

1. The advances made in the recent years in wireless communication technologies have resulted in a manifold increase in the amount of packet data that can be delivered wirelessly to users. Technologies like HSPA+ (High Speed Packet Access), LTE (Long Term Evolution) are designed for delivery of packetized content, whether it be voice or data. Accordingly, to take full advantage of the technology, there is a need to introduce further competition by way of introduction of Mobile Virtual Network Operators (VNOs). This would enable more players entering the telecom space, leading to greater competition, lower tariffs and deeper tele-density. Four years ago when the department was looking at VNOs, the technologies were not fully ready for packet data transfer. Today the technology is ready. Hence it is the right time to introduce VNOs.

2. VNOs will not pose a threat to NSOs but rather complement their operations. The experience from early adopters where the networks have been upgraded including from Europe and Americas reflect that consumers use both in conjunction.

3. MVNOs in conjunction with NSOs can help in achieving better utilization of existing infrastructure and also achieve targets defined in NTP-2012 for rural tele-density. Most NSOs have already upgraded their existing infrastructure for HSPA+ or are in the process of upgrading to LTE. These technologies are designed for packets – i.e. they are all digital. MVNOs by definition would fit nicely with the upgraded infrastructure and thereby enable better utilization over the digital packet network. However, networks in rural areas must be upgraded from the basic voice network before VNOs can be given the go ahead to operate.

4. HSPA+ and LTE technologies treat voice as packet stream. Hence VNOs can be introduced across segments – Voice, Data and Videos. Unified/global authorizations: VNOs should be introduced in services (mobile, Internet) where the technology can support VNOs. Similarly, Internet Services can also support VNOs once basic infrastructure whether by using Optical Fibre Cable (OFC) or otherwise is made available. Other technologies including V-SAT, PMRTS/CMRTS, GMPCS would be too expensive. NLD and ILD Services should be kept out of the purview of VNOs as a separate set of licensing requirements is there for the same.

5. There is sufficient infrastructure (active and passive – access spectrum) with TSPs to meet its own requirements, and they can spare available infrastructure for VNOs. This is especially true for rural networks. Again the reason is technology enables an existing TSP to deal with a VNO.

6. TSPs may lease infrastructure to a VNO service provider to offset part of cost of passive infrastructure. A VNO may set up their own infrastructure

including Mobile Switching Centre (MSC), Radio Access Network (RAN)/Base Station Subsystem (BSS) etc., if required without sharing spectrum. Except spectrum sharing, whatever helps in reducing the cost with LCOs or MSOs should be adopted.

7. Whether a separate chapter /section or new regime is adopted, guidelines must be sufficiently clear so as to take care of future technological developments and cost of compliance with the multitude of various licensing requirements. A new licensing regime is preferable because of the multitude of existing regulations and licensing frameworks. There is a significant cost to regulatory compliance.

8. Given the complexity in the licensing regime and corresponding cost of compliance, it makes sense to move to NSO and VNO only after factoring in the cost of compliance with existing regulatory framework with that of a new framework. For market participants clarity, a mandatory route should be adopted. Giving options to providers would create confusion on the roles, given existing regulatory licensing regime.

9. VNOs should be licensed on a national level. The past experience and currently multitude of licensing requirement dictate that the license be a national license. The duration should be short, say for 3-5 years. Yes, there should be cap on the number of VNOs parented to a NSO. The technology would support only a limited number – 3-5 depending on the capability of the NSO.

10. Any Indian Company having a networth of ₹50 crore for Metro/ Category A, ₹25 crore for Category B and ₹15 crore for Category C service area, paid up capital of 10% of prescribed net worth and satisfying licence conditions such as FDI, substantial equity etc., eligible to apply for VNO licence.

11. An existing Unified Licensee would need additional authorization to work as a VNO as spectrum cannot be shared. To promote competition there should be cross-holding restrictions between a NSO and VNOs.

12. A Licensor should allocate separate numbering resources, network codes and LRNs to VNOs. As numbering resources are finite, the operational difficulty would be allocation of the same keeping in view the differing requirements of the VNOs/NSO.

13. Efficiency benchmarks based on experience of Europe and Americas must be used to ensure efficient utilization of resources. SUC should not be payable by the VNO but the VNO can pay lease charges with an additional offset for spectrum being utilized by the VNO.

14. There must be a mandate to NSO to provide access to a VNO in a time-bound manner. MNP is entirely possible by the VNO. There are minimal / no technological /implementation issues. The VNO is to be held responsible for CAF verification and number activation. Both NSO and VNO are responsible for maintain Quality of Service (QoS) parameters.

15. The issue of Mergers & Acquisitions can be dealt with the recent M&A guidelines issued by the Government. If required specialized agencies including the Competition Commission of India can opine on the same.