Regulation of cellular markets

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[Remarks as prepared, check against delivery.]

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Introduction

I must first thank OFCOM for the invitation to speak here today.

It is my first time to speak in Edinburgh for many years. I will not say precisely how many.

I am, after all, originally a Glaswegian, so I am much more likely to be offered and to accept invitations on the other, somewhat warmer, side of the country.

I have spoken several times on different aspects of mobile telecommunications in recent weeks, so I can afford to be quite specific. The texts and slides are, as always, available on the INTUG web site.[2]

For the sake of transparency, I have to confess some collusion. I discussed with Richard Feasey of Vodafone what we might say back in September at the *i2010* event organized by the Department of Trade and Industry (DTI).[3]

We both agreed that we could do better than *commedia dell'arte*. You are familiar with the Punch and Judy line "that's the way to do it".

In our view there was not much merit in my saying regulate mobile and Richard saying the reverse. It would not take the debate forward, even if we might contrive to make it amusing.

Moreover, it would miss some of the most interesting commercial and technical developments which are not always related to cellular telecommunications.

[1] http://intug.net/ewan.html
[2] http://www.intug.net/talks.html
[3] http://www.i2010.org.uk/

So, instead, let me address questions of what has worked and what has not worked in markets for mobile and nomadic services, plus what has worked and what has not worked in regulation. These help us to identify areas for future attention.

It is important to recall one lesson, that there is no single mobile market. Analysis long ago showed there to be many markets with quite different characteristics.

In doing so, I will draw on examples that are both European and from further afield.

Japan

Since I know it causes Vodafone the most pain, I will get Japan out of the way first.

Japan is one of only two mass markets in the world, with some forty million customers already using 3G.[4] The other is South Korea.

The pace of change in Japan has been dramatic, as operators have moved to new networks and new handsets. The end of 2G is in sight, as PHS and PDC networks are quickly being phased out. Both customers and the third party suppliers of value-added services are being moved to the new technologies.

It has been done with remarkably little evidence of pain and suffering, in a market that is extremely demanding in customer service. The entire Japanese nation may or, more probably, may not be early adopters of technology, but they do not accept beta release hardware or bug-ridden software. Nor do they much like pricing by trial and error.

The Japanese have this quaint notion that telecommunications operators should know what they are doing and get on with it.

Competition between KDDI using cdma2000 and DoCoMo using FOMA, a form of W-CDMA, has been fierce, something of the *samurai* spirit is still alive.

Having once acquired its technology from NTT, KDDI broke away in the early 1990s shifting to CDMA. This gave it an unexpected advantage with 3G, since it had a simple upgrade path, while its rival had to build a new network and sell new handsets. It allowed KDDI to overtake NTT DoCoMo, becoming the market leader in innovation and offers.

NTT DoCoMo has been very successful in developing i-mode.

For those of us, of a certain age, it works like the French Minitel system, both at the service provider level and for the user.

I-mode has certainly attracted a large number of service producers who are allowed to get 91 per cent of the revenues. There is an environment or an ecosystem of producers, suppliers, aggregators and customers. DoCoMo has expanded its range of services to include a contact-less payment system and a product information service.

The third player in the market, which shall remain nameless, has fallen behind significantly. It looks to be rather weak.

[4] http://www.tca.or.jp/

There will now be further market entry in 2006 with the Ministry of Internal affairs and Communications (MIC) assigning spectrum in the 1.7GHz band.[5] It seems the new operators will be eAccess[6], IP Phone and SoftBank.[7]

The last is very well known for its Yahoo! BB ADSL and FTTH offers, while its CEO has been one of the fiercest critics of the Ministry.[8] Son-san has both threatened suicide and to take the government to court in order to get spectrum.

New Zealand

There were terrible mistakes made with UMTS, in which the lessons from GSM were misunderstood, misapplied or just ignored. The decision to cast aside the existing GSM networks and to build from scratch 3G networks was a mistake for which the operators will pay for many years. It seems that they had assumed that the revenues would be so great that they would be able to justify almost any level of investment.

New Zealand is a small market at a great distance from the rest of the civilised world. By a quirk of fate it finds itself with one GSM and one CDMA operator. Each is now making its own way towards 3G.

Until recently, the GSM operator had been dominant.

With CDMA more widely available in other countries, Telecom New Zealand has found that it has gained some traction against its GSM rival. The addition of cheap multi-mode handsets has helped.

The two operators are presently engaged in a robust exchange of views on the capacity and merits of their respective networks. It may not be elegant or genteel, it is after all the home of the All Blacks, but at least it has raised competition a notch.

That said, competition in New Zealand is severely attenuated. There has been no mobile number portability which combines badly with the need to purchase a new handset on switching operator.

Moreover, the third operator is strangely missing from the market, having received a licence some years ago. It has built nothing.

The United States of America

The USA has competing cellular technologies; some operators with CDMA and others using GSM. [plus Nextel iDEN].

The CDMA operators quickly deployed cdma2000 1X and began to offer data services at flat rate prices. The retail prices are around US$ 70 per month for unlimited usage across the continent.

The GSM operators in the USA have, *force majeure*, had to respond with EDGE rather than GPRS in order to try to match the speeds. They have also had to offer flat rate prices.

We have recently seen Sprint sign agreements with cable operators to offer quadruple play or, if you prefer, 4-play. That is Internet access, television, wireline and cellular.

[5] http:// www.soumu.go.jp/joho_tsusin/eng/
[6] http://www.eaccess.co.jp/
[7] http://www.softbank.co.jp/
[8] http://bbpromo.yahoo.co.jp/

There is a strong consumer focus leading to the provision of entertainment services, including branded MVNOs. One notable example is Disney.

While once the USA could be said to be behind Europe, it gives the impression of certainly having drawn level, albeit on a somewhat different path. It seems to be showing more and faster innovation.

South Africa

There is a presently a pitched battle in South Africa concerning the affordability of mobile telecommunications. Dr Kelly of the ITU and Dr Reynolds of the OECD have recently made presentations in Johannesburg which have emphasized the very high level of prices there, arising from the lack of competition.

Markets with only three mobile operators can be far from competitive.

My advice to the regulator has been to look closely at the recent developments in France[9] and in Ireland[10]. The introduction of Mobile Virtual Network Operators (MVNOs) and national roaming deals, whether voluntarily or by obligation, would do much to improve competition.

Like many countries, South Africa struggles to bring termination rates on mobile networks down to acceptable levels. All the arguments used here in the United Kingdom have been recycled in South Africa, sometimes by the same people.

What is missing in the market in South Africa, as in so many countries, is true competition, measured in user benefits.

Services are not like voice

The mobile network operators missed the importance of the addition to GSM of what the European Commission once, rather quaintly, called "ISDN features". That is HSCSD, WAP, GPRS and EDGE. These technologies have proved remarkably unattractive to service producers and to users. They are indeed Interfaces Subscribers Don't Need (ISDN).

What was billed as 2.5G, a stepping stone from 2G to 3G, was pushed as a technology, not as a service. Instead of emphasising the new capabilities, it was sold as technical interfaces that worked inconsistently and badly, with few, if any, services on them.

Moreover, GPRS was seriously overpriced, by about an order of magnitude. Business users and especially telecommunications managers revolted against the prices and the national variations. Indeed, they still turn away from the prices.

There are millions of handsets in Europe with GPRS but whose owners never use the facility and don't have any reason to do so. The consequence is that there has been little revenue for the operators.

It is tempting to wonder what sort of geek counts the number of kilobytes they use. Especially in a world on 20Mbit/s ADSL and Fibre To The Home.

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[9] http://www.arcep.fr/communiques/communiques/2005/index-c05-25.htm

http://europa.eu.int/rapid/pressReleasesAction.do?reference=IP/05/632&format=HTML&aged=0&language=EN&guiLanguage=en

[10] http://www.comreg.ie/_fileupload/publications/PR220205.pdf

You do not sell newspapers by the word or chocolate by its calorific value.

The operators have had a modest success with the Blackberry, known to some as the "crackberry" because of its allegedly addictive qualities. It was, in the late 1990s, a very elegant idea. However, there is a risk that will prove a technological dead end.

It is worth recalling that the Blackberry was originally designed for the bi-directional pager network. It can run on a network of extremely limited data capacity. So that it is ideal for the GSM operators in contributing to ARPU without requiring them to spend any money on increasing the GPRS capacity of their networks.

The crucial point to understand is that the GSM cells here in Edinburgh are configured for voice traffic and to take as much traffic as they can. If you have also to carry a large amount of data traffic then you have a stark choice, either find more spectrum or make your cells smaller building more base stations. The operators elected not to provide much capacity for data.

MMS has not been much better. You have phones with cameras that never send any images across the network.

To make matters worse, many operators cross-subsidise the handsets for features that are entirely unrelated to their revenues!

There is a very real risk of a Mexican stand-off. That is of operators not taking the content until they are paid more and the content producers refusing their content until they are paid more.

Many of you will have seen the demonstration by Dr Chin, the South Korean Minister, at the London i2010 event. He showed the combination of DMB with a mobile handset.

Entertainment and news may reach the handset by a network that is quite distinct from voice traffic. You might well combine DMB or DVB-H with a video player or games console. The result may be no revenues for the mobile network operators.

The combinations of devices and networks are very uncertain. The choices lie in the hands of consumers and especially young consumers. Few of us are likely to predict what they will pick.

International mobile roaming charges

I suppose I am expected to deliver what as a child in Scotland in the 1960s was called a "party piece", some well rehearsed act to display precocious skill.

I have long ago lost track of the number of times I have spoken on the evils of international mobile roaming.

The point today is not to complain that GPRS roaming in Edinburgh costs 6 Eurocents per kilobyte or EUR 6 per Megabyte by the tariff and that it is really more like 10 cents or EUR 10.

Mobile data is sold like water in the desert. The mobile operators see it as a precious commodity, in stark contrast to fixed operators.

In the UK there has been a recent fuss over a customer of one of the operators who declined to pay his roaming bill. It was the small matter of some £800 for a visit to France. It seems he felt that this was too much.

I can only say that INTUG issued warnings on roaming charges for GPRS a very long time ago. The charges are punitive. I believe the press called them “criminal”, would that they were!

We face now the very serious risk of roaming charges being extended to value-added services, which could easily kill that market. If a roaming “surcharge” is added to entertainment services, then people will turn away. This is not merely for UMTS, but also for DAB, DVB and DMB.

What is important is to draw the lessons from the roaming exercise so far, from the work of the sector inquiry and the analyses of market 17, for the purposes of the 2006 Review. The European Union failed to provide the NRAs with the means to remedy the problem. It might have been easier under the old regime; the Commission could have imposed cost-oriented wholesale prices at the stroke of a pen.

Today, we need to rethink the wholesale market and bring together domestic and international access, roaming and MVNO, into one market for analysis and ultimately regulation.

The resurgence in acquisitions amongst mobile operators raises questions of merger reviews and how these can be used to transform the market for pan-European mobile services. Indeed, INTUG is writing to Commissioner Kroes, asking for steps to be taken to that end.[11]

Conclusions

So, in conclusion, we need to recognize that competition so far has been insufficient to achieve our policy goals, principally the Lisbon agenda.

Sadly, the rhetoric of the “3GSM” operators has been much stronger than their competition. They will happily assert that there is competition when it is absent or so attenuated as to be invisible to the naked eye.

There is no single market for mobile telecommunications. At the retail level it is entirely absent. Mobile telecommunications lives in the world of Bismarck, Garibaldi and Woodrow Wilson. It is a Europe of nation states.

Given half a chance, I am sure that the Scottish Nationalists would happily introduce roaming charges for the English. Likewise, the Bavarians for visiting Saxons, the Corsicans for visiting French.

Instead, we must create a single market in which you can access content that may be Scottish, Bavarian or Corsican. A single European information space without borders and without roaming charges!

We come now to the question of arithmetic. I am sure everyone remembers the n+1 policy. We were to have one additional operator with 3G, one more operator than we had with 2G. Instead, we see more consolidation and a number of licences still unassigned. The policy was misguided and we need to accept that. Market entry was too expensive, the combination of licence fees and network construction was too much.

Regulation has worked despite strenuous efforts by the operators to thwart it. Progress has been made on call termination, on number portability and on call origination.

International mobile roaming, as we all know, remains a case of both market and regulatory failure.

[11] http://www.intug.net/submissions/EC_comp_roaming.html

The greatest market failure has been mobile Internet access. It is clear that action is required to bring new players to the market, with new technologies and new ideas. We need to make spectrum available to introduce new players as soon as practicable.

That will be discussed tomorrow, not least in how to promote WiMAX.

If we must wait for the existing cohort of mobile network operators to deliver wireless broadband, then Europe will fall yet further behind Japan, South Korea, Hong Kong and the rest of China. We will be third world, not third generation.

We need to see new players offering digital broadcasting with all the richness and interactivity that brings.

There is only one way to avoid regulation, it is by achieving competition. We can do this the slow, painful way, by market analysis and the imposition of remedies. However, that way will *never* deliver European competitiveness.

Instead, we must design competition into the system from the beginning. We must ensure markets are open to innovation, even markets that do not yet exist.

We cannot prop up or be seen to prop up or to countenance propping up the existing mobile network operators. It is they who have cost Europe its leadership in mobile telecommunications.