Response to Consultation Paper on Regulation on Internet Protocol Telephony

Submitted by Hong Kong Internet Service Providers Association

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1. In response to the subject matter the Hong Kong Internet Service Providers Association (HKISPA) has consulted all her members and come up with this collective opinion on the Internet Protocol (IP) Telephony regulation in Hong Kong.

2. In summary, the HKISPA advocates that:

2.1 the PNETS license should be modified to enable Internet Service Providers (ISPs) to provide IP Telephone Service to customers, either through ISPs' own network or through the Internet;

2.2 at the regulatory level, the service should be treated as a new class of service while having universal any-to-any connectivity;

2.3 8-digit portable number blocks should be assigned to ISPs to operate such service;

2.4 number blocks for fixed network telephony and IP Telephony should be portable between each other's networks; and

2.5 OFTA should mandate for one fixed network telephone service provider to operate as a gateway for IP telephony providers to facilitate full call delivery and number portability between IP Telephony network and fixed network;

2.6 ISPs or their customers who lease local customer access from FTNS operators should be on equal footing with FTNS operators over interconnection charges and LAC (please see 3.16 below);

2.7 OFTA should mandate that the interconnection charges should be equal and apply mutually to call minutes from both directions between FTNS networks and

IP Telephony networks;

2.8 zero interconnection charges for IP Telephony services;

2.9 the Service Provider providing IP Telephony service should either be subject to receiving LAC payments for delivery of call, or be excluded from the LAC regime; and

2.10 OFTA should propose legislation as soon as possible to regulate IP Telephony competition to the market, as Hong Kong is lagging way behind other countries in this respect.

3. HKISPA's response to the questions posed on the Consultation Paper

Policy and Licensing

3.1 (18(a)) While the HKISPA agrees that minimal and proportionate regulation should be applied to all telecommunications services, we opine that the regulations should be designed to counter some market or administrative frictions to encourage and facilitate introduction of new services like IP Telephony. As evident from the market and from many overseas examples, this new service has already brought immediate benefit to telecommunication users by providing the choice of receiving their telephone services through the Internet. We believe that the governing spirit of the regulation is to encourage and facilitate introduction of new services to the market for consumers to decide what is right for them.

3.2 (18(b)) We, as well as consumers, perceive IP Telephony as a new class of service that is different from traditional voice services. For example, consumers are well aware that if their Internet connectivity does not function then their IP phone would not work. Therefore the technology neutral concept for voice services does not apply here because IP Telephony and Traditional Telephony are not only perceived to be but are in essence fundamentally different services.

3.3 (18(c)) The HKISPA believes that the objective of the regulation should be to enable wide availability of IP Telephony services in the market to enable customers to make their own choices in their own paces.

3.4 (27(a)) We object to that the current conditions for fixed carriers and mobile carriers be fully applied to the provision of IP Telephony because it is by nature a different class of service offering different service capabilities to consumers (e.g. video, data, portability among premises)

3.5 (27(b)) We agree that a minimum set of conditions for IP Telephony should be established for protection of consumers. However, those conditions should be tailored for the specific nature and service delivery means of IP Telephony, e.g. the service might be delivered through the public IP network.

3.6 (27(c)) IP Telephony as a different class of service should not be classified as substitutes for traditional voice service. However, if specific service provider would like to market their IP Telephony service as substitutes for traditional telephony service (i.e., whereby consumers are not aware that the service is delivered through IP), we believe that it should be allowed to do so and should be subject to the same licensing conditions of traditional telephone services.

3.7 (27(d)) We believe that IP Telephony is a different class of service and should not be collectively treated as substitutes for traditional voice services at the regulatory level. We believe that only in the event where the IP telephony service is advertised as traditional telephony service (i.e., whereby consumer is not aware that it is indeed IP telephony), should it be subject to the same license conditions of traditional telephony.

3.8 (27(e)) We believe that minimal regulation should be applied to IP Telephony services. Please also see our response to 18(a) above.

3.9 (34(a)) We believe that IP Telephony should be accessible through any broadband or IP connectivity. It is not justifiable to deprive consumers of their rightful interests by mandating that the service shall only be delivered through specific IP connections but not others.

3.10 (34(b)) The separation of network connectivity and service delivery has been a practice for IDD and dialup Internet services so far it is practical and reasonable as all consumers are informed of the nature of the service. Therefore, we believe that provision of IP telephony service in a similar manner shall suffice to protect consumer interests.

Numbering Issues

3.11 (39) The HKISPA strongly advocates that existing PNETS licensees be allowed to provide local voices services through IP Telephony as a new class of service, with assigned 8-digit portable number blocks.

3.12 (39) We disagree with the argument that this new service is diverting revenue from fixed network operators and discourages investment in network construction. Instead, we believe introduction of IP Telephony and other new services through the Internet Protocol would create demand for the local network and that is itself an incentive for investments into the network, as evident from the revenue volume that ISPs pay to rent local access from existing FTNS service providers.

3.13 (50(a),(b),(c),53(a),(b)) HKISPA is of the opinion that ordinary 8-digit telephone numbers be used for IP telephony, new numbers blocks should be made available to PNETS license holders to provide IP Telephony service, and portability between existing fixed network voice numbers and IP telephony number be offered, and one FTNS operator be mandated to offer IP Telephony gateway services to IP Telephony service providers. It is unnecessary to distinguish IP Telephony and traditional telephony by the numbers, provided that the consumer using the number is aware of what kind of service is being used.

3.14 (50(a),(b),(c),53(a),(b)) It might be argued that number blocks for IP telephony should be confined only to the service itself because capabilities like video conferencing might be introduced so that callers will be aware of the service capabilities by looking at the phone numbers. We believe such arguments are like arguing that Web Sites should be confined to specific IP address blocks in the Internet space. Consumers should have the freedom to choose which features they elect to use, e.g., to use the voice capability only and not use the video conferencing feature, thus Consumers should not be deprived of the portability feature.

3.15 (50(d)) It is HKISPA's opinion that the introduction of new services like ENUM and convergence of voice services with the Internet is the trend. The potential stress on existing numbering resource by the introduction of IP telephony is not short term, and should be considered together with the new and evolving

communication technologies and their associated naming/numbering plans.

Interconnection and Charge Settlement

3.16 At this juncture, we would like to present an argument before proceeding. Financially speaking, the aggregate present value of future cash flows of leasing a network connection over the depreciation lifetime is equal to the one-off cash flow required to build that network connection plus risk premium. The risk taken by the investor was nil during the monopoly period, and was rewarded by the necessary risk premium, i.e. profit, for new entrants. Legally speaking, the leasing of a property shall entitle the tenant to all legal benefits including all fees that may be generated due to legal utilization of the property. Therefore, in the broad sense the ISP or customer who pays to rent the connection (e.g. DSL) has already borne the financial responsibility equivalent to investing to build that connection, and is legally entitled to any benefits that may be generated during the lease period. Therefore, we argue that ISPs (or their customers) who rent local access from FTNS operators should be on equal footing with FTNS operators over interconnection charges and LAC charges.

3.17 (58(a),(b)) For full flexibility and benefit for consumers, we strongly advocate that any-to-any capability should be adopted for IP telephony, either when marketed as a substitute for traditional telephony service under the conditions of traditional voice services, or as a new class of service.

3.18 (63(a)) The HKISPA also advocates that OFTA mandates one FTNS service provider to act as a gateway between PSTN and IP Telephony for call deliveries and number portability. This argument might sound vague, however in practice this is a necessary step to enable healthy IP Telephony market competition and to shorten the time-to-market of the service. This also helps to speed up the IP Telephony service adoption in Hong Kong, which is lagging way behind other countries.

3.19 (63(b)) HKISPA believes that the development of technical standards between network-to-network and user-to-network should be left to the market to determine. However, the regulatory regime should regulate that network-to-network connectivity be available for IP Telephony service providers and OFTA shall intervene in the event that a common standard cannot be established.

3.20 (63(c)) We believe OFTA should play a role to facilitate the establishment, standard, and interconnection of ENUM.

3.21 (66(a)) We believe that CLI transmission should be a feature of IP Telephony available to consumers.

3.22 (71(a)) While it is necessary for IP telephony providers and FTNS carriers to interconnect with each other, we believe that OFTA should play a role in mandating one FTNS operator to act as a hosting service provider for IP Telephony in the event commercial agreement cannot be reached.

3.23 (71(a),(b)) The current PNETS charge regime should not apply to the IP Telephony scenario because it is unfair to the IP Telephony service provider to pay for calls from both directions while the PSTN or hosting service provider, if any, is under a mutual arrangement on interconnection charges with other PSTN operators. We are inclined to the idea that the interconnection charge should be zero for IP Telephony for the following reasons: (i) the nature of interconnection charge is in the form of call settlement and statistically it should be balanced; (ii) the interconnection charge discourages origination of calls, so if there is interconnection charge in place for IP Telephony then users might be discouraged from making calls; and (iii) the telecommunications trend is towards flat rate accounting.

3.24 (71(c)) As the consumer has already paid for the broadband connection, we believe that it is unfair for broadband service providers to charge additionally for the IP Telephony service. We advocate that the IP connectivity and IP Telephony be separated in a regulatory sense. Besides, the reality is that the consumer using the IP Telephony service should not be bound to use the service on the same broadband connection. Consumers should not be deprived of choices and flexibilities that new technologies offer.

3.25 (71(c)) As for the argument that IP Telephony's quality cannot be guaranteed when delivered through third-party IP connectivity, we believe there is no case for concern because consumers will be aware of the service setup if the service is marketed as a new class of service, and this situation is already a tested practice for dialup Internet and IDD services.

3.26 (78(a)) HKISPA believes that IP Telephony service provider is providing the

delivery service on behalf of their customers and therefore should be subject to receiving LAC payments from ETS operators. IP Telephony should be on equal footing with circuit switched networks. The most common argument against this point is that IP Telephony provider is riding on other entities' networks that it should not be subject to LAC payment but the underlying network should. We are against this view for the following reasons: (i) ISPs or their customers are financially and legally entitled to any benefits generated from the leased circuits (see 3.16 above); (ii) ISPs are in reality doing delivery on behalf of their customers by either renting the DSL or local IP access of FTNS providers or by renting the IP transit of international carriers. This already incurs major cost to the ISPs; (iii) the end-user, whether via the ISP or not, has already paid for the broadband or IP connectivity and therefore it is up to the end-user's choice as to how he/she wishes to use that IP connection; and (iv) the rationale of LAC is to subsidize the local telephone network by IDD. IDD calls from IP Telephony have not traversed through the copper cables in the voice band, but only through the IP connections that the user or the ISP has fully paid for.

3.27 (78(a)) In addition, in common economic sense this LAC payment to IP Telephony service providers will pass on to the consumers if the market is competitive. It will also stimulate the adoption of IP Telephony and in turn the IP connections provider (i.e. the FTNS) will also benefit.

3.28 (78(a)) The HKISPA is inclined towards the idea that IP Telephony service providers to be not subject to any LAC, if consensus cannot be reached on this point.

3.29 (78(b)) We believe that the LAC mechanism should be reviewed to reflect the current market situation after proliferation of various new services.

3.30 (80(a),(b)) We agree that the type of traffic generated by IP telephone at local or overseas locations should be regarded as local traffic. The reason is that if the IP phone user is located at overseas, they have already paid for the IP transit service to connect to the local IP phone gateway. So there is no accounting reason to treat it as overseas traffic as the IP transit has already been accounted for as overseas traffic. On the other hand, it is in practice impossible to segregate the IP packets into IP Telephony related and non-IP Telephony related traffic.

3.31 (85(a)) We believe that the USO and USC mechanisms should be reviewed. Firstly, the availability of IP Telephony would directly help promote the utilization of the incumbents network for IP services, which will compensate for

the reduction in the traditional telephone lines. Secondly, we believe that new USO telephone lines (i.e. telephone lines that the FTNS considers loss making) does not increase at a constant rate, and that existing "loss making" telephone lines should have already been in service for some time already therefore the USO contribution should be reduced. Also, new technologies are available to substitute for costly traditional methods to provide the POTS.

3.32 (85(b),(c)) We believe that IP Telephony service providers should not be obliged to share the cost of USC. Likewise, we believe that the existing USO/USC regime should be revised for all classes of licensees.

Consumer and Other Issues

3.33 (92(a)) We perceive no technical problem in including the telephone numbers of IP telephone users in any directory. Even if there is some administrative resistance to include IP phone numbers, it is up to the market to decide if they should choose to use IP phone without directory listing, or traditional phone with directory listing.

3.34 (92(b)) We believe that the issue of directory listing for IP telephone should be left to the market to decide. There may evolve another online directory that could be used together with the IP telephone service that offers higher level of convenience to consumers.

3.35 (97(a)) If the IP telephony service is marketed as a substitute for traditional telephone service (or that the end-user is not aware that it is indeed IP telephony) then we believe it should offer all the features of traditional telephone like backup power supply, access to emergency services, etc. However, if the service is marketed as IP telephone, then we believe that consumers are well aware of the benefits they are getting and the shortcomings of the service, that is, the IP phone relies on IP connectivity. We agree that emergency service should be accessible through IP telephone, however service provider should not be obliged to guarantee 100% accessibility.

3.36 (97(b)) We are of the opinion that end-users are not deprived of any benefits if they are well aware that IP telephone is a service that relies on the IP transit.

3.37 (97(c)) Technically, the IP address being used can be traced by the AS path from the global BGP table so that the ISP hosting that IP address can be identified. The ISP can then be contacted for information about the physical location of that specific IP address. This is currently feasible but not administratively efficient, as

measured by emergency service standards, when the ISP is located overseas. We believe that ISPs in Hong Kong can establish mechanisms to help locate users of specific IP addresses for emergency services in vast majority of cases. Some special cases would be studied, e.g. VPN. We believe consumers should be well informed of the features/shortcomings of IP telephone so that they can make the best decision to cater to their individual needs.

3.38 (102(a)) We agree with the initial view as stated, that is, "basic telephone line service" requires that the operator provide backup power supply. We agree that IP telephone service marketed as ordinary telephone service should fall into that category. However, for IP phone service marketed as IP phone service, they should not be obliged to provide backup power supply.

3.39 (102(b)) We do not agree that the current backup power supply be extended to IP telephony.

3.40 (102(c)) Likewise, we do not believe that consumers are deprived of any interest if they are well informed that they are using IP telephone service.

3.41 (109(a)) We agree that IP telephony intended as substitutes for traditional telephone service be subject to minimum quality standard. For IP telephony service that is not intended as substitutes, we believe that a different set of standards shall apply.

3.42 (109(b)) We currently do not have sufficient information to consolidate a view on this item.

3.43 (109(c)) We do not agree that the current customer charter of FTNS be extended to IP telephony service provided by PNETS licensees. We believe that a different set of minimum service standards shall be established for the specific environment of the Internet Protocol.

- End of Response -