommunications Association (UKCTA)	Industry body	Seeks to foster a more competitive fixed telecommunications market in the UK, based on a regulatory framework that treats all competitors in this field equally and fairly

Figure 4.5: UK regulatory and industry bodies [Source: Analysys Mason, regulator websites, 2011]

The Communications Act 2003 states that Ofcom may approve a Code for premium rate services ‘if it appears to [them]’. Since PRS regulation has been handed to PhonepayPlus, the onus is on them to plan, enforce and update appropriate industry rules. These are outlined in the PhonepayPlus *Code of Practice*²². The Code, which is updated every few years, is in its Eleventh Edition (amended April 2008). The Twelfth Edition of the Code of Practice, published on 30 March 2011, is due to come into force on 1 September 2011.

Figure 4.6 below outlines the main documents that regulate the UK PRS market.

Type	Document	Comment
Primary legislation	Communications Act 2003 Chapter 21	UK government legislation defining Ofcom’s responsibilities with regard to regulation of the PRS market, through which it allows PhonepayPlus to act as the agency to carry out these tasks
Regulator code	PhonepayPlus Code of Practice Twelfth Edition (2011)	Regulation deigned to pre-empt and prevent problems to achieve long-term consumer protection. Code of Practice requires approval by Ofcom
Industry code	Short Codes Management Group Code of Practice for Service Delivery of Common Mobile Shortcodes in the UK for all Communications Media (2006)	Guidelines which manages the availability of short codes and the services operating on them

Figure 4.6: PRS Regulation and legal documents in the UK [Source: Analysys Mason, 2011]

²² PhonepayPlus (London, UK, 2008), *Code of Practice Eleventh Edition*. Available at http://www.phonepayplus.org.uk/upload/PhonepayPlus_Code_of_Practice.pdf. Twelfth Edition due to come into force 1 September 2011

4.4.2 Overview of PRS regulation

PhonepayPlus started life in the 1990s as the Independent Committee for the Supervision of Standards of Telephone Information Services (ICSTIS), a self-regulatory body formed as an agreement between BT and the Association of British Telecom providers. It evolved into its current form in 2007 and is now an independent, PRS transaction funded body, acting under the approval of Ofcom.

The focus of PhonepayPlus is to “pre-empt and prevent problems, key to [achieving] long-term consumer protection”²³, which it achieves through its *Code of Practice*. In addition, the Code sets appropriate standards for the promotion, content and overall operation of PRS with a particular emphasis on protecting the vulnerable and children.

PhonepayPlus comprises – and mediates with – a number of bodies that enable it to carry out its duties:

- a Board consisting of seven part-time members and the Chief Executive of PhonepayPlus;
- a Code Compliance Panel which consists of six legal or adjudicatory professional;
- an Industry Liaison Panel which facilitates two-way communications between PhonepayPlus and the industry
- the Independent Appeals Body comprising a Chairman and up to four other members, all of whom are independent of PhonepayPlus.

PhonepayPlus investigates complaints and has the power to impose fines and block access to services that are in breach of the Code. Action is taken with regard to the promotion or advertising of a service, the content itself, or if a prize or service isn’t delivered as promised. Should content providers refused to cease their services, the Code allows PhonepayPlus to instruct any communications providers to block services by referring the case to Ofcom – in effect providing “backstop power”.

Code of Practice

The objectives of the PhonepayPlus *Code of Practice* are to ensure that:

- premium rate services comply with the law
- consumers of PRS are fully and clearly informed
- consumers of PRS are treated fairly and equitably
- PRS do not cause the unreasonable invasion of consumers’ privacy
- PRS do not cause harm or unreasonable offence to consumer of the general public
- Consumers are able to have complaints resolved quickly and easily by the Level 2 provider responsible for the service and that any redress is provided quickly and easily.

²³ PhonepayPlus (London, UK, 2011), *NOTICE TO INDUSTRY – PUBLICATION AND IMPLEMENTATION OF THE 12TH EDITION OF THE PHONEPAYPLUS CODE OF PRACTICE*. Available at <http://www.phonepayplus.org.uk/output/about-phonepayplus.aspx>

The Code refers to and defines three categories of providers who form part of the PRS value chain, which are outlined below in Figure 4.7:

Category	Definition
Network operators	an electronic communications network
Level 1 providers	a person who provides a platform which, through arrangements made with a Network operator or another Level 1 provider, enables the relevant premium rate service to be accessed by a consumer or provides any other technical service which facilitates the provision of the relevant premium rate service
Level 2 providers	the person who controls or is responsible for the operation, content and promotion of the relevant premium rate service and/or the use of a facility within the premium rate service

Figure 4.7: *PhonpayPlus service provider definitions [Source: PhonpayPlus, 2011]*

Significant clauses in the 12th Edition of the Code aimed at safeguarding consumer interests include:

- Before providing any premium rate service all Network operators, Level 1 and Level 2 providers must register with PhonpayPlus unless exempt
- PhonpayPlus may specify categories of promotions which must contain reference to the Level 2 provider's registration and registration number
- Unless a service is available 24 hours a day, its hours of operation must be stated in UK time on the promotional material
- Level 2 providers must take reasonable and prompt steps to identify excessive use of its service or services by any consumer and to inform the relevant consumer of that usage
- All sexual entertainment services must terminate immediately when a maximum of GBP30.65 incl. VAT (USD47.15) per call has been spent
- There must be a simple method of exit that takes effect immediately; the Code no longer specifically mandates the use of the "STOP" command.

Advertising rules

The advertisement rules set out in PhonpayPlus' Code aim to ensure that consumers are protected from bad practice. Along with requirements around transparency (e.g. promotional material must contain name of service provider; a non-premium rate contact number; the cost of a premium rate service must be clear and prominent and included before any purchase is made), several more specific points are included. For example, if the cost of a service exceeds GBP4.60 (USD7.10), pricing information must be 'clearly visual' and spoken when presented in an audio/visual format. In addition, the Code stipulates that marketing must not be targeted towards groups that would likely be offended by the promoted content.

4.4.3 Tariff structure

Fixed line pricing

Premium rate services in the UK have an extremely complex system of tariffs defined by number range, access origin and access/payment mechanism. In the UK, prices are advertised against the benchmark cost “from a BT Landline”; however, they may vary by CSP. PRS number ranges are split as follows:

<i>Number range(s)</i>	<i>Use</i>	<i>Details</i>	<i>Price range (per minute, connection)²⁴</i>
090/1	General (non-adult) services	Services include competitions, TV voting, horoscopes, chat lines, recorded information	GBP0.10-1.65 (USD0.15-2.50)
09059	Live, multi-party chat services	n/a	Up to GBP0.60 (USD0.90)
0908/9, 098	Adult entertainment services	n/a	GBP0.10-1.65 (USD0.15-2.50)
0871/2/3	General (non-adult) services	Some MNOs charge as much at GBP2.50 (USD3.85) per minute for calls to these	GBP0.05-0.12 (USD0.08-0.18)
070	Personal “follow me” numbers	Small businesses and sole traders use them to make it easy to manage calls. They can be confused with mobile numbers.	Up to GBP0.50 (USD0.77)
118	Directory enquiries	Six digit short codes ²⁵	GBP1.19, GBP0.50 ²⁶ (USD1.85, USD0.75); GBP0.42, GBP1.29 ²⁷ (USD0.65, USD2.00)

Figure 4.8: UK PRS voice call tariff chart²⁸ [Source: Analysys Mason, Ofcom, 2011]

Mobile pricing

Typically, services accessible via a fixed line are also available via mobile phone, but MNOs may apply a levy on top of the standard rate charged to 09x, 087x and 118xxx number ranges. In some cases there may be a conflict of interest which impacts pricing, e.g., an MNO may run its own DQ

²⁴ Costs will vary from mobiles (e.g. Everything Everywhere: 51.1p – 174p; O2: 50p - 200p; Vodafone: 50p - 200p; 3 UK: 71.5p – 225p)

²⁵ Services offered and charges will vary by operator

²⁶ Price from a BT landline

BT 118500 (UK, 2011), *BT 118500 Homepage*. Available at <http://www.bt118500.com/>

²⁷ Price from a BT landline,

The Number UK Limited (UK, 2011), *118118.com Homepage*. Available at <http://www.118.com/>

²⁸ Ofcom (London, UK, 2010), *Number crunching: - how much does a phone call really cost?*. Available at <http://consumers.ofcom.org.uk/files/2010/01/numbering.pdf>

service, and may decide to charge subscribers a higher price to call competing DQ services, in order to make the competitor service less attractive to its subscribers.

There are a number of short code services that are only accessible from mobile phones; these range from 50000 to 89999. The short codes are self-regulated by the four major UK mobile network operators through the *Short Codes Management Group*, which manages the availability of the short codes and approves guidelines related to services operated in each range:

Number range(s)	Use	Details	Price range (per message/per minute)
50000 – 59999	n/a	Reserved for future expansion	n/a
60000 – 68999	General	n/a	Open-ended fixed fee
69000 – 69999	Adult entertainment	Aimed at adults (18 years and over)	Open-ended fixed fee
70000 – 70999	Charitable organisations	Fees are waived partly or entirely by MNO	Open-ended fixed fee
71000 – 77999	n/a	Reserved for future expansion	n/a
78000 – 78999	Non-phone content	Payment facilities for content not delivered to the phone	Open-ended fixed fee
79000 – 79999	Non-phone adult entertainment	Payment facilities for adult content not delivered to the phone (18 years and over)	Open-ended fixed fee
80000 – 88999	General	n/a	Open-ended fixed fee
89000 – 89999	Adult entertainment	Aimed at adults (18 years and over)	Open-ended fixed fee

Figure 4.9: UK PRS mobile service tariff chart²⁹ [Source: Analysys Mason, 2011]

4.4.4 PRS market issues

Phone-in scandals

In 2007, there were a number of premium rate phone-in scandals. These centred on phone-in competitions and tele-voting services, whereby users were able to call service phone lines beyond the designated opening times, and whilst callers would be charged for this, their votes or competition entries were not counted

For a period after this, PRS became synonymous with scams, which led to a deep decline in their usage. Since then, market regulation has rebuilt a degree of confidence in the industry and usage has largely recovered. There is a general consensus that a balance must be met between enough regulation, to reassure and provide protection to members of the public, and too much regulation that may inhibit market growth and evolution.

²⁹ Shortcode Management Group (London, UK, 2006), *Code of Practice for common shortcodes*. Available at <http://www.short-codes.com/assets/Co-regulatoryCodeofPracticeforcommonshortcodes170206.pdf>

Subscription scandals and misleading pricing

Premium rate services in the UK have, in the past, been linked with subscription scandals, whereby users would generally believe they were buying a one-off item of content, only to find out that they had in fact signed up to a weekly or monthly subscription service.

In addition, market players have been known to use complicated pricing structures and excessive connection or per minute charges, meaning users may not be completely aware of how much they are being charged at the point of purchase.

To combat these problems, the PhonepayPlus Code of Practice requires providers to implement certain safeguards:

- **‘STOP’ command** – It provides instructions on the use of the ‘STOP’ command, whereby the consumer sends a message containing this phrase to the content provider should they wish to cease their subscription. Section 5.14 of the Code of Practice 11th Edition states that “*When a ‘STOP’ command has been sent, the service provider must make no further charge to the user for the service*³⁰.”
- **Complaints and refunds** – Information providers must provide official complaint and refund channels, and should the complaint be serious and guidelines are not followed, a PhonepayPlus Tribunal will step in to resolve the issue.

Inaccurate pricing

The PhonepayPlus *Code of Practice* states that “*Service providers must ensure that all users of premium rate services are fully informed, clearly and straightforwardly, of the cost of using a service prior to incurring any charge*”. The industry standard for displaying price information is to provide the price if accessed “from a BT landline”, or in the case of SMS services “at standard rates”. This can be misleading, as individual CSPs are at liberty to price access to these services as they see fit, and generally charge significantly more than the cost to access such services from a BT landline. A large proportion of UK fixed lines are non-BT. Further to this, mobile phones are increasingly the primary method of access for PRS, meaning displaying prices on the basis of BT landline access costs may be somewhat misleading (or irrelevant). This is exemplified in the following case study of misleading pricing for access to travel information from Transport for London (TfL).

TfL customers paying more to call customer information from their mobiles

A recent example in UK press highlighted the ‘premium’ customers have to pay to call the Transport for London helpline from a mobile; the number recently switched from being a geographic rate number (020) to a non-geographic number (0843). Depending

³⁰ PhonepayPlus (London, UK, 2008), *Code of Practice Eleventh Edition*. Available at http://www.phonepayplus.org.uk/upload/PhonepayPlus_Code_of_Practice.pdf. Twelfth Edition due to come into force 1 September 2011

on the subscriber's network, callers may be charged upwards of 41p per minute³¹, compared with the Tfl advertised rate of 5p per minute³² when calling the new 0843 number. Calls to the former 020 number would most likely be included in a mobile subscriber's call allowance, meaning the call would at best be 'cheaper' when from a landline, or in most cases 'free' at the point of calling.

Refunds

In the case that a user requires a refund e.g. if charge is made and a service is not provided, it is the responsibility of the content provider to reimburse the *entire* amount charged. There are examples of mobile operators charging levies of up to GBP2.00 (USD3.08) per minute more than the cost from a BT landline, meaning there may be a huge discrepancy in the revenue an information provider receives to the supply the service and the amount it must recompense.

Criminal scams

Criminal gangs have used PRS scams to profit from the end consumer and the CSPs:

- Users may receive a missed call from - or are in some other fashion tricked into calling - a PRS number when in fact a true PRS service does not exist³³
- Criminals may set up a PRS number and call it themselves using stolen/cloned SIM cards, or phones bought on false identification, and not pay the bill. One recent study carried out by revenue assurance firm BillingScore estimates the annual cost of this and other similar scams to UK industry to be GBP136 million³⁴
- There have been a number of examples of members of the public receiving cards through their letterboxes indicating that they have missed a package delivery (when in fact no such delivery was attempted), prompting them to call an '09' premium rate line. The Tribunal found this to be misleading, since there was no real package requiring delivery. A formal reprimand and a fine of GBP5 000³⁵ (USD7 700) were imposed on the individual responsible.

4.4.5 PRS complaints and compensation

In the case that a consumer has a grievance or complaint with regard to a purchased premium rate service, the *Code of Practice* outlines the need for companies that provides premium rate services

³¹ T-Mobile UK Ltd (UK, 2011), *What it costs*. Available at http://support.t-mobile.co.uk/resources/sites/TMOBILE/content/live/DOCUMENTS/0/DO265/en_GB/36014491_Flex_plans.Pdf

³² The Tfl website states: "You pay no more than 5p per minute if calling from a BT landline. There may be a connection charge. Charges from mobiles or other landline providers may vary." Available at <http://www.tfl.gov.uk/contact/13879.aspx>

³³ Office of Fair Trading, (London, UK, 2011), *Premium rate scams*. Available at <http://www.oft.gov.uk/business-advice/protect-your-business-from-scams/types/fax>

³⁴ Total Telecom (UK, 2011), *UK mobile operators 'hide' £136m annual fraud loss*. Available at <http://www.totaltele.com/view.aspx?C=0&ID=463686>

³⁵ PhonepayPlus (London, UK, 2011), *Recent adjudications*. Available at <http://www.phonepayplus.org.uk/output/Recent-adjudications-1.aspx>

to “*have in place adequate customer service and refund mechanisms*”³⁶. Part of these obligations includes having “*a non-premium rate UK customer service phone number in order to enable service providers to discharge their obligations under the Code*”³⁶.

If there is evidence to suggest there has been a more serious breach of Code, a Tribunal will determine whether or not this has been the case, and following an affirmative outcome PhonepayPlus has the power to apply a number of sanctions to the offending party, including extensive powers to “*fine companies, bar access to services and order refunds*”³⁶. It is the responsibility of the information provider to refund the full amount paid by the end-user, even if the network operator has applied a levy on top of the standard price.

PhonepayPlus also has the power to prevent an individual from running a premium rate service through any company for a pre-determined period of time.

As outlined in PhonepayPlus’ published figures, there were 6,062³⁷ complaints made in 2010; this represents a reduction of 57%³⁸ from the 14,119 complaints received in 2009. The reasons for complaints in 2010 were split between Operation of Service (66%), Promotion of Service (17%) and Other (18%). The majority of complaints were with regard to the mobile sector (5 015, 83%) followed by landline complaints (910, 17%).

4.5 Evolution of PRS in the UK

4.5.1 Areas of growth and decline in the PRS market

Many PRS service areas have very low barriers to entry (e.g. adult entertainment, information services, tarot /astrology) which has created an influx of new entrants in the UK market in recent years. This has increased levels of competition, and in some cases saturated markets and reduced operating margins, making it less attractive for investment.

There has been a long term decline in certain service areas (e.g. directory enquiry services, mobile personalisation, information services) which have been largely driven by the increased availability of alternative free sources of content. This in turn has been driven, in particular, by the huge growth in smartphones penetration, providing consumers with ‘on-the-go’ access to the mobile internet. In addition, certain service areas (e.g. mobile personalisation) were hit by subscription scandals from which some industry stakeholders believe they have never recovered.

Some service areas are providing relatively stable revenue streams (e.g. adult entertainment, information services), but with limited potential for growth. However, growth is seen in certain

³⁶ PhonepayPlus (London, UK, 2008), *Code of Practice Eleventh Edition*. Available at http://www.phonepayplus.org.uk/upload/PhonepayPlus_Code_of_Practice.pdf. Twelfth Edition due to come into force 1 September 2011

³⁷ PhonepayPlus (London, UK, 2011), *2010 data: PhonepayPlus Quarterly Operational Report 2010/2011 Quarter 3*. Available at http://www.phonepayplus.org.uk/upload/2011_Quarterly_Report_2010_2011_Q3.pdf

³⁸ PhonepayPlus (London, UK, 2010), *PhonepayPlus Quarterly Operational Report 2009/2010 Quarter 3*. Available at <http://www.phonepayplus.org.uk/upload/QuarterlyReport2009-2010Q3.pdf>

more nascent areas that are either innovative service propositions or increase convenience to the end user (e.g. virtual gifts, charity donations).

Alternative mobile payment options are emerging which are all competing with traditional PRS services in this space, the majority of which bypass direct operator billing mechanisms.

Alternative payment mechanisms from mobile devices

A number of competing payment mechanisms have emerged that are encroaching on the PRS payment space.

- **Online billing systems** (e.g. PayPal, iTunes), that indirectly make use of credit/debit cards, but are increasingly accessible payment mechanisms to mobile users
- **Payforit**, an payment mechanisms set up jointly by the major UK mobile operators has been joined by a number of third-party specialist mobile payment providers -- including **Zong**, **Boku** ('Paymo') and **Alopass** -- offer micropayment billing via the mobile phone bill. All three cater for the youth demographic, targeting users who don't have bank accounts or credit cards but want to complete micropayments on the mobile.

Apps/in-app payments

Mobile applications have shot to prominence over the past two years and have raised the profile and increased accessibility of many forms of digital content that may have been overlooked by individuals in the past. This has also had the effect of shifting attentions from traditional PRS services to towards these new services, the majority of which do not rely on PRS payment mechanisms (e.g. payments to iTunes are charged indirectly to credit/debit cards).

Free alternative sources of information/entertainment.

With the coming of age of the smartphone and the huge growth in penetration seen in the UK market, the knowledge base of the internet is available to an ever increased proportion of the market. This in turn is decreasing reliance on traditional PRS service offerings and shifting demand to free and at times more convenient services:

- **Directory enquiries** – previously a monopoly PRS service, subject to market liberalisation is now facing competition from a simple Google search, free mobile internet listings or maps services
- **Mobile personalisation** – ringtones and wallpapers, once a huge industry and now competing with free images from the internet or self-produced images
- **Information services** – previously offered simple and instant access to personalised information, must now compete with mobile/desktop Google searches or other forms of social information (e.g. Twitter).

- **Video/audio entertainment** – whilst never a huge part of the market, video and audio entertainment must now compete with user-generated content (e.g. YouTube) and high quality offerings from global content producers

Whilst there is an increasing shift away from what could be classed as traditional PRS services, the PRS market are still provide significant revenue opportunities. In addition, many of these new services are from the consumer point of view, similar in nature to phone-bill services, so it may be beneficial for the PRS regulator to regulate all or some of these services. However, difficulties may arise when it comes to global payment offerings based in other countries which may prove difficult to control.

4.5.2 Evolution of PRS regulation

The UK PRS regulator has recently published the 12th Edition of the *Code of Practice*, which aims to ensure that regulation will be suitable for needs of the ever changing PRS market. The regulator acknowledges that for a long time the market remained very stable, with little change in terms of service offerings from year to year. However, with the advent of smartphones, this has all changed, and although mobile entertainment is booming, payment of mobile content is moving away from premium SMS and towards direct billing (e.g. credit card payments).

On the fixed side, there will come a day when the proportion of PRS calls made through VoIP applications (e.g. Skype or other methods) will reach a significant level – however, this is unlikely to be in the next 1-2 years – and there is uncertainty over the regulation of such premium voice services. Since these services would sit outside of the traditional PSTN network, content providers may decide to operate from outside the UK and simply adhere to potentially more lenient PRS rules of that territory.

Importantly, with the market evolving so fast, the regulator must remain agile. Facebook for example is “monetising mobile” in new and innovative ways and it is unknown how this and other new services will develop. This means the regulator must constantly adapt with the market in order to continue to effectively protect consumers.

Since the publication of the 12th Edition of the *Code of practice*, there have been a number of ‘Notices to Industry’ as well as a the announcement of a consultation by Ofcom on the redefinition of PRS Condition which defines the providers who must comply with directions made by PhonepayPlus.

- Following a recent adjudication relating to ‘Underage Fantasy Stories’, the *Notice to Industry*³⁹ dated 9 May 2011 sought to confirm the restriction on content “that contains references which suggest or imply the involvement of persons under 18 years of age”. In the 11th Edition of the *Code of Practice* this is stated specifically in paragraph 7.11.2 of the Code:

³⁹ PhonepayPlus (London, UK, 2011), *Notice to Industry: ‘Underage Fantasy Stories’ sexual entertainment services*. Available at <http://www.phonepayplus.org.uk/News-And-Events/News/2011/5/Notice-to-Industry-Underage-Fantasy-Stories-sexual-entertainment-services.aspx>

“7.11.2 Sexual entertainment services, and promotions for them, must not contain references which suggest or imply the involvement of persons under 18 years of age.”⁴⁰

The 12th Edition of the *Code of Practice*, more generally states in in paragraph 2.5.1:

“2.5.1 Premium rate services must not cause or be likely to cause harm or unreasonable offence to consumers or to the general public.

However, the PhonepayPlus Notice to Industry has confirmed that any content such as ‘underage fantasy’ content would be “high likely to breach Rule 2.5.1, making such content subject to formal investigation.

- **Ofcom has launched a consultation** on the proposed changes to the ‘PRS Condition’ which “defines who must comply with direction made by PhonepayPlus”⁴¹. This widens the scope of the Code to hold all Controlled PRS providers responsible for actions that are within their control, i.e. to extend PhonepayPlus’ powers to beyond the reach of Ofcom’s backstop powers. It is hoped this will allow PhonepayPlus to collect fines where, on occasion, it has been unable to in the past.

⁴⁰ PhonepayPlus (London, UK, 2008), *Code of Practice Eleventh Edition*. Available at http://www.phonepayplus.org.uk/For-Business/Code-and-Help/~/_media/Files/PhonepayPlus/Consumer/PhonepayPlus_Code_of_Practice.pdf

⁴¹ PhonepayPlus (London, UK, 2011), *Ofcom publishes consultation on amending the PRS Condition*. Available at <http://www.phonepayplus.org.uk/News-And-Events/News/2011/5/Ofcom-publishes-consultation-on-amending-the-PRS-Condition.aspx>

5 France

- France has a high average per capita PRS revenue level of EUR31.7 (USD42.3) per annum. The scope of PRS is also broader than in many of the other benchmark countries, including telephony and data services, premium SMS/MMS and DQ services.
- There is no single entity responsible for overseeing fixed and mobile PRS in France. The telecoms regulator ARCEP is primarily responsible for drafting and ensuring the application of regulations related to premium voice services.
- On the mobile side, two industry associations – the French Association of Mobile Multimedia (AFMM) and the French Association of Mobile Operators (AFOM) – help promote mobile-based premium services and the sharing of best practice.
- The PRS market is in decline due, in part, to new regulation (notably the ‘Châtel’ Act), which came into force on 1 June 2008, and requires operators and service providers not to use premium numbers for after-sales services, customer support and helpdesks. Other factors include a reduction in the average length of PRS calls originated from fixed subscribers.
- ARCEP has supported self-regulation of the PRS market; it is, however, now reviewing the option of formulating an industry-wide Code of Conduct, introducing a clearer labelling scheme, and establishing rules for fraud prevention and a compensation scheme for victims of PRS scams.

5.1 Country snapshot

Population	62.9 million
GDP per capita	USD33 750
Fixed telephony penetration (lines/popn)	64%
Mobile telephony penetration	95.1%
Size of PRS market	EUR1.996 billion (USD 2.661 billion) (including DQ)
PRS revenue per capita	EUR31.7 (USD42.3)

Figure 5.1: France: market overview [Source: Analysys Mason, EIU, company reports, 2011]

5.2 Definition of PRS

PRS are defined by the telecoms regulator ARCEP as follows:⁴²

Special services or value-added services (VAS⁴³) that are charged at a premium, and accessible with 10-digit numbers starting with 08, or with short four-digit numbers starting with 3 or 1.

ARCEP includes *voice and information services* as well as *data services* when reporting the total revenue generated by operators from value-added services. Data VAS are defined as:

Premium-rate messages that contain data

Value added voice and information services ('voix et télématique') can be accessed from fixed and mobile lines and are grouped into three categories:

- **10-digit numbers starting with 0810 or 0811.** The cost of the call is split between the caller and owner of the number (typically the service provider). Calls from a mobile phone or a VoIP line incur additional costs compared to when they are made from a fixed line, and that will depend on the provider. The incumbent operator France Telecom was first to introduce these numbers, which it branded *Numéro Azur*. Other operators can also provide numbers in the same range and with the same tariff, without using this label. Starting from 1 January 2010, calls to 081 numbers were included in mobile minute bundles. Setting up a call to an Azur number will not incur a connection charge, while the call itself will be charged at EUR0.11 per minute.
- **10-digit numbers starting with 0820, 0821, 0825 and 0826.** These numbers are moderately priced (from about EUR0.03 to EUR0.15/minute) and the cost of the call is fully charged to the caller, and not to the company that provides the number. This number is known under the *Numéro Indigo* brand. As with *Numéro Azur*, operators can provide these numbers but cannot use the Indigo label, which is reserved for numbers supplied by France Telecom.
- **10-digit numbers starting with 088 or 089.** These may incur a fixed charge, time-based charge or a mixed of the two charging methods. France Telecom advertises these numbers as *Audiotel* services. Since 2006, these numbers have also been provided by alternative operators.
- **3BPQ and 10YT**, which are special 4-digit numbers which governed by the same billing rules as those applied to any 08xx number.

Directory enquiries (DQ) are accessed by dialling a number in the format 118xxx. Call charges vary between operators. A number of operators and service providers have been accredited by

⁴² ARCEP, *Clarification de la tarification et du périmètre des services téléphoniques à valeur ajoutée (SVA)*. Available at : http://www.arcep.fr/index.php?id=8571&tx_gsactualite_pi1%5buid%5d=1237&tx_gsactualite_pi1%5bann%5d=&tx_gsactualite_pi1%5btheme%5d=&tx_gsactualite_pi1%5bmotscl%5d=&tx_gsactualite_pi1%5bbackID%5d=26&cHash=f6fdbcb9904

⁴³ In the context of France's country profile, 'VAS' is used interchangeably with 'PRS'.

ARCEP to provide these services. ARCEP has also set up a website to monitor the evolution of DQ charges, both from fixed and mobile phones, with a list of service providers and corresponding website⁴⁴. ARCEP reports revenues generated by operators from DQ and short four-digit numbers starting with 3 separately from those generated by VAS.

The French Association of Mobile Multimedia ('Association Française du Multimédia Mobile' or AFMM), which includes the main mobile operators and service providers, is responsible for the promotion of premium messaging services. These services, which are commercially known as SMS+ and MMS+, allow service providers to offer premium data services through SMS and MMS using a short 5-digit code prefixed with a digit between 5 and 8.

5.3 PRS market structure and characteristics

Market size

The French PRS market was worth EUR1.964 billion⁴⁵ (USD2.618 billion) in 2010. This figure includes revenues from premium voice, information services, data services, portals, chatlines, and services including weather forecasts, games, quizzes and ringtones, and DQ.

Despite its population, the French PRS market is in decline: revenues in 2010 were 25% less than in 2007 (see Figure 5.2). This decline can be attributed to two main factors:

- The introduction of regulations in June 2008 prohibiting communications providers from using premium rate numbers for after-sales support or to report a complaint.
- From 1 January 2010, calls to some premium numbers, such as 081 numbers, were included in the user's mobile call allowance.

⁴⁴ www.appel118.fr

⁴⁵ ARCEP, *Observatoire trimestriel des marchés des communications électroniques en France – 4ème trimestre 2010 - résultats définitifs*. Available at <http://www.arcep.fr/index.php?id=36>. All market size data for France from this source unless stated otherwise.

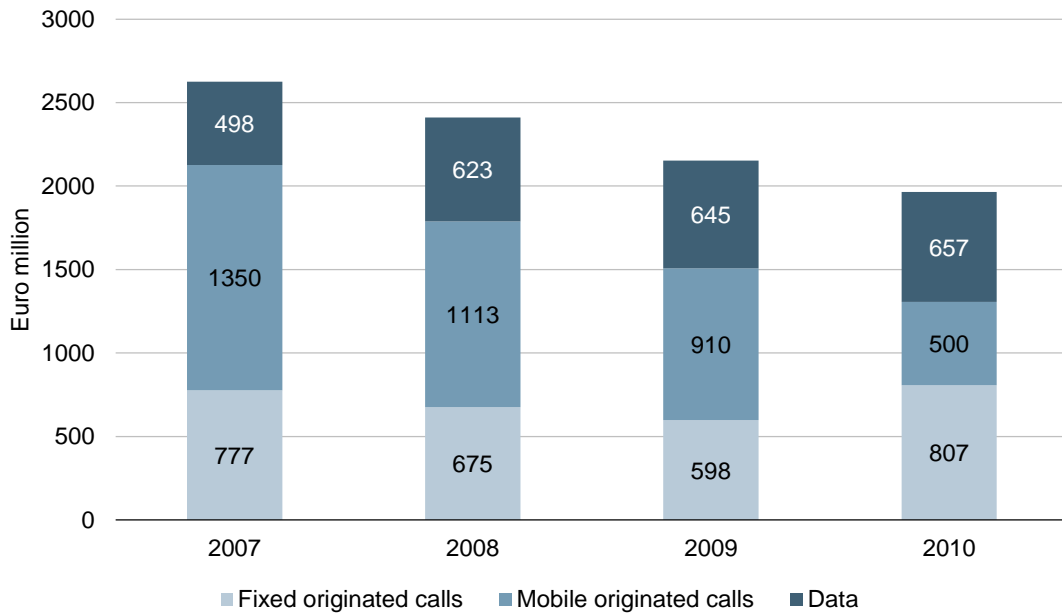


Figure 5.2: France: Total PRS market [Source: Analysys Mason, ARCEP, 2011]

VAS market for voice and telematics reached EUR500 million (USD666.7 million) for 4Q 2010, an 8.5% drop from 4Q 2009. During 4Q 2010 there were 976 million VAS calls, equivalent to 2.3 billion minutes, 90% of which originated from fixed lines. At the same time, revenues generated from value-added data services (e.g. SMS+, MMS+) increased for four consecutive quarter, and represent more than the third of total revenue for VAS. (see Figure 5.3)

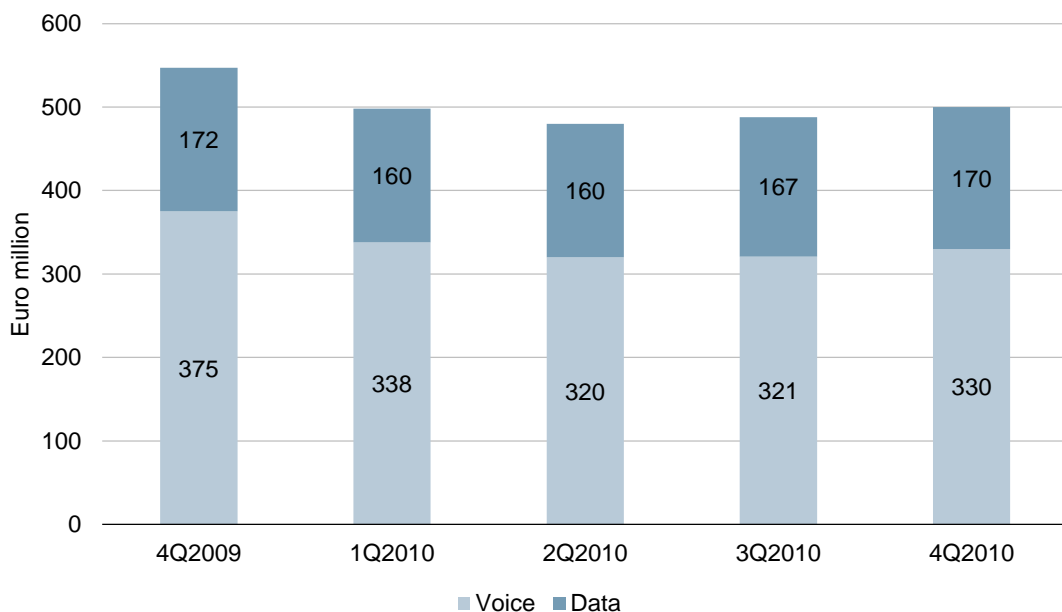


Figure 5.3: France: VAS voice and data revenues (4Q 2009 – 4Q2010) [Source: Analysys Masons, ARCEP, 2011]

Directory services market size

Revenues from DQ services are relatively stable. The French DQ market was worth EUR32 million (USD42.7 million) in 4Q 2010, up 17.9 % from EUR39 million (USD52 million) in 4Q 2009. However, the volume of DQ calls is decreasing, mainly due to the increasing availability of free alternative online services. There were 20 million calls to DQ in 4Q 2010, which corresponds to 46 million minutes. 70% of DQ calls now originate from mobile phones.

5.3.2 Communication service providers

France is the second-largest country in Western Europe after Germany in terms of both population and telecoms spend. The main players are the incumbent, France Telecom (Orange), SFR (which merged with Neuf Cegetel in 2008), Bouygues Telecom and Iliad (Free). All of them are integrated operators with fixed and mobile operations, although Iliad has yet to launch its mobile services. Iliad was awarded a 3G licence in January 2010, but has not launched mobile operations. The market also has one cable company, Numericable-Completel.

Fixed line operators

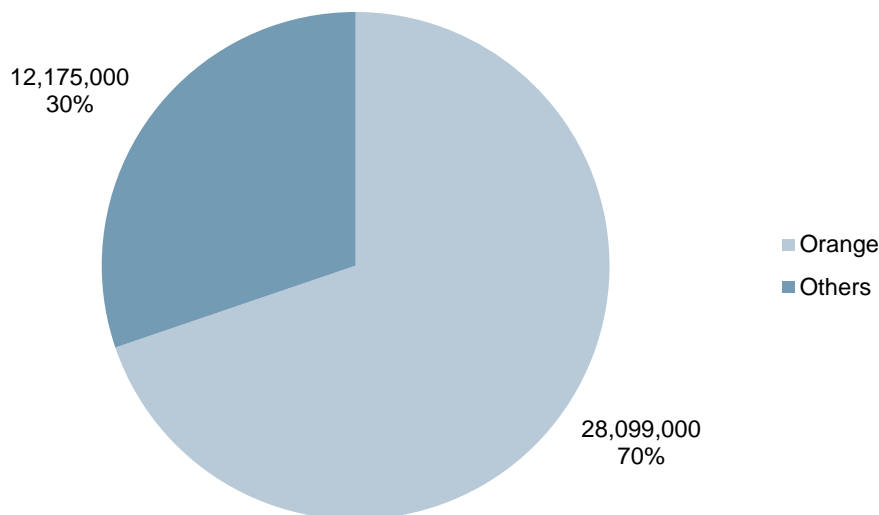


Figure 5.4: France: Fixed operators [Source: Analysys Mason, 2010]

- **France Telecom (Orange)** is the incumbent telecoms provider in France. It was the first operator to offer PRS, under the brand names *Numéro Azur* and *Numéro Indigo*.
- **Other operators** include Iliad, Numericable and SFR, which provide broadband, cable and IPTV services.

Mobile operators

There are three mobile network operators in France:

- **Orange**, a subsidiary of France Telecom, is the largest mobile operator
- **SFR**, the second mobile operator in the country, also has operations in fixed broadband (with Neuf Cegetel)
- **Bouygues** is the smallest of the three operators.

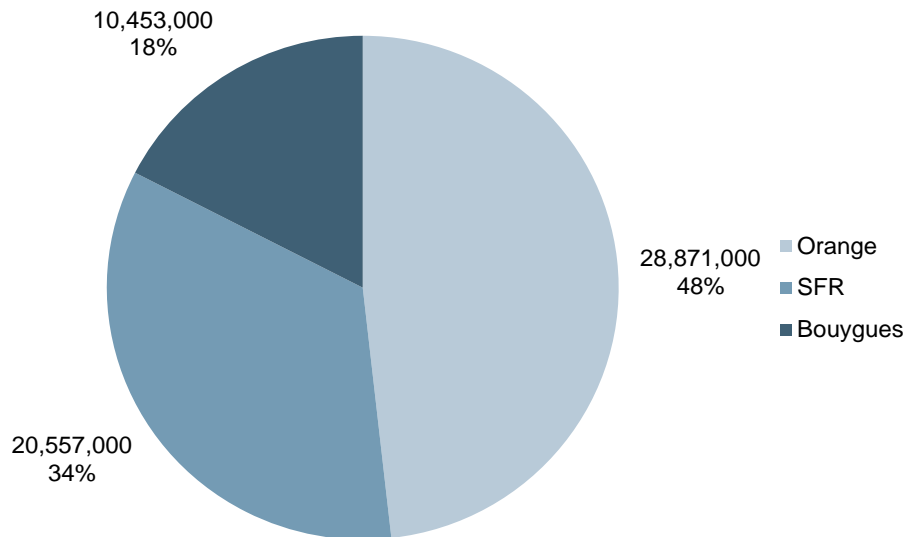


Figure 5.5: France: Mobile operators [Source: Analysys Mason, 2010]

5.4 Regulatory framework

5.4.1 Introduction

In France, PRS services are governed by a mixture of regulations and Codes of Conduct issued by the regulator ARCEP, as well as recommendations issued by industry-led associations and consumer protection groups. The primary regulator is the **Authority of Regulation of Electronic Communication and Postal Services** ('Autorité de régulation des communications électroniques et des postes' or **ARCEP**). ARCEP ensures fair competition between the various players in telecoms sector and safeguards consumer interests. It also sets regulations and recommendations in the telecoms market, and has power to impose sanctions and to intervene to resolve conflicts. It regularly undertakes consultations with the different stakeholders in the PRS market to identify areas of development, and monitors the evolution of the market in terms of revenues, traffic and regulatory requirements. To the maximum extent possible, ARCEP leaves the market to self-regulate. However, it will intervene where disputes arise or complaints are reported by customers and no agreements are reached.

ARCEP's work is endorsed by other public bodies, and is supported by the work of other industry and consumer associations:

- The **French Association of Mobile Multimedia** ('Association Française du Multimédia Mobile' or **AFMM**) represents the main French mobile operators and other players in the digital industry. It was established in 2005 by Bouygues Telecom, Orange France, SFR, GESTE⁴⁶ and ACSE⁴⁷. The association regulates premium SMS and MMS (SMS+, MMS+), as well as mobile micro-payment and video-based customer support service (Vision+). It does this, for example, by developing a code of ethics, and issuing guidelines to support the fight against spam.
- The **French Association of Mobile Operators** ('Association Française des Opérateurs Mobiles' or **AFOM**) aims to propagate ethical rules related to illegal, sensitive or offensive content on mobile networks. For example, it seeks to ensure parents have control over what is accessible from their children's mobile phones. As of January 2011, AFOM is part of the **French Telecoms Federation** ('Fédération Française des Télécoms' or **FFT**) which aims to protect industry and consumer interests by ensuring the development of favourable legislation.
- The **Association of the Digital Economy** ('Association de l'économie numérique' or **ACSEL**) contributes to public consultations with recommendations that are pertinent to the legislation of the digital economy.

In summary, whereas ARCEP is primarily responsible for drafting and ensuring the application of regulations for premium *voice* services, AFMM and AFOM focus on the promotion of *mobile*-based premium services and sharing of best practice among operators and service providers. Figure 13.4 shows the main bodies that have worked in developing the regulatory framework for PRS.

Name	Type of Organisation	Remit
Authority of Regulation of Electronic Communication and Postal Services (Autorité de régulation des communications électroniques et des postes' or ARCEP)	Independent telecoms regulator	Regulation of telephony and telematics value-added services on fixed and mobile networks
French Association of Mobile Multimedia ('Association Française du Multimédia Mobile' or AFMM)	Industry association	Representing main French mobile operators and other associations in the digital industry; promotes the of mobile premium services and helps put in place conditions for their development (e.g. code of ethics, fight against spam)
French Association of Mobile Operators ('Association Française des Opérateurs Mobiles' or AFOM)	Industry association	Control over the accessibility of services on mobile phones

⁴⁶ Groupement des éditeurs de services en ligne (<http://www.geste.fr>) is an association with 104 members which aims to "create the economic, legislative and competitive conditions essential for the development of electronic services and publishing"

⁴⁷ Agence nationale pour la cohésion sociale et l'égalité des chances (<http://www.lacse.fr/>) is a public body that "contributes to measures in favour of people experiencing difficulties in social or professional integration"

French Telecoms Federation ('Fédération Française des Télécoms')	Industry Association	Protect industry and consumer interests by ensuring the development of favourable legislation
L'Association de L'économie Numérique (ACSEL)	Industry Association	Contribute to public consultation with recommendations that are pertinent to the legislation of the digital economy

Figure 5.6: French regulatory and industry bodies [Source: Analysys Mason, 2011]

The government, ARCEP and the industry associations have issued a number of regulations and code of conducts over the last few years, as listed in Figure 14.6.

Type	Document	Comment
Legislation	ARCEP - Clarification of the pricing and scope of value-added telephone services – Mars 2010	Conclusion of public consultation on the pricing of value-added telephone services
Industry code	AFMM– Charter of Ethics 2011	Code of Conduct specific to mobile premium data services
Industry code	AFOM – Code of Ethics 2006	Code of Conduct specific to the accessibility of mobile services
Legislation	Government – Loi Châtel – article L. 121-84-5: 2008	Regulation specific to the use of premium services for customer support

Figure 5.7: France: Regulation and legal documents (click on links to access documents) [Source: Analysys Mason, 2011]

Premium voice

Previously, a controversial issue was the use of premium-rate numbers for customer services. Various pieces of legislation have since been passed prohibiting their use. The government introduced the *Châtel Act* ('Loi Châtel'), which came into force on 1 June 2008, and requires operators and service providers to use non-geographic, fixed, non-premium numbers for after-sales services, customer support and helpdesks. The Châtel Act was complemented by the *Law of Modernisation of the Economy* ('Loi de Modernisation de l'Economie' or LME), which came into force on 1 January 2009 and includes the same requirement. However, ARCEP notes that a few operators still do not fully comply with the terms of the Châtel Act and that they continue to use premium numbers⁴⁸.

To increase the transparency of pricing, legislation has been introduced requiring service providers to supply service users with tariff information at the start of the call. Based on ARCEP's ordinance

⁴⁸ ARCEP, *Améliorer les offres faites aux consommateurs de services de communications électroniques et postaux - Propositions et recommandations*. Available at http://www.arcep.fr/uploads/tx_gspublication/propositions-consommateurs-180211.pdf

on tariff information of VAS, which came into force in January 2010⁴⁹, service providers have to provide consumers with tariff information at the start of all calls that exceed EUR0.15 per minute or per call from a fixed line. This measure was subsequently extended in January 2011 to include calls to all VAS numbers. Note that calls to directory services (118) are exempt from the ordinance.

For mobile originated services, if an operator charges extra to access to VAS, only the price premium for calling from a mobile device rather than a fixed line is specified at the beginning of the call. To aid transparency, operators have jointly set-up an IVR (interactive voice response) service, required under law by ARCEP⁵⁰, which is accessible free of charge by dialling a four-digit shortcode ('3008'). This provides the total cost of the call depending on the tariff which the consumer is subscribed to. The only inconvenience is that consumers need to call that number to get information, instead of getting it while on their main call.

Premium messaging

As stated above, the French Association of Mobile Multimedia (AFMM) regulates premium SMS and MMS. These services are categorised as value added services, but are not covered under the current ARCEP regulatory framework⁵¹. AFMM has defined three categories of SMS+ and MMS+:

- *Category 1* allows consumers to obtain content or participate to an event. In response to an SMS issued by a customer, the service provider sends or more SMS to the same customer.
- *Category 2* allows a client to exchange text messages indirectly with other users identified and registered to the service. The service provider then systematically sends one or more SMS to one or more registered users of the service.
- *Category 4* includes two types of services: the subscribed option which involves the reception of SMS at a frequency determined and known in advance to the consumer; or SMS notifications at an irregular frequency, based on an event, emails, instant messaging, etc.

According to the AFMM's *Charter of Ethics*, "the Service provider agrees to inform Users by any suitable method, the price of the Service and its main features clearly and unequivocally prior to the first exchange"⁵². For instance, if a user accesses a music service, the service provider should provide price information about the headline price of the service, as well as information on possible additional data charges.

⁴⁹ ARCEP, *Dossier relatif à l'information sur les prix des appels téléphoniques vers les services à valeur ajoutée (08,...)*. Available at <http://www.arcep.fr/fileadmin/reprise/dossiers/sva/dossier-sva-110609.pdf>

⁵⁰ ARCEP, *Décision fixant la liste des numéros à fonctionnalités banalisées - Décision n° 2010-0629 en date du 3 juin 2010*. Available at http://www.arcep.fr/uploads/tx_gsavis/10-0629.pdf

⁵¹ There is no plan to expand the regulations of value added services to the mobile segment, but ARCEP does not exclude the possibility of getting involved in the future

⁵² AFMM, *ANNEXE 1 – RECOMMANDATIONS DEONTOLOGIQUES APPLICABLES AUX SERVICES SMS+/MMS+*. Available at <http://www.afmm.fr/img/Solutions/SMS%20-%20MMS/doc%20a%20telecharger/Charte%20de%20deontologie%20SMSPlus%20-%20janvier%202011.pdf>

Also, mobile PRS providers should not make available content that:

- undermines human dignity, equality between man and woman or the protection of children and minors
- encourages crime, suicide or the consumption of prohibited substances
- incites hatred or violence
- is deemed illegal by the law regulating mobile multimedia content.

Services to minors should not contain advertisement, which show in a positive light behaviour that is reprehensible, or which encourage minors to consult other PRS services, or to use more of the services. Access to adult content is subject to an age verification administered by the mobile operator or MVNO. Finally, service providers should not advertise lottery games.

► *Access to sensitive content on mobile phones*

In 2006, the French Association of Mobile Operators (AFOM) set up a *Code of Conduct* to uphold ethical rules related to illegal, sensitive or offensive content on mobile networks. The association is committed to providing parental control over what is accessible from children's mobile phones. Member operators pledge to prohibit any offers for adult content on their respective portals, if the age of the subscriber has not been verified beforehand.

► *Unsolicited marketing messages*

The Mobile Marketing Association France (MMAF), the local industry council for mobile marketing professionals, recommends through its *Code of Conduct*⁵³, that consumers should be enabled to stop receiving mobile marketing messages, by texting "STOP" or by any other means.

Independently, the state French Secretary of Consumption announced in June 2009, that there is plan to create a 'barred list', which consumers can sign-up to, to be excluded from non-solicited commercial calls. Member companies of a number of key French industry associations have committed to respect this list, including the French Federation of Telecoms and French Association of Customer Relations⁵⁴.

Tariff structure

Fixed line PRS pricing

Details of premium rate telephony and information services are listed in Figure 5.8:

⁵³ MMAF, Code de déontologie de la mobile marketing association France. Available at http://www.mmaf.fr/sites/default/files/CP/Code%20MMA%20France_VF.pdf:

⁵⁴ French Government web portal, *Le numéro d'alerte contre les spams SMS est étendu aux spams vocaux*. Available at <http://www.gouvernement.fr/gouvernement/le-numero-d-alerte-contre-les-spams-sms-est-etendu-aux-spams-vocaux>

Number range(s)	Number type	Price range (per minute, connection)
0810, 0811	Voice and information (e.g. Azur)	EUR0.078/call + EUR0.028/minute (peak time)
0820, 0821	Voice and information (e.g. Indigo)	EUR0.12/minute
0825, 0826	Voice and information (e.g. Indigo)	EUR0.15/minute
0844, 0890	Voice and information (e.g. Audiotel)	EUR0.15/minute
0891	Voice and information (e.g. Audiotel)	EUR0.0.22/minute
0892	Voice and information (e.g. Audiotel)	EUR0.34/minute
0897	Voice and information (e.g. Audiotel)	EUR0.56/minute
0899	Voice and information (e.g. Audiotel)	EUR1.35/call + EUR0.34/minute
118 XYZ	Directory enquiries	Flexible pricing
32PQ, 36PQ, 39PQ	Voice and information short number	Flexible pricing

Figure 5.8: France: PRS voice call tariffs [Source: Analysys Mason, ARCEP, 2011]

Mobile pricing

There are potentially significant price differences between calls to PRS from fixed and mobile devices. Mobile operators apply an extra charge (“airtime”) set by the mobile operator, on top of the retail charge applied to calls from fixed networks. The “airtime” value depends on the tariff to which the user is subscribed to. The base cost for all premium rate numbers (with the exception of Azur, directory enquiries and shortcodes) is not included in the inclusive allowance of mobile packages (see Figure 5.9).

Premium SMS and MMS (SMS+, MMS+) can be offered on a pay-as-you-go basis (“SMS+ classique”) or on subscription basis (“SMS+ MT premium”). Figure 5.10 shows the pricing tiers for SMS+ and MMS+, excluding the base cost of sending an SMS/MMS. Applicable tariffs may differ depending on the mobile package subscribed to.

Number range(s)	Number Type	Price range (per message/per minute)
0810, 0811	Voice and information (e.g. Azur)	Inclusive allowance + EUR0.078/call + EUR0.028/min (peak time)
0820, 0821	Voice and information (e.g. Indigo)	Non-inclusive allowance + EUR0.12/min
0825, 0826	Voice and information (e.g. Indigo)	Non-inclusive allowance + EUR0.15/min
0884, 0890	Voice and information (e.g. Audiotel)	Non-inclusive allowance + EUR0.15/min
0891	Voice and information (e.g. Audiotel)	Non-inclusive allowance + EUR0.22/min
0892	Voice and information (e.g. Audiotel)	Non-inclusive allowance + EUR0.34/min
0897	Voice and information (e.g. Audiotel)	Non-inclusive allowance + EUR0.56/call
0899	Voice and information (e.g. Audiotel)	Non-inclusive allowance + EUR0.35/call + EUR0.34/min
118 XYZ	Directory enquiries	Inclusive allowance + flexible pricing
32PQ, 36PQ, 39PQ	Voice and information short number	Inclusive allowance + flexible pricing

Figure 5.9: France: Mobile voice and telematics PRS service tariffs [Source: Analysys Mason, 2011]

Prefix	Number starting with	Maximum price (all taxes included)	Type of service	Intermediary prices (all taxes included)
3	3xxxx	EUR0.00	SMS+ classique	-
4	4xxxx	EUR0.05	SMS+ classique	-
5	5xxxx	EUR0.20	SMS+ classique	EUR0.10 – EUR0.20
5	58xxx	EUR0.20	SMS+ MT premium	-
6	6xxxx	EUR0.35	SMS+ classique	-
6	68xxx	EUR0.35	SMS+ MT premium	-
7	7xxxx	EUR0.5	SMS+ classique	-
7	78xxx	EUR0.5	SMS+ MT premium	-
8*	8xxxx	EUR4.5	SMS+ classique	EUR1.00 – EUR1.50 - EUR2.00 – EUR3.00 – EUR4.50
8**	8xxxx	EUR3.00	SMS+ classique	EUR1.00 – EUR 1.50 - EUR2.00 – EUR3.00
8	88xxx	EUR3.00	SMS+ MT premium	EUR1.00 – EUR 1.50 - EUR2.00 – EUR3.00

Figure 5.10: France: PRS pricing for premium SMS and MMS [Source: Analysys Mason, AFMM, 2011].
*: downloading of mobile java games or videos; ** other authorised services

5.4.2 PRS market issues

Introduction

Pricing models of PRS in France have been handed-down from those designed by the incumbent France Telecom while it still held a monopoly over telecoms services, and have been slow to match the new requirements of alternative fixed operators and mobile service providers. Initially, this transition caused growing customer dissatisfaction with the services due to the lack of transparency in tariffs as well the absence of a Code of Conduct to protect customers against abuse, primarily for fixed telephony services.

In 2008, ARCEP commissioned a consultation by the General Council of Information Technology⁵⁵, with various players in the PRS value chain to analyse the reasons for the customer dissatisfaction and try to improve consumer trust in PRS. The report confirmed that the out-dated tariffing scheme cannot be applied in practice, because of the emergence of new business models in mobile and alternative fixed telephony markets (e.g. VoIP).

Furthermore, according to a study commissioned in 2009 by ARCEP, there is a large gap between the perceived cost and the actual cost of a PRS call: consumers believed PRS calls cost more than they actually did. A consumer survey identified that users thought that the cost for a PRS call was around EUR2.6 per call, whilst the average cost is around EUR0.26 per call from a fixed line and EUR1.20 per call from mobile⁵⁶.

Use of PRS in the public sector

ARCEP has highlighted issues regarding the use of PRS to access public services, despite the fact that the 08 088 block has been reserved specifically to call these services for free⁵⁷. The French government restated the commitment for public service organisations to offer numbers charged at a national rate. Some services have adopted such measure, such as job centres: users can register as job seekers and request information on job vacancies by calling 3949 for free or for a maximum cost of EUR0.11 from a fixed line.

ARCEP has also reported that premium numbers (with prefix 0825) have been used by private hospitals and even few public hospitals to allow relatives and friends to call patients, but incur extra cost when calling mobile phones. To make the public service more accessible, the government has pledged to make call centres reachable for the cost of a national call.

Fraud prevention

⁵⁵ Conseil General des Technologies de l'Information (CGTI), *Les services à valeur ajoutée : tarification de détail et déontologie*. Available at http://www.arcep.fr/uploads/tx_gspublication/Rap-CGTI surSVA.pdf

⁵⁶ ARCEP, *Améliorer les offres faites aux consommateurs de services de communications électroniques et postaux - Propositions et recommandations*. Available at http://www.arcep.fr/uploads/tx_gspublication/propositions-consommateurs-180211.pdf

⁵⁷ Ibid.

With the increased use of PRS, there have been a growing number of reported scams in recent years, especially on calls to the 0899 prefix used for highly charged premium services, resulting in bill shock. These numbers cost EUR1.35 per call, plus EUR0.34 per minute from a fixed line number, to which a mobile caller needs to add the “airtime” charge. Two techniques are most frequently used:

- *SMS spam*, whereby an SMS is sent out to consumers luring them to call a special premium number.
- *Ping call*, consisting in ringing someone’s number where the premium number is shown as caller ID, and expecting the other party to call back.

To curb these types of scams, the French Federation of Telecoms (FFT) has set up a free number (‘33700’) accessible by phone or SMS, through which consumers can alert operators about practices that are suspicious. It was first launched in 2008 to counter SMS spam, and was then extended in 2010 to cover ping calls. Fixed and mobile operators can impose sanctions against the instigator of the scams, depending on their frequency and severity. Serious cases are barred from operation and referred to the police.

Sanctions against fraudulent use of PRS

The French market lacks a legislative framework to impose sanctions on the misuse of PRS. Historically, the High Council of Telematics (‘Conseil Supérieur de la Télématique’ or CST) and the Committee of Anonymous Telematics (‘Comité de la Télématique Anonyme’ or CTA) were in charge of proposing recommendations and ensuring their application by the different players in the ICT industry. However, these institutions have not released any propositions since 2006.

According to ARCEP, these conditions make it difficult to formulate a framework to regulate the use and introduce sanctions for fraudulent use of PRS⁵⁸. ARCEP considers that if self-regulation does not lead to the creation of a representative ethics authority of all parties of the sector in the short term, it may intervene to establish such authority through regulations.

5.4.3 PRS complaints and compensation

ARCEP is not responsible for tracking customer complaints related to telephony and information PRS. This activity is instead performed by the DGCCRF, a division of the Ministry of Economy. Therefore, it is not possible to know the current scale of customer (dis)satisfaction with PRS. However, in the mobile segment, 787 000 SMS were reported to the support number set up by the French Federation of Telecoms (‘33700’) in the 18 months since its launch in October 2008, more than 70% of which were linked to premium rate numbers. In the first half of 2010⁵⁹, the number of reported scams dropped to a monthly average of 30 000, likely to be linked to the introduction of

⁵⁸ Ibid.

⁵⁹ The Government web portal, *Le numéro d’alerte contre les spams SMS est étendu aux spams vocaux*. Available at <http://www.gouvernement.fr/gouvernement/le-numero-d-alerte-contre-les-spams-sms-est-etendu-aux-spams-vocaux>

the free reporting number. However, there is no specific compensation scheme in place to recover the costs caused by scams, or get a refund in the case of unintentional use.

In 2011, ARCEP proposed to introduce a similar procedure to compensate subscribers whose ADSL line has been wrongly “slammed”⁶⁰ by the operator. In this scheme, compensation would be shared between the service provider (fraud originator) and the operator who failed to set the right filters. The amount of compensation would be equal to the cost incurred for the airtime in addition to the cost of accessing the service. The compensation would be systematically applied to all customers affected by the fraud, regardless of whether it had been reported.

5.5 Evolution of PRS in France

5.5.1 Areas of growth and decline in the PRS market

PRS revenues have been declining over the last 3 years. A number of factors have been identified by ARCEP for this downward trend⁶¹:

- **The reduction in the average length of PRS calls originated from fixed subscribers.** Average call length from fixed line dropped from 2.7 minutes to 2.4 between 2007 and 2009. In the same period, average call length from mobile line went slightly up from 2.5 minutes to 2.6 minutes.
- **The reduction of average revenue of PRS calls originating both from fixed and mobile subscribers.** Revenues fell as a result of measures put in place in 2008 and 2009 (i.e. the Châtel Act and LME), which required companies to use non-premium numbers to provide customer support, as well as the inclusion of PRS numbers starting with 081 in mobile minute bundles.

At the same time, the revenue from mobile data increased from around EUR598 million in 2007 to EUR657 million in 2010, representing a third of total PRS revenues (excluding DQ services). There are an increasing number of mobile subscribers who access multimedia services such as Internet, WAP and MMS. According to ARCEP, there were 28.4 million such users in 4Q 2010, compared to 23.4 million in 4Q 2009.

With the diversity of mobile premium data services (e.g. mobile micropayment, Visio+), it is anticipated that this trend will continue. This supported by the fact that all three mobile operators (Orange, SFR and Bouygues) have agreed on adopting a similar approach to advertising and marketing these services.

⁶⁰ This is the process whereby the operator disconnects fixed-line services because there has been a false request made to that number from another operator. A simple cause for this situation is the misreporting of the subscriber's telephone number

⁶¹ ARCEP, *Améliorer les offres faites aux consommateurs de services de communications électroniques et postaux - Propositions et recommandations* Available at http://www.arcep.fr/uploads/tx_gspublication/propositions-consommateurs-180211.pdf

5.5.2 Evolution of PRS regulation

In a document published in February 2011, ARCEP published seven proposals to improve VAS offered to consumers⁶². The aim was to increase tariff transparency, increase the transparency of operators' practices, and tackle fraud-related issues and the unethical use of these services.

The first of these proposals relates to the labelling of PRS. ARCEP encouraged operators to create clear labels for PRS from fixed and mobile lines, and engage with the end user (retailers and enterprises) to discuss the modernisation of the tariff structure in the short term. ARCEP suggested the use of a colour coding similar to the one used for CO₂ emissions. An example is shown in Figure 5.11.

Labels	Cost per minute	Cost per call
A	Free on all networks	
B	Included in standard fixed and mobile tariffs	
C	EUR0.01 to EUR0.06	EUR0.01 to EUR0.18
D	EUR0.07 to EUR0.15	EUR0.19 to EUR0.45
E	EUR0.16 to EUR0.30	EUR 0.46 to EUR0.90
F	EUR0.31 to EUR0.45	EUR0.91 to EUR1.35
G	Other	

Figure 5.11: Example of colour-coded labels for PRS [Source: ARCEP, 2011]

ARCEP has invited the government to continue to enforce the Châtel Act and LME laws (i.e. the ability for the consumer to access after-sale and helpdesk services through non premium numbers). ARCEP has also proposed that operators of mobile services indicate clearly in their tariffs the cost of "airtime" for calls to 080, 081 as well as shortcodes.

In the document, ARCEP also states its aim to implement a recommendation from the European working group NaN (Numbering and Naming), which will prohibit the use of premium numbers to make outgoing calls to consumers. Service providers and operators are invited to present technical solutions to filter this type of calls. In addition, ARCEP aims to first work with the operators to define the different ways of filtering calls from premium number callers, and will study later the mechanism to compensate fraud victims.

⁶² Ibid.

6 Germany

- Germany has a small (and declining) PRS market relative to the size of its population. The market is only worth USD223.6 million per annum, with per capita revenue estimated at only USD2.70 per annum.
- Statutory responsibility for PRS regulation lies with BNetzA, which is responsible for regulating, pricing and numbering.
- The German Association for Telecommunications and Media (DVTM) has a voluntary Code of Conduct to safeguard consumers against fraudulent use of mobile PRS.
- One reason why the PRS market is in decline is that regulations, such as the obligation on information providers to provide a price announcement on 09x numbers at the start of the call, have had a negative effect on demand.

6.1 Country snapshot

Population	83 million
GDP per capita	USD35 169
Fixed telephony penetration	69%
Mobile telephony penetration	121.7%
Size of PRS market	USD223.6 million
PRS revenue per capita	USD2.70

Figure 6.1: Germany overview [Source: Analysys Mason, EIU, company reports, 2011]

6.2 Definition of PRS

According to the telecoms regulator RegTP (now BNetzA), premium rate services ('Mehrwertdienste') are defined as follows⁶³:

A premium service is a service:

- 1) *Provided as a publicly available telecoms service by an operator of a telecoms network, and moreover*
- 2) *Provided as an additional service which is billed to the caller along with the telecoms service.*

Billing is affected on the basis of the caller's number.

⁶³ RegTP (Germany, 2004), *Rules for the allocation of 0900 numbers for premium services*. Available at http://www.bundesnetzagentur.de/SharedDocs/Downloads/EN/BNetzA/Areas/Telecommunications/TelecomRegulation/NumberManagement/Rulesfortheallocationof01d11526pdf.pdf?__blob=publicationFile

The additional service may be a service provided at the same time as the telecoms service or a service to be provided at a later date. In the latter case, it can be billed to the customer fully or partially separate from the telecoms service.

6.3 PRS market structure and characteristics

Market size

Revenue from premium-rate (0900x) services amounted to USD223.6 million in 2009 (18.9% of the total VAS market)⁶⁴, which includes DQ services. According to the study ‘11th Joint Analysis of the telecommunications market 2009’ conducted by Dialog Consult and VATM, the total minutes per day and the total revenue are split according to number type in the proportions shown in the charts below.

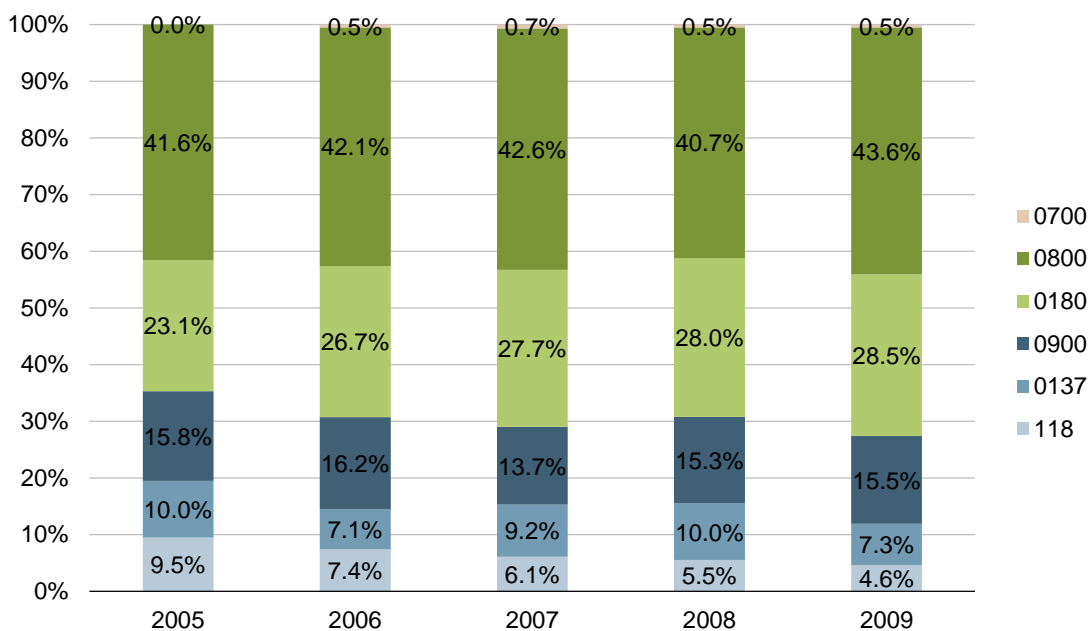


Figure 6.2: Germany: Number of minutes according to number type [Source: Dialog Consult / VATM Analysis of the Telecommunications Market]

⁶⁴ Dialog Consult and VATM (Germany, 2009), *11th Joint Analysis of the telecommunications market 2009*. Available at <http://www.vatm.de/uploads/media/10-02-2010.pdf>

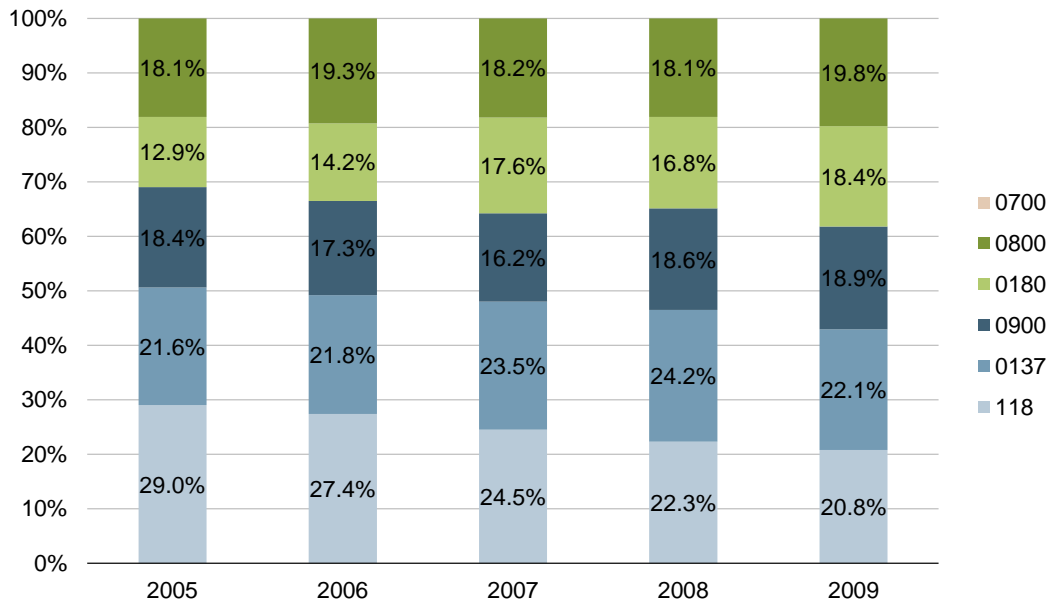


Figure 6.3: Germany: Revenue according to number type [Source: Dialog Consult / VATM Analysis of the Telecommunications Market]

A source at Deutsche Telekom commented “in 2010 total minutes on 0900 services on the operator’s network was 115 million minutes”. The traffic on DT’s network plus the traffic that passes its network is estimated to be 95% of the total traffic in the market.

Fixed

There is a wide spectrum of VAS delivered over a range of premium numbers in Germany. Figure 6.4 provides an overview:

Number range	Overview of services
118xy	Information services, ranging from cinema listings to weather and route planning.
0137	Interactive TV / TV-voting, e.g. "Germany Idol ", TV sweepstakes etc.
0180	Primarily used for customer service, including information and service lines, competitions, donation hotlines, feedback channels
0190 (now defunct)	Information services, service hotlines, fax-on-demand services (e.g. WISO-polling), dating and chat services. Dial-through services were discontinued on 14 December 2003. The number range was replaced by the 0900x range in 2003 and disabled on 1 January 2006.
0800	Info-hotlines
0900x	<ul style="list-style-type: none"> 09001: Information: weather info, movie times, health (the focus of the service must not be entertainment, nor endanger or affect the wellbeing of children or minors) 09003: Entertainment: competitions, horoscopes, etc (the service must not include any sexual or erotic material, nor endanger or affect the wellbeing of children or minors) 09005: Other services: One-to-One chat, astrology 09009: Special number range for dial-through services

Figure 6.4: Value-added services market [Source: Analysys Mason, FST⁶⁵]

⁶⁵ FST (Germany), *Leistungsspektrum des Mehrwertdienste-Marktes*. Available at <http://www.dvtm.net/fileadmin/pdf/verbraucheruebersichten/Leistungsspektrum.pdf>

Of these, the 0900x (and the now defunct 0190) numbers are designated as PRS under the Telecommunications Act and are subject to self-regulation under a Code of Conduct. These numbers can also be accessed from mobile phones.

Fixed PRS are charged at up to EUR3.00 per minute.

Mobile

Premium-rate SMS services have been available in Germany since 2002. Premium rate text messages are sent to shortcodes and are used to provide a range of PRS, including information services (e.g. news, stock market information, weather reports) and entertainment services (e.g. ringtones, games, images, voting).

According to BNetzA's 2009 Annual Report, the number of premium rate messages sent remained stable – in 2008, approximately 285 million messages were sent, 1.4% more than in 2007⁶⁶.

Every premium SMS provider informs customers free of charge through an SMS alert if charges exceed a certain value. Depending on the wireless service provider, this varies between EUR20-50 per calendar month.

6.3.1 Communication service providers

With regard to CSPs, one of the main trends in the German market is that major operators are adopting integrated fixed–mobile business models. Deutsche Telekom, Vodafone and O₂ have all moved to adopt integrated fixed–mobile business models. Their hope is to position themselves against fixed- or mobile-only operators and to mitigate against loss of fixed-line revenues due to fixed–mobile substitution. Cable operators have also launched mobile services as MVNOs.

Fixed line operators

The fixed incumbent, Deutsche Telekom, continues to be the dominant player in the market with a market share of 60%.

⁶⁶ FNA (Germany, 2009), *Annual Report 2009*. Available at <http://www.bundesnetzagentur.de/cae/servlet/contentblob/158096/publicationFile/9592/AnnualReport2009pdf.pdf>

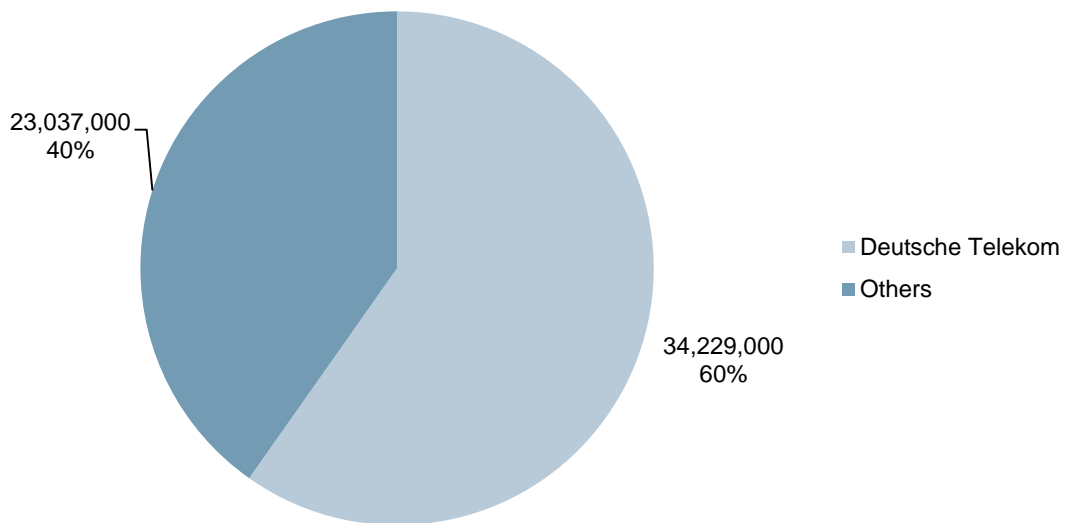


Figure 6.5: Germany: fixed operators' numbers of connections and market shares at year-end 2010
[Source: Analysys Mason, 2011]

Mobile operators

The mobile market is split between four operators: T-Mobile, Vodafone, E-Plus and O₂. Deutsche Telekom faces particular competition from two other operators with integrated fixed and mobile operations, Vodafone and O₂ (since its acquisition of HanseNet). MVNOs account for a significant and increasing portion of the mobile market: the largest proportion of any country in Western Europe, ahead of other countries with significant MVNO sectors such as the Netherlands.

Mobile operators in Germany offer premium rate content via their mobile portals. For example, Vodafone offers songs (from EUR0.69 per song), logos, ringtones, ringback tones, SMS tones, video tones and a variety of games.

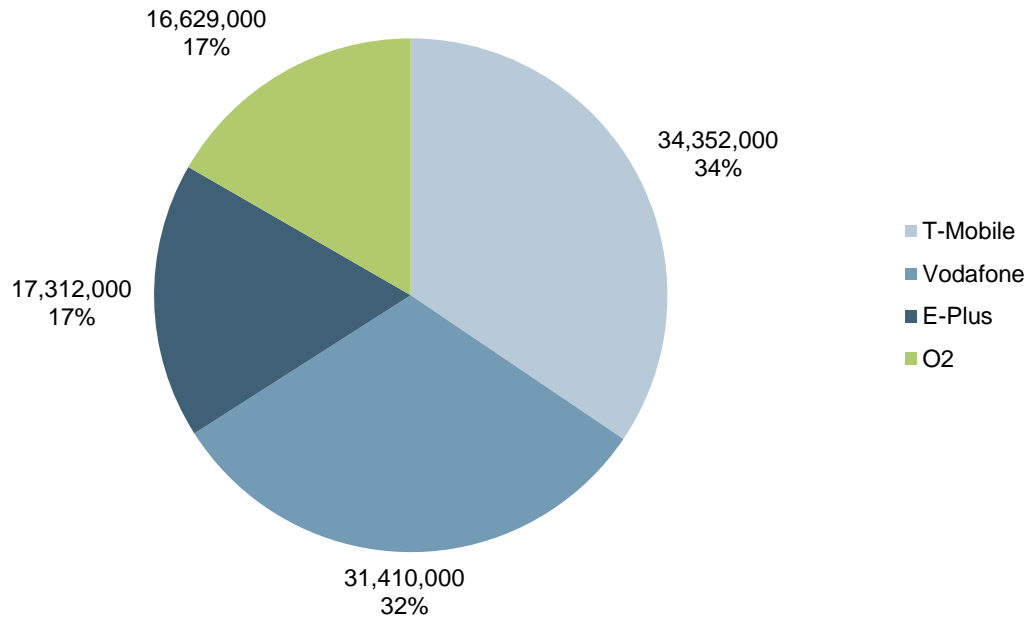


Figure 6.6: Germany: Mobile operators' subscriber numbers and market shares at year-end 2010
[Source: Analysys Mason, 2011]

6.4 Regulatory framework

6.4.1 Introduction

The **Federal Network Agency** ('Bundesnetzagentur' or **BNetzA**) is the central regulatory authority for the telecoms, postal and energy sectors. It is responsible for ensuring compliance with the Telecommunications Act 2004, which includes provision for the regulation of PRS, including pricing and the allocation of numbers. BNetzA's overarching aim with regard to PRS is to ensure price transparency for service users and provide redress where abuse has taken place.

The **German Association for Telecommunications and Media** ('Deutscher Verband Fur Telekommunikation Und Medien' or **DVTM**) is a membership association for the voluntary self-monitoring of value-added telephone services. It publishes a voluntary code of conduct to prevent fraudulent use of PRS. Until March 2011 the DVTM was known as the Association of Self-Controlled Telephone Service Providers ('Freiwillige Selbstkontrolle Telefonmehrwertdienste eV' or FST). In March 2011, the organisation completely re-launched itself after sixteen years of service, under a new name, with a new brand, a new website and a new code of conduct.

The DVTM currently has approximately 50 members from across the PRS value chain, including network operators, resellers and service providers, who voluntarily adhere to the Code. The new

organisation has ambition plans to expand its membership base to 75 members by the end of 2011⁶⁷. The DVTM offers three levels of membership:

Membership level	Includes	Cost of membership
Code Information	<ul style="list-style-type: none"> • Access to a readable and printable version of the Code 	One-off fee of EUR100
Code Premium	<ul style="list-style-type: none"> • Access to a readable and printable version of the Code • Sign up to the Code • Preliminary investigation in the case of potential breaches • Advertisement 	Membership fee of EUR2700- EUR13 500 per annum
Code Platinum	As per the Premium option, plus: <ul style="list-style-type: none"> • Participation in the development of the Code • Active and passive voting rights in the Code Commission • Add-ons, module 	Membership fee of EUR3600- EUR18 000 per annum

Figure 6.7: Germany: Regulatory and industry bodies [Source: Analysys Mason 2011]

The DVTM works in conjunction with other German industry associations, including the Association of Telecommunications and Value-Added Services (VATM), which represents more than 90 telecommunications and VAS companies, and BREKO, founded in 1999 as an association of alternative telecommunications operators.

Figure 6.8 summarises the bodies that deal with regulation, consumer protection and complaints resolution.

Name	Type of Organisation	Remit
Federal Network Agency for Electricity, Gas, Telecommunications, Post and Railways ('Bundesnetzagentur' or BNetzA)	Government statutory authority (regulator)	Regulation of pricing and the allocation of phone numbers
Federal Ministry of Food, Agriculture and Consumer Protection ('Bundesministerium für Ernährung, Landwirtschaft und Verbraucherschutz' or BMELV)	Ministry	Responsible for consumer protection
German Association for Telecommunications and Media ('Deutscher Verband Für Telekommunikation Und Medien' or DVTM)	Industry association	Publishes voluntary Code of Conduct to prevent fraudulent use of VAS

Figure 6.8: Germany: regulatory and industry bodies [Source: Analysys Mason, 2011]

⁶⁷ Teletalk (Germany, 2011), *DVTM launches*. Available at: http://www.dvtm.net/fileadmin/pdf/presse_fst_in_den_medien/2011-03-23_TeleTalk_Interview_Zilles_%C3%BCber_DVTM-Start.pdf

PRS are covered under the Telecommunications Act. A voluntary Code of Conduct by the DVTM provides additional guidelines. The relevant regulatory and legal documents are as follows:

Type	Document	Comment
Primary legislation	Act To Combat the Abuse of (0)190/ (0)900 Premium Rate Numbers (Gesetz zur Bekämpfung des Missbrauchs von (0)190er/(0)900er Mehrwertdiensternummern)	Regulation specific to premium rate services
Industry code	Voluntary Code of Conduct by DVTM	Industry code designed to enforce good practices for PRS

Figure 6.9: Germany: Regulation and legal documents [Source: Analysys Mason, 2011] Overview of PRS regulation

6.4.2 Overview of PRS regulation

In Germany, PRS regulation is subject to a combination of legislation and self-regulation.

Legislation

With the entry into force of the Act To Combat the Abuse of (0)190 / (0)900 Premium Rate Numbers ('Gesetz zur Bekämpfung des Missbrauchs von (0)190er / (0)900er Mehrwertdiensternummern') on 15 August 2003, the regulator (at that time the RegTP) put in place a detailed package of measures to combat the abuse of telephone numbers. Key aspects of the legislation include:

- Forced price notices for service providers
- Maximum price limits, legitimacy checks and automatic disconnects
- Registration of dialers
- Blocking of dialers
- Right of information for consumers from the regulator.

On 4 March 2004 the German Federal Supreme Court in Karlsruhe decided that fees for the usage of a number do not have to be paid if it was used without the user's knowledge.

Self-regulation

The carriers and the DVTM are responsible for governing premium and standard rate shortcodes nationally. The overarching aims are to safeguard the development of a functioning and competitive telecoms and media market through dialogue with industry stakeholders.

DVTM members voluntarily operate according to a Code of Conduct which contains all relevant legal and regulatory rules, as well as guidelines for operating in the German market.

In March 2011, the ‘FST Code of Conduct for Value-Added Telephone Services’ of 12 June 2008, was replaced by the *Code of Germany for Telecommunications and Media*.

The new Code developed by the DVTM, while based on the previous Code, has been revised, both in terms of content and structure and now encompasses a much broader scope. In addition to PRS, the new Code contains provisions for applications, in-app advertising, microbilling, WAP billing, and so-called ‘outbound dialers’. According to the DVTM, “[it] is the first organisation, which has taken preventative steps to address Apps”. The Code also reportedly encompasses new stakeholder groups, including payment providers, gaming platforms and publishing companies. According to the DVTM, the new Code is designed to be more practical, including add-ons, such as checklists and helpful implantation guidelines.

According to the DVTM’s Managing Director Boris Schmidt, "the Code is forward looking, innovative, and takes into account the convergence of telecoms and media. Thus it is the basis for value-added services of the future"⁶⁸.

Unlike the previous code, which was available free of charge via the FST’s website, there is a charge for accessing the new Code. A downloadable copy of the German edition costs EUR100; an English translation of the same is available for EUR250.

Organisations which sign up to and adhere to the Code may be awarded ‘TÜV certification’. The DVTM has appointed tekit Consult to monitor and ensure compliance with the Code. Code signatories may use the TÜV certification logo on their websites to show that they are certified.

The Code is kept up to date by a commission which updates it continuously, on average three or four times a year. For DVTM members the code and all updates are covered by the annual membership fee. Industry sources report that for DVTM members, the Code is ‘as good as law’ and non-adherence is punishable by civil action. The DVTM issues a warning to its members if they are breaking the Code and if no action is taken by the organisation to remedy the situation, the DVTM can exclude them from membership and also complain to the regulator.

6.4.3 Tariff structure

Pricing between service areas varies substantially. Service providers operating 0900 services are free to assign any price they choose to the number, providing that the total cost of the call does not exceed EUR30 and the per minute charge does not exceed EUR2. Service providers operating in the 0900 range are required to provide a free message to subscribers from fixed lines at the start of the call providing them with information on call charges.

⁶⁸ DVTM (Germany, 2011), *Kodex Deutschland für Telekommunikation und Medien löst FST-Verhaltenskodex ab* (in German). Available at [http://www.dvtm.net/pressemeldungen-details.html?tx_ttnews\[tt_news\]=176&tx_ttnews\[backPid\]=152&cHash=8ed671cfee3da014ddfb180c38ef4dfc](http://www.dvtm.net/pressemeldungen-details.html?tx_ttnews[tt_news]=176&tx_ttnews[backPid]=152&cHash=8ed671cfee3da014ddfb180c38ef4dfc)

6.4.4 PRS market issues

Phone-in scandals

The year 2009 had several cases where thousands of subscribers being subjected to unsolicited calls with the promise of prizes. For example, a recorded message would inform the party called that they were the winner of a prize such as a car. To arrange delivery, the party called was asked to dial a premium rate number. BNetzA took action by deactivating the numbers at once and prohibiting billing and collection.

Subscription scandals

Industry sources reveal that a scam also came to the fore involving a company which used a special mechanism for invoicing. Users received a call at home asking them if they were interested in participating in a particular game/competition. If they said 'yes' they were automatically entered into a contract, and a monthly fee was charged which was paid via PRS.

Inaccurate pricing

In 2009, BNetzA reviewed 23 new fine proceedings with reference to phone spam and obligations to give price indications and messages. Eleven orders to pay fines were issued; nine of them are already effective in law. Most of the breaches prosecuted had to do with failure to state prices, or stating them inaccurately, when offering PRS.

Queuing

There is also discussion surrounding the problem of queuing. Often users are made to queue for a long period of time and are charged for this time.

6.4.5 PRS complaints and compensation

The total number of complaints, particularly related to 'number spam', received by BNetzA in 2009 increased to 61 842, up from 48 058 in 2008. Number spam largely refers to telephone spam but also includes fax and email spam. Complaints to do with telephone scams were most often criticising the lack of price indications for the number given. As in the previous year, the FNA received several complaints from consumers who had responded to personal ads or car ads on the Internet and then received emails giving PRS numbers, the idea being to provoke a return call on the pretence of genuine interest in making contact⁶⁹.

In addition to complaining to the regulator, industry sources reveal that consumers can also complain to the Central Competition Agency ('Wettbewerbszentrale'⁷⁰), an organisation which

⁶⁹ BNetzA (Germany, 2009), *Annual Report 2009*. Available at <http://www.bundesnetzagentur.de/cae/servlet/contentblob/158096/publicationFile/9592/AnnualReport2009pdf.pdf> on 04 April 2011

⁷⁰ Website: <http://www.wettbewerbszentrale.de/de/home/>

deals with unfair completion, or to the Federation of German Consumer Organisations ('Verbraucherzentrale Bundesverband e.V.')⁷¹, an NGO and umbrella organisation for 42 German consumer associations. The aims of the Federation German Consumer Organisations are to protect and empower the consumer by lobbying and campaigning at national and European levels, by taking collective legal action on behalf of consumers and by ensuring that our message receives broad media coverage. Our understanding is that both organisations are formed as private associations but they have the right to take legal action.

6.5 Evolution of PRS in Germany

6.5.1 Areas of growth and decline in the PRS market

Overall, PRS is a fast-declining market in Germany. Previously, PRS was viewed as a good business opportunity but, following misuse, the recent restrictions imposed on the industry – e.g. the need to make a price announcement at the start of a PRS call – have restricted the market.

Many adult services are also moving from 0900 to 118 (these are not defined as PRS but are used and charged in the same way). The reason is that 0900 numbers are blocked by many businesses, but 118 numbers are permitted. Also, in the case of directory services, if the charge is less than EUR2 per minute, there is no need for a price announcement (whereas in the case of 0900 numbers it is mandatory to have a price announcement at the beginning of the call).

Industry sources reveal that a challenge the industry is likely to face is excesses that arise if a user does not pay their bill. The amount of money that is unpaid is usually transferred to the information provider. The problem arises if the user is on another network (especially the network of a cable operator). As the number of excesses becomes bigger, this is likely to become a problem for the information provider.

6.5.2 Evolution of PRS regulation

There is no publically available information on new services which may require PRS regulation. Industry sources reveal that there is a proposal (presently awaiting decision) that queuing for PRS numbers should be made free of charge. At the time of writing, no further information is available in the public domain.

⁷¹ Website: <http://www.vzbv.de/go/>

7 Hungary

- Hungary has a well-developed PRS market with good levels of consumer confidence in both PRS and phone-billing as a payment mechanism, and an estimated PRS market size of USD90 million in 2010.
- The PRS industry is self-regulated; a Code of Ethics has been produced by Hungarian mobile operators in compliance with EC requirements, along with a specific Code aimed at making mobile use safer for teenagers and children.
- The market is focused on the mobile segment; beyond traditional premium SMS services, mobile operators offer ‘pay by phone’ services to subscribers, for both real world and virtual products.
- After receiving a high number of complaints in early 2010, the NRA and operators were prompted into taking action to protect consumers, e.g. removing automatic subscriptions and creating a customer service number database website, after which the PRS market in Hungary has become relatively stable.

7.1 Country snapshot

Population	9.9 million
GDP per capita	USD18 889
Fixed telephony penetration	30.2%
Mobile telephony penetration	103.7%
Size of PRS market	USD90 million (estimate)
PRS revenue per capita	USD9.00 (estimate)

Figure 7.1: Hungary overview [Source: Analysys Mason, EIU, company reports, 2011]

7.2 Definition of PRS

In Hungary PRS are defined in Section 1.1.3 of the industry-developed *Code of Ethics for Premium Rate Services* as outlined below:

1.1.3 Scope

[...] The provisions of the Code of Ethics must be applied in relation to any premium rate service rendered in the territory of the Republic of Hungary by any private individual or company (Content Provider).

The services listed below are considered to be premium rate services:

- Premium rate MO (mobile originated) SMS service

- Received premium rate MT (mobile terminated) SMS service
- Premium rate MO (mobile originated) MMS service
- Received premium rate MT (mobile terminated) MMS service
- Premium rate voice (event charge or per minute charge) service

Pursuant to Govt. Decree No. 164/2005. (VIII. 16.) on the National Allocation Plan of the Identifiers of Electronic Telecommunications Networks, premium rate services operate in the 90 and 91 prefix number ranges and the 17cd and 17cde premium rate differentiated service number ranges.

In addition, a number of content types are further outlined in Section 1.2 ‘Definitions and Interpretations’:

Segment	Advertisement requirements
Adult content	A service whose dominant element is sexuality and/or violence. The content provider is responsible for observing the conditions regarding the content of the service
Service for minors	Any service intended to be offered to minors, whether wholly or partially. Any PRS published in a publication for minors qualifies as a service for minors

Figure 7.2: Hungary: PRS service area descriptions [Source: Code of Ethics for Premium Rate Service]

In summary, the term PRS in Hungary is quite loosely defined, and refers to those services that fit either of the following criteria:

- Premium SMS/MSS that is either mobile originating or terminating
- Voice services charged at a premium rate.

Directory enquiry services are provided through five digit shortcodes starting with the prefix 118, but these are provided by telecoms operators and are not treated as PRS.

7.3 PRS market structure and characteristics

Market size

The Hungarian PRS market is mature with a number of innovative phone-paid services available to subscribers. Analysys Mason estimates the PRS market to generate USD90 million annually – this does not include DQ services.

Fixed

PRS are accessed by calling numbers starting with '9'. The maximum charge for calling a premium voice service may be set by the content provider, however it must not exceed the level published by the regulator in the official journal published on its website.

Mobile

The mobile PRS market appears to be more developed than the fixed segment, based on the number of prominent content and service providers in the market. Examples include Swift Mobile Solutions, IKO New Media, Telemedia, Tele-For, Digitania, and DC Lax, a micropayments provider. Products offered by the MNOs include T-Mobile offering the games Street Fighter II, Resident Evil 3D and Chuck Norris for HUF795 (USD3.83), and Vodafone offering unlimited ringtone downloads for HUF1 000 (USD4.81) per month.

In addition, there are innovative new services that indicate a relatively developed market and high levels of consumer confidence in services accessed through mobile phone payment. Examples include:

- 'Shop with your phone' – T-Mobile⁷² and Telenor⁷³ both offer services which allow purchases to be added to the subscriber's mobile bill through certain sites e.g. Filmklik.hu, mobile parking, cinema tickets.
- 'Pay with your phone' – T-Mobile⁷⁴ also offers MobilePayment as an alternative to cash transactions in a number of outlets e.g. Bookline, Bortársaság, Daily and Dijbeszedő Zrt.

7.3.2 Communication service providers*Fixed line operators*

There are a number of regional incumbents in Hungary (see Figure 7.3 for market shares by subscriber number). Magyar Telekom is the most significant of these, controlling 39 of the 54 concession regions – including the capital city, Budapest. Invitel is the incumbent operator in 14 of the 54 original concession areas (covering 21% of the population) and the second-largest fixed company in Hungary, operating a national backbone network.

⁷² T-Mobile.hu (Hungary, 2011), *Mobile Shopping*. Available at http://www.t-mobile.hu/english/services/mobile_purchase.

⁷³ Telenor.hu (Hungary, 2011). Available at <http://www.telenor.hu/&hl=en&langpair=auto%7Cen&tbb=1&ie=utf-8>.

⁷⁴ T-Mobile.hu (Hungary, 2011), Pay with you phone. Available at http://www.t-mobile.hu/english/services/mobile_payment

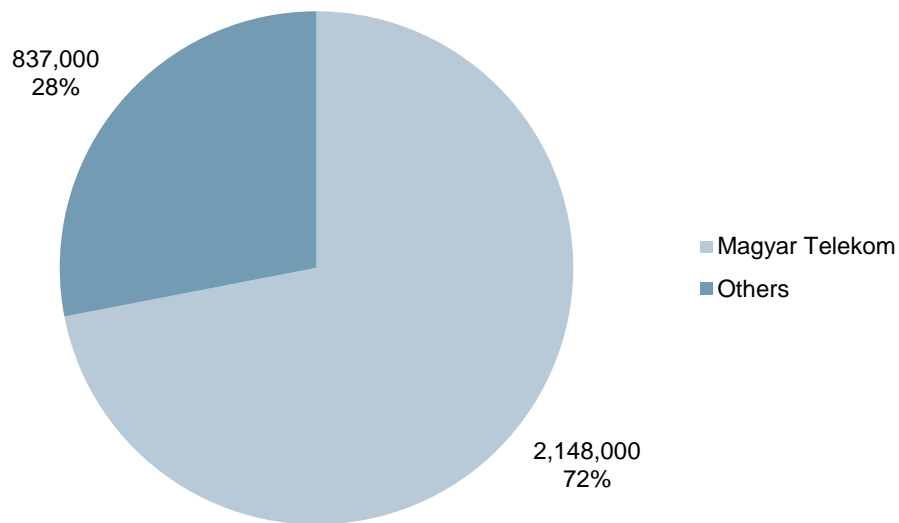


Figure 7.3: Hungary: fixed operators' numbers of connections and market shares at year-end 2010 [Source: Analysys Mason, company reports, 2011]

Mobile operators

The main national incumbent Magyar Telekom (using the T-Mobile brand) also holds the largest market share in the mobile sector (see Figure 7.4 for market shares by subscriber number). With only three operators, the second and third largest MNOs, Telenor Hungary and Vodafone, also have sizeable market shares. Telenor is the only operator that provides a bill warning to customers at the level of HUF10 000 (USD48), at which point a re-confirmation mobile originated SMS is required from the user.

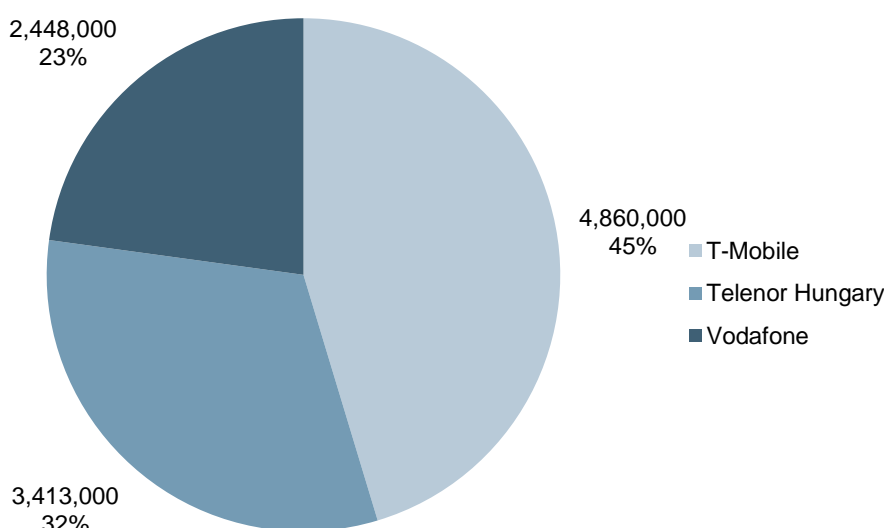


Figure 7.4: Hungary: mobile operator subscriber numbers and market shares at year-end 2010 [Source: Analysys Mason, company reports, 2011]

7.4 Regulatory framework

7.4.1 Introduction

The telecoms market is regulated by the National Communications and Media Authority ('Nemzeti Média- és Hírközlési Hatóság' or NMHH). The PRS market is mostly self-regulated, being governed by a Code of Ethics developed by the Hungarian mobile operators themselves – by default this also includes the major fixed operator – in compliance with the requirements of the EC. The NMHH has, however, been known to intervene in the PRS market, e.g. after receiving large numbers of complaints from the public⁷⁵.

Name	Type of Organisation	Remit
National Communications and Media Authority ('Nemzeti Média- és Hírközlési Hatóság' or NMHH)	Government authority (regulator)	Allocates numbers to specific uses and places price caps on certain services
Hungarian Mobile Marketing and Content Industry Association (MMTE)	Industry association	Represents the interests of the mobile marketing and content industry, which aims to reconcile problems and jointly set goals
Mobilozz okosan ('Be a smart mobile user')	Regulator and Industry backed body	Fronted by a website that provides information on PRS, including contact information for PRS providers and rates applicable to selected premium rate phone numbers

Figure 7.5: Hungary: regulatory and industry bodies [Source: Analysys Mason, 2011]

⁷⁵ NHMM (Hungary, 2010), NHH Tightens Rules and Informs Consumers. Available at <http://www.nmhh.hu/index.php?id=hir&cid=10132>

The Hungarian *Code of Ethics for Premium Rate Services* (the Code) was drawn up in 2007 by service providers and content providers, meaning the market is governed on a self-regulatory basis. The document also acts as a declaration document that a content provider can sign to acknowledge that the Code is an integral part of its General Agreement. See Figure 7.6 for the significant regulatory documents.

Type	Document	Comment
Industry code	Mobile operators Code of Ethics for Premium Rate Services	Regulation of both <u>mobile and fixed services</u>
Industry code	Mobile operators Hungarian Mobile Telephone Service Providers Self-Regulation Code for Safer Mobile Telephone Use By Young Teenagers And Children January 31, 2008	Produced by mobile operators in compliance with the requirements of the European Union
Government decree	Telecommunications (Consumer Protection and Service Standards) Act 1999 , Act No. 140 of 2010	Produced by mobile operators in compliance with the requirements of the EC

Figure 7.6: Hungary: Regulation and legal documents [Source: Analysys Mason, 2011]

7.4.2 Overview of PRS regulation

Code of Practice

The primary objective of the Code is to “enable content providers offering premium rate services via [MNOs] to provide their services based on principles aimed at protecting the interests of users”, as well as to “strengthen confidence in content providers and operators, [and] ensure fair service and uniformity in market practices”⁷⁶. The Code also stipulates that existing service contracts between communication providers and content providers must be enforced, which may result in conditions that are stricter than those agreed on in the Code. The Code has been developed in line with the following principles:

- customers need to be protected through the creation and enforcement of rules that are stricter than legal obligations
- acceptance of uniform and mandatory regulations will be a condition of offering a service
- interested parties will mutually cooperate
- consumers will always be fully informed
- current and subsequent possibilities will be considered when developing regulations.

Significant clauses include:

⁷⁶ Hungarian Mobile Operators, *Code of Ethics for Premium Rate Services*. Available at http://www.gsmeurope.org/documents/eu_codes/hungary2.pdf.

- Moral requirements, which include forbidding the provision of services that e.g. encourage violation of law, cause serious scandal, are misleading, or may cause conflict.
- Operators and content providers will jointly review the Code on an annual basis, and make amendments accordingly.
- Mobile terminating services (received premium SMS) may only be launched if the content provider can determine the subscriber's expected cost. The provider must give unambiguous information on service frequency.

The Code of Practice also sets standards for advertising PRS, and includes a framework for the provision of adult services to ensure adequate protection of children from potentially harmful content.

Advertising and child protection rules

Advertisements for PRS must comply with the relevant regulations on advertising including in particular Act No. I, 1996 on Radio and Television Broadcasting, as well as the Code. In summary, advertisements must fulfil the following criteria:

- the telephone access number – with the premium rate prefix displayed to emphasise the type of service – the price and the content provider's name must be clearly indicated
- contact information for a customer care service available during working hours must be provided. It must be stated if services are not available on all networks
- if the cost of a service is due to change during a service term, customers must be informed at least 30 days prior to the next use of that service
- services may not be advertised as free if customers are required to use a PRS to indirectly access it.

With respect to the protection of minors, if advertising is easily accessible to this group, it must not encourage excessive use of the service. In addition, advertising and content aimed at minors must not “disturb the privacy or peace”⁷⁷, and thus forbids certain specific content (sexual, obscene, aggressive, or invitations to consume alcohol, tobacco or narcotics). In addition the Code is supplemented by the *Hungarian Mobile Telephone Service Providers Self-Regulation Code For Safer Mobile Telephone Use By Young Teenagers And Children*⁷⁸, which was produced in accordance with the European General Agreement signed in 2007.

⁷⁷ Hungarian Mobile Operators, *Code of Ethics for Premium Rate Services*. Available at http://www.gsmeurope.org/documents/eu_codes/hungary2.pdf.

⁷⁸ Hungarian Mobile Operators (2008), *Hungarian Mobile Telephone Service Providers Self-Regulation Code For Safer Mobile Telephone Use By Young Teenagers And Children*. Available at http://www.gsmeurope.org/documents/eu_codes/hungary1.pdf.

7.4.3 Tariff structure

Fixed line pricing

Telephone numbers in Hungary are allocated through the *National Table of Identifier Allocations for electronic communications networks*, according to which prices are capped by the telecoms regulator through the official journal that is published on its website.

<i>Number range(s)</i>	<i>Use</i>	<i>Details</i>	<i>Price range (per minute, connection)</i>
17xx(xx)	General (non-adult) services; not harmonised (services may vary across networks)	Accessible only from the given operator's network unless there is an individual agreement between operators	Open-ended capped cost per minute
90 xxx xxx	PRS numbers	Adult services (services posing a risk for minors)	Open-ended capped cost per minute
91 xxx xxx	Special PRS numbers	Information and content services not posing a risk to minors; reduced charges.	Open-ended capped cost per minute

Figure 7.7: Hungary: PRS voice call tariffs^{79,80} [Source: Analysys Mason, NMHH, 2011]

Mobile pricing

There is no defined numbering policy for premium SMS shortcodes; however, shortcodes in use tend to be 4 or 5 digits in length. The maximum cost charged per SMS by the three Hungarian mobile operators is HUF4800 (USD23).

7.4.4 PRS market issues

Subscription scandals and misleading pricing

As with many of territories, Hungary has suffered with issues whereby customers are charged for services that they did not subscribe to, or were unaware that they had subscribed to. The NMHH found that the biggest problem was that the customers were not aware that the service they had bought (e.g. a ringtone or game) was in fact a subscription, which, in turn, led to three main problems⁸¹:

1. Mobile operators were not fully informed of the services that were offered by content providers.
2. Mobile operators could often not prove that the customer actually ordered the service.

⁷⁹ Hungarian Government (Hungary, 2005) *National Table of Identifier Allocations for electronic communications networks*. Available at <http://www.hif.hu/dokumentum.php?cid=10780>

⁸⁰ Available at <http://clients.txtnation.com/entries/209633-hungary-premium-sms-regulations>

⁸¹ Available at http://www.mfor.hu/cikkek/Valaki_felmillioval_huztak_le___Lealdozott_az_emelt_dijas_sms_eknek_.html (in Hungarian)

3. Since charges for premium SMS would appear on a user's mobile phone bill, if they were unwilling to pay the bill they would be disconnected.

In order to combat the issue, a clause was introduced requiring customers to register for PRS with their MNO, meaning that by default customers would be unable to accidentally subscribe to these services.

7.4.5 PRS complaints and compensation

With the aim of preventing consumer complaints, and in order for them to be handled in an efficient manner, the *Code of Ethics* states that content providers must provide operators with accurate details of the services they offer. Should a consumer wish to make a complaint, the Code also states that operators must supply customer care contact details clearly and legibly in any promotional material. There are a number of other sources for contact details should the promotional material no longer be available:

- By contacting the subscriber's CSP
- Through the website www.mobilozzokosan.hu (Mobilozz Okosan contacts database).

There is currently no publically available data on the number of PRS complaints in Hungary. However, in early 2010, the number was high enough for the regulator and industry bodies to take action and develop the Mobilozz Okosan contacts database website.

7.5 Evolution of PRS in Hungary

7.5.1 Areas of growth and decline in the PRS market

The PRS market in Hungary is already relatively developed, and in terms of phone-paid mechanisms is on par with many developed territories. As with a number of markets, the regulator went through a brief period of receiving a high number of complaints, and this prompted the industry and regulators into increasing consumer protection and facilitating the complaints procedure (e.g. through the website www.mobilozzokosan.hu). The aim was to restore and increase confidence in PRS in order to protect consumers, but with measures that would not discourage participation in the market by content and service providers.

7.5.2 Evolution of PRS regulation

No one was available from the regulator to comment on the future evolution of PRS regulation.

8 Ireland

- Ireland has an advanced PRS market with high levels of revenue per capita (USD17.4).
- The ‘Communications Regulation (Premium Rate Services and Electronic Communications Infrastructure) Act 2010’ of July 2010 established a regime for consumer protection for PRS users. It replaces the existing industry model of self-regulation (under RegTel) and transfers the regulatory functions to the NRA, ComReg.
- Mobile subscription services are the primary source of complaints by PRS users according to industry sources. 40% of people who contact ComReg’s Helpline report that they have unknowingly been subscribed to a subscription service⁸².
- The PRS market in Ireland has been declining in recent years, partly as a result of general economic conditions and partly owing to PRS being a mature market. We anticipate that this trend will continue.

8.1 Country snapshot

Population	4.2 million
GDP per capita	USD40 476
Fixed telephony penetration (lines/population)	48%
Mobile telephony penetration	124.2%
Size of PRS market	USD73.2 million
PRS revenue per capita	USD17.4

Figure 8.1: Ireland overview [Source: Analysys Mason, EIU, company reports, 2011]

8.2 Definition of PRS

The Communications and Regulation (Premium Rate Services and Electronic Communications Infrastructure) Act 2010 defines PRS as follows:

(a) it consists of the provision of the contents of communications (other than a broadcasting service) through an electronic communications network or by using an electronic communications service, which may include or allow the use of a facility made available to the users of the service,

(b) there is a charge for the provision of the service which exceeds the cost attributable to communications carriage alone, and

⁸² http://www.comreg.ie/_fileupload/publications/ComReg_1092a.pdf [Accessed 11 April 2011]

(c) the charge referred to in paragraph (b) is paid by the end-user of the service directly or indirectly to the provider of the electronic communications network or electronic communications service used in connection with the provision of the service by means of a billing or other agreed payment mechanism.

8.3 PRS market structure and characteristics

Market size

Industry sources estimate that Ireland's PRS market was worth EUR60 million (USD73.2 million) in 2010, which does not include DQ services. The market has been declining as indicated in the figure below.

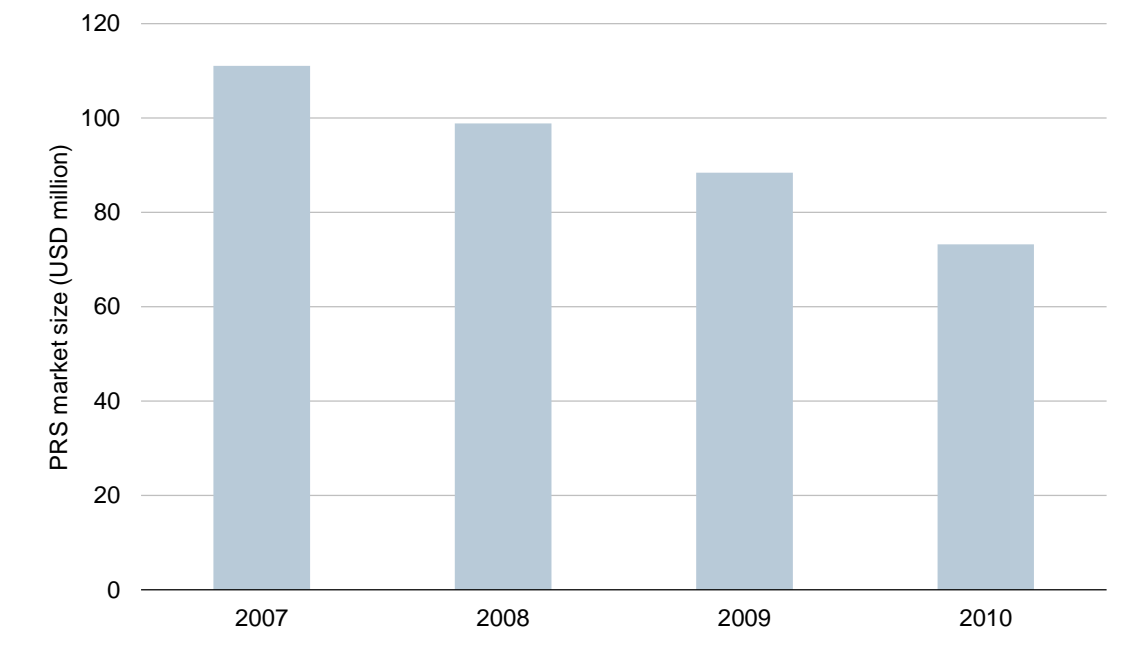


Figure 8.2: Ireland: PRS market size [Source: Analysys Mason, industry interviews, 2011]

Spend on PRS is discretionary and has been heavily affected by the general economic worsening and consumer uncertainty. A lack of service innovation has further added to market decline. Mobile PRS is predominant in the market and, typically, accounts for two-thirds of the revenues generated by the industry⁸³.

Fixed

PRS are accessed by calling the 15xxx number range. According to ComReg's National Numbering Conventions, adult services (i.e. those associated with violence or gambling or

⁸³ http://www.comreg.ie/_fileupload/publications/ComReg_1092a.pdf [Accessed 07 April 2011]

those of a sexually suggestive or titillating nature) should only be provided using 1598 numbers (general adult services) or 1599 numbers (adult services of a sexual nature).⁸⁴

Mobile

All PRS services available to fixed callers are also available to mobile subscribers; however, mobile operators tend to charge more. For example, calling a 1590 number from an eircom landline should cost less than EUR3.50 per call whereas for a Vodafone subscriber this would cost EUR3.99 per minute.⁸⁵

In addition, mobile users can access a range of services including voting / participation and information services, using five-digit shortcodes in the 5xxxx number range. In particular, the 58xxx number range is reserved for general adult services and the 59xxx range for adult services of a sexual nature.

8.3.1 Communication service providers

Fixed line operators

Eircom, an integrated fixed and mobile operator, dominates Ireland's fixed telecoms market. Its main rival is the other integrated operator Vodafone. In the fixed market, eircom's main competitor is triple-play cable operator UPC.

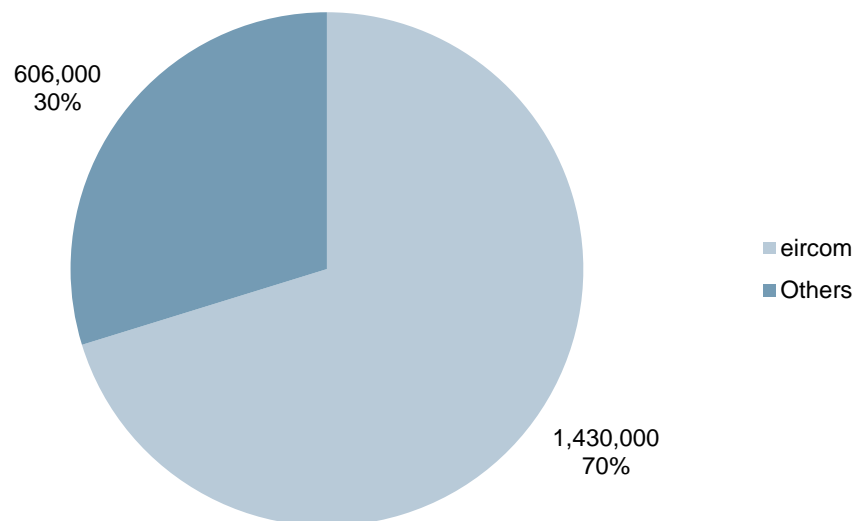


Figure 8.3: Ireland: Fixed operators' numbers of connections and market shares at year-end 2010 [Source: Analysys Mason, company reports, 2011]

⁸⁴ http://www.comreg.ie/publications/national_numbering_conventions_update_to_v_7_-_consultation_response.583.103825.p.html [Accessed 06 April 2011]

⁸⁵ <http://www.vodafone.ie/planscosts/paymonthly/other/#premium> [Accessed 06 April 2011]

Mobile operators

In addition to Meteor (eircom's mobile arm) and Vodafone, two other contenders in the mobile markets are O₂ and Three. The country has a number of MVNOs and their subscribers are a small but rapidly growing segment. Through their mobile Internet portals, MNOs in Ireland offer many of the same services offered in other developed markets, such as games, music and videos. To cite an example, Vodafone in Ireland offers its pay-monthly customers a range of phone-paid content bundles on a subscription basis such as 'three polyphonic ringtones for EUR3.99 per month', 'three images for EUR3.99 per month', 'three standard games for EUR9.99 per month' and 'three premium games for EUR9.99 per month'⁸⁶.

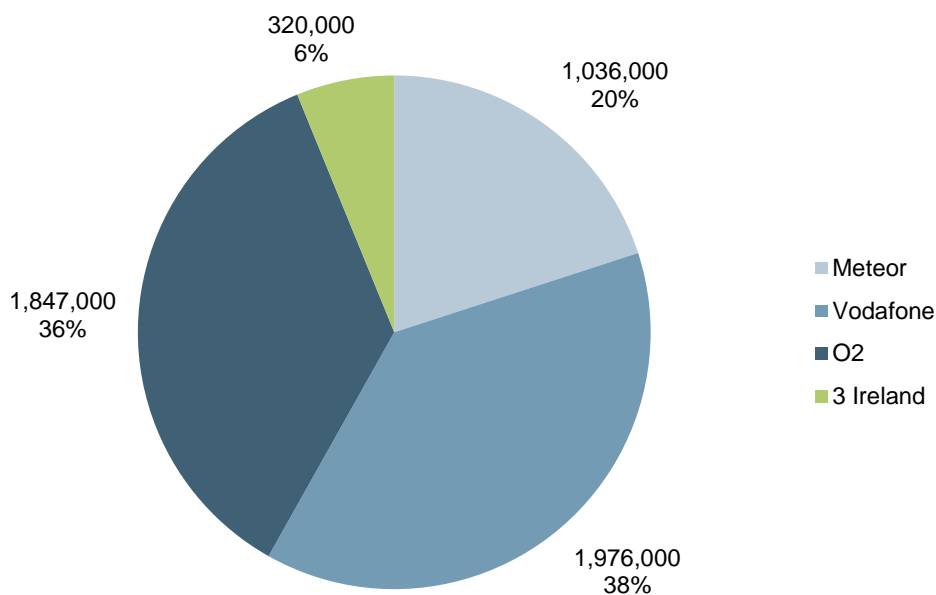


Figure 8.4: Ireland: Mobile operators' subscriber numbers and market shares at year-end 2010
[Source: Analysys Mason, company reports, 2011]

8.4 Regulatory framework

8.4.1 Introduction

With the enactment of the Communications Regulation (Premium Rate Services and Electronic Communications Infrastructure) Act 2010 in July 2010, responsibility for the regulation of the PRS market in Ireland (as well as for consumer support) now rests with the Commission for Communications Regulation (ComReg). ComReg is Ireland's statutory body responsible for the regulation of the electronic communications sector (telecoms, radiocommunications and broadcasting transmission) and the postal sector. Previously, the premium rate market was regulated by an independent body, the Regulator of Premium Rate

⁸⁶

<http://www.vodafone.ie/internet-broadband/internet-on-your-mobile/live/> [Accessed: 07 April 2011]

Telecommunications Services Limited (RegTel). The reasons behind this switch were stated by the Communications Minister Eamon Ryan in May 2008:

“There is right and real anger from the public in relation to premium rate text and phone services. This is a significant issue of consumer concern as children especially are inadvertently running up large bills on their mobile phones. Essentially, they are subject to a scam. Tighter regulation of this sector is required in order to ensure the Irish consumer is not exploited. Mobile phone providers themselves are becoming increasingly conscious of the damage of these scams to their wider market.

To this end, I propose that RegTel in its current form be disbanded and placed under the aegis of ComReg who already have robust powers, including financial penalties, in relation to the telecoms industry. This measure will help combat such rogue operators and support the majority of legitimate premium rate service providers who comply with best practice. I am confident that this is a significant step forward in both consumer protection and corporate responsibility.”⁸⁷

ComReg is financed through an industry levy. Industry sources claim “RegTel’s annual budget was EUR1.2 million [in 2010] and ComReg has ring-fenced a similar amount for PRS, though the annual budget could be higher.”

Name	Type of Organisation	Remit
Commission for Communications Regulation (ComReg)	Government statutory authority (regulator)	Regulation of PRS; registration of industry code

Figure 8.5: Ireland: Regulatory and industry bodies [Source: Analysys Mason, 2011]

Rules relating to PRS are laid out in the following main documents:

Type	Document	Comment
Primary legislation	Communications Regulations (Premium rate services and electronic communications infrastructure) Act 2010	
Industry code	RegTel Code of Practice for Premium Rate Services, July 2010	Contains rules that must be observed by all companies or individuals offering PRS in Ireland.
Key regulatory decisions	Consultation (Document 10/27): Scope of Premium Rate Services Regulation (the Consultation), 1 April 2010	Consultation document seeking views on ComReg’s proposals for the scope of PRS.
Key regulatory decisions	Response to Consultation and Decision: Scope of Premium Rate Services Regulation, July 2010	Decision outlining ComReg’s position on various matters to do with scope of PRS regulation.

Figure 8.6: Regulation and legal documents in Ireland [Source: Analysys Mason, 2011]

⁸⁷ <http://www.dcenr.gov.ie/Press+Releases/2008/Broadcasting+Bill+to+tackle+premium+rate+scams.htm> [Accessed: 01 April 2011]

Scope of PRS regulation

On 1 April 2010, ComReg published a consultation (Document 10/27) ‘Scope of Premium Rate Services Regulation’ seeking views on its proposals for the scope of PRS regulation. In a Response to Consultation and Decision titled ‘Scope of Premium Rate Services Regulation’ published in July 2010, the regulator outlines its positions on various matters to do with the scope of PRS it would regulate. The three distinct issues that were consulted on are:

- (1) Determining the class, or type, of PRS that will be regulated, having regard for the cost and nature of the service. A PRS provider is required to hold a licence if:
 - It provides a PRS which is accessed by a premium rate number and where the price payable by the end-user for each call exceeds EUR0.25 (inclusive of VAT)
 - It provides a PRS which is accessed other than by means of a premium rate number, but excludes a PRS accessed by an international call, where the price that is payable by the end user for each call exceeds EUR0.25 (inclusive of VAT), or
 - The PRS provider provides any of the following types of service:
 - chatline services (live or virtual)
 - sexual entertainment services
 - children’s services
 - subscription services
 - software operated Internet diallers

- (2) Directory enquiry services
 - DQ services provided on the 118XX directory information access codes are exempt from PRS regulation
 - Only DQ services, within their current remit, may be provided via an 118XX number

- (3) Issues concerning the promotion and operation of mobile subscription services.
 - ComReg is to consult on a new code of practice using the information received in responses to the questions posed in the Consultation to inform the content of the subsequent consultation.

There are certain exemptions in place for a PRS provider who provides (a) a service which comprises DQ services or relevant VAS that are provided using the number range 118xx, or (b) on-demand audiovisual media service. No licence is required as these two services are not classified as PRS.

Content of PRS

RegTel’s Code of Conduct (which is still in use) specifies rules around the content of PRS:

- Services must contain only information which is given in good faith and which is reasonably believed by the service provider to be correct and up to date; it must be made clear to consumers when time-sensitive information was last updated.
- Fax-back services must contain correct information and ensure that time-sensitive information is updated. The normal transmission speed must be acceptable to the regulator. The maximum cost of the fax-back service, which must not exceed EUR12 per transaction, must be stated in all promotional material.
- Services must not be unreasonably prolonged or delayed.
- Services must not be of a nature which encourages calls not authorised by the person who is liable to pay the phone bill.
- Where there is a determination by the regulator that a service is to terminate at the expiration of a fixed period of time or charge, the service provider must effect termination within the time or monetary limit so fixed.
- The regulator may vary the monetary threshold or limit specified in a PRS code, upwards or downwards, in order to protect the interest of consumers.
- When transmitting a PRS or a promotion for same by PSMS or PMMS, the shortcode of the service must be displayed and if this is not possible then the originating number of the sender must be displayed on every message, so as to allow for an immediate reply using the STOP command.
- Any service aimed at adults must carry an age warning and require the consumer to confirm his or her age.
- Mobile websites must operate with sufficient technical quality to ensure that a consumer is not charged for digital content services that are not compatible with the handset that is accessing the site.

Entertainment services

Service providers must provide an introductory message advising the caller when a service is for entertainment purposes (e.g. joke, “wind-up” and hoax services). Psychic, tarot, horoscope or other similar services are deemed to be entertainment services. All promotional material must clearly indicate that these services are classified as entertainment services.

Unavailable or short duration services

- Consumers must not be charged at a premium rate for services or parts of services that deliver a busy tone or silence prior to connection to the requested service or for services which are unavailable.

- Consumers must not be charged for the receipt of error messages.

Monitoring

Service providers must ensure that adequate monitoring arrangements are in place to prevent unauthorised access by those under 18 years of age and must also ensure that inappropriate text messages are not transmitted. Service providers must ensure that personnel are appropriately trained to carry out such monitoring.

8.4.2 Tariff structure

Clarity in pricing information

According to the RegTel's Code of Conduct, PRS providers must ensure that users of PRS are fully informed in a transparent and clear manner of the cost of using the services prior to incurring any charge, and have the ability to exit from the service at that point without incurring any charges. It is required that pricing information must be provided free of charge for all PRS. PRS providers must also adhere to the following pricing guidelines:

- In the case of promotions transmitted by radio, the pricing information must be spoken clearly.
- In the case of promotions transmitted on television, on websites, or in other audio-visual-format, the pricing information must be spoken as well as visually displayed if the total cost of the service is EUR2 or more. The price per minute/call must be displayed whenever a premium rate number is displayed. On-screen pricing information must be clearly legible and not require close scrutiny.
- Call charges (inclusive of VAT) should be clearly stated in all promotions.
- Any initial charges, joining fees, recurring charges and frequency of recurring charges should be clearly stated in all promotions.
- Prices should be noted in the form of price per minute (inclusive of VAT) for time based/charged services, or the total maximum cost to the consumer (inclusive of VAT).
- In relation to competitions (other than premium mobile services), the price per minute and the maximum duration of the call should be notified in all promotions.
- Promotional material for non-mobile services should state that calls from mobiles normally cost more.
- Values in Euro must include the Euro symbol (€) where possible and where that is not possible must use the word 'EUR' / 'Euro'.
- The raising of a premium rate charge or any other charge to unsubscribe is prohibited.
- The regulator may issue a determination as to how pricing information must be set out in advertisements of different types or categories.

- Voting/competition services which are likely to be repeated or rebroadcast after the voting/competition is closed must clearly state that this is the case and that the voting/entry mechanism is then not open to use by consumers, or must clearly state the opening and closing date and time of the competition or vote.

Pricing according to service area

The Code of Conduct also specifies some acceptable price ranges for PRS depending on the service area.

<i>Service area</i>	<i>Price range</i>
Children's services	No more than EUR5 total per single call or premium mobile service transaction and must be terminated by forced release
Competition services	No more than EUR12 per call / PSMS / PMMS (or other such amount specified by the regulator)
Virtual chat services; Contact and dating services; Live services (including live advice services)	Callers must be notified as soon as possible on incurring charges of €30, or other such amount specified by the regulator, and are required to confirm if they wish to continue with the call. Call must be terminated by forced release when a total charge of EUR60 is reached.
Online / mobile web PRS	No more than EUR30 per call; must be terminated by forced release once this amount has been reached.

Figure 8.7: Ireland: PRS pricing by service area [Source: ComReg 2011]

Fixed line pricing

Calls to 15xx premium numbers from an eircom landline range are charged on a per call basis and range from EUR0.5 – EUR3.5 per call, with the more expensive 1590 and 1599 numbers reserved for adult services (see Figure 8.8)

<i>Number range(s)</i>	<i>Price range (per minute, connection)⁸⁸</i>
1512 xxx	Not exceeding EUR0.50 per call
1513 xxx	Not exceeding EUR0.70 per call
1514 xxx	Not exceeding EUR0.90 per call
1515 xxx	Not exceeding EUR1.20 per call
1516 xxx	Not exceeding EUR1.80 per call
1517 xxx	Not exceeding EUR2.50 per call
1518 xxx	Not exceeding EUR3.50 per call
1520 xxx	Not exceeding EUR0.30 per call
1530 xxx	Not exceeding EUR0.50 per call
1540 xxx	Not exceeding EUR0.70 per call
1550 xxx	Not exceeding EUR1.20 per call

⁸⁸ Costs will vary from mobiles

1560 xxx	Not exceeding EUR1.80 per call
1570 xxx	Not exceeding EUR2.40 per call
1580 xxx	Not exceeding EUR2.95 per call
1590 xxx	Not exceeding EUR3.50 per call
1598 xxx (Adult services; General)	Variable price up to EUR3.50
1599 xxx (Adult services; Sexual nature)	Variable price up to EUR3.50

Figure 8.8: Ireland: PRS voice call tariffs [Source: Analysys Mason, ComReg 2011]

Mobile pricing

Costs for sending or receiving a text relating to a PRS (for example, to enter a competition or cast a vote) vary depending on the prefix of the five-digit shortcode number. For example, texts to or from 53xxx cost up to EUR0.80, while there is no limit on the cost of a text to or from 57xxx. Outlined below are charges which a user is likely to incur on texting different premium rate numbers.

Number range(s)	Price range (per message/per minute)
50 xxx	Free
51 xxx	Not exceeding EUR0.16
53 xxx	Not exceeding EUR0.80
57 xxx	EUR0.80 or above
58 xxx (Adult services; General)	Variable price
59 xxx (Adult services; Sexual nature)	Variable price

Figure 8.9: Ireland: PRS mobile tariffs [Source: Analysys Mason, ComReg 2011]

8.4.3 PRS market issues

Industry sources indicate that the PRS industry in Ireland has a low incidence of scams. Even though the level of complaints and queries is high (as indicated below), this is reportedly because “often consumers call up to query a charge on their bill because they have not read the fine print”. Mobile subscription services are the primary source of discontent among users and the cause of a significant number of consumer queries and complaints. Since 12 July 2010, 250 PRS users on average have contacted ComReg each week; subscription services account for 84% of these queries and complaints. ComReg also notes that RegTel reported in its 2009 Annual Report that 91% of end-user complaints related to mobile subscription services⁸⁹.

⁸⁹ http://www.comreg.ie/_fileupload/publications/ComReg_1092a.pdf [Accessed: 08 April 2011]

8.4.4 PRS complaints and compensation

ComReg reports that during the 3 month period of October to December 2010, consumers contacted its Consumer Management Team with 2874 issues (both queries and complaints) about PRS⁹⁰. The UK saw a similar number of complaints (14 000) in 2009. A breakdown of the reasons for these consumer complaints is shown below.

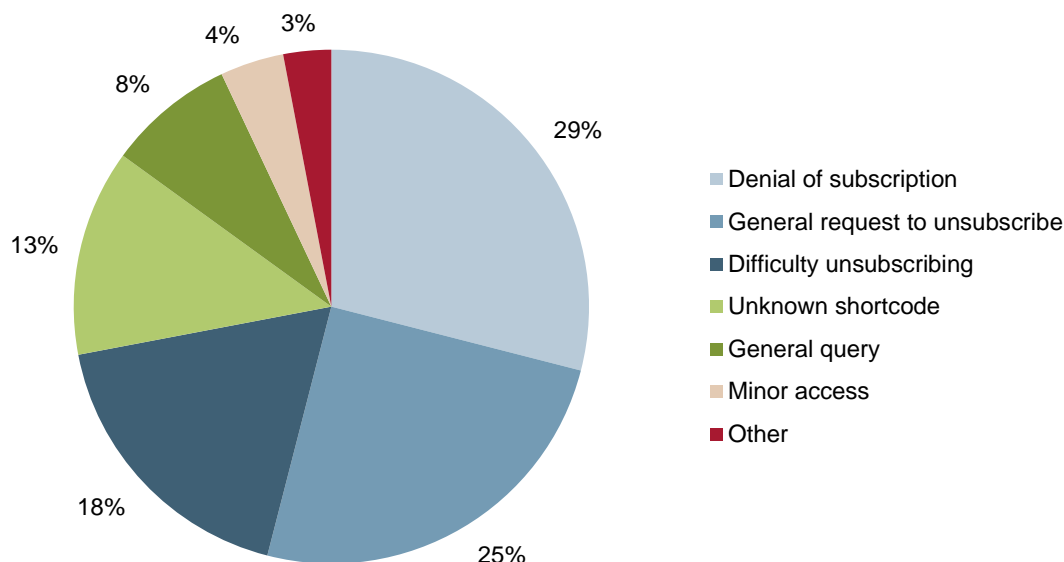


Figure 8.10: Ireland: Breakdown of consumer cases relating to PRS issues [Source: ComReg 2011]

In January 2011, ComReg launched its new consumer website, Phonesmart.ie⁹¹, to explain the types of goods and services that are classified as premium rate, and the costs involved in using them. Features of the new website include a number checker, whereby consumers can check the organisation assigned each five-digit shortcode, thus enabling them to contact the service provider directly with their query. We expect that this will help to reduce the number of queries and complaints and increase overall customer satisfaction with PRS services.

8.5 Evolution of PRS in Ireland

8.5.1 Areas of growth and decline in the PRS market

Overall, the PRS market in Ireland has been declining owing to the general economic condition and also because PRS is a mature market and no new services have been introduced of late. Mobile PRS is the predominant segment and typically accounts for two-thirds of the revenue

⁹⁰ http://www.askcomreg.ie/tell_us/consumer_queries_and_complaints_statistics.180.LE.asp [Accessed: 01 April 2011]

⁹¹ <http://www.phonesmart.ie/>

generated by the PRS industry in Ireland. Mobile PRS services include services such as voting / participation and information services which can be accessed through a PRS number dialled from the mobile or using five-digit shortcodes in the 5xxxx number range. Games, music and videos are also popular in Ireland and are offered by MNOs through their mobile Internet portals.

8.5.2 Evolution of PRS regulation

The PRS regulatory landscape has undergone a change recently with ComReg replacing the existing industry model of self-regulation under RegTel. This was done with the idea of tightening the regulatory regime, combatting rogue operators, supporting legitimate PRS providers who comply with best practice, and improving consumer welfare. ComReg on its part has taken steps to improve consumer welfare by launching a new consumer website to help consumers have more information about PRS and the accompanying costs.

Though there is no evidence of this at the time of writing, it is believed by some industry sources that micropayments may soon come under the remit of PRS, and this will in turn bring about new regulations governing these services. For example, according to ComReg “charging road tax, paying for fast food or paying for a cinema ticket by using a mobile phone may be some new PRS services on the horizon”.

ComReg is expected to issue a new Code in mid-2011 to replace RegTel’s Code of Conduct, which is still in use.

9 Italy

- Regulation of the market is carried out by the Authority for Communications, AGCOM. Sanctions are enforced by AGCOM and the Department of Communications.
- A Code of Conduct for mobile services was signed in November 2009 by mobile operators and content providers.
- One of the main concerns regarding PRS is the improper use of numbering prefixes, especially the use of prefixes for services that are not allocated to them.
- Further evolution of regulation may be driven by the perception by content providers that current PRS prices are low, and the belief that general call barring has significantly reduced the market size.

9.1 Country snapshot

Population	60.1 million
GDP per capita	USD1822
Fixed telephony penetration	41.9%
Mobile telephony penetration	137.7%
Size of PRS market (estimate) ⁹²	USD825 million
PRS revenue per capita	USD13.72

Figure 9.1: Italy market overview [Source: Analysys Mason, EIU, company reports, 2011]

9.2 Definition of PRS

In Italy, PRS are defined by Decree nr. 145, dated 2 March 2006. This Decree was approved by the Italian Ministry of Communications. The respective paragraph from Article 1 is outlined below:

Article 1 (Definitions)

h) Premium rate services: services provided through electronic communications networks, accessible to the public, including through the use of specific numbers, defined in the national numbering plan, or at international level by the appropriate bodies, that allow users access to information or services for a fee. For these services, the provider of electronic communications services charges a total price including the transport, routing, call management and provision of the information or services. Premium services also include those made through connecting to the Internet using

⁹² Market value estimate for 2009

“dial-up”, which include the identification of the service provider with a number, and “packet-switch”, which provides the identification information services with an IP address. Also included among premium services are those offered on digital interactive TV platforms, or by sending a text message or data such as, for example, SMS or MMS [...].

The different types of PRS are described in Article 3 of the same document and listed below:

<i>Types of PRS</i>	<i>Detail</i>
Informative	Public administration Public utility Directory enquiries
Professional help	Advice concerning health, legal or financial issues Press releases Publishing Weather Vocational training Customer service Transport and tourism
Mass calls	Opinion polls Televoting Fund-raising Games Events with prizes and competitions related to consumer products and services
Entertainment	Chat Astrology Voicemail Games
Products and services directly and exclusively transmitted through electronic communications network	Ring tones Software Audio and video

Figure 9.2: PRS types [Source: Ministry of Communications, 2006⁹⁴]

9.3 PRS market structure and characteristics

Market size

According to a recent academic paper,⁹³ the market in Italy for off-portal mobile content and fixed line services was worth between EUR600 million (USD800 million) and EUR650 million

⁹³ E. Prosperetti and V. Visco Comandini (Rome, Italy, 2010), *Unintended consequences on competition of excessive Consumer Protection in Italian telecommunication value added services market*. Available at http://www.dimt.it/interna.php?id_sezione=30&id_articolo=177&noNav=

(USD867 million) in 2009. This includes directory services, information services, premium telephony services, downloads of digital premium content, micropayment services and e-books.

Fixed PRS

Fixed PRS are most commonly accessed by calling the numbers with the prefixes 892, 894, 895 and 899. In addition, the '12' prefix is also used for PRS, particularly to provide social information and directory enquiries services. In 2009, the '455' prefix was introduced and allocated to fund-raising activities for charitable purposes.

Mobile PRS

Mobile PRS are usually accessed by using numbers with prefixes 43, 44, 46, 47, 48 or 49. The 455 prefix introduced for fixed lines in 2009 was extended to mobile users and its purpose remained the same (charity fundraising). These numbers are between five and seven digits long. The main players in the market include Buongiorno, Jet Multimedia and NeoMobile.

9.3.1 Communication service providers

Fixed line operators

The incumbent, Telecom Italia, is the dominant fixed telecoms service provider in Italy and the largest operator in terms of subscribers in all major segments of the telecoms market. Wind is the second-largest fixed-line operator, while in third place is Vodafone, which after acquiring Tele2 Italia in 2007 increased its presence in the fixed line market.

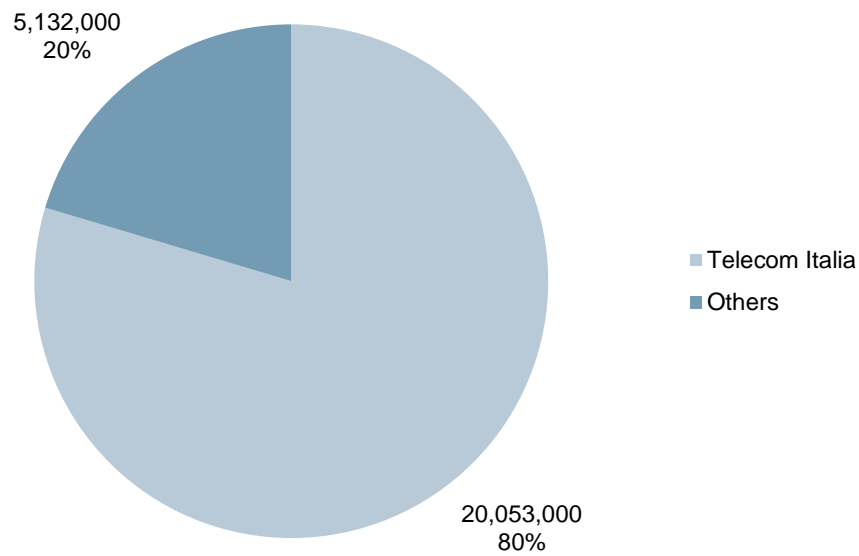


Figure 9.3: *Italian fixed operators' numbers of connections and market shares at year-end 2010*
 [Source: Analysys Mason, company reports, 2011]

Mobile operators

The market has four mobile operators, Telecom Italia, Wind, Vodafone and 3 Italia. The mobile arms of the main three fixed-line operators represent over 90% of subscriber market share. Telecom Italia has been gradually losing market share to competitors Wind, Vodafone and 3 Italia. The fourth-largest mobile operator is 3 Italia, owned by the Hong-Kong-based industrial conglomerate Hutchison Whampoa. All four mobile operators signed a Code of Conduct in November 2009.

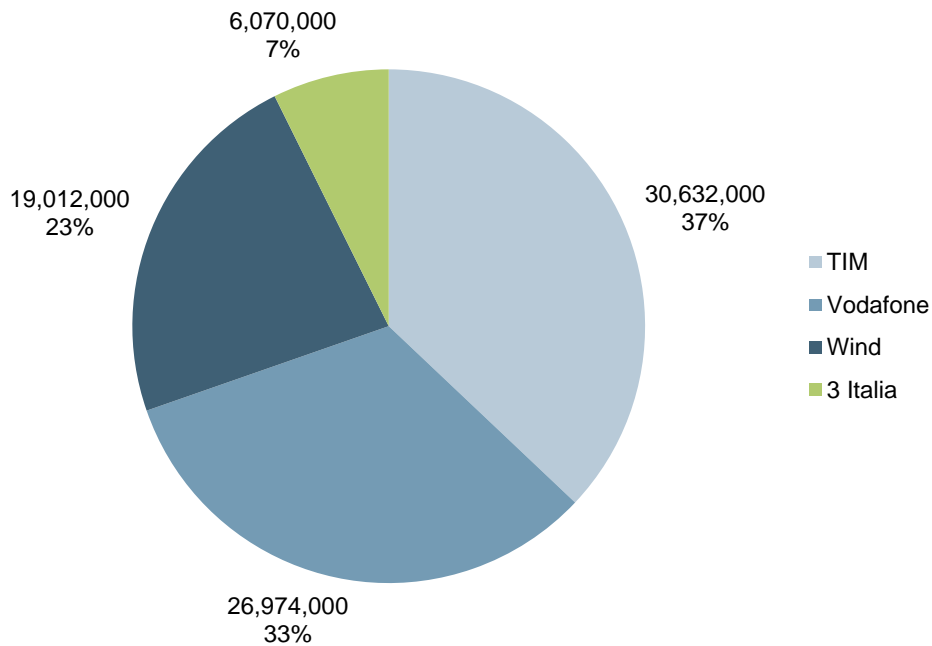


Figure 9.4: Italian mobile operators' subscriber numbers and market shares at year-end 2010
[Source: Analysys Mason, company reports, 2011]

9.4 Regulatory framework

9.4.1 Introduction

The supervision and control of PRS is responsibility of the Department for Communications ('Dipartimento per le Comunicazioni') and the Postal and Communications Police ('Polizia Postale e delle Comunicazioni'). The Department for Communications was formerly the Ministry of Communications, but since 2008 has been part of the Ministry of Economic Development ('Ministero dello Sviluppo Economico'). The Department for Communications, together with the telecoms regulator the Authority for Communications ('Autorità per le Garanzie nelle Comunicazioni' or AGCOM) is responsible for the application of sanctions. Figure 9.5 summarises these institutions and their remits.

Name	Type of organisation	Remit
Department of Communications ('Dipartimento per le Comunicazioni')	Government statutory authority	Supervision and control of PRS. Also applies sanctions
Authority for Communications (AGCOM) ('Autorità per le Garanzie nelle Comunicazioni')	Industry regulator	Regulates PRS and applies sanctions
Postal and Communications Police ('Polizia Postale e delle Comunicazioni')	Government statutory authority	Supervision and control of PRS
Authority for Competition (AGCM)	Authority for competition	Intervenes in situations of unfair trade practices relating to PRS

Figure 9.5: Italian regulatory and industry bodies [Source: Analysys Mason, 2011]

PRS in Italy is regulated by Decree nr. 145 dated 2 March 2006, approved by the Italian Ministry of Communications. This Decree makes provision for a range of issues including the different classifications of PRS, advertising, monitoring and enforcing penalties.

The numbering plan in Resolution 26/08/CIR defines the prefixes allocated to PRS, and the respective maximum tariffs. Some recent Resolutions updating the numbering plan include Resolution 34/09/CIR (which introduced the ‘455’ prefix) and Resolution 74/10/CIR. Regarding call barring, the most recent update was in 2009, in Resolution 600/09/CONS.

On the mobile side, mobile operators and content providers produced a Code of Conduct for PRS SMS/MMS (‘Codice di Condotta per l’offerta dei servizi premium SMS/MMS’), which was signed on 16 November 2009. The Code defines the rules for mobile PRS that operators and content providers commit to comply with. Some of the issues addressed by the Code are advertising and activation and cancelling.

Figure 9.6 provides a summary of the above-mentioned regulations and the Code.

Type	Document	Comment
Primary legislation	Decree nr. 145, March 2006, Italian Ministry of Communications ⁹⁴	Regulation regarding PRS
Numbering plan	Resolution 26/08/CIR, 14 May 2008, AGCOM ⁹⁵	The most recent updates include Resolution 74/10/CIR ⁹⁶
Numbering plan	Resolution 34/09/CIR, 9 July 2009, AGCOM ⁹⁷	Updates Resolution 26/08/CIR include addition of prefix 455 to numbering plan, replacing prefix 485
Call barring regulation	Resolution 600/09/CONS, 28 October 2009, AGCOM ⁹⁸	Updates the prefixes that have to be pre-locked
Code of conduct	Code of Conduct for SMS/MMS, November 2009 ⁹⁹	Aims to define shared rules of conduct for players in the sector

Figure 9.6: Regulatory and legal documents in Italy [Source: Analysys Mason, 2011]

⁹⁴ Ministry of Communications (Rome, Italy, 2006), *Decree nr. 145 dated 2 March 2006*. Available at <http://gazzette.comune.jesi.an.it/2006/84/2.htm>

⁹⁵ AGCOM (Rome, Italy, 2008), *Resolution 26/08/CIR*. Available at <http://www.agcom.it/default.aspx?DocID=2314>

⁹⁶ AGCOM (Rome, Italy, 2010), *Resolution 74/10/CIR*. Available at <http://www.agcom.it/Default.aspx?DocID=5253>

⁹⁷ AGCOM (Rome, Italy, 2009), *Resolution 34/09/CIR*. Available at <http://www.agcom.it/Default.aspx?DocID=3331>

⁹⁸ AGCOM (Rome, Italy, 2009), *Resolution 600/09/CONS*. Available at <http://www.agcom.it/default.aspx?DocID=3452>

⁹⁹ Italian mobile operators and content providers (Rome, Italy, 2009), *Code of Conduct for SMS/MMS*. Available at http://www.telecomitalia.com/content/dam/telecomitalia/documents/Sostenibilita/Politiche/Codice%20CASP%202.0_17.02.10.pdf

9.4.2 Overview of PRS regulation

Fixed regulation

In Italy, PRS is regulated by Decree nr. 145 dated 2 March 2006. The Decree covers a range of topics, including the option for users to block their landline or mobile phone to PRS without having to pay for that request. Another point stipulated by the Decree is that any phone-paid information or service must be preceded by a message which clearly and explicitly presents information such as the maximum cost of the call and the type of service provided.

The general principles in Chapter II, article 4 of the Decree highlight the following points:

- 1) The information or services provided via PRS are generally intended for adults, except as provided in Article 5.
- 2) Information provided must be clear and complete. For information or services relating to data, the date and if necessary the time are to be provided at the time of the service provision.
- 3) PRS calls are not unnecessarily long and contain no pauses, and no waiting times which are not technically necessary, and which are provided for the sole purpose of extending the connection time.
- 4) The information or services provided via PRS:
 - a) should not contain subliminal messages
 - b) should not offend the dignity of the caller
 - c) should not call for discrimination based on race, sex or nationality
 - d) should not encourage any form of violence
 - e) should not offend religious beliefs and ideals
 - f) should not lead to discriminatory conduct, be detrimental to health and safety, or harm the environment
 - g) should not prejudice the moral, physical or economic well-being of the user
 - h) should not lead to the use of alcohol, tobacco, drugs or medicines
 - i) should not have content of a pornographic or obscene nature.

Children and particular cases

Article 5 states that information or services for minors or persons who are psychologically vulnerable:

- a. should not pose a threat, even indirectly, to their health, safety or development
- b. take advantage of their credulity, lack of experience or sense of loyalty
- c. should not build on their need for affection and security
- d. should not lead to the violation of generally accepted norms of social behaviour
- e. should not lead to dangerous actions, or expose the user to dangerous situations.

Advertising rules

Article 6 specifies that the information or services provided through PRS billed on a time basis should not be interrupted by advertisements, except those already listed in the programmes re-transmitted.

Required information

Article 12 states that a PRS call should begin with a message clearly and explicitly stating the following information:

- a. a warning that the service is for adults only (if it is unsuitable for children)
- b. the name of the service provider
- c. the total cost of the information or service, or information on the fixed rate per minute or per kbyte, including VAT
- d. if applicable, the maximum cost, including VAT
- e. the maximum amount chargeable for the service, as specified in Article 15, paragraph 6
- f. method of payment for amounts exceeding the limit referred to in point e)
- g. the type of information or services provided
- h. for professional consulting services, the identity, professional qualification, professional enrolment of the service provider, if required by specific standards, and possible function
- i. express consent regarding which service is being accepted.

Mobile regulation

On 16 November 2009, the Code of Conduct for SMS/MMS PRS was signed by the four mobile operators and the main content service providers in Italy. This Code was the result of a joint effort between mobile operators and content providers to self-regulate. Under the Code, operators and content providers commit to implementing a monitoring structure to ensure compliance with the guidelines. The findings from that monitoring and market development are to be shared by operators and content providers with the authority responsible for PRS supervision.

The objective of the Code is to define the rules for numbers commencing with the '4' prefix (used for information enquiries, mass calls and entertainment services) with respect to advertising, subscription and cancelling of service, protecting the rights of consumers, and ensuring the appropriateness of the business practices being used. Some of these topics are described below in more detail.

Advertising

The Code defines what information has to be included in adverts, the format of the content, its dimensions and the specific layout to be used on different media (TV, radio, Internet, WAP and newspaper). There is also an item addressing minors, stating the particular importance of making the nature of the content very clear, and having present the phrase “This is a subscription service – ask an adult before making the purchase”.

Activation and cancelling of the service

Every user that subscribes to a PRS should receive a free SMS/MMS following the transmission of the first paid content, containing the following information:

- the name of the service
- notification that the subscription has been activated
- the price of the service
- the frequency that charges will be made
- the relevant customer service number
- information on how to cancel the service by sending a “STOP” message.

Under the Code, sending an SMS to a ‘4’ number without any text cannot be interpreted as expressing an intention to access the service. As such, no additional charge over the standard cost of sending an SMS should be incurred by the user.

Customer service number

The content provider is required by the Code to make a customer service number available to users. The maximum cost of a call to that number is EUR0.15 (USD0.20) per minute, plus a EUR0.15 (USD0.20) connection fee. The layout format to be used in customer service via website or WAP is also defined in the Code.

Sensitive content

‘Sensitive’ content is defined in two categories: (a) ‘glamour’ or low sensitivity: content that does not offend public decency, and (b) adult or high sensitivity: all other sensitive content. In both categories, there are rules that govern the direct access to the service. For example, there should be an informative page before accessing the service asking the user to confirm their express intention to subscribe to the service. Access to highly sensitive content has to be protected by a PIN, as stated in Resolution 661/06/CONS.

To block access to sensitive content from both SMS and MMS via ‘4’ numbers, users can call customer service.

9.4.3 Tariff structure

Fixed line pricing

PRS can be accessed by dialling numbers with '89x' prefixes, where the 'x' digit changes according to the type of PRS. The use of 89x prefixes for fund-raising and televoting is only allowed under a flat rate tariff. Numbers with the '12' prefix are also considered PRS numbers and concern social information and directory enquiries services offered to subscribers calling from either fixed or mobile networks. The prefixes 166, 164, 163 and 144 were used for PRS until 31 December 2009, when they were discontinued.

In 2009, Resolution 34/09/CIR from AGCOM introduced the '455' prefix for use in fund-raising activities of charitable purposes. The 455 prefix can be accessed by fixed line and mobile users.

<i>Number range(s)</i>	<i>Use</i>	<i>Details</i>	<i>Price range (per minute, connection)¹⁰⁰</i>
892	Social information	n/a	Price ≤ EUR0.30 (USD0.40) connection fee Price ≤ EUR1.50 (USD2.00) per minute Price ≤ EUR2.00 flat rate
894	Mass calls	n/a	Price ≤ EUR0.0656 (USD0.09) connection fee Price ≤ EUR0.2293 (USD0.31) per minute Price ≤ EUR1.00 (USD1.33) flat rate (non-fund-raising) Price ≤ EUR2.00 (USD2.67) flat rate (fund-raising)
895	Professional help	n/a	Price ≤ EUR0.30 (USD0.40) connection fee Price ≤ EUR1.50 (USD2.00) per minute Price ≤ EUR2.00 (USD2.67) flat rate
899	Entertainment and sale of products and services that only use the telecoms network	n/a	Price ≤ EUR0.30 (USD0.40) connection fee Price ≤ EUR1.50 (USD2.00) per minute Price ≤ EUR2.00 (USD2.67) flat rate
455	Fund-raising for charity	n/a	Price ≤ EUR10.00 (USD13.33)
12	Social information and directory enquiries	n/a	Price ≤ EUR0.30 (USD0.40) connection fee Price ≤ EUR1.20 (USD1.60) per minute Price ≤ EUR1.50 (USD2.00) flat rate

Figure 9.7: Italian voice call PRS tariffs [Source: AGCOM, 2009⁹⁷ and 2010⁹⁶]

¹⁰⁰ Charges do not include VAT

Mobile pricing

The prefixes '4x' attributed to PRS are reserved for services provided using SMS/MMS or other types of data transmission. The 'x' varies according to the type of PRS. As mentioned above, the '455' prefix was introduced in 2009 under Resolution 34/09/CIR for use for charitable fund-raising.

Number range(s)	Use	Details	Price range (per message/per minute) ¹⁰¹
43	Information, excluding subscriber information	n/a	Price ≤ EUR2.00 (USD2.67) flat rate Price ≤ EUR20.00 (USD26.67) per month for subscriptions
44	Information, excluding subscriber information	n/a	Price ≤ EUR0.25 (USD0.33) flat rate
455	Fund-raising for charity	n/a	Price ≤ EUR2.00 (USD2.67)
46 – 47	Mass calls	n/a	Price ≤ EUR2.00 (USD2.67) flat rate Price ≤ EUR20.00 (USD26.67) per month for subscriptions
48 – 49	Entertainment and sale of products and services that only use the telecoms network	n/a	Price ≤ EUR2.00 (USD2.67) flat rate Price ≤ EUR20.00 (USD26.67) per month for subscriptions

Figure 9.8: Italian mobile PRS tariffs [Source: AGCOM, 2009⁹⁷ and 2010⁹⁶]

9.4.4 PRS market issues

In the last couple of years the main issues regarding PRS have revolved around topics such as the pre-blocking of PRS numbers in fixed telephony and mobile phones, and establishing price caps for PRS usage. One particular issue at present is subscribers being subscribed to services that they had not requested. According to the legal expert Eugenio Prosperetti¹⁰² (Prosperetti & Associati Studio Legale) the real intention of this kind of complaint is to complain about the transparency of the information provided during activation. Prosperetti found that customers who registered complaints had often accessed the activation pages without realising they were entering an activation process.

Improper use of numbering prefixes is another issue, and is associated with the pre-blocking of prefixes. The issue involves the use of the prefixes 894 (mass calling services) and 895 (professional services) for purposes other than the ones for which they are assigned. Unlike other PRS numbers, the 894 prefix (up to six digits) and 895 prefix (up to six digits) are not pre-blocked, and this presents an opportunity for some content providers to use these numbers to sell products or services of a different nature.

¹⁰¹ Charges do not include VAT

¹⁰² <http://www.linkedin.com/in/eprosperetti>

Resolution 26/08/CIR from the Ministry of Communications established the obligation for pre-blocking in fixed telephony (except for prefixes 894 and 895). This raised concerns among some service providers as it discriminated other PRS numbers that were exempt from blocking. In 2009, Resolution 600/09/CONS updated the prefixes to be pre-locked. On the fixed side, the prefixes exempt from pre-blocking are 12, 455, 892, 894 (up to six digits, 894 YUU type) and 895 (up to six digits, 895 YUU type). On the mobile side, numbers allocated to charitable fund-raising, toll-free numbers and numbers that give access to subscription services are exempt from pre-blocking.

9.4.5 PRS complaints and compensation

In 2010, AGCOM required content providers NOATEL and DECA TEL to pay EUR816 000 (USD1 088 000) and EUR120 000 (USD160 000) respectively, for using of PRS numbers for purposes other than those specified in Resolution 26/08/CIR.

9.5 Evolution of PRS in Italy

9.5.1 Areas of growth and decline in the PRS market

According to Prof. Vincenzo Visco Comandini¹⁰³ the fixed line voice PRS market has been decreasing significantly in recent years. The reason is that the dominant business model is driven by interactive games and polls run by local TV broadcasters, who have become increasingly weak and under financial pressure. The only growing segments are WAP applications and social networking. Prof. Comandini adds that recently mobile operators focussed on premium mobile on-line portals have announced plans to launch new content services using WAP technology, so they can strengthen their power within the premium content services market.

9.5.2 Evolution of PRS regulation

There appear to be three main areas where PRS regulation may be updated: mobile price caps, interoperability of PRS numbering and general call barring. AGCOM hosts the committee that is assessing the proposals submitted on these same issues.

- *Mobile price limit:* The mobile price cap of EUR2.00 (or EUR20.00 for subscription services) is generally perceived by content providers as being too low, not giving them enough profit margin to acquire high-quality content. Content providers have repeatedly pointed out this situation in regulatory committees at AGCOM, and expect that modifications to the price limit will happen.
- *Interoperability of PRS numbering:* In theory, content providers should be able to interconnect a number obtained from one operator with the network of another operator and provide the service. However, in practice the different technical requirements across operators do not make it possible to comply with the interoperability required by the regulation. This is an

¹⁰³

Website: <http://www.economia.uniroma2.it/nuovo/facolta/docenti/docenti.asp?idProfessore=137>

issue that has involved discussions from AGCOM and operators, and may result in modifications to the existing regulation.

- *General call barring*: The enforcement of call barring has diminished fixed PRS revenue by 90%. Questions have been raised (mainly by content providers) regarding the legitimacy of call barring and, depending on whether these concerns are accepted, the regulation may be modified.

Any update of the regulation would be included in the updates of the National Numbering Plan, but there is no set schedule for this.

10 Netherlands

- There is no official definition of PRS available in the Netherlands. PRS numbers are most often called ‘information numbers’ or ‘service numbers’. These numbers can be free of charge (0800) or they can be charged numbers (09x).
- Premium rate shortcodes are used for a range of activities including voting / participation, chatting and information services.
- PRS is regulated by OPTA, the independent post and telecoms regulatory authority.
- There is a Code of Conduct governing premium SMS services; the Code is a collaborative effort between industry stakeholders, including service providers and content providers. An SMS Code of Conduct and SMS Advertising Code come into effect on 15 May 2011.

10.1 Country snapshot

Population	16.6 million
GDP per capita (USD)	40 602
Fixed telephony penetration	54.3%
Mobile telephony penetration	120.4%
Size of PRS market (USD)	USD310 million (estimate)
PRS revenue per capita (USD)	USD19.00 (estimate)

Figure 10.1: Netherlands overview [Source: Analysys Mason, EIU, company reports, 2011]

10.2 Definition of PRS

In the Netherlands, PRS numbers are most often called ‘information numbers’ or ‘service numbers’. Information numbers can be free of charge (0800) or they can be charged numbers (09x). The regulator OPTA regulates PRS in Netherlands, but there is no official definition of PRS available.

10.3 PRS market structure and characteristics

Introduction

Information numbers are divided into free information numbers (0800 number range) and premium rate numbers (09x). These can be further subdivided, based on content: 0800 numbers are only for free services, while 09x numbers are premium rate numbers which can be for information, adult or entertainment services.

Market size

Analysys Mason estimates that the market size for PRS is USD310 million in 2010, which does not include DQ services.

Fixed

In a report by Cullen Wiki Consult (2005)¹⁰⁴ the PRS numbering structure is summarised as below:

Number range	Details
090x, x=(6,9,0),	Content specific digits; existence of short numbers (4 digits) and long numbers (7 digits)
0900	Most restricted number range, no adult content, no call extension (gaming)
0909	Some restrictions are lifted: call extension is allowed, but adult content is not allowed
0906	No restrictions, every type of content is allowed

Specific number blocks within 090x are reserved for mass-calling/media numbers (tele-voting) on the basis of an agreement between OPTA and the service provider: they are not part of the numbering plan.

- Mass calling numbers short: 090x-03xx
- Mass calling numbers long: 090x-31xxxxx
- Media numbers short: 090x-00xx; 090x-13xx; 0909-88xx
- Media numbers long: 090x-30xxxxx

To get access to a short 090x number (090x + 4 digits) more strict requirements have to be fulfilled compared to long numbers (090x + 7 digits), because of the scarcity of possible numbers. A minimum of calls per month and a minimum of minutes per month must be guaranteed for these short numbers:

- 0900xxxx – 3000 calls, 7500 min
- 0906xxxx – 2500 calls, 10 000 min
- 0909xxxx – 3000 calls, 7500 min

Mobile

¹⁰⁴ Cullen International SA and WIK Consult GmbH, Final report – National PRS implementation. Study on pan- European market for premium rate services. Namur, June 24, 2005. Annex I, p. 99-100.

All PRS services available to fixed callers are also available to mobile subscribers. In addition to the standard fixed line facilities, mobile users can also access a range of services including voting / participation and information services, using four-digit shortcodes.

10.3.1 Communication service providers

Fixed line operators

The incumbent operator in the Netherlands, KPN, has a 66% market share by subscribers. Cable companies UPC and Ziggo are its most significant competitors.

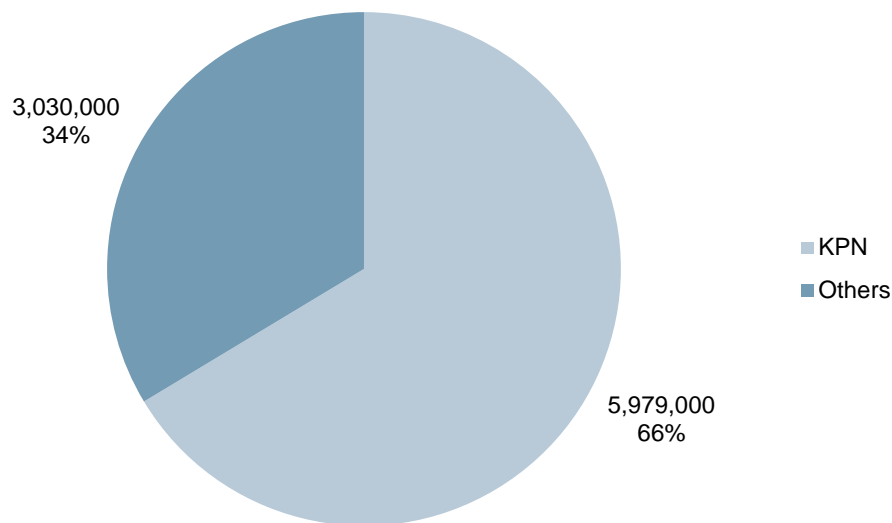


Figure 10.2: Netherlands: Fixed operators' numbers of connections and market shares at year-end 2010 [Source: Analysys Mason, company reports, 2011]

Mobile operators

KPN is also a strong mobile arm with 50% of subscriber market share. T-Mobile and Vodafone have become KPN's principal opponents in the mobile market.

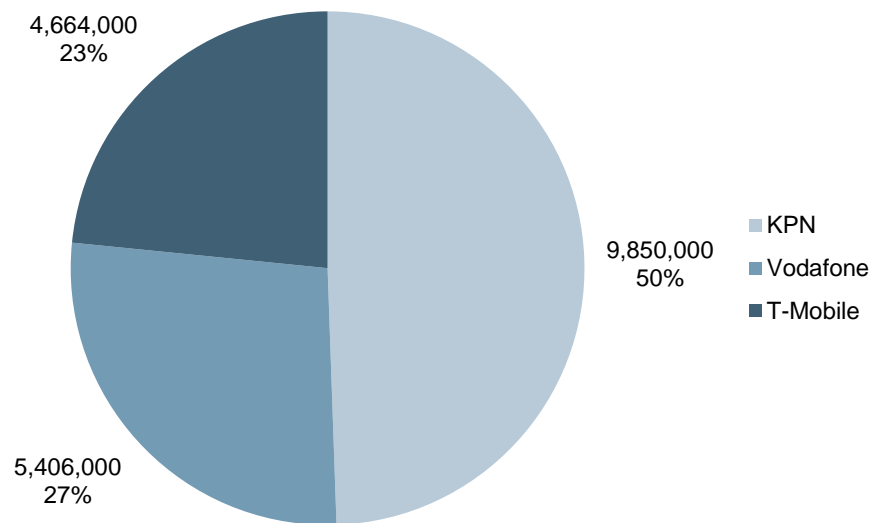


Figure 10.3: Netherlands: Mobile operators' subscriber numbers and market shares at year-end 2010
[Source: Analysys Mason, company reports, 2011]

10.4 Regulatory framework

10.4.1 Introduction

The body responsible for regulating PRS is the **Independent Post and Telecommunications Authority** ('Onafhankelijke en Post en Telecommunicatie Autoriteit' or **OPTA**). OPTA monitors the allocation and use of premium rate numbers and is responsible for the regulation of PRS. All businesses which provide electronic communications services, networks or related facilities are required to register with OPTA. OPTA is 90% funded by the fees that these organisations pay.

The **Ministry of Economic Affairs, Agriculture and Innovation** ('Ministerie van Economische Zaken, Landbouw en Innovatie') is responsible for consumer protection for electronic communications services as well as for telecoms regulations including the Telecommunications Act. The Ministry is not involved in the daily supervision and operations of PRS¹⁰⁵. The Ministry of Economic Affairs does not have any direct control over the decisions which OPTA makes.

The tables below summarise the main regulatory and industry bodies in the Netherlands, and the regulations and legal documents relevant to PRS.

¹⁰⁵ Rijksoverheid; Available at www.rijksoverheid.nl (in Dutch)

Name	Type of Organisation	Remit
Ministry of Economic Affairs ('Ministerie van Economische Zaken, Landbouw en Innovatie')	Government organisation	Overall responsibility for telecoms regulations and consumer protection
Independent Post and Telecommunications Authority ('Onafhankelijke en Post en Telecommunicatie Autoriteit' or OPTA)	National regulator for post and telecoms	Regulates communications market, monitors the allocation and use of premium rate numbers and is responsible for the regulation of PRS.

Figure 10.4: Netherlands: Regulatory and industry bodies [Source: Analysys Mason, 2011]

Type	Document	Comment
Key directive	Telecommunications Act (2004)	
Key directive	Code for SMS Services, May 2011	Code of Conduct which is a collaborative effort of several parties involved in the provision of SMS services in the Netherlands.
Key directive	SMS Service Provision Advertising Code, May 2011	

Figure 10.5: Netherlands: Regulations and legal documents [Source: Analysys Mason, 2011]

Key legislation

Legislation pertaining to information numbers

New legislation and regulations came into effect on 1 July 2008¹⁰⁶, which allow OPTA to monitor the issue of premium rate telephone numbers in the 0900, 0906, 0909 and 18xx series. Key clauses include:

- *Allocation of information numbers:* OPTA has the responsibility of allocating information numbers and receives applications for the same. Following the tightening of regulations in 2008, OPTA has become stricter when considering applications for premium rate telephone numbers. If OPTA has any doubts about an applicant's intentions, it can seek the advice of the Public Administration Probity Screening Agency ('Bureau Integriteit Bevordering Openbaar Bestuur' or BIBOB) in the Ministry of Justice. OPTA may refuse to allot a telephone number, if that agency issues an adverse recommendation.
- *Details of number users:* OPTA issues a telephone number to a number holder, who in turn may allow another number user to use that number. As of 1 July 2008 it is mandatory for number holders to keep records of the details of their number users and to submit this

¹⁰⁶ OPTA, Available at <http://www.opta.nl/en/news/all-publications/publication/?id=2622>

information to OPTA immediately in the event that there is any suspicion that a premium rate number is being misused.

- *Number misuse*: Examples of misuse include: no information on cost is provided before a call, or incorrect information is supplied, or callers are kept on the line without eventually being able to speak to anyone or a service being provided. If there has been such a misuse OPTA has the authority to take action against the concerned parties. OPTA may freeze payments to the person misusing the number or may arrange for the number to be disconnected.

Self-regulation

In addition to the regulation imposed by OPTA, there are two codes of conduct pertaining to mobile PRS:

- The SMS Code – a collaborative effort of several parties involved in the provision of SMS services in the Netherlands, including service providers and content providers.
- The Mobile Advertising Code – a code which aims to establish a clear set of criteria for advertising SMS services so that end users receive clear information about the nature and price of services.

The SMS Code of Conduct and the SMS Advertising Code are both available (in Dutch only) in the public domain.¹⁰⁷ In addition to these two codes, stakeholders involved in the provision of SMS services have also provided a ‘filter’ for SMS subscription services. This facility can be used if a consumer never wants to receive an SMS subscription service: the consumer enters their number in the website (www.smsdienstenfilter.nl) and SMS subscription services are blocked within three working days.

The SMS Code

The **SMS Code of Conduct** is valid from 15 May 2011 and stipulates:

- In any message received by the end user, the shortcode or the relevant service should be listed in the header of the text.
- Premium SMS messages should be sent only to end users who have pro-actively opted in to the service.
- With effect from 1 April 2011 an end user who has registered their number to be blocked by the SMS services filter must be excluded from receiving any such messages.
- If a content provider receives a request for an SMS service from a mobile number that has been blocked for premium SMS use via the SMS services filter, the content provider is obliged

¹⁰⁷ Available at <http://www.smsgedragscode.nl/> (Information in Dutch)

to send a free SMS with the following text: “You cannot use the service because your number has been blocked for this. You can remove the block at www.smsdienstenfilter.nl.”

- In all promotional communications regarding SMS services, the content provider should comply with the Advertising Standards.
- The parties to the Code of Conduct are not permitted to use numbers other than shortcodes for offering and/or advertising premium SMS numbers.
- If the content delivery takes place via WAP push, the same content must also be delivered by SMS within 3 minutes after the WAP push message has been sent. Both the WAP push message and the SMS message may be sent as a premium message, on the understanding that the same content item may not be charged for twice.

Advertising Code

The **Advertising Code** (also valid from 15 May 2011) aims to establish a clear set of criteria for advertising SMS services to provide end users with clarity regarding the nature and price of services.

- Advertisements for SMS services must not contain any statements or images which may mislead the consumer, nor must any information be omitted if this omission would also be misleading.
- Advertising for all SMS services should have the following minimum information:
 - Whether it is a one-off service or a subscription service.
 - If a subscription service is involved, a statement explaining if the subscription needs to be for a minimum duration and an explanation of how the subscription service can be terminated.
 - The most important characteristics of the service, including the price and frequency (if applicable).
 - In the case of a chat service, whether the chat will be with one or more people.
 - In the case of an adult service it must be specified that the minimum age for use is 18 years.
 - All costs associated with a premium SMS (whether ad-hoc or subscription) must be specified.
- No abbreviations may be used when stating the price, with the exception of the euro symbol and stating ‘inclusive of VAT’.
- There are also supplementary advertising requirements, depending on the medium used – Internet, TV, radio, or print.

10.4.2 Tariff structure

Legislation and regulations that came into effect on 1 October 2008 include regulations to do with tariff structure and transparency. They require that when consumers call a paid information number, at the outset they must hear what tariff is to be charged. If the tariff for calling a 0900 number exceeds EUR0.15 (USD0.2) per minute, the information service provider must state the maximum charge that will be levied for a call.

Mobile phone providers may charge an additional tariff for telephone calls to paid information numbers. In addition to the fee charged for the information service, the call charges which a mobile phone provider levies must also be disclosed. The disclosure must make it clear to consumers what additional charges will be levied by stating either the precise tariff charged for the call, or relevant information about that tariff.

10.5 PRS market issues

The PRS market has historically been plagued by scams and issues, and as a result in 2008 there was a tightening of rules and regulations; OPTA now maintains a tighter control on PRS.

Subscription scandals and misleading pricing

Case study: Scrappy's Electronics

OPTA reports¹⁰⁸ that on 22 November 2008, thousands of people received a fake invoice from Scrappy's Electronics for EUR166.15 (USD221.5). To inquire about this invoice they were referred to an 0900 number for which they were charged EUR0.80 (USD1.06) per minute. Those who called this number were kept on hold for four minutes and subsequently disconnected. ConsuWijzer (a government information portal for consumers to file complaints) received numerous complaints and notified OPTA of this number misuse.

On 24 November 2008, OPTA ordered the service provider responsible for this specific number to deactivate it, and on 28 January 2009 OPTA officially revoked the number. At this point it appeared that the consumers affected would have to pay telephone bills that had been increased considerably by these call charges. But in March 2009 it was reported that these consumers would automatically receive a refund of these fraudulent call charges within two months. No further information was available at the time of writing.

Inaccurate pricing

OPTA reports¹⁰⁹ that it has issued 51 admonitions to users of premium rate phone numbers costing more than EUR0.15 (USD0.2) per minute, for failing to inform their callers of the maximum rate of each call upon connection. To date, it has assessed a total of 172 premium rate numbers at

¹⁰⁸ OPTA, Available at <http://www.opta.nl/en/news/all-publications/publication/?id=2896>

¹⁰⁹ OPTA, Available at <http://www.opta.nl/en/news/all-publications/publication/?id=2778>

random or after receiving consumer complaints through ConsuWijzer (see below). 121 of these (over 70%) proved to be in compliance with the legal obligation of providing information on maximum charge rates. OPTA sent a written admonition to the providers using the other 51 premium rate numbers, which had failed to comply. If these numbers remain non-complaint, OPTA may take enforcement measures, e.g. imposing an order for incremental penalty payments or a fine. OPTA also informed the relevant telecoms operators, as the legal obligation affects both the number users and the telecoms operators.

10.5.1 PRS complaints and compensation

There is an official online information portal called ‘ConsuWijzer’ where consumer can file complaints. ConsuWijzer was established as a joint venture between three regulatory authorities which fall under the Ministry of Economic Affairs: OPTA, the Netherlands Competition Authority (NMa), and the Consumer Authority.¹¹⁰ Consuwijzer provides a special online form that consumers may use to make complaints, e.g. about the absence of phone rate information or long telephone queues.

10.6 Evolution of PRS in Netherlands

10.6.1 Areas of growth and decline in the PRS market

At the time of writing, there is no evidence available in the public domain to suggest the trajectory of growth (or decline) that PRS in the Netherlands are likely to follow in the future.

10.6.2 Evolution of PRS regulation

As mentioned above, in addition to the regulation imposed by OPTA, there is an SMS Code of Conduct that is a collaborative effort of several stakeholders, including service providers and content providers. The SMS Code of Conduct and the SMS Advertising Code are both available in the public domain and came into effect on 15 May 2011.

¹¹⁰ ConsuWijzer, Available at <http://www.consuwijzer.nl/> (in Dutch)

11 Russian Federation

- The Russian PRS market, comprised of both fixed and mobile content services as well as DQ services, is estimated at USD1.30 billion for 2010, representing roughly USD9.10 per capita, with the overwhelming majority of revenue concentrated in mobile-based services.
- There is no explicit legal definition of PRS, resulting in a lack of regulatory clarity as to what constitutes PRS and the relationship between operators, subscribers and third-parties involved in providing such services.
- According to existing regulation, the provision of and access to PRS in Russia is an exclusive agreement between the fixed-line or mobile operator and the consumer.
- Russia's Federal Service for Supervision in the Sphere of Telecom, Information Technologies and Mass Communications (Roskomnadzor) provides regulatory oversight and enforcement of consumer protection for fixed and mobile PRS.
- The lack of a formal definition of PRS, and subsequently the poor regulation of such services, has left the market ripe for abuse, by both legitimate and illegitimate companies. In an attempt to provide some level of oversight, Roskomnadzor has used interpretations of the existing telecoms regulation pertaining to the scope of the subscriber agreement and the relationship between subscribers and operators.
- Despite increasing complaints to Roskomnadzor about consumer fraud relating to SMS shortcodes, Russia's mobile operators have shown aversion to regulatory intervention in the marketplace, instead advocating a self-policing approach.
- Going forward, more stringent PRS regulation in Russia is unlikely. Roskomnadzor's scrutiny of the PRS marketplace has been met with little enthusiasm by mobile operators, who continue to receive a significant share of revenue from PRS. Mobile operators have, however, offered to improve price transparency of PRS as a means of reducing consumer harm.

11.1 Country snapshot

Population	141.7 million
GDP per capita	USD15 625
Fixed telephony penetration (2009)	32.2%
Mobile telephony penetration	145.1%
Size of PRS market (estimate)	USD1.30 billion
PRS revenue per capita	USD9.10

Figure 11.1: Overview of the Russian Federation [Source: Analysys Mason, EIU, company reports, 2011]

11.2 Definition of premium-rate services

PRS are known in Russian as *dopolnitelnyye uslugi* (дополнительные услуги) or *uslugi s dopolnitelnoj oplatoj* (услуги с дополнительной оплатой) and are available to both subscribers of fixed and mobile services. Although there is no formalised legal definition for such services, Russia’s incumbent fixed-line operator, OJSC Rostelecom (‘Rostelecom’), defines such services as follows:

Premium-rate services are call-based services accessible via the pre-defined 8-809 number range.

The service is available to individuals seeking access to information, advice and referrals. The 8-809 number range allows individuals or enterprises to collect a fee for any calls made to the relevant number.

The Russian Government’s 18 May 2005 Resolution № 314, concerning “The Rules on the Provision of Communication Services – Local, Inter-city and International Telephone Services,” provides legal recognition for **fixed line PRS offerings** by telecoms operators.¹¹¹ However, the legal document stops short of providing any mention of the types of PRS offerings which are available to consumers, or any indication of the rights and responsibilities of the owners of such numbers with respect to consumers. The legal principles outlined in Resolution № 314 indicate that the provision and access to PRS is an exclusive agreement between the fixed communication service providers and consumers.

While Resolution № 314 does not provide any explanation of the types of services provided via the 8-809 number range, Rostelecom, by way of its PRS agreement, provides a breakdown of the services available:

<i>Service</i>	<i>Definition</i>
<i>Professional Information</i>	PRS that allows consumers to seek professional advice via telephone, including: medical, legal, etc.
<i>Dating Services and Leisure</i>	PRS allowing users to communicate with each other outside of the web-domain, via voice messaging and direct conversations.
<i>Telephone ordering services</i>	Premium-rate number for consumers wishing to place telephone orders for food delivery, taxis, Internet top-up, agency booking and other types of consumer services
<i>Directory services</i>	PRS providing consumer access to information on weather, train schedules, road closures, etc.
<i>Voting services</i>	PRS allowing users to vote for their favoured contestant in TV shows, with votes chargeable to their home phone.

Figure 11.2: Rostelecom PRS service area descriptions [Source: OJSC Rostelecom – Services for Corporate Clients – *Uslugi za dopolnitelnou oplatu*, 2011]

¹¹¹ Government of the Russian Federation: The Rules on the Provision of Communication Services – Local, Inter-city and International Telephone Services, Resolution № 314; Effective from 01 July 2005.

The definitive regulatory document governing the provision and usage of mobile services, and the service and payment relationship between subscribers and operators, is the Russian Government's Resolution № 328 "Ruling on the Regulations Governing the Provision of Mobile Services" of 25 May 2005.¹¹² The regulation of mobile communication services [in Russian: *uslugi podvizhnoj svyazi* (услуги подвижной связи)] is overseen by the Russian Federation's Federal Service for Supervision in the Sphere of Telecom, Information Technologies and Mass Communications (Roskomnadzor).

Much like the law governing fixed telephony services, Resolution № 328 does not make explicit reference to, or definition of, the nature of PRS. Instead, as has been contested in a number of court cases relating to payment for PRS, the document makes explicit that the relationship between the consumer and mobile operator is contingent on the catch-all provision of **mobile connectivity services**, and not limited to data transfer or person-to-person communications. Further, Resolution № 328 stipulates that mobile operators, with the consent of mobile subscribers, are free to decide and provide a range of mobile connectivity-based services. However, the document does not stipulate the types of services or any understanding of mobile subscribers' relationships with third-parties who provide content. Instead the document is based on a two-party contract relationship for the provision of 'communications services of a mobile nature' between the mobile operator and mobile subscriber, the latter being an individual or legal entity.

Article 8: The provision of mobile connectivity services can, with the agreement of the mobile subscriber, include other services which are similar to the contracted mobile connectivity, with a view to delivering additional value to subscribers.

*The list of additional services which can be provided is at the discretion of the mobile operator.*¹¹³

The ambiguity in the Russian law governing mobile PRS has resulted in calls for more comprehensive regulation, relating specifically to the legal recognition of a number of specific services, i.e. SMS shortcodes. Further, the issue of regulation is complicated by the lack of clarity as to the regulatory remit of specific agencies in governing the marketplace for PRS.

At present, a number of overlapping regulatory structures can be applied to govern PRS available to mobile subscribers, including: the Consumer Rights Act,¹¹⁴ Data Protection Act¹¹⁵, Russian Federation Civil Code¹¹⁶, Russian Federation Criminal Code¹¹⁷, Federal Anti-Monopoly Code¹¹⁸,

¹¹² Government of the Russian Federation: On the rules governing the provision of mobile services, Resolution № 328; Effective from 01 July 2005.

¹¹³ Ibid.

¹¹⁴ Government of the Russian Federation: Law of the Russian Federation – On protection of the rights of consumers, Resolution № 2300-1; Effective from 07 February 1992.

¹¹⁵ Government of the Russian Federation: Federal Law of the Russian Federation – On the protection of personal data, Resolution № 152-F3; Effective from 27 July 2006.

¹¹⁶ Government of the Russian Federation: Civil Code of the Russian Federation, Resolution № 51-F3; Effective from 30 November 1994.

Content Rights (IP) Code¹¹⁹ and the Regulatory Code for Mass Media¹²⁰. All of these documents provide varying degrees of protection to consumers; however, most have only served to confuse consumers as to their rights. Consumer-advocacy groups and regulators have previously called for the inclusion of a definition of PRS, especially SMS shortcodes, into the existing mobile telecoms law¹²¹ to help enshrine the protections for subscribers, operators and third-parties, and ensure continued growth of services and revenues.

11.3 Premium-rate services market structure and characteristics

Market size

From a product and services standpoint the PRS marketplace in the Russian Federation is quite advanced. Analysys Mason estimates that the combined fixed and mobile PRS market amounted to approximately USD1.30 billion in 2010, representing a per capita annual revenue of USD9.10.

We estimate that the total revenue opportunity from **fixed** PRS in Russia amounts to less than USD10 million per annum. In light of the convenience and ubiquity of mobile services (mobile penetration in Russia is estimated at 150% in 2010¹²²) the growth in the usage of fixed PRS has been stagnant: fixed PRS remain concentrated around third-party, paid-call services offering, for example, directory enquiries, professional advice, dating services and adult chat.

According to Advanced Communications and Media (AC&M), the revenue from **mobile** value-added service, comprising WAP downloads and SMS shortcodes, amounted to USD1.29 billion in 2010. This represents a growth of 22% on the USD1.01 billion revenues in 2009.¹²³ Given the market value of PRS, mobile operators have worked to increase the availability of content to their subscribers, both via direct offerings and joint-partnerships with leading content providers – including a number of US and European content aggregators¹²⁴.

¹¹⁷ Government of the Russian Federation: Criminal code of the Russian Federation, Resolution № 63-F3; Effective from 13 June 1996.

¹¹⁸ Government of the Russian Federation: Federal law on the protection of competition, Resolution № 318-F3; Effective from 01 December 2007.

¹¹⁹ Government of the Russian Federation: Law on content and other rights, Resolution № 5351-1; Effective from 09 July 1993.

¹²⁰ Government of the Russian Federation: Law on mass media communications systems, Resolution № 2124-1; Effective from 27 December 1991.

¹²¹ Government of the Russian Federation: On the rules governing the provision of mobile services, Resolution № 328; Effective from 01 July 2005.

¹²² Analysys Mason (UK, 08 July 2010), *Russia: Core Forecasts*. Available at: <http://www.analysismason.com/Research/Content/Forecasts/Russia-core-forecasts/>

¹²³ AC&M Consulting (Russia, 04 March 2011), *Russian Cellular VAS Statistics*. Available at: <http://www.acm-consulting.com/data-downloads.html>.

¹²⁴ Mobile TeleSystems OJSC (Russia, 21 March 2011), *MTS Signs Agreement with Major Film Studios*. Available at: <http://www.mtsgsm.com/news/2011-03-21-28636/>.

Fixed PRS

Fixed PRS are accessed solely by calling numbers starting with ‘8-809’, and are generally referred to as “*uslugi c dopolnitelnoj oplatoy*”. The Russian Federation numbering plan does not make a distinction between the different types of paid-for calling services, e.g. advice versus adult chat.

In terms of its geographical footprint and incumbent status, Rostelecom is the dominant provider of fixed PRS. However, consumers are wary of using such services due to high levels of fraud, the lack of pricing transparency, and consumers’ lack of familiarity with the ‘8-809’ number range.

Mobile PRS

The mobile PRS marketplace continues to grow considerably, with mobile operators and third-party content aggregators competing for a share of consumers’ entertainment spend. While the market was previously fragmented amongst a variety of non-operator -affiliated, third-party firms providing content, as of 2009 mobile operators have considerably expanded their presence in the marketplace, launching their own dedicated portals. Russia’s leading mobile operators, Mobile TeleSystems OJSC (MTS), VimpelCom Ltd. (Beeline), OJSC MegaFon (MegaFon) and CJSC Tele2 (Tele2) have, to various extents, invested in launching their own content portals, which offer a range of paid-for content and services. To help drive take-up of their own content offerings, the mobile operators do not charge their own subscribers for any traffic incurred during browsing or download of content on the operator’s own content portal.

MTS, Russia’s leading mobile operator in terms of subscriber market share, launched its Omlet.ru content portal offering in late 2009. The portal is open to subscribers from all operators, although MTS subscribers do not incur data charges while using it. The portal offers videos, games, pictures, ringtones and other content ranging in price from RUB35 (USD1.15) to RUB110 (USD3.62). Because of the popularity of this portal, MTS has expanded its content offering with a dedicated portal for PC users, offering additional content like full-length films and album downloads starting from RUB180 (USD5.92), payable by mobile phone.

Aside from the content offerings of mobile operators, there are a number of standalone third-party content providers, offering the same range of services. The price of such content is roughly similar to that available via mobile operators. Consumers can choose the content they wish to download via the content provider’s mobile webpage, and receive a SMS that contains a WAP link to begin the download of the game. The consumer is charged a one-off or subscription fee upon clicking the link.

SMS shortcodes remain a popular means of paying for digital goods. Consumers can purchase access to online videos, registration keys for software and computer games, etc., by sending a SMS to the relevant shortcode. The consumer’s mobile account is automatically debited the relevant amount and the consumer receives a PIN code by SMS to access the content, either via PC or their mobile device. The amount deducted from a consumer’s mobile account can range from RUB15 (USD0.46) to RUB1000 (USD32.89) or more. The majority of consumer complaints relating to

SMS shortcodes have been based around providers not disclosing the price of SMS shortcodes, or quoting one price but billing another.

11.3.1 Communication service providers

Fixed line operators

Russia's fixed line marketplace is overwhelmingly represented by the government-owned (75%) telecoms holding company, OJSC Svyazinvest (Svyazinvest). This operator controls over 62% of the Russian fixed-line market, representing over 28 million subscriptions, via its historical control of seven regional holding companies.¹²⁵ As of 2009, Svyazinvest announced plans to consolidate its regional subsidiaries into a single nationwide operator – Rostelecom. By 1 April 2010, Svyazinvest had restructured all of its regional subsidiaries under the control of Rostelecom. Aside from Rostelecom there are a number of smaller, regionally-based fixed-line operators who control and manage their own fixed-voice networks.

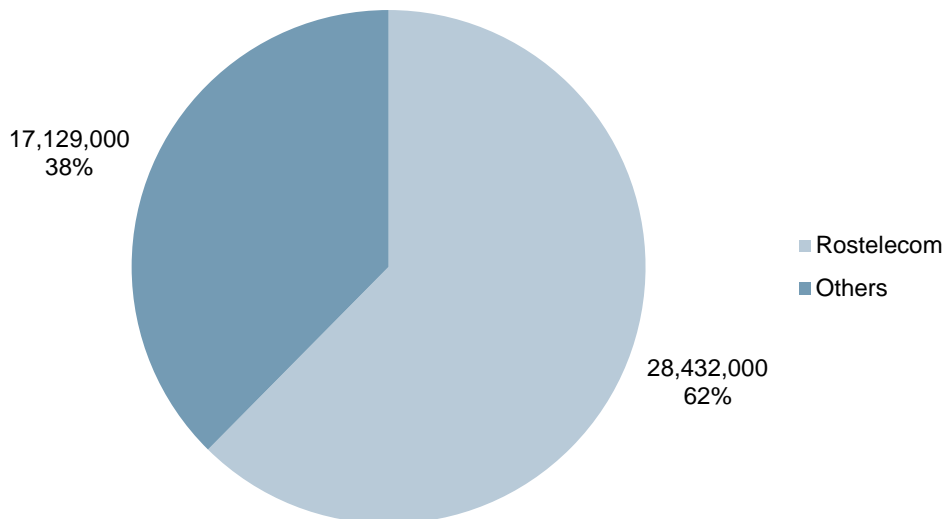


Figure 11.3: *Russia fixed operators' numbers of connections and market shares at year-end 2010*
[Source: Analysys Mason, company reports, 2011]

Rostelecom's dominance of Russia's fixed-line marketplace means that the operator is responsible for the provisioning, billing and customer support for the majority of fixed PRS. The operator's close linkages with the Russian government (the Head of the Ministry of Communications and Mass Media is Chairman of the Board of Directors) means that Rostelecom is well-positioned to advocate greater regulation of PRS and petition for customer protection measures aimed at curbing fraud and bill-shock.

¹²⁵ Analysys Mason (UK, 08 July 2010), *Russia: Core Forecasts*. Available at: <http://www.analysysmason.com/Research/Content/Forecasts/Russia-core-forecasts/>

Mobile operators

Russia's mobile operators have long competed for the largest subscriber market share, but have recently changed their focus to the quality of their subscriber portfolios. The nation's mobile operators – MTS, MegaFon, Beeline and Tele2 – have launched dedicated content portals to capture a larger share of subscribers' total mobile spend.

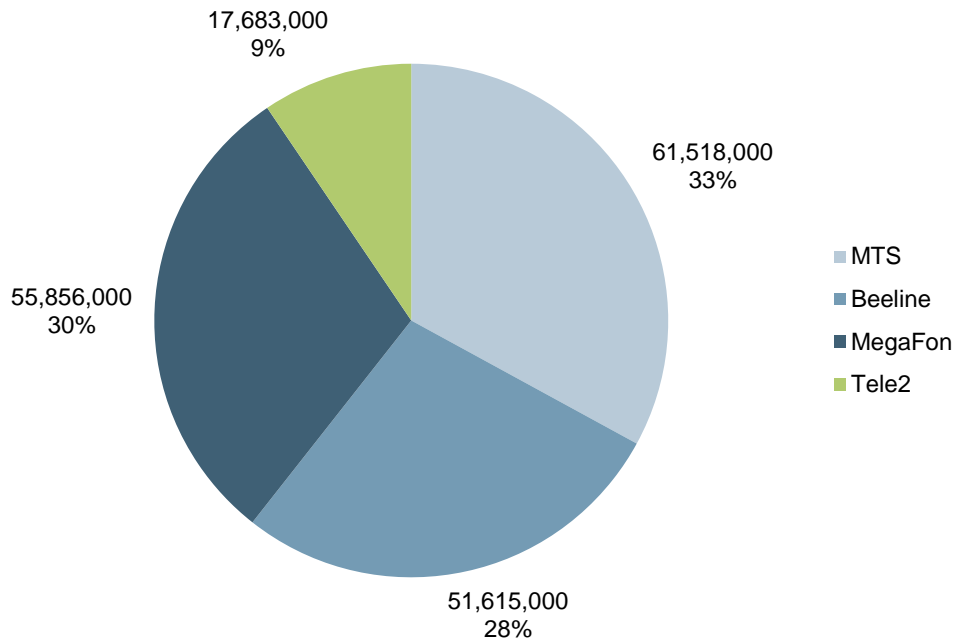


Figure 11.4: Russia mobile operator subscriber numbers and market shares at year-end 2010 [Source: Analysys Mason, company reports, 2011]

Mobile operators' push into the mobile content marketplace presents a possibility of strengthening consumer protection in the marketplace, without the need for regulatory intervention. With major nationwide operators like MTS and MegaFon already accounting for over 65% of total mobile VAS revenues, these operators are well-positioned to launch initiatives aimed at reducing the risk of fraud and consumer harm.¹²⁶ Key areas of improvement for operators would be to strengthen their content partner agreements and ensure periodical service compliance audits of SMS aggregators.

11.4 Regulatory framework

11.4.1 Introduction

Regulation of the telecoms marketplace in Russia is split between two federal government agencies, that of Minkomsvyaz (Ministry of Communications and Mass Media) and Roskomnadzor. The regulatory remit of Minkomsvyaz constitutes policy-making functions and

¹²⁶ AC&M Consulting (Russia, 04 March 2011), *Russian Cellular VAS Statistics*. Available at: <http://www.acm-consulting.com/data-downloads.html>.

regulation of the communications and media marketplace. Roskomnadzor is tasked with the regulation of communications, information technology and mass media, alongside oversight of the usage of personal data and the assignment of spectrum rights in Russia (see Figure 11.5). Although Roskomnadzor is a federal-level authority, its oversight and regulatory powers are shared between eight federal regions. Roskomnadzor is also the federal regulatory body that is tasked with overseeing consumer complaints relating to PRS. So far, Roskomnadzor has taken a light-touch approach with regards to the policing of mobile PRS, relying primarily on operator-led initiatives to help combat consumer abuse and fraud.

<i>Name</i>	<i>Type of Organisation</i>	<i>Remit</i>
Ministry of Communications and Mass Media (Minkomsvyaz)	Federal Government Agency	Policy-making and regulatory powers relating to communications and mass media marketplace. Responsible for numbering policy at the federal and regional-level.
Federal Service for Supervision in the Sphere of Telecom, Information Technologies and Mass Communications (Roskomnadzor)	Federal Government Agency	Regulatory agency tasked with supervision, regulation and intervention in the communications, information technology and mass media marketplace. A subdivision of Roskomnadzor, the General Radio Frequency Centre (GRFC), issues spectrum rights.

Figure 11.5: Russian Federation: regulatory bodies [Source: Analysys Mason, 2011]

11.4.2 Overview of PRS regulation

Despite the lack of express regulation governing PRS, Roskomnadzor has used its oversight of telecoms providers' control of consumer data to provide some level of control. The key regulatory documents concerning the provision of communications services, and in effect PRS, are detailed in Figure 11.6.

<i>Type</i>	<i>Document</i>	<i>Comment</i>
Fixed-line telephony services	Rules on the Provision of Communication Services – Local, Inter-city and International Telephone Services, Resolution № 314; effective from 18 May 2005.	Provides a legal recognition of PRS; however, there is no definition of such services, nor of the rights of consumers and operators.
Mobile communications	Rules Governing the Provision of Mobile Services, Resolution № 328; effective from 01 July 2005.	Governs the subscriber-operator agreement. Has been interpreted to provide legal justification for relationship and rights of subscribers, operators and third-party content providers.

Figure 11.6: Regulation and legal documents in the Russian Federation [Source: Analysys Mason, 2011]

The nature of the regulation relates to operators' providing a third-party entity with access to a subscriber's billing and account details (to process a PRS transaction) without the express permission of the subscriber. According to Resolution № 328:

Article 19: *The agreement (contract) between the subscriber and mobile provider, must include the following:*

*(e): The subscriber's consent (or waiver) to the provision of connectivity services rendered by third-parties, and the provision of information about the subscriber to mentioned third-parties.*¹²⁷

In February 2010 Roskomnadzor published a statement claiming that MegaFon's subscriber agreements are flawed, in that they do not allow individuals to consent or waive their right to third-party services, and similarly to expressly permit or block MegaFon from sharing subscriber information with third-parties. According to Roskomnadzor's interpretation of MegaFon's subscriber agreement, individuals who do not wish to share their personal information with third-parties have no choice but to avoid signing the agreement. MegaFon argues that after signing, an individual can file a separate form to block third-party access; however, the move to block exchange of information with third-parties would restrict access to certain fixed-line, roaming and content services.¹²⁸

A number of individuals have invoked various articles of Resolution № 328, in seeking redress from their mobile provider for charges relating to SMS shortcodes. In Moscow an individual sought a court ruling against his mobile operator, claiming that Resolution № 328 does not allow mobile operators to deduct funds from an individual's mobile credit balance on behalf of third-parties without the express permission of the subscriber.¹²⁹

Meanwhile, in the Magadan region an individual argued that by entering a subscriber into a subscription-based PRS, the mobile operator was in contravention of Article 21 of Resolution № 328; which state that, "The operator does not have the right to impose additional paid services on their subscriber [beyond those in the subscriber agreement]".¹³⁰ The plaintiff successfully argued that a mobile operator does not have the right to deduct a daily/weekly/monthly subscription fee from a subscriber's account on behalf of a third-party.¹³¹ In this instance the court ruled in favour

¹²⁷ Government of the Russian Federation: On the rules governing the provision of mobile services, Resolution № 328; Effective from 01 July 2005.

¹²⁸ Vedomosti (Russia, 26 February 2010) *Bezotkazniye abonenti*. Available at: <http://www.vedomosti.ru/newspaper/article/2010/02/26/226699>.

¹²⁹ Arbitrage Court of the City of Moscow (Russia, 18 August 2010), *Ruling on Case № A40-32762/10-134-24*. Available at: http://assys.arbc.ru/bras.net/filepage.aspx?id_doc=403b95d4-3151-4a11-ad15-9651b570e62b&filename=403b95d4-3151-4a11-ad15-9651b570e62b.pdf#statusbar=0&messages=0&navpanes=0.

¹³⁰ Government of the Russian Federation: On the rules governing the provision of mobile services, Resolution № 328; Effective from 01 July 2005.

¹³¹ Arbitrage Court of the Magadan Region (Russia, 18 February 2010) *Ruling on Case № A37-91/201*. Available at: http://kad.arbitr.ru/data/pdf/d8c09478-2b84-45a4-baf4-756da353ef33/A37-91-2010_20100218_Reshenija+i+postanovlenija.pdf.

of the plaintiff and fined the defendant RUB30 000 (USD986), payable to the Treasury of the Ministry of Finance.¹³²

While Russian courts and Roskomnadzor have shown their support of mobile subscribers' rights in their interpretations of the Rules Governing the Provision of Mobile Services, Resolution № 328; the oversight of consumer protections and regulatory intervention in the premium-rate marketplace remains on a case-by-case basis. Until Roskomnadzor explicitly defines PRS and the rights of individuals and operators in relation to the provision of such services, consumers will need to rely on the self-enforcement of operators to provide them with the necessary protections.

11.4.3 Tariff structure

Fixed line pricing

The majority of fixed line PRS are provided primarily by Rostelecom, the nationwide fixed-line incumbent, as part of its licence to provide inter-regional and international telephone calling service.¹³³ Rostelecom operates its own '8-809' service offering, in the '8-809-100' and '8-809-200' number range, providing consumers with a combination of information, directory and entertainment services, a selection of which are profiled in Figure 11.7.

<i>Operator – Third Party Provider (where available)</i>	<i>Charge per minute (including VAT)</i>	<i>Description of Service Offered</i>
Rostelecom (official sponsor)	RUB45 (USD1.48)	Telephone voting services for 'Eurovision 2011' competition
Rostelecom – Edinaya Spravochnaya Sluzhba LLC	RUB70 (USD2.30)	Universal telephone directory service
Rostelecom – Aider & Partners LLC.	RUB80 (USD2.63)	Legal advice service
Rostelecom – SMG Plc.	RUB60 (USD1.97)	Anonymous call service which asks a recipient pre-selected personal questions which dialler can listen in on.
Rostelecom – SMG Plc.	RUB25 (USD0.82)	Telephone chat/dating services, allowing user to join telephone 'chat rooms' of up to 15 callers.

Figure 11.7: Selection of Rostelecom-provided fixed-line PRS [Source: Analysys Mason and Rostelecom, 2011]

Rostelecom also offers businesses the ability to rent premium-rate number ranges, for a variety of business objectives ranging from call centres to standalone entertainment services. Rostelecom offers ten separate tariff plans for its '8-809' service, with no restrictions on the charges for the

¹³² Ibid.

¹³³ Government of the Russian Federation –Ministry of Communications and Mass Media; *Rostelecom: License for the provision of inter-regional and international telephone services: License № 29777*; Effective from 11 June 2004. Available at: http://www.rt.ru/about/licence/scan/29777_2.jpg

services being provided. The tariff rate ranges from RUB5 (USD0.16) to RUB90 (USD2.96) per minute, in a combination of RUB5 (USD0.16) and RUB10 (USD0.32) denominations.

Mobile pricing

Premium-rate mobile services are primarily focused on SMS-based content and payment services accessed through four-digit shortcodes¹³⁴, with no specific designation of number ranges for different types of services. Users can access SMS shortcode services without having to register in advance, with the balance automatically deducted from the user's account via the mobile operator on behalf of a third-party provider. Shortcodes can be unique to a specific service or shared between multiple services for a popular number-range, with specific prefixes differentiating the service/recipient.

On average Russian mobile operators charge a 30-50% commission on all SMS shortcode requests, with the SMS aggregator taking a further 3-5% fee of the gross incoming revenues.¹³⁵

As a means of protecting their subscribers and alleviating regulatory pressure, Russian mobile operators now publish lists of recognised SMS shortcode partners on their websites, with information on the legal entity providing the content, details of the service and the exact charge to subscribers.¹³⁶ Some operators now offers their subscribers the ability to check the charge of a SMS-shortcode request, for example by sending a free message to '*125*shortcode number' which will reply with details as to the charge.¹³⁷

The charge for SMS shortcode requests and the relevant third-party to the transaction can vary between operators and shortcodes, as seen in Figure 11.8 below.

¹³⁴ There are some operator-specific short-code services available with three and five-digit number ranges.

¹³⁵ Kommersant (Russia, 08 February 2010), *Mosheniki na tri bukvi*. Available at: <http://www.kommersant.ru/doc/1310317>.

¹³⁶ Mobile TeleSystems OJSC (Russia, 2011), *Uslugi po korotkim nomeram*. Available at: http://www.mts.ru/entertainment/short_voice/.

¹³⁷ CJSC Tele2 (Russia, 2011) *Kosim Tzeni*. Available at: http://www.arh.tele2.ru/tariffs_kosim_ceni.html.

Operator	Shortcode and Service type	Shortcode provider	Price per SMS (including VAT)
MTS	1121 – Payment/Voting	A1 Aggregator LLC	RUB3.39 (USD0.11)
MTS	6000 – Payment/Voting	CJSC UNIK	RUB84.33 (USD2.77)
Beeline	1121 – Payment/Voting	A1 Aggregator LLC	RUB3.50 (USD0.12)
Beeline	6000 – Payment/Voting	CJSC UNIK	RUB80.00 (USD2.63)
MegaFon (Moscow)	1121 – Payment/Voting	A1 Aggregator LLC	RUB3.54 (USD0.12)
MegaFon (Nationwide)	6000 – Payment/Voting	CJSC UNIK	RUB88.50 (USD2.91)
Tele2	1121 – Payment/Voting	A1 Aggregator LLC	RUB3.54 (USD0.12)
Tele2	6000 – Payment/Voting	CJSC UNIK	RUB88.50 (USD2.91)

Figure 11.8: Selection of Russian mobile shortcodes, related third-party providers and charges¹³⁸
[Source: Analysys Mason, 2011]

11.4.4 PRS market issues

Subscription scandals and SMS-shortcode fraud

As of 2010 there has been a significant increase in the number of consumer complaints stemming from mobile PRS abuses, ranging from unsolicited subscriptions to price fraud and PC virus blackmailing. By far the most common complaint from consumers is non-delivery or non-functionality, where consumers are charged for content they never receive or which does not work. Below we have profiled a selection of common fixed and mobile PRS frauds.

Case Study: Fixed PRS fraud via social network/dating sites

Currently, fixed-PRS fraud is concentrated amongst social networking and dating sites, in which users are approached by potential friends/partners, generally females targeting males, with the proposition of speaking directly over the phone.

The consumer is informed that the fraudster is having problems with their regular phone line and has been issued with a temporary '8-809' number through which they can be reached without incurring any long-distance charges. To help ensure maximum revenue capture (given that PRS charges are added to a user's monthly bill, instead of being deducted from the available balance) users are advised to dial from their home phone, being told that this way the call is cheaper/more reliable.

¹³⁸ Mobile Content (Russia, 2011) *Baza dannix korotkix nomerov*. Available at: <http://www.procontent.ru/numbers/>.

Upon connecting the call, the victim is automatically billed for any time spent on the line. The fraudster will often attempt to keep the caller on the line by pretending they cannot hear or that the connection is poor. If possible the fraudster will ask the victim to attempt to dial the number repeatedly in the hope of establishing a better connection.

Case Study: Mobile PRS tele-voting price fraud

Roskomnadzor was prompted to take action on mobile PRS following a scandal in May 2010 relating to television voting services which sparked significant public outcry, after a number of consumers complained that the pricing of SMS voting services was misleading, with users being charged over RUB200 (USD6.58) per vote. In response to the public outcry, Roskomnadzor promised to forward a memorandum relating to the high incidence of SMS shortcode fraud to Minkomsvyaz for regulatory review.¹³⁹ Roskomnadzor advocated a revision of the basic subscriber service level agreement (SLA) to provide users with a clear understanding of the nature and costs of premium-rate mobile services, and their rights.

Case Study: Mobile PRS as enabler to PC virus hijacking

Since 2010 there has been a growth in the number hijackings of consumers' PCs using a variation of the *Trojan.Winlock* computer virus¹⁴⁰, preventing individuals from using their PCs.¹⁴¹ The perpetrator contacts the consumer and tells them that to disinfect their computer, or remove the service block, they must send a SMS to a specific shortcode, with no indication of the relevant charge for the service, which can range from RUB300–600 (USD10–20). The victim is told that any attempts to circumvent the virus removal process will result in the loss of data. According to Doctor Web Ltd. (Dr. Web), one of Russia's leading PC antivirus providers, illicit revenue from *Trojan.Winlock*-based fraud exceeds RUB100 million (USD29 million) per month.¹⁴² Although it is difficult to track down how the virus appears on computers, consumers have vented their frustration at SMS aggregators who provide the payment facility, and mobile operators who turn a blind eye to the practice while receiving up to 60% commission on the shortcode payment.¹⁴³

¹³⁹ Finans Magazine (Russia, 11 May 2010), *Roskomnadzor planiruet obsudit' c cotovimi operatorami icpolzoveniya ix korotkix nomerov v televiktorinax*. Available at: <http://www.finansmag.ru/news/69854>.

¹⁴⁰ Trojan.Winlock is a registry-based computer virus that infects PCs via vulnerabilities in the Internet Explorer browser. The virus renders the operating system of the PC obsolete and is difficult to remove using standard antivirus software. Available at: <http://forum.drweb.com/lofiversion/index.php/t288226.html>.

¹⁴¹ Doctor Web Ltd. (Russia, 24 January 2011), *Trojan.Winlock infects millions of computers in Russia*. Available at: <http://news.drweb.com/show/?i=874&lng=en&c=9>.

¹⁴² Ibid.

¹⁴³ According to AC&M Consulting (Russia, 2009), mobile operators annual commissions from fraudulent SMS short-codes amounted to approximately USD30 million in 2009.

11.4.5 Complaints and compensation

At the time of writing, Roskomnadzor does not publish information on the volume of consumer complaints and compensation relating to fixed or mobile PRS. A study carried out by Kommersant magazine, in conjunction with leading news and e-mail providers Finam.ru and Mail.ru, found that over 62% of polled respondents claimed to have fallen victim to SMS shortcode fraud.¹⁴⁴ In the first quarter of 2010 alone, the number of consumer complaints to Roskomnadzor regarding SMS shortcodes was three times the total number of such complaints submitted in 2009.¹⁴⁵

In response to growing consumer complaints, in May 2010 the heads of Russia's mobile operators met with representative from Roskomnadzor to discuss measures for the prevention of consumer harm. While the operators were commended for their initiative in educating consumers about the prices of PRS, their actions were deemed insufficient given the persistently high levels of complaints to the regulator. Representatives from Roskomnadzor suggested amending Article 29 of the mobile services legislation¹⁴⁶ to make express reference to SMS shortcodes, and require operators to ensure price transparency of such services. As an alternative to amending the legislation, mobile operators promised to combine their efforts to develop a system which provides consumers with greater information about the price of specific mobile shortcodes.¹⁴⁷

Naturally, mobile operators and SMS aggregators are reluctant to disclose the number of third-party partnerships that are terminated owing to high levels of subscriber complaints. One Russian SMS shortcode provider stated in 2009 alone the company blocked 2708 shortcode prefixes, ceased operations with 1615 partners and suspended operations with another 335 partners pending further investigations.¹⁴⁸

11.5 Evolution of PRS in the Russian Federation

11.5.1 Areas of growth and decline in the PRS market

At present the poor level of regulation and lack of consumer clarity as to the subscriber-operator agreement and consumer rights with respect to their mobile operator and third-parties providers is contributing to high levels of consumer harm. As such, the focus of regulation in PRS services has been concentrated on mobile services.

¹⁴⁴ Kommersant (Russia, 08 February 2010), *Mosheniki na tri bukvi*. Available at: <http://www.kommersant.ru/doc/1310317>.

¹⁴⁵ Roskomnadzor (Russia, 19 May 2010), *V Roskomnadzore sostayalac vstrecha s predstavitel'yami operatorov sotovoj svyazi po voprosom okazaniya uslug posredstvom korotkih numerov*. Available at: <http://www.rsoc.ru/news/rsoc/news12192.htm>.

¹⁴⁶ Government of the Russian Federation: On the rules governing the provision of mobile services, Resolution № 328; Effective from 01 July 2005.

¹⁴⁷ Roskomnadzor (Russia, 19 May 2010), *V Roskomnadzore sostayalac vstrecha s predstavitel'yami operatorov sotovoj svyazi po voprosom okazaniya uslug posredstvom korotkih numerov*. Available at: <http://www.rsoc.ru/news/rsoc/news12192.htm>.

¹⁴⁸ Kommersant (Russia, 08 February 2010), *Mosheniki na tri bukvi*. Available at: <http://www.kommersant.ru/doc/1310317>.

The increasing availability of 3G devices will likely see a decline in WAP-based PRS. In its place, SMS shortcode-based mobile micropayment services will continue to grow, providing consumers with the convenience of electronic payments without the need for access to, or exposure of, their bank accounts. Increasingly, consumers in Russia are using their mobile phone to pay for online video rentals, membership to websites and software downloads: the market for mobile-based micropayments amounted to USD350 million in 2009.¹⁴⁹ The growth in social networking (Russia's version of Facebook – vkontakte.ru – claims more than 100 million users¹⁵⁰) has spurred innovation in the number of mobile-based micropayment services available to consumers, leading to an increase in the opportunities for consumer harm. Roskomnadzor has been informally expanding its regulatory remit to include the oversight of micropayment services provided through mobile subscriptions.

11.5.2 Evolution of PRS regulation

Both Roskomnadzor and the leading mobile operators have so far favoured a light-touch regulatory approach to PRS. Although there has been a growth in the number of consumer complaints relating to SMS shortcode fraud, the regulatory approach focuses more on increasing the transparency of PRS pricing and better defining the legal rights and relationship between subscribers, mobile operators and third-party content providers.

As of late 2010, Roskomnadzor recognised that mobile PRS are an area of significant consumer harm.¹⁵¹ While the regulator considered introducing legislation that would explicitly define and regulate the market for PRS, the nation's leading mobile operators have called for a lighter approach that relies on self-regulation of their own activities and that of their third-party content partners. As a means of improving consumer awareness of PRS, Roskomnadzor has insisted on introducing a revision to Article 19 of Resolution № 328¹⁵² that would serve to better inform consumers about their rights and responsibilities in relation to mobile PRS.

We believe that given the high commissions charged by mobile operators for SMS shortcode services, Russia's operators will seek to block any decisive legislation that threatens to limit the PRS marketplace, potentially constraining their own activities and the business of their partners. However, without the introduction of such explicit and strong legislation and the threat of significant regulatory sanctions, consumers will need to rely on their own diligence when accessing PRS.

¹⁴⁹ Kommersant (Russia, 08 February 2010), *Mosheniki na tri bukvi*. Available at: <http://www.kommersant.ru/doc/1310317>.

¹⁵⁰ VK LLC (Russia, 2011) *About*. Available at: <http://vkontakte.ru/help.php?page=about>.

¹⁵¹ Finans Magazine (Russia, 11 May 2010), *Roskomnadzor planiruet obsudit' c cotovimi operatorami icpolzoveniya ix korotkix nomerov v televiktorinax*. Available at: <http://www.finansmag.ru/news/69854>.

¹⁵² Government of the Russian Federation: On the rules governing the provision of mobile services, Resolution № 328; Effective from 01 July 2005.

12 Spain

- The Spanish PRS market, comprised of mobile content services, was worth an estimated USD327.8 million in 2010, representing roughly USD7.14 per capita.
- Revenues from PRS declined 48% in 2010, which may, in part, be due to the launch of a Code of Conduct for SMS/MMS, launched at the end of 2009, which placed a number of responsibilities on service providers, including the need to provide clearer information regarding services activation and cancelling.
- CSSTA, a government agency, is responsible for developing the Code of Conduct and monitoring its compliance.
- CSSTA received 204 complaints in 2009, relating to 144 premium rate numbers; it proposed that SETSI remove 115 of those numbers from the market for their non-compliance with the Code.
- Regulation in PRS is not expected to evolve significantly in the future.

12.1 Country snapshot

Population	45.9 million
GDP per capita	USD1408
Fixed telephony penetration	46.5%
Mobile telephony penetration	121.1%
Size of PRS market (estimate) ¹⁵³	USD327.75 million
PRS revenue per capita	USD7.14

Figure 12.1: Spain market overview [Source: Analysys Mason, EIU, company reports, 2011]

12.2 Definition of PRS

In Spain, PRS ('servicios de tarificación adicional') are defined in the Order PRE/2410/2004, which updated Order PRE/361/2002, as follows:

1. *Premium rate services are those that, through dialling a certain code, result in remuneration to the called subscriber for its provision of information services, communication or other services (...)*

¹⁵³ CMT (Madrid, Spain, 2010), *Revenue for Premium Rate Services of SMS/MMS, Estadísticas del Sector, IV Trimestre 2010*. Available at http://www.cmt.es/es/publicaciones/anexos/20110401_IVT_2010_.pdf

12.3 PRS market structure and characteristics

Market size

The Telecommunications Market Commission ('Comisión del Mercado de las Telecomunicaciones' or CMT) states in its Q4 2010 report that the revenue generated in 2010 by mobile PRS was EUR245.81 million (USD327.75 million), almost half of its value in 2009 of EUR474.82 (USD633.02). This figure does not include revenue generated from DQ services. Among the reasons that can explain this decline is the approval of the Code of Conduct for SMS/MMS (hereafter 'the Code') at the end of 2009. The general obligations and responsibilities imposed on operators by the Code appear to have had a strong negative effect on mobile PRS revenues. Obligations include the need to provide more clear information regarding services activation and cancelling.

Fixed

Fixed PRS are accessed by dialling numbers beginning with the following prefixes: 803, 806, 807, 905 and 907. Services provided via these prefixes include adult entertainment, leisure and entertainment, professional services and televoting.

Mobile

Mobile premium rate services are accessed via numbers starting with 25, 27, 28, 35, 37, 795, 797, 995, 997 and 999. Apart from 999 numbers, which are seven digits long, the other prefixes are six digits long. These numbers are used by content players such as AndalMedia, World Premium Rates, NVIA Gestion de Datos and Jet Multimedia España.

12.3.1 Communication service providers

Fixed line operators

Telefónica de España is the incumbent operator and despite having seen a gradual decline in its market share, it is still the dominant market player. Other fixed-line operators include ONO, Vodafone, Orange and Jazztel. ONO is the largest cable operator in Spain and Vodafone became a fixed-line player in 2007 after the acquisition of Swedish operator Tele2.

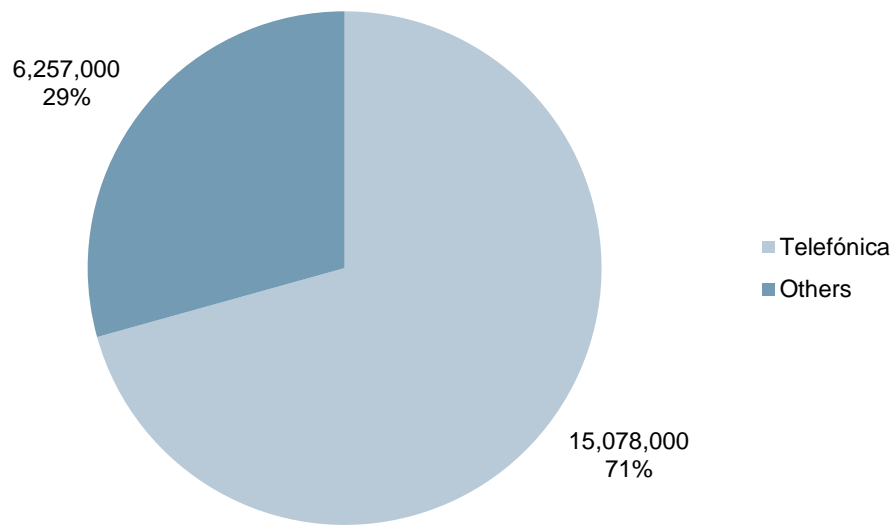


Figure 12.2: Spain: Fixed operators' numbers of connections and market shares at year-end 2010
 [Source: Analysys Mason, company reports, 2011]

Mobile operators

The mobile market continues to be dominated by Telefónica Móviles España (Movistar), despite having lost some market share to the new entrant Yoigo, whose share of the market is small, but is growing rapidly. Vodafone is the second largest mobile operator and is followed by the local subsidiary of Orange.

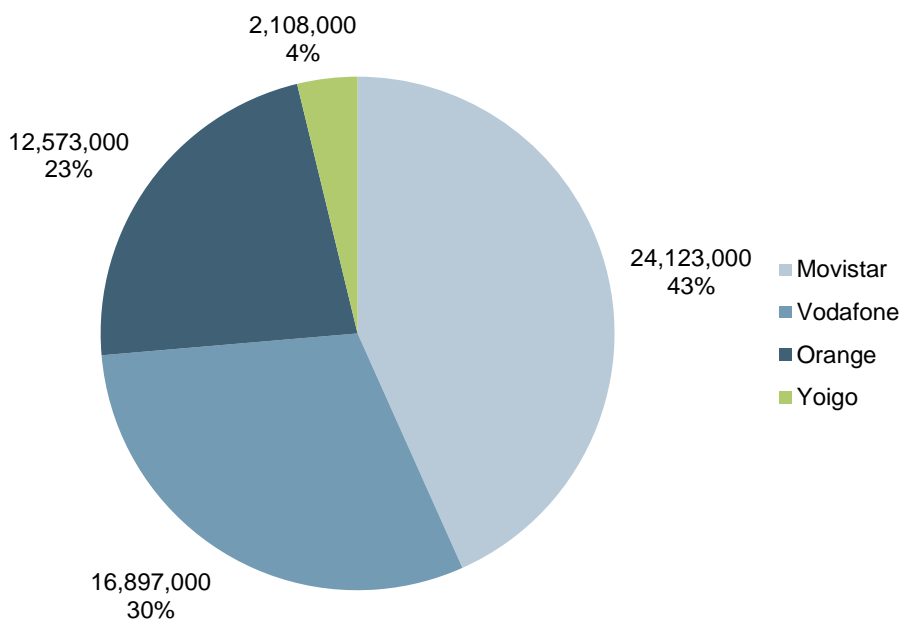


Figure 12.3: Spain: Mobile operators' subscriber numbers and market shares at year-end 2010
 [Source: Analysys Mason, company reports, 2011]

12.4 Regulatory framework

12.4.1 Introduction

The State Secretary for Telecommunications and for the Information Society (‘Secretaría de Estado de Telecomunicaciones y para la Sociedad de la Información’ or SETSI) is responsible for approving PRS legislation. The current regulation states that services provided through the prefixes 803, 806, 807 and 907 are considered PRS. In 2008 legislation was enacted to include premium SMS/MMS and 905 prefix numbers.

The CMT assigns numbering resources to operators, ensures the adequate use of public numbering resources, and authorises their transmission. In addition, it may impose sanctions for failure to comply with the Instructions or Resolutions laid down in the exercise of its powers.

The Commission for the Supervision of Premium Rate Services (‘Comisión de Supervisión de los Servicios de Tarificación Adicional’, or CSSTA) is responsible for developing the Code of Conduct which governs the provision of PRS. In addition, as determined in Order PRE/2410/2004, CSSTA also monitors compliance with the Code by telecoms and content providers. When a violation of the Code occurs, the CSSTA submits a report to SETSI that identifies the reasons for lack of compliance and any involved parties. SETSI will then examine it and, if the Code has been broken, produce a Resolution to the service provider, who will be forced to immediately cancel the respective number. If, after eight days the number has not yet been removed, SETSI will transfer its Resolution to CMT who shall will the use of that number for two years¹⁵⁴.

Name	Type of Organisation	Remit
Commission of Supervision of PRS (CSSTA)	Government body	Creates PRS Code of Conduct and monitors its compliance. It is dependent of SSTA
Commission of Telecommunications Market (CMT)	Industry regulator	Enforces sanctions when there is failure to comply with regulations
Secretary of State of Telecommunications and for the Information Society (SETSI)	Government body	Approves PRS regulation

Figure 12.4: Spain: Regulatory bodies [Source: Analysys Mason, 2011]

The numbering plan is outlined in the Royal Decree 2296/2004, which details the number ranges that are assigned to PRS and the purpose that is allocated to each. The Order PRE/361/2002 states the rights and obligations of PRS users. This Order established the creation of CSSTA and defines its role as well as the process that must take place when a violation of the Code occurs. In 2004, this document was updated by Order PRE/2410/2004 in the hope of reinforcing the trust of users

¹⁵⁴ Website (Spanish only): <http://www.mityc.es/telecomunicaciones/es-ES/SecretariaDeEstado/Consejos/Paginas/ComisionSupervision.aspx>

in the provision of PRS. In 2008, Order ITC/308/2008 was approved, which updated PRS regulation to include premium SMS/MMS services.

The PRS Code of Conduct is included and approved within the Resolution dated 15 September 2004 and includes topics such as responsibilities, advertising and conflict resolution. This legislation was updated by SETSI in the Resolution dated 8 July 2009 to include SMS/MMS premium numbers and the 905 prefix in the PRS Code of Conduct. The PRS Code of Conduct for SMS/MMS was further updated by the Resolution dated 2 July 2010.

Type	Document	Comment
Primary legislation	Ministry of the Presidency Order PRE/361/2002 , 14 February 2002	Creates CSSTA and defines its role, states the process to enforce sanctions
Primary legislation	Ministry of the Presidency Order PRE/2410/2004 , 20 July 2004	Updates Order PRE/361/2002
Code of conduct	SETSI Resolution 2 July 2010	Updates Code of Conduct for PRS regarding SMS/MMS
Code of conduct	SETSI Resolution 8 July 2009	Modifies the Code of Conduct for PRS approved by Resolution from 15 September 2004. It also addresses PRS regarding SMS/MMS
Code of conduct	SETSI Resolution 15 September 2004	Includes explanation of responsibilities, advertising and conflict resolution
Primary legislation	Ministry of Industry, Tourism and Commerce Order ITC/308/2008 , 31 January 2008	Includes numbering range for PRS SMS/MMS and respective price range
Numbering plan	Ministry of Industry, Tourism and Commerce Royal Decree 2296/2004 , 10 December	Approves the numbering range for PRS
Primary legislation	SETSI Resolution 16 July 2002	Defines the PRS numbering and price range
Primary legislation	SETSI Resolution 3 November 2003	Introduced the 907 prefix for PRS numbering
Primary legislation	SETSI Resolution 4 December 2008	Introduced the 905 prefix for PRS numbering

Figure 12.5: Spain: Regulation and legal documents (click on hyperlinks to access documents)
[Source: Analysys Mason, 2011]

12.4.2 Overview of PRS regulation

Fixed regulation

The Code of Conduct defines the basis for the update July 2009 which states that the PRS prefixes are 803, 806, 807, 905 and 907. In addition, the type of use for each PRS prefix is also indicated in the Code of Conduct. Articles in the Code address the following issues:

- *Price information:* When including a premium rate number in its advertising, a service provider has to inform the user of the maximum price to be charged (per minute or per call). Information should reflect the charges for calling from both fixed and mobile networks.
- *Customer Service:* The provision of customer services (including after sales support) cannot be done using premium rate numbers.
- *Under-age users:* Services aimed at children must be preceded by information about the cost per minute or per call, and state that the charge will be made to the subscriber of the line.
- *Call duration:* Excluding prizes and lottery contests, calls should not last longer than 30 minutes. CSSTA can specify the maximum duration for each service type.

Mobile regulation

The Resolution of 8 July 2009 published the Code of Conduct for PRS based on sending messages. This regulation was updated by the Resolution of 2 July 2010: among the modifications introduced are the definition of prefixes for subscription services for adult content, the addition of prefix 999 for this type of services, and their respective price limit. Some of the topics described in the Code of Conduct include:

- *General obligations:* The billing of PRS can only occur if expressly requested by the user, and if the service is effectively provided. Billing is forbidden if no agreement exists between the user and the service provider.
- *Responsibilities:* Content providers are responsible for informing users about their right to cancel the PRS (by sending messages).
- *Control:* CSSTA is responsible for informing parties that fail to comply with the Code of Conduct. The cancelling of the number related to the non-compliance is done by the CMT.
- *Advertising content:* Defines the wording to be used when informing consumers about price, address, age limit and address.
- *How to complain:* Established CSSTA as a body where users can lodge complaints about non-compliance with the Code of Conduct. It also explains the role of CSSTA in developing and monitoring compliance with the Code of Conduct.

12.4.3 Tariff structure

Fixed line pricing

PRS in Spain are accessed by calling numbers with the following prefixes: 803 (adult entertainment), 806 (leisure and entertainment), 807 (professional services). These number ranges replaced the previous 903 and 906 prefixes to allow the user to distinguish between service types and the respective price ranges. In November 2003, SETSI also made available the 907 prefix for adult entertainment,

leisure entertainment and professional services. The 905 prefix was introduced in 2004, but it was not until 2008 that a clear range and price limits were defined. This prefix is allocated to mass-call services including televoting, entertainment and professional uses.

<i>Number range(s)</i>	<i>Use</i>	<i>Details</i>	<i>Price range (per minute, connection)</i>
8030–8031; 8032–8033; 8034–8035; 8036–8037; 8038; 8039	Adult entertainment	The price increases with the numbering range. The less expensive prefixes are 8030–8031 and the more expensive are 8039 prefixes.	Price ≤ EUR0.35 (USD0.47); Price >EUR3.15 (USD4.20)
8060–8061; 8062–8063; 8064–8065; 8066–8067; 8068; 8069	Leisure and entertainment	The price increases with the numbering range. The less expensive prefixes are 8060–8061 and the more expensive are 8069 prefixes.	Price ≤ EUR0.35 (USD0.47); Price >EUR3.15 (USD4.20)
8070–8071; 8072–8073; 8074–8075; 8076–8077; 8078; 8079	Professional services	The price increases with the numbering range. The less expensive prefixes are 8070–8071 and the more expensive are 8079 prefixes.	Price ≤ EUR0.35 (USD0.47); Price >EUR3.15 (USD4.20)
9070; 9071; 9072; 9073; 9074	Professional, entertainment and leisure	The price increases with the numbering range. The less expensive prefixes are 9070 and the more expensive are 9074 prefixes.	Price ≤ EUR0.35 (USD0.47); Price >EUR1.65 (USD2.20)
9075; 9076; 9077; 9078; 9079	Adult entertainment	The price increases with the numbering range. The less expensive prefixes are 9075 and the more expensive are 9079 prefixes.	Price ≤ EUR0.35 (USD0.47); Price >EUR1.65 (USD2.20)
9051; 9052; 9054–9055;	Professional, entertainment and televoting	The price increases with the numbering range. The less expensive prefixes are 9051 and the more expensive are 9055 prefixes.	EUR0.30–1.20 per call (USD0.40–1.60)
9057; 9058	Televoting	The price increases with the numbering range. The less expensive prefixes are 9057 and the more expensive are 9058 prefixes.	EUR0.60–1.20 per call (USD0.80–1.60)

Figure 12.6: Spain: PRS voice call tariffs [Source: SETSI, 2008]¹⁵⁵

Mobile pricing

In 2008, Order ITC/308/2008 defined the numbering plan for message-based (SMS/MMS) PRS. This document not only defines the number ranges by service type but also states the ranges reserved for future expansion. The Resolution of 2 July 2010 updated the Code of Conduct and defined the range allocated to subscription SMS/MMS on adult entertainment and the respective price limit.

¹⁵⁵ SETSI (Madrid, Spain, 2008, *Resolution from 4th December 2008*. Available at: <http://www.boe.es/boe/dias/2008/12/12/pdfs/A50048-50049.pdf>. Note: some of the above data is contained within previous resolutions; see Figure 12.5.

Number range(s)	Use	Details	Price range (per message/per minute)
8030–8031; 8032–8033; 8034–8035; 8036–8037; 8038; 8039	Adult entertainment	The price increases with the numbering range. The less expensive prefixes are 8030-8031 and the more expensive are 8039 prefixes.	Price ≤EUR0.65 (USD0.87); Price >EUR3.45 (USD4.60)
8060–8061; 8062–8063; 8064–8065; 8066–8067; 8068; 8069	Leisure and entertainment	The price increases with the numbering range. The less expensive prefixes are 8060-8061 and the more expensive are 8069 prefixes.	Price ≤EUR0.65 (USD0.87); Price >EUR3.45 (USD4.60)
8070–8071; 8072–8073; 8074–8075; 8076–8077; 8078; 8079	Professional services	The price increases with the numbering range. The less expensive prefixes are 8070-8071 and the more expensive are 8079 prefixes.	Price ≤EUR0.65 (USD0.87); Price >EUR3.45 (USD4.60)
9070; 9071; 9072; 9073; 9074	Professional, entertainment and leisure	The price increases with the numbering range. The less expensive prefixes are 9070 and the more expensive are 9074 prefixes.	Price ≤EUR0.65 (USD0.87); Price >EUR1.95 (USD2.60)
9075; 9076; 9077; 9078; 9079	Adult entertainment	The price increases with the numbering range. The less expensive prefixes are 9075 and the more expensive are 9079 prefixes.	Price ≤EUR0.65 (USD0.87); Price >EUR1.95 (USD2.60)
9051; 9052; 9054–9055	Professional, entertainment and televoting	Price increases with the numbering range. The less expensive prefixes are 9051; more expensive are 9055 prefixes.	EUR0.75-1.65 per call (USD1.00-2.20)
9057; 9058	Televoting	Price increases with the numbering range. Less expensive prefixes are 9057; more expensive are 9058.	EUR1.05-1.65 per call (USD1.40-2.20)
25000–25999; 27000–27999; 28000–28099	Solidarity campaigns	SMS/MMS Premium. Same price limit across all prefixes	Price ≤EUR1.2 (USD1.60)
35000–35999; 37000–37999		SMS/MMS Premium. Same price limit across all prefixes	EUR1.20-6.00 (USD1.60-8.00)
795000–795999; 797000-797999	Subscription services	SMS/MMS Premium. Same price limit across all prefixes	Price ≤EUR1.2 (USD1.60) price per received SMS
995000–995999; 997000-997999; 9990000-9999999	Adult entertainment	SMS/MMS Premium. Same price limit across all prefixes; limit differs if the service is a subscription or not	Price ≤EUR6 (USD8.00); Price ≤EUR1.20 (USD1.60) per received message in subscription services

Figure 12.7: Spain PRS mobile service tariff chart [Source: SETSI, 2010]¹⁵⁶

¹⁵⁶ SETSI (Madrid, Spain, 2010), *Resolution from 2nd July 2010*. Available at: <http://www.usuariostelemo.es/comoreclamar/Documents/2010.ModifCodigoConducta.SMSPREMIUM.pdf>. Note: some of the above data is contained within previous resolutions; see Figure 1.5.

12.4.4 PRS market issues

The CSSTA 2009 report¹⁵⁷ identified three main areas of concern regarding PRS:

- *Advertising*: Improper use of media, such as advertising adult PRS on TV. One of the major reasons for complaints was the broadcasting of adult services at inappropriate times of the day.
- *Inaccurate or absent information*: Not including information such as the name of the content provider, or a warning “for older than 18” when related to adult entertainment. In addition, the absence of an automatic announcement at the start of the call providing information about its cost.
- *Criminal scams*: Many fraudsters attempt to mislead users into calling PRS numbers, for example in relation to supposed job offers, prizes, or a need to pick up a mail parcel.

12.4.5 PRS complaints and compensation

According to CSSTA’s 2009 report, complaints for PRS represented 2.3% of total complaints received regarding fixed line services. The obligation to break down the amount corresponding to PRS in bills resulted in a decrease of complaints across both fixed and mobile users. Regarding the numbers 803, 806 and 807, 47% of the complaints corresponded to press ads.

In 2009, CSSTA received 204 complaints corresponding to 144 individual premium rate numbers, and it was proposed that SETSI remove 115 of those numbers from the market for their non-compliance with the Code. The remaining 29 numbers were referred to the Office of Telecommunications Customer Care (‘Oficina de Atención al Usuario de Telecomunicaciones’) for excessively high bills to the user.

SETSI provides an online facility providing information on the complaint-making process as well as instructions on where to send the complaint. It is also possible to download the Code of Conduct from its website¹⁵⁸.

12.5 Evolution of PRS in Spain

12.5.1 Areas of growth and decline in the PRS market

The changes to the Code introduced in November 2009 were associated with a decline in the PRS market. Essentially, the new rules reduced the likelihood of services being activated by mistake. Users have more clear information and are protected by an opt-in mechanism, by which service providers are required to ask users to confirm they wish to activate the service. In addition,

¹⁵⁷ CSSTA (Madrid, Spain, 2009), *Informe Público de las Actuaciones Realizadas*. Available at <http://www.usuarioteleco.es/Documents/INFORMECSSTA2009.pdf>

¹⁵⁸ Website (Spanish only): <http://www.usuarioteleco.es/OtrosServicios/Paginas/index.aspx>

operators have to establish a cap for a user's spending, and have to warn them when this limit is reached.

12.5.2 Evolution of PRS regulation

The Code of Conduct, covering both premium voice services and premium SMS, has resulted in a stable market and regulatory regime. Nevertheless, further updates to the Code are expected over time so that regulation can adapt to the dynamic nature of the market. It is likely that future modifications to the Code will be driven by considerations related to the protection of users, collective social rights, transparency and the stimulation of competition.

13 Sweden

- Sweden has an advanced and mature PRS market with high levels of revenue per capita – at USD38 per capita in 2010 – and a highly competitive market.
- Regulation is carried out by an independent body, ERB, which is structured so that it can react to market issues and scams swiftly.
- Guidelines are published in the ERB's *Ethical Rules for Premium Rate Services*, and the *Code of Conduct* of the industry body MORGAN.
- Innovation looks set to drive growth in the PRS market, through the purchase of products and services such as train tickets, postage stamps, drinks, etc. via premium-rate SMS.

13.1 Country snapshot

Population	9.4 million
GDP per capita	USD37 234
Fixed telephony penetration (lines/popn)	61.1%
Mobile telephony penetration	136.3%
Size of PRS market	USD300-420 million
PRS revenue per capita	USD38

Figure 13.1: Sweden market overview [Source: Analysys Mason, EIU, company reports, 2011]

13.2 Definition of PRS

PRS in Sweden are known as 'Betalteljänster' and are defined by the PRS regulator ERB in the *Ethical rules for Premium Rate Call Services*¹⁵⁹ as follows:

[...]Services for which the total charge a consumer pays to his/her [fixed or mobile] operator for the service includes remuneration to the supplier of the service, content or other product or service delivered during, or as a direct consequence of the call.

These ethical rules cover services whose content is made accessible via the numbers distributed by the National Post and Telecom Agency under the prefixes 0900, 0939 and 0944, with the exception of services related to calls made to the operators' own modem pools for Internet connections, which are charged at the normal call rate.

The ethical rules also cover Premium Rate SMS Services, which are provided at a higher rate, and all other mobile services that involve a separate charge.

¹⁵⁹ ERB (Sweden, 2004), *Ethical rules for Premium Rate Call Services (in English)*. Available at <http://www.etiskaradet.se/sidor/etiska-regler.aspx>. The latest Swedish language version: ERB (Sweden, 2007), *Etiska regler för Betalteljänster (in Swedish)*. Available at <http://www.etiskaradet.se/sidor/etiska-regler.aspx>. At time of publication, the ERB was due to release a new set of Ethical Rules.

In summary, PRS are considered to be those services that fit the following criteria:

- The total charge made to a network operators for the supply of content or a service includes remuneration to the provider of that service.
- The service is delivered during or as a consequence of a call to a number beginning 0900, 0939, 0944 or 099 (except for Internet connection calls).

In the case of mobile PRS (e.g. via SMS, MMS, WAP) phone-paid services include:

- Services accessed through five digit shortcodes beginning with ‘7’
- Services that are provided at a higher than standard rate
- Mobile services that involve a separate charge.

Unlike the UK, directory enquiry services are not currently included as part of the PRS regulatory framework.

13.3 PRS market structure and characteristics

Market size

The Swedish PRS market is very mature and such services are widely used and accessed by much of the general public. The market size in Sweden is estimated to total SEK2.3–3.3 billion (USD320–460 million). We estimate the split of revenue to be 65% in the mobile segment (premium SMS/MMS), and 35% in the fixed segment (premium voice services).

Fixed

PRS are most commonly accessed by calling numbers starting with 0900, 0939, 0944 and 099. Calls to such numbers that may exceed two minutes in length or cost more than SEK10 (USD1.40) are required to announce the call charge within the first ten seconds.

There are a large number of competing content providers, as well as services provided by broadcasting and media outlets, such as tele-voting and viewer participation services.

Ericsson IPX is a key player in the Swedish PRS market: the majority of content providers use its services to deliver their own PRS services to end users. Ericsson IPX has played an important role in shutting down unscrupulous content providers when major scams have taken place in the past.

Sweden is also a very liberal market: for example it is one of the few that permits PRS gambling and this has been the case for a while. Whilst non-live adult content is fully permitted, the *Ethical Rules* ban live services, meaning that voice-based adult PRS are all pre-recorded.

Mobile

In 2003, the ERB began regulating mobile services. These services can be accessed through five-digit shortcodes starting with the prefix 7 (7xxxx). In addition, there are some mobile Internet based services. There are a number of free and low cost services that use the 71 prefix. Mobile services can either be charged on an *ad hoc* purchase (e.g. bus tickets, ringtones, soft drinks, competitions) or as a subscription service (e.g. ringtones, weather, traffic information). Services may be purchased or ordered via SMS or via the Web, but in all circumstances “some form of communication must take place with the user’s mobile phone (e.g. a confirmation SMS)”¹⁶⁰. Single purchases of more than SEK50 (USD7.00) are bound by an additional, stricter set of self-regulatory rules laid out in the *Mobile Premium Service Code of Conduct* of the industry body MORGAN¹⁶¹.

As with many developed markets, *Jamba* holds a strong position in the provision of ringtones and mobile personalisation content. Other significant mobile content providers include *streetmedia7*, *Aspiro*, *echovox*, and the government-owned gambling monopoly *Svenska Spel* (Swedish Games). *Unwire* is another important player in the PRS market and provides much of the electronic voting infrastructure behind shows such as the Eurovision Song Contest and other tele-voting programming, as well as ‘real-world’ services such as train tickets, parking and vending machine payment.

13.3.1 Communication service providers

The Swedish telecoms market features four sizable players, each of which has a significant market share in fixed, mobile or both segments. They are all represented on the ERB board, which is responsible for financing the regulator (through a levy imposed on PRS transactions), as well as reviewing payroll and operational expenses made by the ERB. The ERB has the power to order network operators to shut down specific PRS if it is believed that unscrupulous content providers are not complying with the *Ethical Rules*.

Fixed line operators

The two main fixed line operators are the incumbent TeliaSonera, followed by alternative telephony provider Tele2. In addition, Com Hem and Telenor Sweden each have a significant number of VoIP subscribers. Their subscriber market shares are shown below in Figure 13.2 below.

TeliaSonera, known as Telia AB before its merger with Finnish Sonera, originally founded the Ethical Council for PRS (SERB) in 1994, which would in 2002 become the ERB. TeliaSonera holds a seat on the ERB board and, being the incumbent fixed line operator, carries the majority of fixed PRS call volumes.

¹⁶⁰ ERB (Sweden, 2011), *Om SMS-tjänster*. Available at <http://www.etiskaradet.se/sidor/om-sms-tjanster.aspx>

¹⁶¹ MORGAN (Stockholm, Sweden, 2001), *Code of Conduct*. Available at <http://www.morganforum.com/uploads/Code%20of%20Conduct%201%20oktober%202010%20English.pdf>

Tele2 is principally a mobile network operator, but holds a significant market share in the fixed segment. Tele2 also holds a seat on the ERB board.

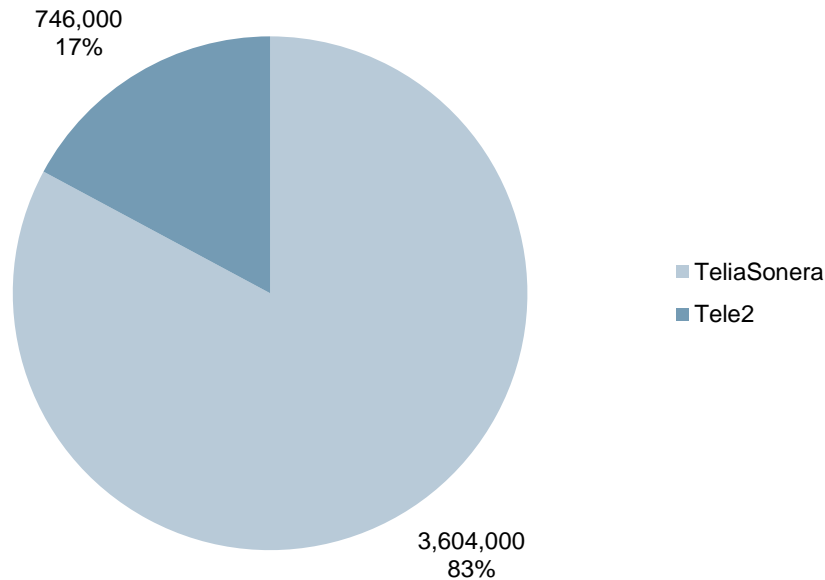


Figure 13.2: Sweden: Fixed operators' numbers of connections and market shares at year-end 2010
[Source: Analysys Mason, company reports, 2011]

Mobile operators

The four main mobile network operators are all represented on the ERB board. Any changes and additions to MORGAN's *Mobile Premium Service Code of Conduct* must be agreed between all the mobile operators and MORGAN. By referring to and acting upon these rules, operators effectively have the power to bar access to services distributed by content providers that do not comply with them. Many of the mobile operators are also fixed operators (TeliaSonera, Tele2, Telenor), so they have an interest in both premium voice and premium SMS services. Three Sweden, which launched in 2003, is a mobile-only telecoms operator, and is also the smallest by subscribers with just under 10% market share. See Figure 13.3 for operator market shares by subscriber number.

Through their mobile Internet portals, MNOs in Sweden offer many of the same services offered in other developed markets, such as games, music and videos. One specific example is Telia offering both 'white label' and Gameloft-branded games.

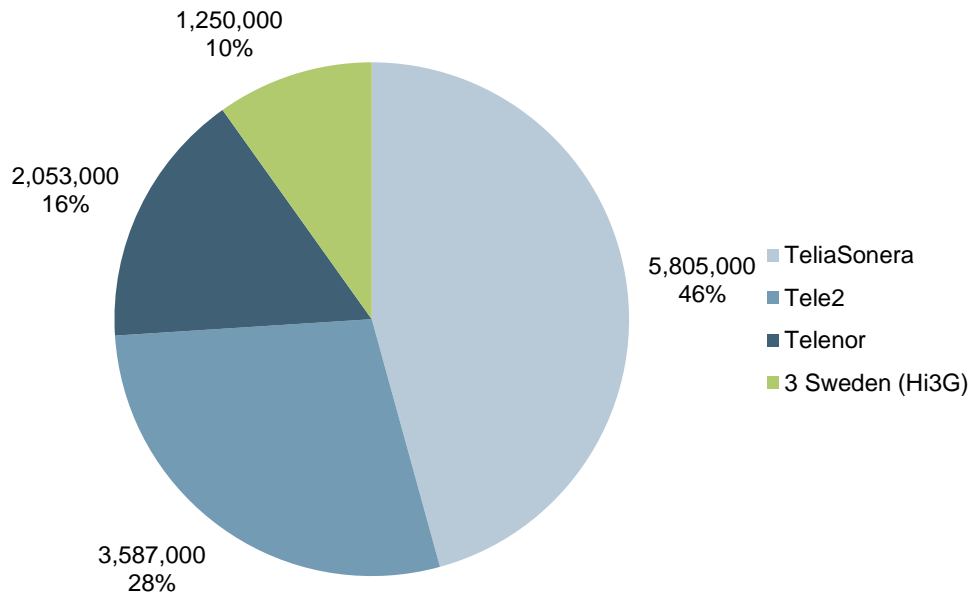


Figure 13.3: Sweden: Mobile operators' subscriber numbers and market shares at year-end 2010
[Source: Analysys Mason, company reports, 2011]

13.4 Regulatory framework

13.4.1 Introduction

In Sweden, PRS regulation is carried out by the Ethical Council for Premium Rate services ('Etiska Rådet för Betalteletjänster' or ERB). The ERB is an independent regulatory body that operates under a statute to establish and maintain ethical standards for content and marketing of PRS. It has an annual budget of around SEK2.3 million (USD365 000), which is funded through a levy placed on all PRS transactions, and collected by the network operators. This equates to around 1% of the value of the total PRS market in Sweden.

The ERB has its origins in the early 1990s with the introduction of PRS through the now-defunct 071x prefix. From then the ERB existed in a number of guises until 2003, when it took its current form, which includes mobile services within its mandate. The council was originally set up by Telia AB, but now the ERB board is made up of representatives of the four main CSPs in Sweden (TeliaSonera, Tele2, Telenor and Three) as well as the Swedish PRS industry body MORGAN, which itself represents 49 members within the PRS value chain. These bodies are summarised in Figure 13.4 below.

Name	Type of Organisation	Remit
Ethical Council for Premium Rate services ('Etiska Rådet för Betaltelejänster' or ERB)	Government statutory authority	Maintains ethical standards in the content and marketing of PRS, and investigates issues; prepares and publishes the Code of Conduct
MORGAN	Industry body	Industry organisation representing companies active in the Swedish mobile service industry

Figure 13.4: Swedish regulatory and industry bodies [Source: Analysys Mason, 2011]

The ERB publishes and regularly updates its guideline, the *Ethical Rules for Premium Rate Services*. MORGAN publishes its own *Mobile Premium Service Code of Conduct*, which outlines in greater detail the specific processes that must be carried out – e.g. the wording in a confirmation SMS – during the PRS purchase process. In this sense, on top of the independent regulation from the ERB, the PRS industry can be considered to provide a degree of self-regulation. All rules are laid out in two main documents and a third supplementary document focusing on PRS use by minors, as described in Figure 13.5 below:

Type	Document	Comment
Primary legislation	ERB Ethical rules for Premium Rate Call Services , 9 March 2004 (in English); Ethical rules for Premium Rate Call Services , 3 May 2007 (in Swedish)	Latest version not available in English.
Secondary legislation (industry code)	MORGAN Code of Conduct , 1 October 2010	Applies in addition to the Ethical rules, detailing more specific terms of operation
Secondary legislation (industry code)	Mobile operators Code of Conduct – Safer use of mobile phones and services by younger teenagers and children , 15 January 2008	Response to a European framework setting out measures to ensure children can safely access content on their mobile phones

Figure 13.5: Sweden: Regulation and legal documents (click on links to access documents) [Source: Analysys Mason, 2011]

13.4.2 Overview of PRS regulation

Ethical rules

The objective of the *Ethical Rule for Premium Rate Services* is to “prepare and uphold ethical rules regulating the content of information provided on premium rate telephone lines and the marketing of the same, in accordance with the prevailing standard agreements on the market and the articles adopted by the founders”¹⁶².

¹⁶² ERB (Sweden, 2004), *Ethical rules for Premium Rate Call Services (in English)*. Available at <http://www.etiskaradet.se/sidor/etiska-regler.aspx>

In addition to general rules on clarity, scrupulousness and honest marketing practices, other significant clauses include:

- Premium rate calls that could exceed two minutes in length or SEK10 (USD1.30) in value must start by informing the customer of the call charge (price/minute) within the first ten seconds, and provide the option to end the call before any charges are imposed.
- Direct calls between an operator and customer are prohibited if the purpose of the call could be assumed to be to offer the customer sexual stimulation.
- A service that is offered in a premium rate call should not be unnecessarily prolonged, delayed or extended by the provision of irrelevant information or otherwise.

Code of Conduct

The Code of Conduct is agreed upon by the Swedish mobile operators, the ERB and MORGAN. A breach of either the Code or the ERB's Ethical Rules can result in the suspension of a content provider's services. The Code seeks to build on the Ethical Rules, providing more detailed guidelines and specifications. It also contains rules surrounding location based services e.g. obtaining consent from the consumer, to use their location information, providing an explanation for what it will be used for. Beyond general rules to standardise industry best practice, and ensure content providers act in a way that doesn't harm consumers, other significant clauses include:

- Termination of a subscription to a service should be possible via SMS and telephone, and preferably via web and email.
- Before the activation of a location-based service, permission must be obtained from the subscriber, and such consent must be verifiable afterwards.
- If a single purchase exceeds SEK50 (USD6.40) in value, the subscriber must respond affirmatively to a confirmation SMS that contains, price and description for the services, along with the name and customer service contact details of the service provider.

Advertising rules

Both the Ethical Rules and the Code of Conduct provide guidelines on the marketing of PRS. The Code encompasses all the rules in the Ethical Rules, as well as number of additional points, including:

- Charges must be clearly and fully stated on advertisements, and in addition provide formatting and directional guidelines (i.e. horizontal text) for adverts in press and in visual media (e.g. TV and Internet adverts).
- Where a single publication provides multiple access numbers for a service, it must be indicated that they connect to the same service.

- Marketing is prohibited if the content it promotes is intended for children under the age of 14 and the cost exceeds SEK10 (USD1.30).

In addition to this market definition, a number of content types are outlined but not explicitly defined in Section A of the Ethical Rules, along with specific caveats or advertisement requirements for each:

Section	Segment	Advertisement requirements
5.	Services of a sexual or erotic nature	The provision of interactive or directly transmitted video or audio is prohibited
6.	Competitions	The objective and conditions of a competition (including judging procedures) must be specified, as well as the closing and winner announcement dates, the prize value and its specification
7.	Lotteries	A specific permit is required to arrange lotteries directed at the general public
8.	Donations to charity	The proportion of the donation that goes to the charity concerned must be stated clearly
9.	Professional advice	Marketing must provide the name of the consultant's business, or the name and profession of the specific person(s) providing the service

Figure 13.6: Sweden: PRS service area advertisement requirements [Source: Ethical rules for Premium Rate Call Services]

13.4.3 Tariff structure

Fixed line pricing

PRS in Sweden are accessed through number ranges beginning with four different prefixes. Whilst these were each originally intended to be used for separate purposes, '0900', '0939' and '0944' are all mostly used for any purpose. Numbers starting with '0900' are predominantly used for 'pay-per-call' services, but these are also used to some degree on '0939' and '0944'. Calls to tele-voting services on the '099' prefix, are commonly charged at just less than SEK10 (USD1.30). This is to avoid legislation that requires the call price, when above SEK10, to be announced at the start of a call if the call lasts for more than two minutes, which tends to be the case for tele-voting calls.

Number range(s)	Use	Details	Price range (per minute, connection/call) ¹⁶³
0900, 0939, 0944	General services	Services include competitions, TV voting, horoscopes, chat lines, recorded information, adult. 0900 is mostly used for pay per call	Open-ended fixed fee: SEK1-30 (USD0.13-3.85)
0900, 0939, 0944	General services	Services include competitions, TV voting, horoscopes, chat lines, recorded information, adult. 0900 mostly used for pay per call	Fixed price per call: SEK1-200 (USD0.12-26.00)

¹⁶³ There is minimal different between the cost of calling from fixed and mobile lines.

099	Tele-voting	Rules encourage charging less than SEK10 (USD1.30) per minute	Open-ended fixed fee
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Figure 13.7: Sweden: PRS voice call tariffs¹⁶⁴ [Source: Analysys Mason, Ofcom, 2011]

¹⁶⁴ ERB (Sweden, 2004), *Ethical rules for Premium Rate Call Services (in English)*. Available at <http://www.etiskaradet.se/sidor/etiska-regler.aspx>

Mobile pricing

Premium SMS services are accessed through five-digit shortcodes starting with '72'. SMS donations to charity use shortcodes starting with '729' and in the majority of cases the mobile operator will waive the any fees it would usually charge, so that the full charge to the consumer can be donated. Shortcodes beginning with the prefix '71', are used for free or low cost services.

Number range(s)	Use	Details	Price range (per message/per minute)
71 xxx	General (low cost)	Non-premium rate (e.g. reminders for dentist, annual car check etc.)	Free or low cost
72 xxx	General	One-off charge or subscription	Up to SEK200 (USD26); Up to SEK1200 (USD150) for total subscription
72 9xx	Charity	Fees are usually waived partly or entirely by MNO	Open-ended fixed fee

Figure 13.8: Sweden: PRS mobile service tariffs¹⁶⁵ [Source: Analysys Mason, 2011]

13.4.4 PRS market issues

As with many mature PRS markets, Sweden has experienced a fair number of scams. However, regulation is relatively well equipped to deal with issues as and when they occur. This was demonstrated at the start of 2011 when a scam message was sent to around 400 000 Swedish mobile subscribers on New Year's Day that offered the chance to win a holiday to the Caribbean, but in fact would subscribe a respondent to a service that sent eight SMSs at a charge of SEK50 (USD8.00) each. By 4 January, the ERB was aware of the issue and had contacted Ericsson IPX, which shut down the service within 15 minutes. All charges were refunded.

Subscription scandals and misleading pricing

In 2009, PRS in Sweden were linked with competition scandals, in which consumers were offered the chance to win electronics or cash prizes simply by filling in their mobile number on a website. Users did not realise that by doing this they were in fact signing up for a subscription service that charged them SEK30 (USD4.50) per SMS sent or received.

In addition, market players have been known to use complicated pricing structures and excessive connection or per minute charges, meaning that users may not be completely aware of how much they are being charged at the point of purchase.

To combat these problems, the MORGAN has implemented certain safeguards in its Code of Conduct:

¹⁶⁵ MORGAN (Stockholm, Sweden, 2001), *Code of Conduct*. Available at <http://www.morganforum.com/uploads/Code%20of%20Conduct%201%20oktober%202010%20English.pdf>

- **‘STOPP’/‘STOP’ commands** – 3.1.3 “End user must be able to stop all subscription services on a specific shortcode by sending the word STOPP or STOP (not case-sensitive). Additionally the content provider may also offer the possibility to stop one service by sending STOPP or STOP either preceded or followed by the service keyword, e.g. STOP chat”¹⁶⁶.
- **Complaints** – Content providers must provide official complaint channels, and complaints must be dealt with within one working day of receipt. There is no explicit provision for refunds within the Code of Conduct.

Under-age access

One of the main topics of complaint comes from parents whose children have unknowingly subscribed to PRS services. In an attempt to discourage this, the regulator has included provisions to prevent marketing of high-cost PRS services to those below the age of 14.

13.4.5 PRS complaints and compensation

In 2010, the ERB received 648 complaints in total, which compares favourably with the 1987 complaints received in 2009. The ERB attributed the high number of complaints in 2009 to the problems occurring in a number of territories during this year, notably PRS subscription scams. Since taking necessary action, the number of complaints has once again reduced. The majority of complaints (90%) relate to mobile services (e.g. premium SMS). The main reported issue is the use of, or unknowing subscription to, services by minors.

The Code of Conduct outlines the procedures that content providers must have in place to deal with complaints, for example:

4. Providing a customer service line between 09.00–17.00 on weekdays, with calls attended to within 10 minutes.
5. Complaints shall be individually dealt with within one day of receipt.

There are no explicit provisions within either the Code of Conduct or the Ethical Rules that dictate the procedure for refunds. However, these are implicitly covered by general consumer protection legislation.

13.5 Evolution of PRS in Sweden

13.5.1 Areas of growth and decline in the PRS market

The traditional PRS market in Sweden (consisting of PRS services paid for and delivered through a phone) is mature and, at best, is expected to show only limited growth in the next one to two years. This decline can be attributed to the increased threat from alternative payment mechanisms

¹⁶⁶ MORGAN (Stockholm, Sweden, 2001), *Code of Conduct*. Available at <http://www.morganforum.com/uploads/Code%20of%20Conduct%201%20oktober%202010%20English.pdf>

(e.g. credit cards, stored value accounts) and the popularity of the iPhone and smartphones that use their own proprietary payment mechanisms, thus bypassing PRS. Popular phone-paid services include tele-voting and participation TV, and this popularity looks set to continue. In addition, mobile services already account for the majority of revenue, and this trend looks set to continue as use of fixed lines declines.

There are a number of innovative uses of PRS which go beyond the delivery of traditional mobile content, and that are seeing high levels of take-up and growth potential. Examples include paying for parking, train tickets and purchasing drinks from vending machines, all of which allow purchases to be made on impulse and at the user's convenience. Later in 2011, the Swedish Postal Service is planning to launch a system that allows consumers to purchase postage stamps via SMS; this provides a further indication of the level of comfort consumers in Sweden have with payment of goods and services via premium SMS.

In addition, the Android apps ecosystem is a potential area where PRS payment mechanisms may eventually make in-roads in the future, due to the relative openness of the platform in comparison to other systems such as the Apple app store.

13.5.2 Evolution of PRS regulation

The evolution of the market looks set to change the requirements for regulation in the coming years and may change the way the ERB looks at its role. This will mainly be driven by high growth in the use of premium rate payment mechanisms (most notably premium SMS) for the purpose of acquiring products and services that are not delivered via a fixed or mobile phone – in other words, real-world tangible products.

Even as the market develops, it is believed that rules with regard to marketing will be able to follow changing market trends, but it is less clear how regulation of the content itself will take place. For example, with digital content there are procedures in place to block services, or effectively censor content if necessary. However, if content is not delivered via electronic means, this may not be possible.

Beyond this, directory enquiries services are also under consideration to be included within legislation surrounding PRS. This may be in response to the need for regulation since the liberalisation of the DQ market.

14 Australia

- Australia has an advanced and mature PRS market with moderate levels of revenue per capita (USD13.5 per capita in 2010) and a highly competitive market.
- Regulation is split between premium SMS-based and voice-based services, with regulation being carried out by the Australian Communications and Media Authority (ACMA), a statutory authority, and the Telephone Information Services Standards Council (TISSC), an industry self-regulatory body, respectively.
- On the mobile side the Communications Alliance, which represents mobile carriers, content providers and aggregators, developed the *Mobile Premium Service Industry Code*, which was registered by ACMA.
- Guidelines for fixed services are published in TISSC's *Code of Practice* and updated on a six-monthly basis.
- Whilst use of premium voice services is declining, revenue from premium SMS looks set to explode in the coming years as the technology is used more commonly for micro-payments.

14.1 Country snapshot

Population	22.2 million
GDP per capita	USD39 685
Fixed telephony penetration (2009)	48.1%
Mobile telephony penetration	125.0%
Size of PRS market (estimate)	USD275 million
PRS revenue per capita	USD13.50

Figure 14.1: Australia overview [Source: Analysys Mason, EIU, company reports, 2011]

14.2 Definition of PRS

In Australia, PRS regulation is split between fixed and mobile services, the former known as 'premium rate (telephone information) services' and the latter as 'mobile premium services'.

Fixed services are defined by the *Code of Practice* of the Telephone Information Services Standards Council (TISSC)¹⁶⁷ as follows:

¹⁶⁷ TISSC (Sydney, Australia, 2010), *Code of Practice No 1 of 1/1/02 – October 2010 version*. Available at <http://www.tissc.com.au/code.pdf>

A.3 DEFINITIONS AND ABBREVIATIONS

Premium rate service is a service that:

(a) is charged at a premium rate: and

(b) is accessed by using telephone numbers beginning with “190” prefix codes

In addition a number of content types are further outlined in the Definitions section:

Section	Segment	Definition
n/a	Caller to caller service	PRS that provides a communication between the caller and one other caller (formerly Chat service)
n/a	Children’s PRS	PRS that, wholly or in part, is aimed at, or would reasonably be expected to attract, people under 14 years of age
n/a	Conference service	PRS that provides a conversation between a caller and two or more other callers
n/a	Live service	PRS that provides a conversation with a calling party that is not pre-recorded
n/a	Mass calling service	PRS involving a competition that is capable of generating 300 call attempts per minute, or such other number of call attempts as agreed with a carriage service provider
n/a	Professional information or advice	Information or advice provided by a professionally skilled or appropriately qualified expert or specialist, who is registered with an appropriate, recognised professional association
n/a	Recorded service	Recorded premium rate service, such service being accessed by utilising telephone numbers beginning with the prefix 190
n/a	Telephone sex service ¹⁶⁸	A telephone sex service is a commercial service supplied using a standard telephone service, where it would be concluded that a majority of persons who call the service are likely to do so with the sole or principal object of deriving sexual gratification from the call
n/a	Video service	A service accessible from a 3G mobile handset, which consumers access by making a video call to a 190 number

Figure 14.2: Australia: PRS service area descriptions [Source: TISSC Code of Practice, Telecommunications (Consumer Protection and Service Standards) Act 1999, Part 9a, section 158J]

¹⁶⁸ Office of Legislative Drafting and Publishing, (Canberra, Australia, 2011), *Telecommunications (Consumer Protection and Service Standards) Act 1999*. Available at http://www.comlaw.gov.au/Details/C2011C00067/Html/Text#_Toc282684230

Mobile services are defined by the *Mobile Premium Services Industry Code (C637:2009)*¹⁶⁹, which Australian Communications and Media Authority's has registered under Part 6 of the Telecommunications Act 1997:

2.2 Definitions

Mobile Premium Service means:

- (a) a Premium SMS or MMS Service; or
- (b) a Proprietary Network Service.

Premium SMS or MMS Service means:

- (a) a Carriage Service supplied by way of a call to or from a Shortcode with the prefix 191, 193, 194, 195, 196, 197 or 199; or
- (b) a Content Service supplied by way of a call to or from a Shortcode with the prefix 191, 193, 194, 195, 196, 197 or 199,

other than an Exempt Service, where:

- (c) the only purpose of messages sent as part of that service is to facilitate the billing of another service (for the purposes of this definition, the non-related service);
- (d) the non-related service is not a service of the kind described in subclause (a) or (b) above, nor a Proprietary Network Service; and
- (e) the messages sent as part of the service do not contain content (or a means to access content) of any kind, other than:
 - (i) a statement that the customer has been charged for the non-related service;
 - (ii) any relevant details of the non-related services being billed and the relevant charges; and
 - (iii) any other content required by law.

Proprietary Network Service means a public mobile telecoms service that enables an end-user to access a Proprietary Network.

Proprietary Network means a Telecommunications Network used by a Mobile Carriage Service Provider that enables Customers of that provider to access, by way of a mobile device, a Premium Content Service that is not otherwise generally available.

In summary, fixed PRS are those accessed through premium rate telephone numbers beginning with the prefix '190'. Mobile PRS are those accessed by way of a premium SMS or MMS to or from a shortcode with the prefix 191, 193, 194, 195, 196, 197 or 199.

¹⁶⁹ Communications Alliance, Ltd, (Sydney, Australia, 2009), *Industry Code Mobile Premium Services C637:2009*. Available at http://commsalliance.com.au/__data/assets/pdf_file/0011/2054/C637_2009.pdf

14.3 PRS market structure and characteristics

Market size

The Australian PRS market is relatively mature, and traditional voice based services have been noting a decline in recent years. One content provider interviewed as part of this study estimated the value of the total market to be USD300 million¹⁷⁰, which does not include DQ services. Of this, USD200 million¹⁷¹ was attributed to premium SMS services.

Fixed

Fixed PRS services are most commonly accessed by calling numbers starting with '190', and are generally referred to as "190 services". The '1901' prefix is specifically reserved for "restricted services" whereby consumers must register or 'opt-in' to be able to use such services. Generally these will be services of a sexual nature, but the range is not limited to this use.

The premium voice market is considered to be mature and the number of '190' services has decreased significantly over the last decade, which indicates the market is shrinking considerably – though some of this can be attributed to consolidation among content providers. Significant players in the market include Belong, IDS, Telads, Mediatel, M.Net and Salmat.

Premium rate voice services are typically charged at between AUS0.385 (USD0.35) and AUS5.50 (USD5.05) per minute, but fixed charges are also available, e.g. AUS0.385 per call¹⁷².

Mobile

Mobile PRS services are accessed through six and eight digit shortcodes starting with the '19' prefix. In addition Optus offers its own WAP billing service, which, unlike Payforit in the UK, was developed and implemented independently. Micro-payments are a nascent service, but trials have taken place offering physical products and services, such as vending machine purchases and car parking payment via premium SMS.

Many of the same players operate in both the fixed and mobile segments. Significant companies include MobileActive, which was represented in the working group that developed the MPS Industry Code, as well as Fox Mobile Group (Jamster), Oxygen8 and Salmat.

Products offered by the MNOs include Three offering Guitar Hero, Pac-man or Monopoly for AUD7.00 (USD6.40), Telstra offering ringtones for AUD4.95 (USD4.50) each, and Vodafone offering wallpapers from AUD2.00 (USD1.85) each.

¹⁷⁰ Terracom (Singapore, 2011), *Telephone interview*.

¹⁷¹ BuddeComm (Bucketty, Australia, 2010), *Australia – Internet, Broadband and Digital Economy Statistics (tables only)*. Available at <http://www.budde.com.au/Research/Australia-Internet-Broadband-and-Digital-Economy-Statistics-tables-only.html>

¹⁷² TISSC (Sydney, Australia, 2011), Q&A. Available at <http://www.190complaints.com.au/info.html>

The *Mobile Premium Services User Survey 2010* commissioned by ACMA, indicated that the Internet (30.5%) and television (27.5%) were the most common information sources for discovering mobile premium services.

14.3.1 Communication service providers

Fixed line operators

The Australian fixed line incumbent, Telstra, continues to be the dominant player in the market, with a market share of 85%. Optus is Telstra's largest rival; it uses its own local network, but has limited reach. There are upwards of 300 smaller rivals in the market, but the market is mature and is showing limited signs of growth in the future.

Since Telstra runs the majority of the fixed infrastructure it plays a key role in delivering PRS, as well as suspending service should a serious breach have occurred. In view of this, Telstra holds a seat on the TISSC board, representing communications providers.

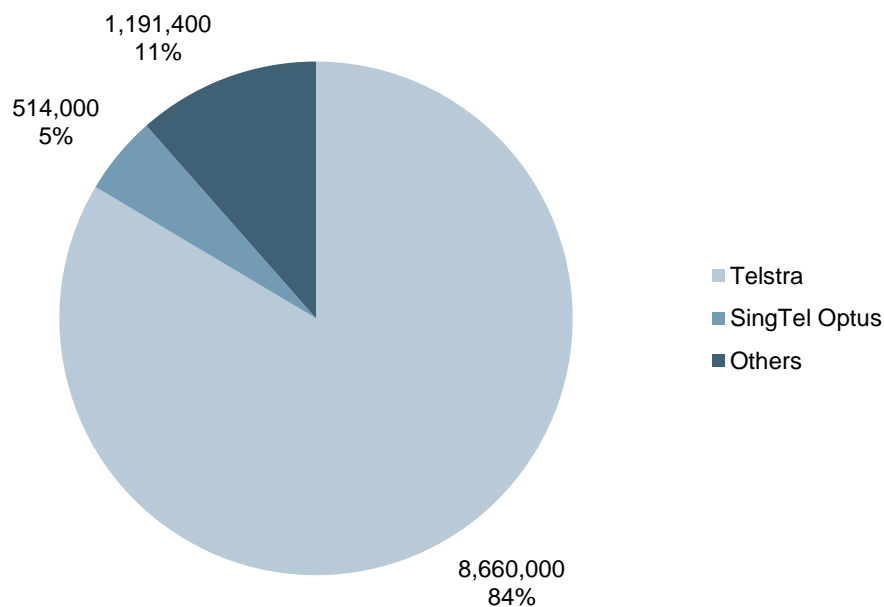


Figure 14.3: Australia: Fixed operators' numbers of connections and market shares at year-end 2010
[Source: Analysys Mason, company reports, 2011]

Mobile operators

Since the merger of Vodafone and Hutchison's Australian operations in February 2009, there have been three major mobile operators in the country. The incumbent fixed provider, Telstra, also holds a dominant position in the mobile market with a 42.0% share of subscribers. However, in the mobile market there is a more even split of market share with its rivals, Optus Mobile and the combined Vodafone-Hutchison operation. Telstra and Optus were represented in the working group that developed the *Mobile Premium Services Industry Code*. In addition to

premium SMS/MMS-based payment mechanisms, Optus had previously developed a proprietary WAP billing service, but now mobile operators are showing interest in developing an industry-wide platform.

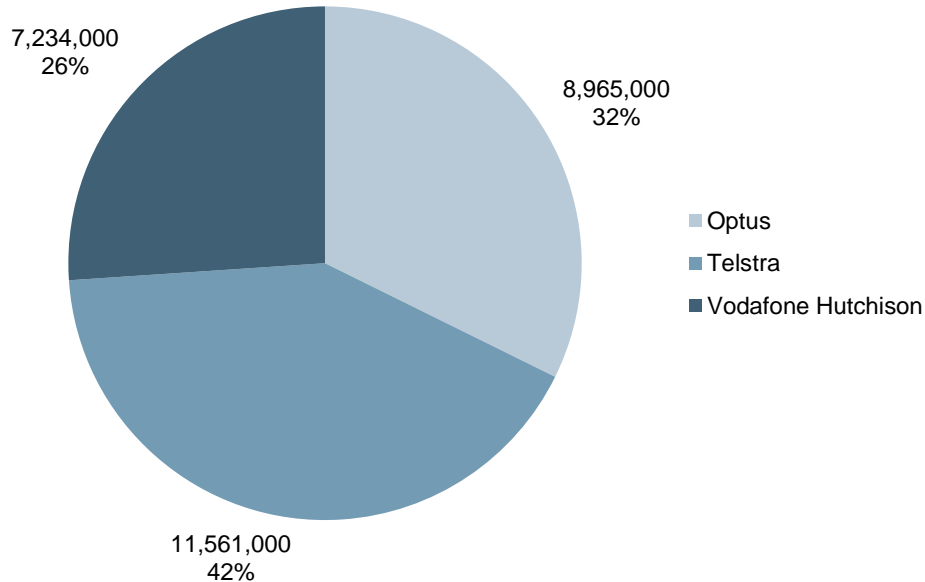


Figure 14.4: Australia: Mobile operators' subscriber numbers and market shares at year-end 2010
[Source: Analysys Mason, company reports, 2011]

14.4 Regulatory framework

14.4.1 Introduction

PRS regulation is split by fixed and mobile services, the former being self-regulated by the Telephone Information Services Standards Council (TISSC) and the latter by the government regulator, the Australian Communications and Media Authority (ACMA). TISSC has an estimated annual budget of AUD0.5 million¹⁷³ (USD0.46 million), while ACMA estimates that funding aimed at the regulation of mobile premium services totals AUD0.7 million¹⁷⁴ (USD0.64 million). Figure 13.4 below summarises these and the additional bodies that deal with regulation, consumer protection and complaints resolution.

¹⁷³ TISSC (Sydney, Australia, 2011), *Telephone interview*.

¹⁷⁴ ACMA (Sydney, Australia, 2011), *Telephone interview*.

Name	Type of Organisation	Remit
Australian Communications and Media Authority (ACMA)	Government statutory authority (regulator)	Regulation of mobile premium services (MPS); registration of Industry Code
Communications Alliance	Industry association	Representing the Australian communications industry; helps develop the MPS Industry Code
Telecommunications Industry Ombudsman (TIO)	Independent of industry, the government, and consumer organisations	Free and independent alternative dispute resolution; investigate complaints about the provision or supply of telephone or Internet services
Telephone Information Services Standards Council (TISSC)	Industry regulator	Self-regulation of premium rate voice services; develops Code of Practice with input from the community and industry; complaints handling
Australian Competition and Consumer Commission (ACCC)	Independent statutory authority	Promotes competition and fair trade to benefit consumers, business and the community; ensures that individuals and businesses comply with competition, fair trading and consumer protection laws
Australian Association of National Advertisers (AANA)	Industry association	Represents the rights and responsibilities of companies and individuals involved in the advertising, marketing and media industry
WMC Global	Independent company	Employed by MNOs to intercept non-compliant promotions; carries out audits of SMS message flows

Figure 14.5: Australia: Regulatory and industry bodies [Source: Analysys Mason, 2011]

Regulations related to fixed PRS are outlined in the TISSC *Code of Practice*¹⁷⁵. The *Mobile Premium services Industry Code (C637:2009)*¹⁷⁶, which was developed by the Communications Alliance in line with the Telecommunications Act (1997) and register by the ACMA, provides regulation for mobile premium services and came into effect on 1 July 2009. Below, Figure 14.6 outlines these and any general consumer protection documents which implicitly cover the PRS market.

¹⁷⁵ TISSC (Sydney, Australia, 2010), *Code of Practice No 1 of 1/1/02 – October 2010 version*. Available at <http://www.tissc.com.au/code.pdf>

¹⁷⁶ Communications Alliance, Ltd, (Sydney, Australia, 2009), *Industry Code Mobile Premium Services C637:2009*. Available at http://commsalliance.com.au/_data/assets/pdf_file/0011/2054/C637_2009.pdf

Type	Document	Comment
Primary legislation	Telecommunications Act 1997	National telecommunications legislation
Self-regulatory industry code	TISSC Code of Practice No 1 of 1/1/02 – October 2010 version	Regulation specific to <u>premium voice services</u>
Industry code	Communications Alliance Ltd – Industry Code – Mobile Premium Services C637:2009	Regulation specific to <u>mobile premium services</u>
Consumer protection legislation	Telecommunications (Consumer Protection and Service Standards) Act 1999 , Act No. 140 of 2010	Legislation designed to set standards and protect consumers against unscrupulous behaviour by content providers
Industry code	Australian Association of National Advertisers Code of Ethics August 2009	Industry code designed to enforce good advertising practices, including for PRS

Figure 14.6: Australia: Regulation and legal documents (click on links to access documents) [Source: Analysys Mason, 2011]

14.4.2 Overview of PRS regulation

Fixed regulation

TISSC claims to be an independent regulatory body. Although it is funded by the incumbent fixed operator, Telstra, it seeks to offer a balanced and impartial viewpoint by representation from a mixture of stakeholders, including two 190 service providers, one communication provider, three ‘community members’ and a Chairman (collectively ‘The Council’). Through its *Code of Practice*, TISSC aims to establish fair and independent industry standards that ‘190’ number service providers must abide by. The Code is updated every six months, though if any urgent issues arise, these can be addressed immediately through ‘add-on’ amendments.

Also part of TISSC is a secretariat that consists of an independent Arbitrator (who assesses complaints and determines whether a breach of the Code has occurred), as well as staff for complaints handling and administrative support. The secretariat carries out auditing and investigation activities of content providers, and can handle complaints prior to reaching the Arbitrator.

If a service is in breach of the Code, the TISSC does not have the power to impose fines. However, there are a number of actions it can take to remedy the breach, starting with giving the content provider the opportunity to rectify the problem, through to termination of its service contract with the CSP.

Code of Conduct

The objective of the TISSC Code of Practice is described as follows:¹⁷⁷

“To ensure a fair, reputable telephone information service industry and the protection of consumers by:

1. providing consumers with sufficient information to make informed choices about using PRS;
2. establishing minimum standards for the supply of PRS;
3. ensuring that PRS directed at children are delivered, promoted and advertised responsibly;
4. ensuring that the content of PRS reflects the contemporary attitudes of Australian society;
5. ensuring that minors are not exposed to unsuitable material that may be contained in PRS.”

Significant clauses safeguarding consumer interests include:

- if a recorded service is likely to cost more than AUD0.82 (USD0.75) in total, the caller must be informed of the total cost or cost per minute at the start of the call
- if a Recorded Service which is charged per minute exceeds 10 minutes in duration the caller must be required to take positive action (e.g. dialling ‘0’) at 10-minute intervals to continue the call
- the maximum length of a PRS call will be 60 minutes, after which it shall be disconnected. If the cost per minute is greater than AUD4.40 (USD4.00), this limit is reduced to 30 minutes
- calls that cost more than AUD2.75 (USD2.50) per minute and exceed 5 minutes in duration shall play a clear and audible three-beep tone at 5 minute intervals for the duration of the call
- calls for variable call charges (where the call cost can vary during the call) shall have a maximum charge of AUD165.00 (USD150.00)
- PRS specifically aimed at children (under 14 years of age) must not encourage the caller to call the same PRS or any other PRS.

The Code of Practice also sets standards for advertising PRS, and includes a framework for the provision of adult services to ensure adequate protection of children.

Advertising rules

Advertisements for PRS must comply with the Australian Association of National Advertisers’ *Advertiser Code of Ethics* as well as the TISSC *Code of Ethics*. In summary, the *Code of Ethics* states that an advertisement must not mislead or be inaccurate in any way. It must include correct, legible call cost information, including variable call cost options (where the cost can vary throughout the duration of the call), and whether this differs from mobile phones or payphones. The Code also sets out the size and font in which call costs must be displayed depending on medium (e.g. TV, cinema, Internet, billboard). Missed-call marketing – whereby a short duration

¹⁷⁷ TISSC (Sydney, Australia, 2010), *Code of Practice No 1 of 1/1/02 – October 2010 version*. Available at <http://www.tissc.com.au/code.pdf>

call is made that results in the registration of a missed-call notification on a mobile phone, and returning the call accesses a PRS advertising message – is also highlighted as prohibited.

Advertisements specifically aimed at children must not encourage repeat calling, and must warn children that they must ask for the permission of their parents before making a call.

Mobile regulation

Through the Communications Legislation Amendment (Content Services) Act 2007, ACMA permits bodies or associations representing sections of the content industry to develop industry codes for registration and by ACMA. The *Mobile Premium Services Industry Code (C637:2009)*¹⁷⁸ was developed and registered under Part 6 of the Telecommunications Act 1997. Such sections include content service providers and telecommunications activities such as supplying a content service using a carriage service. Complaints are handled and dealt with by the Telecommunications Industry Ombudsman (TIO) which has the power to investigate possible breaches of the code rules and report on these to the ACMA¹⁷⁹. The ACMA while not dealing with individual consumer complaints has a role in ensuring industry compliance with the MPS Code. The ACMA compliance approach can include audits, education and where necessary formal compliance action against the content provider¹⁸⁰.

In addition, WMC Global is employed by Telstra and Optus to intercept non-compliant advertisements and promotions through the MNOs' PSMS Industry Monitor service.

The ACCC also plays an important role; it seeks to protect against misleading and deceptive conduct in a range of services, including premium SMS services. The ACCC has been fairly interventionist, taking high profile action through the Federal Court against a number of service providers in the hope of setting a precedent, something that the TIO lacks the power to do. Examples include court action against the Netherlands-based parent company of TMG Asia Pacific¹⁸¹, AMV Holdings Limited in the UK¹⁸² and Clarion Marketing Australia¹⁸², for conducting false and misleading promotions for mobile premium services.

Further to this Code, other rules may be put in place as and when required, for example, as of July 2010 consumers are able to block all premium SMS from their mobile phones in order to prevent being charged for any unwanted services.

¹⁷⁸ Communications Alliance, Ltd, (Sydney, Australia, 2009), *Industry Code Mobile Premium Services C637:2009*. Available at http://commsalliance.com.au/__data/assets/pdf_file/0011/2054/C637_2009.pdf

¹⁷⁹ Telecommunications Industry Ombudsman (Melbourne, Australia, 2011), *Mobile Premium Services*. Available at <http://www.tio.com.au/FAQ/MPSI.HTM>

¹⁸⁰ Examples can be found at: http://www.acma.gov.au/WEB/STANDARD/pc=PC_100872

¹⁸¹ ACCC (Sydney, Australia, 2008), *ACCC alleges misleading & deceptive conduct by TMG Asia Pacific Pty Ltd in advertising mobile premium services*. Available at <http://www.accc.gov.au/content/index.phtml/itemId/840189>

¹⁸² ACCC (Sydney, Australia, 2009), *ACCC takes action to stop misleading SMS advertisements*. Available at <http://www.accc.gov.au/content/index.phtml/itemId/876669>

Code of Conduct

Although ACMA is responsible for the regulation of mobile premium services, the Telecommunications Act requires that industry bodies be given an opportunity to develop their own codes of practice before the ACMA makes its own rules to impose on industry.

The ACMA is able to make regulations in the form of service provider determinations under section 99 of the Telecommunications Act 1997 to regulate mobile premium services. It made a determination in 2010¹⁸³ requiring all mobile network operators and carriage service providers to offer premium SMS barring to their customers and another determination in 2010¹⁸⁴ prohibiting the contracting with content providers not included on the industry register and allowing the ACMA to direct that a content service not be billed for a period up to 3 years in the event that there has been a serious breach of the MPS Code and significant consumer detriment.

Section 117 requires the ACMA to register an industry code if it complies with a range of requirements including provides appropriate safeguards for the matters covered in the code.

Within this framework, Communications Alliance has developed the Industry Code itself. This is carried out by a Working Committee including stakeholders from the telecoms industry and consumer groups. The objective of the Code is to “establish appropriate community safeguards and customer service requirements for Mobile Premium Services”¹⁸⁵. Significant clauses include:

- content providers or aggregators wishing to supply PRS must register with the Communications Alliance
- pricing information (including sign-up cost, charges per message/charge period) must be accessible to customers
- content providers must send a notification to consumers each time they incrementally spend AUD30.00 (USD27.50) in each calendar month
- requirement that a customer must provide two separate confirmations to a content provider before they can purchase a service and receive information about the cost
- instructions on how to unsubscribe and how to get help with the service between confirmation messages – this is one of the significant safeguards in the code that has significantly contributed to reduced complaint numbers.

The Industry Code also sets standards for advertising PRS, and includes a framework for the provision of adult services, to ensure adequate protection of children.

¹⁸³ <http://www.comlaw.gov.au/Details/F2010L00639>

¹⁸⁴ <http://www.comlaw.gov.au/Details/F2010L02217>

¹⁸⁵ Communications Alliance, Ltd, (Sydney, Australia, 2009), *Industry Code Mobile Premium Services C637:2009*. Available at http://commsalliance.com.au/__data/assets/pdf_file/0011/2054/C637_2009.pdf

Advertising rules

Rules on advertising apply to marketing for premium SMS and MMS services and include guidelines on providing “clear, prominent and legible information in plain language”¹⁸⁵, and ensuring the advertisement is not misleading in any way. Section 3.1.15 of the Code specifically states that PRS must not be used for conducting or participating in the promotion of a scam.

With regard to advertising aimed at children (under 15 years old), marketing must not be placed in publications or locations that are aimed at this group, and if an advertisement is likely to attract significant use by under-18s, a warning must be displayed to ask for the bill-payer’s permission.

14.4.3 Tariff structure

Fixed line pricing

PRS in Australia use a relatively simple set of dialling prefixes starting with ‘190’. The 1900 and 1902 ranges are used for most services and can cost up to AUD5.50 (USD5.00) per minute, but competitions and TV voting have a maximum cost of AUD0.50 (USD0.45) per call. The 1901 number range is used for ‘restricted services’, whereby customers must register and opt-in to use the service, after which access is only granted upon entry of a PIN code. This is in order to protect minors from accessing these services – typically these services will be of a sexual nature.

In order to ensure the caller is aware of how much they are paying to make a call, the cost and length (where relevant) of the call should be announced at the start of the call, except for calls to competition lines¹⁸⁶.

Number range(s)	Use	Details	Price range (per minute, connection) ¹⁸⁷
1900/2	General	Technical software support, live professional and specialist information, sports results and weather information, dating contact services, and competition entries	AUD0.385-5.50 (USD0.35-5.05); AUD0.385-38.50 (USD0.35-35.32)/call
1900/2	Competitions/ participation TV	In some states services that involve chance have a maximum charge per call	AUD0.50 (USD0.46)/call
1901	Restricted services	User must first register and receive a PIN before access is granted to these services; often services of a sexual nature	Max AUD5.50 (USD5.05); AUD38.50 (USD35.32)/call
1906	Paging services	Premium rate paging services	n/a

Figure 14.7: Australia: PRS voice call tariffs¹⁸⁶ [Source: Analysys Mason, ACMA, 2011]

¹⁸⁶ TISSC (Sydney, Australia, 2011), Q&A. Available at <http://www.190complaints.com.au/info.html>

¹⁸⁷ Charges include GST/VAT. Costs will vary from mobiles

Mobile pricing

Premium SMS services are accessed through six or eight digit shortcodes starting with '19'. Shortcodes beginning with either of the prefixes '195' or '196' are used for restricted services (e.g. content for those aged 16 or over, or 18 or over). To access these services, users must pre-register.

Number range(s)	Use	Details	Price range (per message/per minute)
19 1x xx(xx)	General	n/a	Open-ended fixed fee
19 3x xx(xx)	General	n/a	Open-ended fixed fee
19 4x xx(xx)	General	n/a	Open-ended fixed fee
19 5x xx(xx)	Restricted services	Exclusively for MA15+ and MA18+ content. User required to pre-register; access granted via a PIN code	Open-ended fixed fee
19 6x xx(xx)	Restricted services	Exclusively for MA15+ and MA18+ content. User required to pre-register; access granted via a PIN code	Open-ended fixed fee
19 7x xx(xx)	General	n/a	Open-ended fixed fee
19 9x xx(xx)	General	n/a	Open-ended fixed fee

Figure 14.8: Australia: PRS mobile service tariffs¹⁸⁸ [Source: Analysys Mason, 2011]

14.4.4 PRS market issues

The PRS market in Australia is regulated to a degree that allows flexibility and has evolved appropriately as issues have arisen. Interviews with regulators and stakeholders indicate that the market does not currently suffer from (or has suitably dealt with) many of the issues reported in other countries. However, some areas of concern remain:

Charges for non-requested services

Although there has been a reduction in new mobile PRS complaints, one area that remains problematic is that of consumers being charged for services that they did not request. This accounts for 41.2% of complaints¹⁸⁹. This is despite the fact that the *Industry Code* has mandated a 'double opt in' provision. Other common complaint issues include:

- telcos and content suppliers failing or refusing to assist consumers with their complaint
- telcos and content suppliers failing to action opt-out requests
- charges imposed after an opt-out request has been made

¹⁸⁸ ACMA (Sydney, Australia, 2011), *Telephone interview*.

¹⁸⁹ Telecommunications Industry Ombudsman (Melbourne, Australia, 2011), *2010 Annual Report*. Available at http://www.tio.com.au/publications/annual_reports/ar2010/PDFs/AnnualReport2010Download.pdf

- being unable to get in contact with a content supplier.

14.4.5 PRS complaints and compensation

Like the regulation of the market, the complaints process is similarly segmented between fixed and mobile services. In the fixed segment, TISSC received practically no complaints in the past year, since most complaints were resolved by content providers. The TIO deals with complaints in the mobile segment, and although the number of complaints is substantial they have reduced significantly in the past three years.

Fixed

TISSC provides a website (190 Complaints¹⁹⁰) to deal with complaints about the advertising and content of fixed services, including the following issues:

- there was no call cost in the advertisement;
- the service contained out of date information;
- the call was delayed unfairly;
- the advertisement for a competition did not state when it closed, so a call was made after the closing date and the caller has been charged;
- content was ordered for a mobile phone, but not received;
- charges have been made for Internet connection, but the user did not realise that any charge applied.

TISSC acts as a mediator to consumers, content providers and the Arbitrator. If there has been a possible breach, the service provider is notified, and given a set amount of time to respond and provide an explanation. Following this, if a breach is found to have occurred, the Arbitrator will select a remedy (e.g. to fix the problem, arranging a refund, and in serious cases ask Telstra to suspend the service).

TISSC states that it receives a very small number of complaints; roughly 10 complaints between April 2010 and January 2011. This indicates that the market is well monitored and that consumers are generally aware of and happy with the fixed PRS they are using.

Mobile

Complaints involving premium SMS/MMS (mobile premium services) are dealt with by the TIO. Common complaints include:

¹⁹⁰ TISSC (Sydney, Australia, 2011), Q&A. Available at <http://www.190complaints.com.au/info.html>

- consumer did not receive enough information about the service they bought before they bought it
- did not ask for the mobile premium service listed on their telephone bill
- have received high bills for mobile premium services
- cannot cancel a mobile premium service and keep getting billed for it; or
- cannot communicate with a mobile premium service supplier.

However, if a consumer believes they have been involved in a scam – e.g. where a consumer is tricked into sending an SMS to a ‘19’ number, when in fact no service or content exists – these cases are dealt with by the ACCC.

The number of annual complaints to the TIO regarding mobile premium services had been steadily rising to a peak of around 13 692 in the 2008-09 reporting period, but the latest results show a steep reduction in new complaints, with only 4107 registered in 2009-10.¹⁹¹ This decline has been attributed to the implementation of a package of effective regulatory measures, e.g. the requirement for double opt-in and for content providers to register with the Communications Alliance. Instructions on how to unsubscribe and how to get help with the service between confirmation messages are a number of the significant safeguards in the code and have significantly contributed to reduced complaint numbers.

The ACMA is looking into the service not request complaints received by the TIO to better understand the nature of the problem. While the highest single category in percentage terms they are nevertheless declining in actual numbers.

14.5 Evolution of PRS in the Australia

14.5.1 Areas of growth and decline in the PRS market

In Australia, the primary focus of growth is on mobile PRS. Generally the market for fixed PRS (e.g. ‘190 numbers’) has been stifled by competing services (e.g. the Internet, mobile apps); nevertheless, some live content (e.g. psychic services, live chat, adult services) is best provided over a voice call, and to a degree these are now this segment’s core services. In addition, there are examples of premium voice being used as an online games billing mechanism – e.g. Mediatel, which runs games on Facebook, provides a pay-by-phone option to users.

Conversely, although still in the early stages, there has been somewhat of a resurgence in premium SMS operators and service offerings. This has been driven by the use of PSMS as a convenient payment mechanism for purchases beyond typical premium rate content (e.g. Zong). Premium

¹⁹¹ Telecommunications Industry Ombudsman (Melbourne, Australia, 2011), *2010 Annual Report*. Available at http://www.tio.com.au/publications/annual_reports/ar2010/PDFs/AnnualReport2010Download.pdf

SMS benefits from utilising technology that is already in the hands of the majority of the population, using a process they are familiar with, meaning consumers can conveniently make purchases acting on impulse. In addition, trials have already taken place for premium SMS payment for vending machines and in car parks, and the regulator believes that it is only a matter of time before growth in this sector explodes.

WAP billing is a service already offered to Optus subscribers on a proprietary basis, but the regulator believes that this is an area that MNOs are interested in developing on a collaborative industry-wide basis.

14.5.2 Evolution of PRS regulation

The fixed PRS regulator, TISSC, believes that there are limited opportunities for growth in this segment as many content providers are now focussing on new, more convenient and innovative content delivery and payment methods.

Premium SMS, on the other hand, is seen as a widespread and highly innovative payment and content delivery mechanism. Given the correct ecosystem and regulatory protection, SMS micro-payments in particular have the potential to grow exponentially in Australia. ACMA is already monitoring the industry and is in discussions with financial services regulators, with the expectation that this segment will see huge growth in the future. The ACMA is aiming to ensure that appropriate and technology neutral consumer protections are in place for emerging mobile phone-based payment systems.

15 Brazil

- The Brazilian PRS market, comprised of both fixed and mobile content services, as well as directory enquiry services, is estimated at USD759 million in 2010. This represents roughly USD3.93 per capita, with the overwhelming majority of revenue generated through mobile-based services.
- ANATEL is the industry regulator. As well as developing and approving PRS regulation, it is also responsible for applying sanctions.
- In the fixed PRS market a code of conduct (the ‘Term of Adjustment of Conduct’ or TAC) was established in 2005 which governs fixed PRS and establishes a strict set of obligations to be complied with by operators and content providers.
- Mobile PRS will also be governed by a code conduct (the ‘Single Term of Conduct’) which is currently being finalised by the industry association MEF LATAM in conjunction with industry stakeholders. The code is expected to be officially adopted in 2011.
- While the numbering regime for fixed PRS is defined in the TAC, the numbering regime for mobile PRS is determined by the individual operators.
- The regulator ANATEL receives very few consumer complaints relating to fixed PRS. There are more complaints from mobile PRS users: common issues include users being subscribed to subscription services unknowingly, and subscribers being unable to cancel their services.
- Fixed PRS regulation is not expected to be modified in the near future. On the mobile side the next step is to create an entity that certifies ads from content providers, monitors compliance with the Code, and enforces penalties.

15.1 Country snapshot

Population	193.3 million
GDP per capita	USD2164
Fixed telephony penetration	21.7%
Mobile telephony penetration	106.7%
Size of PRS market (estimate) ¹⁹²	USD759 million
PRS revenue per capita	USD3.93

Figure 15.1: Brazil: market overview [Source: Analysys Mason, EIU, company reports, 2011]

¹⁹² Mobile PRS market value based on Analysys Mason estimate.

15.2 Definition of PRS

PRS, known in Portuguese as ‘serviços de valor adicionado’ are defined in Art. 61 of the General Law of Telecommunications, Law nr. 9.472, of 16 July 1997:

Art. 61. A premium rate service is an activity that adds new uses to a telecoms service that supports it and is different from it, related to the access, storage, presentation, flow or recovery of information.

§ 1º A premium rate service does not constitute a telecoms service: its provider is classified as a user of the telecoms service that supports it, with the rights and obligations inherent to such a condition.

§ 2º It is ensured to the interested the use of the telecoms services networks to provide premium rate services, being the responsibility of the National Telecommunications Agency (Agência Nacional de Telecomunicações) to ensure that right and regulate the relationship between those and the telecommunication service providers.

15.3 PRS market structure and characteristics

Market size

The Brazilian mobile PRS market was worth USD759 million in 2010 according to Analysys Mason estimates. This does not include revenue from DQ services. The market has been growing over time and is currently estimated to represent approximately 13% of the total data revenues of mobile operators.

Mobile accounts for a significant proportion of total PRS revenues. According to the regulator, the provision of PRS by fixed operators significantly decreased following signing of the ‘Term of Adjustment of Conduct’ on 24 August 2005.

Directory enquiry services are provided by telecoms operators for their customers.

Fixed

According to the 1998 Numbering plan, 0900 prefixes are allocated to PRS. These prefixes can be used by services related to entertainment, information, and sale of products and services. In 2010, prefixes in the 0500 range were allocated for donations to charity.

Mobile

Mobile PRS are accessed using specific numbers provided by mobile operators. Major global content providers, including Buongiorno, Arvato and Flycell, operate in Brazil and have played an active role in developing the Code of Conduct for mobile PRS.

15.3.1 Communication service providers

Fixed line operators

With its acquisition in 2008 of Brasil Telecom, Telemar Norte Leste (Oi) almost doubled its subscriber numbers to become the country's largest fixed-line provider. The second-largest fixed operator by subscribers is Telefónica Brasil. According to ANATEL, the number of requests from operators to use 0900 numbers is very low, and most of them come from Telefónica Brasil.

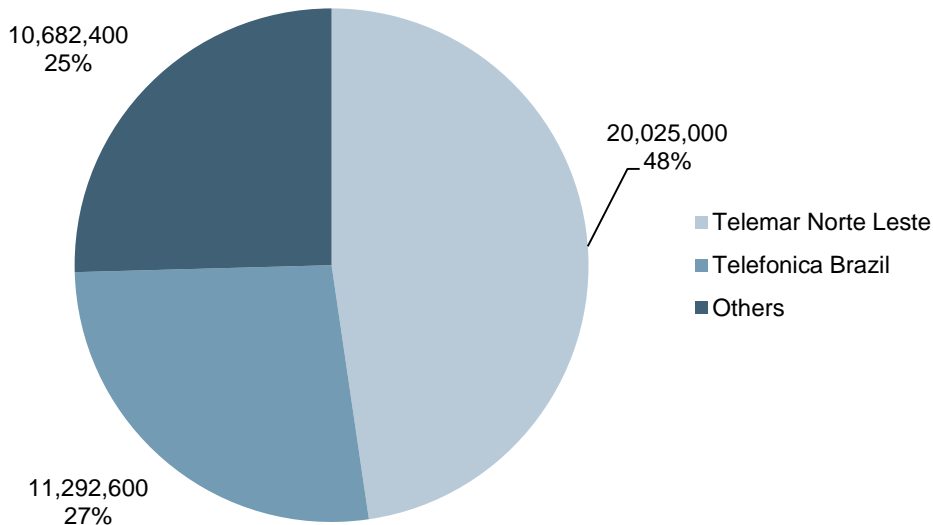


Figure 15.2: Brazil: fixed operators' numbers of connections and market shares at year-end 2010
[Source: Analysys Mason, company reports, 2011]

Mobile operators

There are four mobile operators in Brazil. Vivo holds the highest market share and is followed by Claro, TIM and Oi. In 2010, Portugal Telecom's stake in Vivo was sold to Telefónica Brasil. All four mobile operators have been involved in the development of the Code of Conduct for mobile PRS, which is expected to be adopted in 2011.

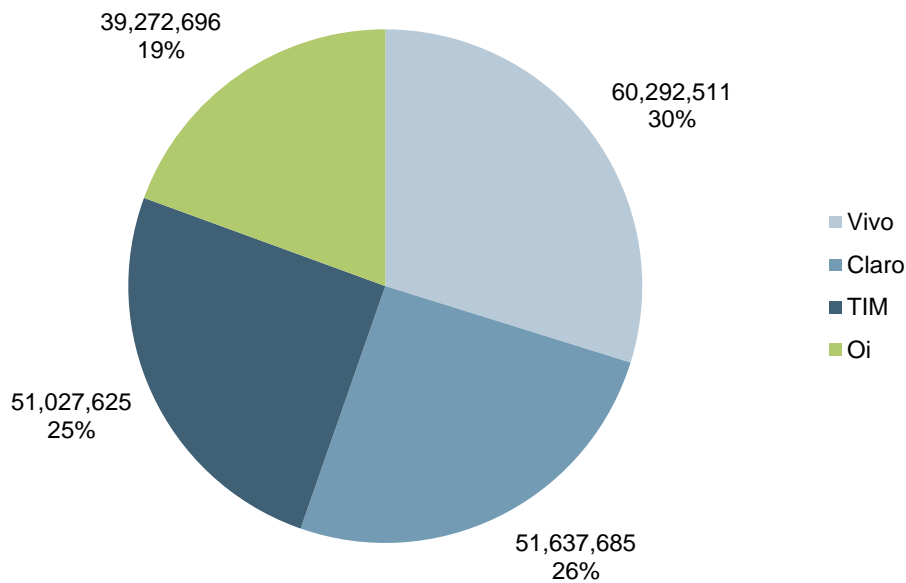


Figure 15.3: Brazil: mobile operators' subscriber numbers and market shares at year-end 2010 [Source: Analysys Mason, company reports, 2011]

15.4 Regulatory framework

15.4.1 Introduction

Introduction

The National Agency for Telecommunications ('Agência Nacional de Telecomunicações' or ANATEL) is responsible for regulating PRS services in Brazil. ANATEL is also responsible for imposing sanctions for any non-compliance.

MEF LATAM, an industry association, serves in an advisory capacity to its members, who are involved in the PRS industry in Brazil, providing best practice recommendations and industry guidelines. It has been working with the mobile operators to develop a Code of Conduct governing mobile PRS.

Figure 15.4 summarises these institutions.

Name	Type of Organisation	Remit
ANATEL ('Agência Nacional de Telecomunicações')	Industry regulator	Develops and approves regulation. It also applies sanctions
MEF LATAM	Global trade association of the mobile media industry	Provides best practice recommendations and industry guidelines for members and the broader mobile entertainment sector

Figure 15.4: Brazil: regulatory and industry bodies [Source: Analysys Mason, 2011]

There are two primary pieces of legislation governing the provision of fixed PRS in Brazil.

Law nr. 9.472 dated 16 July 1997 includes the definition of PRS, while the Term of Adjustment of Conduct (‘Termo de Ajustamento de Conduta’ or TAC) signed on 24 August 2005 by ANATEL, Telesp (now Telefónica Brasil) and the Federal Public Ministry (‘Ministério Público Federal’) defines the requirements and conditions for the provision of PRS. The TAC superseded the Norm 04/97 “Use of the Public Telecommunications Network for the Provision of Value Added Services”.

ANATEL’s Resolution nr. 86 from 30 December 1998, approved the Regulation of Switched Fixed Telephone Service Numbering¹⁹⁶ which in turn replaced Norm nr. 28/96 “Numbering Plan for Telephony Public Networks and Cellular Mobile Service”. This numbering plan includes the prefix and number format that is assigned to PRS (namely 0900).

Mobile PRS will remain unregulated in Brazil until the introduction of the Code of Conduct (expected to be adopted in 2011). The Code has the aim of establishing minimum standards of conduct expected by companies operating in the VAS market in Brazil. The Code was developed in a collaborative effort between mobile operators, content providers, ANATEL and the MEF LATAM. The MEF LATAM took a lead role in the development of the Code and fostering collaboration between stakeholders.

The Code was further supplemented by a Directive¹⁹³ issued by ANATEL in 2010, which reiterated the principles described in the Code.

Figure 15.5 includes a brief description of these documents and others related to PRS regulation in Brazil.

Type	Document	Comment
Primary legislation	General Law of Telecommunications, Law nr. 9.472, 16 July 1997, President of the Republic ¹⁹⁴	States the organisation of telecoms services, the creation and work of the regulatory body and other institutional aspects
Legislation	Term of Adjustment of Conduct, 24 August 2005, Federal Public Ministry ¹⁹⁵	Establishes the requirements and conditions for the provision of PRS. It replaced Norm 04/97
Legislation	Regulation of Numbering for Switched Fixed Telephone Service, 30 December 1998, approved by ANATEL ¹⁹⁶	Establishes the Numbering Plan to be used in the provision of switched fixed telephone services

¹⁹³ Directive 429/2010/PVCPR/PVCPC/PVCP

¹⁹⁴ President of the Republic (Brasília, Brazil, 1997), General Law of Telecommunications. Available at https://www.planalto.gov.br/ccivil_03/leis/19472.htm

¹⁹⁵ Federal Public Ministry (Sao Paulo, Brazil, 2005) Term of Adjustment of Conduct 24th August 2005. Provided by ANATEL

¹⁹⁶ ANATEL (Brazil, 1998), Annex to Resolution nr. 86 from 30th December 1998. Available at <http://www.anatel.gov.br/Portal/verificaDocumentos/documento.asp?numeroPublicacao=22282&assuntoPublicacao=Regulamento%20de%20numera%E7%E3o%20do%20Servi%E7o%20Telef%F4nico%20Fixo%20Comutado&cam>

Code of Conduct	Code of Conduct for Value Added Services in Brazil, December 2010, MEF LATAM ¹⁹⁷	Aims to establish the minimum standards of conduct expected by companies to operate in the market for VAS in Brazil
Directive	429/2010/PVCPR/PVCPC/PVCP, September 2010, ANATEL	Updates billing regulation for the provision of telecoms services
Legislation	Resolution nr. 538, 19 February 2010, approved by ANATEL ¹⁹⁸	Establishes the conditions to donate to 'institutions of public utility' (charities) using telecoms services

Figure 15.5: Brazil: Regulations and legal documents [Source: Analysys Mason, 2011]

15.4.2 Overview of PRS regulation

Fixed regulation

In 1998, ANATEL approved Resolution nr. 86 to accept the Regulation of Switched Fixed Telephone Service Numbering. Section V of this plan addresses non-geographical numbering, including PRS:

Section V – Non-Geographical Code

Art. 27. For the Non-Geographical Code, with format [N10N9N8+N7N6N5N4N3N2N1], the series N10N9N8 have the following destination:

I – “900”: series destined to calling value added service providers, indicating that the originating user is responsible for the payment of the telecoms service used and also the additional accessed service.

The provision of PRS over the PSTN is regulated by the TAC, which establishes a framework for interaction between telecoms operators, content providers and users. A summary of key obligations described in the TAC are provided below:

- *Clear information:* Operators are required to inform the user, via an automatic message, about the charges involved with using the PRS and the communications service. Where technically possible, this information should also feature on the bill.
- *Sensitive content:* Operators should not host content of a sensitive nature (e.g. sexual content, or which incites violence or drug consumption). Content providers are required to verify the age of users who wish to participate in voice chat services, and to monitor these services for sensitive topics.

nhoRel=Cidadao-Telefonia%20Fixa-Regulamenta%E7%E3o&filtro=1&documentoPath=biblioteca/resolucao/1998/anexo_res_86_1998.pdf

¹⁹⁷ MEF-LATAM (São Paulo, Brazil, 2010), *Code of Conduct Value Added Services Brazil*. Provided by MEF-LATAM

¹⁹⁸ ANATEL (Brazil, 2010), *Resolution nr. 536 of 19th February 2010*. Available at <http://www.in.gov.br/imprensa/visualiza/index.jsp?data=02/03/2010&jornal=1&pagina=116&totalArquivos=144>

- *PRS blocking:* Operators should provide a free number that users can call asking to block access to PRS.
- *Separation of telecoms service from PRS:* Operators should not cancel the user's telecoms service due to issues between the user and the content provider.
- *Billing limit:* Operators should cap each individual PRS charges at 25% of the minimum salary. In addition, the total charge for PRS services for a month should not exceed one month's salary of the user, unless explicitly permitted by the user.

The 0500 prefix, used for donations to charities, is regulated by Resolution nr. 538 of 19 February 2010, which approves the Norm about the Registry of Intention to Donate to an Institution of Public Utility Using Telecommunications Services. This Norm establishes the conditions for the provision of public interest telecoms services to users wishing to donate to a charity. The drivers for the development of this Norm include:

- The wide social reach of campaigns using telecoms services conducted by charities.
- The need for ANATEL to improve the conditions of the services provided in those campaigns.
- The request from UNESCO, itself a recipient of charitable donations received via PRS, to revise the previous Norm about donating to such institutions.

The 0500 Resolution covers a range of topics, with noteworthy points highlighted below:

3 – General dispositions

3.3.2. The specific non-geographic code has the format “0” +500+N7N6N5N4N3+N2N1, where the characters N2N1 should indicate the value to be donated

4 – Access conditions

4.2 The facility to register the intention to donate should offer a message, with a maximum duration of six seconds, before the registry of the donation, informing the user about the institution of public utility, the respective donation and corresponding cost, allowing a further three seconds after the message ends for the right to cancel.

5 – Conditions of blocking and unblocking of service access

5.1. The telecoms service users are ensured the right to block or unblock access from their respective telecoms terminals to the access codes associated with the facility to register the intention to donate.

6 – Values corresponding to donations

6.1. The institution of public utility is responsible for defining the donation values corresponding to each non-geographic code used; these should not include the cost

corresponding to the telecoms services.

6.1.1. The donation value corresponding to each call, should not be higher than BRL50.00

7 – Values corresponding to telecoms services

7.1. Responsibility for the utilisation of the telecoms services falls to the subscriber that originates the call.

7.1.1. The maximum costs to be charged for the use of the telecoms services, net of taxes and social contributions are:

I – for calls originated from a fixed telecoms terminal: BRL0.39 per minute

II – for calls originated from a mobile telecoms terminal: BRL0.71 per minute

Mobile regulation

The adoption of a common Code of Conduct is the first phase of an initiative by MEF LATAM to establish a regulatory model based on self-regulation. The second phase will involve the creation of an institution that will be responsible for certifying ads, monitoring compliance and enforcing sanctions. Advertisements are currently certified by mobile operators, which is time consuming. Some level of monitoring is provided by content providers' competitors, who may report dubious activities to the host operator, but no impartial parties are involved. Penalties are issued and, to the extent possible, enforced by mobile operators. However, there are no Service Level Agreements (SLAs) in place to make the process transparent and objective.

Following the introduction of mobile PRS in Brazil in 2006, there were a large (and growing) number of complaints by PRS users, resulting from the lack of regulation to safeguard consumer interests. As a result, some operators developed their own codes of conduct to apply when dealing with content providers. However, the differences between these individual codes of conduct have hindered the growth of PRS market and its monitoring of compliance. Had the level of complaints continued to rise, then the regulator may have been forced to intervene, which could have resulted in the termination of all mobile PRS or the introduction of strict regulation which may have limited market growth. MEF LATAM therefore intervened to create a code of conduct, the Single Term of Conduct ('Termo de Conduta Único'), which will establish a single standard for the industry. Key issues covered by the Term of Conduct include the following:

- *Subscription services:* Double opt-in is mandatory for SMS subscriptions. The SMS that answers the users' request must confirm the service price, the content that will be purchased and how to cancel the subscription, and must also include a link to a page where the user can obtain help and consult the Terms and Conditions. In response, if the user wishes to make the subscription effective, they should send an SMS with the command "SIM" (YES).

- *Billing*: the user must always be informed by a specific SMS about any billing, ideally the moment it occurs, or no later than 24 hours after its occurrence.
- *Service termination*: The subscription cancelation can be done by sending an SMS with the words “SAIR” (EXIT) or “CANCELAR” (CANCEL) to the number used for purchasing the PRS, or to the number that sends content.

In parallel to the development of the Code, ANATEL has produced directives that target the legal gap in the provision of PRS. The directive 429/2010/PVCPR/PVCPC/PVCP from 16 September 2010 reflects a set of decisions driven from suggestions by mobile operators. The outcome is a document that emphasises the content of the Code of Conduct. A particular example is the attention given to billing and double opt-in:

Periodic billing and SMS alert:

5.1 In the cases of periodic billing and SMS alert (examples: newspaper, magazine, horoscope, football news, etc): for any type of contract (SMS, WAP, WEB) it is necessary to adopt the content in items 7.1 to 7.3 of Directive 372/2010/PVCPC/PVCPR/PVCP, in the following terms:

7.1 From 1st September 2010, before billing for contracted premium rate services, an SMS should be sent to the user, free of charge, including:

7.1.1. Places where the terms of the promotion or contract can be consulted

7.1.2. the protocol number to be used by the user for enrolment

7.1.3. the cost of the service

7.1.4. the process to cancel it.

7.2 In the same SMS above mentioned, a provider should ask the user to send a reply, also via free SMS, confirming acceptance of the contract. Only after receiving such confirmation, is the provider authorised to bill for the service.

7.3 The user reply should be stored by the provider for evidence purposes.

15.4.3 Tariff structure

According to the 1998 Regulation of Switched Fixed Telephone Service Numbering, PRS services in Brazil are allocated to 0900 prefixes. Those follow the TAC of 24 August 2005, which states that operators should cap each individual PRS charge at 25% of the minimum salary (based on the minimum monthly national wage). In addition, total PRS monthly spend should not exceed the monthly minimum salary, unless agreed otherwise by the user.

The numbers with prefix 0500 are used to register the intention to donate to institutions of public utility (charities) such as UNICEF. Resolution nr. 538, of 19 February 2010, further mentions the maximum prices that can be charged for using telecoms services and the maximum amount that can be donated per call.

There is no central telephone directory service that people can use to ask for a Brazilian phone number: directory enquiries services are offered by operators for their own customers. In addition, mobile phone numbers are not available for inquiry due to privacy and security reasons.

Fixed line pricing

<i>Number range(s)</i>	<i>Use</i>	<i>Details</i>	<i>Price range (per minute, connection)¹⁹⁹</i>
0500	Charity donations	Donations to institutions of public utility such as UNICEF and its campaign "Criança Esperança"	BRL0.39 per minute (USD0.22) + donation; value of donation must be ≤ BRL50.00 per call (USD28.41)
0900	PRS	Entertainment, donations, information and the sale of products and services	Price ≤ 25% of minimum salary

Figure 15.6: Brazil: PRS voice call tariffs [Source: ANATEL, 2010¹⁹⁸ and Federal Public Ministry, 2005¹⁹⁵]

Mobile pricing

There is no numbering range defined in law for mobile PRS. Those numbers are provided by the operators themselves.

<i>Number range(s)</i>	<i>Use</i>	<i>Details</i>	<i>Price range (per message/per minute)</i>
0500	Charity donations	Donations to public institutions such as Unicef and Criança Esperança	BRL0.71 per minute (USD0.40) + donation value; donation value ≤ BRL50.00 per call (USD28.41)
0900	PRS	The caller pays for the telecommunication service and the offered service	Price ≤ ¼ of minimum salary

Figure 15.7: Brazil: mobile PRS tariffs [Source: ANATEL, 2010¹⁹⁸ and Federal Public Ministry, 2005¹⁹⁵]

15.4.4 PRS market issues

After the TAC was signed in 2005, many issues in the PRS market were addressed. Those included:

¹⁹⁹ Values do not include taxes

- Having to pay for blocking PRS
- Absence of pricing information
- Non-payment of the PRS bill resulted in cancellation of the phone line.

Currently, the main issues in PRS are:

- Difficulty in cancelling subscription resulting from requests being ignored. In some cases the subscriber succeeds in cancelling, but is still considered as an active subscriber the next month.
- The absence of pre-blocking of PRS followed concerns that those calls were made in some cases by minors without parental permission.
- Claims that users are charged for PRS they did not subscribe to.

15.4.5 PRS complaints and compensation

ANATEL claims to receive a very low number of complaints from consumers relating to fixed PRS (0900 and 0500). Only a small number of 0900 services are offered, which may explain the small number of complaints. 0500 services (for charity donations) are required to provide a recorded message, confirming the value of the donation and the institution to which the donation is intended. This limits the likelihood of the user unwillingly making a donation.

The numbers of complaints received from mobile PRS users are higher. 60% of complaints relating to mobile subscription services result from the user being charged for a service to which they have subscribed/been subscribed to unknowingly. A proportion of these are prepaid users, who subscribe to the service knowingly but at that time have an insufficient balance to complete the download(s); when they top-up later, the content is eventually downloaded and charged, but this may occur some time after the service was requested, and is no longer required. A further 30% of complaints relate to users not being able to cancel their service. Other issues involve children using their parent's phone for PRS without their knowledge.

15.5 Evolution of PRS in Brazil

15.5.1 Areas of growth and decline in the PRS market

Fixed PRS is very low, almost non-existent, and market growth is driven by mobile PRS. Filipe Rosa (a market expert) explains that mobile subscription services are a mature segment with pricing suffering downward pressure and evolving to “all you can eat” offers. The areas of growth in subscription services are mobile health, mobile education and mobile Internet. Overall, the Brazilian PRS market is expected to stay stable in the near future.

15.5.2 Evolution of PRS regulation

ANATEL does not see updating PRS regulation as a priority and there are no scheduled actions in that regard.

In mobile subscription services, there is a strong movement towards self-regulation, with the first phase of that process being the adoption of a common Code of Conduct by all mobile operators. As discussed above, the second phase will be the creation of an entity that will aggregate the following three responsibilities: (a) certification of ads and banners from content providers, (b) monitoring compliance, and (c) enforcing penalties. The expected overall outcome is that this model will allow the PRS market to evolve in a sustained manner and avoid the need for regulatory intervention that could hinder growth.

16 Canada

- Canada generates high levels of revenue per capita (USD7.14 per annum).
- Premium rate voice services are known as ‘900/976 services’.
- The Canadian broadcasting and telecoms system is regulated by an independent public organisation, the Canadian Radio-Television and Telecommunications Commission (CRTC).
- The PRS market in Canada is only partially regulated – there is no regulation regarding tariffs, though rate-caps are in place and the CRTC looks into consumer welfare relating to 900 services. Mobile PRS, including premium rate SMSs to shortcodes, are not regulated by the CRTC.
- Canada’s mobile phone operators together with the Canadian Wireless Telecommunications Association (CWTA) offer Common Shortcodes (CSCs) which may be activated across carriers’ networks.

16.1 Country snapshot

Population	34 million
GDP per capita (USD)	39,059
Fixed telephony penetration	49.4%
Mobile telephony penetration	73.2%
Size of PRS market (USD)	USD243 million (estimate)
PRS revenue per capita (USD)	USD7.14 (estimate)

Figure 16.1: Canada overview [Source: Analysys Mason, EIU 2011]

16.2 Definition of PRS

In Canada, premium rate voice services are called ‘**900/976 services**’, the name stemming from the number ranges used to access these services. The Canadian Radio-Television and Telecommunications Commission (CRTC) defines 900/976 pay-per call services as follows²⁰⁰:

A 900 service enables customers to connect to phone numbers that start with 1-900 for pay-per-call services. Pay-per-call services include live and pre-recorded services such as adult chat lines, vote casting, psychic consultations, horoscopes, soap opera updates, games, donations processing, sports scores, weather forecasts, translation, and medical, legal or government services.

These services are offered by third parties called 900 content providers. 900 content providers pay the telephone companies to use their networks.

²⁰⁰ CRTC (Canada, 2009), *900/976 pay-per-call services*, Available at http://www.crtc.gc.ca/eng/info_sht/t1001.htm

The 976 service is also a pay-per-call service, which is provided only by Bell Canada in Ontario and Quebec.

Shortcodes are used for donating to charity, information, entertainment, chat/flirt, etc. Mobile PRS, including premium rate SMSs to shortcodes, are not regulated by the CRTC.

16.3 PRS market structure and characteristics

Market size

At the time of writing, there is no information available in the public domain about the size of the PRS market in Canada.

The PRS market was partially deregulated in 2006, and companies wishing to enter the market no longer require regulatory approval. Accordingly, a number of new service providers have entered the 900 market and compete directly with registered service providers. Analysys Mason estimates the PRS market in Canada to generate USD243 million annually, which excludes DQ service revenue.

Fixed

PRS are accessed by calling numbers starting with 900 or 976. Services offered on these numbers include live and pre-recorded services such as adult chat lines, vote casting, psychic consultations, horoscopes, soap opera updates, games, donations to charity, sports scores, weather forecasts, translation, and medical, legal or government services.

Mobile

Mobile operators offer premium content through their mobile portals, which can be accessed via SMS or voice call on an ad-hoc or a subscription basis. For example, Bell Canada offers games and songs for a one-time fee starting at CAD3 (USD3.09) and CAD0.69 (USD0.71) respectively. In addition, customers can choose from several personalisation options such as ringtones at CAD3 (USD3.09) upwards and ring-back tones for CAD2/month (USD2.06/month) giving the customer access to a catalogue and an additional CAD1.99 (USD2.05) per ring-back.

Subscription services, such as daily or weekly horoscopes or ringtones, are commonly accessed via premium SMS or shortcodes, including subscriptions to daily or weekly horoscope alerts. It is also common to participate in popular TV shows, contests and promotions using shortcodes.

16.3.1 Communication service providers

Fixed line operators

The total number of fixed lines in Canada has been decreasing and there has been a rise in mobile-only households. Bell Canada dominates the fixed market with 39% market share, followed by its

competitors Telus Communications and Bell Alliant, with 22% and 16% market shares respectively.

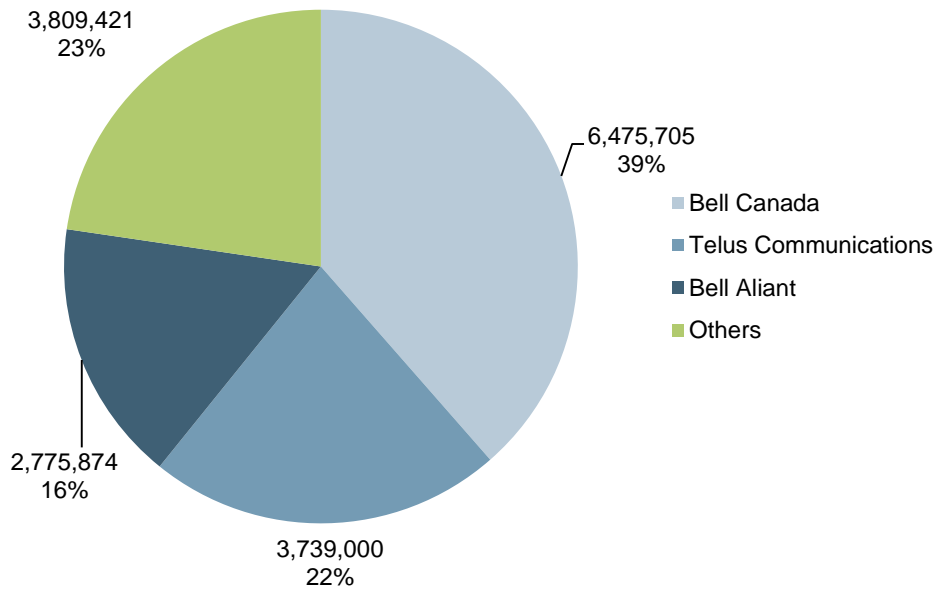


Figure 16.2: Canada: Fixed operators' numbers of connections and market shares at year-end 2010 [Source: Analysys Mason, company reports, 2011]

Mobile operators

The mobile market in Canada is dominated by three well-established nationwide players – Telus Mobility (part of Telus Communications), Rogers Communications and Bell Canada's wireless arm, Bell Mobility (including the former Alliant Mobility). There are also two large regional players active in the market, SaskTel and Manitoba Telecom Services (MTS).

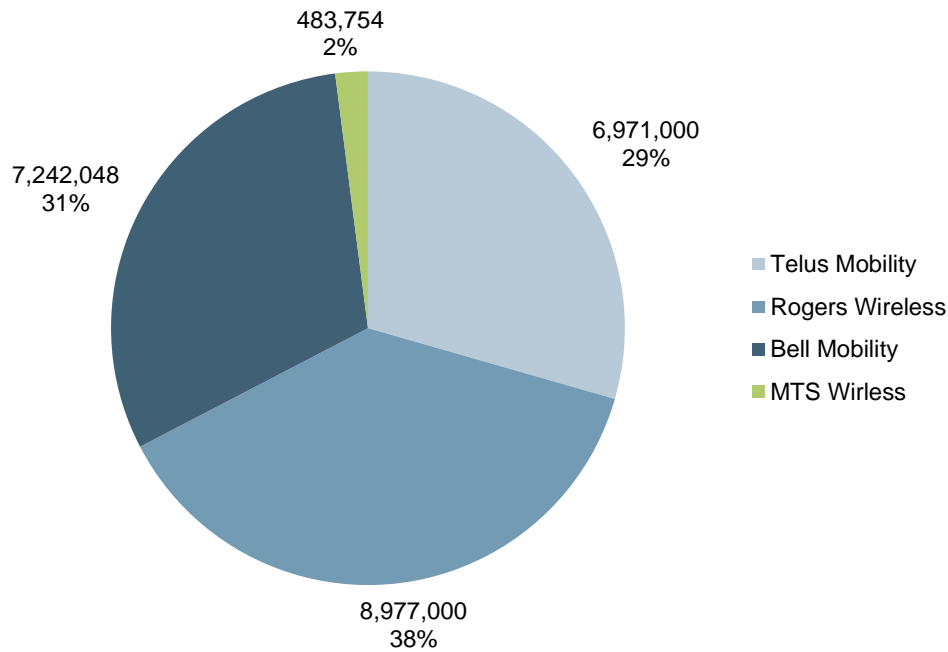


Figure 16.3: Canada: Mobile operators' subscriber numbers and market shares at year-end 2010
[Source: Analysys Mason, company reports, 2011]

16.4 Regulatory framework

16.4.1 Introduction

PRS in Canada were largely deregulated in 2006 in order to encourage competition in the market. Changes included start-up costs at the carrier level for new 900 numbers as well as restriction on content being eliminated.

In 2006, Telus, the second largest 900 number carrier in Canada, exited the PRS business, thus leaving Bell Canada as the only fixed PRS provider in Canada. Soon after, new regulations from the CRTC were implemented to accelerate deregulation of the local telephone services market. Inter-Exchange Carriers were no longer regulated and subject to tariffs. An unanticipated benefit of deregulation was an improvement in the PRS market²⁰¹.

The Canadian NRA the **Canadian Radio-television and Telecommunications Commission** ('CRTC') provides guidance on consumer welfare and price caps relating to 900 services. The CRTC is an independent public organization that regulates and supervises the Canadian broadcasting and telecoms systems. The CRTC reports to Parliament through the Minister of Canadian Heritage²⁰².

²⁰¹ Advancedtele (Canada), *Canada Market 2010*, Available at <http://www.advancedtele.com/Canada-Market-2010.php>

²⁰² CRTC (Canada, 2009), Available at <http://www.crtc.gc.ca/eng/backgrnd/brochures/b29903.htm>

The Telecom Decision CRTC 2005-19 is a legislative document that seeks to safeguard the welfare of '900' service users calling from fixed lines. Premium voice and SMS services originating from mobile devices are not regulated.

In July 2003 Canada's mobile phone operators came together with the Canadian Wireless Telecommunications Association (CWTA) to offer Common Shortcodes (CSCs) which may be activated across carriers' networks. The CWTA has been assigned the role of administrating CSC registry on behalf of the industry²⁰³.

Figure 7.5 provides an overview of the key regulatory and industry bodies relating to PRS in Canada.

Name	Type of Organisation	Remit
The Canadian Radio-television and Telecommunications Commission (CRTC)	Government authority (regulator)	Consumer welfare and price caps relating to 900 services
Canadian Wireless Telecommunications Association (CWTA)	Industry association	Association for wireless issues, developments and trends in Canada. It represents cellular, PCS, messaging, mobile radio, fixed wireless and mobile satellite carriers as well as companies that develop and produce products and services for the industry
Commissioner for Complaints for Telecommunication Services (CCTS)	Independent authority	Resolving complaints relating to telecommunication services.

Figure 16.4: Canada: Regulatory and industry bodies [Source: Analysys Mason, 2011]

Figure 16.5 below includes a brief description of the key regulatory and legal documents relating to PRS in Canada.

Type	Document	Comment
Key decision	Telecom Decision CRTC 2005-15: 900 service – Agreements and consumer safeguards, 2005	Details on consumer safeguards
Key documents	900/976 pay-per-call services	Details on consumer safeguards

Figure 16.5: Canada: Regulation and legal documents [Source: Analysys Mason, 2011]

16.4.2 Overview of PRS regulation

Structure of Agreements

²⁰³ TXT.ca (Canada), Available at <http://www.txt.ca/english/consumer/about.html>

The operation of 900 services is governed by the tariffs set by Canadian network operators (discussed below) and three commercial agreements (collectively, ‘the agreements’), which define the business relationship between the 900 service carrier and the 900 content service provider²⁰⁴:

- the Service Provider (SP) agreement
- the Accounts Receivable Management (ARM) agreement
- the Alternate Billing Arrangement (ABA) agreement.

The SP agreement sets out the terms and conditions under which a 900 service carrier provides services to content providers. The SP agreement defines network-related parameters, 900 service program number ownership and assignment, attributes of the preamble required for 900 service programmes, and advertising.

Under the ARM agreement, the 900 service carrier bills callers on behalf of the content provider using the originating telephone number from which a 900 call is placed. The 900 service carrier pays the content provider the amount collected from the caller, less certain fees and chargebacks.

Under the ABA agreement, a 900 content service provider can bill callers directly using the call detail information provided by the carrier. Alternately, the content provider can contract-out the functions of billing and collection to other organisations.

Rules for 900 and 976 services are not exactly the same. For example, provincial laws about what collection agencies are not allowed to do are part of the 976 service rules but not the 900 service rules. Specific rules for 900/976 services differ based on service providers.

Consumer safeguards

CRTC’s Decision 2005-19 on agreements and consumer safeguards establishes the current set of relevant consumer safeguards. This Decision was issued following a long process of consultation and negotiation with network operators, service providers and consumers. The following consumer safeguards are stipulated by the CRTC²⁰⁵:

- **Charges must be identified:** All advertisements for 900/976 services must provide clear and complete information on charges and when they will begin. If a 900 service is accessed via the Internet, the user must be presented with an "I Agree" dialogue box or other way to clearly indicate explicit consent to proceed with the call.

²⁰⁴ CRTC (Canada, 2005), *Telecom Decision CRTC 2005-19*, Available at <http://www.crtc.gc.ca/eng/archive/2005/dt2005-19.htm>

²⁰⁵ CRTC (Canada, 2009), *900/976 pay-per-call services*, Available at http://www.crtc.gc.ca/eng/info_sht/t1001.htm

- **Billing information and practices:** Bills relating to calls to a 900 service must fully describe all charges plus the time, date and length of each call. All bills for a 900 service must follow the same rules concerning safeguards and disclosure of information.
- **First-time waiver:** 900 content providers and telephone companies providing 900/976 services must waive all reasonably disputed charges for first-time disputes with their customers. Companies must also tell these customers about the call-blocking feature that prevents calls being made from their phone to 900/976 services.
- **Blocking service:** Telephone companies providing 900/976 service must offer the call-blocking feature for free the first time it is requested. After that, the company can charge CAD10 (USD10.3) for any further requests to add or remove the feature.
- **Information for consumers:** Telephone companies providing 900 services must include information about these services on their websites. Residential phone directories must also include a reference to 900/976 services, including a statement that consumers may contact their telephone service provider for more information about them. The reference must also remind customers that:
 - 900/976 calls are provided to customers for a charge
 - call blocking options are available
 - customers may dispute the charges
 - In addition, the CRTC reminds parents to caution their children not to call a 900 service without permission.
- Other protections for 900 service users
 - 900 content providers cannot link their 900 services to toll-free numbers. This prevents toll-free callers from being billed without being aware of the charges.
 - 900 content providers cannot use programmes with repetitive scripts, long holding periods, excessive wording or long downloading features to prolong the call and increase charges.

16.4.3 Tariff structure

Premium rate calls in Canada can cost can range from CAD1 (USD1.03) to CAD15 (USD15.45) per minute, or more depending on the service and the provider. The CRTC has set maximum rates, charges and regulations to help reduce the risks for 900 callers:

- the maximum rate for calls to psychic lines is CAD6 (USD6.18) per minute
- the maximum charge for games of chance is CAD5 (USD5.15) per call. It is required by the CRTC that providers of games of chance tell callers about any available alternate ways of playing the game that do not involve calling a 900 number

- the cost of premium rate SMS can vary greatly and can be anywhere from CAD0.15 (USD0.154) to CAD10 (USD10.3) per text.²⁰⁶

16.4.4 PRS market issues

As discussed, Canada's premium rate market is only partially regulated. For service providers, Canada offers low barriers to market entry and a liberal environment, including:

- less content restrictions
- controlled chargebacks
- no carrier holdbacks
- no limits on charges per call
- cell phone access to 900 numbers²⁰⁷

There is some evidence to indicate that unscrupulous service providers may seek to exploit the liberal regulatory environment e.g. there has been an example of an advertisement for 900 call services publicising the deregulated nature of the PRS market in the country.

Subscription scandals and misleading pricing

Several customers of Fido, Rogers, Telus, Koodoo, Bell and Vidéotron in Quebec complained that they were charged CAD16 (USD16.48) to CAD35 (USD36.05) a month — up to CAD200 (USD206) to CAD300 (USD309) in total — for subscriptions to premium SMS services even though they did not sign up for them or were not clearly told the services would cost a certain amount per message – typically CAD2 (USD2.06), but ranging from CAD0.5 (USD0.515) to CAD5 (USD5.15) – or were unable to stop the messages from being sent to them. One customer complained that after they refused to pay the premium SMS charges they had their service cut off by their wireless provider²⁰⁸.

16.4.5 PRS complaints and compensation

While 900 numbers come under the remit of the CRTC, complaints relating to premium shortcodes can be reported to the CCTS. CCTS is an independent organization dedicated to working with consumer and small business customers and participating Canadian telecoms service providers to resolve complaints relating to deregulated retail services. Complaints to do with wireless services need to first be reported to the service provider. If no satisfactory resolution is achieved, the CCTS may intervene.

²⁰⁶ CCTS (Canada, 2010), *Annual Report 2009-2010*, Available at <http://www.ccts-cprst.ca/wp-content/uploads/2010/01/CCTS-Annual-Report-2009-2010.pdf>

²⁰⁷ Advancedtele (Canada), *900 Numbers in Canada*, Available at <http://www.advancedtele.com/900-numbers-canada.htm>

²⁰⁸ The Scream (Canada, 2005), Available at <http://www.the-scream.co.uk/forums/t28744.html>

The CCTS reports that some of the main PRS customer complaints are that users did not sign up for a subscription service, or that they did not know the frequency and cost of the messages, or that they are unable to unsubscribe from an SMS subscription.

Typically, for a customer to subscribe, the programme requires a double opt-in, i.e., after sending an initial text to the shortcode (or signing up online), the customer should receive a text response. The customer should then be asked to reply again, usually with a PIN, either by texting or online. Once this double opt-in process is complete, the customer is subscribed to a premium SMS service. The rules also require that the double opt-in process includes information about the pricing and frequency of delivery of the messages, contact information for the content provider, and a description of how the customer can unsubscribe (usually by texting “STOP” to the shortcode).

16.5 Evolution of PRS in Canada

16.5.1 Areas of growth and decline in the PRS market

The PRS market in Canada is only partially regulated. The CRTC looks into consumer welfare relating to 900 services and stipulates rate-caps for these services. There is a high degree of competition in the market; companies can enter the 900 number market and compete directly with operators. Advanced Telecom, a provider of IVR and 900 number services, comments that, owing to deregulation, companies that understand the industry better at the retail level have entered from both the service bureau and the carrier sectors of the business.

Owing to deregulation, start-up costs at the carrier level for new 900 numbers were eliminated and carrier holdbacks (holding back a percentage of the payment for a stipulated length of time) were no longer required, except in the case of a problem account. Limits on charges per call were no longer a factor. Content restrictions were also eliminated. Paul Hehn, CFO of Advanced Telecom Services, reports that chargebacks at his company have been significantly reduced: “before deregulation, our overall chargeback rate at the service bureau level had climbed to 13%, but today, with the ability to interface directly with the consumer, we have reduced overall chargebacks to approximately 4%, and that’s with a program mix that includes slightly riskier services than in the past.” Advanced Telecom also reports that, following deregulation, there has been an influx of new business from European companies in the Call TV business.

With a struggling advertising industry, many TV stations have embraced the idea of making money out of their late-night inventory, which used to be a money-loser²⁰⁹.

16.5.2 Evolution of PRS regulation

Industry sources have commented that there is not likely to be any change to the regulation relating to PRS in the next three years.

²⁰⁹ Evan Carmichael (Canada) *Premium Rate Services in Canada Flourishing*, Available at <http://www.evancarmichael.com/Marketing/5941/Premium-Rate-Services-in-Canada-Flourishing.html>

17 Hong Kong

- Hong Kong generated extremely high levels of revenue per capita (USD76 per annum), however, this mature market is now expected to decline due to increased use of competing products and services.
- Regulation of mobile PRS is carried out by an industry body, the Communications Association of Hong Kong (CAHK), through a Memorandum of Understanding with the NRA, OFTA.
- The primary regulatory document is the *Code for the Provision of Chargeable Mobile Content Services* which is produced by CAHK with input from the MNOs and OFTA.
- Use of fixed services is less prevalent and no regulation has been developed for this market.
- A mature ecosystem for NFC-enabled contactless payments based on contactless debit-cards branded ‘Octopus’ (launched 1997)²¹⁰ has limited the demand for a premium SMS-based payment scheme, meaning there is less hope of a future revival in revenues.

17.1 Country snapshot

Population	7.1 million
GDP per capita	USD45 775
Fixed telephony penetration	52.0%
Mobile telephony penetration	151.7%
Size of PRS market (estimate)	USD540 million (mobile only)
PRS revenue per capita	USD76

Figure 17.1: Hong Kong overview [Source: Analysys Mason, EIU, company reports, OFTA, 2011]

17.2 Definition of PRS

In Hong Kong, the closest services to PRS are ‘mobile content services’ (MCS) and ‘value-added SMS/MMS services’ (VAS). The former is the most comprehensively defined and is outlined in section 1.5 of the Communications Association of Hong Kong’s (CAHK) *Code for the Provision of Mobile Content Services*²¹¹ as follows:

1.5.1 Content Service Provider (CSP) means a person other than the MNO or MVNO or an affiliate of an MNO or MVNO that has a contractual relationship with a MNO or

²¹⁰ Octopus card is an NFC-enabled debit card which enables users to purchase transport tickets and make payments in retailers like 7 Eleven or at vending machines. Further information on Octopus is available at: <http://www.octopus.com.hk/home/en/index.html>

²¹¹ Communications Association of Hong Kong (Hong Kong, 2010), *Code for the Provision of Chargeable Mobile Content Services*. Available at http://www.ofa.gov.hk/en/industry/MCS/Code_MCS.pdf

MVNO under which the latter agrees to (i) deliver the MCS originated by the CSP to the Customer; and (ii) bill and collect from the Customer direct on behalf of the CSP for consuming the MCS.

[...]

1.5.5 Mobile Content Service (MCS) means the content service provided by a CSP and delivered via SMS/MMS via the network of a MNO or a MVNO to the access device of a Customer who subscribes to the public mobile radiocommunications service of that MNO or the mobile virtual network service of that MVNO, as the case may be.

In addition, there are directory enquiry services provided in English, Cantonese and Mandarin by telecoms operators (via shortcodes 1081, 1083 and 1088 respectively), but they have not been liberalised and are not included in the regulation outlined in this report.

In summary, PRS regulation in Hong Kong only applies to content provided through value added SMS/MMS services that fit the following criteria:

- Provided by a content provider, that is not an MNO/MVNO, but may be an affiliate of one.
- The MNO/MVNO has a contractual agreement to deliver the content provider's mobile content services (MCS).
- The MNO/MVNO bills the customer on behalf of the content provider for consumption of its MCS.

17.3 PRS market structure and characteristics

Market size

The phone-paid market in Hong Kong is relatively mature and the majority of services are accessed through premium SMS. Premium voice-based services are uncommon. There is no regulation of premium voice services. OFTA estimates that monthly revenues for premium SMS services are HKD300-400 million²¹² (USD38.6-51.5 million), equating to around USD540 million in annual revenues. This does not include DQ service revenues. OFTA believes that the market may have peaked, and now sees a general decline in revenues.

The revenue per capita in Hong Kong is markedly higher than other markets; on average Hong Kong residents spend USD76 annually, which is the highest level of per capita spend of the countries in this study. This could be due to a number of factors for example a high number of visitors from mainland China using PRS services (which would not be accounted for in population size), high mobile penetration and subscribers using services on each of their handsets.

Fixed

²¹² OFTA (Hong Kong, 2011), *Telephone interview*.

Fixed PRS services are most commonly accessed by calling numbers starting with '900'. There is supply-side fragmentation: content service providers are all relatively small and there are no dominant providers. Services are most commonly discovered through advertisements in newspapers and magazines. Prices are left to market forces and set by the industry. Legislation does state that prices must be clearly visible in any marketing material.

Mobile

Mobile PRS services are accessed through eight-digit shortcodes starting with the prefix '5'. There are around 12-14 content providers in Hong Kong market. Many of these offer their products and services in 'white label' format which are then branded by the local MNOs. Products offered by the MNOs include Three offering ringback tones for HKD6.00 (USD0.77), China Mobile offering Java games for HKD15.00-20.00 (USD1.93-.57) and ringtones, wallpapers, screensavers and themes for HKD5.00-20.00 (USD0.64-2.57).

17.3.1 Communication service providers

Fixed line operators

Fixed line telephony has been fully liberalised since January 2003. OFTA, has played a key role in encouraging private investment in the industry, which has created one of the most open telecoms markets in the world. The local incumbent, PCCW, has around 70% of the total fixed lines in Hong Kong, putting it in a highly dominant position; however the regulator stated in 2008 that thanks to the success of its policy on Type II interconnectivity, 81%²¹³ of homes have a choice of fixed line provider.

²¹³ OFTA (Hong Kong, 2008), *Genuine Choice of Fixed Network Operators Demonstrates Success of the Type II Interconnection Policy*. Available at http://www.ofa.gov.hk/en/press_rel/2008/Jul_2008_r1.html

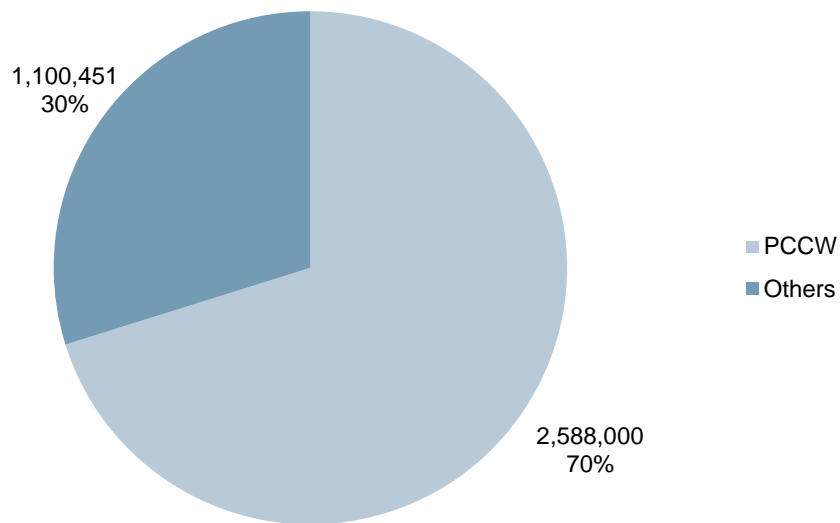


Figure 17.2: Hong Kong: Fixed operators' numbers of connections and market shares at year-end 2010 [Source: Analysys Mason, company reports, 2011]

Mobile operators

The Hong Kong mobile telecoms market is one of the most competitive in the world. There are five main mobile operators, the largest of which are Three Hutchison and CSL, both with around 25% of subscribers. The subscriber penetration rate currently stands at 152%, the highest in Asia. Mobile operators can, but are not obliged to, adhere to the voluntary *Code for the Provision of Chargeable Mobile Content Services*.

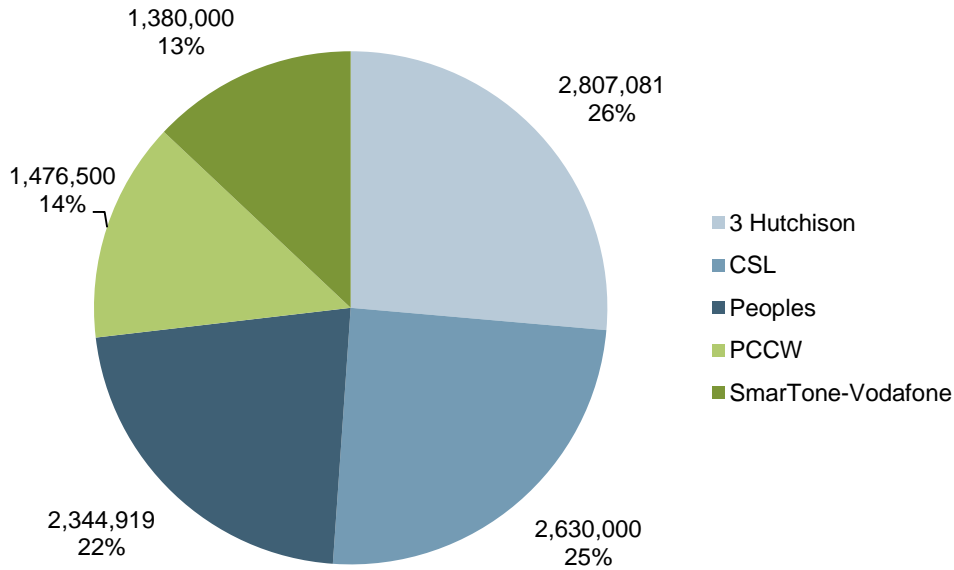


Figure 17.3: Hong Kong: Mobile operators' subscriber numbers and market shares at year-end 2010 [Source: Analysys Mason, company reports, 2011]

17.4 Regulatory framework

17.4.1 Introduction

In Hong Kong, mobile PRS are self-regulated by an industry body, the Communications Association of Hong Kong (CAHK). Industry stakeholders including the NRA and MNOs also contribute to the production of the *Mobile Content Services Code*.

The CAHK has only been provided with annual budgets for the last two years – and its sources of funding have differed in both. Its first year was funded by ‘sponsorship’ from the industry (MNOs) and OFTA. This broadened in its second year to include the content providers through a fee structure dependent on the number of services each offers. OFTA, incidentally, is also indirectly funded by the MNOs through annual licences – this includes some fixed fees and others fees dependent on numbers of subscribers and base stations, and spectrum allocated – essentially placing much of the cost of running CAHK both directly and indirectly on the MNOs. CAHK produces annual reports in order to remain fully accountable and transparent.

Figure 17.4 summarises the key organisations involved in regulation, consumer protection and complaints resolution.

Name	Type of Organisation	Remit
Office of the Telecommunications Authority (OFTA)	Government statutory authority (regulator)	Regulation of mobile premium services (MPS); registration of Industry Code
Communications Association	Industry association	Representing the Australian communications

of Hong Kong (CAHK)	industry; helps develop the MPS Industry Code
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Figure 17.4: Hong Kong: Regulatory and industry bodies [Source: Analysys Mason, 2011]

The high number of consumer complaints regarding billing by a number of content service providers in 2009 was enough to spur OFTA and CAHK, into developing the *Code for the Provision of Chargeable Mobile Content Services*²¹⁴, a voluntary Code which aims to demonstrate the industry's commitment to discouraging and tackling malpractice, and of working with OFTA for the benefit of consumers. Figure 17.5 below outlines the foremost documents that regulate and provide guidance to the PRS market.

Type	Document	Comment
Industry code	CAHK Code for the Provision of Chargeable Mobile Content Services of 8 January 2010	Industry code produced with content providers, MNOs and OFTA
Memorandum of Understanding (MoU)	The Establishment of the Administrative Agency of the Communications Association of Hong Kong	MoU between OFTA and CAHK for the establishment of the latter
Industry code	Industry Code of Practice on the Assignment of Access Codes For Value-Added SMS/MMS Services	Industry Code of Practice compiled by the MNOs
Code of Practice	Code of Practice Relating to the Use of Numbers and Codes in the Hong Kong Numbering Plan (Cap. 106)	Code of Practice relating to the use of numbers and codes in the number plan issued by OFTA

Figure 17.5: Hong Kong: Regulation and legal documents (click on links to access documents) [Source: Analysys Mason, 2011]

17.4.2 Overview of PRS regulation

The Code provides the opportunity for an independent Administrative Agency to be created with the aim of aligning contract provisions and compliance procedures between communication service providers and content service providers in the 'mobile content services' market. The Administrative Agency was established in March 2010²¹⁵, with the aim of assisting MNOs in supervising the provision of mobile content services by content service providers. One of the three bodies within the Administrative Agency is the Approving Authority, which has the power to grant Letters of Positive Assessment (LPA) to applicant suppliers that it deems are suitable to operate in Hong Kong. The Administrative Agency has the power to audit compliance by content service providers on a random basis and may revoke LPAs should the circumstances require it. The other two bodies are the Governing Committee, which steers the Approving Authority and manages funding, governance, appointment and operations aspects of the Administrative Agency,

²¹⁴ Communications Association of Hong Kong (Hong Kong, 2010), *Code for the Provision of Chargeable Mobile Content Services*. Available at http://www.ofta.gov.hk/en/industry/MCS/Code_MCS.pdf

²¹⁵ OFTA, (Hong Kong, 2010) *Memorandum of Understanding for the Establishment of the Administrative Agency of the Communications Association of Hong Kong*. Available at <http://www.ofta.gov.hk/en/industry/MCS/memo.pdf>

and the Appeal Authority, which considers appeals, should they arise, based on decisions of the Approving Authority.

Code of conduct

The objective of the Code is to address the public concern brought about by the high number of complaints received by OFTA and the Consumer Council in 2009, by complementing the existing *Industry Code of Practice on the Assignment of Access Codes for Value-Added SMS/MMS Services*. Significant clauses include:

- Content service providers are required to obtain a letter of positive assessment that ensures the CSP is capable of complying with the Code.
- All MCS purchases/subscriptions shall be subject to opting-in (i.e. by responding to a free SMS – which may only be sent once – with a specified word, typically “YES”), and provide a confirmation message detailing applicable charges.
- Instructions to unsubscribe from a subscription service shall be provided before provision of the service and through other on-going means, e.g. website, telephone, SMS.
- CSPs and MNOs should monitor customer usage in accordance with their payment service contracts, and based on user profiles and usage upsurges; customers shall be alerted from time to time as soon as practicable of such events.
- Following assessment by the Administrative Agency establishing non-compliance with the Code by a CSP, CSPs and MNOs shall be informed, and if the CSP fails to suspend its service, the MNO must take to necessary action to suspend the service, until the issue is rectified.
- If a CSP receives three warnings within a two month period, the Administrative Agency may revoke the LPA, after which MNOs will be informed and required to disconnect the CSP’s services.

The Code of Practice also sets standards for advertising PRS.

Advertising rules

The Code provides an outline for the advertisement and promotion of PRS in Hong Kong. In summary, where print media, the Internet, SMS or any other media are used, information about the content and applicable price should be prominent, clear and legible in both English and Chinese. Any marketing SMSs shall be sent at no charge to the customer. Content service providers cannot impose charges if these are not available on the website of the provider.

17.4.3 Tariff structure

Fixed line pricing

Fixed PRS services are most commonly accessed by calling numbers starting with ‘900’. The fourth digit of the prefix indicates what particular service that range is used for. Pricing is not

regulated, allowing the industry to set its own rates based on market forces. The ‘900-9’ prefix is specifically reserved for “special services” which are generally understood to be services of a sexual nature. A fixed phone line subscriber can either opt-in or opt-out of being able to access PRS.

Number range(s)	Use	Details	Price range (per minute, connection)
1081/1083/1088 (not PRS)	Directory enquiries	Different language services (English, Cantonese, Mandarin)	n/a
900-x	General services	Paid-for information services including a service indicator in the fourth digit (see examples below)	Open-ended uncapped fee per minute
900-2	For children	n/a	Free
900-4	Interactive service	n/a	Open-ended uncapped fee per minute
900-9	Special information	Otherwise referred to as ‘adult services’	Open-ended uncapped fee per minute

Figure 17.6: Hong Kong: PRS voice call tariffs²¹⁶ [Source: Analysys Mason, OFTA, 2011]

Mobile pricing

Premium SMS services are accessed through six-digit shortcodes starting with ‘3’. Number ranges are not set or unified across MNOs by OFTA; instead, content providers or aggregators can apply individually to one MNO for an access code to be used for their service, and then request that other MNOs use the same range for their services – hence some services may not be accessible on all mobile networks. Prices for these services are left to market forces.

All premium rate voice call charges in Hong Kong consist of a local access fee and the cost charged by the content provider. For fixed line services the local access fee tends to be a flat fee included in the monthly cost of subscribing to the service, whereas from a mobile this will be a charge per minute. This means that the cost to call a PRS from a mobile may be marginally higher than from a fixed line when not taking into consideration monthly fees.

Number range(s)	Use	Details	Price range (per message/per minute)
501xxx-507xxx	General services	Second and third digits indicate service type	Open-ended fixed fee
508xxx	Special information services	Otherwise referred to as adult services	Open-ended fixed fee

Figure 17.7: Hong Kong: PRS mobile service tariffs²¹⁷ [Source: Analysys Mason, OFTA, 2011]

²¹⁶ OFTA (Hong Kong), *The Numbering Plan for Telecommunications Services in Hong Kong (SAR), China*. Available at http://ofta.gov.hk/en/numbering/no_plan.pdf

17.4.4 PRS market issues

Consumer complaints

In 2009, the high number of consumer complaints regarding billing by a number of unscrupulous content service providers was enough to spur the CAHK into developing a voluntary Code of Practice. The majority of complaints came from consumers claiming they were not aware of charges associated with mobile PRS, or that they had received charges for services to which they had been unknowingly subscribed. Since the introduction of the Code, the number of complaints has reduced drastically. There are no other reported market issues.

17.4.5 PRS complaints and compensation

OFTA publishes the annual number of complaints by telecoms sector (e.g. mobile, fixed network, Internet, external telecoms etc.), but does not identify complaints specific to PRS. However, the Regulatory Affairs Advisory committee's *Mobile Bill Shock* paper revealed that in 2009 OFTA received 639 consumer complaints related to bill disputes for mobile services, half of which were in regard to usage-based mobile services²¹⁸.

Complaints in the mobile sector had been rising steadily until last year, when the number almost doubled from 1754 in 2009 to 3023 in 2010²¹⁹. This coincided with a sharp rise in complaints regarding PRS, which led to the development of the Code of Practice. Eighteen months after regulation was put in place, the number of complaints has reduced to around 5-10 per month.

17.5 Evolution of PRS in Hong Kong

17.5.1 Areas of growth and decline in the PRS market

Premium voice services are a small market and are not expected to grow. Premium SMS services make up the vast majority of the PRS market, which is not surprising given a mobile subscriber penetration of 151.7%. However, revenues are expected to decline in the short term. Premium SMS as a payment mechanism made an appearance in the Hong Kong market a number of years ago – for example for vending machine purchases – but this had limited success and eventually died out as a payment option.

Contactless smartcards – known as Octopus – have been used on the territory's transport system since 1997, and uses for the card quickly expanded to other areas. These include making payments in many shopping chains, at vending machines, payphones, photo booths, parking meters and car

²¹⁷ OFTA (Hong Kong), *The Numbering Plan for Telecommunications Services in Hong Kong (SAR), China*. Available at http://ofta.gov.hk/en/numbering/no_plan.pdf

²¹⁸ Next Generation Network Working Group (Hong Kong, 2010), *NGNWG Paper No. 3/2010*. Available at <http://www.ofta.gov.hk/en/ad-comm/raac/ngnwg/ngnwg2010p3.pdf>

²¹⁹ OFTA (Hong Kong), *Latest Statistics on Consumer Complaints on Telecom Services Received by OFTA (Updated Quarterly)*. Available at http://www.ofta.gov.hk/en/consumer_interest/com_stat.html

parks²²⁰. It also has the added functionality of doubling as an access card for certain buildings. The success and ubiquity of contactless infrastructure has effectively killed the market for premium SMS payments.

17.5.2 Evolution of PRS regulation

OFTA has delegated regulation of the mobile PRS market to the industry. Since changes to laws can take a long time, it has historically been difficult to keep up with the fast-evolving nature of the PRS market. Consequently, OFTA believes self-regulation to be the most efficient and streamlined mechanism for regulation, as it allows for quick, interim changes to the Code of Practice, allowing regulation to keep up with an ever-changing market. The premium fixed voice market is not regulated by any bodies, and this is not expected to change going in the future due to the limited (and decreasing) popularity of such services.

Since changes to regulation are carried out in accordance with the changes that occur in the industry, OFTA was unable to provide any further insight into the future state of regulation.

²²⁰ Octopus (Hong Kong, 2011), *Business Applications*. Available at <http://www.octopus.com.hk/octopus-for-businesses/business-applications/en/index.html>

18 India

- India has a rapidly growing PRS market
- There are no official figures on the size of the Indian PRS markets. Analysys Mason estimates that the mobile VAS market in India was worth an estimated USD2.2 billion in 2010 and that PRS accounts for approximately 50% of this revenue²²¹.
- There is no regulation pertaining to PRS or mobile VAS in India. India's NRA the Telecom Regulatory Authority of India (TRAI) issues directives and consultation documents to regulate quality of service and consumer experience.
- Analysys Mason believes that putting in place a regulatory framework will enable the growth of the Indian VAS market. TRAI was scheduled to bring out a consultation paper on mobile VAS in April 2011, and is expected to release it in the coming few months.

18.1 Country snapshot

Population	1.184 billion
GDP per capita	USD3 530
Fixed telephony penetration	3%
Mobile telephony penetration	63.5%
Size of PRS market	USD1.1 billion (estimate)
PRS revenue per capita	USD0.93

Figure 18.1: India overview [Source: Analysys Mason, EIU, 2011]

18.2 Definition of PRS

The Telecom Regulatory Authority of India Act, 1997, as amended via the Telecom Regulatory Authority of India (Amendment) Act, 2000 contains the rules for the regulation of the telecoms sector in India.

There is no official published definition of PRS in India, but the commonly used definition prepared by TRAI is as follows:

Premium rate services generally offer some form of content that is charged to the subscriber's phone bill or prepaid phone account. Typical PRS include helpline services, competition, voting, information, etc. Calls made or SMS sent to the premium rate numbers are charged higher than the normal rates. The revenue generated as a

²²¹ Some definitions do not include CRBT in the category of PRS, as CRBT is a network dependent service. If we were to exclude CRBT, PRS would account for approximately 25% of the VAS market in India.

result of PRS (calls/SMS) is shared between the network provider and the content provider²²².

18.3 PRS market structure and characteristics

Market size

The size of the VAS market in India is estimated to be USD2.2 billion in 2010. VAS includes any services supplied to subscribers above and beyond standard calls and SMS. This segment includes services such as mobile Internet browsing and as well as PRS. Analysys Mason estimates that PRS accounts for 50% of the total VAS market in India, or USD1.1 billion, which does not include DQ service revenue. The TRAI reports that the market for PRS has been growing rapidly²²³. However, the regulator does not publish any further details on the size of the PRS market.

Amongst these services, caller ring back tones (CRBT) and SMS-based services are the most popular mobile VAS services in India. CRBT refers to users being able to choose a song, which will be heard by the calling party after dialling and prior to the call being answered by the receiving party. CRBT accounts for a large share of mobile music revenue in India.

Operators in India have also launched many SMS-based information services, targeted at different end-user segments. SMS based services in India can be classified into three categories as indicated below²²⁴:

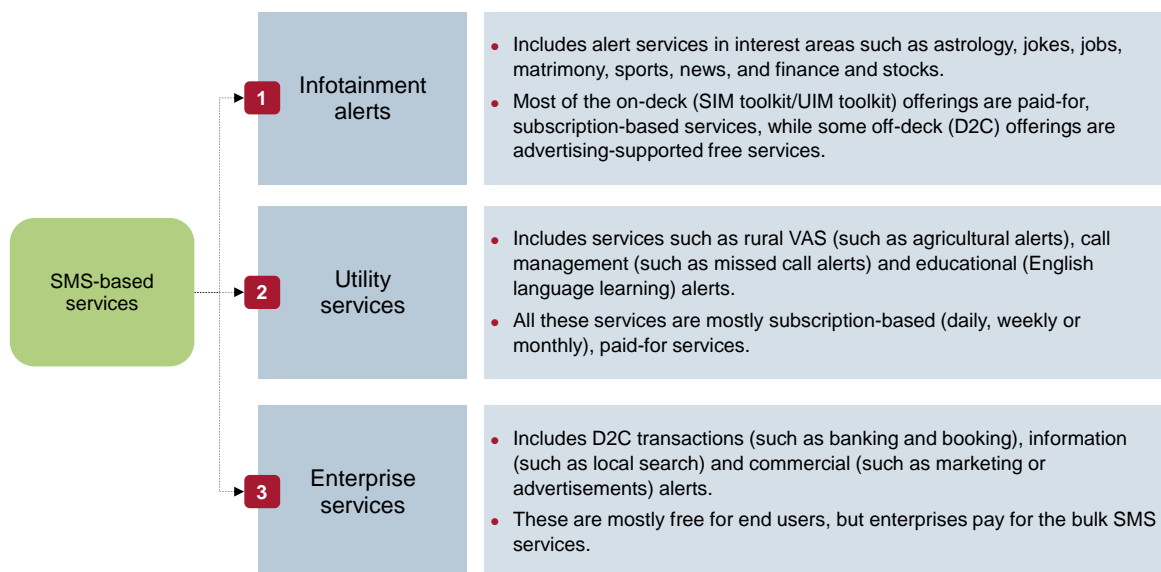


Figure 18.2: Categorisation of SMS-based services [Source: Analysys Mason, 2011]

²²² Consultation Paper No.12/2010 titled 'Certain Issues relating to Telecom Tariffs', 13th October, 2010, <http://www.trai.gov.in/WriteReadData/trai/upload/ConsultationPapers/216/ConsultationPaperon13Oct.pdf> [Accessed 22 April 2011]

²²³ Consultation Paper No.12/2010 titled 'Certain Issues relating to Telecom Tariffs', 13th October, 2010

²²⁴ Overview of SMS-based information services in India, Analysys Mason, 2010

Analysys Mason estimates that entertainment accounts for 57% of the total revenue from mobile value-added services.²²⁵ CRBT is the single most popular mobile entertainment service in India.

Fixed

There are many VAS companies in India (such as Indiatimes) who rent shortcodes on a monthly basis to other companies. Shortcodes are typically five digits in length and start with the digit 5 (i.e. 5xxxx). Content providers have been known to use the digits to represent letters on a mobile phone keypad e.g. 5-STAR (5827) for Star India. Prior to this, shortcodes consisted of four-digits starting with any number.

The current five digits can also be extended by three digits further representing three additional characters²²⁶. These can be used to provide services via calls from landlines and mobile phones (and also via SMS). Call charges from landlines and mobile phones vary, as well as between operators and geographies ('circles').

Mobile

Mobile operators offer premium content through their mobile portals which can be accessed by SMS or through a call and can be both on a one-off or subscription basis. The table below shows some services which are offered through the Vodafone portal²²⁷.

<i>Type of PRS service</i>	<i>Price</i>
Astrology service	Adhoc charge is INR 3 (USD0.066) per SMS or INR 6 (USD0.131) / min. Subscription is INR 30 (USD0.66) per month.
Chat service	Subscription is INR 30 (USD0.66) / month and calls to the service are charged at INR 2(USD0.044) / min.
Wallpaper	INR10 (USD0.218)
Mcard	INR 10 (USD0.218)
Animation	INR 15 (USD0.328)
Games	INR 50 (USD1.091) / INR 99 (USD2.161)
Polytones	INR 10 (USD0.218)
Themes	INR 50 (USD1.091)
MP3 tones	INR 20 (0.436)
Video	INR 3 (USD0.066) / INR 5 (USD0.109) / INR 10 (USD0.218)

²²⁵ Overview of mobile music in India, Analysys Mason, 2010

²²⁶ http://en.wikipedia.org/wiki/Telephone_numbers_in_India [Accessed 15 April 2011]

²²⁷ <http://www.vodafone.in/vas/entertainment/pages/dailyforecast.aspx> [Accessed 15 April 2011] and http://www.vodafone.in/vas/pages/charges_del.aspx?cid=del [Accessed 15 April 2011]

18.3.1 Communication service providers

Fixed line operators

State owned incumbent BSNL continues to be the dominant player in the market. BSNL and MTNL together account for 90% of market share. In fact, the two state-run operators only lost their duopoly in 1999 when the government's New Telecoms Policy of 1999 served as a catalyst for an influx of new players.

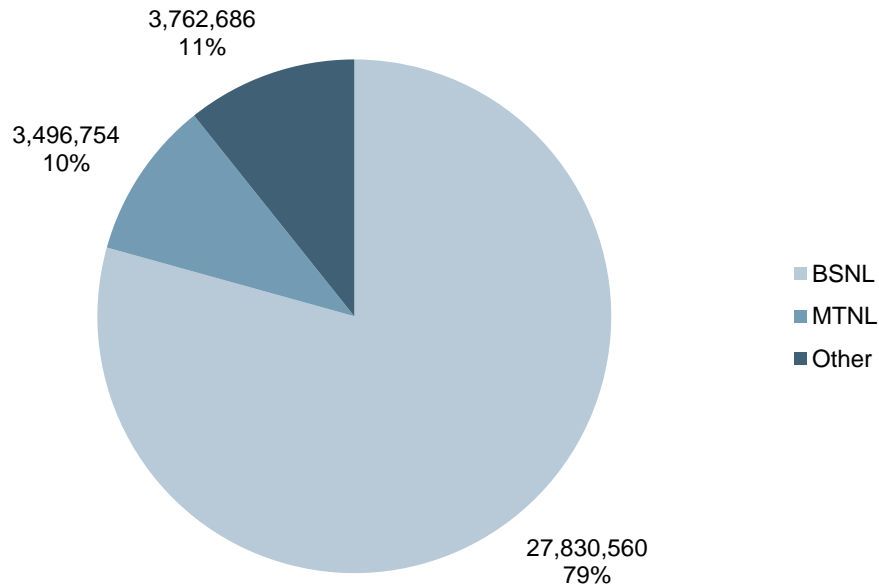


Figure 18.3: India fixed operators' numbers of connections and market shares at year-end 2010
[Source: Analysys Mason, 2011]

Mobile operators

Bharti Airtel is the dominant player in the mobile market in India with 22% subscriber market share. Other significant players include Reliance Communications and Vodafone.

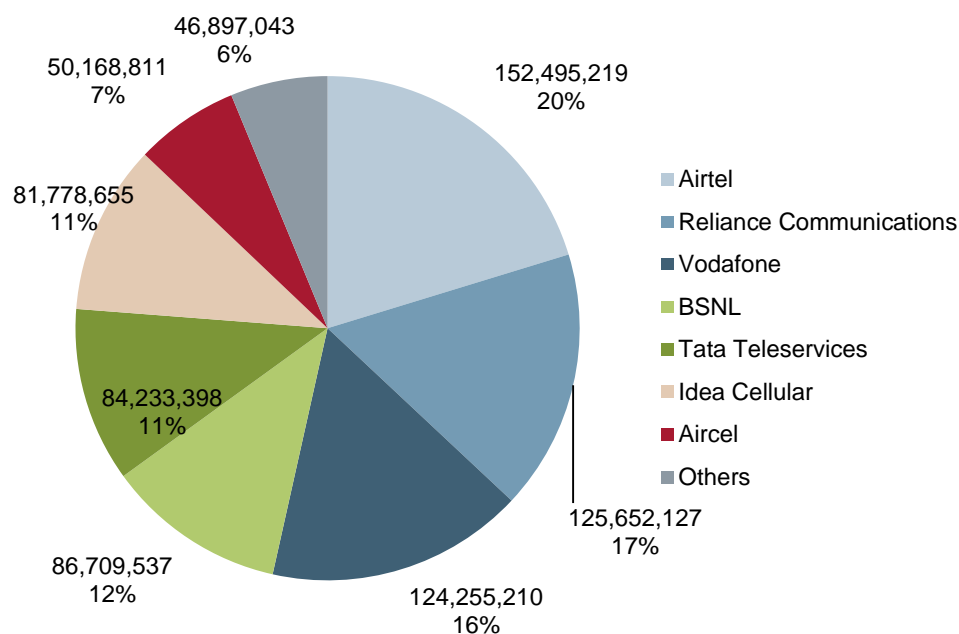


Figure 18.4: India mobile operator subscriber numbers and market shares at year-end 2010 [Source: Analysys Mason, 2011]

18.4 Regulatory framework

18.4.1 Introduction

The Telecom Regulatory Authority of India (TRAI) regulates the telecoms market in India. However, there is no specific regulation pertaining to PRS or mobile VAS. Instead, the TRAI issues directives and consultation documents to regulate quality of service and consumer experience.

The mission of the TRAI is “to ensure that the interests of consumers are protected and at the same time to nurture conditions for growth of telecoms, broadcasting and cable services in a manner and at a pace which will enable India to play a leading role in the emerging global information society”²²⁸. The main regulatory bodies are summarised below in Figure 18.5.

Name	Type of Organisation	Remit
Department of Telecommunication	Government organisation	Issuing of numbering range
Telecom Regulatory Authority of India	Independent regulator established in 1997 by the Government of India	Regulation of telecoms market and looking after consumer

Figure 18.5: Indian regulatory and industry bodies [Source: Analysys Mason, 2011]

²²⁸ <http://www.trai.gov.in/Default.asp> [Accessed 09 May 2011]

There is no Code of Conduct relating to PRS available in the public domain. The TRAI has however issued several documents providing direction for PRS, which are summarised below in Figure 18.6.

Type	Document	Comment
Key directive documents	National Numbering plan, 2003	Details on allocation of number ranges
Key directive documents	Transparency in the Tariff offers and in Disclosure to Consumers, No. 301-19/2006-Eco., 23 May 2006	To enhance and ensure transparency in tariffs
Key directive documents	Direction on Premium Rate Services, 3 May 2005	Directive to publish the tariff in all PRS advertisements
Decision document	Interconnection Usage Charges (IUC) for Short Message Service (SMS); TRAI's Consultation Paper No. 10/2006, 13th June 2006	-
Consultation document	Certain Issues relating to Telecom Tariff', 13 October 2010	-

Figure 18.6: Regulation and legal documents in India [Source: Analysys Mason, 2011]

18.4.2 Overview of PRS legislation

The key directives, mostly pertaining to disclosure of tariff information, are summarised below:

- In May 2005, the TRAI issued a directive to all cellular service providers and all unified access service providers entitled the '**Direction on Premium Rate Services**', which directed all service providers to publish the pulse rate / tariffs in all communications/ advertisements relating to PRS services.
- Further, **Quality of Service (Code of Practice for Metering and Billing Accuracy) Regulation 2006** *inter alia* states that where user selects a value added service (e.g. download of content, such as film clip or ringtone) or entry to an interactive service (such as a game), for example, by dialling a specific number, then the charge for the service must be provided to the user before he commits to use the service.
- In a Consultation paper dated 13 June 2006, the TRAI further observed that the charges of premium SMS were high and not necessarily proportionate to services rendered. The Authority further observed that the subscribers were not fully aware of premium SMS charges. It therefore published a decision stating that operators must ensure, either themselves or in arrangement with the content provider, the following:
 - The premium-rate service tariff must be widely publicised
 - Premium SMS should be on shortcoded SMS numbers only

- The Telecom Service provider should make necessary agreement/arrangement with the content providers that should include a clause making it mandatory on the part of content provider to widely publicise the tariff applicable for the premium service for better consumer awareness
- The use of SMS shortcodes should be in accordance with directives issued by the Department of Telecommunications (DoT). The DoT is part of the Ministry of Communications and Information Technology in the executive branch of the Government of India and is responsible for formulating developmental policies for the accelerated growth of the telecommunication services, granting of licenses for various telecom services and enforcing regulatory measures.

18.4.3 Tariff structure

Call charges to premium rate shortcodes vary based on operator and region, or geographic circle. For example, to call the Indiatimes shortcode 58888 for voting, the call charges are

Operator	Connectivity	Price range ²²⁹
MTNL Delhi	Mobile	INR 4 (USD0.087) per 60 second interval
MTNL Delhi	Fixed	INR 1 (USD0.022) per 30 second interval
MTNL Mumbai	Mobile	INR 3 (USD0.066) per 60 second interval
MTNL Mumbai	Fixed	INR 1.20 (USD0.026) per 30 second interval
BPL	Mobile	INR 7 (USD0.153) per 60 second interval
Vodafone	Mobile	INR 7 (USD0.153) per 60 second interval
Airtel	Mobile	INR 7 (USD0.153)) per 60 second interval
Tata	Mobile	INR 7 per 60 second interval
Reliance	Mobile	INR 7 per 60 second interval

Messages sent to these shortcodes cost from INR3 to INR6 (USD0.07-0.13) per message depending on the operator, as well as the service.

18.4.4 PRS market issues

Subscription scandals and misleading pricing

Caller ring back tunes (CRBT) came under the regulatory spotlight after the TRAI received a number of consumer complaints alleging that owing to the ‘press star to copy’ facility of tunes and music, many consumers who inadvertently hit the star key found themselves automatically subscribed to the service without their explicit consent.

²²⁹ http://web4.india.be3a.com/pmswapdev_in/pmsdata.html?target=tilweb/til/voicecharge.html [Accessed 15 April 2011]

The TRAI issued a directive stating that once a user activates a CRBT service, the service provider has to convey to the customer in writing or through SMS or FAX or email, all the details of the offer of the service²³⁰.

Other issues

In a Consultation Paper titled 'Certain Issues relating to Telecom Tariffs' published on 13 October 2010²³¹, the TRAI reported that complaints were being received regarding a lack of transparency in the provision of PRS.

In summary, the TRAI highlighted issues involving television voting shows, helpline and competitions, wherein the user is not aware of the tariff applied, artificially increasing the call duration lengthening by increasing waiting times, usage of high tariff numbers for customer care where the customer has no alternative to reach the service, and the use of high tariff numbers for services such as TV games with unclear call prices and procedures²³².

18.4.5 PRS complaints and compensation

At the time of writing, no data was publically available on the volume of consumer complaints and compensation.

18.5 Evolution of PRS in India

18.5.1 Areas of growth and decline in the PRS market

A number of factors have driven the growth of VAS (including PRS) in India²³³.

- *Increasing comfort levels with basic mobility services:* The number of experienced users in the Indian mobile telephony market is now at critical mass. The subscriber base is comfortable with using mobile phones and is moving beyond basic voice applications. These users continue to drive the market and at the same time basic VAS applications continue to appeal to new users.
- *Increasing penetration of feature phones:* There has been an emergence of a new category of local handsets with OEMs using proprietary operating systems to develop affordable, feature rich handsets (e.g. with QWERTY key boards). The user experience of downloading and

²³⁰ http://articles.timesofindia.indiatimes.com/2009-04-29/india-business/28031544_1_consent-caller-ring-mobile-handset [Accessed 15 April 2011]

²³¹ <http://www.trai.gov.in/WriteReadData/trai/upload/ConsultationPapers/216/ConsultationPaperon13Oct.pdf> [Accessed 22 April 2011]

²³² <http://www.medianama.com/2010/11/223-trai-takes-up-fair-usage-policy-issue-premium-sms-why-not-service-provisioning/> [Accessed 26 April 2011]

²³³ <http://www.iamai.in/Upload/Research/mobile.pdf> [Accessed 18 April 2011]

consuming content has improved significantly, which in turn is driving adoption of new services, applications and content

- *Billing innovation:* Operators are focusing on developing innovative billing mechanisms such as pay per day, in addition to dynamic pricing which modifies the level/ quality/ validity of content available to the end user based on their available balance. Such sachet pricing is helping drive initial trial of new services among end users.
- *Content cost optimization:* Service providers and content companies are increasingly experimenting with in-house production of non-copyright, innovative content (e.g. beauty tips, religious content). This content is low cost and hence allows operators to invest heavily in above-the-line mass marketing campaigns increasing consumer awareness and service adoption.
- *Reduced cost of IVR access:* Over time, operators have reduced the cost of accessing IVR based services from INR 6 per minute to INR 1 per minute, which allows end users to explore and experiment with browsing of different genres of content and services without running up a high mobile bill.
- *Content discovery mechanisms:* Operators are investing significantly in developing discovery mechanisms for driving adoption of these services. Such mechanisms include customer profiling, segmentation and out bound calling using automated diallers which provides options to end users and allows them to select content of their choice in an easy manner
- *End user comfort with using the voice and SMS based bearer channels:* Mobile users especially from the semi-urban and rural areas are much more comfortable accessing voice (and SMS in some cases) based services and operators are investing in making entertainment content available for consumption through these bearer channels.
- *Personalization of the digital world and digital devices:* CRBT has been an enormous success in India, indicating that users are looking to take up services, with personalisation options.
- *Launch of 3G in India:* With the advent of 3G, consumers can now more easily access VAS services which often require higher bandwidth.

18.5.2 Evolution of PRS regulation

CRBT, which accounted for the largest share of mobile music revenue in India, is being limited by regulatory guidelines – ‘easy to subscribe options’ e.g. *copy have now been restricted (as discussed above). Subscription methods such as *copy make it easy for consumers to subscribe, and encourage accelerated adoption of a service. This is now restricted by the more lengthy process of having to give explicit consent on IVR or through other means.

In addition, a high proportion of low-ARPU customers are now getting prepaid mobile SIMs and operators generally do not promote value-added services such as CRBT to these subscribers.

A strong regulatory framework governing PRS is lacking and when put in place, we expect that it will act as a facilitator for next level of growth in the Indian VAS industry. TRAI is scheduled to bring out consultation paper on mobile VAS in April 2011.²³⁴

²³⁴ http://articles.economictimes.indiatimes.com/2011-03-31/news/29366100_1_consultation-paper-operators-on-growth-opportunities-views-of-mobile-operators [Accessed 17 April 2011]

19 Malaysia

- The Malaysian PRS market consists of fixed and mobile services known as Mobile Content Services, with the overwhelming majority of revenue is generated in mobile based services
- Revenues from PRS are relatively high, with estimated annual PRS revenue of USD17.40 per capita
- The PRS market in Malaysia is regulated by the Malaysian Communications and Multimedia Commission under the Communications and Multimedia Act 1998 and its subsidiary legislations as follows:
 - Communications and Multimedia (Rates) Rules 2002;
 - The Mandatory Standards for the Provision of Mobile Content Services;
 - The General Consumer Code for Communication and Multimedia.
- Content providers claim that MNOs are imposing as much as 50% revenue share conditions on the provision of their services, despite the content providers creating and marketing the services, which is having an impact on service prices
- The Malaysian government is strongly embracing the use of premium SMS, through its ‘15888’ mySMSshortcode service, in which 139 government agencies participate
- Premium SMS as a payment mechanism (e.g. for vending machines) was introduced a number of years ago, but the service never took off as a mainstream application, however there may be a revival in such services through industry initiative.

19.1 Country snapshot

Population	28.3 million
GDP per capita	USD14 594
Fixed telephony penetration	15.3%
Mobile telephony penetration	123.0%
Size of PRS market	USD492 million (estimate)
PRS revenue per capita	USD17.39 (estimate)

Figure 19.1: Malaysia overview [Source: Analysys Mason, EIU, company reports, 2011]

19.2 Definition of PRS

In Malaysia, PRS (PRS) Mobile Content Services are regulated via the Mandatory Standards for the Provision of Mobile Content Services and any breaches to this Mandatory Standard carries penalty up to RM100K and max 2 year jail.

1.0 Scope and Coverage

1.1 A mobile content service (MCS) is defined as any messaging service which provides content and is accessible on a mobile access device or fixed access device, for which charges may be imposed over and above the standard network charges of the relevant service provider and consist of:

a) the provision of content to any person including but not limited to content such as information, news updates, data, quizzes, jokes, greeting messages, ringtones, wallpapers, logos and games for which charges may or may not be imposed to the customer;

b) the provision of a service to any person, including but not limited to, chat services, participation in contests, fundraising and voting; or

c) a combination of a) and b), but shall not include value-added services provided by services providers such as mobile internet access services and data carriage services, [etc.]

Regulation does not explicitly mention premium SMS services, but may implicitly be considered within the remit of the *Code of Practice*.

19.3 PRS market structure and characteristics

19.3.1 Introduction

Market size

The Malaysian PRS market is quite mature with the annual market size is estimated to total USD492 million. The vast majority of PRS are accessed via mobiles, and this does not include revenues from DQ services.

Fixed

Fixed PRS services are accessed by calling numbers starting with the prefix '1 600'. The costs to such numbers are capped and regulated by six different pricing bands (A1-A6), as laid out in the Communications and Multimedia Regulations 2002.

Mobile

Mobile PRS are accessed through five digit shortcodes starting with (but not limited to) ‘2’ or ‘3’ and 6. The former is designated to operators’ branded services, and the latter to general SMS services with premium charging.

Content providers and aggregators include Maxcomm, Sybase365, mTouche, MACROKIOSK, some of which have their own dedicated portals, while others act as aggregators and simply provide the platform e.g. for MNOs.

Common products offered by the MNOs include Maxis Mobile offering games e.g. Iron Man, Bomberman 3D and Tron Legacy for MYR8.00 (USD2.50) – which the subscriber pays for through their mobile account – and DiGi offering ringback tones for MYR1.00-3.00 (USD0.31-0.93) each.

19.3.2 Communication service providers

Fixed line operators

Despite competition entering the Malaysian fixed telecoms market as early as 1994, there are still no significant fixed rivals in the market; the incumbent operator, Telekom Malaysia, still has near complete control of the market (see Figure 19.2). The lack of investment in this sector can be attributed to the focus on the mobile telecom market.

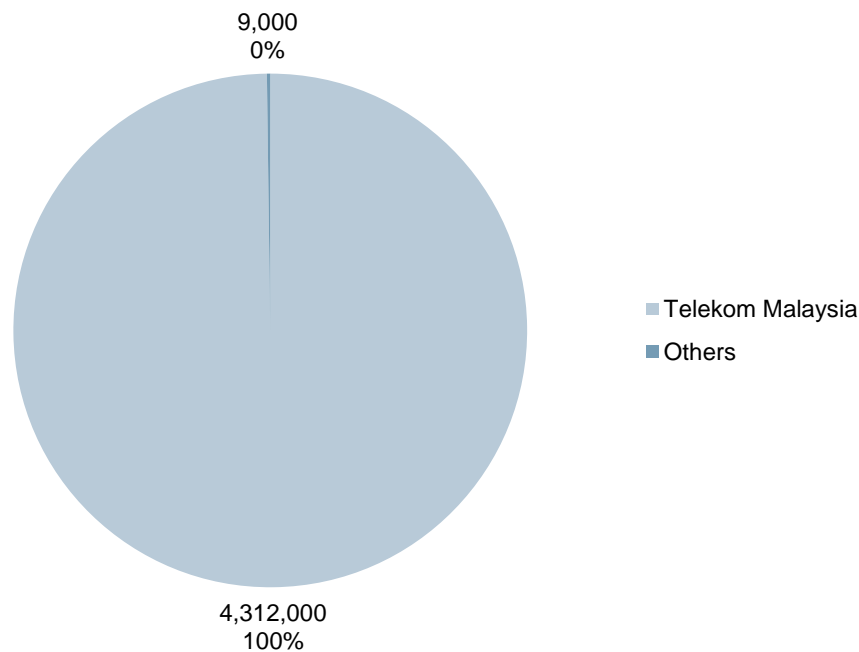


Figure 19.2: Malaysia fixed operators' numbers of connections and market shares at year-end 2010
[Source: Analysys Mason, company reports, 2011]

Mobile operators

Mobile connections in Malaysia far outnumber Fixed line connections, with mobile penetration running at 123.0%. Consolidation between 2002 and 2004 saw the number of operators fall from six to three, Maxis Mobile, Celcom and DiGi, and 2008 saw the launch of fourth entrant U Mobile (see Figure 19.3 for operator market shares by subscriber).

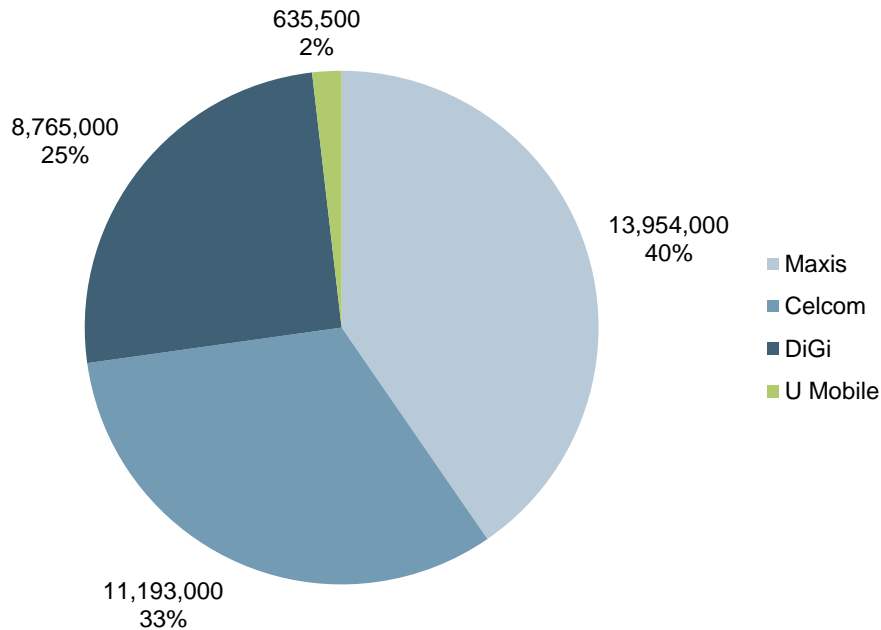


Figure 19.3: Malaysia mobile operator subscriber numbers and market shares at year-end 2010 [Source: Analysys Mason, company reports, 2011]

19.4 Regulatory framework

19.4.1 Introduction

The digital content market in Malaysia is regulated under the Communications and Multimedia Act 1998. For PRS, or Mobile Content Services, services provisioning must comply with the *Mandatory Standards for the provision of Mobile Content Services*.

The annual budget for the Content Forum is around MYR1 million (USD310 000) through a non-obligatory government grant; this is subject to the previous year’s performance. Figure 19.4 outlines the two main bodies responsible for regulation of the industry.

Name	Type of Organisation	Remit
Malaysian Communications and Multimedia Commission (SKMM by its Malaysian language acronym)	Government statutory authority (regulator)	Regulates the communications and multimedia industry; charged with the role of implementing and promoting the Government’s national policy objectives for these sectors
The Communications and Multimedia Content Forum of	Industry association	Established as a ‘Society’ representing relevant parties in the communications and multimedia

Malaysia (CMCF)	industry; charged with developing and preparing a Content Code
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Figure 19.4: Malaysian regulatory and industry bodies [Source: Analysys Mason, 2011]

Figure 19.5 summarises the three documents that regulate the PRS market in Malaysia. The primary document is produced by the Malaysian Communication and Multimedia Commission, pursuant to the Ministerial Direction No.3 of 2007.

Type	Document	Comment
Primary legislation	MCMC - Mandatory Standards for the Provision of Mobile content Services ; Determination No. 4 of 2009	Outlines rules and standards that content providers must conform to – came into force on 1 July 2010
Consumer code	General Consumer Code of Practice for the Communications and Multimedia Industry Malaysia of October 2003	Stipulates in sub-section 6.2 that sub-code will be developed to address specific (e.g. PRS) industry needs
Industry code	CMCF – Part 6 of The Malaysian Communications and Multimedia Content Code Version 6	Contains guidelines on all communications and multimedia content, with specific reference to Audiotext Hosting Services in Part 6

Figure 19.5: Regulation and legal documents in Malaysia [Source: Analysys Mason, 2011]

19.4.2 Overview of PRS regulation

Mandatory Standards for the Provision of Mobile Content Services

The *Mandatory Standards for the Provision of Mobile Content Services*, or Determination, released by the MCMC is pursuant to the Ministerial Direction No. 3 of 2007 and in exercise of the powers conferred by sections 55 and 104(2) of the Communication and Multimedia Act 1998 [Act 588].

In addition to the general rules on clarity, scrupulousness and honest marketing practices, other significant clauses include:

- All acquisitions or subscription for MCS shall be initiated by the customer using a keyword that shall not be a commonly used phrase e.g. “hi”, “hello”, “yes” etc.
- The provision of a unique number or word to confirm the acquisition or subscription or a services, delivered to a subscribers mobile device at no charge.
- Free trial periods may not be automatically converted into a paid subscription-based service.
- MCS providers shall include price information at the beginning of each SMS, for chargeable content, sent at no cost to the customer.

- To terminate subscription to services, keywords may be used e.g. “STOP”, “BATAL”.

The determination includes strict instructions and SMS formats for subscribing and unsubscribing to mobile content services, as well as the renewal of such services.

The Code of Practice also sets standards for advertising PRS, and includes a framework for the provision of adult services, to ensure adequate protection of children from potentially harmful content.

Advertising rules

Sections 60 to 73 provide standards on the promotion of MCS via mediums such as television, print media, radio, or SMS. In summary, advertisements must clearly include pricing information alongside short codes, and in the cases of television and print media pricing information should be at least 50% of the font size that the shortcode is displayed in. In addition, the operating hours of an MCS customer service number must be displayed, along with any other channels through which customer may send in complaints.

19.4.3 Tariff structure

Fixed line pricing

The cost to access premium voice services numbers is capped by six different pricing bands (A1-A6), as laid out in the Communications and Multimedia Regulations 2002.

<i>Number range(s)</i>	<i>Use</i>	<i>Details</i>	<i>Price range (per minute, connection)</i>
1 600	General premium service	n/a	Capped by six different bands (A1-A6)

Figure 19.6: Malaysia PRS voice call tariff chart [Source: Analysys Mason, MCMC, 2011]

Mobile pricing

Premium SMS services are accessed through five digit shortcodes starting with (but not limited to) ‘2’, ‘3’ and ‘6’. The pricing of these services is not controlled by the regulatory authorities.

<i>Number range(s)</i>	<i>Use</i>	<i>Details</i>	<i>Price range (per message/per minute)</i>
2x xxx	General services (MNO services)	MNO branded services	Open-ended capped cost
3x xxx	General services	n/a	Open-ended capped cost
6x xxx	General services	n/a	Open-ended capped cost

Figure 19.7: Malaysia PRS mobile service tariff chart [Source: Analysys Mason, MCMC, 2011]

19.4.4 PRS market issues

Subscription scandals and misleading pricing

During 2007-2008, as PRS grew in popularity, many subscribers were not aware of the charges and costs they were incurring, especially where content is ‘pushed’ to the subscriber. This led to subscribers running up huge bills of up to MYR500 (USD155) for services they were not aware they were purchasing/accessing²³⁵. Of late there have been no publicised scams or scandals.

Revenue share by operators

The regulator highlighted the topic of PRS revenue share as an issue in the Malaysian market. Content providers claim that MNOs are imposing extremely high revenue sharing conditions on the provision of their services, despite the content providers creating and marketing the services. MNOs are taking as much as 50% of the cost of the services; while this is not a consumer issue, it may have an indirect impact on the price of services, since content providers will have to charge prices sufficient enough to cover both overheads and revenue share to MNOs

19.4.5 PRS complaints and compensation

The number of premium SMS related complaints received by the MCMC in 2010 was 429, which was up 31% from 328 in 2009²³⁶. The majority of complaints concern the promotion of premium SMS services (51%) followed by the receipt of unsolicited SMS services (40%).

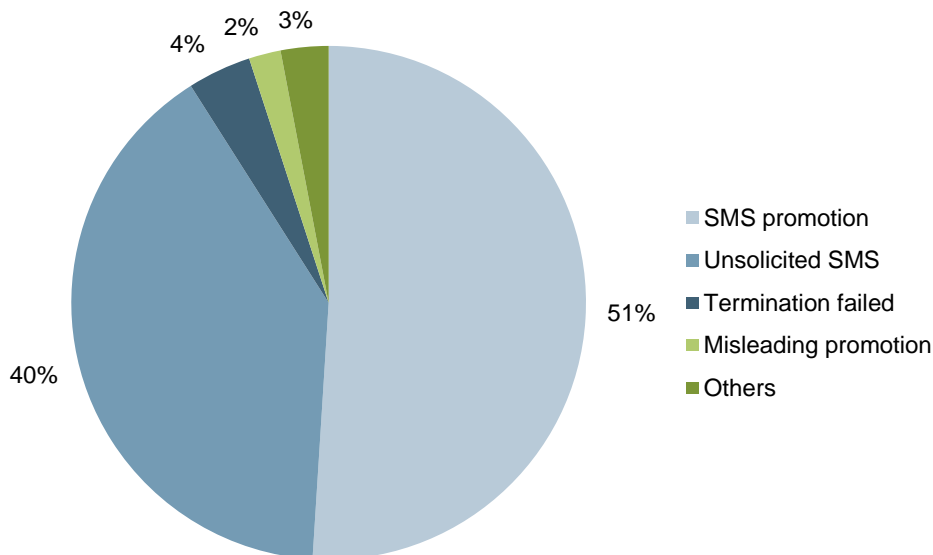


Figure 19.8: Malaysia complaint type mobile operator subscriber numbers and market shares [Source: Analysys Mason, Company reports, 2011]

²³⁵MCMC (Malaysia, 2011), Telephone interview.

²³⁶MCMC (Malaysia, 2011), Premium Rate Services and Regulatory Requirement in Malaysia. Supplied directly by MCMC.

19.5 Evolution of PRS in Malaysia

19.5.1 Areas of growth and decline in the PRS market

The traditional PRS market in Malaysia is not predicted to change substantially in the new two years; however there are two areas where there may be a huge rise in usage. Firstly, the government is seen as strongly embracing the use of premium SMS, through its '15888' mySMSshortcode service, in which 139 government agencies participate. This allows citizens to access government services (e.g. government housing loans service) and information (e.g. traffic information), through a single number, and as of April 2010, 1,666 services are available. Registration cost MYR0.15 (USD0.05), and messages received are charged at MYR0.20 (USD0.06)²³⁷.

19.5.2 Evolution of PRS regulation

The Malaysian regulator sees the PRS market as constantly moving and fast evolving, meaning, as with the regulation of PRS in many other markets, it is a case of playing constant catch up with the market. The MCMC takes the approach of trying to cover all eventualities – even future services – but this is not always possible. In addition, it is doing its best to protect consumers, while fostering the developing of the industry, however, the specifics of this will on be determined as and when the industry dictates.

²³⁷ New Straits Time (Malaysia, 2010), *SMS 15888 for faster info and services*. Available at http://arcadia.mampu.gov.my/pengumuman/16-04-2010-reg_mysms.pdf

20 Singapore

- Singapore has an advanced PRS market. It has a comparatively low level of revenue per capita at just USD7.80 (2010 estimate), especially on premium voice services
- Singapore's NRA the Infocomm Development Authority of Singapore (IDA) regulates the PRS market through the *Code of Practice for Provision of Premium Rate Services*
- The PRS market is mature, with services such as payment for 'real world' (e.g. vending machine, cinema tickets) already available
- The regulator believes that the market will grow steadily, but there will not be an explosion in payment by premium SMS.

20.1 Country snapshot

Population	5.1 million
GDP per capita	USD44 706
Fixed telephony penetration	39.8%
Mobile telephony penetration	143.1%
Size of PRS market	USD40 million (estimate)
PRS revenue per capita (USD)	USD7.80

Figure 20.1: Singapore overview [Source: Analysys Mason, EIU, 2011]

20.2 Definition of PRS

In Singapore PRS ('PRS') are defined in Section 1.21 of the *Code of Practice for Provision of Premium Rate Services*²³⁸ as outlined in the subsections below:

1.2.1

[...]

"premium rate service" means any value-added service provided over a public telecoms network which consists of –

(a) the provision of content to any person including but not limited to content such as information, news, updates, data, quizzes, jokes, greeting messages, ringtones, wallpapers, logos and games for which charges are imposed over and above the standard network charges of the relevant network operator;

²³⁸ Dated 16 December 2007.

(b) the provision of a facility to any person including but not limited to facilities for chat services, contest participation, charitable fundraising and votelines for which charges are imposed over and above the standard network charges of the relevant network operator; or

(c) a combination of (a) and (b), but shall not include value-added services provided by network operators such as auto redial, back-up SIM card, call barring, call directory, call divert, call transfer, call waiting, caller ID, caller number non-display, conference call, favourite numbers, IDD, missed call alert, multi-SIM card, number retention, number porting, mobile voice and message roaming, speed dial, voicemail or video call services;

In summary, the term PRS refers to those services that fit the following criteria:

- A value-added service provided over a telecommunication network.

20.3 PRS market structure and characteristics

Market size

The PRS market in Singapore is relatively mature having been in operation since the late nineties. One content provider interviewed as part of this study estimated the value of the total market to be USD40 million; the regulator indicated that the revenue is largely generated from the mobile side. This market size does not include revenues from DQ services.

Fixed

Fixed PRS services are most commonly accessed by calling numbers starting with '1900'. There are significantly fewer premium rate fixed services than mobile services. Premium rate voice service prices are not regulated; they are set by the industry.

The regulator observed that premium adult voice services are a major '1900' service. Marketing and promotion for these is usually found in local press.

Mobile

Mobile PRS services are accessed through five digit shortcodes starting with the '7' prefix. Significant content providers include Singapore's three mobile operators – M1, SingTel Mobile and StarHub Mobile – as well as media conglomerates MediaCorp and Singapore Press Holdings. In addition, players such as Ericsson and Sybase may front the provisioning of PRS under their own IDA licences or provide aggregation services on behalf of other licensed content players.

Examples of phone-paid services offered by the MNOs via their portals include:

- M1 offers games such as Monopoly Deal, The Sims 3 and Jewel Quest 3 for SGD6.42 (USD4.70)
- StarHub offers ringtones for SGD2.68 (USD2.00) each, and wallpapers from SGD1.50 (USD1.15) each.

Services are most commonly discovered through online advertisements (e.g. web searches, banner advertisements). TV adverts are also sometimes used, but these are not so prevalent.

20.3.1 Communication service providers

Fixed line operators

Singapore has a relatively mature fixed line market, with household penetration running at 102.9%²³⁹ at the end of 2010, which is six percentage point increase from the previous year. The incumbent provider Singapore Telecom (SingTel) remains the dominant player with a steadily decreasing, but respectable 85% of the market share.

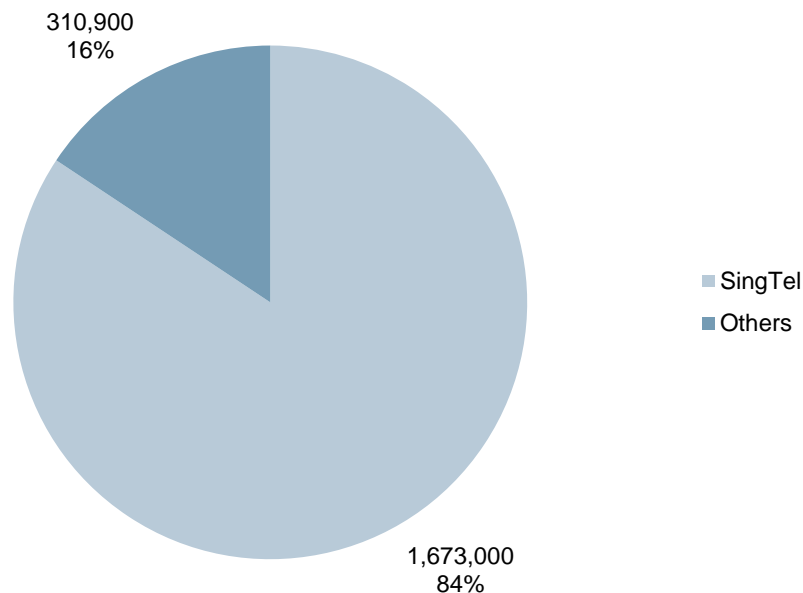


Figure 20.2: Singapore fixed operators' numbers of connections and market shares at year-end 2010 [Source: Analysys Mason, company reports, 2011]

Mobile operators

Singapore has a highly developed and saturated mobile market. Mobile penetration in Singapore stood at 143.6% in 2010²⁴⁰. 'Billing network operators' (MNOs) must ensure that the PRS that are

²³⁹ <http://www.ida.gov.sg/Publications/20100908153408.aspx> [Accessed: 15/0/2011]

²⁴⁰ <http://www.ida.gov.sg/Publications/20100908153408.aspx> [Accessed: 15/0/2011]

delivered over their networks are licensed by the IDA, they are also charged with assisting customers with disputed charges on their bill.

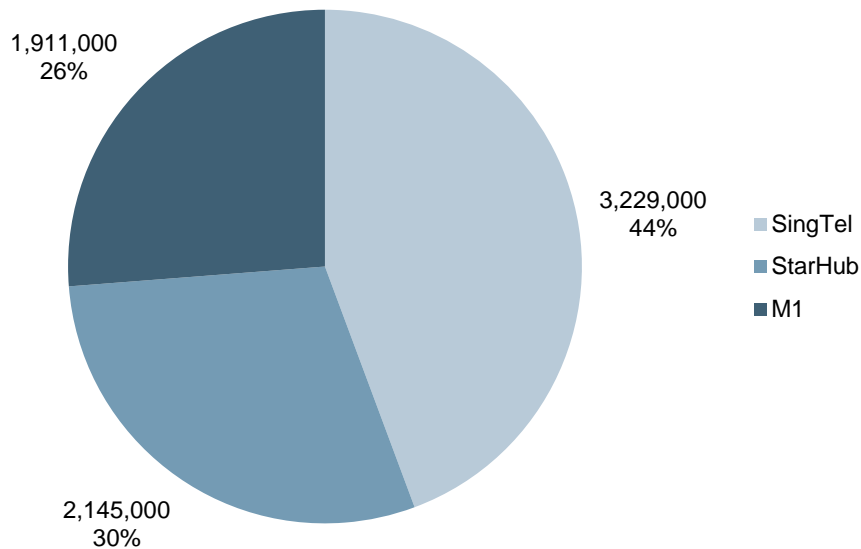


Figure 20.3: Singapore mobile operator subscriber numbers and market shares at year-end 2010 [Source: Analysys Mason, company reports, 2011]

20.4 Regulatory framework

20.4.1 Introduction

In Singapore, PRS are regulated by government body, the Info-communications Development Authority of Singapore (IDA), in accordance with the Telecommunications Act (Chapter 323, Section 26(1)(B) and (C)). The Code supersedes any previously recognised legislation should there be any conflicts or inconsistencies.

As Singapore’s NRA, the IDA is responsible for regulating and developing all “info-comm” services, including PRS. The budget that the IDA receives from the Ministry of Finance is not allocated to specific departments, meaning there is no definite budget assigned to the regulation of PRS.

Name	Type of Organisation	Remit
Infocomm Development Authority Of Singapore (IDA)	Government authority (regulator)	Employed by MNOs to intercept non-compliant promotions; carry out audits of SMS message flows

Figure 20.4: Singaporean regulatory and industry bodies [Source: Analysys Mason, 2011]

The *Code of Practice for Provision of Premium Rate Services* (the Code) is contained within the Telecommunications Act (Chapter 323, Section 26(1)(B) and (C)), as outlined below.

Type	Document	Comment
Primary legislation	Telecommunications Act (Chapter 323, Section 26(1)(B) and (C)), which contains the Code of Practice for Provision of Premium Rate Services	Chapter within the primary telecoms act specific to PRS
Secondary legislation	IDA National Numbering Plan	Regulator produced document outlining premium voice service numbering

Figure 20.5: Regulation and legal documents in Singapore [Source: Analysys Mason, 2011]

Code of Practice

The purpose of the Code is to “protect the interest of the public in general and the interest of consumers of PRS in particular by –

- (a) specifying the duties to be observed by premium rate service providers in their promotion and provision of PRS; and
- (b) specifying the duties to be observed by billing network operators in their billing and collection of payment from consumers of PRS²⁴¹.

Significant clauses include:

- Unless specified, the nature, or substance of premium rate content is not regulated
- In order to buy or subscribe to a service a specific keyword must be used (e.g. “start [name of service]”), and to avoid accidentally subscribing, such keywords must not include commonly used phrases (e.g. “hi”, “hello”, “yes”, “no”, “ok”), or in deed they may not include words intended to end subscription (e.g. “stop”, “quit”, “cease”, “cancel”)
- Customers subscribed to a service that automatically renews itself, must be sent a reminder SMS no later than 24 hours before the end of the initial subscription period
- If a subscription period is more than one week in length, a weekly reminder SMS must be sent in the first month, and on a monthly basis after the initial month
- Service providers must designate a keyword that customers may send in an SMS for the purposes of unsubscribing (e.g. “stop [name of service]”)
- Network operators must not provide PRS for a provider that is not licenced by IDA

The Code of Practice also sets standards for advertising PRS.

Advertising rules

²⁴¹ Code of Practice for Provision of Premium Rate Services

The advertisement rules set out in Singapore's Code, requires that marketing displays a description of the service offered, the name of the provider, prices, a local customer service line and terms and conditions, and that these provided in a way that does not confuse or mislead. It must be clear if a service will be provided as a subscription and how long this subscription period last.

20.4.2 Tariff structure

Fixed line pricing

Premium voice services access number ranges are allocated in the *National Numbering Plan*. The regulator does not place caps on the cost of calling a premium voice service, instead price levels are determined by the market.

<i>Number range(s)</i>	<i>Use</i>	<i>Details</i>	<i>Price range (per minute, connection)</i>
1900 xxx xxxx	General	n/a	Open-ended; industry decision

Figure 20.6: Singapore PRS voice call tariff chart [Source: Analysys Mason, IDA, 2011]

Mobile pricing

There is no numbering plan for mobile premium services and prices are not currently determined by the regulator, however, the IDA is currently in discussions with stakeholders surrounding this. In general, each service costs between SGD2.00-10.00 (USD1.50-7.50), however charging tariffs are available up to SGD30.00 (USD22.75) per message.

<i>Number range(s)</i>	<i>Use</i>	<i>Details</i>	<i>Price range (per message/per minute)</i>
7xxxx	Prediction based services	"Any service in which prizes are offered for forecasts of the results either of a future event or of a past event the result of which is not yet ascertained or not yet generally known" ²⁴²	SGD0.20 ²⁴³ (USD0.15)
7xxxx	General	n/a	Up to SGD30.00 (USD22.75)

Figure 20.7: Singapore PRS mobile service tariff chart²⁴⁴ [Source: Analysys Mason, 2011]

²⁴² http://statutes.agc.gov.sg/non_version/cgi-bin/cgi_retrieve.pl?&actno=Reved-49&date=latest&method=part [Accessed: 13/04/2011]

²⁴³ http://www.m-e-f.org/fileadmin/user/Ksenia/Asia_Working_Group/PDF_Consolidated_SlideDeck_AsiaWorkingGroup_29.pdf [Accessed: 13/04/2011]

²⁴⁴ <http://clients.txtnation.com/entries/306442-singapore-premium-sms-regulations> [Accessed: 17/03/2011]

20.4.3 PRS market issues

The PRS market in Singapore is highly developed. Interviews with regulators and stakeholders indicate that the market does not currently suffer from or has suitably dealt with many of the issues reported in other countries.

Bulk charged-SMS scandal

As with many markets, unscrupulous service providers have taken advantage of any weaknesses there may be in premium rate service charging. One such example occurred in 2006 when mobile content provider mTouche sent out Chinese New Year greetings to around 300 000 subscribers, each costing SGD1.00 (USD0.75) to receive. mTouche was found to have failed to inform end users of the cost of receiving such a message. Moreover they did not obtain consent from end users before sending out the messages. The IDA fined mTouche SGD150 000 (USD115 000), and refunds were provided voluntarily by the offending party.

Prize competitions

More recently adverts for competitions offering attractive prizes such as iPads and iPhones have been used to trick consumers into accessing or subscribing to a premium rate service. IDA dealt with two cases of this in 2010, whereby *ZingMobile* and *Sybase* both contravened the Code of Conduct in this manner. In these cases fines of SGD2 000²⁴⁵ (USD1 500) and SGD10 000²⁴⁶ (USD7 500) were imposed respectively.

20.4.4 PRS complaints and compensation

To register a complaint, consumers may either call the content provider help line, or alternatively contact the IDA directly. The IDA does not perform audits and their enforcement work is completely driven by complaints. The IDA does not collect or publish data on the number of complaints received; however the regulator does indicate that complaints have been increasing over the years. The NRA attributes this largely to the increased prevalence and uptake of these services, rather than to any high profile issues in the market.

One content provider we spoke with that provides services in Singapore, as well as other markets in the region, noted that the number of complaints they receive in Singapore was proportionally higher than in Australia and Malaysia, where they receive ‘practically no complaints’.

²⁴⁵

http://www.ida.gov.sg/doc/Policies%20and%20Regulation/Policies_and_Regulation_Level3/Enforcement%20Decisions/Determinations%20and%20Enforcement/ZM26Jul10.pdf [Accessed: 13/04/2011]

²⁴⁶

http://www.ida.gov.sg/doc/Policies%20and%20Regulation/Policies_and_Regulation_Level3/Enforcement%20Decisions/Determinations%20and%20Enforcement/Sybase26Jul10.pdf [Accessed: 13/04/2011]

20.5 Evolution of PRS in Singapore

20.5.1 Areas of growth and decline in the PRS market

In Singapore, the fixed PRS segment remains small. The primary focus of growth is on mobile PRS. This is especially the case for the payments for digital items within online video games. It is already possible to buy physical, ‘real world’ products using premium SMS, for example cinema tickets or drinks from vending machines. The regulator considers this type of payment to be a premium rate service; however, the regulator does not see payments of this kind becoming dominant.

Looking forward, the regulator sees three key trends in relation to the development of the PRS market:

- moving towards an App store model
- increasing use of credit cards for micropayments
- the use of RFID to make micropayments payments when the technology and infrastructure is better established.

20.5.2 Evolution of PRS regulation

The regulator notes that with an increasing number of complaints, it may be necessary for regulation to become more stringent. It believes that, although the majority of industry stakeholders may be acting with good intentions towards consumers and with noble business interests, the existence of just a small number of unscrupulous providers – whereby consumers feel they are being provisioned services in a manner that they are being scammed e.g. where T&Cs are not displayed clearly – means that the industry could not be allowed to function on a self-regulatory basis. The regulator indicated that it did not intend to relax legislation in the short term.

Since the regulator does not envisage the market for payments through premium SMS expanding significantly, there are no current plans to introduce any further regulation in this segment.

Mobile shortcodes (5 digit) are currently allocated by mobile operators on an ad-hoc basis. The IDA is currently working with the operators and looking into a formal arrangement that would standardise specific prefix codes, but stakeholder discussions are currently in the preliminary stages.

21 South Africa

- Low fixed line penetration means South Africa's PRS market is highly focused on the mobile segment. The total market (including revenue from money transfers) was worth an estimated USD550 million in 2010, which equates to USD11 per capita.
- Only mobile PRS is regulated in South Africa. Regulation is carried out by the self-regulating, industry body the Wireless Application Service Providers' Association (WASPA).
- WASPA produces two guideline documents *Code of Conduct* and *Advertising Rules*, which content providers must abide by as a requisite to delivering services over a mobile network.
- Regulation is currently entering a transition phase as the recently ratified Consumer Protection Act 2011 may radically alter how the market is regulated, and the regulator is uncertain as to the outcome.
- The high proportion of South Africans without a bank account make mobile payments and mobile money transfer an increasingly attractive proposition.

21.1 Country snapshot

Population	49.1 m
GDP per capita	USD10 631
Fixed telephony penetration	7.2%
Mobile telephony penetration	105.6%
Size of PRS market (estimate)	USD550 million (included money transfers)
PRS revenue per capita (USD)	USD11

Figure 21.1: South Africa overview [Source: Analysys Mason, EIU, company reports, 2011]

21.2 Definition of PRS

In South Africa PRS ('PRS'), also referred to as wireless application services ('WAS'), are principally regulated by the Wireless Application Service Providers' Association (WASPA) through Version 10.0 of its *Code of Conduct*. The scope of the Code and PRS is defined as follows:

(1.4) Scope of the Code:

Unless otherwise specified, this Code of Conduct applies to all wireless application services accessed by a customer in South Africa, transmitted by a wireless application service provider and carried by a South African network operator.

Where the Code addresses services provided by members, it applies only to wireless application services provided by a WASP, and not to other types of services that the member may provide.

(2) Definitions

2.11. A “content subscription service” includes any subscription service providing or offering access to content including, by way of example only and not limitation: sound clips, ring tones, wallpapers, images, videos, games, text or MMS content or information. This includes any subscription service which describes itself as a “club” or which otherwise allows access to content to subscribers, at a cost which includes both a subscription element and a per content item element. Services which are not considered to be content subscription services include: dating services, chat services, location based services, GSM terminal device services, corporate application services, reminder services, synchronisation applications, corporate communications applications, VOIP, etc.

2.21. A “premium-rated service” is any service charged at a higher rate than the standard rate set by the network operator for that particular service.

2.27. A “wireless application service provider” is any person engaged in the provision of a mobile service, including premium-rated services, who signs a WASP contract with a network operator for bearer services enabling the provision of such services.

In addition a number of content types are outlined in the definitions section of the Code²⁴⁷:

Section	Segment	Details
2.1	Adult service	the content or product is of a clearly sexual nature, or any service for which the associated promotional material is of a clearly sexual nature, or indicates directly, or implies that the service is of a sexual nature
2.7	Children’s service	those which, either wholly or in part, are aimed at, or would reasonably be expected to be particularly attractive to children
2.9	Competition service	any competition or game with prizes or entry mechanism into a draw. Where an auction or a reverse auction has the characteristics of a competition service, it is considered to be a competition service
2.10	Contact and dating	any service intended to enable people previously unacquainted with each other to make initial contact and arrange to meet in person

Figure 21.2: South African PRS service area definitions [Source: WASPA Code of Conduct]

In summary, wireless application services (WAS) are not explicitly defined in the Code of Conduct, but cover all services that fit the following criteria:

- are charged at a higher rate than the standard rate set by a network operator
- are accessed by a customer in South Africa
- are transmitted by a wireless application service provider that has signed a contract with a network operator to enable provision of these services.

²⁴⁷ WASPA Code of Conduct 11.0

21.3 PRS market structure and characteristics

Market size

The PRS market is highly focused on mobile or wireless services. The total market size is estimated to be ZAR4 billion (USD550 million), with more than 95% of the market consisting of mobile services. However, this estimation includes mobile money transfers (MT), which are not included within the remit of WASPA regulation. This estimation excludes revenues from DQ services.

Fixed

The scope of regulation in South Africa only covers services and data through wireless and mobile devices over public networks. There is no regulation that applies to fixed services.

Mobile

Mobile is the primary channel for PRS services. Services are accessed through five digit shortcodes typically starting with '3' (e.g. 34010). Maximum prices are not imposed by WASPA, but prices for one South African wireless application service provider range between ZAR0.50-30.00²⁴⁸ (USD0.07-4.10) per service.

In order to provide services on the three main South African MNOs (Vodacom, MTN, Cell C, 8ta), content providers must operate through aggregators that are registered with the network operators.

Significant content providers in the South African market include *eXactmobile* and *Buongiorno*. New entrant content providers must use aggregators that are already registered to the mobile operators, since the MNOs are not permitting new registrations; these include *ViaMedia*, *SmartPool* and *mobile 365*.

Historically, PRS were most commonly discovered through press advertisements (e.g. gossip and teen magazines), but much of the budget expended on advertising PRS has shifted to TV, WAP push and SMS technologies, where there are greater returns on investment.

Services on offer in South Africa via operator portals include Games e.g. Avatar for ZAR30.00 (USD4.10), EA Sports FIFA 11 for ZAR40.00²⁴⁹ (USD4.50), ringtones for ZAR12.50 (USD1.70), wallpapers for ZAR2.00-5.00²⁵⁰ (USD0.25-0.70),

21.3.1 Communication service providers

Fixed line operators

²⁴⁸ <http://bulksms.2way.co.za/w/pricing-premium-rated-service.htm>

²⁴⁹ <http://www.vodacom.co.za/vodacom/my+content/Games/Sport/Games%2CSport%2CEA+SPORTS+FIFA+11>

²⁵⁰ <http://www.vodacom.co.za/vodacom/my+content/Realtones>

Incumbent operator Telkom SA maintains a virtual monopoly over the country's fixed-line market. Telkom SA lost its legal monopoly over the fixed-line market in 2002, but maintained a 100% market share until Neotel launched consumer services in 2008. As a result, the incumbent, which is minority-owned by the government, continues to have a very high share of the fixed market. In total there were 3.6 million fixed lines in service as of December 2010. Premium fixed services are less widely used than mobile services.

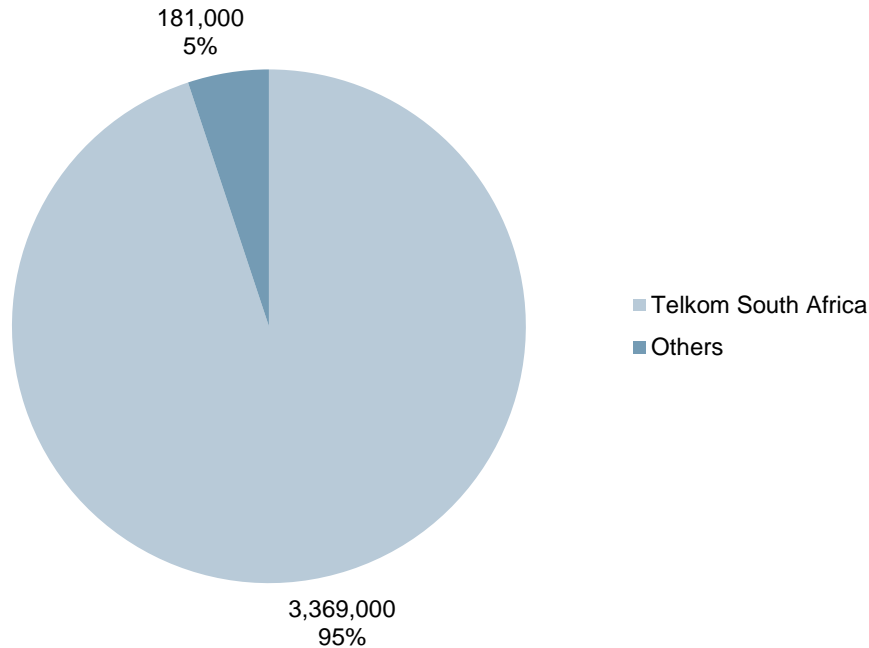


Figure 21.3: South Africa fixed operators' numbers of connections and market shares at year-end 2010
[Source: Analysys Mason, company reports, 2011]

Mobile operators

The leading mobile operator, Vodacom, has 25.3 million subscribers or just under half of the total in South Africa. MTN launched alongside Vodacom, and has become the second-largest operator in the market, with 18.8 million subscribers at December 2010. Cell C launched in 2001 and targets the budget market, and in addition launched a joint-venture MNVO with Virgin Mobile in 2006, although the latter has seen only limited traction. Fixed incumbent Telkom launched mobile services in October 2010 under the 8ta brand and is expected to drive price competition at the low-end of the market. The number of mobile subscribers by far outstrips the number of fixed lines, and this has led to significantly higher uptake and use of mobile services (e.g. premium SMS).

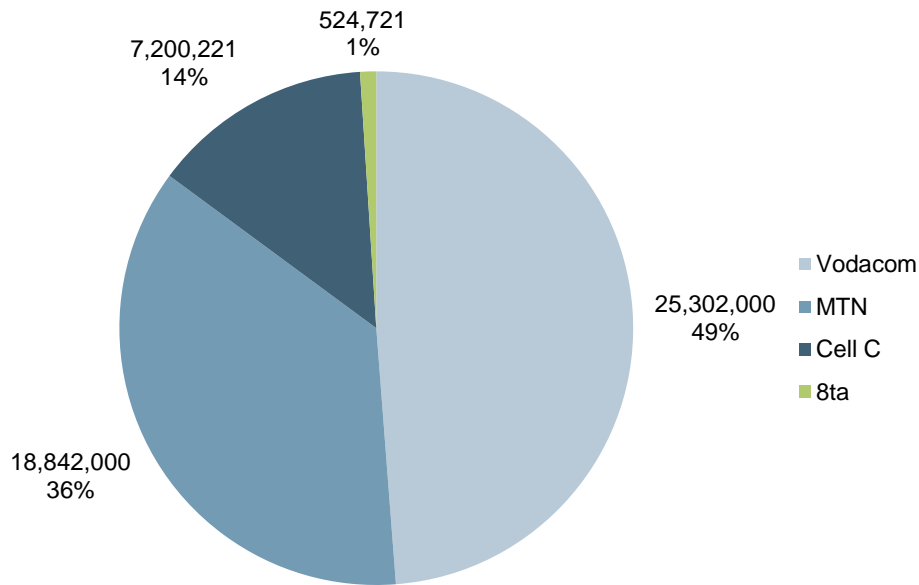


Figure 21.4: South African mobile operator subscriber numbers and market shares at year-end 2010 [Source: Analysys Mason, company reports, 2011]

21.4 Regulatory framework

21.4.1 Introduction

The Independent Communications Authority of South Africa (ICASA) is the telecoms, broadcasting and postal regulator and was established in 2000 under the terms of the Independent Communications Authority of South Africa Act No.13 of 2000. ICASA plays a limited role in the PRS market.

Premium rate services are self-regulated by the Wireless Application Service Providers Association (WASPA). It was established in August 2004, as a non-profit industry association representing the interests of organisations providing ‘mobile application services’, as provisioned for in the Electronic Transaction Act 2002. WASPA has 250 members or affiliate members and acts as the representative body for content providers, or mobile-based value added services providers (WASPs).

WASPA has two sources of funding: the first is obtained from membership fees, fines and money generated at conferences; the second comes from a monthly payment from the mobile network operators.

Name	Type of Organisation	Remit
Wireless Application Service Providers Association (WASPA)	Government statutory authority (regulator)	Represents interests of organisations providing ‘mobile applications services’

Figure 21.5: South African regulatory and industry bodies [Source: Analysys Mason, 2011]

WASPA aims to provide “a neutral forum for members to address issues of common interest and interact with industry stakeholders, network operators and government bodies”²⁵¹. Although membership is voluntary, the three major MNOs fully support the association and require any ‘WASPs’, or aggregators, wishing to operate on their networks to be a member. As a member, each WASP is bound by its *Code of Conduct* and any related procedures.

The mobile carriers are responsible for enforcing the Code, since any breach of Code would violate the terms of the contract between the WASP and the mobile operator.

Content providers are not obliged to register as WASPA members; however the Code stipulates that if content providers, operating through an aggregator, are in breach of the Code, the aggregator is liable and may be subject to punitive action. It is therefore in the aggregators’ interests to monitor the content providers whose commercial interests it represents for compliance.

Type	Document	Comment
Primary legislation (industry code)	WASPA Code of Conduct Version 10.0 of 13 October 2010	MNOs require aggregators and content providers to comply with the rules
Secondary legislation (industry code)	WASPA Advertising Rules Version 2.3 of 1 October 2008	Advertising guidelines pursuant to Section 6 of the WASPA Code Of Conduct

Figure 21.6: Regulation and legal documents in South Africa [Source: Analysys Mason, 2011]

Code of Conduct

The primary objective of the *WASPA Code of Conduct* is to ensure that members of the public can use mobile services with confidence, assured that they will be provided with **accurate information** about all services and the **pricing** associated with those services. The Code aims to equip customers and consumers with a mechanism for addressing any concerns or complaints relating to services provided by WASPA members, and a framework for impartial, fair and consistent evaluation and response to any complaints made.

Significant additions to the Code in May 2008 include:

- ensuring customers are notified every time their total costs in a calendar month exceed ZAR200²⁵² (USD30), and that WASPs provide notifications every time total costs climb by further multiples of ZAR200
- receiving an initial welcome message upon subscribing to a notification service, and subsequent monthly messages, which include the name of the service and cost per notification, instructions for unsubscribing and the information provider’s telephone number

²⁵¹ WASPA CoC 11.0

²⁵² <http://www.oanda.com/currency/converter/>

- services instigated through the mobile Internet, must display a confirmation page before displaying name of services, price and frequency of billing and information provider contact number.

The Code of Conduct also sets standards for advertising mobile application services, and includes a framework for the provision of adult services, to ensure adequate protection of children from potentially harmful content.

Advertising rules

WASPA has outlined rules for advertising PRS in *WASPA Advertising Rules v2.3* last released October 2008. The rules are in fact more extensive and thorough than the Code of Conduct itself.

Advertising regulations also include the protection of minors from exposure to inappropriate adverts for cellular subscription services, by banning all such advertisements during children's television viewing times or during educational programmes.

21.4.2 Tariff structure

Fixed line pricing

The premium voice services market is relatively limited, and the national regulatory authority has not allocated a specific number block for these types of services. There is, therefore, no unified use of premium rate numbers in South Africa. Some adult services use mobile operator number ranges (081-085). Calls prices to these services are not regulated and are determined by the mobile network operators. The table below outlines the call prices when dialling from the fixed incumbent operator.

<i>Number range(s)</i>	<i>Use</i>	<i>Details</i>	<i>Price range (per minute, connection)²⁵³</i>
0862-9	General services	n/a	n/a
086 22x/94	Competition lines	n/a	Up to ZAR2.02 (USD0.26)
086 71-5	Information services	n/a	ZAR1.44-3.90 (USD0.19-0.51)

Figure 21.7: South Africa PRS voice call tariff chart [Source: Telkom South Africa, 2011]

Mobile pricing

Premium SMS services are accessed through five digit shortcodes starting with either '3' or '4'. Charges are set by individual operators, but in general the maximum cost to access a service will be ZAR50.00 (USD6.85).

²⁵³ Telkom South Africa tariffs

Number range(s)	Use	Details	Price range (per message)
3x xxx	General services	Services include competitions, TV voting, horoscopes, chat lines, recorded information, adult	Mobile originated: ZAR0.50-30.00 (USD0.07-4.10); Mobile terminated: ZAR0.50-50.00 (USD0.07-6.85)
4x xxx	General services	Services include competitions, TV voting, horoscopes, chat lines, recorded information, adult	Mobile originated: ZAR0.50-30.00 (USD0.07-4.10); Mobile terminated: ZAR0.50-50.00 (USD0.07-6.85)

Figure 21.8: South Africa PRS mobile service tariff chart²⁵⁴ [Source: WASPA, 2011]

21.4.3 PRS market issues

The South African PRS market is relatively well developed, and WASPA has taken a relatively hands-on approach to market regulation, the overarching aims of which are to promote ‘wireless application services’, but also safeguard consumers.

Whilst membership is a requisite for aggregators in South Africa, unscrupulous content providers have been known to operate from outside the country, making them hard for WASPA members to control. However, since WASPA is fully supported by the major MNOs (Vodacom, MTN and Cell C) access to content provided by these players can be effectively cut off by the operators as soon as they become aware of a problem.

Due to the self-regulatory nature of the South African market and membership being a condition of providing wireless application services, the industry is able to keep track of itself, monitor and take necessary actions effectively. This allows the *Code of Conduct* to continually evolve directly with the market, meaning the regulator is relatively pro-active.

SMS prizes scams

There are a number of scams that are using the names of established WASPs (e.g. *Zed Mobile*) as a way of gaining the trust of end-users and misleading them into parting with their money. These frauds may consist of offers to claim money they are alleged to have won, or by offering other prizes. Targets are asked to deposit cash in bank accounts in order to cover insurance and courier costs, when in fact no prize exists and victims are left out of pocket.

The regulator publishes a list of WASPs on its website – since all WASPs are required to register with WASPA, this provides the public with a means of ensuring a service they are using is from a reputable provider. Conversely, this provides criminals with easy access to a list of suppliers who names which they can use to imitate and falsely provide services.

*Quiz subscription providers*²⁵⁵

²⁵⁴ <http://www.smscode.co.za/>

²⁵⁵ <http://www.waspa.org.za/news/pr.2009.05.29.shtml>

In 2008, WASPA had received a large number of complaints that alerted it to potentially abusive practices among certain SMS quiz subscriber service providers, whereby subscribers were unknowingly being subscribed to mobile subscribe

WASPA amended the Code of Conduct to ensure all advertising, including on the Internet, clearly indicates that the services are offered on a subscription basis, and upon sending an activation SMS, consumers must receive an SMS outlining the terms, cost, opt-out and contact details.

Subscription scams

As with many markets, the PRS industry in South Africa suffers from the issue of consumers being billed for services they are not aware they had purchased, or they have unknowingly or mistakenly subscribed to a services rather than making a one-off purchase. The problem is made worse by the fact that around 80%²⁵⁶ of subscribers are on prepaid plans, meaning they are not aware they are being billed until they have run out of credit.

21.4.4 PRS complaints and compensation

In the event that a member of WASPA is unable to provide a quick remedy to a consumer complaint, there is a formal complaint procedure that is carried out by the WASPA Secretariat. The WASPA member is supplied with a copy of the complaint and must respond within five working days. The Secretariat must then review all evidence along with the current Code of Conduct and decide if there has been a breach of Code. If a breach has occurred, the Secretariat will determine appropriate sanctions, including fines or membership suspension – a de facto service suspension, however the offending member may appeal within five working days. If a fine is upheld it must be paid within five working days. A record of all formal complaints is kept and made public through the WASPA website²⁵⁷.

In all cases, it is the responsibility of the WASPA member to keep a record of a subscriber confirming the activation of a service:

“[The] onus rests on the WASPA member, and not the customer, to keep a record of the confirmations provided by the customer, or of the notifications sent to the customer. [...] this was a subtle, yet, important, provision because in the event of a dispute, it implied the innocence of the subscriber until the WASPA member could prove otherwise by producing either confirmations of notifications” 258 – Mike Hainebach, Chairman of the WASPA Code of Conduct Committee

Since September 2005, when complaints were first accepted, there have been over 11 200 complaints made by both consumers and competing content providers have been lodged with an average fine of ZAR50 000 (USD6 850).

²⁵⁶ WASPA interview

²⁵⁷ <http://www.waspa.org.za/code/complaints.php>

²⁵⁸ <http://www.waspa.org.za/news/pr.2010.03.15.shtml>

21.5 Evolution of PRS in South Africa

21.5.1 Areas of growth and decline in the PRS market

Premium voice services make up a small proportion of the revenue generated by the South African PRS market – estimated to be less than 5%²⁵⁹ – and this segment is not expected to grow drastically.

Mobile phone penetration is currently 105.6% in South Africa, which compares to 7.2%, fixed line penetration. This explains why mobile PRS are far more widely used than voice-based services. South African consumers are already familiar with accessing mobile premium services, and in addition, since there are 13 million economically active South Africans that do not have a bank account²⁶⁰ many of them use mobile money transfer services such as M-Pesa, set up by Vodafone and Nedbank. These two factors combined may lay the groundwork for future mobile payment applications, and given the high number of unbanked consumers, mobile payments of this kind have the potential to become a dominant force in this market.

That said, recent developments in contactless payment, may offer an alternative ecosystem. One firm, Aconite, is looking to bring contactless payments to the South African public transport to allow commuters to pay for fares using near field communications (NFC) enabled phones, posing a threat to the potential dominance of premium SMS.

21.5.2 Evolution of PRS regulation

The regulator (WASPA) stated that PRS regulation in South Africa was in a transition phase with regards to regulation. The Consumer Protection Act released on 1 April 2011 represents a fundamental shift in the way PRS legislation functions, by making provision for the Minister of Trade and Industry to be able to change the industry-developed Code of Conduct without consultation if (s)he disagrees with any part of it.

Due to the uncertainty surrounding the current and evolving regulatory framework, the regulator was unable to comment with regard to future changes in regulation due to the evolution of the PRS market.

²⁵⁹ WASPA interview

²⁶⁰ http://www.sagoodnews.co.za/private_sector_business/vodacom_nedbank_launch_mobile_cash_service_for_the_unbanked__2.html

22 United Arab Emirates (UAE)

- Despite an extremely advanced mobile market, the PRS market in the UAE is underdeveloped in terms of services accessible to consumers. Third party service providers are constrained from offering information and multimedia services and relatively few services are offered by MNOs, meaning there is little competition or innovation to drive PRS adoption
- Analysys Mason estimates the PRS market in UAE to generate USD48 million annually (excluding DQ services), which equates to USD7.2 per capita.
- There has been an increasing consumer awareness of spam as a result of campaigns by local authorities and operators.
- Given the lack of competition in the VAS market and the duopoly of the operators Etisalat and du, the TRA is less inclined to intervene to regulate the PRS market.

22.1 Country snapshot

Population	6.7 million
GDP per capita	USD27 313
Fixed telephony penetration (lines/popn)	30.6%
Mobile telephony penetration	199.3%
Size of PRS market	USD48 million (estimate)
PRS revenue per capita	USD7.16 (estimate)

Figure 22.1: UAE overview [Source: Analysys Mason, EIU, TRA, 2011]

22.2 Definition of PRS

In UAE, the Telecommunication Regulation Authority (TRA) considers PRS to be part of *Shared Revenue Services*, which are defined as follows: ²⁶¹

“[...] services where the revenue received by the Licensee is shared with the entity supplying the service. These calls often attract premium call costs and are normally included within Value Added Network Services”

A Licensee is any “telecom operator who provides telecommunication services licensed by the Supreme Committee pursuant to the provisions of the Federal Law by Decree and its Executive Order”

Value Added Network Services are enhanced services that are offered to a customer.

²⁶¹ TRA, *National Number Plan, Version 5.1*. Available at http://www.tra.gov.ae/download.php?filename=policies_regulations/National%20Number%20Plan%20Policy%20version%205-1.pdf

Premium-rate telephony and data rate services are accessed by dialling 9-digit numbers prefixed with 900. Premium data services (e.g. premium SMS) are accessed through 4-digit shortcodes.

Directory Enquiries (DQ) are not considered PRS, but they fall within the category of phone-paid services that carry a fixed cost. DQ are accessible from fixed and mobile phones by dialling 181 (for Etisalat customers) or 199 (for du customers). As for business-related enquiries, contact details are accessible online from yellowpages.ae or from printed directories.

22.2.1 PRS market structure and characteristics

Market size

The PRS market in UAE is relatively underdeveloped, despite an extremely high level of mobile penetration, which stood at 199.3% by the end of February 2011 according to the TRA²⁶². Analysys Mason estimates the PRS market in UAE to generate USD48 million annually (excluding DQ services).

Information points to the fact that third party service providers are not allowed to offer telecoms services such as international calling cards, and are constrained from offering information and multimedia services. Relatively few services are offered by MNOs, and there is little competition or innovation to drive PRS adoption.

Fixed

PRS services are accessed by dialling 9-digit numbers starting with 900. The two formats currently available are those starting with 9000 for premium telephony services and 9002 for premium data services. Those starting with 9001 and 9003–9009 are reserved by the TRA for future use.

Mobile

PRS can be accessed by using 4-digit SMS shortcodes. The TRA does not impose a price cap on premium SMS/MMS. du offers a number of premium SMS services, including “QuitSmoke”, which provides subscribers with a daily message with tips on how to quit smoking. Etisalat offers a service which allows subscribers use their mobile phones to pay for their parking ticket, purchase ringtones or request music on radio.

Directory enquiries

Etisalat used to offer DQ services for free, but since January 2008, it started charging AED1 (USD0.27) per call for the first minute, then AED0.50 (USD0.14) for each additional 30 seconds. Customers are only charged if they receive a response to the resulting call. DQ calls are charged at the same rate, irrespective of whether the call originates from a fixed or a mobile line.

²⁶² TRA, *Latest statistics – February 2011*. Available at http://www.tra.gov.ae/latest_statistics.php

22.2.2 Communication service providers

Fixed line operators

The fixed and mobile market is a duopoly of the two operators, Etisalat and du, and this is unlikely to change in the foreseeable future. The fixed telephony market is underdeveloped, with only 30.6% population penetration in February 2010²⁶³. By 2009, the market share of the incumbent was 89%, which shows that even after the entry of du into the fixed market, Etisalat still controls the majority of telephony lines.

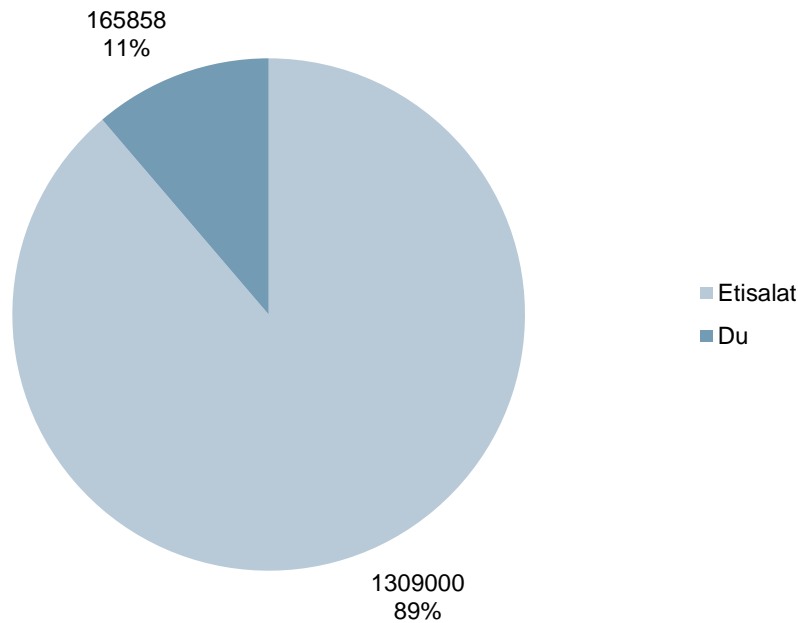


Figure 22.2: UAE: fixed operators' numbers of connections and market shares at year-end 2010
[Source: Analysys Mason, company reports, 2011]

Mobile operators

The UAE is one of the most saturated mobile markets in the world with nearly 200% penetration at the end of February 2011.²⁶⁴ du entered the mobile market in 2006, and has slowly managed to capture market share from its rival, Etisalat, by specifically targeting the growing foreign work force.

²⁶³ *Idem*

²⁶⁴ *Idem*

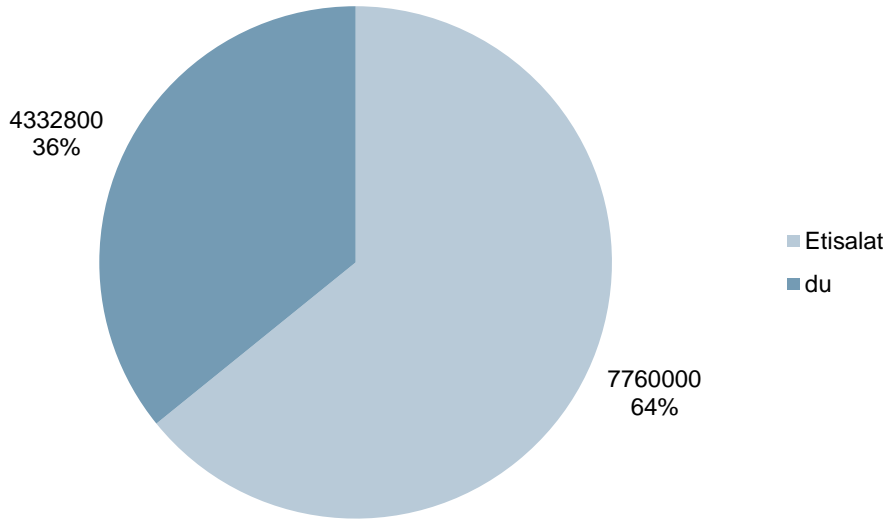


Figure 22.3: UAE mobile operator subscriber numbers and market shares at year-end 2010 [Source: Analysys Mason, company reports, 2011]

22.3 Regulatory framework

22.3.1 Introduction

The UAE lacks detailed PRS regulation, especially on tariff structure and fraud prevention, leaving it to the two telecoms operators to regulate the market. The **Telecommunication Regulation Authority** (TRA) is responsible for the preparation of regulations in the telecoms sector. It oversees issues related to competition, interconnection, regulatory policy, consumer affairs, and information reporting and price approval for tariff offers. Figure 22.4 presents the four legal documents that regulate the provisioning of PRS in UAE.

Type	Document	Comment
Legislation	TRA National Number Plan version 5.1 , August 2008	Regulation specific to the <u>numbers used for premium services</u>
Legislation	TRA Unsolicited Electronic Communications version 1.0 , December 2009	Regulation specific to <u>marketing communication</u>
Legislation	TRA Consumer complaint and dispute policy version 1.0, April 2007	Regulation specific to <u>consumer complaint and dispute policy</u>
Legislation	TRA Regulatory Policy, Directory information version 2.1 , September 2009	Regulation specific to <u>directory enquiries service</u>

Figure 22.4: UAE: Regulation and legal documents [Source: Analysys Mason, 2011]

22.3.2 Overview of PRS regulation

Unsolicited marketing messages

In response to numerous complaints received from customers about random unsolicited SMS messages, TRA formulated the *Unsolicited Electronic Communications Regulatory Policy* in July 2010 to prevent spam. This policy applies to licensed telecoms operators in the case where the communication originates or terminates in UAE. Operators are required to:

- report any instances of spam sent or received
- take “all practical measures” to minimise the exchange of spam over their networks
- take “appropriate measures” to make the users aware of the terms of this policy.

The policy also specifies that licensed operators need to obtain explicit consent from the consumer (through an opt-in option) to receive marketing messages. This policy can be supplemented with various annexes to deal with additional aspects of unsolicited electronic communications. One such annex – namely *Mobile Spam Annex* – was issued as an appendix to the main policy document and sets out the obligations of the operators regarding mobile spam. The terms stipulate that existing customers can opt out of receiving spam, while new customers need to opt in. In addition, no marketing communications may be sent to customers between 9.00pm and 7.00am. The policy annex requests operators to provide information to customers to help them minimise the level of mobile spam, and prohibits them from encouraging mobile subscribers to call or send a message to a premium number.

Fraud prevention and customer complaints

In 2006, a Federal law was passed aimed at preventing information technology crimes²⁶⁵ through the establishment of the **Computer Emergency Response Team** (uaeCERT), with a cyber-security coordination centre in the UAE. The law stipulates that “*anyone who through the Internet or an information technology device appropriates to himself or to another moveable property or procures a deed or signature upon deed, using deception, a false name or impersonation with intent to defraud the victim shall be liable to imprisonment for a term of at least 1 year and fine of at least AED30 000 [(USD8200)] or either.*” This law is also applicable to mobile messages and data services.

The procedure to raise a complaint against the operator has been specified in the *Consumer complaint and dispute policy* issued by TRA in April 2007. This policy is not specific to PRS but applies to any issue raised by the consumer regarding services delivered by the telecoms operator. The operator pledges to acknowledge a consumer complaint within 5 days of its receipt, and commits to resolving the complaint within 30 days from that date. If it takes longer to resolve the

²⁶⁵ CERT, *The Federal Law No. (2) of 2006 on The Prevention of Information Technology Crimes*. Available at <http://www.aecert.ae/preventionoftechcrimes.php>

issue, the operator is expected to inform the complainant of the progress of the procedure and the expected conclusion date. The operator needs to be informed via written notification of the resolution of the complaint. The TRA can intervene to resolve disputes within three months of the last handling time of the complaint. Operators should report data to the TRA on a quarterly basis. However, TRA has not published this data thus far.

Directory enquiries

Based on the TRA's *Regulatory Policy, Directory information*, all telecoms operators should offer directory information services. Telephone enquiries should be made to a single number and treated in one call. Both Etisalat and du offer this service for a fixed fee.

22.3.3 Tariff structure

There is no regulation regarding the tariff structure or the price ceiling for PRS in UAE. Requests to offer PRS are managed by the telecoms operators who allocate premium rate numbers to the service providers. For instance, Etisalat offers the "Service 9000"²⁶⁶ package to third-party service providers whereby they can offer a special number to their customers to receive information or support. The service provider can choose a revenue share with Etisalat or a flat fee. This premium telephony service can be used to deliver banking services, promotions, visa information for diplomatic missions, admission information for universities and TV quizzes. The service provider's share of revenue generated from customers' calls is 35% of the per-minute charge, while Etisalat's share is 35% of the per-minute rate or AED0.60 (USD0.16), whichever is higher.

Etisalat also offers a "Premium SMS"²⁶⁷ package which allows content providers to send SMS in bulk; the provider is allocated mobile shortcodes to receive resulting SMS requests from mobile users. The first shortcode is free of charge and any additional number (up to 9 shortcodes) is charged.

22.3.4 PRS market issues

Scams

There has been a series of criminal scams reported in the press since 2006 involving the Internet and mobile phones. In 2010 the **Emirates Society for Consumer Protection**, a consumer rights body (part of the Economics Ministry), urged consumers not to answer scam calls and texts, but to get in touch with the telecoms companies or the police²⁶⁸. In December 2010, Etisalat made a

²⁶⁶ Etisalat, Service 9000. Available at http://www.etisalat.ae/index.jsp?contentid=03e4a34673d3b010VgnVCM1000000c24a8c0RCRD¤tid=b5e6e15c0b56a010VgnVCM1000000a0a0a0a____&lang=en&type=service

²⁶⁷ Etisalat, Premium SMS (Push & Pull). Available at http://www.etisalat.ae/index.jsp?lang=en&type=package¤tid=1dd6e15c0b56a010VgnVCM1000000a0a0a0a____&contentid=d7f5a8640223b010VgnVCM1000000c24a8c0RCRD&offer=Package&order=3

²⁶⁸ Emirates2/47. *Mobile phone users warned on 'prize' scams*. Available at <http://www.emirates247.com/news/emirates/mobile-phone-users-warned-on-prize-scams-2010-12-15-1.329742>

similar call, warning its customers not to respond to scam calls and texts promising them large cash prizes. Consumers were receiving calls from people pretending to be from the operator and asking them to send call credit worth AED100 (USD27) for a chance to win cash.

22.3.5 PRS complaints and compensation

While users who fall victim to PRS scams can call the fixed (or mobile) operator or the police, there is no compensation scheme outlined by the TRA or the operators allowing them to recover any money lost.

22.4 Evolution of PRS in UAE

22.4.1 Areas of growth and decline in the PRS market

The PRS market is underdeveloped, and constrained by the market power of the two operators du and Etisalat. These conditions do not encourage the development of this market, nor the establishment of a developed regulatory framework.

Furthermore, TRA does not impose any restrictions on the type of VAS that is accessible through numbers starting with 9000 (for premium telephony services), 9002 (for premium data services) and SMS shortcodes. However, requests for these numbers are managed by one of the two telecoms operators, and that gives them control over what third-party services can be deployed over their networks.

There is potential for increased diversity and tiered pricing for PRS in UAE, especially given that only two blocks of PRS numbers have been allocated so far. The TRA has not given any indication on the future use of these reserved PRS numbers (0900x where x is 1 and 3–9).

22.4.2 Evolution of PRS regulation

Regulation in UAE is in line with the low level of development of the PRS market. Given the fact that telecoms services are mostly provided by the two operators, Etisalat and du, the need to introduce an industry-wide regulation for PRS is not at the top of the TRA's priorities. In fact, as of May 2011, the TRA had not launched any recent public consultations about the PRS segment with industry players.

23 USA

- Pay-per-call services²⁶⁹ and premium rate messages to shortcodes are not popular with consumers in the US; however ringtones and games downloads are popular services.
- Regulation of PRS in the US is carried out both by the Federal Communications Commission (FCC) and the Federal Trade Commission (FTC). Both the FCC and the FTC have published ‘900 number rules’ to regulate pay-per-call services and safeguard consumer interest.
- We expect the market for pay-per-call services to decline; however, the market for non-voice mobile PRS (such as ringtones and games) is likely to continue to grow in the next 1-2 years.

23.1 Country snapshot

Population	309.6 million
GDP per capita	USD47,555
Fixed telephony penetration	43.6%
Mobile telephony penetration	101%
Size of PRS market (USD)	USD1.105 billion (estimate)
PRS revenue per capita (USD)	USD3.57 (estimate)

Figure 23.1: USA overview [Source: Analysys Mason, EIU, company reports, 2011]

23.2 Definition of PRS

Premium rate voice services in the US are formally known as ‘pay-per-call’ services. There is an additional distinction between pay-per-call services and information services.

Information services refer to services that offer telephone callers the opportunity to obtain a wide variety of recorded or live information and entertainment. Examples include dialling numbers to obtain medical, stock market, sports or product information²⁷⁰.

Pay-per-call, in the US, refers to a specific type of information service, which are defined under Federal law as information services that are offered only through ‘900’ numbers and carry a fee greater than the cost of simply transmitting the call. The fee may be either a per-minute charge or a flat fee per call.

Information services include 900 number pay-per-call services and services that are offered by dialling numbers other than 900 numbers.

²⁶⁹ PRS voice services are called ‘pay-per-call’ or ‘900’ numbers in the US

²⁷⁰ FCC (USA) Available at <http://www.mytelecomguru.com/wp-content/uploads/2007/04/900fact.pdf>

The Federal Communications Commission (FCC) defines a pay-per-call service as one which²⁷¹:

- *is offered only using a 900 number*
- *provides audio information and entertainment*
- *provides access to simultaneous voice conversation*
- *includes the provision of a product where charges are accessed on the basis of completion of the call or*
- *for which the caller pays a per-call or per-time charge greater than the charge for the transmission of the call.*

Other information services that may be offered through numbers other than 900 numbers (for example through an 800 or other toll-free number) include certain directory services, or services for which users are assessed charges only after entering a prior payment or subscription arrangement. It is important to note that, given these definitions, not all 800 calls are toll-free calls.

23.3 PRS market structure and characteristics

Introduction

Industry sources report that ‘pay-per-call 900’ numbers and premium rate messages to shortcodes are not popular with consumers in the US. There is a robust ‘800 number’ market where consumers dial a number at no charge and pay for services and other content (e.g., adult content) via their credit cards.

Market size

In June 2005, Kelsey Group estimated the size of the pay-per-call market in the US at anywhere from USD1.4 billion to USD4 billion²⁷². Analysys Mason estimates the PRS market in the US to generate USD1.105 billion annually. This figure does not include DQ service revenue.

Fixed

Pay-per-call services are accessed by dialling numbers in the 900 range from landlines. These are mostly for adult services, horoscopes and chat lines.

Mobile

Premium rate text messages to shortcodes are less commonly used by consumers in the US since messages to competitions and voting via SMS are generally free of charge.

²⁷¹ FCC (USA) Available at <http://transition.fcc.gov/cgb/consumerfacts/900Fact.html>

²⁷² CliicZ (New York, US, 2006), *Google Looks to Patent Mobile Click-to-call Ads*. Available at <http://www.clickz.com/clickz/news/1711139/google-looks-patent-mobile-click-ads>

According to an industry contact, popular premium rate mobile services include downloads of ringtones and games. MNOs offers a range of premium content through their mobile portals; for example, AT&T Wireless offers ringback tones, games, wallpapers, ringtones, videos and themes which can be purchased on an ad-hoc or subscription basis. It also offers consumers bundles of content such as ringtones and ringback tones for USD4.48 and two Monopoly games for USD11.99²⁷³.

AT&T also offers its customers the option of subscribing to a ‘download club’ wherein, for one monthly charge, the consumer is allocated credits redeemable on a range of premium content in the AT&T AppCenter²⁷⁴. There are three subscription levels available: starter pack for USD5.99/month (15 credits per month); super saver for USD9.99/month (30 credits per month) and premium pack for USD14.99 per month (50 credits per month). Ringtones can be downloaded against 4 or 5 credits, videos for 2 or 5 credits, themes for 6 or 10 credits, wallpapers for 4 or 6 credits and games for 6 to 30 credits.

23.3.1 Communication service providers

Fixed line operators

As indicated in Figure 23.2 below, AT&T is the largest fixed line operator in the market and accounts for 34% of market share (subscribers). Until 1984, AT&T was a regulated national utility. The divestiture of 1984 split AT&T into seven regional operators, known as the Baby Bells, or more formally as Regional Bell Operating Companies (RBOCs). After the Telecommunications Act of 1996, the RBOCs began acquiring each other, independent local operators and long-distance operators. By the mid-2000s, the market was left with a handful of very large telcos. AT&T is made up of Pacific Telesis, Southern New England Telephone, Ameritech, Southwestern Bell, and BellSouth as well as the long-distance business of the original AT&T.

The second-largest fixed line operator, Verizon, is made up of the former NYNEX, GTE and MCI operating companies. Both AT&T and Verizon are integrated operators, offering fixed voice, fixed broadband, business services and mobile services, as well as new media services such as IPTV.

²⁷³ AT&T (Atlanta, US, 2011), *AppCenter Product Gallery – Bundles*. Available at <https://appcenter.wireless.att.com/bundles/gallery/7470/viewall?tid=0000000003K904TIHLK0JIKHV>

²⁷⁴ AT&T (Atlanta, US, 2011), *AppCenter Download Club*. Available at <https://appcenter.wireless.att.com/downloadclub?wtSlotClick=1-005EQ9-0-1&WT.svl=title>

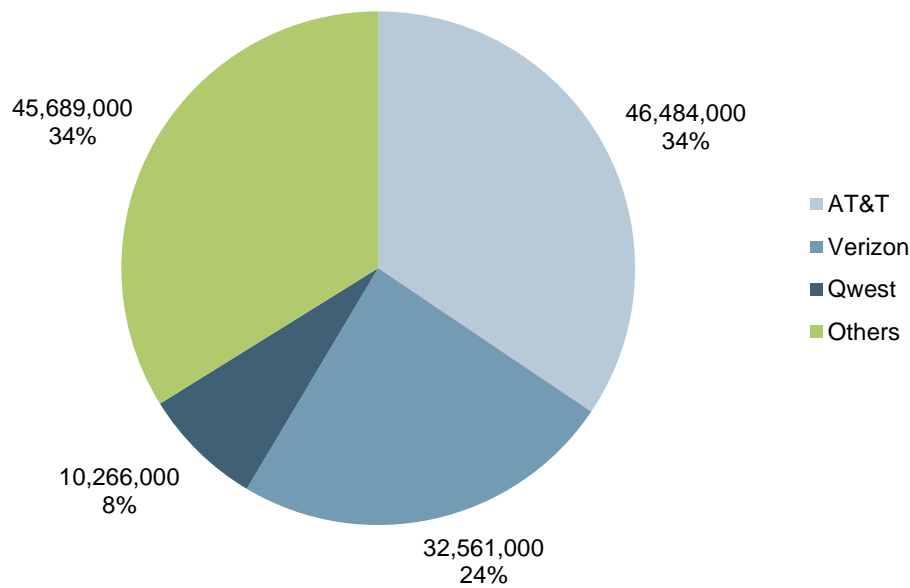


Figure 23.2: US fixed operators' numbers of connections and market shares at year-end 2010 [Source: Analysys Mason, company reports, 2011]

Mobile operators

Verizon is the US's largest mobile operator in terms of mobile revenue, and the second largest mobile operator by subscriber numbers (see Figure 23.3). It is among the most aggressive operators for LTE. It launched its FiOS service in 2005 to provide VoIP, high-speed Internet and video services. Its mobile business is a joint venture with Vodafone, with Verizon having 55% and Vodafone having 45% ownership.

AT&T is the largest mobile operator in terms of revenue and the second largest in terms of mobile subscribers. AT&T is currently upgrading its 3G network to handle the surge in mobile data traffic – much of which is coming from Apple's iPhone, for which AT&T, up until recently had an exclusive agreement. It is also deploying fibre for its U-verse service, which supports VoIP, high-speed Internet and video services.

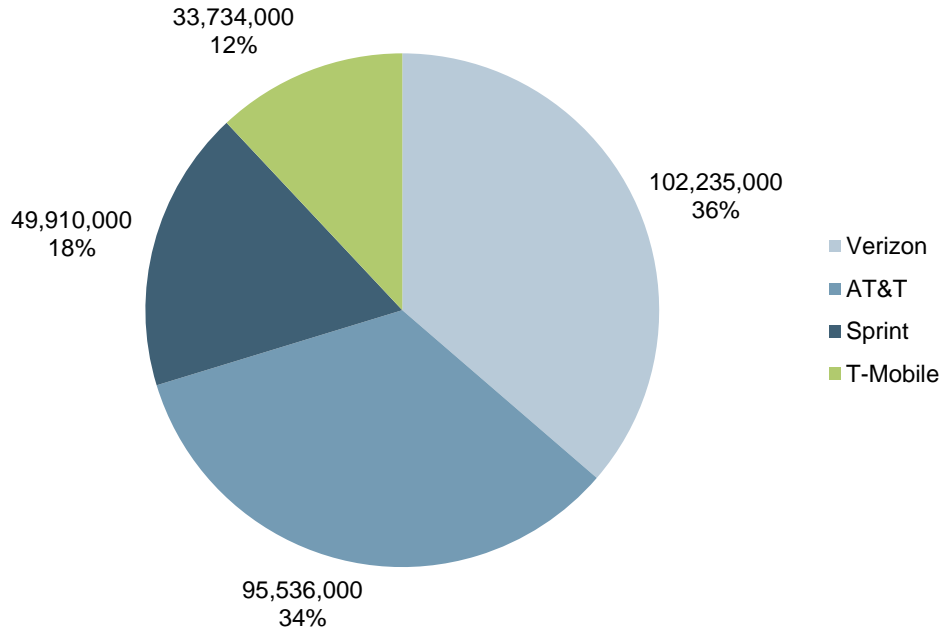


Figure 23.3: US mobile operator subscriber numbers and market shares at year-end 2010 [Source: Analysys Mason, company reports, 2011]

23.4 Regulatory framework

23.4.1 Introduction

The Federal Communications Commission (FCC) is responsible for regulating the communications industry in the US. The FCC first adopted rules to govern pay-per-call voice services in 1991. The FCC later strengthened the rules relating to pay-per-call services, and adopted rules governing information services provided using 800 numbers and other toll-free numbers.

The Federal Trade Commission (FTC) is an independent government agency that looks after both consumer protection and competition jurisdiction in broad sectors of the economy, and as such also is relevant for the PRS industry.

Name	Type of Organisation	Remit
Federal Communications Commission (FCC)	Independent US government agency, established by the Communications Act of 1934.	It is charged with regulating interstate and international communications by radio, television, wire, satellite and cable. The FCC's jurisdiction covers the 50 states, the District of Columbia, and U.S. possessions.
Federal Trade Commission (FTC)	Independent agency of the US government, established in 1914 by the Federal Trade Commission Act.	Consumer protection and competition jurisdiction in broad sectors of the economy.

Figure 23.4: US regulatory and industry bodies [Source: Analysys Mason, 2011]

Figure 1.5 below shows the relevant regulation and legislative documents that cover PRS in the US, which are discussed in more detail below.

Type	Document	Comment
Telecom Act	Telephone Disclosure and Dispute Resolution Act, 1992	-
Legislative document	FTC 900-Number Rules, 1993	Covers advertising and operation of pay-per-call services, as well as billing and collection procedures for those services
Legislative document	Complying with the 900-number rule, 1993	A business guide produced by the FTC
Legislation	FCC Truth-in-Billing Principles, 1999	Guidelines To Help Consumers Understand Their Phone Bills and to Deter Slamming and Cramming
Consumer information document	FCC Consumer Facts: 900 Pay-Per-Call And Other Information Services	Rules to govern pay-per-call services (last reviewed April 2011)

Figure 23.5: Regulation and legal documents in the US [Source: Analysys Mason, 2011]

23.4.2 Legislation

The USA does not have a specific Code of Conduct or other single piece of legislation or regulatory guidelines for the PRS industry.

In 1992, the *Telephone Disclosure and Dispute Resolution Act (TDDRA)* was enacted, which required both the FCC and the FTC to adopt rules intended to increase consumer protection from fraudulent and deceptive practices and promote the development of legitimate pay-per-call services. The Telecommunications Act of 1996 (1996 Act) amended section 228 and imposed more stringent restrictions on the use of toll-free numbers to prohibit consumers being charged for such information services.

Both the FCC and the FTC have published ‘900 number rules’ to regulate pay-per-call services and safeguard consumer interest. These have been published over a number of years and are individual rulings rather than a single document. Details of these are discussed in the sub-sections below.

In 1999, the FCC adopted the ‘Truth-in-Billing’ principles and guidelines to help consumers understand their phone bills in order to deter slamming and cramming²⁷⁵ – which are explained below.

FCC 900 number rules

²⁷⁵ FCC (Washington, DC, US, 2011), *FCC Adopts Truth-in-Billing Principles and Guidelines To Help Consumers Understand Their Phone Bills and to Deter Slamming and Cramming*. Available at http://www.fcc.gov/Bureaus/Common_Carrier/News_Releases/1999/nrcc9025.html

► *Presubscription agreements*

The FCC's rules state that any interstate service (other than telephone company directory assistance service) that charges consumers for information or entertainment must be provided through a 900 number, unless the service is offered under a 'presubscription or comparable arrangement'. A presubscription or comparable arrangement may be a pre-existing contract whereby the caller has subscribed to the information service, or the caller has authorised the billing of an information service call to a prepaid account or to a credit, debit, charge, or calling card number.

► *Details on telephone bill*

The FCC requires that charges for 900 pay-per-call (as well as 800 number information services) should be displayed in a section of the consumer's telephone bill that is clearly separate from the local and long distance telephone charges. For each call made to a pay-per-call service, information regarding the type of service, the amount of the charge, the date and time of day and length of the call is required to be indicated. Information service providers are also required to notify their customers at least one billing cycle prior to making any changes in their charges or terms of service²⁷⁶.

► *Blocking 900 numbers*

The FCC's rules require that in most areas, customers can ask their local telephone company to block access to 900 numbers from their phone. The provider is required to do so at no charge, provided this is within 60 days of signing up to a new telephone service. The company can charge a reasonable one-time fee if the customer asks for blocking of 900 number dialling outside the 60-day period. In order to remove the 900 number dialling block, a request needs to be made by the consumer in writing²⁷⁷.

FTC 900 number rules

The FTC 900-Number Rules (1993) cover the advertising and operation of pay-per call services, as well as the billing and collection procedures for these services²⁷⁸. The FTC Rules are intended to provide a framework for consumer protection, including the following requirements:

► *Requirements for advertising*

Advertisements for pay-per-call services must clearly disclose the cost of a call. Television advertisements must include both audio and video disclosures. A free introductory message or

²⁷⁶ FCC (Washington, DC, US, 2011), *900 Pay-Per-Call and Other Information Services – FCC Consumer Facts*. Available at <http://www.fcc.gov/cgb/consumerfacts/900Fact.html>

²⁷⁷ FCC (Washington, DC, US, 2011), *900 Pay-Per-Call and Other Information Services – FCC Consumer Facts*. Available at <http://www.fcc.gov/cgb/consumerfacts/900Fact.html>

²⁷⁸ FTC (Washington, DC, US, 1996), *Policies and Rules Governing Interstate Pay-Per-Call Services and Other Information Services Pursuant to the Telecommunications Act of 1996 and Policies and Rules Implementing the Telephone Disclosure and Dispute Resolution Act*. Available at <http://www.ftc.gov/be/v960013.shtm>

preamble must begin each 900 number program if total charges for a call are greater than USD2.00. The preamble must include:

- The name of the information provider and a brief description of the service being provided
- The cost of the call. The guidelines for cost disclosure in the preamble are the same as those listed above for advertisements
- The disclosure that parental permission is required for callers under 18
- When the charges will begin, and how to avoid being charged.

► *Requirements for billing*

Parties that bill consumers for pay-per-call charges or that handle consumer inquiries must follow specified procedures in handling disputes. Pay-per-call billing statements must include a local or toll-free number which consumers may call about pay-per-call charges. Consumers wishing to challenge a pay-per-call charge under the FTC's rule should notify the company listed on the bill within 60 days after the first statement containing a disputed charge was sent.

FCC's 'truth in billing' principles

The truth-in-billing principles and guidelines aim to make telephone bills more consumer-friendly and prevent consumers against unscrupulous practices.

The guidelines state that consumers should know: (1) who is asking them to pay for service, (2) what services they are being asked to pay for, and (3) where they can call to get more information about the charges appearing on their bill. For example, under the guidelines new service providers must be highlighted on the bill to help consumers better detect when their carrier of choice has been changed without their authorization. This illegal practice, known as 'slamming' is a common complaint lodged with the FCC.

The guidelines also aim to combat the illegal practice known as 'cramming' – the appearance of unwanted, vague or inaccurate descriptions of charges, making it difficult for consumers to know exactly what they are paying for and whether they received the services that they ordered. The guidelines seek to eliminate this confusion by requiring that bills contain full and non-misleading descriptions and a clear identification of the service provider responsible for each charge on their bill.

Another aim of these guidelines is to reduce customer confusion about the nature of the services being billed. The guidelines require that carriers clarify when consumers may withhold payment for service, for example, to dispute a charge, without risking the loss of their basic local service.

One of the aims of the guidelines is to allow customers to understand and compare the charges appearing on their bills. CSPs are therefore required to itemise billing.

Tariff structure

Pay per call services are charged at a higher price than local calls but no details are available on the regulation of charges for these calls.

23.4.3 PRS market issues

Cramming

‘Cramming’ is a common problem associated with pay-per-call numbers. ‘Crams’ are charges for services that were never ordered, authorized, received or even used by the party being billed. Consumers and businesses may find that charges for these numbers are placed on their phone bills without their knowledge or consent. In some cases the ‘cram’ is a recurring fee that could go unnoticed by the consumer once it is placed on the bill²⁷⁹, creating clear potential for consumer harm. Examples of cramming of recurring charges include club memberships (such as psychic clubs, personal clubs, or travel clubs) and telecommunications products or service programs (such as voice mail, paging, internet services or calling cards). A specific case of cramming is discussed in the next sub-section.

The Commission has received several complaints associated with cramming. This is an on-going problem and to address this, the FTC has scheduled a discussion in May 2011 called ‘Examining Phone Bill Cramming’²⁸⁰.

23.4.4 PRS complaints and compensation

The most publicised case of cramming is associated with American TelNet (ATN). In 1994, ATN was charged with illegally billing people for calls to psychics and sex lines and was required to pay USD2 million in refunds.

In 1999, the Commission again received consumer complaints about abuses within ATN’s telephone billing and collection system. During its investigation, the FTC found that thousands of consumers complained to ATN about charges on their telephone bills for adult entertainment and psychic line services. A number of these consumers had reliable evidence that the calls could not have been made from their telephones.

ATN settled the charges against it by paying more than USD39 million in redress to U.S. consumers²⁸¹.

²⁷⁹ Telecom Auditing Guide (Lenexa, KS, US), *How to Avoid “Crams” and Unauthorized 900 Charges to Your Phone Bills*. Available at <http://www.telecomauditguide.com/toll-free/a-few-tips-for-avoiding-900-number-problems/>

²⁸⁰ For a full agenda of the discussion, please refer to <http://www.ftc.gov/bcp/workshops/cramming/docs/agenda.pdf>

²⁸¹ FTC (Washington, DC, US, 1999), *\$39 Million For Consumer Redress in American TelNet Settlement*. Available at <http://www.ftc.gov/opa/1999/06/atn.shtml>

23.5 Evolution of PRS in the US

23.5.1 Areas of growth and decline in the PRS market

Discussions with industry sources revealed that pay-per-call services and premium SMS are not popular with US consumers. Since TV voting and other services are often offered free of charge, the concept of pay-per-call has not resonated well with consumers in the US. There is no evidence to suggest that pay-per-call services will increase in popularity in the future and, if anything, use of such services is expected to decline.

However, mobile PRS, such as ringtones and games, are popular among consumers, and industry sources indicate that this segment of the market will continue to grow in the coming 1-2 years.

23.5.2 Evolution of PRS regulation

There is no evidence in the public domain to suggest that there is likely to be any change to the regulations governing PRS in the US. As indicated in Section 23.4.3, discussions will be conducted by the FTC around the issue of cramming in May 2011. This may result in the implementation of further regulation, though at the time of writing this is purely speculative.

Annex A Currency conversion table

<i>Country</i>	<i>Currency</i>	<i>Currency code</i>	<i>Exchange rate (to USD)²⁸²</i>
Australia	Australian dollar	AUD	1.09
Brazil	Brazilian real	BRL	1.76
Canada	Canadian dollar	CAD	1.03
France	Euro	EUR	0.75
Germany	Euro	EUR	0.75
Hong Kong	Hong Kong dollar	HKD	7.77
Hungary	Hungarian forint	HUF	207.8
India	Indian rupee	INR	45.8
Ireland	Euro	EUR	0.75
Italy	Euro	EUR	0.75
Malaysia	Malaysian Ringgit	MYR	3.22
Netherlands	Euro	EUR	0.75
Russia	Russian rouble	RUB	30.4
Singapore	Singapore dollar	SGD	1.36
South Africa	South African rand	ZAR	7.32
Spain	Euro	EUR	0.75
Sweden	Swedish krona	SEK	7.20
UAE	UAE dirham	AED	3.67
UK	British pound	GBP	0.65
US	US dollar	USD	1.00

Figure A.1: Currency exchange rates of benchmarked countries [Source: Oanda.com]

²⁸² Average conversion rates between 1 January 2010 and 31 December 2010

Annex B Industry stakeholder interviews

The Analysys Mason project team contacted a range of stakeholders across the phone-paid services value chain and the broader micropayments ecosystem to gain a deeper understanding of international PRS markets and regulation. A discussion guide, developed by Analysys Mason, formed the basis of the interviews, which were conducted by telephone and typically lasted between 30-45 minutes. The interviews served to inform our understanding of:

- The regulatory model and funding type
- The legislative and punitive powers available to regulators or industry bodies
- A background on the market and how services are accessed
- The price ranges and prefixes used for premium rate services
- The evolution of the PRS market in the coming years
- Details on well publicised scams or scandals
- Statistics on complaints and details on the issues prompting such complaints.

Overall, we conducted a total of 23 interviews with a diverse group of organisations. These included contacts from PhonepayPlus, and our own existing contacts, as well as those researched specifically for this project.

<i>Territory</i>	<i>Organisation</i>	<i>Type of organisation</i>
Australia	ACMA	Regulatory authority (mobile)
Australia	TISSC	Regulatory authority (fixed)
Brazil	Anatel	Regulatory authority
Brazil	MEF LATAM	Industry body
Canada	CRTC	Regulatory authority
France	ARCEP	Regulatory authority
Germany	Deutsche Telekom	CSP
Germany	BNetzA	Regulatory authority
Germany	DVTM	Membership association
Hong Kong	OFTA	Regulatory authority
Ireland	ComReg	Regulatory authority
Italy	Eugenio Prosperetti	Legal expert in PRS
Italy	Vincenzo Comandini	Prof. of Economics at University "Tor Vergata", Rome
Malaysia	MCMC	Regulatory authority
Singapore	IDA	Regulatory authority
Singapore	Teracomm	Content provider
South Africa	WASPA	Industry body
Spain	MITYC	Government department
Sweden	ERB	Regulatory authority
Sweden	Unwire	Service provider
UAE	ART	Regulatory authority
UK	PhonepayPlus	Regulatory authority
USA	FCC	Regulatory authority

Annex C Market sizing methodology

For a small number of territories, no market size data has been produced or is publically available. In these cases, we have provided a high level estimate of the market size based on a benchmark methodology outlined below.

For each territory in the market we have obtained a number of key indicators that we have used to provide a comparison between similar markets. These indicators include:

- GDP (USD billion)
- GDP per capita (USD)
- Fixed telephony penetration
- Mobile telephony penetration

For the territories that there is no PRS revenue data, we have identified territories for which we *do* have PRS revenue data that have similar indicators. Together with the qualitative research we have carried out on each market, we have produced high level estimates of the market sizes.

In order to sense-check our market size estimations, we used an in-house data resource that provides the total revenue generated in the mobile entertainment markets of each territory. Since PRS revenue is a subset of mobile entertainment market, this enables us to ensure that estimations are within the larger industry market size.