

**M1'S RESPONSE TO IDA'S PUBLIC CONSULTATION ON
THE REVIEW OF NUMBER PORTABILITY IN SINGAPORE**

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M1'S RESPONSE TO IDA'S CONSULTATION PAPER ON THE REVIEW OF NUMBER PORTABILITY IN SINGAPORE

- 1 M1 welcomes the opportunity to submit our views and comments to IDA for its consideration in its review of number portability in Singapore. As a mobile operator, our submission will specifically focus on matters that are related to Mobile Number Portability (“MNP”).
- 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. We obtained the FBO Licence for the Provision of 3G Mobile Communication System and Services and the 3G Spectrum Right in April 2001. In February 2005, M1 took the lead in introducing 3G technology and launching our 3G services. M1 was granted the Wireless Broadband Access (“WBA”) Spectrum Rights for the deployment of WBA services in Jul 2005.
- 3 MNP has been made available since M1 started service in April 1997. Though the number of customers making use of this service is not significant, M1 has always actively participated in the Industry Working Group facilitated by IDA to review and implement solutions to enhance the service to customers.
- 4 As far as M1 is aware, there is no ‘full’ MNP solution available today that is based on the global GSM standard. Adopting a non-standard solution may create problems related to international seamless connectivity. While the existing MNP solution in Singapore is not perfect, the prudent approach is to continually review and enhance the technical solution in the light of technology advancements and GSM standards specifications. The objective should be to implement a practicable (ease of implementation), efficient, and cost-effective technical solution which would meet the needs of customers.
- 5 Since most of the issues raised in the consultation paper have been discussed at length during the Industry Working Group meetings, M1 shall only highlight certain key considerations and concerns in our submission.

Market and Technology Developments

Since market liberalization in 2000, Singapore's mobile adoption rate has increased rapidly, exceeding 98.1% in Aug 2005. M1 believes that the mobile market is competitive and consumers face minimal barriers to switching service providers.

It is noteworthy that technology developments and design enhancements by handset manufacturers have today changed the 'conventional' behaviour and practices of mobile users. All handsets now come with a phonebook feature that enables easy access, storage and update of contact list. Mobile calls are now mostly made through a convenient, efficient, auto-dialling process after selecting the 'names' of contacts stored in the phonebook. As such, generally, mobile users do not memorize the phone numbers of their contacts.

The key reason for wanting to retain numbers is to ensure continual contactability by friends/contacts. With most handsets being equipped with 'Send Business Card' or 'Send SMS to Distribution List' features, any changes to phone numbers can also be broadcast to friends/contacts easily and speedily. Conversely, update of phone numbers of contacts is also facilitated with CLI delivery, which can be conveniently updated in the phonebook.

The existing MNP solutions for both Singapore and UK are based on the principle of onward routing. Hence, the outcome of the UK regulator's ("Ofcom") recent review concluded in June 2005¹ would be relevant to Singapore. Ofcom concluded that it would not be appropriate to move away from the existing onward routing MNP solution and mandate a centralised database solution after a thorough consideration of the market/technology trends and the results of a detailed cost-benefit analysis. It would not be cost justified to implement a centralised database approach and the potential benefits are not sufficient to offset the substantial cost set-up. M1 agree that any unnecessary cost burdens due to untimely and unrealistic regulatory decisions will ultimately affect **all** mobile customers, regardless of whether they need MNP or not. This is against the interest of the majority of mobile customers who do not require MNP as they will be subsidising the high costs that arises due to minority users who want an enhanced MNP solution.

Service Portability Enhancements

The limitations of the current MNP solution are mainly associated with service portability eg. MMS portability. Regarding this, the Industry Working Group reviews and enhances the system on an ongoing basis in the light of technology advancements. Moreover, it will not be possible to "future proof" any MNP solution. We strongly advocate a rational approach of adopting standards-based system enhancements which would provide assurance of support at the 'features inclusion' and manufacturer levels. This would minimise risks associated with delay or loss of features and services available to other markets and unnecessary costs for subsequent realignment as network equipment evolves over time and proprietary solutions lose compatibility and functionality comparable with internationally standardised approaches.

Centralised Database Approach

Most of the cost, benefits, feasibility, and implications of a centralised database approach have been thoroughly discussed by the Industry Working Group. Key to note is that implementation of a centralised database does not resolve service portability limitations. A centralised database is simply a central storage of customer information to facilitate checking of ported customer's current network. While different approaches (centralised versus decentralised) have their merits and shortcomings,

¹ Ofcom, An assessment of alternative solutions for UK number portability, 21 June 2005.

generally, a centralised approach is not recommended if the number of ported customers is insignificant compared to non-ported customers. The main reasons are:

1. Concern of Unauthorised access to Customer Information

Having a centralised approach means that **all** customer information (of all operators), are stored in a central database for access by various parties such as 3rd party content/application providers, mobile operators, fixed operators etc. Hence, the security of customer information will be a major concern and additional measures must be put in place to protect against unauthorised accesses, and consequential issues of confidentiality, spamming (unsolicited commercial electronic messages) etc. This will add to the implementation costs and the cost burden will be borne by all customers (both ported and non-ported).

2. Call set-up delays experienced by **All** Customers

a. A centralised NP solution, such as the Direct Routing or All Call Query method, would subject all calls to querying a huge, centralised database of more than 6 million customers (mobile and fixed-line) to check if the called party has ported. Such querying of huge databases will inevitably slow down call set-up, resulting in productivity and efficiency loss.

b. As the number of ported customers in Singapore is significantly lower versus the number of non-ported customers, this inefficient routing of calls to majority of the non-ported customers will result in greater technical inefficiencies.

c. A centralised database may also create a potential bottleneck for call routing as all calls will have to query this centralised database before being routed to the called party. This may result in long call queues during peak hours or periods due to capacity limitations in querying the centralised database.

3. Other shortcomings of Centralised Database

With a centralised database, it is critical that operators upload information from their separate databases to this centralised database on a timely basis. Apart from the operational burden of updating the database, if corruption of the centralised database occurs, re-synchronising the information held by each operators and the centralised database will be difficult and may result in a long down-time affecting all customers.

Interested parties may wish to refer to the independent study conducted by Mason Communications Ltd for Ofcom². The detailed economic analysis conducted shows that the centralised database approach is not a cost-effective number portability solution.

Implementation Timeline for Centralised Database Approach

A 9-month timeline for implementation is unrealistic, unless it is defined as the actual time required by the centralised database vendor to deliver all the customization required for integration testing of the centralised database system with the respective operators' network. Specifying a shorter timeframe would entail a higher implementation cost.

² Mason, Costs and Implementation Issues of a Central Database Solution for Number Portability in the UK, April 2004.