TCL/RA/TRAI-CP/VNOs/2015/1   January 15, 2015

Advisor (NSL)
Telecom Regulatory Authority of India,
Mahanagar Doorsanchar Bhawan,
Jawahar Lal Nehru Marg,
New Delhi – 110002

Sub: TCL Response to TRAI Consultation Paper on "Delinking of the License for networks from delivery of services by way of Virtual Network Operators"

Dear Sir,

Kindly find attached herewith Tata Communications Ltd. response on the TRAI Consultation Paper dated 05.12.2014 on "Delinking of the License for networks from delivery of services by way of Virtual Network Operators ".

It is requested that the same may kindly be taken on record.

With kind regards,
For Tata Communications Ltd.

(Praveen Sharma)
Authorized Signatory

Encl: a/a.

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TCL RESPONSE TO TRAI CONSULTATION PAPER ON VNOs

Q1. (a) Is there any need to introduce more competition in service delivery by the way of introduction of VNOs in the sector? If not, why not?

(b) If yes, is it the right time to introduce VNOs?

Q2. Will VNOs pose a threat to NSOs or will they complement their operations? Justify your answer.

Q3. How can effective utilization of existing infrastructure be improved? Can VNOs be a solution to achieve targets defined in NTP-2012 for rural density?

TCL Response: There is no need to introduce more competition in service delivery by the way of introduction of VNOs in the sector at the present juncture. There are sufficient number of TSCs in various LSAs for the access services and more than adequate number of NLD and ILD Service Providers apart from 415 ISPs. All these Service Providers have built their infrastructure for provision of licensed services in their area of operation. The question of a wide digital divide between urban and rural area will be addressed not by introduction of VNOs but by proliferation of infrastructure in rural/remote areas by the TSPs. Without the presence of TSPs in such areas along with their infrastructure digital divide between urban and rural India cannot be filled in. While the technological development may facilitate a case for de-linking the underlying networks from the provision of services the economics for the same is a big negative for the TSPs in the present environment.

In so far as the objectives of digital India are concerned along with the associated issue of quick and efficient utilization of the National Optical Fibre network being put in place by BBNL/BSNL and other PSUs all TSPs (Access Providers, ISPs) would be willing partners of the Government if the access to the network is provided at a reasonable price by BBNL. In fact the modality of the sharing of NOFN would be the crucial factor in determining the success or otherwise of achieving the objectives of digital India. There may also be a case for introducing VNO based ISP license for spurring the utilization of the NOFN and creating broadband highways. These ISP VNOs can buy last mile from BBNL or BSNL depending upon which entity's license is used for provision of services and provide broadband services.

From a historical perspective the resellers for IPLC in the ILD license segment did not take off while there was no demand for VNOs for the NLD services. While the rationale for introduction of VNO for internet services may be there to facilitate easy entry conditions for Cable TV Operators and district based Niche broadband providers, VNO for access service license is a highly debatable issue.

It may be noted that the tariffs in India are one of the lowest in the world for the access services and introduction of VNOs would bring down the tariffs further due to unseemly competition between the TSPs and the VNOs and the retail minus whole sale tariff for VNOs will translate in to lower tariff in a price war. In our view the VNOs will operate in the same service area as the NSOs and they will compete with the NSOs on the basis of lower price and better quality of service etc. There is no way that NSO can ensure that the VNO attached to it will work only to complement their operations as the LSA for the two would be identical. While the VNOs may add to the revenue stream of the access provider but VNOs in India would compete on tariffs and will bring down the overall revenues of the access providers in the mid term and in the long term. Keeping in view that there is intense competition in the access services segment with 7 to 13 access service licensees in various service areas, 37 NLD Licensees and 29 ILD Licensees at present in our view this is not the right time for introduction of VNOs in India for services other than internet services. In our view the franchise model for reselling the services of NSOs available in the UL-AS License and in the earlier UASL License would still achieve the complementing in the operations of NSOs rather than introducing the VNO at this stage.

For increasing the utilization of existing infrastructure as well as upcoming NOFN the terms and conditions for sharing of such infrastructure needs to be made economically viable for the TSPs. In our view VNOs cannot be a solution to achieve targets defined in NTP 2012 for rural tele-density as the proliferation of the infrastructure in the rural areas would be done by the NSOs and looking at the initial meagre revenue possibilities/business case in the rural areas NSOs should be allowed to provide the service using their infrastructure. VNOs may have been relevant for rural areas if the NSOs do not have the where-with-all for selling the services in the rural areas.

Q4. Does there exist a business case for introduction of VNOs in all segments of Voice, Data and Videos?

TCL Response: Please refer response to Question No.1, 2 & 3.

Q5. Whether VNOs be introduced in all or some of the services notified in the UL? Please name the services and the justification.

TCL Response: VNOs need to be introduced for internet services as well as for GMPCS services. In case of internet services the justification is that it would lead to entry of district based non-facility based internet service providers. In respect of GMPCS services only one operator is planning to provide facility based services GMPCS services perhaps with the Government financial support and there is a case to introduce VNOs in this space to improve the competitiveness in this service sector.

Q6. Is there sufficient infrastructure (active and passive including access spectrum) available with a TSP to meet its own requirements? Can TSPs spare available infrastructure for VNOs?

Q7. If any TSP is able to share its infrastructure with VNOs, what should be the broad terms and conditions for sharing the infrastructure?

TCL Response: As of now TSPs do not have spare infrastructure available for VNOs as their own networks are congested due to lack of spectrum and last mile options. In case any TSP is able to share its infrastructure with the VNOs it should be on the terms and conditions to be mutually agreed between the TSP and the VNO.

Q8. Should VNOs be allowed to create their own infrastructure to reach out to niche markets? If yes, to what extent?

TCL Response: In our view the VNOs being virtual network operators should not be allowed to create their own infrastructure to reach out to niche markets. The example of ISPs license amendment is not appropriate as ISPs license permitted setting up last mile by the ISPs. The extract of 2004 recommendations of TRAI is reproduced below:

"3. **Clause 7.2 of schedule 'C' of ISP Licence Agreement allows ISPs to establish their own last mile on copper cable with the permission of DoT in case of non-availability of such capacities from BSOs**. This involves a difficult and time consuming process, which delays the provision of high speed Internet service by ISPs to their customers.

4. **Clause 7.5 of schedule 'C' of ISP Licence Agreement allows ISPs to freely use Optic fiber and Radio in the last mile but does not mention copper cable explicitly. This limitation restricts the technology options available with ISPs for the provision of high speed Internet.**

5. In order to provide an impetus to the growth of high-speed Internet access and make ISP Licence technology-neutral as far as last mile access is concerned, it is recommended that ISPs should be allowed to use any media (including fiber, radio and copper cable), for establishing their own last mile to their customers. The ISP Licence may therefore be amended accordingly.

6. This issues with the approval of the Authority."

Q9. Should Local Cable Operators (LCOs) or Multi System Operators(MSOs) with cable networks be permitted to share infrastructure with VNOs to provide last mile connectivity?

TCL Response: The LCOs or MSOs with cable networks can be permitted to share/lease their last mile infrastructure with licensed ISPs and ISP VNOs can provide service using such last mile connectivity from the licensed ISP.

Q10. Does the adoption of the VNO model requires an entirely new licensing regime or will a chapter or a separate section for VNOs added to the existing UL suffice?

TCL Response: Subject to our response in the earlier questions a separate section for each VNO service which we have recommended to be introduced needs to be added on in the existing UL regime.

Q11. Comment on what measures are required to ensure that the existing or new licensing regime takes care of future requirements of technological development and innovation and provides a clear roadmap for migration to existing service providers.

TCL Response: It is presumed that the future requirements of technological development and innovation in the question refers to the OTTs and M2M services. The licensing of OTTs and its interconnection with TSPs is a wide subject in itself and would require a detailed consultation on the placement of OTTs in the current licensing regime as well as their willingness to enter in to licensing obligations in the Indian geography. We do not think any specific measure is required other than what has been detailed in our response to the earlier questions.

Q12. In view of the complexity in the existing licensing regime as explained in Para 3.16 to 3.18, Should India move towards NSO and VNO based licensing?

Q13. If yes, whether existing licensees may be mandated to migrate to NSO & VNO based new licensing regime? What challenges will arise in the migration to the two types of licensing framework?

TCL Response: Licenses are contracts between the licensor and licensee for a specific period mentioned in the contract and any migration from one regime to another newer regime has to be at the discretion and agreement of the licensee. As on date the licensing regime is functioning satisfactorily for the reason that there has been no mandated or compulsory migration from one license contract in older license regime to another license contract in the newer licensing regime. We do not support the idea that India should move towards NSO and VNO based licensing as a completely new license regime superseding the earlier license regimes. The VNO for UL-ISP and UL-GMPCS can be permitted as separate chapter in the UL regime as well as in the service specific ISP and GMPCS licenses which are surviving as on date.

Q14. Should a VNO be issued a license at the National Level, or for LSAs as in the case of UL or should it be based on the host NSO license areas?

Q15. What should be the duration of a VNO's license? Should it be linked with the license of the NSO or should it be for 20 years, as in the case of UL?

TCL Response: VNO should be issued license at national level or for LSAs for the internet services whereas for the GMPCS service VNO has to be at the national level. Similarly if VNO is sought to be introduced for other services it should be introduced based on the licensing mode viz. LSA based for access services and national level for all India services.

The duration of the license of the NSO should be 20 years as in the case of all other licenses and the obligation of providing services as a VNO by entering in to agreement with NSOs should squarely lie on the VNO.

Q16. Should there be any cap on the number of VNOs in a service area for a particular service? If yes, what should be the number? Please provide (a) service wise and (b) service area-wise numbers with justification.

TCL Response: Subject to our response that VNOs should be introduced only for internet services and GMPCS services at this juncture there is no need to put any cap on the number of VNOs in a service area.

Q17. Should there be restriction on number of VNOs parented to a NSO? Justify your answer.

Q18. Alternatively, should one VNO be permitted to parent more than one NSO per LSA?

TCL Response: Subject to our response that VNOs should be introduced only for internet services and GMPCS services at this juncture there is no need to put a restriction on number of VNOs parented to ISP NSO or GMPCS NSO. While there will be only one GMPCS NSO that too in future such a scenario of permitting VNO to be parented to more than one NSO will not arise in case of GMPCS services. For internet services ISP VNO can be permitted to be parented with more than one NSO ISP per LSA.

Q19. What should be the eligibility conditions for becoming a VNO?

TCL Response: Subject to our response above the eligibility condition for VNO for the internet services and GMPCS services should be based on light touch regulation with nominal financial obligations in form of nominal entry fee, PBG and FBG. The consultation paper has not dwelled upon the license fee which would be required to be paid by such VNOs and this should also be made nominal to encourage participation of VNOs in the Indian market.

Q20. Whether an existing Unified Licensee with authorisation to provide all services shall be eligible to become a VNO of another Licensee in the same or other LSA? Or, will it need separate/additional authorisation to work as a VNO for delivering services for which it does not have access spectrum?

TCL Response: We have not recommended the introduction of VNO for access service for the reasons explained earlier. Moreover the issue of 3G ICR is already pending in Supreme Court for adjudication which if cleared will render the requirement as put out in the question redundant.

Q21. Should there be any cross-holding restriction between a NSO and VNOs? If yes, please quantify the same with justification.

TCL Response:

Q22. What should be the financial obligations of VNOs in the form of a) Equity & Networth b)Entry Fee c)PBG and d)FBG etc.? Please quantify the same with justification.

TCL Response: Subject to our response above the eligibility condition for VNO for the internet services and GMPCS services should be based on light touch regulation with nominal financial obligations in form of nominal entry fee, PBG and FBG. The consultation paper has not dwelled upon the license fee which would be required to be paid by such VNOs and this should also be made nominal to encourage participation of VNOs in the Indian market.

Q23. Should a VNO utilise numbering resources, Network Codes and Locational Routing Number (LRN) of the NSO? Or, should the Licensor allocate separate numbering resource, Network Codes and Locational Routing Number(LRN) directly to a VNO?

TCL Response: Since we have not recommended the introduction of VNO for access service for the reasons explained earlier the question of utilization by VNO of numbering resources, network codes, LRN etc. of the NSO does not arise. However, the VNO ISP and VNO GMPCS recommended by us for introduction in the license regime should utilize the IP resources and numbering resources of the parent NSO.

Q24. What operational difficulties could arise in the above arrangements?

TCL Response: In case of a dispute between the VNO and its parent NSO resulting in termination of the agreement the VNO will have to take its resources from another NSO with which it would be getting parented post termination of agreement with its earlier NSO.

Q25. In case your reply is that the Licensor allocates numbering resource to the VNO, then how can it be ensured that the resources allocated to a VNO are efficiently utilised? Should any obligation be placed on VNOs for efficient utilisation of resources?

TCL Response: Not Applicable.

Q26. Should the LF and SUC applicable to the VNO be as per stipulated conditions of authorisation in UL? Or, should it be treated differently for VNO? Please quantify your answer with justification.

TCL Response: Not Applicable as we have not recommended introduction of VNOs for access services. However, minimal license fee should be imposed on the VNO ISP and VNO GMPCS to facilitate easy entry and operation of VNO services.

Q27. Should an NSO be mandated to provide access to its network to a VNO in a time-bound manner or should it be left to their mutual agreement.

TCL Response: This should be left to be decided by mutual agreement between the VNO and the NSO.

Q28. How can MNP be facilitated in the VNO/NSO model? Can the VNO be treated separately for MNP purposes? Or, should MNP be facilitated only through the network of the NSO?

TCL Response: Not Applicable as we have not recommended introduction of VNOs for access services.

Q29. Who is to be held responsible for CAF verification and number activation, the NSO, the VNO or both?

TCL Response: Not Applicable as we have not recommended introduction of VNOs for access services. For broadband/internet services and GMPCS services, the responsibility for CAF verification and legal use should be the obligation of the VNO and not the NSO.

Q30. Should an NSO or VNO or both be responsible for maintaining QoS standards as per TRAI's regulations?

TCL Response: For network performance related QoS parameters the responsibility should be on the NSO. For customer services related parameters the responsibility should be on the VNO.

Q31. How should Mergers & Acquisitions be dealt with in the VNO/NSO licensing model? Should the recently announced M&A guidelines issued by the Government for existing players be extended to cover VNOs? Or, should their M&A be treated separately?

TCL Response: M&A for VNOs should be treated separately.

Q32. Should the VNO be treated equivalent to the NSO/ existing TSPs meeting obligations arising from Tariff orders/regulations /directions etc. issued by TRAI from time to time?

TCL Response: Since the tariffs will be fixed by the VNOs for the services being provided by them there should be held responsible for compliance to tariff orders and directions in respect of consumer tariffs. In respect of network related issues the responsibility of meeting the obligation imposed by any regulation or direction should be on the NSO.

Q33. Please give your comments on any related matter not covered in this Consultation paper.