Comments on TRAI consultation paper CP_13012023

Consultation paper no: 05/2023

Comments by:

Sh. Nikhil Srivas
Joint Controller (Revenue)
Office of Principal Controller of Communication Accounts, Delhi
Department of Telecommunications,
Government of India
Nikhil.srivas@gov.in | +91-8800641239

The comments written below are made in personal capacity. Views expressed are solely on the individual understanding and views of the commentor and in no way represent the view of the government. It is however, that these comments utilize the professional knowledge of the commentor gained during the license fee assessment, management and policy implementation process(s) adopted by the Department of Telecommunications. The commentor manages and interacts with one of the largest and most dynamic telecom circles of the nation.

The consultation paper rightly highlights the importance of unbundling of different layers through differential licensing as proposed in National Digital Communication Policy (NDCP) -2018. The necessity of unbundling and thus attracting an easier licensing, regulation and investment in the sector is indeed thought provoking and need of the hour. As the nation moves toward a 5G ready state with M2M and IOT communications on the verge of an unprecedented growth, it will create a necessity to attract investment and preferably new players in the sector. Most importantly the investment will be necessary in creation of network infrastructure, which is both, investment and capital intensive and has long gestation period. It is thus recommended that in **addition of creating new authorisation, new investment approach may also be introduced in the sector, one such methodology is proposed hereunder.** Such methodology or agencies as prescribed here, may or may not be a part of the new authorization been proposed in the paper.

Part I of this report proposes a new approach and rethinking of the entire telecom infrastructure development in this nation, focussed but not limited to, wireline and passive infrastructure. Such approach not only utilizes the understanding and nation specific experience of infrastructure development and management, but also attempts to utilize the existing infrastructure developed in the sector. **It aims to develop network infrastructure through PPP mode by attracting green field investment. This has the potential to create broadband highways where the digital engines would run for the growth of the nation.**

Comments on the paper, proposing certain yet noteworthy modifications are given in part II of this report.

Part – I

Promoting investment in infrastructure layer

Existing approach

As per the licensing regime under UL, the licensees are envisaged to put passive infrastructure, active network elements and provide services using them. Thus, their role cuts across the infrastructure, network, and service layers. The licensees of UL establish the network, maintain it, provide the service to the subscribers, manage the tariff, billing, QoS, customer care, etc.

Virtual Network Operators (VNO) are the operators which are considered as the extension of the Network Service Operators (NSO) and utilizes the infrastructure already developed by these operators to re-distribute the services to the end customers.

IP-I operators are engaged in the creation of passive network infrastructure and active infrastructure, after amendments by DOT, on the basis of registration alone. IP-II license was introduced, however was later on discontinued by DOT. Such licenses which were introduced during the period are still operational.

Challenges and issues

1. Existing licensing regime has become increasingly complex even in Unified Licensing regime now, with the introduction of multiple authorisations and blurred boundaries between physical, digital and biological world. Further with the converging broadcasting and telecommunication domains, a service provider offering a bundled service might end up taking multiple licenses from multiple departments, with a list of compliances from each agreement. Such compliances and regulations when enforced uniformly on the smaller operators will create a perceived or actual entry and operational barrier. The sector may thus reach a point where regulations and compliances will become a more difficult task than the fees and charges incurred inn each license/authorization.
2. Further, such difficulty may be exponential for the micro and small enterprises which operate with a few or sometimes even with a single digit working team.
3. Parallel regimes of registration and licenses, not only creates a confusing and overlapping environment for the licensees but also makes regulations and license fee assessment difficult.
4. While the department has lowered the license compliance burden through several steps such as ApGR and rationalization of bank guarantees, entry barriers still limit the entry of new players in the market. While it is acknowledged that active network service providers should be regulated, there is a need to rethink about the infrastructure providers in the nation.

Considerations and rethinking

1. Instead of crafting another new license or regulations to limit the activities of infrastructure providers, they may be promoted through an open market approach with defined pre-conditions which any infrastructure provider may be mandated to follow while creating infrastructure. The activities may be regulated through registration and reporting to an independent agency for telecom infrastructure.
2. Investment in the sector may be attracted and promoted through PPP models. Such models are already deployed and yielded positive result in other infrastructure segments. Particularly in road and highway infrastructure, such methodologies have completely transformed the

sector and propelled the nation on a positive growth trajectory. A similar method may be followed in creation of digital highways in the nation too.

3. A holding company under Department of Telecommunication, Ministry of Communications, Government of India may be created to own all the public telecom assets across the nation.
4. A telecom infrastructure fund may be created along with a Telecommunication finance corporation to promote, collect, tender, monitor and fund the viability gaps, if the case may be, for a faster and accountable telecommunication infrastructure in the nation.
5. Sharing of infrastructure may be promoted to optimally use the telecom resource of the nation.
6. A layered approach of infrastructure development may be undertaken as envisaged in the National Digital Communication Policy.
7. A dispute resolution process, either through TDSAT or through formation of a arbitration agency for this purpose may be created to resolve conflict.

PPP (Public Private Partnership) Approach in telecom infrastructure

1. A holding company, say **Telecom Infrastructure and Finance Corporation (TIFC)** may be created as a Special Purpose Vehicle or Public sector limited enterprise under Department of Telecommunication, Ministry of Communications, Government of India.
2. Vision and mission of TIFC may cover the following objectives:
    a. Promote the telecom infrastructure development in the nation to foster digital, social and economic growth.
    b. Harness and promote various telecom agencies to coordinate, share and promote optimal use of the telecom assets in the nation.
    c. Become the unified agency featuring single window agency for utilization of telecom assets in the nation. Such **Unified Telecom-Infrastructure Interface (UTI),** created for this purpose may provide a single window for utilization of any telecom infrastructure in the nation.
3. Public telecom assets created in the nation, may be transferred to TIFC. TIFC may take the ownership as a holding company which would look after various responsibilities such as:
    a. Manage, regulate, promote and allocate Telecom Infrastructure Development Fund (TIDF).
    b. Registration of **Digital Communication Infrastructure Provider (DCIP).**
    c. Formulation of guidelines, mandates and compliances to be followed by DCIPs.
    d. Tendering and invitation of projects for telecom infrastructure development.
    e. Project management, monitoring, reporting and conflict resolution among stakeholders.
    f. Evaluation of financial feasibility and viability gap for projects in rural and unconnected areas.
    g. Leasing, renting or transfer ownership of created assets.
4. An indicative list of telecom assets which may be transferred to TIFC:
    a. Optical Fibres and network infrastructure created and to be created under Bharat net.
    b. Digital infrastructure created and to be created under Digital India mission.
    c. Digital infrastructure created and to be created under Smart City mission.
    d. Other public telecom infrastructure.

Working methodology

a. An infrastructure requirement is initiated or transferred from Department of Telecommunication for public telecom infrastructure to be created in the public interest. Such infrastructure may include:
    i. Creation of a new digital infrastructure
    ii. Upgradation of an existing digital infrastructure
    iii. Maintenance of an existing digital infrastructure
b. TIFC formulates financial and technical parameters to be followed for creation of such infrastructure. TIFC on the analysis of the requirement and financial feasibility of the project, may:
    i. Invite public or limited investment into TIDF and utilize it for development of the infrastructure by formulating a Design Build Transfer (DBT) project and awarding the project to registered infrastructure developers on least cost (L1) basis. The assets created hereunder may be transferred within a prescribed timeline.
    ii. Developed digital infrastructure may then be featured on UTI whereby any licensed service provider- private, government ministry, department or agency, may hire/lease the infrastructure through the single window portal.

    OR

    iii. Formulate a Design Build Operate Lease Transfer (DBOLT) project, wherein, the project may be awarded to a registered infrastructure provider on H1 methodology by fixing a predetermined leasing ceiling. The asset transfer timeline may be duly assessed as per financial feasibility of the project.

    OR

    iv. Formulate a Design Build Operate Lease Transfer (DBOLT) project, wherein, the project may be awarded to a registered infrastructure provider with a license for providing respective telecom service on H1 methodology by fixing a predetermined operating cost. The asset transfer timeline may be duly assessed as per financial feasibility of the project.

    OR

    v. Projects which are not financially feasible, but are expected to, may be designed to be developed through Viability Gap Funding (VGF).
c. Continuation, replication or expansion of projects may be undertaken after a social impact analysis of the projects adopted hereunder.

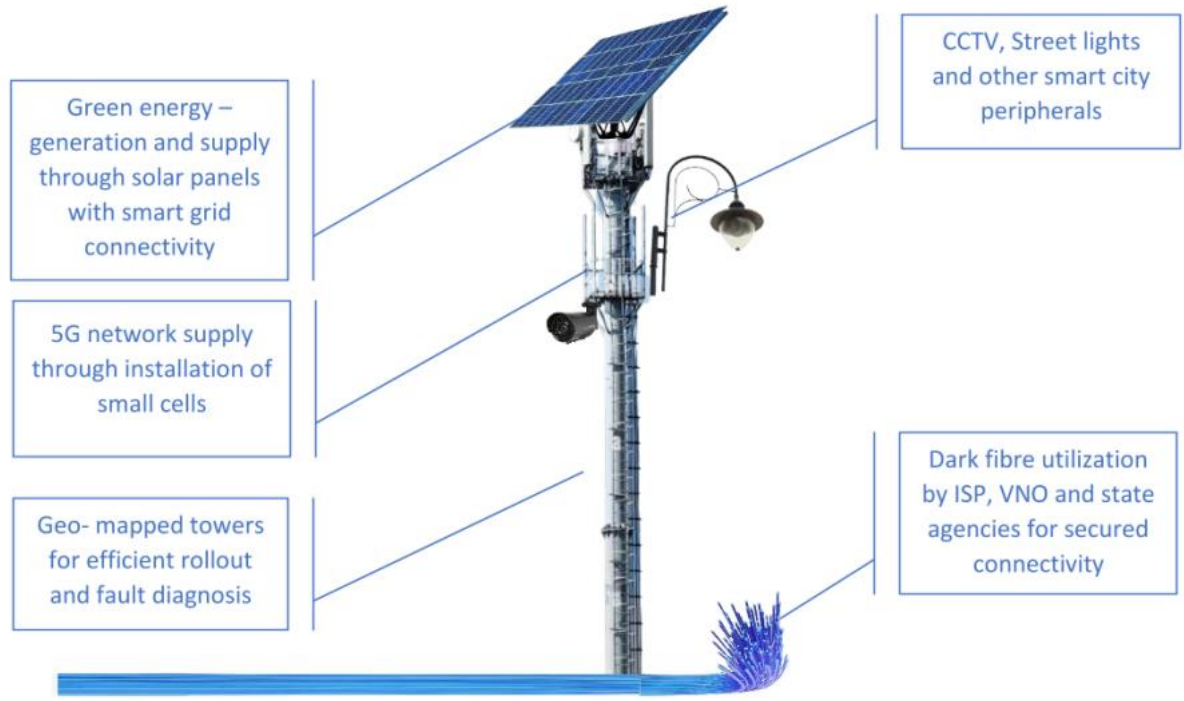
5G and future technologies

The nation is witnessing a 5G revolution, wherein, unprecedented network reliability, capacity and speed are expected to be achieved through proliferation of Massive MIMO small cells on millimetre waves. However, the optimum advantages of the network will require the radio sites to be placed in the vicinity of the users, thus construction of a large array of network infrastructure being a necessity for all 5G service provider. Such infrastructure will not only be capital intensive but also the identification and placement of radio site will be challenging. A thought process of utilizing street infrastructure thus initiated, which however, too has issues specific to developing nations such as:

1. Lack of quality, reliable and resilient street furniture.

2. Presence of monkeys, frequent and unregulated constructions damaging the radio sites.
3. Rural regions having lack of street infra.

A possible solution through the approach stipulated in this comment paper may be to create a public shared infrastructure, such as **STAMBH (Standard Tower for Augmented Mobile, Broadband and Habitat)** as displayed hereunder. Such infrastructure once developed, may be shared by multiple operators, eliminating replication, multiplicity and the wasteful expenditure in construction of network infrastructure. This would also improve the financial viability and optimum use of the telecom infrastructure projects.



STAMBH as depicted here facilitates an interconnected array of towers featuring:

1. 5G radio network placement site- stable, secure, geo-mapped and regulated.
2. Dark fibres- interconnecting every tower thus making a network grid to serve multiple stakeholders as per the needs. For e.g.: A VNO provider can rent a dark fibre from nearest tower of the operation to nearest tower of the consumer, thus eliminating the need to duplicate OFC laying requirement.
3. Street furniture and equipment such as CCTV, Street lights, etc.
4. Grid-connected solar cells to generate clean and green energy.
5. Sensor based equipment to save power.

STAMBH development as the passive public network infrastructure may be carried out through green field investment during the construction of road networks in smart cities. This will reduce the right of way clearances, cost and time involved in creation of a shared network infrastructure. The infrastructure may also be scaled up with the dark fibres to satisfy the needs of the future.

Part- II

Comment 1: While it is acknowledged that DCIP need an expansion in their scope to include the network layer, however, the rationale to exempt license fee is not understood. License fee is a significant contributor in the nation's economy. It is one of the largest non-tax contributing sources of income for the nation. This will thus have a grave financial impact on the nation's growth. A question thus arises whether such recommendation, as proposed in this consultation paper has concurrence of or was consulted with Ministry of Finance, Government of India.

Comment 2: This consultation paper proposes an exemption in UL Authorisation for DCIP licenses, by exempting the clauses of Part 1 on such authorisation holders. Such proposal seems to oppose the rationale of Unified License wherein, Part 1 are the standard conditions for all authorisation holders, thus promoting uniformity in licensing regime. It is thus that such exemption has the potential for:

1. Creating non-uniformity or non-unification as against the rationale of Unified License, and thus confusing licensing regime.
2. Potential of domino effect among other authorisations, demanding a uniformity, thus possible litigations and wastage of both private and government resource.

Comment 3: Indian telecommunication industry is one of the fastest growing telecom markets in the world. The revenue trends of the telecom industry clearly depict a stable rise in almost all the major big operators, it is pertinent to highlight here that **growth of telecom industry and its licensees are witnessed, with the license fee, as applicable. Such license fee, since from its inception has seen major reforms and has now numerous exemptions (in ApGR) which were previously not allowed. Department has also significantly reduced the bank guarantee requirement through its rationalisation. It is thus not understood, why this paper chose to ignore such major reforms and recommended to exempt license fee.**

Comment 4: A significant proportion of license fee i.e., **5% of license fee out of 8% levied is contributed towards USOF**. USOF is then utilized for the development of network infrastructure in the rural and under-connected regions. Exemption of license fee will thus adversely impact the development of network infrastructure in rural regions. This will in turn hamper the nation's vision to bridge digital divide. It thus seems that such relaxation will only develop infrastructure for urban regions on the cost of rural and unconnected regions.

Comment 5: Since infrastructure development is a capital-intensive activity with several license conditions limiting the operations within the license. DCIPs as proposed in this consultation paper, for active operations, will require to have multiple licenses in order to achieve end to end service delivery. Such multiplicity of licenses when viewed in the contemporary context of bundled services, will require operators to hold license of multiple ministries, such as Ministry of Information and Broadcasting also. This in turn may create a scenario similar to license raj which would adversely hamper the growth of telecom infrastructure in the nation. Further any subsidy, in form of license fee exemption will go to larger operators, a possible scenario of mis-targeted subsidy.

Comment 6: A **solution proposed** to the above-mentioned dilemmas is to permit the exemption of 5% of license fee (USOF levy) for the revenue generated in rural and unconnected regions by the infrastructure provider (DCIP) after due assessment. This will thus rationalise the license fee and will also promote infrastructure development in rural regions. Since these operators will only get this

exemption for their revenue and operations in rural and unconnected regions, they may be treated as fulfilling the USOF obligations thus deemed fit to be provided such exemptions.

Such step as described in this comment will:

1. Rationalise the license fee for DCIP operators.
2. Protect the financial interest of the government.
3. Promote and develop network infra in rural and unconnected regions to bridge digital divide between network rich and poor regions.

Comment 7: Since we are in a crucial juncture of unbundling of telecommunication layers and revamp of license conditions, it is proposed that efforts may be taken to standardize, infuse uniformity and reduce licenses, its complexity and variations, so that new and smaller players may enter the market. Entry of new market players is essential to infuse competition and break any possible monopolistic/oligarchic market conditions. It is thus, to protect the interest of the consumers, license conditions may be made uniform with lesser restraints.