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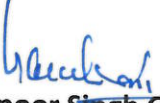
To,  
**Shri Syed Tausif Abbas**  
**Advisor (NSL-II)**  
**Telecom Regulatory Authority of India**  
**Mahanagar Doorsanchar Bhawan**  
**Jawahar Lal Nehru Marg, New Delhi – 110002**

**Subject: Comments on Consultation Paper on Enabling Unbundling of Different Layers Through Differential Licensing dated 20<sup>th</sup> August 2020.**

Dear Sir,

Please find enclosed herewith comments of Reliance Jio Infocomm Ltd. (RJIL) on the Consultation Paper on Enabling Unbundling of Different Layers Through Differential Licensing dated 20<sup>th</sup> August 2020.

Thanking You,  
For **Reliance Jio Infocomm Limited**,

  
**Kapoor Singh Guliani**  
Authorised Signatory



**Enclosure:** As above.

## Reliance Jio Infocomm Limited's Comments on TRAI's Consultation Paper on "Enabling Unbundling of Different Layers Through Differential Licensing"

At the outset we welcome Authority's initiative to solicit feedback and comments on Consultation Paper on "Enabling Unbundling of Different Layers Through Differential Licensing" ('CP'). Please find below our response to specific queries after the Overview section.

### Overview

1. At the outset, we oppose the proposal to introduce differential licensing, in order to unbundle the different layers, as the proposal goes against the principles of Regulatory predictability and consistent policies as detailed in our response.
2. The Unified Licensing regime is culmination of many evolutionary steps starting with CMTS licenses, going on to BSO and then UASL license. This process of unification is yet to be completed, as the artificial boundaries of License service areas ('LSAs') and services still persist and complete unification and convergence is still a few steps away. Thus clearly, the proposal to introduce a disruption in the form of seeking to unbundle network and service layers with a completely new type of licensing regime would introduce a great level of uncertainty in the system, with unknown and unpredictable impact on already investments made, leading to investor uncertainty.
3. Further, the proposal also does not take into account the ground realities of the sector. The telecom networks are built at very high cost with long incubation period. It would be preposterous to expect an investor to sink in huge Capex in building a network over a few years and then be at the mercy of operators at service layers to monetize the same. An investment in the network done by an operator is driven by the long term strategy and vision of the operator. Any unpredictability or potential disruption in future owing to change in licensing regime leads to instability in the sector and drives investors away. Particularly when even the Infrastructure Provider-I ('IP-Is') seek definitive agreement with Telecom Service Providers ('TSPs') before laying even a kilometer of fiber. A converged license for network and service layer provides clarity, confidence and certainty to an operator making investment in the network. Hence, we strongly oppose any proposal for different licensing for network and service layer. We submit that any step to separate a network license will be a regressive step which will introduce uncertainty in the licensing regime, increase the compliance burden and adversely impact the future investment in the networks.
4. We also strongly oppose any proposal of mandatory sharing of network infrastructure by MNOs with the MVNOs. Such sharing should be left to commercial market forces to arrive at win-win situation for the stakeholders and the sector. Any mandatory sharing of network will adversely impact the long term strategic investment decision

making of the operator and dissuade it from aggressively making any investment for future.

5. We submit that the unified licensing structure for the telecom sector is aptly designed to attract investment in the sector, although some further work needs to be done for completion of the envisaged convergence of the license. The in-place Unified License (Virtual Network Operators) (UL-VNO) license provides for creation of separate service layer and there is no barrier to entry of a new player in either the network or service layer.
6. We are of the view that the strategy of 'Reforming the licensing and regulatory regime to catalyze Investments and Innovation and promote Ease of Doing Business' under mission of 'Propel India' in National Digital Communications Policy 2018 ('**NDCP 2018**') should be pursued through regulatory reforms creating more incentives for operators to reinvest into the sector. We believe that there is an urgent need to reduce the financial and compliance burden for different layers in the already sufficiently unbundled licensing regime, which will increase the ease of doing business in the sector and boost innovation and investment in the sector.
7. The above mentioned strategy in NDCP mentions 'enabling unbundling of different layers (e.g., infrastructure, network, services, and applications layer) through differential licensing' as one of the action plans for fulfilling the strategy. We understand that in the current context, where the licensing regime comprises of Unified License ('**UL**') for holistic and unified provision of telecom services; IP-I for exclusive infrastructure layer; and Unified License (Virtual Network Operators) ['**UL (VNO)**'] for exclusive service layer; the required segregation/unbundling of network, infrastructure and service layers is already in place, this strategy should be utilized in strengthening the current scheme of things by lowering the regulatory burden and optimizing the investments in sector.
8. Evidently, while UL allows the benefits from convergence and spectrum liberalization, UL(VNO) delinks the licensing for the networks from the delivery of services. UL(VNO) allows players, who did not own network, to provide any or all telecom services which are being provided by the existing TSP. The current licensing framework also allows operators to optimally utilize their networks and spectrum by sharing active and passive infrastructure. In addition, a company registered as IP-I with DoT is permitted to lay telecommunication infrastructure which can be shared by multiple players; hence delinking the infrastructure layer.
9. Indian telecom space has seen unprecedented investment and innovation in last decade and caught up with the global technological advanced countries in this space; to the extent that as a country we are one of the front runners for launching 5G.

10. We believe that the current licensing is future ready and aptly equipped to allow effective sharing of resources even for development of 5G infrastructure; which will require densification of network and significant capital investment. Not just infrastructure providers (IP-Is), the application layer is also future ready owing to light touch regulation applicable in this layer. Application providers can boost adoption of technology in different verticals by rapidly building on underlying telecom resources through innovation and their field-specific knowledge. We have always been supportive of light touch regulation for Over the Top ('OTT') applications but we reiterate that regulations related to national and consumer security, as applicable to TSPs, should also be applicable for OTT applications, which are providing functionally similar services as that of TSPs. Therefore, we feel that the Authority's recommendations dated 14<sup>th</sup> September 2020 need to be reviewed considering needs of national security and data privacy.
11. Additionally, the Authority has been working continuously to review the scope of stakeholders, in the above mentioned licensing regime, to ensure effective utilization of resources and prevalence of healthy competition in the sector; as evident by most recent recommendation for increase in scope of IP-Is. Hence, we believe that there is no requirement of any significant change in the existing licensing regime barring the pending activity of complete unification of license by removing the artificial boundaries of licensed service areas. Besides this, a few limited changes in scope of select license holders can be discussed to further the cause of effective resource utilization and healthy competition in the sector.
12. To promote investment in the sector for adoption of newer technologies, we request that Authority should provide for incentives and reduce regulatory financial burden on existing players, allowing them to invest effectively towards these future technologies. We submit that mandatory unbundling of licenses will only make the process difficult for existing TSPs without any significant gain for the sector.
13. Different types of service resellers in form of Mobile Virtual Network Operators ('MVNO') often increase the range of services offered to consumers by means including, but not limited to, targeting certain market segments, including segments not previously served by the hosting Mobile Network Operators ('MNO'), e.g., low income consumers, or consumers with lower data-usage needs). Hence MVNOs works as an extension of Access Service providers under the UL regime and ensure efficient utilization of network resources.
14. We recognize and agree that competition in mobile markets benefits consumers by offering them better services, quality and price discipline. One of the effects that are to be expected from increased competition is a reduction in prices or an increase in the content of the offer. As Authority itself recognizes and acknowledges, Indian data tariff is among the lowest in the world. Also, there has been significant innovation in product offering to consumer through bundled offering by MNOs; indicating presence

of healthy competition in the sector which doesn't need any additional prodding through regulated thrust for growth of MVNOs. Hence, we submit that there should not any mandatory sharing of network between MNOs and MVNOs and same should be left to market forces and commercial arrangement between the two; as is prevalent in many thriving telecom markets across the globe.

15. A healthy competition between MNOs will ensure better quality service for the customer; while a regulated supply to MVNOs is likely to reduce investment. MNOs need to be incentivized for an infrastructure based competition for sustainability of sector competition and customer welfare in the long run.
16. We submit that globally there are enough precedence of stable and predictable regulatory frameworks, with many global Regulators are proactively acting to remove the previous mandated unbundling that was introduced to bring in competition at the time of one or two original incumbents. We submit that global trends reinforce our submission that there is no requirement for a separate independent license for network layer operator and is unwarranted. Additionally, there is no mandatory sharing of network services between MNOs and MVNOs; rather such sharing is driven by free market forces. Rather by creating a conducive environment with introduction of required segregation of licensing through separate MVNO license only (no sperate network license requirement) and leaving the network sharing arrangement between a MNO and MVNO to market forces, these regimes have achieved higher level of investment and enhance consumer experience in their countries.
  - a. In USA, The FCC is gradually removing the previously mandated unbundling regulations, starting with their 2004 decision to relieve incumbent local telephone companies from unbundling requirements for fibre-to-the-curb (FTTC) loops. Even, as recent as 2019, FCC was working on modernizing unbundling requirements in era of Next Generation Networks and Services<sup>1</sup>. Further, under FCC rules there is no mandate for MNOs to provide access facilities to MVNOs, and FCC rules do not require facilities-based providers to offer wholesale services to other service providers for resale. Facilities-based providers' wholesale services are offered through unregulated, negotiated commercial contracts, which take a variety of forms, both in terms of price levels and the structure of the arrangements.
  - b. In UK, anyone using radio spectrum (such as MNOs and satellite service providers) needs a license under the Wireless Telegraphy Act (WTA) 2006. A MVNO does not require a WTA license as it is a customer of an MNO and is not itself a user of radio spectrum. There isn't any specific regulation for MNOs to provide access facilities to MVNOs. It is up to each MNO to decide whether, and on what terms, it supplies MVNOs. The Competition & Markets Authority

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<sup>1</sup> <https://docs.fcc.gov/public/attachments/FCC-19-119A1.pdf>

(CMA) is responsible to look that MVNOs do not face any difficulty in getting access facilities in reasonable and transparent terms, but there are no obligations.

- c. In Singapore, license is provided for Facilities-Based Operators (FBO) (similar to UL holders in Indian context) or Services-Based Operators (SBOs) (similar to UL(VNO) holders in Indian context). FBOs can deploy any form of telecommunication network and systems and are also licensed to provide services. There is no mandatory sharing between FBO and SBO but SBOs are free to lease telecommunication network elements from FBO to provide telecommunication services, or to resell telecommunication services of FBOs to third parties.

17. In addition to above, there are few other countries as well, which have put in place a regime of unbundled licenses, as summarized in following paragraphs. It may be noted that such regime is in place for many years in these countries. However, the growth in the key sectoral parameters in these countries like broadband penetration etc., are nowhere comparable to India, which has demonstrated unprecedented broadband subscriber growth in last four years owing to benefits of already in-place Unified License Regime. In last four years the broadband subscribers in the country have quadrupled as a result of robustness and effectiveness of the Unified License Regime. Therefore to continue this momentum and achieve similar results, India needs further Unification of the License instead of unbundling that is being proposed in the present consultation

- a. In South Africa, for Electronic Communication Services, ICASA grants individual licenses for electronic communications network services (ECNS), and electronic communications services (ECS). ECNS makes available an Electronic Communications Network (ECN), either by sale, lease or otherwise. Licensee can make use of its own ECN if it holds the requisite ECN license or it can enter into agreements with the third-party ECNS licensees to carry the services to the customer. ECS is any service provided by any means of electronic communications over an ECN. ECS licensee may provide services to customers over its own or a third party's network. But even in South Africa, the ECNS licensees are not obliged to sell wholesale capacity to other licensees.

**Q1. Do you agree that in order to attract investment and strengthen the service delivery segment, Network services layer and Service delivery layer needs to be separated by introducing specific license for Network Layer alone? Please justify your answer.**

**AND**

**Q2. Should the Network Services Layer licensee be permitted to take the Service Delivery Category licenses and provide the service? If yes, what kind of restrictions and safeguards**

**are required to be built, in order to protect the competition and innovation in service delivery segment? Please justify your answer.**

1. As highlighted in the overview, we submit that the proposed separation through Network only license will be detrimental to the sector, leave alone attracting investments. We submit that the pace of technological development and evolution of technology investments and immediate dividends of service differentiation and product are available only in the service layer and investment, if any, will only go in service layer, like it is already happening. The mere fact that the global tech giants rarely invest in building network layers sufficiently demonstrates the trend of investment.
2. We further submit that the restricting one kind of licensees to only provision of network will be detrimental towards the growth and evolution of networks, as service is the real driver for network changes. This kind of operator will have no incentive in pushing the service differentiation by further network investments and would continue to stick to bare minimal network investments and there is a possibility of remaining 2G locked, even in the age of 5G. This will also have a negative impact by creation of network monopolies with limited investments in upgrading networks.
3. The Indian telecom market is sufficiently unbundled and there does not seem any need for any such intervention. Further, unbundling has rarely delivered the promised benefits as detailed above.
4. Furthermore, the networks of the existing operators have been built only as per their plans of offering services and cannot be customized for accommodating other service providers and only the excess capacities can be shared with other service providers. Furthermore, as mentioned in overview, all investors will seek to avoid a situation where they build a network with no license to offer service and no assurance of returns.
5. As envisaged in National Telecom Policy 2012 ('NTP 2012'), Government/Authority has pursued and effectively implemented steps, in phases, to exploit the attendant benefits of convergence, spectrum liberalization and facilitate delinking of the licensing of Networks from the delivery of services to the end users; to enable the operators to optimally and efficiently utilize their networks and spectrum. In the first phase, UL regime was introduced in 2013, and in the second phase, towards the delinking of licensing for networks from the delivery of services, a new category of UL(VNO) was introduced in 2016; hence effectively delinking the network from service delivery layer. The third purported step was the complete unification of the license by doing away with the artificial boundaries of LSA, which is still pending, and we are diverging to new agendas.

6. UL offers service-wise authorizations, for establishing service-specific network and to provide the authorized service(s). For instance, in the case of Access Service authorization, both creation of network and delivery of service are embedded in the license. Along with the network operations, such UL licensees are also providing the services to the customers under the same authorization. We submit that service wise authorization/licensing is suitable way of licensing for a capital intensive sector such as telecommunications. The flexibility to use the network infrastructure to provide access services, with an option to rent out additional capacity to standalone service providers allows stakeholders investing in spectrum and network infrastructure to ensure effective utilization of their resources.
7. UL(VNO) efficiently segregates the service Layer from Network Layer. For service layer, the current regime of UL (VNO) aptly fits into unbundling plan. MVNOs not only helps in maintaining the level of competition, but also makes way for innovative services in niche, unserved areas; facilitate effective and efficient utilization of the infrastructure/resources created by existing MNOs.
8. Consequently, we submit that there is no additional benefit or requirement of introducing concept of independent network service provider/operator in form of specific license for network layer alone, who will establish the network and sell the services on a wholesale basis to the service delivery operator for retailing purpose. We submit that such separate license will be redundant as the existing operator can already sell the services on a wholesale basis to the service delivery operator for retailing purpose under current licensing regime.
9. We believe that in the current licensing regime there is no barrier to entry of new operator and create their network infrastructure and lend it to MVNO in bulk manner. Additionally, there is no barrier which prevents MVNOs from sharing the network infrastructure of current network operators; as it is driven by commercial arrangement between the two parties and is led by free market forces.
10. We submit that the licensing regime has been aptly moving towards unification and simplification in last few years under able guidance of Authority and the benefits from the same may be diluted due to any new regulation around differential licensing and instead the unification of licence should be completed.
11. Further, such excessive and unrequited interventions go against the Authority's cherished principles of Forbearance and Light Touch Regulations, that too at a time when the Authority is ushering in the era of co-regulation and joint management. We submit that this new level of licensing will bring in unnecessary inflexibility in the system and would increase the complexity and regulatory burden of the existing players; in form of issues relating to scope of service, responsibilities, obligations and regulations applicable to network and service layer separately. Thus, clearly this sort



of intervention would be a regressive step, especially when the other countries are moving towards Forbearance and reversing the mandatory unbundling.

12. It will also unnecessarily introduce the competition issues and litigations pertaining to different levels of access and preferences provided by the network providers. Further, with impending launch of 5G networks and associated Traffic management practices, this kind of conflicts can take hitherto unknown forms and would create innumerable new issues at a juncture when the Government is exploring the 5G readiness and impending 5G launches.
13. In view of the above, we suggest that instead of rediscovering the licensing regime in form of a separate independent network license holder, a separate discussion should be done with stakeholders for rationalization of regulatory obligations and compliances for the two service license holders, viz. access services and UL(VNO). Such rationalization will give a boost to investment in the sector. This will also enhance the regulatory predictability that is first thing any investors looks at before committing the amount of investment that is required in a sector like Telecom.

**Q3. Whether certain obligations should be imposed on the existing Unified Licensees, and other measures should be taken to encourage UL licensees to provide their network resources to VNO licensees particularly in mobile service segment? Please suggest the measures in detail.**

1. Regulatory policy should be to encourage the voluntary formation of MNO– MVNO relationships. If the prerequisites exist in the market for such relationships (such as the availability of wholesale mobile access or an effectively competitive mobile retail market), then there is no need for regulatory intervention. If downstream competitors cater to the unserved market or differentiate their services, upstream firms are expected to open their networks voluntarily. The introduction of MVNO should help the MNO to widen and deepen its market besides promoting competition in the market.
2. The MNOs' incentives to voluntarily provide network access and invite MVNOs onto their network critically depend on two issues: firstly, the mode of competition and, secondly, the degree of product differentiation. Generally, it is seen that MNOs will voluntarily provide network access if the services offered by the prospective MVNOs are sufficiently differentiated, as with a high degree of product differentiation the revenue effects outweigh the competition effects.
3. Therefore, and also as Indian mobile market is already highly competitive, regulatory step requiring mandatory access to MVNO should surely be avoided. India could follow the example of European Union, where there is no directive that obliges MNOs to grant access to MVNOs.

4. Any mandatory sharing of infrastructure by the TSPs will act as a disincentive for the TSPs to actively invest for infrastructure development. Any capital investment done by the TSPs is a business decision driven by future strategy of the entity. Hence any mandatory sharing will prohibit TSPs from making ambitious competitive strategy which will hurt the interest of consumers and country. We submit that any sharing of infrastructure should only be voluntary to ensure unhindered market driven growth of the sector.
5. A network operator buys spectrum at a market determined price for provision of mobile services and must fulfil the minimum roll-out obligations. In case it is not allowed to freely determine the most cost effective efficient utilization of its resources, then the monetization of network and spectrum resourced may not be in its control; leading to serious adverse impact on the investment in the sector.
6. We would like to stress that there is a strong linkage between the network investment by an entity and planned services using the same underlying network physical infrastructure. Even in the case of 5G, where the control layer will be separate from network infrastructure layer, the decision for investment in network infrastructure will be driven by the possible service layer. Hence both the layers are likely to be intertwined from capital investment perspective. But that does not take away the scope of any voluntary sharing and regulatory framework providing the scope for such sharing. Since it is already allowed for in form of UL(VNO) license under the current regulatory regime, we strongly submit that no further changes should be made in licensing regime for separate license and mandatory sharing of network infrastructure by TSPs.
7. We acknowledge that currently there is lack of proliferation of VNOs in the mobile segment. But the reason of the same should not be correlated with the commercial arrangement between the network operators and service layer operators. Such market driven commercial arrangement between MNOs and MVNOs are flourishing in many economies globally, including UK and Europe, without requirement of any mandatory sharing between the two. Hence, we suggest free market forces leading to commercial arrangement between the MNO and MVNO should not be disturbed and instead options to be evaluated to reduce the regulatory and compliance burden for both the licensee; to boost growth of more players in the service layer. From regulatory perspective, Authority should only ensure that terms of agreement offered by MNO to MVNO are transparent and non-discriminatory in nature.
8. In a free market situation, MVNOs can be instrumental in increasing competition in the market and they can also provide wholesale revenues to MNOs, which support network investments. MNOs can also benefit from selling excess capacity on their network to MVNOs. MVNOs can also allow an MNO to target other segments where it may be under-represented or less able to monetize customer preferences. MNOs retain all wholesale services revenues, as well as saving any direct costs associated

with the acquisition and retention of customers. Hence it is a win-win situation for both the parties.

9. Competition among MNOs allows MVNOs to obtain wholesale network access through commercial negotiation. Any regulatory intervention, as a way to facilitate entry for MVNOs, should be done only in case of a market failure in form of denial of wholesale access to MVNO by MNO; which does not hold true for Indian telecom market. Hence it is not advisable to impose access obligations on network operators

**Q4. In case network layer and service delivery layer are separated by creating separate category of licenses, as proposed in Q1;**

**a) What should be the scope for Network layer license and Service Category licenses?**

We submit that required segregation of licenses is already there in the current licensing regime and no requirement for creation of any additional independent network layer license.

**b) Out of various responsibilities and obligations enumerated in Unified License, what should be the respective responsibilities and obligations of Network layer licensees and Service delivery category licensees? Please elaborate with justifications.**

Same response as above.

**c) What mechanism should be put in place to regulate the access to network services of Network layer licensees by the service delivery Category licensees? Whether certain obligations should be imposed on Network layer licensees to provide the network resources in a time-bound, transparent and non-discriminatory manner?**

1. As elaborated earlier, we reiterate that any sharing of resources between the MNOs and MVNOs should be voluntary and driven by commercial arrangement between the two. There should not be imposition of any mandatory sharing on the MNOs, which will just adversely impact the investment in the network infrastructure.
2. Although we submit that Authority should ensure that the MNOs should share the network resources in a transparent and non-discriminatory manner with the MVNOs offering similar services to the consumers. It will assist in orderly growth of the players in the service layer. Although the primary push for the growth of players will be driven by reduction in regulatory, financial and compliance burden on the MNOs and MVNOs; and we request Authority to urgently take steps for the same.
3. We also request the Authority to boost sharing of network resources between MNOs by allowing the deduction of amount paid by one MNO to other for sharing the network while calculation of Adjusted Gross Revenue ('AGR'); the same is being done when MVNOs share the network infrastructure with MNOs. Such deduction in case of two MNOs sharing the infrastructure will uphold the revenue neutrality principle of Authority.

4. Additional measures can be taken to support growth of MVNOs, e...: possibility of them supporting multiple host networks can be explored. Although technical feasibility of same needs to be worked out to ensure uniqueness of a network provider for any specific phone model/SIM card, as applicable.

**d) What incentives (for example, lower license fee, lower SUC, etc.) could be provided to Network Layer licensees in the new unbundled licensing regime to encourage the investment in the Network layer? Please justify your answer.**

1. As mentioned above, we reiterate that there should not be any separate license for independent network service provider. Although there is an urgent need to adopt following measures to achieve the goal of promoting investment in network layer and increase sharing of resources for efficient utilization for roll out of innovative products in the sector:
  - a. Take measures to promote sharing of infrastructure between TSPs including allowing the deduction of amount paid by one MNO to other, while sharing of network infrastructure, for calculation of AGR;
  - b. No additional SUC in case of sharing of spectrum between two entities;
  - c. Rationalization and simplification of levies imposed on TSPs;
  - d. Identification of telecom infrastructure as critical infrastructure by the Government;
  - e. Continuance of light touch approach for OTTs although having uniform national security related license obligations for such functionally substitutable electronic communication services extended by OTT providers.

**e) Whether the existing Unified Licensees should be mandated to migrate to the unbundled licensing regime, or the new regime should be introduced, while keeping the existing regime continued for existing licensees till the validity of their license, with an option of migration?**

1. We strongly submit that there should not be any change in licensing regime for existing UL holders barring the logical step of complete unification of license by removing the artificial boundaries of LSAs. As the current licensees of the UL have their own networks as well as are providing the services to the consumers, it will be difficult for them to split their functions into two layers, and act as the network service provider and service delivery operator separately. It will only increase the regulatory burden for a sector and derail the impending requirement for investment by the stakeholders.

**f) Whether existing VNO licensees be mandated to migrate to service delivery category licenses as per unbundled licensing regime?**

Same response as above.

**g) Whether service delivery category licensees be permitted to parent with multiple Network Service layer licensees? Please justify your answer.**

We recommend that possibility of MVNOs having multiple MNOs as parent network can be explored. Although technical feasibility of same needs to be worked out to ensure uniqueness of a network provider for any specific phone model/SIM card, as applicable. Hence a separate consultation should be held with the stakeholders should be done to evaluate the technical feasibility and benefits associated with the same.

**Q5. Any other issue related to the subject may be raised with suitable explanation and justification.**

None