Response to IDA's Consultation Paper on the Implementation of Calling Party Pays (CPP) for Mobile Networks in Singapore

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I find Singapore IDA's proposal to migrate from a mobile party pays (MPP) cellular charging regime to a CPP regime to be curious and somewhat misguided. The motivations for such a drastic change are not entirely clear, and the Singaporean public would be well-served by a clarification from IDA itself regarding the motivations and the perceived potential benefits of such an action.

IDA's consultation paper does give some hints as to why CPP is under consideration, for example, because there is a perception that "everyone else is doing it" and because of issues with Singapore's fixed-mobile interconnect (FMI) settlement structure.

These points - and others - are discussed in the following sections:

- Analysis of possible motivations for migrating to CPP
- Socio-political arguments for MPP
- Market and competitive arguments for MPP
- Practical arguments for MPP

These arguments are based upon the following resolution:

MPP is the fairest, most understandable, most practical, and most forward-looking charging regime for current and next-generation mobile wireless services.

Analysis of possible motivations for migrating to CPP

"Everyone else is doing it"

Annex 1 of IDA's consultation paper implies that "everyone else is doing it" is a significant motivator for changing to CPP. Unfortunately, Annex 1 is undeniably misleading. By observing tallies of MPP/CPP *countries* rather than *subscribers*, readers do not get an accurate view of just how much of the world utilises MPP. China and the USA have the two largest mobile subscriber bases in the world, with over 120 million subscribers each, together accounting for nearly 1/3 of the world's mobile subscribership. Both countries use MPP. In total, some 40% of the world's mobile subscribers use MPP. Thus, the implication that "everyone else is doing it" does not reflect the statistics.

To simplify and rationalise Singapore's FMI regime

The consultation paper notes that while facilities-based operators (FBOs) in Singapore pay for the costs on "their side" of the point of interconnect, mobile operators are responsible for the entire cost of their interconnect links. Further, Annex 2 details situations in which mobile networks are not able recover call termination charges from originating networks, simply because the terminating network is a mobile network. The implication is that this situation is confusing and unfair.

It is not clear why mobile CPP is necessary to solve this problem. Simple changes in policy could rectify any confusion or perceived unfairness *without the need to move to a calling party pays regime* on the mobile side. It would be easy enough to allow mobile networks to recover call termination charges from originating networks. Originating networks, in turn, could recover these costs from their subscribers. Simply, complexity and fairness issues surrounding network interconnect should be addressed through appropriate interconnect policy, not by changing mobile charging regimes.

Moreover, mobile operators *relish* call termination attempts -they don't shun them - as every connected call results in billable minutes (at rates much higher than fixed-line rates). It is wrong to assert that mobile operators are getting a "raw deal" by not being able to recover a termination charge from originating operators.

To prepare for next-generation wireless services

IDA's interest in the take-up of next-generation (so-called "2.5G" and "3G") wireless services in Singapore again is difficult to understand. Singaporeans would be better equipped to comment on the MPP vs. CPP issue if IDA were to provide clarity surrounding its concern over Singapore's wireless data market penetration.

Further, Singaporeans would be well-served by an explanation as to why IDA believes (as is implied by the consultation paper) that MPP will inhibit wireless data

usage, especially given that fixed-line Internet users already are accustomed to paying for their own usage. That MPP would reduce the attractiveness of mobile data services is not obvious either to the layman or to the industry professional.

Notwithstanding these questions, mobile carriers globally will establish charging regimes and rates which maximise their return on next-generation investment. Carriers should be given the freedom to do this in Singapore, for it is the carriers - not the regulator - who know best what their subscribers want, and how to cover the costs of their investments.

CPP for next-generation wireless data also presents a number of technical and policy challenges which are addressed later in this document.

To harmonise fixed and mobile charging regimes

It is a common misconception, particularly in CPP countries, that MPP is logically out-of-step with local and long-distance charging regimes. The thought is that since fixed-line charging regimes are almost exclusively CPP, then cellular regimes should be as well. This is flawed thinking. Firstly, *all* called parties - local, long-distance, and mobile - *do* pay for their incoming calls via their basic monthly service charges. In other words, just because called parties do not pay explicit per-minute charges does *not* mean that they pay nothing for incoming calls. A number of additional counter-arguments apply as well, as follows.

In these scenarios - local fixed, long-distance fixed, and mobile - it is important to examine the beneficiary of the services, for indeed the beneficiary should be responsible for the incurred costs. For a local call, clearly the calling party is the primary beneficiary since he does not have to travel to the called party's location in order to communicate.

A similar argument applies to long-distance calling, with the additional point that a hypothetical long-distance "called-party pays" regime is impracticable (as it would require complex settlement processes between international carriers) and unfair (as the called party would have no idea of or control over his spending). This latter point is highly relevant in the mobile world, in which CPP regimes prevent calling parties from knowing how much they are spending when calling mobile parities.

Mobile phone users are the primary beneficiaries of their mobility. (This point is treated in detail below.) It is absolutely logically consistent for mobile phone services to be charged with an MPP regime, with local and long-distance services charged with a CPP regime.

To give consumers more "control" over their spending

It has been argued that CPP gives mobile users more "control" over their spending. A common illustration is that of the "wrong number" call. Under a CPP regime, the

(mobile) called party would not be liable for a wrongly-dialled incoming call, whereas under a MPP regime, the called party would have his "pocket picked" by the erroneous caller.

This is antiquated and flawed logic. Called parties *always* have the option of rejecting incoming calls. Moreover, these days, virtually all mobile carriers world-wide provide calling line ID free of charge to their subscribers. Called parties can choose to reject calls from unrecognised numbers or undesired callers.

Moreover, since callers who call mobile subscribers are not privy to the mobile subscribers' service plans, they have no idea how much they spend when calling mobile phones until they receive their monthly telecom bill. So it is actually *CPP*, *not* MPP, that reduces consumers' control over their telecom spending. This loss of control affects *all* telecom subscribers - fixed and wireless.

Socio-political arguments for MPP

Simply put, CPP is a relic of European socialism. At a macro level, CPP forces society as a whole to pay for a service - mobile telephony - enjoyed by a relatively fewer people. At a micro level, the cost burdens of mobile-terminated phone calls are shifted from the primary beneficiaries (mobile parties) to "innocent victims" (calling parties). These are the hallmarks of socialist policy and they are out of step with modern capitalism and liberal democracy. Modern, forward-looking regulatory policies require that the beneficiaries of a service pay for that service. A timely example of this modern thought is Singapore's Electronic Road Pricing (ERP) in which the beneficiaries of the service (use of congested roads during peak hours) bear the costs of that service. It would be inconsistent and unfortunate if Singapore abandoned this forward-thinking mentality and reverted to CPP for mobile phone services.

Some might argue that the *calling* party - not the mobile party - is the primary beneficiary of a mobile terminated call. This is nonsense. People use mobile phones primarily because they *want* to be reachable; they *want* to receive calls. (This is obvious from the quickness with which Singaporeans answer their ringing cell phones!) If mobile users did not want to receive phone calls, they would simply keep their phones switched off, or abandon their phones altogether in favour of pay phones. There can be no doubt that the primary beneficiaries of mobile phones are the mobile users themselves.

Finally, it is enlightening to ponder the likely calling behaviour of Singaporeans after a migration from MPP to CPP. It is commonly accepted that Singaporeans are an extraordinarily price-sensitive group. Since fixed-line and mobile calling parties do not expect to have to pay for the mobile called party's airtime costs, they would reject having to pay "twice" under a CPP regime (once for their own origination, once for the mobile party). The likely outcome would be that calling parties simply refuse to call mobile parties, either by choosing not to call at all, or by calling the mobile party's fixed line number and leaving a message, or by contacting the mobile party via short message service (SMS). Once subscribers are used to MPP, it is difficult to convince them of the merits of CPP (see blow). Thus, CPP might actually *reduce* mobile phone usage in Singapore, which seems to run contrary one of IDA's implied motivations for considering CPP in the first place.

Market and competitive arguments for MPP

Those unfamiliar with CPP might not appreciate the extent to which CPP enhances the dominance of a country's market leader. Invariably in CPP countries, mobile carriers offer significant discounts on mobile-to-mobile calls made between their own subscribers, in some cases only levying a "single" charge for such calls. As a result, social groups (families, friends, companies) tend to gravitate to the same mobile carrier to achieve the maximum cost savings on their most frequently-made calls. Interconnections between social groups imply that - over time -a large portion of the mobile subscribership gravitates to a single carrier. The most profound example of this migration in progress is NTT DoCoMo which has seized nearly 60% of the market in Japan, due in no small part to mobile-to-mobile discounts. Other examples include SKTelecom in Korea and Vodafone in Europe.

In sum, CPP ultimately produces an anti-competitive environment and opens the door for abuse on the part of the dominant mobile operator.

Practical arguments for MPP

Consumers who are used to MPP will resist CPP

As mentioned previously, CPP is resisted by mobile subscribers in countries which have traditionally used MPP. Once telecom users (both fixed and mobile) are of the mindset that mobile users should pay for their own services, it is extremely challenging to convince them otherwise. For example, in the US, Verizon (a nation-wide cellular carrier) has performed field tests of mobile CPP which were utter failures due to market resistance. Again, adoption of CPP in Singapore might actually *reduce* mobile phone usage.

CPP increases consumer confusion regarding telecoms bills

CPP creates confusion amongst all telecom bill payers, both fixed and mobile. There is no way for a calling party to know the rate he is paying for a mobile-terminated call, as there are numerous different cellular carriers and rate plans from which the mobile users can choose, with wildly varying per-minute rates. Thus, every monthly statement - for both fixed and mobile users - is a surprise. There are numerous additional questions arising from CPP which will confuse calling parties, such as:

- If a mobile user subscribes to a package with "free" minutes each month, then do calling parties receive the benefit of these "free" minutes? If not, then what rate do calling parties pay?
- Will there be different rates for calling parties for peak and off-peak periods? If so, what rates apply if different mobile carriers define their peak and off-peak periods differently (e.g., carrier A defines "peak" hours to be 9 AM-7 PM, while carrier B defines peak as 8 AM-6 PM)? Are calling parties expected to keep abreast of peak/off-peak hours for the various mobile carriers?
- Will different billing quanta apply to calling parties? Some mobile carriers offer their subscribers a per-minute billing quantum, some offer a per-six-second block quantum, and some offer a per-second quantum. Are calling parties expected to keep abreast of billing quanta for the various mobile carriers?

One way to deal with these points is to have a uniform set of billing parameters which applies to all callers of mobile parities. While this would reduce confusion, it is a poor solution overall. It would harm consumers by artificially maintaining price levels (carriers would not be able to reduce their prices to obtain competitive advantage) and by reducing choice (carriers would not be free to construct rate plans as they see fit).

CPP is intractable for wireless data services

The Internet is very dissimilar to telephony in that it is difficult to define exactly who the calling party is, or to distinguish clearly between "pulled" and "pushed"

information. Further, Internet infrastructure simply does not have the billing mechanisms needed to realise CPP. Consider the following examples.

Example #1: Party A (an Internet user) sends party B (a wireless e-mail user) an e-mail. This message is transmitted from *A*, to *A*'s e-mail server, to *B*'s e-mail server. There the message waits to be collected. At some point, *B* decides to check his e-mail. Using the e-mail client on his wireless device, he downloads the e-mail and reads it. In this situation, who is the calling party? *A* merely sent a message to *B*'s e-mail server. *A* has no control over exactly *how B* retrieves the mail (i.e., via a wired or wireless connection). Should *A* therefore bear the costs for this transaction? If so, how can he be billed using today's Internet infrastructure?

Example #2: A mobile user uses a web browser to contact a certain web site via a wireless network. Along with the requested page, the web server delivers a "pop-up" web page (e.g., an advertisement). Should the user be liable for the entire transaction (since he "pulled" the original page) or should the server be liable for the pop-up (since the pop-up was "pushed")? The boundary between the pulled and pushed information is not clear. Further, the technology to the push/pull determination in real-time and to bill both parties simply does not exist.

If the calling party cannot be clearly identified - and if data cannot be clearly separated into "pulled" and "pushed" - it is simply impossible to implement a calling party pays regime for wireless data. Further, it is logically inconsistent to implement MPP for mobile data and CPP for mobile voice, just because it's too challenging to implement CPP for data. The only logical and internally consistent solution is MPP for both voice and data.

Conclusion

The evidence is overwhelming. A mobile party pays regime is the fairest, clearest, most practical, and most modern tariffing system for mobile wireless services, both present and future.

IDA should **not** change Singapore's MPP regime.

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