

## Canada's AWS auction

### Evidence in reply to submissions made by:

- Bell (Gilbert + Tobin)
- Telus (Crandall / Ingraham)

19<sup>th</sup> June 2007

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## Introduction

Towerhouse Consulting has been asked to read certain of the first round evidence submitted in response to the Canadian AWS consultation and prepare comments in reply. Specifically, we have been asked to comment on the submissions which relate to international comparisons and measures designed to facilitate market entry in wireless markets.

Our starting point remains that market entry at the network level is *prima facie* a good thing; that there are very few opportunities to overcome the near-absolute barriers to entry which otherwise exist in these markets; and that, in the absence of compelling reasons to the contrary, those opportunities should be seized with both hands. The AWS auction provides such an opportunity. We have seen nothing in the first round submissions to change that view in relation to the AWS auction.

In preparing this report we have reviewed the submission made by Gilbert + Tobin on behalf of Bell Canada as well as the submissions on behalf of Telus and Rogers. We have commented specifically on the Gilbert + Tobin submission and more generally on certain of other comments made about experience of spectrum allocation processes in non-Canadian jurisdictions.

In our view the Gilbert + Tobin report does not undermine the case for appropriate measures to facilitate new entry. Indeed, their report arguably makes some good points in favour of such measures.

The other reports, where they adduce international benchmarks, make some interesting observations about how allocations processes have worked in various jurisdictions around the world. Many of the comments are either not directly relevant to those elements of auction design which are intended to facilitate new entry. (For example, allocation processes which did not attract enough interest for all licences to be allocated are repeatedly cited; but this is, in fact, unlikely to be relevant to the questions under consideration here.) We have not, on the whole, ventured comments on the US situation.

## 1. Comments in reply to submissions by Gilbert + Tobin

### (i) *Introduction and summary*

Gilbert + Tobin prepared submissions on behalf of Bell Canada which was intended to be a “review of international experience in allocating spectrum.” Various jurisdictions are examined and certain propositions are put forward (in the executive summary). Some but not all of these are borne out by the evidence adduced. Others are merely assertions without supporting evidence. At least in respect of the UK analysis, and possibly elsewhere, there are material errors of fact.

### (ii) *Errors in fact or emphasis*

The Gilbert + Tobin submission contains one serious factual error when it states this:

*“In the UK, setting aside the largest 3G licence for a new entrant generated significant interest among new entrants in the relevant spectrum, however, this level of interest led to irrational bidding and the new entrant (BT) exited the market by divesting the spectrum to O2.”*

In fact BT was not a “new entrant” in the UK 3G auction. BT was already a mobile operator in the UK through its subsidiary, Cellnet (part of the BT Wireless division). BT merely chose to participate in the auction through a separate wholly-owned subsidiary. This subsidiary was demerged with the rest of the BT Wireless division, renamed mm02 (trading under the O2 brand) and listed separately from the rest of the BT Group<sup>1</sup>.

The true new entrant in the UK auction was in fact TIW, a Canadian company, which we understand to have been a joint venture with Hutchison. In the event, it was Hutchison, under the brand “3”, which entered the UK market with some success. It continues to operate in the UK (see below)<sup>2</sup>.

In addition, G+T say that the new-entrant bidding in the UK auction was irrational. In fact, it was BT and Vodafone - both incumbents - who bid against each other on the largest non-reserved licence, taking it to a price which other bidders were not prepared to meet. If anything, it was this incumbent bidding which was irrational. New entrant bidding, by contrast, was rational - with all but TIW having exited when the bidding reached £4bn, regardless of which licence.

The Gilbert + Tobin account of these absolutely central aspects of the UK auction is therefore almost entirely inaccurate.

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<sup>1</sup> See BT Group history, <http://www.btplc.com/Thegroup/BTsHistory/History.htm> . Cellnet became a wholly-owned BT subsidiary in November 1999 when BT acquired the minority stake held previously by Securicor (see [http://www.btplc.com/Societyandenvironment/PDF/PDFenvironmentalreport/env\\_bt\\_cellnet.pdf](http://www.btplc.com/Societyandenvironment/PDF/PDFenvironmentalreport/env_bt_cellnet.pdf) ). BT Wireless was renamed mm02 and demerged from the BT group in November 2001.

<sup>2</sup> In this submission we have referred to the auction bidder as TIW; and the market entrant as Hutchison or 3

The G+T submissions on facility-sharing are also factually inaccurate, but in this instance by omission. G+T suggest that “mandatory tower sharing is not commonly used as a mechanism for encouraging new entrants as part of a spectrum allocation process”. We explained in our initial submission that the UK government went to considerable lengths to persuade potential bidders that facilities-sharing could be mandated where appropriate. We understand that such an approach was common in European 3G allocation processes. For example, McKinsey, in research conducted for the European Commission into 3G allocation process around Europe, identified that infrastructure sharing was either encouraged or obligatory in ten of the 15 European countries they examined.

*(iii) Unsubstantiated assertions*

The Gilbert + Tobin report contains statements which are speculative in their nature and also makes statements which the report does not attempt to support with evidence. Typically these statements are introduced by a broad generalisation, followed by a series of facts which do not demonstrate the assertion. For example:

- G+T say that there is “*growing international acceptance* that facilities-sharing will develop of its own accord”. While there are plenty of examples of voluntary facilities-sharing, we do not believe this statement is necessarily correct - the European regime still allows for mandated facilities sharing. Regardless, it does not in any event impact directly on the questions of policy on facilities-sharing in the context of new spectrum allocations. This is because the incentives for facilities sharing are quite different as between
  - On the one hand established players with something to offer each other (i.e. mutual sharing); and
  - On the other hand, an established network player and a new entrant (because the entrant has no sites to offer up front; and the established player has an economic incentive to restrict ease of market entry).

In the first case, one might legitimately anticipate that voluntary facilities sharing will develop; in the second, the opposite is true.

- On roaming: “There is *increasing recognition that* in the absence of regulatory intervention, market-based roaming arrangements develop through normal commercial negotiations.” The same points apply here as in relation to facilities sharing - pointing to voluntary roaming arrangements between incumbents is irrelevant when considering incentives for incumbents to roam with new entrants. (See section (iv) below.)
- On consumer benefits: “International experience shows that favouring a new entrant *does not usually* result in sustainable, pro-consumer outcomes;” [there is no attempt to measure consumer welfare gains empirically];

- On technological developments: “*In our view*, increasing convergence of technologies is already a market force which causes increased competition for spectrum resources, and provides new ways for new entrants to enter the market.” There is truth behind this idea as a generality, but it is not particularly germane to the issues at hand here, which relate to specific problems in specific markets. So G+T say that “wireless broadband is competitive with DSL broadband” which is very unlikely to be true in the technical sense (i.e. in terms of a SSNIP test) and in any event would only be one way substitution because DSL broadband by definition is not mobile. Indeed if the proposition were true in the sense which it is intended by G+T, it would presumably also mean that the spectrum on offer here had little or no market value.

*(iv) National Roaming*

The thrust of Gilbert + Tobin’s submission seems to be that mandated national roaming will not always be necessary and in some cases is actively a bad idea. However, G+T do not adduce any really compelling arguments in support of this and, indeed, in this area their submission seems to lack real conviction.

The point, for example, is made that in some cases regulators had taken backstop powers but that it had not proven necessary to use the powers. This, of course, is not an argument against the granting of such powers - because there is no way of measuring the counterfactual scenario: would the incumbent player have signed up to a national roaming agreement in the absence of such a backstop power?

It is worth noting, again, that the presence of roaming agreements between incumbents with some overlap but also with some non-overlapping network coverage is, of course, meaningless<sup>3</sup>. Those players have an active incentive to reach roaming agreements (i.e. so that their customers can make and receive calls in areas outside their own coverage) and each operator has something to sell to the other. This is quite different from a situation where a new entrant without any material coverage wants to buy roaming from an incumbent. In that scenario, the new entrant has nothing to sell to the incumbent; and the incumbent’s logical incentive is likely to be to block entry if possible.

G+T make the statement that “in any environment where roaming is mandated, there is the risk that it will in fact act as a disincentive for the new entrant to build its own network infrastructure. There is the risk that a new entrant will simply resell services...”. This ought only to be a risk where the process is not designed properly (i.e. where roaming is granted at excessively cheap rates or otherwise on favourable

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<sup>3</sup> As in the US, cf paragraph 5.2(h) of the G+T report, and in Canada

terms) and where the spectrum is cheap. The risk can be avoided by giving thought to the auction design and the roaming rules.

G+T adduce the example of One.tel in Australia - but they themselves point out that, while this generated problems for Telstra, it was a specifically 2G/2G problem and not directly relevant to the 3G situation.

All of these facts lead us to suspect that G+T recognises that national roaming will be a useful, justifiable measure as a measure to facilitate new entry in many cases. They even go so far as to say:

*“Regulatory intervention, if clearly needed, is best used as a regulatory back stop rather than a pre-emptive measure.” [emphasis added]*

We agree that an obligation for national roaming should be a backstop *ex ante* power. In an ideal world, the mere existence of the power will act as sufficient incentive on the parties for a deal to be done without the need for regulatory intervention to set terms. If not - if it is not possible for the new entrant to reach a roaming deal at all - the regulator must have the option of mandating one. It is too important to be left to chance.

## 2. Reply to submissions by Crandall and Ingraham

This section deals with statements made in the Crandall / Ingraham submission on behalf of Telus; and also picks up certain other more general points.

The Crandall / Ingraham thesis on Europe generally, in outline, can be summarised thus:

- that the UK's measures to facilitate market entry served only to assist Hutchison to enter the market when Hutchison, as a massive multinational, could afford to enter anyway; and
- that market entry will often fail as evidenced by the experience in Germany and some other jurisdictions.

The first obvious point to note is that these positions are mutually exclusive. It cannot be true that "rich multinationals" will pay anything to enter markets if the outcome is likely to be failure. That aside, the assertions are not borne out by the evidence - which, in fact, tends to suggest the rather the opposite of what Crandall and Ingraham are arguing.

We deal with the UK and German markets in turn.

### *(i) Crandall / Ingraham comments on the UK 3G Auctions*

Crandall and Ingraham offer an admirable factual account of the UK auction which, in truth, supports the opposite argument to that which they are seeking to advance. In particular:

- They say that because TIW paid less per MHZ/pop than other licensees, that this was an inefficiency. In fact, it's likely that this is simply the efficient value of the spectrum for a new entrant (i.e. when discounting for the competitive advantages of incumbency enjoyed by the other successful bidders). Incumbents will necessarily value the spectrum more highly than new entrants because of the value of protecting their existing market share and the high fixed costs faced by new entrants in rolling out completely new networks.
- That Hutchison did not need a "subsidy" because it is a rich multinational. It probably true that Hutchison could have afforded a licence at the price it paid regardless of measures the UK took to facilitate market entry. However, it is unlikely that they would have wanted to in practice. After all, none of the other bidders (which included a number of massive companies) were prepared even to pay as much as Hutchison.
- They say that Hutchison is in fact not very successful in the UK market because it has fairly limited market share and "is not projected to turn a profit until 2008". The basic proposition is questionable and the authors do not adduce any real evidence to support it. In any event, the fact that the authors recognize that Hutchison is projected to turn a profit in 2008 implies that the entry is sustainable - in fact, this seems to us a very impressive financial

performance. As we observed in our first report in this proceeding, Hutchison has achieved significant leadership in 3G connections.

- It is claimed that Hutchison's entry has had little effect on competitive conditions on the following basis:

*"Because its late entry into the mobile marketplace put 3 at a disadvantage relative to its competitors, 3 has attempted to add subscribers and increase service revenues by providing additional services such as mobile Internet access on both wireless handsets and laptop computers."*

This seems an extremely odd position to take. In fact, the UK 3G auction was specifically designed to bring mobile data services to the market for the first time. Indeed, ideally new entrants will not just generate or add to price competition, but will actively innovate. The analysis - while again based on fact - is misguided because the authors have identified a positive development rather than a negative one.

In short, the Crandall / Ingraham analysis of the UK auction, while it starts with a sound view of the facts, reaches conclusions which are either not justified by those facts or

*(ii) Crandall / Ingraham comments on the German 3G auction*

The Crandall / Ingraham take on the German 3G auction - and on other European 3G auctions - is rather different. Indeed, the outcome of the German auction was quite different from that in the UK. The design allowed market entry but did not guarantee it; and, in the event, there were two new entrants. Also in the event, the two new entrants later exited the market. All this is identified correctly by Crandall and Ingraham.

It is true therefore that the German auction did ultimately achieve the intended result in the entry was not sustainable. However, Crandall and Ingraham fail to take account of two key facts:

- In failing to guarantee entry, the German auction design forced the entrants to bid against the incumbents, leading to an extreme version of "winners curse". In order to win, the new entrants were not only required to bid above other participants, but above incumbent participants who by definition should have valued the spectrum more highly.
- The German process (unlike the UK) allowed only very limited measures to facilitate market entry (e.g. facility sharing was merely encouraged).

Winner's curse is a theoretical possibility in any auction but is, of course more likely in the case of auctions where new entrants are required to bid against incumbents. In the case of the German auction the total revenue was greater than in the UK; but the price per MHz pop slightly lower. It is possible that this gave the incumbents in the German auction (which happened shortly after the UK auction) to sufficient

information to be able to estimate the prices new entrants were prepared to pay; and shape their own bidding patterns to the point where there was market entry; but where new entrants would achieve little.

In any event, it is these factors which likely explain the failure of market entry in Germany; as against its continuing success in the UK, where much more active measures were taken to facilitate market entry. In other words, if there is new entry in the absence of appropriate measures - such as national roaming - any new entrants are much less likely to succeed. The German experience, therefore, speaks loudly of the need to encourage market entry, rather than to block it.

*(iii) Other comments*

Crandall and Ingraham comment briefly on other European 3G auctions (Austria and Switzerland). This section responds to some of their analysis and also to a perspective which they share with Gilbert + Tobin.

The Crandall / Ingraham take on the Austrian and Swiss auctions is that all things being equal “new entrants into wireless markets are often prone to failure” but that this will not always be the case. They go on to point out that this can be a waste of spectrum. Of course, new entrants will sometimes fail in mobile markets as in other sectors of the economy. The key element is to ensure that efficient mechanisms allow spectrum to be used in the event that new entrant players exit the markets. This can easily be done in a way which does not allow spectrum speculation.

We would observe also that that the comparatively high incidence of new entrant failure in these markets correlates - as observed by Crandall and Ingraham - with an absence of measure to facilitate new entry. This implies a greater, rather than a lesser, need for such measures.

A similar idea is suggested by Gilbert + Tobin who list a number of spectrum allocation processes where the number of participants was lower than the number of spectrum packages on offer. This is apparently intended to give rise to an inference against measures designed to facilitate new market entry. This, of course, does not follow logically. It is self evident that not all allocation processes will be attractive; and there is a number of reasons why that should be the case. Only in one case (that of Hong Kong) do G+T attempt to draw a causative link between measures designed to facilitate entry and lack of interest in the auction; and even in this case there is no concerted attempt to prove the link (by, for example, assessing other factors which might have accounted for the lack of interest)<sup>4</sup>. In general, measures designed to facilitate market entry are likely to make the spectrum more attractive rather than less.

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<sup>4</sup> The footnote in the G+T report relating to the Hong Kong process leads to an empty page

### 3. Conclusions

This is a reply submission, and we have attempted to respond to some of the arguments put by other parties in respect of the international experience of spectrum auctions. We have not found them compelling; they are undermined by errors of fact and of interpretation. Our view remains that measures to facilitate market entry in spectrum auctions - in particular, ensuring that spectrum is reserved for new entrants in the auction itself, and providing support through measures such as national roaming - are to be encouraged.

The UK's experience of such measures, in particular, has been nothing but positive. The UK's approach has been remarkably consistent - to encourage market entry wherever possible. In the UK's PCS 1800 spectrum allocation process, the UK excluded incumbents from participating *at all* - resulting in a highly competitive market with four genuinely national competitors of roughly equal market shares. In the 3G auction, the new entrant has achieved significant success and the UK has been named by the European Commission as one of the European markets with high 3G penetration<sup>5</sup>. The UK has continued its entrant-friendly policy in the GSM / DECT guardband auction.

In short, our view is that international experience, especially in the UK, speaks loudly of the need both to encourage market entry and to ensure that appropriate measures are in place to facilitate that entry.

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<sup>5</sup> See the European Commissions 12<sup>th</sup> implementation report, March 2007; the other markets named were Italy, Portugal, Luxembourg, Ireland, Sweden. Of these, Italy - another market with a new entrant has the highest 3G penetration; the others are comparatively small markets.