Fixed-Mobile Convergence in Hong Kong

10th October 2006

K-2 Suite, Pacific Place Conference Centre
Level 5, One Pacific Place,
88 Queensway, HK

Session One - 2.00pm – 3.30pm:
Keynote speakers (20 minutes each)
M.H.Au, Director General OFTA – Time to Deregulate FMC?
Jeremy Godfrey, Partner, PA Consulting – The Right and Wrong Way towards FMC
John Ure, Director of the TRP – Pay PNETS, Get Monkeys?

3.30pm- 4.00pm: Coffee break

Session Two - 4.00pm-5.30pm:
Speakers: (15 minutes each)
Stuart Chiron, Director of Regulatory Affairs, PCCW - View 1
Richard Midgett, Director of International and Wholesale, CSL - View 2
Panel Discussion: Ricky Chau (GM, Carrier Development and Hosted Applications, NWT), CSL, PCCW, Jeremy Godfrey, Simon Chan (Chair, HKTUG).

Executive Summary:

Session One

1. **Mr M.H.Au, Director General of OFTA**, opens the forum with a legal disclaimer that the views being expressed are to stimulate consultation and do not represent any conclusions on the part of OFTA. 'So you cannot say that because I express a view or make a proposal, I have already made up my mind and that is a prejudgment or predeterimination.' [*Over recent years litigation has almost become the norm in Hong Kong in the telecoms sector, reflecting the strength of the SAR's rule of law on the one hand and on the other the sensitivity of the commercial environment to the regulatory environment in a highly competitive market. Shortly after this forum, PCCW filed for a judicial review of OFTA's approach to FMC – Editor*]. OFTA's job is not to ensure FMC happens but to remove any obstruction to developments in the market. Why then conduct this consultation so early? The answer is to remove regulatory risk from investment decisions. Mr Au reminds us that early in 2006 a group of operators objected to OFTA proposing the licensing of BWA ahead of clarification of regulations, especially with regard to spectrum. Using the same logic, 'that's the reason why we have to do it now…'

2. Perhaps the most controversial, and certainly the most convoluted, of Mr Au's statements relate to the 'methodology' of the discussion. In respect to fixed-mobile interconnection whereby the mobile party pays in both directions according the PNETS licensing conditions, Mr Au explains its historical context some twenty years ago. To maintain the *status quo,* he argues is to maintain regulatory intervention, whereas to withdraw regulatory intervention is not in and of itself another form of regulatory intervention as some OFTA critics might claim. Of course, the withdrawal of regulatory intervention may have consequences, but these are the consequences of allowing the market to operate not of regulation. [*The complication arises, of course, insofar as the starting point of any market adjustments is the outcome of the regulation which is about to be withdrawn. In other words, adjustments are consequences of the withdrawal of regulation and arguably this could be seen as regulatory risk. On the other hand, after 20 years and many changes within the industry, it is to be expected that regulations become outdated sooner or later by developments in the market, in which case is the risk really regulatory? - Editor*]

3. OFTA's position, expressed in the Consultation Paper and the Consultancy Report by Ovum, is that only if there are good prior reasons to believe that market failure will follow the withdrawal of regulation should regulation be continued in some form or other. OFTA cannot see any evidence of pending market failure and considers the onus to show otherwise falls upon those who object to the withdrawal of regulation. 'So the question should not be: the market seems to be working effectively with regulation and therefore you better not touch the regulation, keep the regulation, because the market with regulation is working effectively. Then there's no need to remove the regulation. I think this logic is extremely questionable. If you apply the same logic to regulation of the retail prices of PCCW two years ago, you can think about what sort of conclusion will we reach?' The burden of proof, says OFTA, should be 'always on the party advocating regulation… And the basis of proof would be the standard proof: the market alone fails to deliver the public interest and regulation can do better.'

4. Following the withdrawal of regulation, network operators will be free to negotiate their own commercial interconnection agreements. OFTA's 'base line is that we must maintain the any-to-any connectivity.' [*Critics see this as regulatory intervention which will influence or distort market-driven commercial agreements. See below – Editor*] Otherwise 'regulatory intervention under section 36A of the Telecommunications Ordinance should only be used as a last resort.' And in terms of consumer interests, OFTA sees 'some room for consumer savings' for users of mobile arising from changes in interconnection arrangements and for fixed line users changes in prices will be largely determined by the degree of competition. [*Competition between fixed line operators for market share, and fixed-mobile substitution – Editor*] Ovum's estimate of consumer benefits was $4.5 billion if the introduction of FMC and the withdrawal of the current network charging arrangement took place over a 2 year transition period.

5. Regards time-based or usage-based pricing, Mr Au points out that since the end of 2001 there has been no regulatory constraint in this area. [*If traffic-sensitive costs are minimal in a digital and especially in an NGN world, the rationale for time-based and even many usage-based charges is difficult to sustain on purely economic grounds – Editor*] Mr Au points out that time-based network charges has not led to time-based retail prices, so changes in the one do not have a direct bearing on the other.

6. **Jeremy Godfrey (Partner, PA Consulting**) takes a critical view of OFTA's approach, essentially arguing that OFTA has the cart before the horse despite MH's assertion that OFTA is trying to reduce regulatory (and investor) risk. Jeremy also makes it clear that PA Consulting has been engaged by PCCW to advise them on approaches to economic analysis concerning FMC, but stresses he is giving his personal view which is that 'the proposed regulation intervention must be

demonstrably better than the alternatives' and that 'there is always more than one possible regulatory intervention.'

7. There are really two key elements to Jeremy's arguments. First, that withdrawal of regulation is itself a regulatory decision and only one of several possible regulatory decisions, and second, that making a case for any one of these possible regulatory decisions needs the back up of not just a qualitative analysis which states, for example, that there would seem to be no market failure in sight, but of a detailed quantitative analysis that examines the likely outcomes of different courses of action. And this has not been adequately done, therefore the implied conclusion of OFTA that withdrawing the fixed-mobile interconnection charge will clear the way for the market to bring about consumer benefits is as yet unsupported by sufficient analysis. For example, the analysis of Ovum in the review paper is only focused on voice traffic (Jeremy considers the $4.5 billion figure as 'quite unlikely') but the traffic composition of the industry is changing and it is not clear, without simulating in a detailed way different scenarios with their assumptions subjected to sensitivity tests, what the benefits to consumers would be if alternative paths were taken. Jeremy's point is that OFTA has, by asserting any-to-any connectivity, effectively pre-determined the future course of development in the industry because companies negotiating with PCCW will always know they can just wait it out until OFTA finally intervenes. Jeremy calls this a form of 'market failure' brought about by regulatory intervention. [*The alternative paths would here include the outcomes of commercial negotiations which are not backed by an OFTA declaration of any-to-any connectivity, in other words, not backed by the likelihood of OFTA intervening in cases where negotiations failed – editor*] Jeremy notes that the Internet market is any-to-any without ever having regulatory intervention. Jeremy predicts 'what will happen if we go down this route is we'll go 18 months, there won't be any commercial agreements, then MH will come in and need to issue section 36A determinations, and when he's done the first one people will know what the guidance is for the others.'

8. **John Ure (Director of the Telecom Research Project at the HKU)** sees FMC as a boundary issue. Boundaries exist between regulated and non-regulated sectors, between sectors regulated differently, and within an industry between, in this case, fixed and mobile services. From a commercial perspective, a common error is to confuse technological convergence (everything transmitted down the same pipe or received over the same access device) with business synergies (where, for example, carriage and content are in different realms requiring different investment profiles, different business models, different core competences, etc). 3G is a good example of the telecoms sector still not understanding the world of the Internet (the 'closed garden model' versus open Internet communities). FMC raises similar issues insofar as different business models are being used and the future promise of FMC services arising from FMC networks opens up issues of Web-based business models. In this regard, fixed-mobile interconnection charges clearly threaten to become an obstacle unless resolved early on.

9. If FMC is seen as a broadband issue (and if it is marketed that way, for example if voice is 'bundled' into access charges), in other words it is really BWC, interconnection is more or less guaranteed through the Internet. In this perspective, looking forward, the range of wireless applications is enormous, from near field communications (NFC, for example RFID) to powerful long range communications using WiMax and satellite, and FMC is just the start of a new era in which voice will remain an essential feature generating utility-like returns, existing 'trivial pursuits' such as ringtones, texting and video clips will produce non-trivial revenues, 'community' web-based services will offer new business models (of which advertising is currently the most talked about) and exotic new services and applications will be the high-risk-return items.

10. The problem Hong Kong faces is a legacy issue. The PNETS fixed-mobile network charges were always dodgy from an economics point of view. When they were introduced, mobile traffic was small and in a digital telephone system traffic-sensitive costs were low. By the time mobile traffic was equal to fixed, the technology had advanced to the stage where traffic-sensitive costs were effectively zero and mobile was now adding value to the fixed line networks (more people to call) so any costs to the fixed network should have been reflected in the fixed line rentals, not passed on to the retail price of mobile access. Also PNETS charges are calculated on full distributed cost, unlike fixed-fixed network charges which are based on LRAIC. This means mobile networks contribute to the overheads of the fixed networks which is not economically efficient. The essential point is that FDC-based fixed-mobile network charges give no incentive to PCCW to renegotiate. What these charges should be replaced with is up to market negotiations. Oven recommends BAK ('Bill and Keep') but other charging mechanisms will also work, such as calling party pays. John notes that Ovum's argument that CPP discourages calling in Europe doesn't have much bearing on Hong Kong where MPP has been in use throughout the period.

11. John raises a further issue that the consultation paper rather ignores or leaves to one side, number portability. At least one operator (Smartone) has a fixed wireless carrier licence. FMNP would offer an opportunity for holders of FWA licences (and of BWA when it eventually is licensed) to leverage FMC to offer competing fixed line services without having to build a wired network. There is divided evidence whether consumers would ever want personal numbers which replace separate fixed and mobile numbers, but FMNP would certainly up the ante of competition in the local access market.

12. Participant from the audience makes the point that PBX's can now route messages to email addresses and it is now possible to buy a telephone number from abroad, and the trend will be for people to replace numbers with names, for example Skype. Mr MH Au refers to a discussion with operators about two years ago. It seemed that there was not yet widespread interest in names rather than numbers, and that is why number portability remains an important consumer issue.

13. **Mr M.H.Au** goes on to remind us that withdrawing regulation does not imply new regulation. For example, OFTA has not come to any opinion about BAK and unless and until a failure to negotiate an interconnection agreement arose, OFTA would not be obliged to take a view, so 'Jeremy's presentation is relevant but only when we need to decide that we need to impose a particular regulatory option, for example Bill and Keep'. **Jeremy Godfrey** responds by pointing out that to mandate any-to-any is already a regulatory intervention and 'I think you make it much more likely rather than less likely that those negotiations will end in stalemate.' If 'the public interest requires that to be imposed, then first of all it needs to be demonstrated that that will be better than having no regulation whatsoever. Secondly, it needs to be demonstrated that that is the best regulatory option.'

Session Two

14. **Richard Midgett (Director of International and Wholesale, CSL**) opens Session Two with a focus on the interconnection issue, pointing out that mobile operators are on a peer with fixed operators and have far more subscribers, and this calls for a 'realignment' to be put in place, indeed Hong Kong needs to catch up with other jurisdictions. Richard points to the asymmetry in the interconnection arrangements which should be replaced, but with what is a matter of debate. Echoing the point made by MH, because there is no direct link between wholesale charging principles (traffic-based) and retail charging principle (flat

rate) there is considerable scope for different network charging principles. Since Hong Kong already has a form of CPP that remains one option.

15. Richard points out also that although in theory mobile operators have symmetry with fixed in being able to collect a local access charge for incoming international calls, because 'this is not as succinctly defined in statements or guidelines that already exist, it has been extremely problematic for mobile operators to assert this right.' So in effect the situation is asymmetric. Another asymmetry is 'rights of access' to public and private land. It is not good enough to say wireless can cross boundaries because 'there's a huge demand for us to be able to serve our customers who are inside buildings.' [*Also see reference to fixed wireless access licences above – Editor*].

16. So are rights over number portability. The databases are maintained by the fixed line operators and 'we end up paying for this in transit charges because we are unable to ascertain completely where the fixed-line numbers are going to end up. So we pay for not having access to this information.' So going forward 'we would be looking for, as a fundamental aspect of number portability, that both fixed and mobile operators have the same rights and obligations with respect to number portability.' This also affects future decisions about whether to merge the two sets of numbers. 'If you have a cross-over service, how do you classify it? Is it fixed or is it mobile? This indeed is what's drawing many jurisdictions, notably the ones mentioned, Japan, Korea and places like this, in looking at how to merge their numbering plans.'

17. Looking forward, Richard approves of the idea of unified licensing, but with caveats. One is that it should not import existing asymmetries. It should be genuinely technology-neutral and carriers free to choose the most appropriate technologies for the services they wish to provide. On timescale, Richard believes the sooner the better, not least because mobile network face thin margins and their ability to invest in innovation is not so long lasting. However 'we're quite clear in our own minds that there's no way you could licence a spectrum which is clearly a crossover technology unless you have the fundamentals right first.' Richard hopes OFTA will use a light handed approach to allow commercial negotiations to achieve as much as possible. Yes, the 'any-to-any' requirement 'will affect how parties negotiate' but 'the alternative, quite clearly, is far less palatable, because it would be extremely challenging and brave to take a position that we should throw it wide open and ask the public to be prepared for significant disruption in services that they certainly enjoy at this point.'

18. **Stuart Chiron (Director of Regulatory Affairs, PCCW**) is speaking on behalf of the ***sponsor of this forum***. His opening shot across OFTA's bows is 'that nothing I present here should give anybody the view that PCCW views this consultation to be lawful.' Stuart pays tribute to both OFTA and the market in creating such a healthy mobile sector which means 'the status quo is working, it is not a *per se* or obvious market failure.' Taking up Jeremy's theme, Stuart asks what, if there is change in the regulation, will be the effects on retail prices, on investment, what impact upon the public interest? The analysis has not been done. But then, Stuart objects that OFTA is telling its critics that the burden of proof falls up them to 'have a set of crystal balls to be able to forecast somehow into the future that there'll be market failure' rather than upon OFTA to do the analysis.

19. Stuart reminds us of two historically important documents, the 1996 consultation that regulated tariffs would remain flat-rated and the 1998 Framework Agreement that did away with the international monopoly and opened the door to tariff rebalancing but 'there's not one word in there about user-sensitive charges are ok. Why? Because they're not. Because that structure of rates was already decided in 1996.' Stuart is making the point that in the 1996 rate structure, PNETS charges were excluded because they were

already covered under MPP, so if PCCW is to introduced user-sensitive retail prices in the future (which it has the right to do) these would need to take into account any changes in the PNETS charging arrangements resulting from changes in OFTA's regulatory stance. The implication being that this data needs to enter an analysis of the effects on the public interest of any change in OFTA's regulatory stance.

20. Stuart characterizes the CP as asserting (a) asymmetries exist in the network charging arrangements, and (b) these arrangements are a hindrance to FMC. 'I think OFTA is wrong on both counts.' On asymmetry: 'What's happening is that the mobile companies charge retail in both directions and they pay interconnection in both directions. That's extremely symmetrical. Those who get the revenue pay the costs.' On hindrance: 'If you look at fixed-mobile substitutability it's the highest in the world. In the Ovum report, they said 1.05 was the ratio between fixed and mobile services in terms of their retail rates; that's the lowest in the world. So to say that it's hindering: nice catchy phrase; unrelated to the facts.' Stuart argues that FMC is more than just voice, or bundling or arbitrage, in reality 'FMC is more dependent on standards, on technology, on long-term user requirements, planned upgrades to NGN… It's ironic that the proposed changes will obviously distort the ability of entities to invest in NGN, which in turn brings you FMC.' So the implication is that OFTA's proposals would constitute the hindrance. 'Analytically look at the possible consequences of any proposed withdrawal. That's the key… instead of taking a look at the impact of regulatory withdrawal on all the real parts of it – rates, investment, innovation, quality, coverage, all these things – instead of doing that, they just says "Oops, it's a distortion so we withdraw it.".''

21. On the issue of LAC, Stuart shows little pity for mobile operators who fail to collect it, pointing out they still manage to sell the airtime, but his real concern about the idea that LAC may have to go is that it is cost-related and the beneficiaries will be overseas operators. [*But if local access can be provided by many new technologies, what standard of cost is to be used for the future? – Editor*] And on timescale Stuart suggests consistency with the withdrawal of Type II interconnection which over 4 years involved an estimated $330 million. Removal of LAC over 3 years would, on PCCW estimates, cost $220 million. Drawing upon these examples, Stuart argues the equivalent would be 7-8 years for withdrawal of MPP and 3-4 years for withdrawal of LAC.

22. Finally, on 'any-to-any' Stuart argues that the onus should be on OFTA to show good reason to expect market failure before asserting any-to-any rather than 'under an abundance of caution' OFTA deciding *ex ante* it is in the public interest. But an any-to-any licence condition may be 'unlawful anyway but we won't know until we see you in court.' [*A court case was filed a few days after this forum – Editor*]

23. **Simon Chan (Chair, HKTUG**) is the first panelist to speak. While issues of FM interconnection are not of much concern to users, the implications for prices and quality of services and scope of services are of great interest. So the main immediate concern is that the fixed line network operators do not impose surcharges, for example when you make an overseas call by mobile phone. 'The problem for a lot of IT and telecom managers is the company gives us a fixed budget. Every year they expect it to be lower. So unless you really have some services or technology that can help the business, otherwise it's not going to get any more dollars.' Two other areas of concern. First, mobile uses time-based charges and fixed use flat rate, so what happens when they converge? Second, what will happen to numbering? 'So if you can have the leading digit of 9 going to a fixed network and vice versa, it's very confusing. We need to figure out what is the benefit of this before we try to go forward.' Simon also points out that HKTUG is a member of OFTA's advisory committee on numbering.

24.**Ricky Chau (GM, Carrier Development and Hosted Applications, NWT**) is the second panelist and expresses the view that 'the current interconnection regime really slows down the FMC development' because the issue of FMC is a business issue, not so much a technology issue. So the key question for the industry how will the proposed changes which would redistribute wealth away from fixed and towards mobile impact on the current service provided by the operator? For example would the mobile operators' savings be given back to the consumer? The industry really needs to address these issues.

25. **A Participant** raises a question about triple and quadruple play, and whether FMC will unduly benefit an incumbent such as PCCW, especially in regard to bundling of services. **Stuart Chiron** observes that although bundling does take place, it is not huge because 'bundling ordinarily implies discounts and with prices as low as they are, I don't think carriers are looking to discount further.' Basically, Stuart doesn't see FMC as posing anti-competition problems. On the contrary, **Richard Midgett** sees major disadvantages for operators who cannot offer the full range of services, but sees the first issue that FMC consultation should address is to rectify legacy problems, especially asymmetries in the FM interconnection arrangement. If mobile companies are cross-subsidizing fixed [*a reference to FDC-based network charges – Editor]* then FMC leaves standalone mobile companies at a considerable competitive disadvantage. He also gives as an example of bundling in a case where a subscription to a fixed line service entitled the customer to a free mobile service. 'Certainly we have no opportunity to compete against that. That's a pretty obvious cross-subsidy arrangement.' Further, as different crossover services emerge in the marketplace, asymmetries in the way fixed and mobile are treated by regulation will disadvantage mobile when a service designated as 'fixed' [*WiFi handsets? – Editor]* can compete directly with mobile. **Stuart's** response is if you have 'a concern about cross subsidy, file a complaint. If you're not a fixed carrier and you're not bundling, enter into a resale deal with a fixed carrier, buy one, get a licence. You have deep pockets now, you can do anything.' To which **Richard** responds 'You're confusing size with profitability.' 'Don't whine' says **Stuart**. [*All done in very good humour, the Chair telling them not to squabble – Editor*]

26. **Mr MH Au** points out in response to a question that the asymmetric interconnection arrangement between fixed and mobile only applies by regulation to PCCW and mobile interconnect and other fixed carriers can negotiate any other arrangement they like, but in practice they use the PNETS tariff as it applies to PCCW as a reference point. **Jeremy Godfrey** picks up this to reiterate his earlier point that the impact on the public interest of any changes to the regime should be thoroughly analyzed in terms of the regulatory alternatives before any changes are introduced. Stuart agrees. **Richard Midgett** stresses a different point, namely that telecom companies are evolving in the scope of types of services they are offering, and this needs to be recognized in the regulatory framework, so for example what range of services would and would not fall under the umbrella of a unified licence, and specifically with regard to mobile what range of rights would a unified licence convey in terms of access to buildings, rights of way to lay cables, to access additional spectrum, etc. For **Ricky Chau** the issue is less about regulation and more about core competencies and business decisions. 'It's a very competitive market. You have probably too many operators, fixed and mobile, in the market today.' The implication being that not everyone can or will do everything, even if regulations give them the rights. **Richard** agrees, but it is important that that choice is not barred by regulation.

27. **Patrick Chan (Executive Director of Smartone)** speaking from the audience expresses his disagreement with Stuart's content that the system is working well. The mobile network operators have been calling for an end to asymmetries for 10 years already, and there remain many barriers to effective competition, for example FMC without FMNP

restricts new entrants to compete effectively against incumbent fixed line operators [*while fixed line operators can use SIP and WiFi phones to compete against mobile another asymmetry? – Editor*] Patrick goes on to suggest that if the benefit to consumers as estimated by Ovum is $4.5 billion on a timescale of 2 years for the withdrawal of regulation of FM network charges, then the earlier the withdrawal the larger the benefit, so why wait?

28. **Mr MH Au** is given the floor to respond to some of the points raised. In addition to reiterating the burden of proof for market failure must fall upon those who oppose removing the regulation, he notes that government may propose extending spectrum utilization fees to all areas in which there are competing demands and may also consider the opportunity costs of road digging to lay ducts 'because this policy of charging no wayleave fee was actually a legacy of history in the times of monopoly days, Hong Kong Telecom being the monopoly operator had the wayleave fees waived.'

29. In a final roundup the panelists were asked what they considered the major drivers and constraints were to FMC. There was general consensus that the business issues were more relevant than the technology issues, and in this context the impact of regulatory changes is clearly a key immediate issue. For **Richard Midgett**, FMC is a given and going forward a far more important issue is 'how do you link exclusivity and content to competition in the access environment' [*in other words, do closed gardens work in a world of Web-based content? – Editor*]. For **Stuart Chiron** the drivers are simply markets, the constraints are two: 'One, is this consultation and the second is the litigation that will result from the consultation.' [*And that part of the story unfolds in 2007 – Editor*]