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Ref: ACTO Response to TRAI's Consultation Paper No. 15/2014 dated December 5, 2014 on 'Delinking license for networks from delivery of services by way of Virtual Network Operators (VNOs)'.

Dear Sir,

We express our sincere thanks to the Hon'ble Authority for bringing this consultation paper on delinking license for networks from delivery of services by the way of Virtual Network Operators(VNOs).

ACTO is pleased to provide its responses to the questions and issues posed in support of the captioned Consultation Paper including some other issues which are also relevant under phase two of unified license regime deliberated through the current consultation exercise.

We hope that our comments (enclosed as Annexure - I) will merit the kind consideration of the Hon'ble Authority.

Respectfully submitted,

Yours sincerely,

for Association of Competitive Telecom Operator



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Encl: As above

Annexure-I

ACTO's response on TRAI consultation paper on 'Delinking of license for networks from delivery of services by way of Virtual Network Operators (VNOs)'.

Introduction

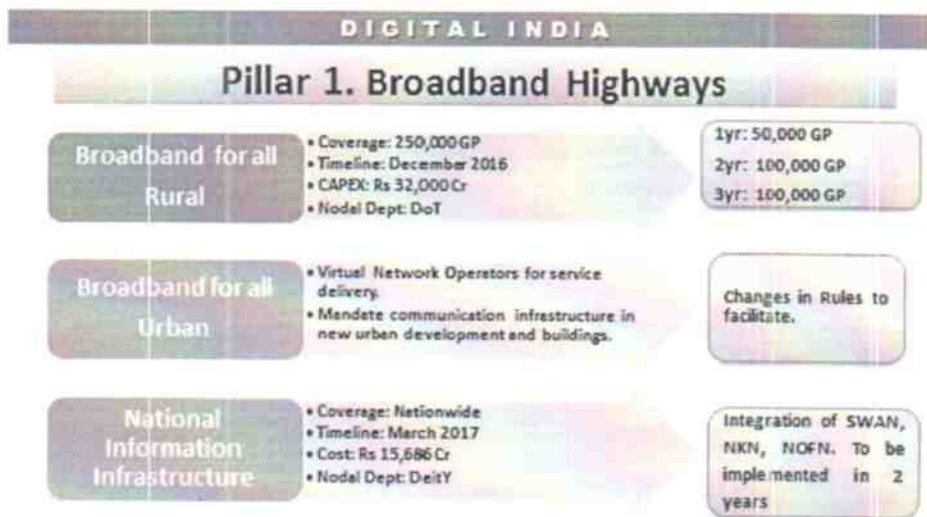
When telecom markets got saturated and matured in the advanced countries, a new concept of Virtual Network Operator has emerged which helped push further growth, competition in the market, facilitate roll out of new technology through innovation, increased customer satisfaction and affordability. With a subscriber base of 950 million and a tele-density which has been hovering around 75% for last couple of years, and a areas which are unserved, in India, it's right time to introduce resale of telecom services in retail and wholesale segment with or without value addition through the introduction of VNOs to push for further growth/investment in the telecom sector.

With the possible merger/consolidation round the corner in Indian telecom market, introduction of VNOs will not only help to keep up the current competition level but it will also benefit Indian businesses and consumers and the economy as a whole by ensuring competitive prices, new and innovative products and services and expanded customer choice.

Government of India ambitious plan for the completion of NOFN project will ensure to generate huge fibre optic bandwidth across the country and that requires speedy implementation by entities for service delivery which can be also done by introducing VNOs for optimum usage of these resources as well as to compliment the flagship program "Digital India".

The benefits of allowing the resale of telecom services by VNOs are already highlighted under National Telecom Policy 2012 both for creating competition as well as optimally and efficiently utilize networks by sharing of infrastructure. This will enhance the quality of service, optimize investments and help address the issue of the digital divide.

The prestigious Digital India Program also supports introduction of virtual network operators for service delivery under the very first pillar on building broadband highways. The slide from the Digital India presentation mentioned below clearly states the steps required to be taken and the action point. Introduction of Virtual Network Operators for Service Delivery has been identified as the key step required. The action is in the form of changing rules to facilitate the same for overall broadband growth. Therefore the objectives of NTP 2012, Digital India Program and Prior Approval to this concept in 2009, clearly support the introduction of VNOs to facilitate competition and growth in the sector to achieve the objectives of the stated policies and roadmap of Government of India.



Source: DeitY Website.

The additional competition in India's telecom markets resulting from introduction of VNO measures will benefit Indian businesses and consumers and the economy as a whole by ensuring competitive prices, new and innovative products and services and expanded customer choice.

International Best Practice

International experience aptly demonstrates that the competition in the Telecom space is gradually shifting away from traditional competitor's i.e pure vanilla network operators to resellers, Virtual Network Operators (VNOs). The new classes of companies/operators are not competing with the traditional telecom companies on price or superior network but on enhanced customer experience and moving away from traditional to innovative business offerings tailor made to suit the business requirements of enterprise as well as small and medium businesses.

Removal of restrictions on resale facilitates more efficient use of infrastructure, increases competition, availability of innovative services and stimulates affordability in the sector. The current license regime needs to be amended to permit resale of all fixed or mobile telecommunications services both at wholesale and retail level including through VNOs. This will help allow customers and operators to benefits, including faster roll out of services having less tele density.

The role of VNOs in such a scenario is very critical especially for the proliferation of emerging technology formats like cloud and Machine-to-Machine (M2M) services which are expected to usher in the next wave of telecom revolution in India and represents the next big opportunity in the industry.

Given the tremendous opportunity that lies untapped there is an urgent need for the introduction of VNO's, given the fact that the current estimates of growth for M2M services are a fraction of what lies in the future which represents huge growth for sector.

The focus of the government policy as reflected in the NTP-2012 has been to provide affordable access and efficient service delivery to the end users. The role of VNOs for facilitating such services thus becomes very relevant and becomes an important part of an operator's business model.

Globally it is seen that many VNOs are partnering with NSO's to be a part of the service delivery value chain. VNO's can really play a significant role in partnering with the NSO's to provide a bouquet of enhanced services in a more scalable and innovative fashion.

The VNO model can either expand the distribution strategy of the NSO and potential areas of innovation in the infrastructure sharing space. Alternatively the VNOs can also have their own strategy as well in terms of having control of various service elements to provide service to the end customer.

Pursuant to the opening up of the telecom sector for private participation in 1994-95', telecom service providers in India have invested significantly in building the networks as part of their roll out obligations under the license. Through the VNO, there is an opportunity for the integrated and facilities based network service operators to leverage their already established networks & associated infrastructure and provide innovative and customized services and expand distribution channels for their services.

Traditional business models are also giving way to newer service formats as business customers are becoming increasingly comfortable with service & pricing models that create maximum value for them. Internationally there are examples of TSP's embracing VNO business models to expand and drive growth. For example, in ASPAC region, Australia mobile market has three main telecom operators and 43 VNO's, similarly in Hong Kong mobile market there are four MNO's and 11 VNO's.

Thus the above Global trends indicate that VNO is considered as one of the ideal options for growth strategy.

Under the current reference DoT has requested TRAI to submit its recommendations on VNOs including associated issues under unified licensing regime. A new authorization/ registration based regime needs to evolve to take care of New entrants who plan to enter the sector.

ACTO is in favour for speedy introduction and implementation of Virtual Network Operator while ensuring a level playing field, removing all multi stage levy/license fees and provide equal treatment to voice, data & video for allowing pass through charges as deduction from AGR for license fee payment purposes.

ACTO's response to the specific questions in the consultation paper is enumerated as below:

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

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

ACTO's Response:

As indicated in our response to the pre consultation dated 3rd September, 2014, it is certainly the right time to introduce more competition in service delivery segment by the way of introduction of VNO in the sector due to the following reasons:

- The Digital India Program views this as an important area to open up for further broadband growth.
- The National Telecom Policy 2012 states:
"3.3. To move towards Unified Licence regime in order to exploit the attendant benefits of convergence, spectrum liberalisation and facilitate delinking of the licensing of Networks from the delivery of Services to the end users in order to enable operators to optimally and efficiently utilise their networks and spectrum by sharing active and passive infrastructure. This will enhance the quality, optimize investments and help address the issue of the digital divide. This new licensing regime will address the requirements of level playing field, rollout obligations, policy on merger & acquisition, non-discriminatory interconnection including interconnection at IP level etc. while ensuring adequate competition."
- VNOs will provide innovation in service or in terms of service delivery. The sooner we do, it would be better for the overall sectoral growth.
- The trends in the Indian telecom sector witness more shift to delivery of services. Hence the need for additional players in the service delivery segment in the form of VNOs.
- The introduction of VNO will lead to faster penetration of telecom services. There are lot of unserved and underserved areas where basic telecom connectivity, internet and broadband services need to be provided. The broadband penetration is very low in India and need to be aggressively pursued to meet the objectives of Digital India and NTP 2012.
- Introduction of VNOs will facilitate the success for the flagship program "Digital India".
- Introduction of VNOs has already proven success in many countries in last 10 years.
- Current level of competition in Indian telecom market may get reduced due to possible merger/acquisition among NSOs and VNO will ensure to keep up the level of competition for the benefit of end customers.
- Implementation of NOFN will ensure to have availability of huge bandwidth. In order to utilize this resource and address the key issue of service delivery, VNO will play an important role.
- The table below clearly indicates that the overall growth of in the sector has saturated with no significant growth. There are infact negative trends witnessed in last couple of

years. With the tele-density and numbers remaining more or less constant and falling, it makes a fit case to introduce VNO at this point of time in this sector to revive growth.

Telephone Network in India

March Year end	Telephones (million)			Share in % age		% age Growth (over previous year)		
	Wireline	Wireless	Total	Wireline	Wireless	Wireline	Wireless	Overall
2001	32.7	3.58	36.28	90.1	9.9			
2003	41.32	13.29	54.61	75.7	24.3	7.92	99.11	21.46
2005	41.42	56.95	98.37	42.1	57.9	1.23	59.88	28.53
2007	40.77	165.09	205.86	19.8	80.2	1.36	62.07	44.88
2009	37.96	391.76	429.72	8.8	91.2	-3.68	50.05	43.01
2011	34.73	811.6	846.33	4.1	95.9	-6.03	38.9	36.22
2012	32.17	919.17	951.34	3.38	96.62	-7.37	13.25	12.41
2013	30.21	867.81	898.02	3.4	96.6	-6.09	-5.59	-5.60
2014	28.49	904.51	933	3.25	96.75	-5.69	4.23	3.90

Source: Economic Research Unit, DoT & TRAI

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

ACTO's Response:

Clause 3.3 of the NTP-2012 states:

"3.3. To *move towards Unified Licence regime* in order to exploit the attendant benefits of convergence, spectrum liberalisation and facilitate *delinking of the licensing of Networks from the delivery of Services to the end users* in order to enable operators to optimally and efficiently utilise their networks and spectrum by sharing active and passive infrastructure. This will enhance the quality of service, optimize investments and help address the issue of the digital divide. This new licensing regime will address the requirements of level playing field, rollout obligations, policy on merger & acquisition, non-discriminatory interconnection including interconnection at IP level etc. while ensuring adequate competition."

VNOs will complement the operations of NSOs in providing service due to following reasons:

- Increase in the revenue of incumbent NSO without further investment in Capex and in turn it will increase ROI by optimum utilization of resources like spectrum, bandwidth, capacity and fibre, etc.
- It will be beneficial for VNO to reach niche areas for providing innovative services and spread their network/services indirectly. It will also create more competition and offer more choices to the customers.
- VNO and NSO will increase overall revenue of the telecom market when the barrier to resale is removed by the introduction of VNO.

Q3. How can effective utilization of existing infrastructure be improved? Can VNOs be a solution to achieve targets defined in NTP-12 for rural density?

ACTO's Response:

Yes, ACTO believes that VNO will be an effective stakeholder for efficient utilization of existing infrastructure. VNO's can address the issues of quality of service and delivery of service by means of innovative products and services. VNO's will play an equally critical role for further penetration in niche, unserved and underserved area in addition to improvement in service quality and delivery including generating content for delivery in local areas. Thus VNOs will be an important stakeholder to achieve targets defined in NTP-2012.

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

ACTO's Response:

In the era of convergence, voice, video and data cannot be seen as separate avenues both from technology and economic perspective. Combining these services will make more strong business case towards the introduction of VNO. Further innovation aspect of VNO will make these services more cost efficient and reach economies of scale.

While introducing VNOs in the sector, reliance should be on market mechanism rather than regulating what segment or service is to be permitted. The VNO model has mostly been about offering affordable, innovative, rebranded network operator's services and controlling and reducing operators own overhead costs.

The regulatory framework should not identify or dwell on whether there is a supporting business case, before allowing VNOs to provide service. Instead, VNOs should be able to provide service, based on their business judgment that it may be profitable to do so in light of available market opportunities. A market based approach instead of a regulatory oversight in such matters will be most appropriate to serve the requirements of all the stakeholders.

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

ACTO's Response:

In the larger interest of spurring innovation and competition in the sector, ACTO is in favour of allowing VNOs in all services notified in the UL instead in a piece meal manner in the current market scenario.

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

ACTO's Response:

The licensing and regulatory framework should allow complete sharing of both active and passive infrastructure in all respects across all categories of licenses. The matter relating to availability of infrastructure for sharing is best addressed between the NSO and VNO on a commercial basis.

All types of infrastructure are available to meet any additional requirement of resources for VNOs. This will help both the existing operator by way of additional revenue and faster Return on Investment. Moreover, Government of India has ambitious target for NOFN which will generate huge bandwidth and capacity.

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

ACTO's Response:

Sharing of infrastructure between the VNO and NSO should be a matter of mutually agreed commercial agreement. The proposed regime should allow for sharing of both passive and active infrastructures. The reseller /VNO should be able to provide services on the strength of infrastructure of NSO.

The arrangements negotiated by Virtual Network Operator with the network operator must be settled on a purely commercial basis and there is no need for regulatory involvement in these arrangements. The VNO model works best where there is a willing network supplier with spare capacity and a desire to develop new channels to market which the VNO model provides.

Insofar as interconnection and other more forms of bottleneck infrastructure access is concerned, the VNOs should simply be treated on the basis the same regulatory regime that applies to NSOs.

The licensing and regulatory framework should allow complete sharing of both active and passive infrastructure in all respects across all categories of licenses.

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

ACTO's Response:

VNO should be allowed to lay infrastructure where ever it may require for further penetration of connectivity to facilitate providing service. Cost sharing model with NSOs to lay additional infrastructure may also be encouraged on mutually negotiated commercial terms.

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?

ACTO's Response:

Yes, we believe that LCO & MSO should be allowed to share infrastructure for last mile connectivity. This will definitely help to reduce the capex cost and help in optimal utilization of network thus making services more affordable to the customers.

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?

ACTO's Response:

ACTO supports a light touch authorization process in the form of a registration for VNO in UL. This will ensure making the process simpler.

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

ACTO's Response:

Current licensing regime should be flexible, technology neutral & service agnostic. It should be left to the choice of the operators for migration to new technology for providing innovative services.

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 & VNO based licensing?

ACTO's Response:

ACTO supports a light touch authorization process in the form of registration for VNO and not for NSO/VNO based licensing as separate category in UL.

The issue may be viewed from the following perspectives:

- Existing Telecom Licensees who already have networks on the ground and provide services to end users on the strength of the said networks, may wish to become VNOs may seek flexibility opt for a standalone & pure resell regime notwithstanding their existing network capabilities on the ground.
- New Entrants who may wish to enter the sector by becoming resellers VNOs.
- Separate Registration or License based framework regime for existing licensees as resellers VNOs.

The existing licensing regime did not distinguish operators based on creation of facility based networks and provision of service. As a consequence the existing licensees already included

