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Introduction

In common with regulatory authorities in other jurisdictions the JCRA monitors usage and developments in telecommunications within its jurisdiction.

Telecommunications services are provided by a number of operators in Jersey for fixed, mobile and broadband services. This paper will summarize the data available to the JCRA regarding consumer usage patterns of telecommunications services.

Overall Internet Usage

During 2007 the number of ISP and Internet access accounts among all operators in Jersey grew by 14% overall. This was in line with the previous year and similar to the overall growth rate since 2002, see Figure 2. Variations in the rate of take-up coincide with promotional advertising. The 2007 growth is shown in Figure 1. The number of ISP accounts is somewhat distorted by the methodology of assessing usage of dialup adopted by ISPs, since many of their dialup customers may also have and use a broadband account. .

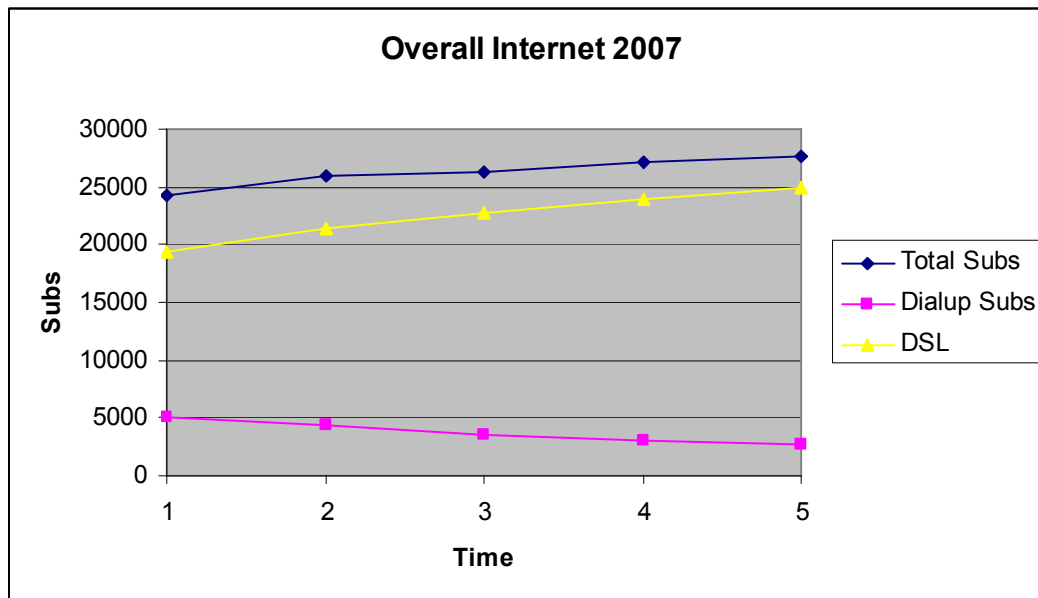


Fig 1

Dial-up accounts have declined by a further 40% during 2007 and of the growth in DSL accounts about half seems to be migration from dialup to broadband. Nevertheless, there is an overall growth in broadband usage.

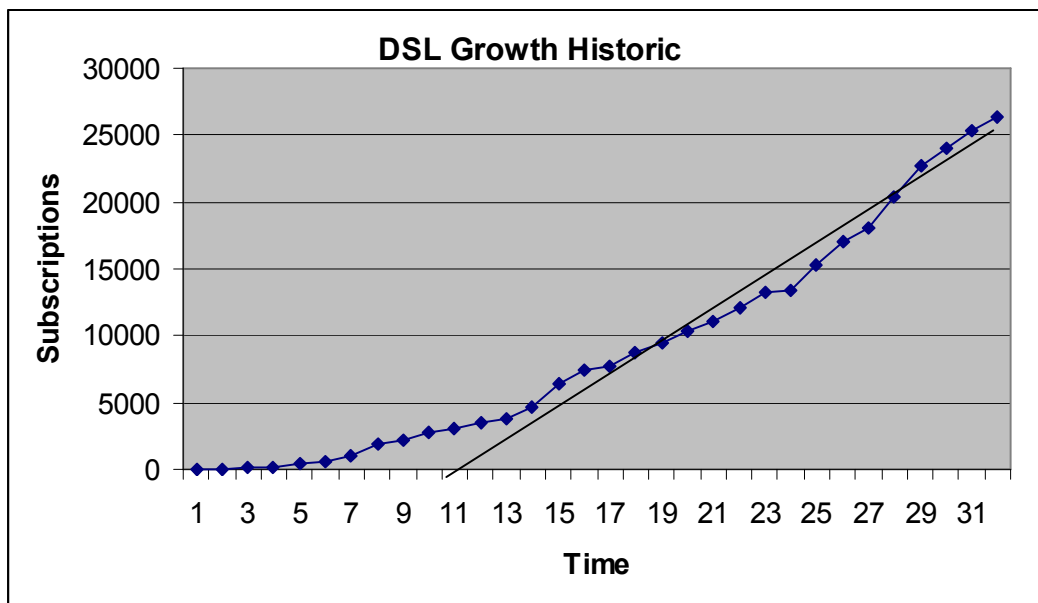


Fig 2

Internet Penetration

Overall penetration of Internet usage is sometimes interpreted as the number of ISP registered accounts as a percentage of the population, and sometimes as a percentage of the number of households in the jurisdiction. According to the States of Jersey Statistical Review 2002 there are 35,562 households in the Island and the JCRA estimates 29,575 registered ISP accounts at the end of 2006, an increase of 3,435 on 2005. This would represent a penetration of about 83% which is above the UK at 61%¹. However, it is known that the housing stock has marginally increased since the 2001 census statistics were collected. Broadband penetration by household is 66% which is above the UK at 52%²

It would appear from that information that the overall penetration of access has increased by about 14% and is well above the EU(25)³ average of 52%, but below the highest of 80% (Netherlands).

Overall market share of all types of Internet access by operator is shown in Figure 3.

¹ National Statistics <http://www.statistics.gov.uk>

² Ofcom Telecommunications Market Report 2006 <http://www.ofcom.org.uk>

³ Source: EU <http://epp.eurostat.cec.eu.int/> and OECD <http://www.oecd.org>

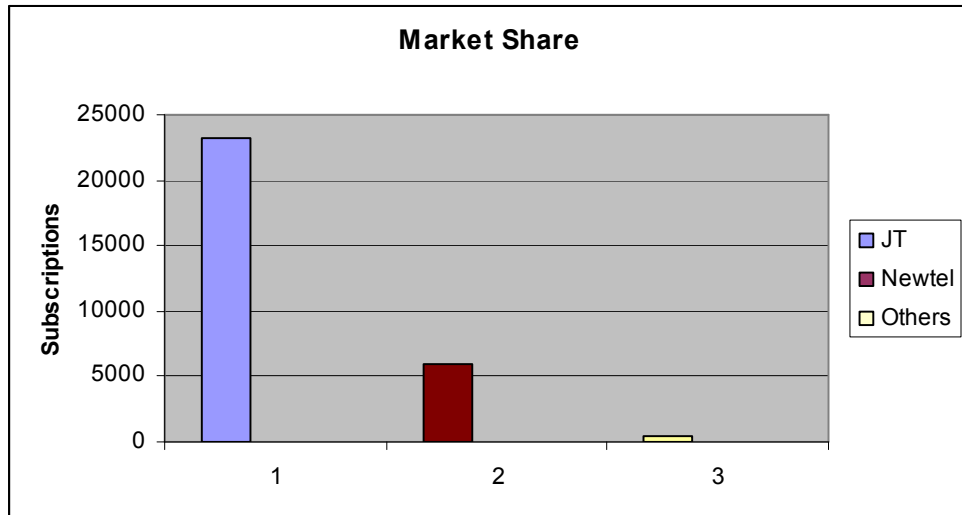


Fig 3

Broadband Services

Broadband in Jersey is currently offered at only one basic rate at 2Mb/s download 378kb/s upload. There are different contention ratios offered (50:1 and 20:1) and also a symmetric DSL (10:1) service.

The contention ratio expresses the number of other users sharing the availability of the maximum bandwidth at any given time. The worst case is that downloaded data will be reduced by the bitrate/contention ratio, for example $2\text{Mb/s} / 20 = 100\text{kb/s}$. In practice, the traffic variations on any given DSLAM will rarely reach this base level unless the concurrent users are very high consumers of information download. This can occur if some users configure their connection to use as Peer to Peer networks or connect to streaming video or audio services. Management of users over the available DSLAMs can mitigate this problem. In addition, JT now meters download and makes additional charges after a fixed monthly limit is exceeded. Newtel does not meter.

Total DSL services in operation at the end of 2007 were 26,320 of which 24,952 were basic rate residential users and 141 SDSL subscriptions.

Mobile Internet Access

GPRS and 3G services are available from all the operators on Jersey. Airtel-Vodafone offers a stand-alone USB 3G modem for use with notebook computers for consumers on the move.

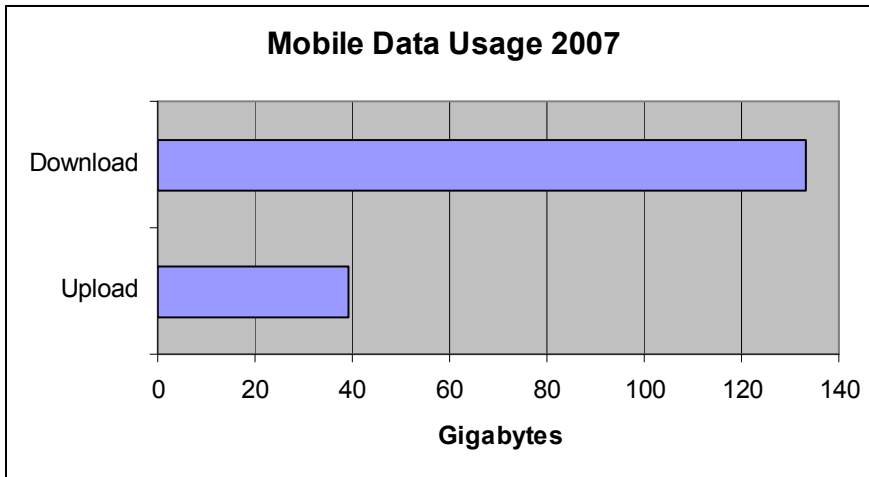
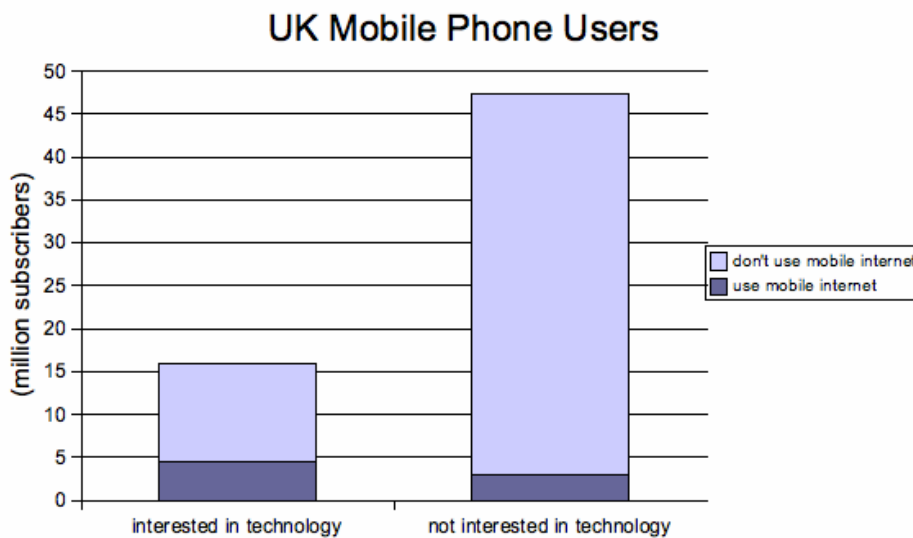


Fig 4

Figure 4 shows the average bandwidth usage of the JT GPRS service during 2007. The use of mobile Internet seems to have settled down over the past 12 months. This would indicate that the consumer awareness of mobile broadband has increased and perhaps that mobile handsets are better at mobile surfing. However, the usage is well below that of fixed access at this time. Perhaps the introduction of mobile access devices that can be used with laptop computers will increase usage over the next period.

Roaming charges for data usage are still very high and would tend to discourage users from using mobile data while not on their home network.



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Fig 5

In addition a recent survey shown in Figure 5 demonstrates that while Internet access is available to millions of UK mobile phone users, only a very few actually use Internet

services from the mobile. This may be because of alternative access technologies such as WiFi or because users find the small screen experience unattractive.

Pricing

In Jersey there are a number of payment schemes available for Internet access, depending on the ISP and/or the method of connecting.

For dial-up customers there is a choice of connecting either through a pay-as-you-go service or by monthly subscription. The monthly subscription ISP services provide the user with more facilities than the pay-as-you-go service but access is through a normal directory number, which is billed at the standard rate. Access via ISDN is still available but would appear to have been supplanted by broadband.

ADSL services are provided by two island operators for a fixed monthly fee, with no addition call charges but a fixed line connection is required at additional rental.

Dialup customers have a choice of provider either on or off the island, for instance AOL which provides an 0800 access service with a monthly limit on free minutes. The average dialup customer spends less than 10 minutes per day online which would cost from nothing to between 5p and 20p depending on provider and service connection.

It would appear that if a user only requires email access, then a dialup PAYG service would be the best option. However, if Internet surfing is required then broadband is the best option. Users can then select the best offer from the available suppliers.

Monthly pricing for ADSL is £16.99 from Newtel and £17.99 from JT for a 2Mb/s service at 50:1 contention.

SDSL is currently about £229.00/month at 5:1 contention.

Comparison with Other Jurisdictions

Prices across the entire EU have been largely stable over the last 12 months following dramatic reductions the previous year, but download speeds have continued to improve and many ISPs now offer VoIP services at the same price. Table 1 below gives a sample of prices in Euros per month and download bandwidth in different jurisdictions. It should be noted that direct comparison is difficult because of the mix of speed, contention ratios and services offered by each supplier. The table make comparisons with popular offerings among a range of EU countries.

Jurisdiction	Provider	Download BW	Price €	Notes
France	free	28Mb/s	29.99	Burstable * ‡
Netherlands	Orange	20Mb/s	19.95	Includes VoIP*
Belgium	Scarlet	6Mb/s	25.65	Burstable † 30gb/mth limit
Liechtenstein	Telecom FL	3mb/s	49.00	Download 150kb/s
UK	Be	8Mb/s	18.20	Burstable †
Hull	Kingston Comms	8Mb/s	22.12	Unlimited †
Jersey	JT	2Mb/s	23.42	20Gb/mth limit
Jersey	Localdial/Newtel	2Mb/s	22.12	Unlimited
Guernsey	Cable and Wireless	2Mb/s	19.52	Pay-as-you-go 300 min/mth
Guernsey	Cable and Wireless	2Mb/s	32.54	
IOM	Manxnet	2Mb/s	24.67	5Gb/mth/limit

Table 1

* Free national calls included in package and reduced international call rates
† The maximum rate depends on prevailing contention
‡ Includes access to 200 TV channels

This comparison shows that ADSL residential prices in Jersey are in the middle bracket of EU comparative costs although below the mean price - see Figure 6. Almost all providers except C&W Guernsey and Manxnet offer higher rate basic services. However, many EU ADSL providers also include voice telephony packages (VoIP) in base price and where it is not, prices are substantially lower.

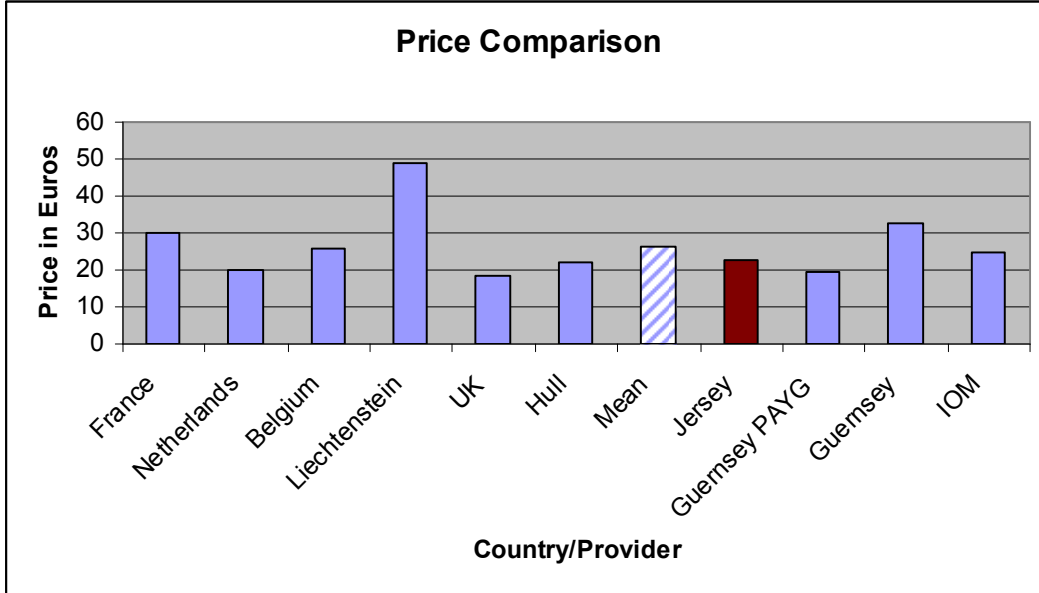


Fig. 6

Mobile Telephony

There are three mobile networks in Jersey:

- Airtel Vodafone (Jersey Airtel)
- JT-Wave (Jersey Telecom)
- Sure (Cable & Wireless)

Each provider has both 2G and 3G services provisioned on its network.

There are approximately 144,000 issued SIMs in circulation on the island networks. The island population is estimated at about 89,300⁴ which results in a mobile penetration of 161%. The island is known for its itinerant population and therefore it follows that there are high numbers of pay-as-you-go mobile consumers. Therefore it is likely that a fair proportion of the issued SIMs are unused for part of their lifecycle.

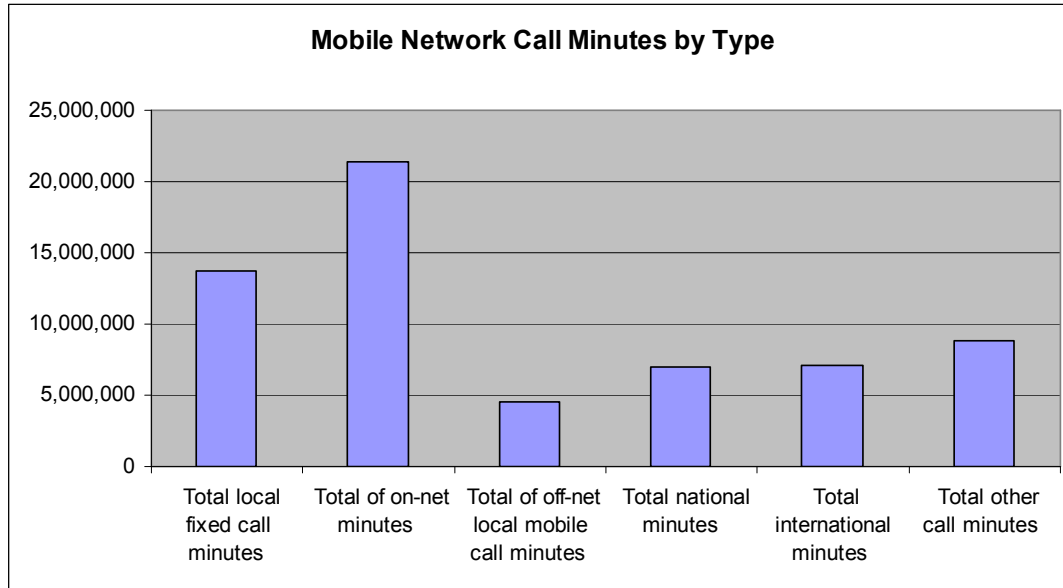
The lifecycle is the time allowed by mobile operators that a SIM remains active. Once it has exceeded its lifecycle period without re-registering on a mobile network, then it is disabled. The lifecycle varies per operator:

- Airtel Vodafone 12 months
- Cable & Wireless (Sure) 12 months
- Jersey Telecom 18 months

It therefore follows that the numbers of issued SIMs does not correlate directly to active mobile users. Nevertheless, some consumers do own more than one phone and/or SIM, depending on their own calling patterns since different networks offer differing call charges by destination.

The following graph in Figure 7 shows the breakdown of all mobile telephone call minutes by call type.

⁴ Jersey in Figures 2007 <http://www.gov.je/NR/rdonlyres/5834907F-A3C1-4D57-BBBF-7B7530A64647/0/JerseyinFigures2007.pdf>



* Other call minutes include Freephone, Premium and special numbers (087x, 084x etc)

Fig. 7

Fixed Telephony

At present only Jersey Telecom, the former monopoly provider of telecommunications services on the island, is able to provide fixed line connections. However, alternative access options are available using Carrier Select (dialling a code before the E.164 number) or using bypass directory or special service numbers such as 08XX.

Sure (Cable & Wireless) is currently the only provider of Carrier Select services in Jersey while Newtel currently uses a bypass number access regime. In addition, SpeedDial is a reseller of bypass access and other off-island providers offer similar services that can be accessed from Jersey.

In order to avail of any of the above services from a fixed line telephone it is therefore necessary to subscribe to the JT fixed line service marketed as WireLine. The 2007 rental was £11.50 per month and this price, while being subject to a regulatory price cap mechanism, tends to be increased annually following inflation.

JT's standard calling rate for local to local fixed line calls is currently set at 7p for 30 minutes or any part thereof. After the fixed period, calls are charged by the second *pro rata*.

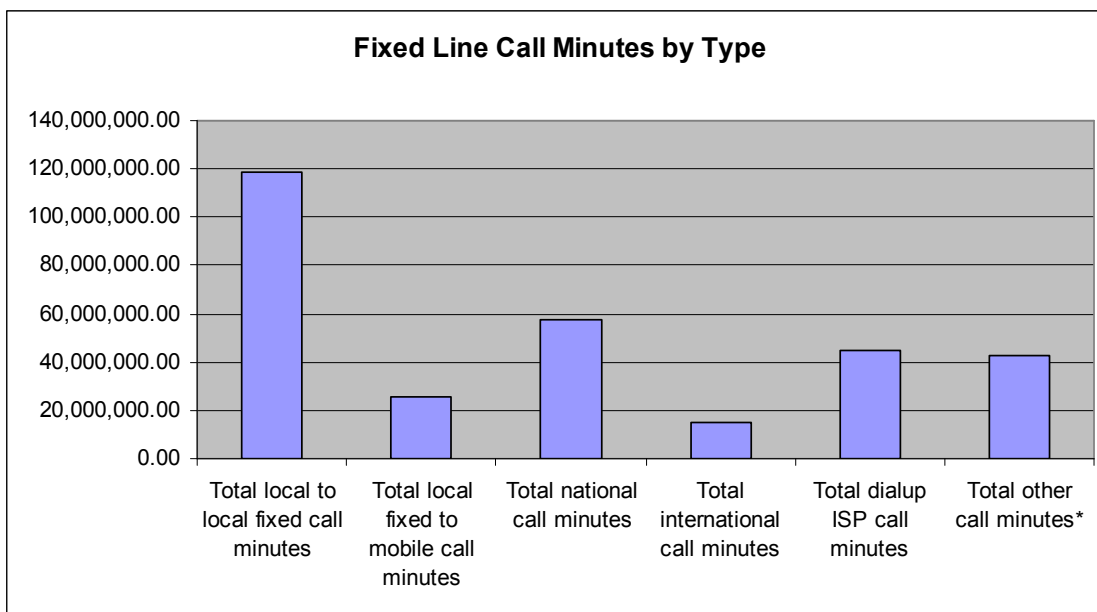
The majority of consumers are tied to this rate but subscribers to bypass services can call local numbers for .21p per minute with a minimum charge of 5p per call. The average call is somewhat shorter than the maximum time allowed by JT.

Operators also offer various discount packages along with the access services that attract different rates of discount depending on traffic volumes. This is of particular interest to business users as discount rates can become very attractive as calling rates rise. Bundles are also available for residential consumers.

VOIP

Voice Over Internet Protocol (VOIP) services are also available from Jersey, either through local or off-island suppliers, such as Skype. In order to use a VOIP service it is necessary to have a broadband connection, which in turn requires a fixed line service.

No statistical data is available from off island VOIP providers, however the minutes sold by Newtel are included in Figure 8.



* Other call minutes include Freephone, Premium and special numbers (087x, 084x etc)

Fig 8

The graph in Figure 8 does not include any VOIP calls made by operators not licensed by the JCRA.

The number of fixed lines has been in decline since reaching a peak in the early part of this century see Figure 9.

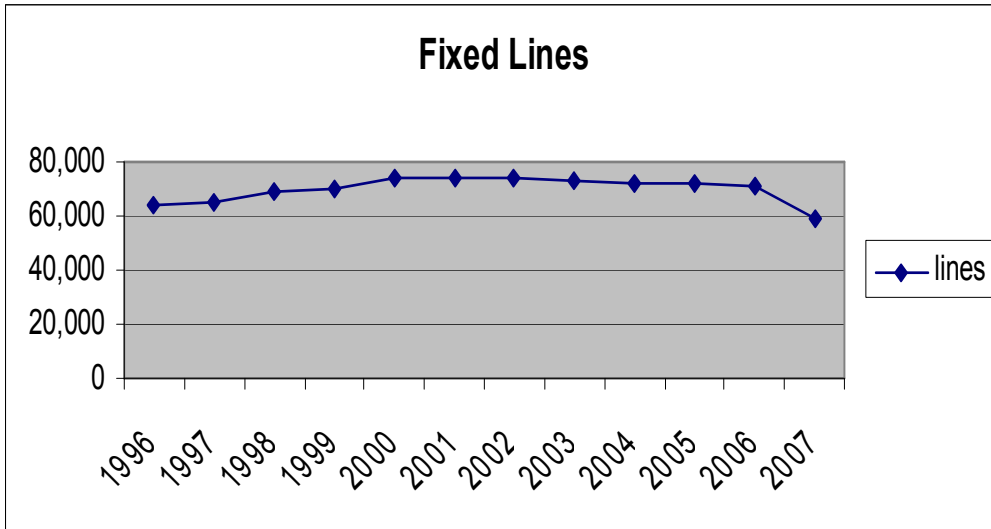


Fig 9

This can probably be explained as a consequence of both fixed-mobile substitution and the decline in the need for second lines for fax and/or dialup Internet access. The growth in the number of issued SIMs over the same period is shown in Figure 10.

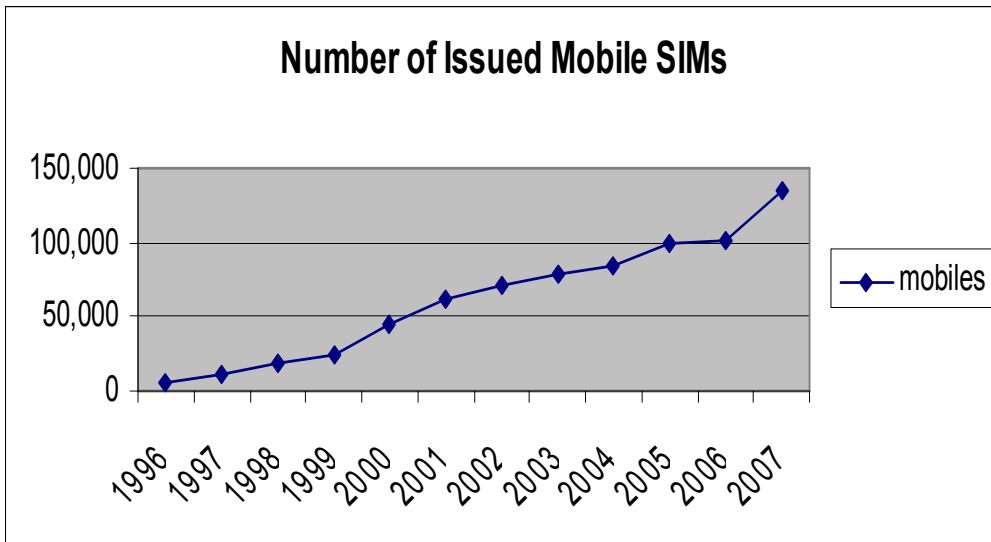


Fig 10

Calling Data by Traffic Type

Calling patterns by call type are shown below in Figure 11 derived from Table 2.

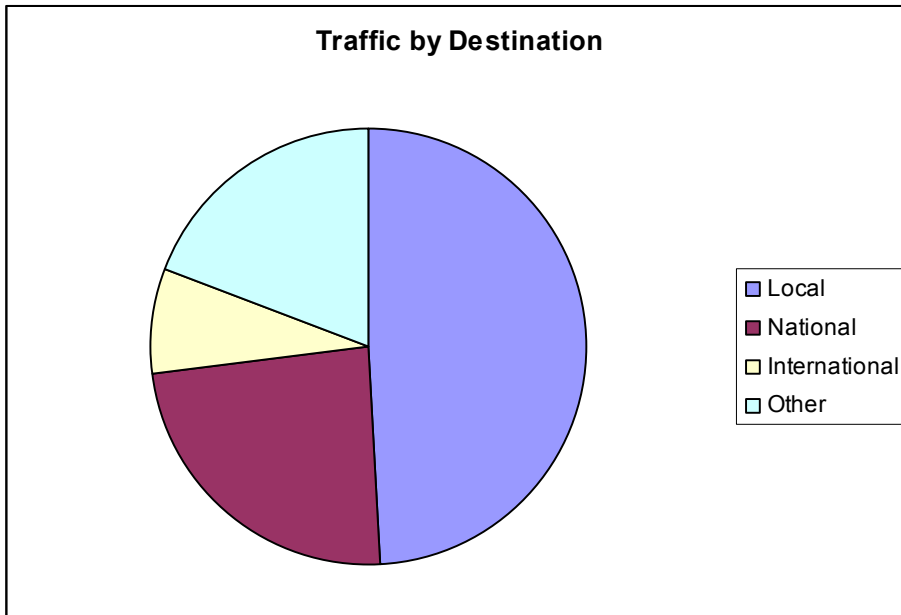


Fig 11

The number of call minutes by type of call during 2007 is shown in table 2 below.

Call Type	Fixed Networks	Mobile Networks
local to local fixed	118,725,707	-
local fixed to mobile	25,275,708	-
national	57,716,429	6,678,526
international	14,586,549	7,036,373
dialup ISP	44,572,877	-
other calls	42,622,230	8,790,960
on net calls	-	21,372,668
mobile to local fixed	-	13,692,302
off-net calls	-	4,871,818

Table 2

Traffic to dialup ISP is in the decline as a result of the growth of broadband services.

Conclusion

Consumers in Jersey continue to benefit from a range of competitive communications services. Broadband growth is steady and the number of users with mobile access is among the highest in the world. The JCRA is confident that competition will continue to drive innovation and value in the local communications markets.