

Reliance Communications Limited Response to TRAI Pre-Consultation on 'Delinking of License for Networks from Delivery of Services by Way of Virtual Network Operators'.

Executive Summary

1. **Delinking of network from services shall open up avenues for other bulk telecom services consumption by PAN India enterprises to evolve alternate competition models in the already saturated Indian telecom market, especially in urban areas, and provide the options of niche, differentiated services to the Indian customers.**
2. **The existing UL is comprehensive enough to cater for both types of service providers, i.e. NSO and SDO, and SDO only, hence there is no need for migrating to a new, different licensing regime. However, appending a new chapter / guidelines to the existing UL is felt necessary to meet the regulatory requirements, like (i) SUC, (ii) AGR, (iii) Parenting of SDO, (iv) Allotment of numbering resources, (v) LIM responsibilities, (vi) QoS, (vii) MNP, (viii) Lock-in Period for NSO and SDO agreement, (ix) M & A, (x) Cross holding restrictions between SDOs and SDO and NSO.**
3. **The Indian market is ripe for entry of VNOs for providing differentiated, value added and customized services for which competition is practically non-existent.**
4. **There is adequacy of telecom resources to accommodate introduction of SDOs as they shall enable optimal exploitation and monetisation of TSPs spare capacities, especially of those with marginal market share, thereby resulting in a win-win situation for all the stake holders vis, the government, TSPs and customers alike.**
5. **There is a requirement of aligning the existing regulatory framework to accommodate the enablement of only voice / data / video service providers as MVNOs.**
6. **The issue of licensing of OTT service providers or not need further deliberations and it is suggested that the same be allowed to follow the process already initiated by TRAI.**

Issues raised for per-consultation

Issue No 1. Having already established their networks, the issue to deliberate upon is whether delinking the network from service delivery will have any effect on the working of these TSPs?

Delinking of network from services shall open up avenues for other bulk telecom services consumption by PAN India enterprises to evolve alternate competition models in the already saturated Indian telecom market, especially in urban areas, and provide the options of niche, differentiated services to the Indian customers.

1. The Indian Telecom Network today is one of the largest networks in the world. DoT and TRAI's farsighted policies of ensuring level playing field while encouraging competition and maintenance of technology currency has contributed significantly towards the phenomenal growth in telecom sector, especially of wireless communications. The sustenance of this momentum requires that the cusp of a mature and consolidating market on one hand and the need to induce greater competition while ensuring a level playing field and optimal exploitation and utilization of the allocated resources are balanced well through judicious regulatory frameworks in the future. Envisaging the this, one of the **objectives of NTP 2012** (Para 3.8 under section on Licensing, Convergence and VAS), has been facilitation of resale of telecom services, both wholesale and retail, through introduction of virtual operators. It has been recognised as being in tune with the need for robust competition at consumer end while ensuring due compliance with security and other license related obligations.
2. As per **TRAI's recommendations on "Mobile Virtual Network Operator (MVNO)" dated 6 Aug 08**, "The introduction of Mobile Virtual Network Operator (MVNO) is seen as a natural progression towards enhancing free market principles and contributing to the efficient use of existing telecommunication infrastructure."
3. The incentives for introduction of MVNOs critically depend on two issues: Firstly, the mode of competition and, secondly, the degree of product differentiation. Generally, MNOs will be amenable to provide network access to MVNOs if the services offered by the candidate MVNOs are sufficiently differentiated, as with a high degree of product differentiation the revenue effects outweigh the competition (or cannibalization) effects. MNOs will always invite MVNOs onto their network if the market is sufficiently large (under Cournot competition), even if MVNOs offer homogeneous products.
4. As per the GSMA Intelligence analysis titled 'The global MVNO landscape, 2012 – 2014' dated Jun 2014, shows that MVNOs remain most prevalent in mature markets where

penetration (based on connections) has surpassed 100%. Europe is home to more than two thirds of global MVNOs (579), followed by the Americas (128) and Asia (79). This report has identified eight separate categories of MVNOs, namely discount, telecom, media / entertainment, migrant, retail, business, roaming and M2M.

5. From the regulators or the government's perspective, entry of MVNOs, in a mature mobile communications market, has to be viewed from as per the theory of 'ladder of investment'. As per this theory, a new entrant would prefer to climb slowly up a ladder of investment, especially in a mature market, if they can enter the market without burdensome investment requirements. The idea is that an entrant first enters an industry without much specific investment, offering services only. Once the entrant has acquired a certain threshold number of customers he may invest into its own infrastructure in order to be less dependent on the incumbent and to offer a wider range of services.

Issue No 2. Whether the existing TSPs, will have to obtain an NSO licence or both NSO & SDO licences on migration to the new licensing regime?

Issue No 3. Necessity of changing the licensing regime at all, at such a short interval since UL was introduced just a year ago?

Issue no 4. It can also be deliberated whether the reference of DoT envisaged an entirely new licensing regime or could be considered to mean that a chapter may be added to the existing UL for facilitating licenses to the VNO.

The existing UL is comprehensive enough to cater for both types of service providers, i.e. NSO and SDO, and SDO only, hence there is no need for migrating to a new, different licensing regime. However, appending a new chapter / guidelines to the existing UL is felt necessary to meet the regulatory requirements, like (i) SUC, (ii) AGR, (iii) Parenting of SDO, (iv) Allotment of numbering resources, (v) LIM responsibilities, (vi) QoS, (vii) MNP, (viii) Lock-in Period for NSO and SDO agreement, (ix) M & A, (x) Cross holding restrictions between SDOs and SDO and NSO.

Issues to be addressed in the additional chapter have been suggested at Appendix 'A'.

1. The existing TSPs have been migrated to the 'Unified Licensing (UL)' regime. The basic philosophy for introduction of UL was to recognize the evolution of digital services wherein convergence of voice, video and data were catered for. As per the 'Guidelines for grant of UL' dated 19 Aug 13, UL has been introduced to aid the "move towards convergence

between various services, networks, platforms, technologies and overcome the existing segregation of licensing, registration and regulatory mechanisms in these areas to enhance affordability, increase access, delivery of multiple services and reduce cost”.

2. Elaborating further, these guidelines have envisaged “to provide secure, reliable, affordable and high quality converged telecommunication services anytime, anywhere for an accelerated inclusive socio-economic development. One of the objectives of the National Telecom Policy-2012 is “Strive to create One Nation - One License” across services and service areas”.
3. Apart from ensuring delinking of license from allocation of spectrum, the other basic features of UL stipulated in these guidelines are that the applicants could apply for UL along with authorisation for any one or more services that are listed at para 2 (ii) from (a) till (l) in these guidelines. As pr these guidelines,
 - 3.1. Para 2 (ii) (a) permits “Unified License (All Services)” encompassing all the other listed services, therefore TSPs can continue to provision both NSO and SDO services under this license itself.
 - 3.2. Also, para 2 (ii) (b) of these guidelines permit provisioning of “Access Service (Service Area-wise)”, hence the ‘SDO only’ services can be provisioned under this clause of the license.
4. In continuation of the philosophy of introduction of UL, it would be most appropriate to append new authorizations for NSO and SDO apart from the existing integrated NSO and SDO operators. This shall also be in conformation to the practice that was followed while permitting the resale of IPLC.
5. Introduction of MVNOs shall also lead to de-layering of network from its native services, therefore, it would definitely require realignment of the regulatory guidelines in some of the areas. Since, in Aug 2008 TRAI has already undertaken a consultative exercise and made its recommendations on ‘Introduction of MVNO’, it is envisaged that the issues are well documented and any additional issues can be brought out through a fresh consultative process.
6. Some regulatory aspects that are felt to require realignment / issuance of fresh guidelines are like (i) SUC, (ii) AGR, (iii) Parenting of SDO, (iv) Allotment of numbering resources, (v)

LIM responsibilities, (vi) QoS, (vii) MNP, (viii) Lock-in Period for NSO and SDO agreement, (ix) M & A, (x) Cross holding restrictions between SDOs and SDO and NSO. The lists of issues along with RComs' suggestions on the regulatory requirement are given at appendix 'A' to this response.

7. In view of the foregoing, following are recommended,

7.1. The existing UL is comprehensive enough to cater for both types of service providers, i.e. NSO and SDO, and SDO only.

7.2. There is no need for introduction of a new licensing regime.

7.3. There would be a need to formulate regulations and guidelines on certain issues which would be peculiar to introduction of NSOs and SDOs respectively.

7.4. There is also the need to introduce a chapter for regulation of only MNO operator.

Issue no 5. Presently there are 7-13 licensees in various service areas. Therefore, another issue for deliberation could be about the need for introduction of more competition in the form of VNOs.

The Indian market is ripe for entry of VNOs for providing differentiated, value added and customized services for which competition is practically non-existent.

1. Given the current maturity levels and dynamics of Indian market and its revenue share, spectrum utilization efficiencies and the general financial health of the telecom sector, introduction of MVNO, with a strong retail chain, shall firstly, herald the era of specialised services in India and secondly, contribute towards improvement of overall QoS of the telecom services by ensuring the efficient use of existing telecommunication infrastructure.
2. As per the GSMA Intelligence analysis titled 'The global MVNO landscape, 2012 – 2014' dated Jun 2014, MVNOs are attractive proposition for the operators as well as the regulators. While they aid in increasing the operators revenues through innovative, high value services, from the regulators perspective they contribute towards their aim of inducing greater competition into the market.
3. Other benefits that shall accrue from introduction of MVNOs are as given on the next page.

- 3.1. **Realization of economies of scale.** Enlarged subscriber base shall enable exploitation of economies of scales for provision services, handsets and accessories at even more competitive rates.
- 3.2. **Enhanced revenues for the govt.**
 - 3.2.1. MVNOs subscriber base shall add onto the existing loading of spectrum of the MNO resulting in increased revenue inflow for the government.
 - 3.2.2. With an MVNO riding over a MNOs network, the MNO shall have no option but to ensure spectrum sufficiency else the services of both the operators shall be below par. This shall force the MNO to participate actively in spectrum auction activities resulting in enhanced collections.
- 3.3. **Better penetration of Mobile services.** Despite adequate coverage in and LSA, a MNO at times is unable to penetrate the entire market on its own resulting in availability of spare capacities over its network. A MVNO on the other hand shall be able to make inroads in this hitherto untouched population and increase the mobile services reach and utilization. As per a GSMA Intelligence analysis titled 'The global MVNO landscape, 2012 – 2014'. "in Belgium, though MVNO connections made up just 0.1% of Proximus' total connections at the end of 2013, but they were almost a quarter (23.8%) of rival Mobistar's. In some cases, MVNO activity has offset declines or flat growth in organic connections (e.g. Optus in Australia)".
- 3.4. **Optimization of OPEX of the MNOs.** Sharing of OPEX between the MNO and the MVNO shall reduce its impact on the MNO.
- 3.5. **Consumer Focussed Services.** The aspirations of the net savvy generation of today are for better and specialized services. Since, MVNOs would be free from the vagaries of network operations, they can focus on providing better services to the customers. Some of the benefits that the consumers shall accrue from the services of MVNOs are as given below,
 - 3.5.1. **Customised Services.** MVNOs are characterized by their ability to provide customized services. Their introduction shall provide an option of catering to the specific requirements of the customers and offer novel and made to order content and services. GSMA Intelligence analysis quoted above has identified eight separate categories of MVNOs, namely discount, telecom, media / entertainment, migrant, retail, business, roaming and M2M.

- 3.5.2. **Brand Consciousness.** Given the growing brand consciousness among India consumers, an established brand / a markedly visible and strongly branded MVNO is bound to appeal of the Indian Consumer.
- 3.5.3. **Availability of niche services.** Due to their parent brand appeal, MVNOs are better placed to provide certain limited but niche services at higher prices, which a MNO would be hesitant to provision due to lack of economies of scale. As per the GSMA Intelligence analysis quoted above, Nextel in Chile has recently announced its intention to launch a low cost prepaid MVNO as its current business model was focused on serving a niche of high-value customers and hence, the current cost structure, aimed at ensuring high levels of service quality, spectrum capacity and post-sale service, would not be profitable for the prepaid market. If regulatory approval for the MVNO is granted, Nextel intends to offer prepaid services as an MVNO whilst continuing to operate its own network to serve the contract segment.
- 3.5.4. As per the GSMA Intelligence analysis quoted above, in 2012, 'discount' and 'telecom' MVNOs are the most prominent types of operation, accounting for 46% of the global MVNO market, while 19% are owned by companies that come from adjacent industries (e.g. retailers, banks, TV or media organisations), leaving 34% of the market to specialised providers focused on segments such as business, migrant, M2M and roamers.
- 3.6. **Symbiotic Growth.** As per the GSMA Intelligence analysis quoted above, in April 2014, E-Plus completed a deal with WhatsApp that has effectively made the OTT messaging provider an MVNO in Germany, with the operator selling a WhatsApp branded prepaid SIM card that gives customers unlimited access to WhatsApp over and above their data plans – even if they have no credit on their account. The basic SIM package costs €10 (\$14), but for an extra €10, users get 600 credits that can be used interchangeably for 1 MB of data, one minute of voice or one SMS (each costs one credit). With WhatsApp reportedly already installed on 90% of smartphones in Germany, this gives E-Plus a good opportunity to attract customers from rival operators, while helping WhatsApp to establish itself in the telecoms sector.

Issue no 6. In India, the TSPs have infrastructure, including spectrum, which is just about sufficient to cater to their own requirements. Would they really be able to spare their infrastructure for new SDOs.

There is adequacy of telecom resources to accommodate introduction of SDOs as they shall enable optimal exploitation and monetisation of TSPs spare capacities, especially of those with marginal market share, thereby resulting in a win-win situation for all the stake holders vis, the government, TSPs and customers alike.

1. Conceptually, SDOs (MVNO) contributes towards the increase in efficiency of spectrum utilization by contracting bulk purchase of a Mobile Operators (MOs) access services i.e the MO whose networks are not loaded substantially benefit by graduating from retailing their services to selling them in whole sale. The Indian spectrum landscape is characterised by the existing spectrum holdings of top 3 telecom operators vis-à-vis their respective current subscriber base not indicating any spectrum crunch situation for hinterland coverage, for Mobile Broadband and also for M2M. As per TRAI's reports,
 - 1.1. 'Services Performance Indicators' dated 28 Apr 14 the subscriber base of the some of the top wireless broad band data services providers varies from 6 to 10 mn.
 - 1.2. 'The Indian Telecom Services Performance Indicators, January - March, 2014' dated 30 Jul 14, most of the overall wireless QoS parameters for 2G, 3G and BWA services are well within permissible limits.
 - 1.3. These reports amply corroborate the fact that optimal and equitable exploitation of spectrum resources are yet to be achieved by Indian Telcos.
2. Despite an almost equitable spectrum holding by the TSPs, scrutiny of the LSA wise subscriber base of the TSPs reveals that the market is dominated by at-most 3 TSPs in most of the LSAs (Overall 54% of the market share and nearly 65% of the total AGR). Since some of the TSPs are yet to monetize their respective spectrum holdings to their full potential, it is these TSPs that the MVNOs shall bank on to source their capacities from. Therefore, **it is felt that the apprehension that TSPs would really be able to spare their infrastructure for new SDOs is unwarranted.** MVNO services are all about branding. Sourcing telecom minutes / data capacities from the less utilized / exploited networks shall not only enhance spectrum utilization, but shall also enable better QoS for the subscribers of the MNO itself as the MVNOs would demand and enact stringent SLAs for provisioning

higher QoS based services. Apart from these, introduction of MVNO, in fact, shall aid in better spectrum management, utilization and administration as is brought out in the succeeding paragraphs.

3. **Consolidated Spectrum availability for the MNOs.** Introduction of MVNOs shall invariably lead to market consolidation and reduction in the number of MNOs. The scarce spectrum resources shall then be divided amongst lesser number of MNOs thereby making larger chunks available for each. With the Indian market is on the threshold of data services expansion, availability of larger chunks of spectrum shall ensure better QoS as well.
4. **Bypassing of policy and regulatory guidelines.** Today's policy and regulatory guidelines are being exploited with private arrangements leading to loss to national exchequer, monopolistic market dominance status and inhibiting the competitive landscape. The 3G ICR sharing agreements enacted between some operators is a glaring example of how the exchequer's share of revenue can be scuttled by sharing of spectrum. Additionally, unlike spectrum sharing which can lead to bypassing of M & A guidelines, especially that of 'Significant Market Power (SMP)', permitting MVNOs shall lead to consolidation as well as increased competition in the market. Already the top telecom operators, on the basis of their respective spectrum holdings, are hovering near the SMP bench mark of 30% market share. A spectrum sharing agreement involving them shall provide them the wherewithal for breaching the SMP benchmark by leveraging their existent leadership position. Whereas, introduction of MVNO shall introduce additional competition in the market and enable revenue generation to the maximum capacity.
5. In view of the foregoing, it is recommended that,
 - 5.1. **The apprehension regarding lack of sufficiency of telecom infrastructure resources, including spectrum, is unfounded.**
 - 5.2. **Introduction of MVNO shall enable optimal exploitation and monetisation of TSPs spare capacities thereby resulting in a win-win situation for all the stake holders vis, the government, TSPs and customers.**

Issue no 7. Instead of introduction of VNOs in all areas of Voice, data and Videos, should MVNOs be allowed to function under the present UL framework?

Issue no 8. Today there is no licensing regime for application providers and Over-The-Top (OTT) operators. With the introduction of the proposed model, would those entities also need to take a licence for providing these services?

As brought out earlier in our response to issue numbers' 2, 3 and 4, there is a requirement of aligning the existing regulatory framework to accommodate the enablement of only voice / data / video service providers as MVNOs. The issues are listed at appendix 'A' to this response.

The issue of licensing of OTT service providers or not need further deliberations and it is suggested that the same be allowed to follow the process already initiated by TRAI.

1. As brought in our response to issues 2, 3 & 4 introduction of MVNO is de-layering of the network from its native services. Given the present framework of UL, it is possible to accommodate VNOs who are only voice / data / video service providers. In fact, such a scenario shall enable creation of integrated MVNOs who can requisition the best of voice, data and video services from multiple MNOs respectively. As stated earlier, there is a need to align the existing regulatory framework to accommodate the enablement of such MVNOs.
2. De-layering resulting from creation of MVNOs can be differentiated from the OTT services as follows,
 - 2.1. OTT services cause the de-layering of the network and its native services, like voice and messaging, by exploiting the underlying data network, where as a MVNO utilizes the spare / idle capacity of the underlying network and ensures optimal utilization of the network resources.
 - 2.2. OTT services impinge on the revenues of the TSPs by weaning away the existing customers of the TSPs from their native services. Whereas, MVNOs tend to enhance the revenues of the TSPs by ensuring better monetization of the TSPs resources.
 - 2.3. OTT services tend to establish a direct contact between the customer and themselves, completely bypassing the billing and monitoring mechanism of underlying network provider, for the services being provided by the OTT service provider, i.e. OTT service providers deal directly with end users over networks whose owners and operators are

excluded from these transactions. Though MVNOs too, establish a direct contact with the customers, but they source their service products as wholesale from the MNO itself, i.e. even if MVNOs have their respective billing system in place, still they are indirectly, but completely, dependent on the parent MNO for their services. Even for monitoring purposes, MVNO subscribers can be monitored by placing a request with the parent MNO(s).

- 2.4. OTT service providers have no LIM obligations whereas a SDO shall be bound by the licensing conditions and hence shall bear full LIM responsibilities through his NSO.
3. As our networks experience a paradigm shift from being voice centric to data centric with voice just an application on them, evolution of OTT service providers is an inevitable reality. Data networks offer the opportunity for introduction of innovative services and the user has the right to avail of these services. However, it is for the regulator to ensure that the underlying network providers revenues are not impinged upon due to the advent and adoption of these services. There is no doubt that during this transitory period there are bound to be challenges for the regulators and it is commendable that TRAI has already set the ball rolling for the process of taking inputs from all the stake holders to find the balancing pathway for innovation, investment and competition.
4. Licensing or not of the OTT service providers is a topic that needs detailed deliberations as the issues involved stretch well beyond the limits of the boundaries of applicability of TRAI's regulations. These changes are disruptive and inconvenient for those with a stake in existing arrangements. It is therefore, suggested that the issue of de-layering of the network on account of introduction of MVNOs and OTT services cannot be linked.
5. In view of the foregoing, following are recommended,
 - 5.1. **There is a requirement of aligning the existing regulatory framework to accommodate the enablement of only voice / data / video service providers as MVNOs.**
 - 5.2. **The issue of licensing of OTT service providers or not need further deliberations and it is suggested that the same be allowed to follow the process already initiated by TRAI.**

Regulatory Issues Required to be Addressed While Introducing MVNOs and RComs Suggested Views on Them

Issues	RCOMs Proposed Views	
	NSO	SDO / VNO
License	Should be applicable	Should be applicable
License Fee	Should be applicable for the total revenue earned, from telecom services, by the NSO.	Should be applicable on the revenue earned by the SDO, after getting pass through on the payments made to NSO.
SUC	Should be applicable for the total revenue earned, from telecom services, by the NSO.	Should be applicable on the revenue earned by the SDO, after getting pass through on the payments made to NSO.
AGR	Should be applicable for the total revenue earned, from telecom services, by the NSO.	1. Should be applicable on the revenue earned by the SDO, after getting pass through on the payments made to NSO. 2. Only Telecom services based revenue should be considered for arriving at the AGR as even a high end garments retailer would be eligible for becoming a SDO.
Rollout Obligations	Should be applicable	Not Applicable as not holding any spectrum.
Interconnections	Responsible for self and SDO	Through NSO
Multiple NSO Parenting for a SDO		Should be permitted : This shall enable a SDO to outsource the best of services from different NSOs, i.e. 2G from TSP 'A', 3G from TSP 'B' and 4G from TSP 'C'.
Multiple SDO attachment for a NSO	Should be permitted	
Sharing of Infrastructure	Should be permitted	Should be permitted

Issues	RCOMs Proposed Views	
	NSO	SDO / VNO
Allotment of numbering resources	DoT to allot the numbers only to NSO	1. To get a subset of parent(s) NSO. 2. Numbers to be allotted by the NSO.
LIM responsibility	Responsible for self and SDO	Through NSO
QoS	Responsible for self and SDO	Responsible to its customers
Roaming	Responsible for self and SDO	Through NSO
MNP	Responsible for self and SDO	Through NSO
MNP : NSO to SDO	Should be permitted	Should be permitted
MNP : SDO to SDO	Should be permitted. NSO to facilitate.	Through respective parent NSOs
Business Case viability for Telecom services	Exists as it shall enable monetization of idle / excess capacities	Exists for Niche Telecom Services
Business Case viability for other services like V-Sat, PNRTS / CMRTS, GMPCS		Exists
Nature of agreement between NSO and SDO	Forebearance	Forebearance
Lockin period for NSO and SDO agreement	Minimum 5 years : Needed to ensure that SDO is not used as tool to migrate the subscribers of one NSO to another NSO	Minimum 5 years
Branding	Own	Own
Customer Acquisition	Responsible for self	Responsible for self
Customer Care	Responsible for self	Responsible for self
NSO as a SDO on another network in same LSA	Should be permitted	
NSO as a SDO on its own network	Should be permitted	
M & A : Acquisition of SDO by its parent NSO	Should be permitted	

Issues	RCOMs Proposed Views	
	NSO	SDO / VNO
M & A : Acquisition of NSO by its child SDO		Should be permitted
M & A : Between two SDOs		Should be permitted
Cross Holding Restrictions : Amongst multiple SDOs	No restrictions to be imposed	No restrictions to be imposed
Cross Holding Restrictions : NSO and SDO	No restrictions to be imposed	No restrictions to be imposed
Reserving some percentage capacity of the NSOs network for SDOs.	Not required as in India we already have multiple NSOs for ensuring adequate competition	
Standalone NSO with only whole sale (B2B) business model	Should be permitted	