# FITTING IN MVNOs IN SINGAPORE

#### **Licensing Framework**

In line with the liberalisation of the telecommunications market in Singapore, the licensing framework for the provision of telecommunication services and facilities was reviewed and streamlined by the regulatory authority, the Info-communications Development Authority of Singapore ("IDA"), in April last year. The objective of such review was to facilitate the entry of new players in the market and to expand the scope of operations undertaken by existing licensees.

Under the current framework, three types of licence are available according to the nature of the facilities or services provided. A facilities-based operator ("FBO") licence is issued to operators who deploy any form of telecommunication networks, systems and facilities to provide telecommunication switching, transmission capacity and/or services to existing licensed telecommunication operators, businesses and/or consumers. A service-based operator ("SBO") licence is granted to operators who lease telecommunication network elements (such as transmission capacity) from FBO licensees to provide telecommunication services to third parties, or who resell the services of FBO licensees to third parties. SBO licensees fall within two categories - they are either individually licensed or class licensed. Generally, the SBO Individual licence is issued to operators who lease international transmission capacity for the provision of their services whereas the SBO Class licence is granted to operators who provide their services over the public switched telephone network or over the public Internet.

### **3G Licensing**

With third generation ("3G") licensing presently in the pipeline, all existing FBO and SBO licensees may be classified as second generation ("2G") licensees, i.e. licensees whose systems and services are based on prevailing 2G digital systems such as GSM and CDMA. With transmission capabilities far exceeding the capacity of 2G systems, 3G systems are set to revolutionise the realm of mobile communications, with consumers being able to gain rapid access to the Internet, broadcast services and various other multimedia applications via a single wireless 3G device.

In Singapore, 3G licensing has yet to be implemented. The regulations and guidelines in relation to 3G licensing have not yet been made public; it is estimated that such documentation will be published sometime in the first quarter of 2001. In developing a 3G licensing scheme, an extensive study of the local telecommunications landscape has been conducted and industry views taken into account. Further due to the relative immaturity of the local market in this regard, the Government has also drawn experience from the allocation of 3G spectrum licences in other countries, such as the United Kingdom, Germany and the Netherlands, from the perspectives of both regulators and operators.

For example, the following observations have been made: In Europe, a wireless 3G system or Universal Mobile Telecommunication System ("UMTS") is being devised in accordance with the International Telecommunications Union's IMT-2000 family of standards, to facilitate the coordinated introduction and implementation of 3G mobile into member states of the European Union, by 1 January 2002 at the latest. Generally, two approaches have been taken in the allocation of 3G licences in Europe, i.e. via auction or "beauty contest". In the former, spectrum is allocated to successful bidders through an objective and transparent auction mechanism. A "beauty contest", on the other hand, refers to a process where the government evaluates proposals from interested operators using certain pre-determined criteria. In Italy, five national licences will be allocated by a hybrid of the two methods.

Given that 3G technology and services in Singapore are presently undeveloped, the Singapore Government considers distributing spectrum via the "beauty contest" approach inappropriate as considerable expertise and knowledge would be required to create and enforce evaluation criteria. It has therefore been decided that the best and most efficient way of allocating radio frequency spectrum (a scarce and valuable resource) in Singapore is by auction, which is scheduled to take place in April 2001. This would be in line with European countries such as the UK, Germany, Denmark and the Netherlands, which will use the auction method to allocate licences. With the availability of 2x60 MHz spectrum in Singapore, 4 3G operators can be supported, with an allocation of 2x15 MHz paired spectrum and 5MHz of unpaired spectrum per operator. The initial price level from which the auction bidding will commence has been set at S\$150 million, a figure IDA has termed "conservative" and hopes will attract bidders who have the capacity to offer innovative services at reasonable prices.

### **Mobile Virtual Network Operators**

Even at the "conservative" figure of S\$150 million, costs for 3G licences would be high by any standards and are likely to provide incumbents and new entrants with an incentive to fill their networks more rapidly. It is therefore expected that the award of 3G licences will result in the rapid deployment and provision of innovative and diverse 3G services, with the overall objective of positioning Singapore as a leading regional info-communications hub for wireless activities, with competitive prices for end-users. With each 3G network operator's desire to obtain early payback on its 3G investment, it is envisaged that Mobile Virtual Network Operators (MVNOs) will no doubt be a feature of the telecommunications landscape in Singapore.

An MVNO is an organisation that provides mobile telephony services to customers without possessing a network licence of its own. As MVNOs are not allocated spectrum, they rely on access to the infrastructure of existing mobile network operators licensed by IDA under FBO licences to originate and deliver their customers' calls. An MVNO is different from a "bare" service provider in that it can control mobile subscription and call services; it is able to control the routing of calls and owns contracts with its customers. This gives an MVNO the advantage of being able to tailor its services to suit customers and to market those services under its own brand, thereby developing strong customer relationships. Unlike traditional resellers of mobile airtime, MVNOs have the capacity to issue Subscriber Identity Module ("SIM") cards and their services are not necessarily limited by whatever the FBO licensees offer. However, although an MVNO possesses mobile infrastructure and intelligent networking capability, it differs from an FBO licensee as it does not provide or control as many elements of network as an integrated network operator.

### Regulatory Approach to MVNOs

IDA has indicated that it will leave the issue of wholesale arrangements for access to 3G networks to commercial negotiations, its belief being that competition and business demand will encourage MVNOs to enter into commercial arrangements to access 3G networks. Further, IDA has stated that it will only intervene in cases of undue restrictive or anti-competitive practices.

To-date, IDA has not placed much significance or conducted any specific public consultation on the development of MVNOs. It has, however, issued certain conditions with respect to the licensing of MVNOs.

In Singapore, an MVNO requires an SBO Individual licence to provide its mobile subscription and call services to customers. IDA has issued certain specific conditions applicable to such licence, such as the requirement that MVNOs implement number portability from the commencement of their services. MVNOs holding SBO Individual licences are also required to comply with certain conditions for the distribution of SIM cards to end-users, namely, the upkeep of a register of retailers and buyers of SIM cards and control of SIM card allocation to retailers based on actual sales and activation.

# Crystal-Ball Gazing On MVNOs

Pending the issuance of 3G licences, the development of MVNO activity in Singapore seems limited. At present, there is only one licensed MVNO in Singapore, namely, Mobile Biz Asia Pte Ltd, which appears to be a 2G MVNO as its services (which have yet to be launched) apparently involve the resale of GSM airtime.

With IDA's stated intention of leaving market forces to dictate the direction that the MVNO growth will go, it is not easy to predict how this will pan out. While the anticipation elsewhere is that MVNOs will proliferate with the grant of 3G licences, particularly in a country such as UK where the telecommunications market is relatively more mature, Singapore's inherent traits such as its small population, limited land resources and budding telecommunications industry may well lead the development of MVNOs in Singapore on a different course.

Nevertheless, considering the substantial costs of 3G licences and network rollout, it would be reasonable to assume that network operators will be keen to recoup their capital investment and obtain faster payback on such costs by contracting with MVNOs to fill up spare capacity. By fostering a relationship with 3G licensees, MVNOs themselves would stand a better chance of leveraging and building up their own customer base, brand names and services. Whether there will be many or a few MVNOs, it is not difficult to imagine that MVNOs will be a fixture of sorts in the local telecommunications scene in Singapore in the years ahead.

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