

**For Information
On 13 November 2006**

**Legislative Council Panel
on Information Technology and Broadcasting
Deregulation for Fixed-Mobile Convergence**

Purpose

This paper briefs Members on the public consultation paper issued by the Telecommunications Authority (TA) on 14 July 2006 concerning the need to review certain aspects of the existing telecommunications regulatory framework to cater for the development of fixed-mobile convergence.

Background

2. At present, there are two types of telecommunications services in the market, namely, fixed services and mobile services. Typical fixed services include the traditional fixed line services and broadband Internet access services. Mobile operators, on the other hand, offer the popular cellular mobile phone services. Traditionally, fixed and mobile services have been regulated under separate licensing regimes, with different licensing rights and obligations for the two groups of operators.

3. With dynamic market and technological developments, the distinctions between fixed and mobile networks and services are increasingly becoming blurred. This phenomenon is commonly referred to as Fixed Mobile Convergence (FMC). Today, mobile services have become a viable substitute for fixed services for some customers. Upgrading of third-generation (3G) mobile networks to the so-called “3.5G” standard will provide the mobile network operators with technical capability to provide broadband connections to customers not only on the move but also at fixed locations. Likewise, new broadband wireless access technologies such as WiMax will provide fixed network operators with the technical capability to serve customers not only at fixed locations but also while they move around. In a FMC environment, users can be served by one network and one service provider. They can be

reached through one number, receive one bill and stay in contact with one terminal irrespective of whether they are stationary or on the move. FMC is expected to bring innovation and convenience to customers.

4. The government has adopted a market-driven policy for the telecommunications industry. The convergence of fixed and mobile services is a technological development and operators will assess the market need to decide whether or not to introduce the service, and when to introduce the service. It is not for the TA to decide whether there should be FMC, or the extent or pace of it in Hong Kong. Rather, the future development of FMC should be decided by the market. The role of the TA is to ensure that the regulatory environment remains conducive to the emergence of FMC so that, if and when there is a market demand for FMC, operators will be able to introduce the service without unnecessary regulatory constraints and consumers can enjoy the innovation and benefits of FMC without delay. Therefore the TA must ensure that the competitive environment is fair, and to refrain from unnecessary regulatory intervention so that market forces can work effectively.

5. Continued differential regulatory treatments to the fixed network operators and the mobile network operators (see paragraph 13 below) may distort the level playing field and may not be sustainable in the long term. The TA, as the industry regulator, considers it necessary to review the current regulatory framework in order to facilitate technological applications, infrastructure investment, market development, and new services innovation for the benefit of industry as well as consumers in the FMC environment.

6. It was with this in mind that the TA initiated the first consultation on regulatory review for FMC on 21 September 2005. In this first consultation exercise on FMC, the TA invited comments from the industry on the implementation of a unified licensing regime and related issues. While some comments were received in the submissions regarding the detailed arrangements for the proposed unified licensing regime, quite a number of network operators suggested that the TA should review all substantive issues pertinent to FMC in a holistic manner. Otherwise, tackling the issues on a piecemeal basis would adversely affect investment decisions.

The Consultancy Study

7. In order to identify and assess the possible regulatory changes

necessitated by FMC, the TA commissioned a consultancy study in the first half of 2006. The consultant (“the Consultant”) identified a number of major asymmetries in the way in which the fixed network operators and the mobile network operators are regulated. OFTA circulated the consultancy report to the industry and organised a workshop for the industry in May 2006. The consultancy report¹ has subsequently been published for public information along with the second consultation exercise.

Second Public Consultation

8. Taking into consideration the recommendations of the Consultant, the feedback received from stakeholders and submissions to the first consultation paper, the TA issued a second consultation paper on 14 July 2006 (“Second Consultation Paper”) to consult the industry and the public on a number of deregulatory measures in the FMC environment. This consultation exercise was originally scheduled to end on 14 October 2006 but was subsequently extended to 27 October in response to the requests of certain industry players.

The Second Consultation Paper - Key Issues and Preliminary Proposal

9. The Second Consultation Paper identifies a number of key regulatory barriers to FMC and sets out preliminary views on how the issues should be tackled. Key issues include the following:

- i. Interconnection settlement arrangements between fixed networks and mobile networks;
- ii. Interconnection charges from service providers in accessing the fixed and mobile networks;
- iii. Licensing regime;
- iv. Number portability between fixed and mobile networks;
- v. Telephone numbering plan.

10. Among these issues, the more controversial issue is the interconnection settlement arrangement between fixed and mobile networks as it relates to a settlement cost of about \$600 million a year between the mobile and fixed operators. The preliminary proposal in the Second Consultation Paper is to rectify the asymmetry in the existing regulation between the fixed and mobile operators so that the regulatory environment will be conducive to

¹ The consultancy report entitled “Review of the Regulatory Framework for Fixed-Mobile Convergence in Hong Kong” by Ovum is published on the OFTA web site at <http://www.ofta.gov.hk>

investment in convergent technology and services to meet any such demand. The preliminary proposal on this issue is expected to have significant impacts on both operators and consumers. The other issues are expected to have a less significant impact.

11. The executive summary of the consultation paper is attached to this paper. A brief discussion of the key issues and TA's preliminary views are given in paragraphs 12-29 below.

Interconnection Settlement Arrangements

12. Interconnection among networks is required so that users connected to one network may communicate with users connected to another network. A key element of the terms and conditions of interconnection is the interconnection charge which one network operator pays to the other network operator for the cost involved in handling calls delivered over the interconnection. It is relevant to point out that this is a settlement charge between the operators, and is different from call charges that a network operator imposes on its customers.

13. The existing interconnection charging arrangement between fixed and mobile network operators is that mobile network operators pay to fixed network operators the usage charges for the interconnection between the respective networks irrespective of whether the call originated from the fixed or the mobile network. This arrangement, with the mobile network operators always paying the fixed network operator for both incoming and outgoing calls, is known as "Mobile Party's Network Pays" (MPNP). The payment by mobile network operators to fixed network operators under the existing interconnection settlement arrangement amounts to some HK\$600 million per annum.

14. Such an arrangement dated back to the early 1980's when mobile services were at their inception stage and were treated as premium value-added services. At the time, the tariff for local fixed telephony service was regulated in the form of a flat-rate monthly package, which was below operating cost, and the loss was cross-subsidised by the provision of the profitable international telephone service. On the other hand, the price of mobile services, then regarded as premium services, was not regulated from the very beginning. As mobile network operators charged their customers on a

per-minute basis, it was considered reasonable for the mobile network operators to pay the monopoly fixed network operator an interconnection charge, irrespective of whether a customer of the mobile network makes a call to, or receives a call from, a customer of the fixed network. If this asymmetric “Mobile Party’s Network Pays” arrangement had not been adopted at that time, the then franchised fixed network operator would have had to increase the flat monthly fees of its customers to cover the costs for carrying the calls to or from the mobile network operators.

15. However, as the market develops over the years, the factors underpinning the “Mobile Party’s Network Pays” arrangement in the early 1980’s have changed. Firstly, while the prices of fixed telephony services have been allowed to be increased to recover costs fully since 2001, the level of charges for mobile services has fallen substantially over the years. Secondly, though the volume-based mobile charges still exist theoretically, in practice the majority of customers pay flat-charges for call packages which more than fulfil their needs. Thirdly, the penetration rate of mobile service has well exceeded 100% of Hong Kong’s population and has surpassed the fixed service in November 1999. It is unsustainable to continue to treat mobile services as value-added services.

16. The “Mobile Party’s Network Pays” arrangement, even without considering the prospect of FMC, may in itself be a form of cross-subsidization from the mobile network industry to the fixed network industry, resulting in a tilted playing field for cross-platform competition between fixed and mobile services. Cross-subsidy between two groups of competing infrastructure investors is not sustainable in a competitive market.

17. Under the market-driven policy, it is an essential principle that regulatory interventions should only be maintained, in the case of existing interventions, or introduced, in the case of new ones, in the clear circumstances that market forces have failed, or are likely to fail, or there are other overriding factors. In principle, regulation should be imposed only when effective competition has not developed in the market and the market fails to achieve the desirable policy objectives. Now that effective competition has developed in the fixed and mobile markets, the need for the retention of the existing regulation needs to be critically reviewed.

18. The Consultant considers the current asymmetric MPNP arrangement out of line with international best practices and that the current guidance, introduced by the TA more than twenty years ago, may in fact be distorting competitive processes today thereby constituting barriers to the eventual development of FMC.

19. In relation to the existing asymmetric interconnection arrangement between fixed and mobile networks, the TA has essentially raised three basic questions in the Second Consultation Paper:

- (i) Should the existing regulatory guidance, specifying that mobile network operators pay fixed network operators for calls between them in both directions (the “Mobile Party’s Network Pays” or “MPNP” mechanism), be withdrawn?
- (ii) If yes, should the TA issue new regulatory guidance specifying the replacement mechanism for MPNP?
- (iii) If yes, what should be the replacement mechanism?

20. The TA is open-minded in listening to public views on these questions. Question (i) follows from the market-driven policy for the telecommunications sector that the existing regulatory guidance should continue to apply only if the market is likely to fail to deliver public interest objectives in its absence, and the TA solicits public views and evidences on whether market failure is likely or unlikely. Question (ii) concerns whether having a replacement guidance is desirable. In particular, the TA asks the public whether the guidance would facilitate or distort commercial negotiations for a market outcome on interconnection settlement between fixed and mobile networks. As for Question (iii), the Consultant has identified a number of options² for the replacement mechanism and the TA invites inputs on the merits and demerits of different options and which option would serve the best interest of the industry and the consumers as a whole.

² The Consultant has studied various settlement options including “Calling Party’s Network Pays” (used by US, Europe and fixed to fixed interconnection in Hong Kong), “Mobile Party’s Network Pays” (Hong Kong and Singapore), “Bill And Keep” (used for mobile to mobile interconnection in Hong Kong and for the interconnection of Internet backbones), and briefly on “Receiving Party’s Network Pays” which is adopted nowhere. “Bill And Keep” (BAK) was recommended by the Consultant as the best option for the “last-resort” arrangement in the event of a determination which the TA may be required to undertake.

21. The preliminary proposal in the Second Consultation Paper is that the current regulation guidance on MPNP be phased out over an appropriate transitional period, say two years, during which status quo is to be maintained. The network operators will be free to negotiate the terms and conditions of interconnection to apply after the transitional period using mutually acceptable settlement options. However, in recognition of the importance of communications services with “any-to-any connectivity” to daily life and business in Hong Kong, the TA proposes to resort to the powers under section 36A of the Telecommunications Ordinance to determine terms and conditions of interconnection between particular networks after the transitional period if and only if commercial negotiations fail and when a market failure is established.

Interconnection charges from service providers

22. Service providers pay interconnection charges to network operators for access to its customers through the networks. The most common form is Local Access Charge (LAC) payable by external telecommunications services providers to local network operators for conveying external telecommunications traffic to or from end-users through local networks.

23. The existing LAC arrangement is based on a framework introduced in 1998 and the current level of LAC of the incumbent fixed operator (PCCW) was determined by the TA in 2001. Other fixed network operators and mobile network operators are encouraged to set their own LAC commercially. Mobile network operators compete with fixed network operators for transmission of external telecommunications traffic. However, that they currently are not able to charge a mobile LAC is a mixed outcome of competition and regulatory asymmetry. The existence of the asymmetric fixed-mobile interconnection charge has rendered it financially unattractive for external telecommunications services providers to arrange direct access to mobile network operators.

24. The Consultant has identified the asymmetry imposed by existing regulatory guidance between the fixed and mobile networks and recommends that the asymmetry be removed.

25. The TA's preliminary view is that no market failure is likely in the absence of the existing regulatory guidance of MPNP on fixed and mobile interconnection, and that the regulatory guidance is distorting competitive processes in the LAC market. The TA proposes to deregulate the LAC for fixed networks. This means that the TA will not proactively determine the level of the LAC for any network operator, but will allow the market to set the level. However, to protect public and consumer interests, the TA reserves the right to make a determination under section 36A if commercial negotiations fail and in the event of an established market failure.

Licensing Regime – Unified Licence

26. Under the existing framework, fixed and mobile services are licensed and regulated under two separate licensing frameworks. In other words, a network operator needs to apply for two licences (namely the fixed carrier licence and the mobile carrier licence) if it intends to provide both fixed and mobile services. Furthermore, there will be uncertainty regarding the licence (fixed or mobile) to be used under which a converged service will be regulated.

27. In the first consultation exercise conducted in 2005, the TA had already proposed to create a unified carrier licence for the provision of fixed services, mobile services and converged services. Under the unified carrier licence, network operators providing fixed services only and those providing mobile services only will be treated equally in terms of licence fees and most of the rights and obligations. The Second Consultation Paper seeks further views from respondents on this issue.

Number Portability and Numbering Plan

28. Under the existing regulatory framework, a fixed line user can port his/her telephone number from a fixed network operator to another fixed network operator. Similarly, a mobile user can port his/her mobile phone number from a mobile network operator to another mobile network operator. However, the porting of numbers across fixed and mobile services is not supported at this moment. In the FMC environment, a telecommunications user may be assigned with a single number for access to both fixed and mobile services. There is a need to consider whether we should allow the porting of a number between different network platforms (mobile and fixed) so as to meet the FMC requirement.

29. The Consultant has identified no urgent need at this stage for changing the existing practice as converged service is yet to be commercially available in the market. Also, there is no information on the preference of the public. In the Second Consultation Paper, the TA proposes to conduct further market studies on these topics to assess whether there is market demand for such a requirement.

Current Status

30. By the deadline of 27 October 2006, the TA received a total of 21 submissions (published on the OFTA web site at <http://www.ofta.gov.hk>) in response to the Second Consultation Paper. Meanwhile, the incumbent fixed network operator PCCW HKT-Telephone Limited (“PCCW”) has not made any submission by the deadline but has instead filed an application to Court for judicial review and an interim stay of the public consultation process. The Court has subsequently granted leave to the application but it refused interim stay. The public consultation process for FMC therefore remains on-going.

31. Among the submissions received by the TA, there is a mixed view on the proposals to deregulate for FMC. Preliminary analysis indicates that about half of the submissions are supportive of the phasing out of the interconnection asymmetry between fixed and mobile operators while some of the submissions express concerns that this may lead to higher fixed line costs and reduce investments by the fixed network operators.

Way Forward

32. The TA will analyze the submissions in details and he is committed to make a decision on the way forward only after he has considered fully the views of all the stakeholders. Bearing in mind that a legal proceeding is in progress, the TA will update Members on major developments on the subject in future. Members’ views are welcome on the issues being consulted.

Office of the Telecommunications Authority
13 November 2006

**Deregulation for Fixed-Mobile Convergence
Second Consultation Paper**

EXECUTIVE SUMMARY

S1. With dynamic and continuous market and technological developments, the distinctions between fixed and mobile networks and services are becoming increasingly blurred. This phenomenon, which is commonly referred to as “Fixed-Mobile Convergence” (“FMC”), is expected to bring substantial innovation and consumer benefits.

S2. The government has adopted market-driven policy for the telecommunications industry. It is therefore not for the Telecommunications Authority (“TA”) to decide whether there should be FMC, or the extent or pace of it in Hong Kong. The future development of FMC should be decided by the market. The role of the TA is to ensure that the regulatory environment remains conducive to the emergence of FMC so that, if and when there is a market demand for FMC, consumers can enjoy the innovation and benefits of FMC without delay.

S3. Necessary elements of a conducive regulatory environment include minimum barriers to the market and technological developments, minimum distortion to competitive processes, as well as a clear and predictable regulatory framework to facilitate informed investment decisions. It was with these elements in mind that the TA initiated the first consultation on regulatory review for FMC in September 2005 and commissioned a consultancy study in the first half of 2006.

S4. Important issues identified in the consultancy study include the interconnection settlement arrangement between fixed and mobile networks, the local network access charge arrangement, licensing regime, telephone number portability and the telephone numbering plan.

S5. It is an essential principle in a market-driven approach to regulation that regulatory interventions should only be maintained, in the case of existing interventions, or introduced, in the case of new ones, in the clear circumstances

that market forces have failed, or are likely to fail. In relation to the interconnection settlement arrangement between fixed and mobile networks, the central question in this consultation is therefore whether there will be a market failure, if the historic regulatory guidance in favour of the mobile network operators paying the fixed network operators, for calls between fixed and mobile networks in both directions (under the “Mobile Party’s Network Pays” or “MPNP” mechanism), is withdrawn.

S6. Up to this point, the TA has found no credible evidence to demonstrate that a market failure would occur if the current regulatory guidance in favour of MPNP is eventually removed. Moreover the current guidance, introduced by the TA more than ten years ago, may now in fact be distorting competitive processes today thereby constituting barriers to the eventual development of FMC. Accordingly, the TA is proposing to set a transitional period of two years for the current regulatory guidance concerning MPNP to be phased out.

S7. During the transitional period, the *status quo* continues to apply. Network operators will be free to negotiate the terms and conditions of interconnection to apply after the transitional period (and, if they so wish, during the transitional period), using the settlement option which is mutually acceptable to the parties concerned. However, in recognition of the importance of communications services with “any-to-any connectivity” to daily life and business in Hong Kong, the TA will resort to the powers under section 36A of the Telecommunications Ordinance to determine terms and conditions of interconnection between particular networks after the transitional period if commercial negotiations fail and when a market failure is established.

S8. Where a market failure is established, and the TA undertakes a determination, the TA’s determination will be based on the most appropriate settlement option having regard to the case-specific circumstances and any relevant regulatory guidance in place. Of course, the TA will also be bound to follow due process in terms of consultation with all affected parties concerning the settlement options to be adopted.

S9. While providing no guidelines to the TA as to how he should exercise his powers under section 36A would arguably impose the least interference with the commercial negotiations among the network operators, this approach might create great regulatory uncertainties and could be contrary

to the objective of providing a clear and predictable regulatory framework to facilitate informed investment decisions. Therefore the TA seeks the industry's views on whether the TA should re-issue the guidance on how the TA should exercise his powers under section 36A should he be called upon to make a determination on the terms and conditions for interconnection between fixed and mobile networks.

S10. In the event of a conclusion that the re-issue of such a guidance is warranted, the guidance should avoid the distortion to the competitive processes in an FMC environment. In relation to the settlement options identified in the consultancy study, and others which affected parties may wish to put forward, the TA seeks evidence on the merits and demerits of the different options in terms of their current or likely future impact on competition between and amongst mobile and fixed network operators, and the significance of any identified distortion to competition and to the evolution of telecommunication markets, including FMC.

S11. With respect to the local network access charge arrangements, the consultancy study identified the asymmetry imposed by existing regulatory guidance between the fixed and mobile networks and recommended that the asymmetry be removed. The TA's preliminary view is that no market failure is likely in the absence of the existing regulatory guidance, and that regulatory guidance is distorting competitive processes in an FMC environment. The TA proposes that the asymmetry be removed by deregulating the LAC arrangement for fixed networks to bring it into line with the current deregulated arrangement for mobile networks. This means that the TA will not proactively determine the level of LAC for all networks, but will make a determination under section 36A if commercial negotiations fail and in the event of an established market failure.

S12. As regards telephone number portability and numbering plan, the consultancy study has identified no urgent need for change but has recommended that further study be conducted to identify the need. The TA will proceed to conduct further market studies on these topics in due course.