RJIL/TRAI/2023-24/347

22nd March 2024

To,

Shri Akhilesh Kumar Trivedi,

Advisor (Networks, Spectrum and Licensing)

Telecom Regulatory Authority of India,

Mahanagar Doorsanchar Bhawan,

Jawaharlal Nehru Marg, New Delhi - 110002

Subject: **RJIL's comments on TRAI's Consultation Paper on "Connectivity to Access Service VNOs From More Than one NSO".**

Dear Sir,

Please find enclosed the comments of Reliance Jio Infocomm Limited (RJIL) on the Consultation Paper dated 23.02.2024 on **"Connectivity to Access Service VNOs From More Than one NSO"**.

Thanking you,

Yours Sincerely,

For **Reliance Jio Infocomm Limited**

Kapoor Singh Guliani

Authorized Signatory

Enclosure: As above

Reliance Jio Infocomm Limited's comments on TRAI's Consultation Paper on "Connectivity to Access Service VNOs From More Than one NSO" dated 23rd February 2024.

Preface:

1. Reliance Jio Infocomm Limited (RJIL) thanks the Authority for issuing this consultation paper to deliberate on the **Connectivity to Access Service VNOs From More Than one NSO.**

2. At the outset, we submit that as per the TRAI recommendations dated 1st May 2015 and DoT Guidelines dated 31st May 2016, the VNOs were restricted from being parented by more than one NSO for access services and other such services which need numbering and unique identity of the customer. The Authority had opined that for those services which require unique identity in terms of numbering, lawful interception, spectrum usages etc. the VNO can have parenting with only one NSO for an authorisation.

3. The background of this decision was the concerns raised by stakeholders on permitting VNO to parent to more than one NSO. It was felt that this may lead to issues pertaining to prioritization of NSO, at the cost of optimum utilization of services. Additionally, it was also understood that the parenting of one VNO by more than one NSO will result in enormous complexities insofar as monitoring, regulation, enforcement, segregation of revenue, payment of license fee, SUC, etc is concerned. Other concern on this issue can be the scenario of shifting loyalties and possibility of anti-competitive practices.

4. We submit that all these concerns still persist and owing to the same and other issues discussed subsequently, we do not support the proposal of permitting multi parenting in the two scenarios discussed in the CP viz. (a) different wireline and wireless NSO in same LSA (b) two wireline NSO in same LSA.

Parenting with one NSO for wireline and another for wireless services

5. We submit that the technology wise differentiation between the Wireline and Wireless services are blurring. Under the modern converged telecom networks many network elements at Core like Interconnection Border control Function (IBCF), Call Session Control Functions (CSCF) like Serving CSCF (S-CSCF), Proxy CSCF (P-CSCF), and elements like RBT, Media Resource Function (MRF) at application server level are common for both wireless and wireline services.

6. We understand that due to these shared elements and more and more convergence, parenting with different NSOs, **one for wireline and another for wireless will create complexity at keeping the services completely separated and it would also lead to difficulties in revenue accounting.**

7. Furthermore, this proposed use case of same VNO parenting with different NSOs- one for wireless services and another for wireline services will also create confusion over numbering resources. The Authority in its recommendations on "Efficient Utilization of Numbering Resources" dated 20th August 2010 has proposed that the existing 10-digit numbering scheme should be continued to avoid inconvenience to the customers that would accompany any move to shift to an 11-digit numbering scheme. In these recommendations the Authority recommended that India should migrate to an integrated numbering scheme for fixed and mobile services.

8. Although, the Authority in its recommendations dated 29.05.2020 on 'Ensuring Adequate Numbering Resources for Fixed Line and Mobile Services' has stated that the migration to unified numbering scheme, which involves large-scale changes in the existing network, is not recommended at this stage, however, **the integrated numbering scheme is not completely ruled out and may be required at a later stage.**

9. We have been witnessing continued pressure on numbering resources over the years, especially for wireless services and lately on wireline services. So far, these issues have been addressed by making the number allotment criteria more stringent. **However, this approach has its limitations and as we move towards greater Digital Inclusion, the move towards integrated numbering is inevitable.** This would imply that the concerns around mixing up of numbering resources of two NSOs will be a material factor and all the concerns that led to rejecting of multi-parenting proposal in 2015-16 would be still effective.

10. The Authority and Government understand that the next step of technological evolution will be complemented by the convergence of technologies and services. Along with the convergence of telecom-broadcasting, terrestrial-satellite communication, an important near time convergence will be fixed-mobile, fixed-IN convergence. The same customer with be using his number as both mobile and wireline depending on his location and connectivity. However, for a VNO with different parent NSO for both services, the benefits of convergence will be lost and make the business case much more difficult and prohibitive. Thus, evidently, the multi-parenting is not feasible with one wireline NSO, and another wireless NSO.

Parenting with two NSOs for wireline services

11. We believe that the use case of relying on different NSOs to provide adequate coverage in a LSA has already been addressed through the TRAI recommendations on 'Introduction of UL (VNO) for Access Service authorization for category B License with Districts of a State as a Service Area' dated 08.09.2017 and subsequent notifications by DoT.

12. Further, the DoT's amendment for Access Service Category 'B' authorization provides for multiple restrictions on the VNO to ensure no violation and bypassing and routing of STD and ISD traffic happens. The connectivity of different NSOs was allowed at same EPABX, however, with many restrictions. We are extracting and reproducing the provisions herein below:

> *"5.2 For wire line access services through EPABX, the connectivity of different NSOs at different EPABX is allowed. However, for connectivity with more than one NSO at a particular EPABX the licensee shall **ensure non-breachable logical/ virtual partitioning in the EPABX and logical separation of junctions from different NSOs with no inter NSO call flow.** Also, the **EPABX should not support internet connectivity and NLD/ ILD calls shall be ensured through normal NLD/ ILD network only** & **shall in no way directly or indirectly cause bypass of licensed National Long Distance Operator (NLDO)/ International Long Distance Operator (ILDO) jurisdiction.** Further, licensee shall intimate to its NSO(s) and the Licensor regarding connectivity of more than one NSO at a particular EPABX."*

13. Pertinently, the multi-parenting of NSOs while permitted at same EPABX for Category B VNO licensees, was not extended to Access VNO level, where the multi-parenting was permitted at different EPABX only. Further, it was mandated that in case the VNO authorization is required for more than 4 Districts in a State/Union Territory for Access Service Category B, Access Service authorization in respective Circle Service area is to be applied for, which would lead to forsaking the multi-parenting at same EPABX.

14. **Evidently, once the scale of VNO operation is large enough, the local level restrictions may not be sufficient, and consequently multi-parenting at EPABX level will be not feasible and was prevented. Therefore, it is well established that the present regime has considered and addressed all possible scenarios and is optimum and there is no need for a change.**

15. Further, by permitting the VNOs to parent with more than one wireline NSOs across the LSA for Direct Exchange Lines (DEL) would inevitably lead to all the issues discussed previously around numbering resources, lawful interception, priority of one NSO over

the other and competition related issues. The Authority is well aware of the same and we are not repeating these for the sake of brevity.

16. To summarise, we submit as under:

> **There is no need to change the existing provisions and the VNO licensees should continue to be permitted to parent only with one NSO for access services and all other services which require unique identity in terms of numbering, lawful interception, spectrum usages etc.**

Issue wise response:

Q1. In your view, what is the maximum number of Network Service Operators (NSOs) from whom a UL (VNO) licensee holding Access Service Authorization should be permitted to take connectivity in a licensed service area (LSA) for providing wireline access service? Kindly provide a detailed response with justification.
And
Q2. In case your response to the Q1 is a number greater than one, what should be the associated terms and conditions for permitting such connectivity? Kindly provide a detailed response with justification.

RJIL Response:

1. We believe that there is no need to change the prevailing provisions that restrict the VNOs from being parented by more than one NSO for access services and other such services which need numbering and unique identity of the customer.

2. Wireline services require unique numbering and under the prevailing SDCA based number assignment methodology it will be difficult to differentiate the NSOs in the case of lawful interception. Furthermore, as different Wireline operators are using different technologies ranging from basic wireline voiceband modems to digital subscriber line (ADSL), leading all the way upto Fiber based services, permitting more than one parent NSO can lead to prioritization and favoritism related issues.

3. Pertinently, the current licensing provisions for multi-parenting in VNO licenses for wireline services are well thought out and all scenarios have already been addressed. In wireline services, VNO access service licensees are even today permitted to parent to multiple NSOs at different EPABX level and in case of ISP services, there is no restriction on parenting to multiple ISPs for providing pure broadband services.

4. Further, in case the VNOs requires multi-parenting at same EPABX level, then the same is covered under the VNO Access Service Category 'B' authorization, based on the TRAI recommendations on 'Introduction of UL (VNO) for Access Service authorization for category B License with Districts of a State as a Service Area' dated 08.09.2017.

5. Further, as mentioned before, DoT's amendment for Access Service Category 'B' authorization permits sharing of EPABX in NSOs and the Access VNOs are mandated to ensure that different NSOs connect at different EPABX, owing to concerns around bypassing and routing of STD and ISD traffic. Government has also mandated that if VNO authorization is required for more than 4 Districts in a State/Union Territory for Access Service Category B, then Access Service authorization in LSA will be required. Evidently, once the scale of VNO operation is large enough, the local level restrictions may not be sufficient, and consequently multi-parenting even at EPABX level will not be feasible. Therefore, it is clear that all the scenarios are well thought out and there is no need to extend the multi-parenting to LSA level.

6. Further, it will be impossible to find a use case where one operator is the only wireline service provider in one remote area, while another service provider alone is covering another remote area. **The overlap in lucrative urban areas is inevitable. In such case, it would be unfair to legacy technology operator, if the VNO opts for a new FTTX based NSO in urban areas while using the legacy operator in remote areas. Therefore, we reiterate that no change is required in current provisions.**

Q3. Whether a UL (VNO) licensee holding Access Service Authorization in an LSA should be permitted to take connectivity from one NSO for wireless access service and other NSO(s) for wireline access service in the LSA? Kindly provide a detailed response with justification. And

Q4. In case your response to the Q3 is in the affirmative, what should be the associated terms and conditions for permitting such connectivity? Kindly provide a detailed response with justification.

RJIL Response:

1. **No, a UL (VNO) licensee holding Access Service Authorization in an LSA should not be permitted to take connectivity from one NSO for wireless access service and other NSO(s) for wireline access service in the LSA.** We reiterate that valid grounds subsist for not permitting multi-parenting to VNOs for access services.

2. At the outset, **there is no use case for a service provider to avail VNO route in case it wants to offer the entire bouquet of access services including but not limited to wireless and wireline services. There are no significant entry barriers in availing the Unified**

License, thus the first preference for the new entrants, desiring to offer wireless and wireline services should be availing the Unified License instead of VNO route.

3. Further, all the main 4 NSOs (i.e. RJIL, Bharti Airtel, VI & BSNL) provide both wireline and wireless services and any multi parenting involving 2 of these service providers, albeit for separate services, **would lead to unnecessary competition and favoritism related issues besides the technical and monitoring related issues discussed in subsequent paras.**

4. The National Digital Communications Policy – 2018 (NDCP-2018) talks of convergence of services and sectors and convergence of PSTN-IP is part of its strategies under Connect India mission. This convergence is already happening on the telecom network side. Under modern integrated telecommunication networks, many network elements at Core like IBCF, S-CSCF , P-CSCF, and elements like RBT, MRF at application server level are common for both wireless and wireline services, thus it may not be feasible to separate the service offering to meet the requirements of an VNO, that is also connected with a competitor for a separate service.

5. **At another level, not leveraging this convergence would hamper the VNO service offerings and parenting with different NSOs, one for wireline and another for wireless will lead to complexity at keeping the services completely separated, cascading into difficulties in revenue accounting.**

6. The concerns over unique numbering being associated with an NSO and number based Lawful Interception would be further complicated in the case of same VNO parenting with different NSOs- one for wireless services and another for wireline services.

7. On the face of it, it may appear that both NSOs will be having different numbering for different services and the VNO will be able to maintain the differentiation basis numbering only. However, this situation will not continue for a long time. Legacy networks are already being modernized obviating the need for previous century's numbering schemes and bifurcations. Further, the growth of telecom subscribers will demolish these artificial distinctions.

8. The Authority in its recommendations on "Efficient Utilization of Numbering Resources" dated 20th August 2010 had proposed that the existing 10-digit numbering scheme should be continued to avoid inconvenience to the customers that would accompany any move to shift to an 11-digit numbering scheme. In these recommendations the Authority recommended that India should migrate to an integrated numbering scheme for fixed and mobile services. Although, the Authority in its recommendations dated 29.05.2020 on 'Ensuring Adequate Numbering Resources for Fixed Line and Mobile Services' has stated that the migration to unified numbering scheme, which involves large-scale changes in

the existing network, is not recommended at this stage, however, the integrated numbering scheme may very well be required at a later stage not far in future.

9. The Authority is aware of the continued pressure on numbering resources over the years, especially for wireless services and lately on wireline services. So far, these issues have been addressed by making the number allotment criteria more stringent. However, this approach has its limitations and as we move towards greater Digital Inclusion, the move towards integrated numbering is inevitable. This would imply that the concerns around mixing up of numbering resources of two NSOs will remain a concern.

10. Furthermore, once we achieve the convergence of technologies and services, an important step will be convergence of fixed-mobile, fixed-IN convergence. Post this convergence, same customer will be using his number as both mobile and wireline depending on his location and connectivity. However, for a VNO with different NSO parent for both services, the benefits of this convergence will be lost making the business case much more difficult and prohibitive.

11. It is also worthwhile to mention here that the VNO's use case is primarily built around offering niche services to well defined customer base or areas, the mixing of technologies from two different NSOs will not go with this niche business case and would rather create confusion within the service offerings. The shared marketing plan of the NSO and VNO will also get affected due to the mixing of technologies from two different NSOs and the niche service message will be lost.

12. Furthermore, under the Unified Licence, Access Service Authorisation and VNO (Access Service) licence different services such as Wireline Services, Wireless services, 2G/3G/4G/5G services can be provided. Any further simplification in VNO licence or inclusion of other services for the parenting with different NSOs purpose will create complexity and give rise to demand of parenting with more NSOs for other access services like 2G/3G/4G/5G as well. We submit that all this confusion can be and should be avoided by rejecting this proposal with scant market demand.

13. Therefore, we see no reasonable justification or logic to permit the VNO parent with different NSOs for wireline and wireless services.

Q5. Whether there are any other relevant issues or suggestions related to the parenting of licensees holding Access Service Authorization under UL (VNO)? Please provide a detailed response with justification.

RJIL Response: None