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Recommendations to the Telecom Regulatory Authority of India on Consultation Paper On Ease of Doing Business in Telecom and Broadcasting Sector

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Consultation Paper On Ease of Doing Business in Telecom and Broadcasting Sector

These comments and recommendations are on behalf of Gujarat National Law University, Gandhinagar. These analyses and suggestions have been prepared by a team of students led by Saffron Sarosh, comprising of Aishita Yadav, Jay Shah and Pranay Agarwal, under the guidance and supervision of Prof. (Dr.) Ranita Nagar, Professor of Economics, and Dr. Hitesh Thakkar, Assistant Professor of Economics.

I. BACKGROUND

Regulations are an essential component of a business's seamless operation and operation. Good regulations are necessary for businesses to operate in an atmosphere that eliminates risk, fosters trust, encourages employment, and boosts manufacturing, exports, trade, and foreign direct investments. It's critical to strike this equilibrium. Despite the government's efforts to decrease the burden of excessive regulatory measures, businesses in India continue to face laws that act as a "spoke in the wheel" for the smooth rolling of the country's economy.

The Indian telecoms market, which currently has a subscriber base of 1.16 billion people, is the world's second-largest after the United States, and it has experienced rapid expansion over the last decade. According to a report issued by the GSM Association (GSMA) in partnership with the Boston Consulting Group, India's mobile economy is expanding rapidly and will contribute significantly to the country's Gross Domestic Product (GDP) (BCG). In terms of app downloads, India surpassed the United States in 2019 to become the second largest market in the world after China.

The liberal and reformist policies of the Government of India, together with strong consumer demand, have played a critical role in the rapid growth of the Indian telecommunications sector in recent years. The government has made it simple to get entry to the telecom equipment market, and it has established a fair and proactive regulatory structure that has ensured that consumers may get access to telecom services at reasonable pricing. As a result of the liberalisation of Foreign Direct Investment (FDI) regulations, the sector has become one of the fastest expanding and one of the top five employers in the country, creating over a million jobs.

The 'India Telecom 2022' was held in the august presence of key dignitaries Shri Devusinh Chauhan, Shri K Rajaraman, and Shri Ashwini Vaishnaw, Union Minister of Communications, Electronics & Information Technology and Railway. The event was organised to provide opportunities for Indian telecom stakeholders to meet qualified overseas buyers. TEPC (Telecom Equipment and Services Export Promotion Council) is organising the event from February 8th to 10th, 2022, as part of the Department of Commerce's Market Access Initiative Scheme (MAI), with support from the Department of Telecommunications (India), the Ministry of External Affairs (India), and Indian missions in various countries. The event will be attended by qualified buyers from more than 45 different countries. In addition to the conference, over 40 Indian telecommunications businesses will be exhibiting their products and skills at the exhibition.

II. ADVENT OF THE 5G ERA AND ITS IMPACT

Mobile usage and network performance have increased as a result of 4G's global influence. 5G will expand on this trend, offering significant network advancements such as faster connection speeds, greater mobility and capacity, and low-latency capabilities. As a result, it opens up new use cases and applications that will benefit a variety of industries.

Spectrum is essential for realising the full potential of these new capabilities. Thus, access to a variety of spectrum resources, including millimetre wave (mmWave) bands between 24 GHz and 86 GHz, is required for 5G's full socioeconomic impact.

The mmWave spectrum enables the increased bandwidth and capacity required by many 5G applications. It will be critical in addressing demand for a variety of upgraded mobile data services as well as new wireless broadband use cases like remote object manipulation, industrial automation, virtual and augmented reality, and next-generation vehicle connectivity.

The impact of mobile services on communities and economies will continue to grow as a result of these use cases.

While the socioeconomic benefits of mobile services and broadband connectivity have long been researched, evaluating the impact of high-capacity mmWave spectrum

represents a novel possibility. In several places, some of the mmWave bands have already been made available for mobile services. In order to enable 5G network development, bands between 24 and 86 GHz are also being evaluated and will be considered for identification for International Mobile Telecommunications (IMT) at the ITU World Radiocommunication Conference in 2019 (WRC-19). The lengthy process of moving spectrum from a WRC agenda item to the day it is actually given emphasises the importance of all governments thinking about 5G spectrum demands now, particularly in the mmWave areas.

This emphasises the need of a mmWave-specific study, which supports the timely actions that governments should take in order to take advantage of the many benefits that 5G will bring in the future. As a result, this study draws on a wide range of previous research on the predicted benefits of mobile broadband, 5G deployment, and the role of mmWave in that deployment. This is done to estimate the contribution to GDP and tax revenue that will be generated by the availability of mmWave bands for the deployment of 5G applications.

III. APPROACH FOLLOWED

In this consultation paper, we have chosen certain questions pertaining to increasing the efficiency of regulatory processes. The questions raised have been analysed, and either recommendations have been made, or the advantages of the existing system has been put forth.

Through this consultation paper, existing processes used by various ministries and departments have been examined, as well as the efforts required to make them end-to-end online and paperless, and to submit various compliances and reports, such as generations of Management Information System (MIS), through electronic and trackable means of communication.

This consultation paper emphasises the need for a single-entry window, through which an investor or entrepreneur can apply for all licenses/approvals without having to provide physical copies of the application or physically visit any department. When it comes to approvals, where the application must be moved between ministries and

departments, the process should be expedited to make it totally integrated and accessible online in a trackable response manner.

Furthermore, the single-window system may be equipped with cutting-edge technologies such as a chatbot, automated call centre, and Artificial Intelligence (AI)-based tracking, analysis, and response systems, so that anyone seeking licenses/approval can get instant answers to all of their questions about the process, mechanism, policies, documents required, and so on.

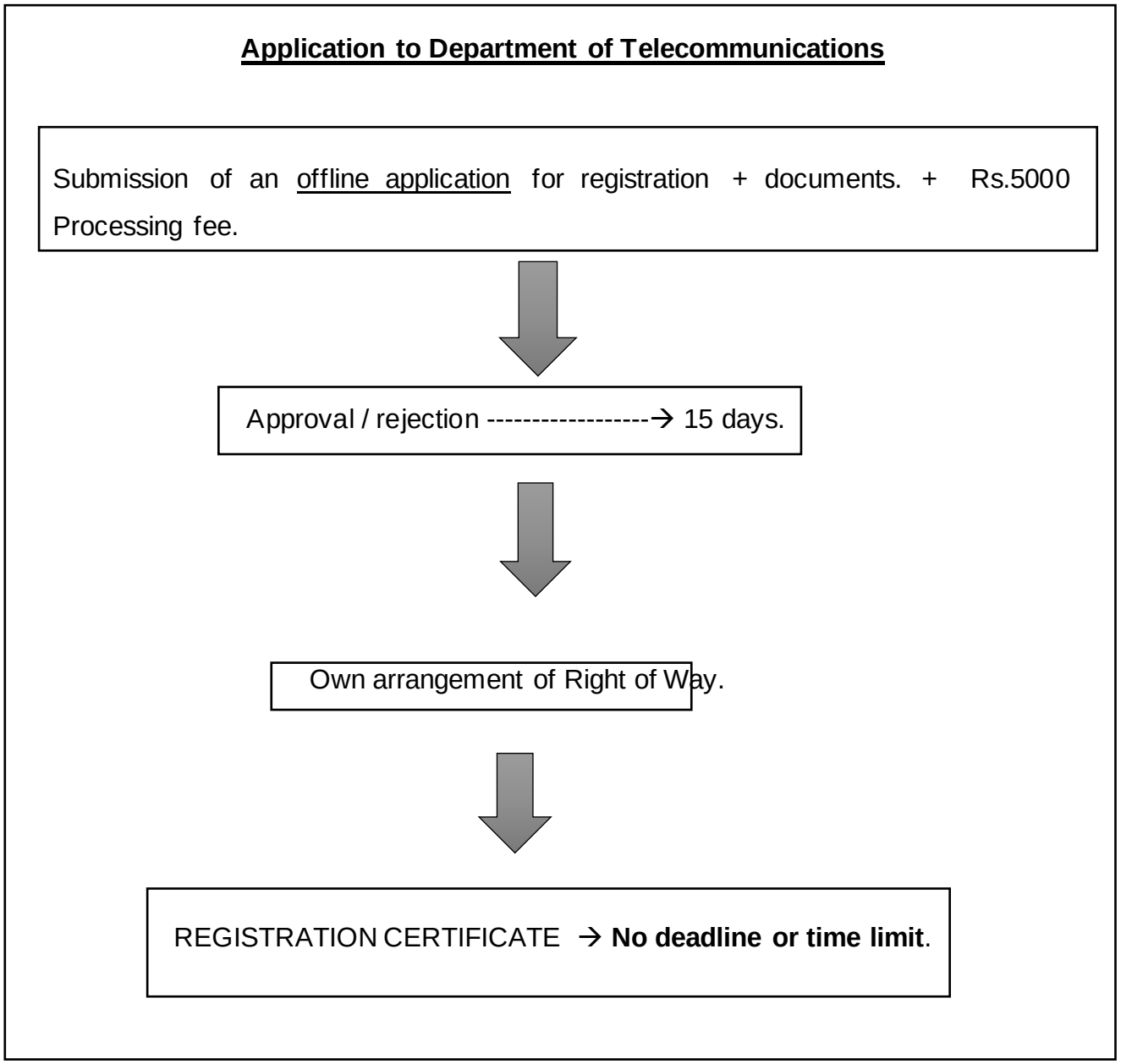
As the country approaches the convergence of telecom and broadcasting services, this consultation paper invites detailed responses from stakeholders on the numerous concerns and challenges they encounter in starting and operating businesses in the telecom and broadcasting sectors.

Please turn over for Specific Comments.

IV. SPECIFIC ANALYSES AND COMMENTS

A. What are the issues being faced in the existing processes of granting registration to IP-I providers? Identify and suggest measures to address the same.

The existing process of obtaining registration certificate from Department of telecommunications can be succinctly explained through the following diagram:



Once registered: -

- The IP-I registered company shall provide dark fibres, right of way space, towers on a lease/rent out/sale basis to the licensees of telecom services on mutually agreed terms and conditions.
- The IP-I registered company shall submit a copy of an agreement entered into with the telecom service providers to DOT within 15 days of the signing of such an agreement.

Specific Comments and Suggestions: -

- The process of submitting an application for registration with the department of telecommunications must be supported in the online mode as the online mode ensures ease and convenience in application accompanied by greater transparency and accountability in the process. Thus, switching over to NSWS (National single window system) needs to be carried out on priority basis.
- An applicant company requires the registration certificate to be issued before it can start operations and get into agreements with telecom service providers.in the existing process once the application for registration with the Department of telecommunications has been submitted the applicant company would be informed of the approval or rejection of the application of as far as practicable within 15 days of submission of the application.
- But the issue lies in the process when the application is approved the applicant company does not have any assurance of the time duration within which the registration certificate would be issued because no time limit exists for the same on the department. Such a lack of certainty creates a disincentive for the infrastructure provider companies.
- So, the department must provide a certain time limit for the process of grant of the registration certificate to ensure confidence building and efficiency.

B. Please provide your response with proper justification to improve the present system of EMF radiation compliance in terms of:

1. Relevance of EMF radiation audit and its impact for quick roll out of the network

Electrical currents exist naturally in the human body and are an essential part of normal bodily functions. All nerves relay their signals by transmitting electric impulses. Most biochemical reactions, from those associated with digestion to those involved in brain activity, involve electrical processes. The effects of external exposure to EMF on the human body and its cells depend mainly on the EMF frequency and magnitude or strength.

The frequency simply describes the number of oscillations or cycles per second. At low frequencies, EMF passes through the body while at radio frequencies the fields are partially absorbed and penetrate only a short depth into the tissue. Low-frequency electric fields influence the distribution of electric charges at the surface of conducting tissues and cause electric current to flow in the body. Low-frequency magnetic fields induce circulating currents within the human body. The strength of these induced currents depends on the intensity of the outside magnetic field and the size of the loop through which the current flows. When sufficiently large, these currents can cause stimulation of nerves and muscles.

At radio frequencies (RF), the fields only penetrate a short distance into the body. The energy of these fields is absorbed and transformed into the movement of molecules. Friction between rapidly moving molecules results in a temperature rise. This effect is used in domestic applications such as warming up food in microwave ovens, and in many industrial applications such as plastic welding or metal heating. The levels of RF fields to which people are normally exposed in our living environment are much lower than those needed to produce significant heating.

Biological Effects and Health Effects

Biological effects are measurable responses of organisms or cells to a stimulus or to a change in the environment. Such responses. increased heart rate after drinking coffee or falling asleep in a stuffy room, are not necessarily harmful to health. Reacting to changes in the environment is a normal part of life. However, the body might not possess adequate compensation mechanisms to mitigate all environmental changes

or stresses. Prolonged environmental exposure, even if minor, may constitute a health hazard if it results in stress. In humans, an adverse health effect results from a biological effect that causes detectable impairment in the health or wellbeing of exposed individuals**.** Complying with exposure limits recommended in national and international guidelines helps to control risks from exposures to EMFs that may be harmful to human health. The present debate is centred on whether long-term, low-level exposure below the exposure limits can cause adverse health effectsor influence people's wellbeing.

According to a response to a question the number of BTSs found exceeding radiation limits is shown below:

SN		**Number of BTSs found exceeding radiation limits during**				
		Year 2013	**Year 2014**	**Year 2015**	**Year 2016 (upto 29.02.2016)**	**Last three years (2013 to 2015) and current year (up to 29.02.2016)**
1	Assam	NIL	2	NIL	NIL	**2**
2	Karnataka	2	8	6	NIL	**16**
3	Madhya Pradesh	NIL	14	NIL	NIL	**14**
4	Maharashtra	4	NIL	NIL	NIL	**4**
5	Mumbai	55	NIL	NIL	NIL	**55**
6	Rajasthan	1	NIL	NIL	NIL	**1**
7	UP East	10	NIL	NIL	NIL	**10**
8	West Bengal	NIL	NIL	6	NIL	**6**
	Grand Total	**72**	**24**	**12**	**NIL**	**108**

Thus, seeing the harmful impacts and instances of violations an audit into the same is very important and in greater interests of the society.

2. *Measures to safeguard public interest and building confidence in public against propaganda of hazardous EMF radiations in field*

Members of a community where construction of a new facility is proposed will want to be a part of the decision-making process. To that end, it is important to structure a process that involves the stakeholders in a meaningful way and to seek out and

facilitate their involvement when addressing this decision. The process usually will be carried in three stages: planning, implementation and evaluation.

- The first stage is crucial, because stimulating public interest and involvement can be counter-productive if the communicator is not fully prepared for the public's participation, questions and concerns.
- In the second stage, when it is time to engage the public, the communicator will have to choose the setting to discuss the issue with them. The choice will depend on the type, number and interest of the stakeholders.
- In the last stage, it will be important to evaluate the outcome of the process, take follow-up actions, arrange for documentation of what was said and what agreements were reached, and share these summaries with those who participated.
- Individual queries may be handled on an ad-hoc basis through, for example, phone or email. Communication with groups of stakeholders requires more planning.
- For a small group of stakeholders, it may be feasible to involve them in sessions devoted to changing undesirable aspects of the project. One could encourage creativity, but always be up front about the limits for change and how the suggestions will be used to influence the final decision.
- It may be useful to employ individuals from local community organizations to take advantage of existing networks and enhance credibility, but one has to make sure that the individual is qualified, and to establish his or her role, responsibilities and limitations at the start.
- It is important to identify the stakeholder group that represents the opposition and determine what they specifically want. On major issues it may be possible to use advisory committees to build consensus on specific project decisions to encourage compromise, provide structure, and focus on solving problems that have been identified. Consensus building techniques include the Delphi process, nominal group process, and public value assessment

Alternative Passive Engagement Techniques

a) Printed materials (fact sheets, brochures, reports)
b) Websites and list servers

c) Newspaper advertisement, insertions or solicited stories
d) Press releases
e) Radio or television reporter interviews

Active Engagement Techniques

a) Talk to people about the process
b) Hold “open houses” e.g., with posters
c) Do radio or television “phone-in” dialogue
d) Use third-party networks (do briefings at community group meetings)
e) Provide a staffed information hotline or “drop-in” centre
f) Arrange for tours of successful similar projects

3. *Issues being faced in the existing processes related to the self-certification, audit and penalty scheme of EMF radiation compliance process on Taring Sanchar portal.*

After a close study of the issues faced by the TSPs the following recommendations must be considered**.**

- Only the tenant who carries out an upgrade or a new site addition should submit an upgrade self-certification.
- The tenant TSP should update the portal for the changes being made and notifying all other tenants to this effect using the portal. There should not be any need for other tenants to submit an upgrade certification for the same site. Further
- In cases, where the prime tenant responsible does not submit upgrade certification in time, only that very tenant should be penalized and not the other tenants sharing the same tower.
- With the introduction of new TSTP, the penalty schemes and the charges must be revised.

C. Whether the present system of getting fresh and additional space segment capacity on Indian and foreign satellites for various services mentioned in para no. 4.15 or any other new service from DOS, requires improvement in any respect from the point of view of Ease of Doing Business (EoDB)?

The present system of getting fresh and additional space segment capacity for the services as are offered by the DOS though has been noted to be efficient however is suffering from several bottlenecks due to which the investors might still feel difficulty and hesitation in investing in the industry.

There are various drawbacks in the procedural aspects of obtaining the license which fortunately can be removed through some of the changes in the crucial procedures of which some noted are as follows: -

(1) As has been noted in para no. 4.6 and 4.7 that the Department of Space (DOS) starts charging the Service Providers (SPs) for the segment capacity from the date of allocation irrespective of the fact that the SPs are yet to get the other regulatory approvals before their network is commissioned.

Due to this SPs are neither able to charge their customers (as their network is not commissioned yet) and have to give the charges payable on the allocation, thereby making them at severe loss till they receive regulatory approvals. The TRAI although has already understood the situation, and has recommended a waiver of 3 months.[1] However, there are chances that they might not get the approvals on time or at all which won't be saving them from paying the allocation charges which are already set forth in a separate contract, which shatters investors confidence in investing in the industry which though having resources is ranked way below its potentiality.[2]

Therefore, it is recommended that rather than charging the SPs from the date of allocation itself, the DOS can start charging from the date of commissioning but calculating the dues from the date of allocation and on the retrospective terms and conditions of the contract to save the DOS from all revenue losses. This way the SPs would be able to pay the charges by charging the customers from their services and can avoid losses while making no impact to the revenue collections of the DOS.

[1] TRAI, Report on Activities (1st Jan 2017 to 31st Dec 2017) p. 25.
[2] https://www.financialexpress.com/opinion/india-must-get-satcom-to-take-off/2386056/

(2) The second problem which is identified here is with the procedure for getting the space segment is its offline nature. As is noted in the para no. 4.7, the process for getting of the segment is an entirely offline process due to which more time is taken for getting the regulatory approvals. Moreover, the offline makes it more difficult in the present case, as getting the segment requires approval of departments of more than one ministries (para no. 4.9). The SPs therefore have to apply to different ministries for the approval and have to submit the same information and follow the redundant procedures at every step, which consumes extra time and effort of the SPs.

To make the process more efficient, it is important to have a good coordination and collaboration between the concerned ministries so that redundant steps are avoided and everything required should be brought under a unified system where different ministries collaborate to share information and facilitate the SP.

For this, it is recommended that a single window clearance system can be adopted where applying for the space segment and other steps are undertaken through an online portal. For that purpose, we propose that India can adopt the European model of One Stop Station (OSS). In that system, there are mainly 2 elements:

i. Element 1: Database of information about authorization and licensing requirements and procedures.

ii. Element 2: A Combined Application Form (CAF) where there are all types of questions as are asked by the CEPT countries to reduce redundancy.

While India, at present, has ICRF application format for the VSAT, the same is provided by the DOS and not other ministries. Moreover, other services allowed by the DOS are not covered under the same. The system can be introduced in India in the form of an online portal where the process of applying for the space segment can be reduced through CAF by conducting all formalities required by different ministries through a single application form.

The information will then be stored on a common database which can be used by the concerned departments and ministries to conduct the procedures and grant approval. This will time and effort of both SPs and regulatory authorities.

As to the governance of the online portal and the privacy of the information stored in it is concerned, it is submitted that the SPs should also be allowed to submit offline

applications in case they are susceptible of the privacy issue. Also the information of the SP should only be retrieved by the concerned ministries and the officials authorized by them. The portal can be governed by the Apex Committee and DoT Satellite Cell, to facilitate smooth functioning of the portal. Moreover, if needed, a separate committee or cell can be made with proportionate representation from all concerned ministries to govern and administer the portal.

(3) The third problem is with the tedious procedure followed in getting the additional space segment. As is identified in para no. 4.9 and also in fig. 4.4, the process followed for getting the additional space segment is more or less similar to that of the procedure for getting a fresh space segment, except that it does not require permissions from Apex Committee and SAFCA.

However, the similar procedure with the same time limits as that of getting fresh segment do place restriction on the working efficiency of the SPs. For that reason, it is a high time when the procedure should be relaxed for improving the ease of doing business in Indian telecom and broadcasting industry.

For that purpose, the para no. 4.7 of the consultation paper, with regard to the previous comments and recommendation given to TRAI, has proposed the spectrum sharing on full band basis and not just at frequency spots, which will obviate the need for going for getting the license for additional space segment. Although the same has been successfully implemented in countries like USA, it is highly impractical in case of India, where the spectrum sharing, as a concept, is still in a cradle and is yet to develop.

The DoT has been engaged in discussions in allowing spectrum sharing at full band basis but at present, the spectrum sharing is allowed for the operators operating in the same bands of 900 MHz and 2500 MHz. Therefore until the spectrum sharing is allowed for all frequency bands, the policy of spectrum sharing at full band basis is not possible. Moreover, the DoT is yet to devise an effective regulatory policy for the spectrum sharing in India, which the developed nations like USA and Europe have already done.

The impracticality of the idea however does not mean its inapplicability. The proposal is based on the instances followed in developed countries like USA and Europe and therefore has been successfully tested. Therefore the proposal is worth implementing and is recommended that the spectrum sharing should be allowed in all bands and an

effective policy should be drafted by the DoT and DOS which will obviate the need for getting the license for additional space segment.

The procedure though is highly redundant and many aspects of it should be curtailed to make it more flexible and friendly. For that purpose, it is noticed that the NOCC frequency approval should be avoided as it is highly improbable that a commissioned network will be requiring a different type of band width for expanding its network. Moreover, even if there is such a case, there should be an option to avoid NOCC frequency approval, in cases where the SPs are not interested in changing their bandwidths.

The time taken in every step of getting the additional space segment is same as that of getting the fresh license. From the submitting the ICRF format to getting the WPC operating license, the procedure takes 3 months to 15 months, which is as long as for getting the fresh additional segment. It is submitted that the SPs and the applicants are commissioned networks and have submitted most of their undertakings and information while getting the fresh license from WPC and therefore there is no need to repeat the same procedure taking the same amount of time again.

It is recommended that the time duration of every step should be reduced for getting additional segment license and the procedure should be rather made flexible. For that purpose, we recommend the following breakup of the time duration for each step:-

a. Issuance of Allocation letter by DOS – At present, it takes about 4-5 months after submitting ICRF. But as the information needed is already available with the DOS and the terms and conditions will be more or less the same, the scrutinizing and drafting should take lesser time. Therefore it is proposed that the allocation letter should be issued within 3 months of submitting the application.

b. NOCC frequency approval – As has been already submitted, the NOCC frequency approval should not be a mandatory step and should be based on case to case basis, if the SP is applying for a different type of frequency bandwidth.

c. WPC decision letter and issuance of operating license – The issuance of license is an important step in the process and therefore needs much

more time. However, network is already commissioned and has been earlier approved by the WPC and therefore the process will require lesser scrutiny. But the time limit is highly inordinate at present i.e. 45 days to 12 months. Though the process of spectrum allocation requires time, the time limit should be reduced to a certain extent, given the network being already fulfilling many criteria being commissioned.

Also the procedure should be conducted through an online platform as has been emphasized in the point (2) of the, which will make the process easier and less time taking. At present, the time taken in getting the additional space segment is more than 12 months which is highly exorbitant. We recommend that through making the process online and removing the redundant procedures, the time limit should be reduced to a much extent.

(4) The existing authorization of the Global Mobile Personal Communication by Satellite (GMPCS) service under the Unified License system permits the licensee for provision of voice and non-voice messages and data services. Also the current scope of the service permits all types of services including low bit rate applications and connecting IoT devices. Therefore it can be said that the scope of the GMPCS is wide enough to provide ample services to the customers.

However, the procedure to get the space segment is highly complex and time taking. It is submitted that the main problem lies within the lack of coordination between the DOS and ISRO due to which procedures largely become redundant and getting the approvals from the ministries become time consuming.

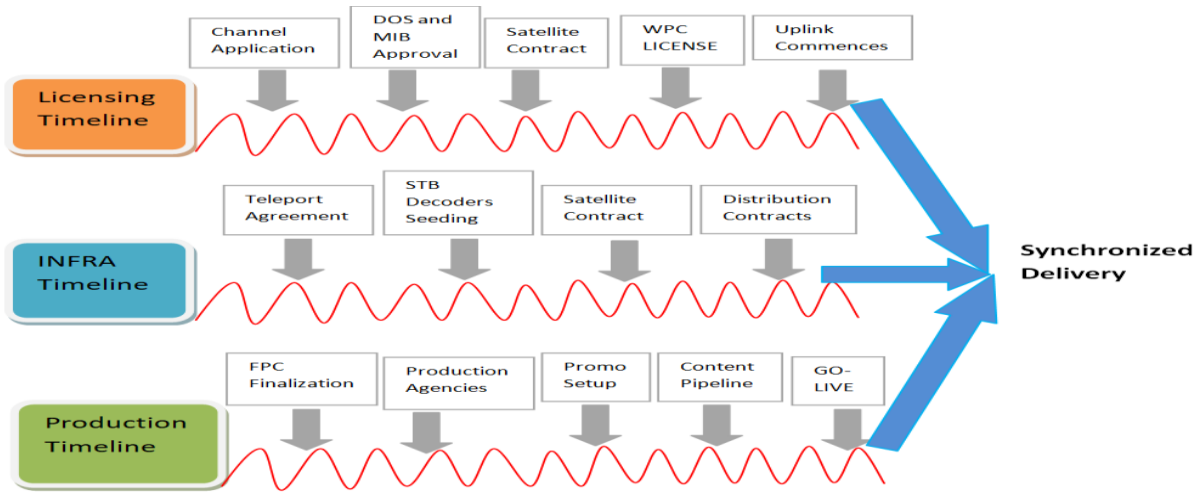
We recommend that the DOS can have a permanent relationship setup with the ISRO in this regard and a common application should be submitted to them, containing queries of both the authorities, which will reduce the problem of redundancy. Moreover, the application for getting the space segments by the GMPCS service providers should also be given through the common online portal, from where the concerned ministries can retrieve the relevant information which will fasten the process.

(5) The broadcasting services being made available through DTH/HITS make use of satellites. While DTH operators are allowed to use only Ku band frequencies, the HITS policy guidelines allow HITS operators to use both C and Ku band frequencies.

Therefore both the services are having common issue in their licensing procedure and operational aspects.

Both DTH and HITS requires approval of multiple ministries and authorities for getting the space segment license (which includes NOCC, DOS, WPC, MIB, DoT, etc.). Multiple stakeholders have already raised concerns about this mechanism and recommended a single workflow of licensing procedures which should happen online without any need for personal visits and requests before authorities on a case by case basis.

For that purpose, the recommendation of the online portal acting as a single window for space segment licensing (point 2) can be applied to solve the problem. Therefore, we recommend a single Window system, with the desired target that the licenses should be issued expeditiously, within specified timeframes and the broadcaster should be able to synchronize their content related expanses with the targeted launch date, and the licensing process (Fig. 1).



(6) The Satellite News Gathering (SNG) and DSNG services also require space segment and license from WPC to uplink and downlink the news content. The procedure adopted for getting the space segment is more or less same to the VSAT except some changes which are required to be accomplished for meeting the criteria for the approval. Therefore the requirement of an online process is also a need for getting the procedure to acquire license smooth and easy.

The process is still majorly an offline mechanism where the application has to be filed to the Board of Directors in the physical form, which takes time and efforts. Therefore the following recommendations are made for the purpose:-

i. Facility of Online application to the Board of Directors through their CIN No. should be made available.

ii. A single window should be there where details can be filled as to the channel details and the selection of preapproved satellite can be done.

iii. The option of online mode of payment should be given to the SNG/DSNG service providers.

The recommendation of the online portal given at point 2 can therefore be helpful for the SNG/DSNG service providers as well and can hence serve as a single window for all sorts of the services providers like VSAT, GMPCS, INSAT MSS-R, DTH, HITS, SNG/DSNG, Uplinking and Downlinking operators to apply for the space segment and get regulatory approvals within the time limit. Also the time taken for the applications and the information from one department to the other will be saved and the ministries will retrieve the relevant information from the portal itself, making the procedure more efficient.

D. Whether the existing procedures to acquire a license for providing satellite-based services in the existing framework is convenient, fast, and end-to-end online for the applicants? If not, what other measures are required to simplify the various processes to enable ease of doing business in India for satellite-based services? Give details along with justification.

As dealt in the previous question, the major satellite based services in India requires approval of one or more regulatory authorities to get the operating license from the WPC. While the approval provides an indirect restriction on the entry of the new firms in the industry, the procedure is a complex one and with the offline mechanism, is time consuming too.

As was reflected in the points 2 and 3 of the response of the Q. 13, the procedure for acquiring the license for using space segment is highly time consuming and requires approvals from various ministries.

However, some difficulties were removed for the VSAT and GMPCS service providers, where the Unified License system was introduced by DoT through which the process became faster. However, there is no such procedure for other satellite based services and such procedure is not followed for the license granted by any other ministry like DOS and MIB, thus relaxing only the Telecom SPs and not broadcasting SPs.

The procedure which is followed by the WPC in granting the operating license for spectrum usage should be relaxed and made flexible according to the needs of the service provider. For that purpose, it submitted that the inclusion of the in-principle approval was not wholly a wise decision.

The Apex committee was introduced by DoT, Satellite Cell which comprises of the NOCC, DOS, TEC and MIB, as its members to grant an in-principle approval before the application can be made to the regulatory authorities. The committee hence, works as a preliminary check which gives the approval to only committed and capable applicants. The committee was thought to be a single window clearing system where all the applications are given a pre-approval.

However, the inclusion of such committee, made the process even more complex and time consuming, without adding much to the facilitation to the applicants as even now, they are required to make the application to the separate ministries and authorities for

getting their network commissioned or getting the WPC operating license and spectrum allocation though with the Apex committee's in-principle approval.

Therefore it is submitted that the role of the Apex committee should be redefined and should be curtailed to an extent that its approval should not be taken in unnecessary cases. For that purpose, it is pertinent to note that the most demanded bandwidths in India are Ka and Ku bands. The Ka band (26-28 GHz) which is mostly used by the mobile communication operators and the Ku band (12-18 GHz) which is mostly used for the satellite broadcast, are in major demand.

We recommend that only in the applications for the highly demanded bandwidths like Ka band and Ku band, the in-principle approval of the Apex committee should be given to make a preliminary check of the applications and the rest bandwidths which are not in great demand like C band should be dealt directly by the DOS and NOCC for the frequency approval and spectrum allocation.

As the quickness of the process is concerned, as is recommended in point 2 of the Q.13, we recommend that the offline procedure which is followed currently should be replaced with a online single window system. For an efficient process, the online portal should be able to provide the following facilities:-

i. The applications for obtaining the license for all types of satellite based services should be made through a common application format (CAF) and the information given by the applicants should be retrieved by the concerned ministries and departments.

ii. The portal should be governed by a single authority, probably like Apex committee, having representations from all the concerned ministries.

iii. The portal should also be facilitating the SPs in payment of fees and guarantees wherever required.

iv. It should be able to track the application of the SPs and intimate them about the progress and defects, if any.

v. The applicants should be able to file important documents if required through the portal.

The process through the online portal will be quick and completely online without much physical presence required, which will make the procedure more flexible and easier to follow. Hence, with the procedure become online and easier and time saving, the SPs and operators of various satellite-based services would efficiently provide the services to the customers without much technical and legal hindrances, thereby increasing the Ease of Doing Business in the telecom and broadcasting sector.

E. What improvements do you suggest in the various extant audit processes conducted by DoT LSAs? How the process of the Customer Acquisition Form (CAF) audit can be further simplified? Provide your comments with justifications.

Stakeholders' submission holds water. TRAI must focus on simply verification of identity of end user. In order to soothe the operation related to CAFs & E-KYC is to ask the end customer to link any registered govt idea & activate the sim via OTP sent on the phone number previously associated with the number. If the user no longer has access to the number an image of govt id should be considered as KYC. I recommend this because it is pointless for long KYC policies since govt ids are a strong reserved proof of identity. Only relying on Aadhar is also problematic as a certain section of the citizenry still doesn't possess one. Parents must let the TSP know if the purchase is for their minor children thus addressing that ambiguity as well. Transfer of number ownership should take place on the 18th birthday of the minor. Foreign passports copy should also be enough as KYC. The expertise of RBI can also be put to use since bank accounts & credit/debit cards are issued after thorough verification thus a sim purchased via bank transfer should be KYC enough. Similarly corporate/artificial persons should only be allowed to purchase via bank transfers to establish & simplify identity process as well as the ability to track related accounts in case of fraud or scam. The current system is outdated as it doesn't capitalize on the identity cards issued by other government wings by asking TSPs & customers to file multiple KYC's.

The contention of stakeholder can be addressed by implementation of a multidimensional method through the use of data analytics, Artificial intelligence and machine learning. The SIM cards should be linked to an artificial intelligence

which is centrally handled by the ministry. Digitalization of CAF would lead to not needing the same in physical form and it can then be stored into a cloud facility. Data analytics can be used to verify is the SIM is not used illegally through application of stronger machine learning and artificial intelligence tools to increase the rate of uncovering any illegal activities or anomalies. Thus, the centralized control would reduce burden present of the telecom service provider and they shall then take instructions regarding security aspect directly from the ministry rather then acting as a decision-making authority.

Artificial intelligence can be used to continuously monitor for illegal activities which will reduce the frequency for which auditing is required. A digital warehouse will lead to effective implementation of technology. Moreover, a digitalized solution will lead to eradication of revenue generating practices from penalties. The objective of customer traceability can be ensured in a more practical and efficient manner through implementation of E-KYC which can linked to artificial intelligence and machine learning technology to thoroughly scan for anomalies. This will not only reduce the burden on telecom service provider but also leave no scope for them to be penalized on technical grounds on recurring basis.

The auditing mechanism and other technology which can be implemented can then be linked together through internet of things. Hence the registration of KYC through the person themselves through the above-mentioned method will lead to their activities through the SIM be documented on the cloud and stored in a digital warehouse. The machine learning algorithm then works upon finding patterns or trends in order to reduce risk and identify anomalies. The whole setup being centralized under the direct scrutiny of the ministry would relieve telecom service providers from the burden on recurring verification and auditing.

In order to run various auditing and verification processes simultaneously the ministry can adopt ERP systems which can streamline the manner in which the auditing takes place. Hence the implementation of technology would also provide a greater extend of scrutiny it will also be more efficient and not overburden telecom service providers.

F. What measures are required to be taken to simplify the various submissions/filings made by teleport operators, DTH operators, MSOs, and other stakeholders at MIB? Provide your detailed reply with justifications.

In accordance to the sub-regulation (6) of regulation 10, every distributor of television channels before requesting signals of television channels from a broadcaster shall ensure that the addressable systems to be used for distribution of television channels meet the requirements as specified in the Schedule III of the Interconnection Regulations 2017. For ensuring the same, DPO can get the pre-signal Audit conducted either by BECIL or any other agency empaneled by TRAI. The same must be made through an online format in order to create a digital warehouse. The data regarding the same must be stored in a centralized cloud facility which is under the ministry. The ministry must design software to run periodic check of compliance for the mandatory channels and then an operator must be contacted in event of there being a breach of compliance. Otherwise, the operators must only be furnished a report stating compliance for them to attest and resubmit in an online portal. This will reduce the need of forming report every month b the company or operator and enable them to function with greater autonomy.

The set top box seeding data needs to be fed into the system every week. This causes an additional burden on the service provider. The frequency of the same can either be reduced or a mechanism to optimize the same can be provided. The existing portal can be changed to receive by itself the seeding data in real-time rather than the service providers feeding it in the system. This will not only provide better results and closer insight into the data but also help service provider optimize their services. As the same would be in real-time it would not engage service provider weekly for the same.

The process of the monthly reporting can be simplified. The ministry can set up an online portal where the telecom service provider has to register through E-KYC only once. After which the software can keep track of the functioning of the company and auto-generate report which is retained by the ministry and also a copy is provided to the service provider for the record.

Service providers are also required to provide detailed list of the channels uplinked on 15th of every month. The same can be asked to be provided quarterly in order to reduce the burden of making report every month. Moreover, the service provider can be provided with a portal in which they have to enter details pertaining to such channels and the software to keep track of the uplinking and downlinking of the channels by itself. The service provider may only be asked to approve the report generated by the software. This is feasible as it would bring uniformity in scrutiny and also relieve service providers from generating report every month.

Hence technology can be used in order to make it a uniform process for all service providers and reduce burden from service providers by shifting their role from making the report to approving it.