

**M1'S RESPONSE TO IDA'S PUBLIC CONSULTATION ON
THE POLICY FRAMEWORK FOR IP TELEPHONY AND
ELECTRONIC NUMBERING IN SINGAPORE**

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M1'S RESPONSE TO IDA'S PUBLIC CONSULTATION ON THE POLICY FRAMEWORK FOR IP TELEPHONY AND ELECTRONIC NUMBERING IN SINGAPORE

1. M1 welcomes the opportunity to comment on the policy framework for IP telephony and electronic numbering in Singapore and looks forward to participating in the ongoing discussions regarding Voice over Internet Protocol ("VoIP").
2. M1 has been providing cellular mobile services to the Singapore market since 1 April 1997 and in August 2000, we launched our international telephone services. In April 2001, M1 also obtained the FBO Licence for the Provision of 3G Mobile Communication System and Services and a 3G Spectrum Right.
3. VoIP is neither a new technology nor a new service to the Singapore market. One of its key limitations is the lack of inter-operability with other voice networks, principally the Public Switched Telephone Network ("PSTN") and mobile networks. Apart from the competitive slant, PSTN and mobile operators have good reason to be concerned with the impact of VoIP calls to and from their subscriber bases and networks, even where one leg of the call is to a VoIP phone. It is thus crucial for IDA to place reasonable emphasis and put in place upfront, the regulatory requirements in areas such as licensing, interconnection and Quality of Service ("QoS").

Regulatory Approach

4. Traditionally, PSTN and mobile telephony are subjected to a broad set of obligations as providers of publicly available telephone services. There should not be regulatory disparity between VoIP service and existing voice services. The principle must be to ensure a level playing field between different voice technologies providing the same services.

Licensing Approach

5. The licensing regime for potential VoIP providers should take into account the economic position and other obligations that were or are imposed on existing operators. Neither group of operators should gain any economic advantage arising directly from unequal regulatory obligations and requirements. Specifically, the costs of obtaining a license, QoS obligations and annual licensing fees, should be part of the licensing requirements for VoIP providers.

Numbering and Number Portability

6. M1 would like to highlight that constraints of the national numbering resources should not be the key policy consideration in determining what numbers to use for VoIP services. Instead, we recommend that IDA adopt a longer term and holistic consideration of a numbering solution that best meet consumer interests and is future proof. Such a solution should not require migration at a later stage as this will greatly inconvenience consumers, and is inefficient as well as costly.
7. If technology migration of today's fixed telephone service to VoIP in the near future is expected, then it may be logical for IDA to assign the number level '6' to VoIP operators. This will lower the barriers to switching by consumers and also allow smooth and seamless service migration should consumers decide to switch to VoIP service. By using the same 8-digit numbers starting with '6', consumers can migrate 'seamlessly' from a fixed telephone service to VoIP service. This would be a win-win technology migration in light of the declining fixed line market and to ensure optimal usage of the remaining numbers with leading digit '6'.
8. Furthermore, in order to provide a differentiation between traditional local fixed-line call services and VoIP service, IDA may wish to consider assignment of a 3- digit network code. Hence, a traditional local fixed-line user can keep his number eg. 6ABCDEFGH. His new VoIP number will start with a 3-digit network code (e.g. 2XX which can cater to 100 VoIP operators) followed by 6ABCDEFGH. In this way, there is efficient usage of number levels and operators need not incur unnecessary, high capital investment to facilitate number portability.
9. We seek IDA's careful consideration of the numbering plan for VoIP as the decision will have considerable implications for both operators and consumers.

Interconnection

10. M1 views that VoIP providers should be accorded the same rights and obligations as all other providers in terms of interconnection with each other and with existing operators.
11. Network technologies have different characteristics. Fixed, mobile and the internet can all provide voice connectivity but the service characteristics are different. Interoperability or interconnection between VoIP networks and existing voice networks should be regulated to ensure that technical and commercial issues can be clearly resolved. In fact, the definition of a VoIP network will have to be in place. Clearly the existing VoIP offerings do not conform to normal definitions of being part of a discrete network, and are merely an access tool into the Internet (or IP transmission).

12. Issues of points of interconnection, connectivity and compatibility standards, and other QoS parameters would need to be addressed. Additionally, there is the need for a framework for IP-to-voice conversion, such as defining the party responsible for the conversion/equipment and the required capacity and QoS, as well as the framework for resolution of quality issues or other faults.
13. Similarly, the introduction of new number levels for VoIP phones should conform to normal switching and interconnection technical standards for efficient operation of networks and transmission. Thereafter, there should be clear rules on opening of number ranges and levels, introduction of new services and/or new service codes, and the apportioning of related costs. IDA should also clearly spell out call termination, origination and transit obligations, and the payment flow for these services.

Last-mile access

14. Another issue to consider is the provisioning of last-mile access to a subscriber, which is to provide the consumer with a VoIP phone (or PC or other IP-enabled device or software designed to provide a voice interface). In order not to negate the price competitiveness of a VoIP offering, last-mile access will need to ride on the existing PSTN (dial-up or DSL) and cable modem infrastructures. This should be set at economically realistic prices, such as LRAIC, and in a more complete, end-to-end manner than prescribed in the existing SingTel RIO for unbundled local loop.

Quality of Service (“QoS”)

15. M1 views that drawing up a QoS framework for VoIP service is necessary. By laying down the minimum service requirements, it ensures that the existing high voice quality standard in Singapore telecommunication network continues to be maintained even when a new technology is used to connect the voice call. Sufficient service quality information will also be made known to the consumers and enable them to make informed choices in their purchases. We strongly believe a QoS framework for VoIP service will protect consumer interests and ensure that the overall good image of Singapore’s telecommunication industry is preserved.

Conclusion

16. Considering VoIP’s impact to consumers and other operators, M1 would like to reiterate that licensing and regulatory obligations are necessary to safeguard consumer interests and to ensure fair competition among telephony operators.