



भारतीय दूरसंचार विनियामक प्राधिकरण
Telecom Regulatory Authority of India

Recommendations
on
Enabling Unbundling of Different Layers
Through Differential Licensing

(Response to the back reference dated 2nd August 2022 received from Department of Telecommunications on TRAI's recommendations dated 19th August 2021)

New Delhi, India

6th September 2022

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CHAPTER-I: INTRODUCTION

1. The Department of Telecommunications (DoT), through its letter No. 20-281/2010-AS-I Vol. XII (pt) dated 8th May 2019, requested TRAI (also referred to as “the Authority”) to furnish recommendations, under the terms of the clause (a) of sub-section (1) of Section 11 of the Telecom Regulatory Authority of India Act, 1997 (as amended) in respect of, *inter-alia*, the strategy 2.1(b)(v) of the ‘Propel India’ mission of the National Digital Communications Policy (NDCP) 2018 viz. ‘Enabling unbundling of different layers (e.g., infrastructure, network, services, and application layer) through differential licensing’.
2. After following a comprehensive consultation process with the stakeholders, the Authority sent its recommendations on ‘Enabling Unbundling of Different Layers Through Differential Licensing’ to DoT on 19th August 2021.
3. Subsequently, DoT, through its letter dated 24th January 2022, stated that *“(a)t present, the TRAI's Recommendations dated 19.08.2021 on 'Enabling Unbundling of Different Layers Through Differential Licensing' are under consideration in the Department. In the meanwhile, in respect of the Recommendation No. 3.3, it has been decided to seek the recommendations of TRAI on the detailed framework along with terms and conditions of the reference agreement between VNOs and ANPs/ Unified Licensees”*. Accordingly, TRAI was requested to provide its recommendations on *“detailed framework along with terms & conditions of the proposed agreement between VNOs and ANPs/ Unified Licensees”*. In this regard, TRAI, through a letter dated 25th February 2022, furnished its response to DoT.

4. Further, TRAI in its recommendations on “Auction of Spectrum in frequency bands identified for IMT/5G” dated 11th April 2022 recommended, *inter-alia*, that DoT should take a decision on TRAI recommendations on “Enabling Unbundling of Different Layers Through Differential Licensing” of August 2021 at the earliest, preferably before conducting the Auction and make suitable provision for Network Service Provider (similar to Access Service providers) in the NIA under eligibility criteria for participating in Auction and other related clauses such as spectrum sharing, spectrum trading, etc. In its back-reference to these recommendations, DoT vide its letter dated 29th April 2022 informed that this TRAI recommendation requires further work within DoT.

5. Thereafter, DoT, through its letter No. 20-405/2013/AS-I (Vol. VI) dated 2nd August 2022 on the subject- ‘Back reference on TRAI Recommendations dated 19.08.2021 on Enabling Unbundling of Different Layers Through Differential Licensing’ (copy placed as **Annexure**), has informed TRAI that *“(a)fter detailed deliberations on these TRAI recommendations, the Government has come to a prima facie conclusion that there may not be a market demand for separate Access Network Provider (ANP) License. Further, recommendations of TRAI on ‘Enhancement of Scope of Infrastructure Provider Category-I registration’ having similar facets are also being examined in DoT. Therefore, the TRAI recommendations on ‘Enabling Unbundling of Different Layers Through Differential Licensing’ may not be accepted”*. Accordingly, as per Section 11(1) of the TRAI Act, 1997 (as amended), DoT has referred back the recommendations on “Enabling Unbundling of Different Layers Through Differential Licensing” for reconsideration of TRAI.

6. Chapter-II contains TRAI’s response to the back reference.

CHAPTER-II: TRAI'S RESPONSE TO THE BACK REFERENCE

A. TRAI's Recommendations dated 19.08.2021

"3.1 The Authority recommends that:

- a) A separate authorization under Unified License should be created for Access Network Provider (network layer) to provide network services on wholesale basis. Under this authorization for Network layer only, the Access network provider shall not be permitted to directly provide services to the end customers under the authorization.*
- b) Scope of the Access Network Provider shall be to establish and maintain access network, including wireless and wireline access network, and selling the network services (capable of carrying voice and non-voice messages and data) on a wholesale basis to VNOs (service delivery operators) for retailing purpose. The Access Network Provider should be permitted to have capabilities to support all the services mentioned in the scope of Access Service authorization (Chapter VIII of UL).*
- c) The Access Network provider should also be permitted to provide/share its network resources to/with the telecom service providers who are licensees under section 4 of the Indian Telegraph Act, 1885, and vice versa.*
- d) Licensed service area for Access Network Provider should be kept same as that of the existing Access service authorization under UL.*
- e) Access Network provider should be responsible for all the network related terms and conditions specified in the Access Service Authorization under Unified License. However, while creating the authorization chapter for Access Network Provider, the terms and conditions related to service delivery should be excluded.*

- f) *Like Unified Licensee with access service authorization, the Access Network provider should also be permitted to acquire spectrum through spectrum auctions, subjected to the prescribed spectrum caps, enter into spectrum trading and spectrum sharing arrangement with the other Access Network providers and unified licensees with Access service authorization. It should also have access to backhaul spectrum, numbering resources and the right to interconnection.*
- g) *The existing licensing regime of Unified License shall be continued. However, if a licensee with Access Service Authorization under UL wishes to migrate to segregated network layer and service layer regime, it should be permitted to do so.*

3.2 *The Authority recommends that the Network Provider shall be permitted to take a separate license under UL (VNO) framework for provision of services to the end subscribers.*

3.3 *The Authority recommends that to bring in transparency and accountability in the entire process for VNO(s) seeking and entering into an agreement with the Access Network provider or the Unified Licensee, a broad framework should be prescribed, including the definite process in respect of application filing, application processing, defined timelines, etc. The framework should provide the process to be followed for applying for wholesale capacity/network resources along with the detailed proposal, process of acceptance/rejection by the Unified Licensees (including Access Network Providers), along with defined timelines, etc. The key elements to be included in the framework are:*

- a) *To ensure that the terms and conditions offered to different VNOs are fair, transparent, and non-discriminatory, the Unified Licensee shall declare their Reference Offer (including commercials) on their website.*

- b) *The Unified Licensee shall offer the wholesales services to different VNO(s), including VNO owned/promoted by itself, in transparent, fair, and non-discriminatory manner.*
- c) *For submission and processing of application from VNOs, the Unified Licensees should provide a web-based online portal. Physical exchange of application, documents confirmations etc. should not be allowed.*
- d) *The service delivery operator i.e., VNO shall make request to the Unified Licensee through online portal of the concerned Unified Licensee along with detailed proposal. The online portal should generate an acknowledgement of receipt of application and sent it to the e-mail IDs provided by the applicant and also place a copy on the portal with digital date and time stamp.*
- e) *The Licensee shall share the feasibility status clearly stating acceptance/rejection (with reasons thereof, in case of rejection) of the proposal, through the online portal, with the Applicant party within 30 days. In case any additional information is required by the Unified Licensee, the Applicant may be asked for the same within 15 days of date of receipt of the application and in such case, the 30 days' time will begin from the date of provision of additional information by the Applicant.*
- f) *Unified Licensee should be asked to submit an annual self-certification to the licensee certifying the adherence to the prescribed framework.*
- g) *After entering into an agreement for service delivery, it should be the joint responsibility of the UL-VNO licensee and Unified Licensee to submit a digital copy of the agreement and their subsequent modifications, if any, to the Licensor as well as to TRAI within 15 days of signing the agreement or carrying out modifications thereof, through online mode.*

3.4 *The Authority recommends that the License Fee and Spectrum Usage charges applicable for the Access Network Provider Authorization*

should be the same as that applicable to the Access Service Authorization under Unified License.

3.5 *The Authority recommends that since the combined scope of Access Network Provider and UL-VNO (Access service) is equal to the scope of a Licensee with Access Service authorization under UL, the Minimum Equity, Minimum Net worth, Entry Fee, and FBG/PBG requirements for the proposed Access Network provider authorization may be arrived at by deducting the amounts prescribed for UL (VNO–Access Service) from the amount prescribed for UL-Access Service authorization.”*

B. Views of DoT on TRAI’s Recommendations dated 19.08.2021

The Government has come to a *prima facie* conclusion that there may not be a market demand for separate Access Network Provider (ANP) License. Further, recommendations of TRAI on ‘Enhancement of Scope of Infrastructure Provider Category-I registration’ having similar facets are also being examined in DoT. Therefore, TRAI recommendations on ‘Enabling Unbundling of Different Layers Through Differential Licensing’ may not be accepted.

C. TRAI’s response to the back reference

- 1. In response to the DoT’s reference dated 8th May 2019, TRAI sent its recommendations on ‘Enabling Unbundling of Different Layers Through Differential Licensing’ dated 19th August 2021 to DoT.**
- 2. Through its back-reference dated 2nd August 2022, DoT has conveyed that TRAI’s recommendations on ‘Enabling**

Unbundling of Different Layers Through Differential Licensing’ dated 19th August 2021 may not be accepted. In support of arriving at this conclusion, DoT has cited the following reasons:

- (a) After detailed deliberations on these TRAI recommendations, the Government has come to a prima facie conclusion that there may not be a market demand for separate Access Network Provider (ANP) License.***
- (b) Recommendations of TRAI on ‘Enhancement of Scope of Infrastructure Provider Category-I registration’ having similar facets are also being examined in DoT.***

3. The reasons given by DoT for arriving at the conclusion that TRAI’s recommendations may not be accepted are examined below:

(a) Reason-1: There may not be a market demand for separate Access Network Provider (ANP) License

- (i) The NDCP-2018, under the ‘Propel India’ mission (Enabling Next Generation Technologies and Services through Investments, Innovation, Indigenous Manufacturing and IPR Generation), states that “(t)he recent past has witnessed an unprecedented transformation in the Digital Communications Infrastructure and Services sector with the emergence of new technologies, services, business models, and players. There is, hence, an imperative need to review the existing licensing, regulatory, and resource allocation frameworks to incentivize investments and innovation to optimize new technology deployments and harness their benefits”. The NDCP-2018 envisages “Enabling unbundling of different layers (e.g., infrastructure, network, services, and applications***

*layer) through differential licensing” as one of the strategies for fulfilling its ‘Propel India’ mission. DoT, through its letter No. 20-281/2010-AS-I Vol. XII (pt) dated 8th May 2019, requested TRAI to furnish recommendations, in respect of, *inter-alia*, ‘Enabling unbundling of different layers (e.g., infrastructure, network, services, and application layer) through differential licensing’.*

- (ii) After a detailed consultation process, TRAI issued its recommendations on ‘Enabling Unbundling of Different Layers Through Differential Licensing’ on 19th August 2021.
- (iii) Subsequently, DoT through its letter dated 24th January 2022, stated that *“(a)t present, the TRAI’s Recommendations dated 19.08.2021 on ‘Enabling Unbundling of Different Layers Through Differential Licensing’ are under consideration in the Department. In the meanwhile, in respect of the Recommendation No. 3.3, it has been decided to seek the recommendations of TRAI on the detailed framework along with terms and conditions of the reference agreement between VNOs and ANPs/ Unified Licensees”*. Accordingly, TRAI was requested to provide its recommendations on *“detailed framework along with terms & conditions of the proposed agreement between VNOs and ANPs / Unified Licensees”*. TRAI vide its letter dated 25th February 2022, furnished its response to DoT, wherein it was mentioned, *inter-alia*, as under:

“(vi) TRAI is of the view that detailed terms and conditions of the reference agreement between Network Providers/Unified Licensees and VNOs need not be prescribed, rather it should be left to the mutual commercial arrangement between

the two. However, the broad framework in respect of application filing, application processing, defined timelines etc. should be prescribed by DoT as recommended by TRAI vide Para 3.3 (a) to (g), in order to bring transparency in the entire process.

(vii)

(viii) Therefore, the Authority is of the view that no further recommendations are required to be furnished on this issue.”

- (iv) **TRAI in its recommendations on ‘Auction of Spectrum in frequency bands identified for IMT/5G’ dated 11th April 2022 had recommended, inter-alia, that DoT should take a decision on the TRAI recommendations on “Enabling Unbundling of Different Layers Through Differential Licensing” of August 2021 at the earliest, preferably before conducting the Auction and make suitable provisions for Network Service Provider (similar to Access Service providers) in the NIA under eligibility criteria for participating in the Auction and other related clauses such as spectrum sharing, spectrum trading, etc. Recognizing the importance of a competitive auction process, in the para 3.137 of the said TRAI Recommendations dated 11th April 2022 it was mentioned that “It is therefore imperative that the Government give serious thought to competition issues, and actively encourage the entry of new players into the telecom sector. The Authority accordingly, as mentioned in Chapter II, urges the Government to consider and decide upon the Authority’s recommendations of 19.08.2021 on Enabling Unbundling of Different Layers through Differential Licensing.” In its back-reference to these recommendations, DoT vide its letter dated 29th**

April 2022, informed that TRAI's recommendations require further work within DoT.

- (v) In its back-reference dated 2nd August 2022, DoT has stated that the Government has come to a *prima facie* conclusion that there may not be market demand for separate Access Network provider (ANP) License. However, DoT has not provided any rationale in support of the said conclusion. It is not clear as to whether DoT has conducted any demand assessment study to ascertain market demand for separate Access Network provider License.
- (vi) The Authority is of the view that if a separate category of License for Access Network Provider is created, the Access Network Provider could build Core network, Radio Access Network (RAN) and team up with Virtual Network Operators (VNOs) for provision of services. It could create a win-win environment where it is possible for the VNO licensee to support the regime by investing in Radio Access Network. Thus, introduction of separate license for Access Network Provider could attract investment and strengthen the service delivery segment.
- (vii) With the deployment of 5G technology at the cusp, there will be different use cases covering almost all the economic verticals. The requirements of a particular type of use case will be totally different from other kind of use case. This may necessitate specialized service delivery operators in various specific niche area of use cases such as Industry 4.0, Smart mining, Precision Agriculture, Smart ports, Windmills, etc. It is quite possible for an entity to be interested only in establishing 5G core network and provide the desired slices to the specialized service delivery operators for specific use cases. Such 5G Access Network providers may establish desired Radio

Access Network in a specific geography or alternatively may get it established by Service Delivery Operators.

(viii) Internationally, the framework and mechanism for separate category of licenses for Network Service Provider and Service Delivery Operators is prevalent in many countries. This aspect was also brought out in the Annexure-II (International Practices) of the Recommendations dated 19.08.2021.

(ix) The Authority is of the view that only if a separate authorization for Access Network Provider is created, it can be tested as to whether there is a market demand for it or not. Moreover, creation of a separate authorization for Access Network Provider is just an enablement and does not involve any cost to the Government.

(b) Reason-2: Recommendations of TRAI on ‘Enhancement of Scope of Infrastructure Provider Category-I registration’ having similar facets are also being examined in DoT.

(i) Through the recommendations on ‘Enhancement of Scope of Infrastructure Provider Category-I registration’ dated 13th March 2020, TRAI had recommended, *inter-alia*, as below:

“3.3 The Authority recommends that the expanded scope of the IP-I registration should include to own, establish, maintain, and work all such infrastructure items, equipment, and systems which are required for establishing Wireline Access Network, Radio Access Network (RAN), and Transmission Links. However, it shall not include core network elements such as Switch, MSC, HLR, IN etc. The scope of the IP-I Registration should include, but not limited to, Right of Way, Duct Space, Optical Fiber, Tower, Feeder cable, Antenna, Base

Station, In Building Solution (IBS), Distributed Antenna System (DAS), etc. within any part of India.

...

3.6 ...the IP-I registration holder should not be eligible to apply for and assignment of any kind of licensed spectrum.”

From the above, it is clear that while TRAI has recommended for enhancement of the scope of IP-I, the recommended (enhanced) scope of IP-I neither includes the core network elements such as Switch, MSC, HLR, IN etc. nor the licensed spectrum. On the other hand, the Access Network Provider licensee, as recommended by TRAI in its recommendations on ‘Enabling Unbundling of Different Layers Through Differential Licensing’ dated 19th August 2021 will have its own core network elements and will also be eligible to apply for and assignment of licensed spectrum. Thus, while an IP-I with the recommended (enhanced) scope will continue to remain an infrastructure provider for the licensees of telecom services, the Access Network Provider, as recommended by TRAI, will provide the network services (capable of carrying voice and non-voice messages and data) on a wholesale basis to VNO(s). Clearly, the scope of the Access Network Provider as recommended by TRAI is completely different from the recommended (enhanced) scope of IP-I. Therefore, it may not be correct to conclude that these two recommendations of TRAI have “*similar facets*”.

- (ii) Meanwhile, through a letter No. 10-12/2012-CS-III (Pt. III) dated 11.08.2022 on the subject - ‘TRAI Recommendations on Enhancement of Scope of IP-I Registration dated 13.03.2020 and seeking recommendations on proposed TIL’, DoT has informed**

TRAI that “the aforesaid TRAI Recommendation can’t be accepted. However, the competent authority has decided for creation of a new category of license namely ‘Telecom Infrastructure License’ (TIL). Such licensees may be permitted to establish, maintain and work all equipment for wireline access, radio access and transmission links, except the core equipment and holding of spectrum.”

Through the afore-mentioned letter dated 11.08.2022, DoT has sought recommendations for the terms and conditions of the Telecom Infrastructure License (TIL). Scope of TIL, as proposed by DoT, is similar to that of IP-I with enhanced scope as recommended by TRAI. Therefore, the Telecom Infrastructure License, as proposed by DoT, and the Access Network Provider authorization under UL, as recommended by TRAI, have quite different facets.

- 4. The Authority is of the view that the creation of separate Network only layer (in the form of Access Network Provider license) could result in increased sharing of network resources, reduction of cost and enhanced investment in the sector. It could also prove to be catalyst in proliferation of 5G services for Industrial users, enterprise users, etc., in a localized manner.**

- 5. In view of the above, the Authority reiterates its recommendations on ‘Enabling Unbundling of Different Layers Through Differential Licensing’ dated 19th August 2021.**

20-405/2013/AS-I (Vol. VI)
Ministry of Communications
Department of Telecommunications
(Access Service Wing)
20, Ashoka Road, Sanchar Bhawan, New Delhi

Dated the 2nd August, 2022


Subject: Back reference on TRAI Recommendation dated 19.08.2021 on "Enabling Unbundling of Different Layers Through Differential Licensing".

This is with reference to the letter No. R-1/10(1)/2021-NSL-II dated 19.08.2021, through which TRAI sent the Recommendations on "Enabling Unbundling of Different Layers Through Differential Licensing".

2. After detailed deliberations on these TRAI recommendations, the Government has come to a prima facie conclusion that there may not be market demand for separate Access Network Provider (ANP) License. Further, recommendations of TRAI on "Enhancement of Scope of Infrastructure Provider Category-I Registration" having similar facets are also being examined in DoT. Therefore, the TRAI recommendations on "Enabling Unbundling of Different Layers Through Differential Licensing" may not be accepted.

3. Accordingly, keeping in view the above, as per Section 11(1) of TRAI Act, 1997 (as amended), the recommendations on "Enabling Unbundling of Different Layers Through Differential Licensing" are being referred back to TRAI for its reconsideration.

4. This is issued with the approval of Secretary(T).


(S. K. Singhal) 18/8/22

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Copy to: Director (Policy), DoT for kind information.

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