# S S Sirohi

**Alumnus IIT Kanpur,**
**Ex. ITS,**
**Ex. Member (Technology),**
**Telecom Commission, DoT**
**& Secretary to Govt. of India.**

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**iCTrobot/TRAI/2017-18/04**

26th June 2017

Shri Sanjeev Banzal
Advisor (Networks, Spectrum and Licensing)
Telecom Regulatory Authority of India
Mahanagar Doorsanchar Bhawan
Jawahar Lal Nehru Marg
New Delhi 110002

**Subject: Counter Comments on TRAI's Consultation Paper on "Network Testing before Commercial Launch of Services"**

Dear Sir,

It is with the reference to the aforesaid TRAI's Consultation Paper on "Network Testing before Commercial Launch of Services."

We would like to introduce **"advisory@iCTrobot"** as a consulting and market research entity in Telecom, Media and Technology space primarily focused on advising telecom and digital service providers and eco-partners on their techno-business needs, powered by tenets of innovation, creativity and transformation.

Please find enclosed the Counter Comments on the Consultation Paper on "Network Testing before Commercial Launch of Services."

Thanking You,

Yours Sincerely,

For **advisory@iCTrobot**

**(S S Sirohi)**
**Founder & CEO**

Encl: As above

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# COUNTER COMMENTS OF "advisory@iCTrobot"

## ON RESPONSES ON TRAI CONSULATION PAPER

## "NETWORK TESTING BEFORE COMMERCIAL LAUNCH OF SERVICES"

## (CP No.5/2017 dated 01.05.2017)

### PERSPECTIVE:

We express our thanks to TRAI for permitting us to offer Counter Comments on the responses received on the Consultation Paper on Network Testing before Commercial Launch of Service. Network testing is one of the important processes to ensure and ascertain the technical compliance of the equipment, systems and services. TRAI has laid down standards for Quality of Service which are obligated upon the Telecom Service Providers.

**It needs to be appreciated that the present licensing and regulatory regime has very well served its objectives, over last two decades, towards revolutionary increase in Tele density giving masses almost ubiquitous access to telecom services in the Country, spectacular growth of Telecom Industry along with continued protection of consumer interest.** This, revolution witnessed successful introduction and adoption of various new technologies in TSPs' networks from time to time in line with global trends, **enabled by minimal regulation**, particularly in technical domain like network testing etc.

There was never a single instance of discord on network testing issue among any of the TSPs which were growing together in GSM space. Even, during the year 2008-11 when new TSPs with limited investment ability started vying to get foothold in the market place in the face of large incumbents, there was no such issue possibly due to following reasons:

a) 2G technology, later 3G too had completely matured and proven techno commercially.
b) Network Size and scale of operations of the new TSPs were small in comparison to those of incumbents to provide any real competition.
c) Limited investment ability of the new TSPs to provide long term competition to the incumbent TSPs who had grown very big.
d) Debut Size of new TSP's network and scale of operations was not significant.

**However, in the Year 2016 with the entry of a new TSP with a debut size of the network and scale of operation big enough to stand up to the size of incumbents, robust investment ability and strength to sustain the challenging competition dynamics, the incumbent TSPs felt threatened on counts of subscriber churn, declining tariffs, better competitive QoS, pruning of traditionally heavy profits of their hitherto cozy business. They have adopted the path of making loud noise, raising unreasonable demands and blaming the same regulatory regime which so far enabled them to thrive in market place and reap huge profits.**

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The strategy was to browbeat and influence the regulator into somehow block or retard the pace of competition and **push it towards micro managing the sector/competition; which of course would be the most retrograde step.**

**In fact, DoT(Licensor)/Regulator have never prescribed as to how testing of networks is to be carried out by TSPs.** TSP is free to comprehensively test its network, application systems and service by Test SIMs/ Test users or otherwise over whatever time period it needs before start of commercial service so as to mandatorily fulfill the Licensing/Regulatory condition of LIM testing/Provision of Service/Quality of Service/ MNP; failure of which may be construed as breach of licensing terms and conditions. **In view of the above, there may, simply, be no need to revisit the well proven regulation.**

**But for the first time in the history of Indian Telecom, incumbent TSPs have made so much hue and cry over 'the way' Network/Services testing is done by a new TSP, for the misplaced and unjustified reasons, a few mentioned above, cleverly camouflaging their strategy to somehow ward off the looming real competition by hook or by crook and deny Indian customers imminent benefits of low cost, high quality voice/video/data/broadband services and onset of new data revolution with infinite possibilities.** This, of course, has led to this Consultation Paper at this time, which, however, is most welcome now. Under the circumstances, such a step is an **appropriate way forward to clear the confusion and pave the fair and right path to enable Indian economy reap the benefits of new technologies/innovations/unprecedented huge scale of wireless broadband infrastructure-rollout touching lives of every Indian in every nook and corner of India.**

**The network testing with live Test Subscribers assumes all the more importance and necessity when a new Telecom Service Provider brings in new technology which is commercially and operationally yet to mature (in the present context 4G with VOLTE) for which testing requirements, its scale and customer appraisal are altogether different from the present day mature 2G/3G mobile networks/systems. India has a great stake in the successful and speedy implementation of 4G to usher in Digital India and "Broadband to the masses" across the Country.**

We have furnished **Counter Comments** going through the responses on the issues framed by TRAI, along with **our recommendations** in case the regulator decides to lay down guidelines for testing of Network systems, processes/ services that could be made applicable to any new licensee.

**Q1. Should a TSP be allowed to enroll subscribers as test users and in such case, should there be any restrictions on the number of test SIM cards and the period of such use? Please justify your response.**

**A. The Comments the Stakeholders are broadly summarized as below:**

1. Four Stakeholders (TSPs) are opposed to allowing to enroll subscribers as test users before commercial launch as none of the clauses of Licensing terms and conditions permit it. They have contended that Test SIM cards should not be issued to general public, **one of them**

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**states** it should be restricted to employees only with maximum number 897 per LSA and time limit 30 days.

2. Another set of four stakeholders (TSPs) have stated that test users may be enrolled but there should be upper limit for such test user with limited Test duration. **One of them** desires it to be of 45/60 days and numbers limited to 2-5% of switching capacity while another says it should be 1 lakh per LSA and time limit 3 months.

3. One stakeholder (TSP) said that there is no need to put any additional restriction on TSPs for enrolling Subs as Test Users. DoT instruction dated 29.08.2005 on test SIMS does not relate to definition of Test subs and not to be reported in HLR base and letter dated 09.08.2012 on verification of new mobile subs do not put any restrictions on the number of Test SIMs. It only requires that such connections /numbers shall be intimated to DoT/Security agencies.

4. One of the Service Association has same stand as stated in para 1 above. Another association has said that the requirement of testing of new TSP is different from existing TSP, therefore should be permitted with limited Test subs of duration 90 days.

5. One stakeholder states that pre commercial trails cannot be denied but a clear distinction should be drawn between pre-commercial and post commercial phase. Test SIMs to test network shall not figure out as prospective customer. They need to be restricted to 90 days.

6. One Stakeholder states that TSPs must be allowed to enroll users/subs without any restriction on number and period of use. There is no problem as long as monetary payments to incumbents are met. Incumbents to be penalized heavily for non-provision of demanded POIs to new TSP.

7. One Stakeholder has expressed views same as in para 2 above and additionally recommends limiting testing to certain area not full service area. Test SIMS to be deactivated and new ones issued after commercial launch.

## B. COUNTER COMMENTS:

### TEST SIM / TEST USER

(a) Test SIM/TEST USER find their expression in DoT letter dated 29 Aug 2005 and letter dated 09.10.2012 extensively quoted by stakeholders. The letter was issued in the nature of clarification on counting of number of subscribers in the HLR. This was the period when incumbent TSPs used to inflate their subscriber base to get more additional spectrum administratively. Therefore, DoT clarified that for uniform subscriber base reporting, the Test/Service Cards amongst others should be deducted from total IMSI's in HLR. **The**

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stakeholders in their comments have misquoted that this letter defines these Test/ Service Cards as the only means to test the service for QoS. These cards are mentioned for use during the life time of the license to gauge the quality of service and other purposes and this letter does not put any limitation on number and time on the Test subscribers in the present context of Network testing.

(b) The second reference, the DoT letter dated 9 Aug 2012 the spirit of which is to include all type of SIMs including TEST SIMS for due verification by the security set up. This letter also nowhere defines that these TEST SIMs are the only means for testing. This has been misinterpreted by the stakeholders. Test SIMS are used for many purposes including to gauge QoS. This letter places no limitation on number and time limit on the Test users  as per License terms and conditions.  **As per this letter the TEST SIMs are now the  enrolled TEST SUBSCRIBERS.**

(c) After being part of the Test phase, the migration of Test subs to a regular subscriber is a logical  sequence and the Test subs can seamlessly migrate to as normal subscriber, if they so wish. They have an informed choice. If they do not opt, they are  free to walk away. Since they get a rewarding experience of the new technology service (4G with VOLTE service in case of recent new TSP), they may embrace it going on board for continuity.

(d) After the DoT order dated 29.08.2012 on subs verification, no SIM can be activated by a TSP without fulfilling the following requirements:

    (i)     The lawful interception monitoring facilities for LEAs are duly tested and accepted by the Licensor.

    (ii)    Proper subscriber verification (KYC) is done by TSP.

Now there is nothing like a Test SIM which was earlier used before 2012 without KYC for only employees, business partners, roaming operators etc. in a limited number. **It is now a Test Subscriber because the person using the SIM for testing purposes has to be KYC complaint and enrolled by the TSP. In other words, he is a KYC verified enrolled test subscriber who is not limited to employees, roaming operators, or business partners only.**


**COMMENCEMENT OF SERVICE BY NEW TSP**

a)    Before any subscriber can be served by TSP, one of the important activities on the part of Licensee after installation of the network, is to inform Licensor DoT at least 90 days in advance for testing of requisite monitoring facility. Once the monitoring facilities are accepted, DoT issues a letter to licensee informing he could go in for commissioning of service. The following relevant clause in this connection is quoted below:

Condition 7 "……….. The Licensee shall intimate to the Licensor well in advance before the proposed date of commencement of any service in any Service Area containing the details of network and required facilities for monitoring of the service installed by the Licensee. Any service, permitted under the scope of this License Agreement, shall be commenced by

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the Licensee only after prior approval of the Licensor. The approval shall normally be granted within 90 days from the date of receipt of such intimation provided that the Applicable Systems/Service is broadly complaint to the scope of the License and requisite monitoring facilities are successfully demonstrated by the Licensee".

b) Parallely, the Licensee initiates action to get connectivity –PoIs, sufficient to carry projected traffic with incumbent interconnection provider TSPs for testing the interconnection. The incumbent TSPs insist on allowing only test PoIs (E1s -1/2) for testing purposes as per prevailing practice (also acknowledged by TRAI in this consultation Paper-para 1.5 (b) of CP). Number of initial POIs are provided as ascertained by the interconnection provider in a 90 days' time frame and the balance PoIs also as ascertained by the provider in another 90 days. This ascertained number is more often than not the seeker's desired number based on traffic requirements. In fact, this practice of initial provisioning of 1-2 E1s (for an LDCA) dates back to about 20 years when tele density was only around 2 to 3% whereas presently the tele density is more than 167% in urban areas. Thus, for several months together the new TSP chases for his desired number of PoIs for initial provisioning as well as for augmentation based on traffic. In nut shell the new TSP is starved of interconnection PoIs by the incumbent interconnection provider TSPs who takes the shelter of permitted time frame for provisioning of POIs regulated 15 years back when tele density was only around 2 to 3% as against 167% in urban areas now. Such prevalent practices can only be termed as anti-consumer, anti-competitive and against the tenets of level playing field, thus attracting regulators attention for prompt enforcement of regulation to correct the situation.

c) Here, we will like to refer to the responses of incumbents TSPs furnished in the consultation paper "Review of regulatory frame work for interconnection" which is under consideration of TRAI wherein it has been stated that they will be providing only 1-2 E1s for initial testing that too within a period of 90 days and balance in another 90 days. Some of them have mentioned this initial provisioning time to be 180 days.
Here it can be seen that the time frame prescribed in Interconnection Regulation 2002 for provisioning of PoIs does not match with 90 days' time set by DoT to issue permission letter for commencement of service to TSP after LIM testing.

d) Further, the **incumbent TSPs are also not providing cost and time effective IP interconnectivity** and **insist on conventional TDM interconnection** which involves installation of additional Media Gateway for conversion to TDM **with the intention to get the per minute IUC as well to delay the process of interconnection with new TSP although their core equipment is IP enabled and the IP interconnection is technically feasible** (as stated by one TSP in his comments to CP on "Review of regulatory frame work for interconnection"). It is to be appreciated that when a new TSP commences the services, the off-net calls are the most important ones being majority and on-net calls are minuscule.
**Thus, the time to get adequate PoIs from the incumbent TSPs commensurate to the initial size of the new network and TSP's capacity for speed and volume of onboarding new subscribers practically exceeds by several months over and above**

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as provided in regulation which is a big deterrent to commencement of commercial services by the new TSP with standard QoS. In case, the new TSP commences commercial service within such period, consumer experience and Quality of Service suffers very badly denting its image and ability to survive the competition.

## REQUIREMENT OF EXTENSIVE TESTING PARTICULARLY IN CASE OF INDUCTION OF GREENFIELD NEW UPCOMING TECHNOLOGY NETWORKS WITH HUGE CAPACITY AND PAN INDIA OPERATIONS

a) The new TSP requires extensive testing of the network, developing the nascent eco system i.e. sufficient availability of affordable and compatible handsets and requisite number of PoIs for interconnection. The new TSP cannot launch the service commercially since he will be unable to meet the QoS standards and would have to face stringent penalties (Ref clause29.1 ,29.4 and clause 4 under chapter –VIII). **During this phase he is fully authorized to enroll Test Subscribers for test purposes before commercial launch. It is to be appreciated with all seriousness that the new technology, particularly those yet to be proven techno-commercially in the world, (4G with VOLTE in the present case) has totally different requirements of testing and requires a matching ecosystem as compared to mature and flourishingly established one of 2G/3G.** Further, we do not agree that 4G with VOLTE can be tested properly in a small geography on a limited scale. For PAN India service it is to be tested on PAN India scale only for such upcoming new technologies with huge scale. The test phase duration thus cannot be determined beforehand being dependent on extensive testing for a new technology, availability of requisite POIs and the matching ecosystem for the new technology (devices, applications, processes/programmes/protocols etc.). **This has to be best left to the TSP only.**

b) The period /duration of testing of networks/applicable systems depends on:

- Kind of technology 2G/3G/4G/TDM/IP/LTE/VOLTE etc.

- Stage of technology in maturity cycle,

- Scale of deployment,

- Related ecosystem: availability of compatible devices / tools, number of their models, price (affordable or not), and

- Types and size of testing needed.

**Thus it cannot be predefined to cover all cases.**

## CONCLUSION

a) **In view of all above submissions we firmly believe that there is no requirement to put restriction on enrollment of subscriber as Test Users as well as no restrictions on**

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their number and duration of testing. No regulation on this issue is warranted in the best public interest. However, if the Authority wants to limit number of Test Subscribers/Users, then we would recommend to cap the number of Test Subscriber/ Users to 10% of installed capacity.

b) **The new TSP may be permitted to offer free service to Test subscribers to compensate for most likely sub optimal Quality of Service and for his investment in acquiring a particular technology enabled handset if any, (VOLTE enabled 4G handset in present case), being part of testing family to identify inadequate coverage (identifying blind spots and resolve the issues), throughput issues related to SNR and inadequate quality of inter-network calls or other compatibility /inter-operability/ loading related glitches/issues and fine tuning interfaces of new technology network with existing legacy ones and prevailing device eco system involving plethora of standards and technologies.**

**Q2. To clearly differentiate test phase from commercial launch, which of the options discussed in Para 1.12 would be appropriate? Please provide justification. Please explain any other method that, you feel, would be more appropriate.**

**The Comments the Stakeholders are broadly summarized as below:**

1. Four Stakeholders (TSPs) are unanimous that there should not be enrolment of subscribers during testing phase. One says that distinction between test phase and commercial launch is already embedded in the license. They are also unanimous that testing should be restricted within own network of the concerned TSP. For testing of processes /systems which may require connectivity with the other networks, the same could be carried out using the test SIMs.

2. One stakeholder (TSP) desires various QoS obligations / regulations levies and costs including IUC payments to the other users should be waived during this period. Testing to be done by active test SIMs with temporary number series and the test users should be transparently communicated about period of testing, terms and conditions of use and its disconnection after commencement of commercial service by the new TSP.

3. Another set of four stakeholders (TSPs) support enlisting of test subscribers as test users. One of them wants restriction on their numbers and duration of use. The other one wants additionally temporary number series, penal provisions for violation for limit on numbers and time duration. This type of testing only once during validity of license with PAN India testing limiting simultaneous testing in 2/3 LSAs. Another stakeholder desires that the temporary number series for test users to be withdrawn on commercial launch with transparent communication to him.

4. One Stake holder (TSP) has mentioned that if clause 1.12 of this Consultation Paper if adopted, would have adverse impact on new TSPs bringing in newer technologies. For a new technology as 4G to offer VOLTE service extensive testing is a must to measure

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throughput which is directly linked to SINR which depends on loading for seamless coverage of the area. Feedbacks are required from newer handsets and smart phones for proper APN settings and exploit potential of cloud memory for Smartphone.

5.   Stakeholders (Service Associations): one of them wants testing only through Test Cards permitted only to business partners and roaming operators. The other association expressed views as in Para 2 above.

6.   Two Stockholders (organizations) have also responded. One says options suggested in TRAI paper 1.12 not desirable. No breach of level playing field as the new TSP pays for all the licensing and regulatory levies and fees e.g. PoIs, E1s, MTC, transit charges, license fee etc. Incumbent TSPs are indulging in cartelization and reduce tariff only when they face competition and this time the competition is from a new TSP. Before the entry of this new TSP the data tariff was Rs 250 per GB. Another organization agrees with TRAI Para 1.12 and 1.13 to differentiate test phase from commercial phase.

**(Counter Comments with Q.3 below)**

**Q3. Do you agree that the provisions discussed in Para 1.13 viz. information to the subscribers about test SIM being temporary etc., should be put in place for the TSP testing its network involving test users/subscribers? Please suggest other provisions which should be mandated during test phase?**

**The Comments the Stakeholders are broadly summarized as below:**

1.    Four Stakeholders (TSPs) have expressed that there should not be any enrolment of Subs/Test users during test phase. However, the testing should be carried out with Test SIMs which are not associated with any Subscriber. One of them said that Test SIM/users can not in any way be equated to Subscribers. When a user is provided Test SIM, it is TSPs responsibility to inform him. One of the stakeholder feels if TRAI wants to prescribe regulation for enrolling Test Subs prior to commercial launch, Subs should be informed of the modalities, test duration and deactivation posttest conclusion.

2.   Four Stakeholders (TSPs) who support enrolling of Test Subscriber as Test Users have furnished the same response for this question as furnished in Q.No.2. One of them wants restriction on their numbers and duration of use. The other one wants additionally temporary number series, penal provisions for violation for limit on numbers and time duration. This type of testing only once during validity of license with PAN India testing limiting simultaneous testing in 2/3 LSAs. Another stakeholder desires that the temporary number series for test users to be withdrawn on commercial launch with transparent communication to him. One of them wants no additional benefit to test subs if they continue to remain with TSP after commercial launch.

3.   One Stakeholder (TSP) has said that before enrolling Subs as Test Subs the network should be LIM compliant and users would be enrolled in full compliance of DoT instructions on subs verification. The Test user should be allowed to seamlessly become paid subscriber post completion of test phase.

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4. Two stakeholders (Service associations) have also furnished the same response as in Q.No.2.

5. One stakeholder (organization) says that the suggestion of TRAI is not a desirable idea and should have choice to continue the same SIM after the trail is over.

6. One Stakeholder (organization) is of the view that there should be strict guidelines for test subscribers, test numbers to be withdrawn after 90 days which should be informed to Subscriber beforehand.

## COUNTER COMMENTS Q.2&3:

### TELECOM REFORMS AND NEW TECHNOLOGY

The telecom reforms in the country date back to nearly two decades which is a success story that other sectors of Indian economy are envious of. **The appropriate policy and regulatory decisions have helped mature the sector along with stupendous growth. The regulation and licensing has unquestionably moved towards liberalization, light touch and forbearance and always avoided micro or macro management of the sector.** We have all the latest technologies of the sector and never TRAI or DoT have entered the domain of limiting the testing before commercial operations by the TSPs. **This was always left to TSPs.** Now the country has embarked on embracing 4G technology with voice popularly known as VOLTE. The VOLTE has been deployed world over on a very limited scale and is still evolving. The voice on LTE (VOLTE) promises unlimited number of advantages over TDM voice. Being most efficient and future proof as well as state of art, this new technology requires a scalable test base and restrictions applicable to TDM removed. Needless to say this paradigm shift immediately requires a vibrant device eco system to extract the full advantages of this technology implementation. The smartphones introduced in the markets were not VOLTE compliant. Many handsets available in the market even though data and VOLTE enabled fail to register on VOLTE. This could be resolved only with real life testing and interaction and coordination with device vendors to fix up the issues.

### LICENCING AND NIA PROVISIONS

There should not be any artificial or crafted restrictions imposed on it, be it advertently or inadvertently on the scale and duration of testing for a new technology by a new TSP. **Going by these considerations, we feel that the proposed restrictions as outlined in Para 1.12 and Para 1.13 by TRAI may prove to be counterproductive at this juncture when the 4G implementation is in nascent stage.** One can wonder when they were not needed or imposed during 2G and 3G implementation, what makes it now to put such restrictions on 4G implementation. The impression that testing with limited numbers Test subs on a small scale and in a tight defined time line will be sufficient to enable new TSP with new technology to commercially launch the service is misplaced and this restriction is bound to result in poor service. Such restrictions do not appear either in the license or NIA for spectrum auction.

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**OUR VIEWS ON TESTING SUBS, THEIR NUMBER AND DURATION**

a) When services are launched by new TSP, the calls within the network are miniscule as compared to internetwork calls as subscriber base is very small. **The real testing is comprehensive testing of whole Network/Systems/Services which necessarily involves internetwork calls.** The suggestion of incumbents that the only requirement is extensive on-net testing and limited off-net testing is also a fallacy. It will not be out of place to mention that calls impinging on the other networks are the converted ones to TDM originating as IP in the originating network. There could be protocol issues which require resolution and continuous monitoring. Hence, it is not advisable to restrict the testing to limited Test Subscribers only on a small scale and limited geographical area in restricted time frame as the real picture on the inter-network working, identification of blind spots, SNR dependent throughput optimization, incompatible devices etc. will not be available.

b) **The test phase is dependent on many factors which have been suitably dealt in our counter-comments for Question No. 1 above. Unless until the QoS is achieved and adequate interconnections obtained and large scale testing with a reasonable big subscriber base commensurate with capacity of the network for a pronged time period is successfully completed, the commercial launch is not possible without causing breach of terms and conditions of the License concerning QoS.**

c) **The consumer convenience is a prime consideration of any Regulation**. Anyone enrolling as Test subscriber has legitimate expectation and desires to continue with the chosen test number at the time of enrolling as Test sub with the new TSP. **Hence, it is not fair to change the number. The number change shall entail expenditure, time and efforts on the part of new TSP for no reason and would cause inconvenience and irritation to the subscriber for no fault of theirs.** Therefore, there is absolutely no requirement of temporary number series for test subscribers for which there is no precedence nor provisions in the license or NIA. Nowhere in the regulations, it is provided that there is a requirement of temporary number series for Test subs and in the past since inception of Mobile services this had never been done.

d) The propagation characteristics of different spectrum band, terrain, service requirement and devices vastly differ across the country. Additionally, the economy of scale forces the new TSP for pan India launch. In such a situation, the TSP tests the network on Pan-India scale and limiting the testing in a smaller geography will not help in achieving QoS Pan-India.

**CONCLUSION**

a) It is not feasible to force launch of commercial service by a new TSP in defined time frame because of requirement of extensive testing is dependent on scale and size of network deployed and kind of technology introduced and the certainty about getting the adequate PoIs. Not providing adequate POI as demanded by the new TSP, **puts a road block on**

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commercial launch of service and is an anti-competitive conduct. It distorts level playing field in favor of incumbent TSPs.

b) The new TSP enrolls the Test Subs only when his equipment is duly certified for LIM and subscriber verification is executed on him. Thus all the regulatory and licensing requirements are met for such test subscribers. The new TSP has to make all the payments associated with regulation and licensing such as charges for PoI, IUC, Carriage etc. to the concerned TSPs and applicable license fee and SUC to the licensor. Thus, there should be no reason for opposition by incumbent TSPs on the number and test period for Test subscribers.

c) In the event of compromised QoS for want of extensive testing and adequate PoIs, the network cannot be left idle and Test Subs are enrolled till such time the QoS is attained and the service is launched commercially. The test subscribers so enrolled may be allowed, if they wish, to seamlessly migrate to a normal subscriber status after commercial launch, without causing any inconvenience to them.

### OUR RECOMMENDATION

In our view, options outlined in para 1.12 and 1.13 will not address the basic issue.
We recommend the following:

- Allow TSP to enroll subscriber as per guidelines in DoT order dated 09.08.2012,
- Test Subscribers shall be informed about his test status and free service with possibility of Sub –optimal performance, less than standard QoS during the test phase and that he will be migrated seamlessly to normal commercial service subject to his consent,
- No MNP to Test Subscriber,
- Seamless migration to normal commercial services subject to Test subscriber's consent, ensuring no inconvenience is caused to the Test subscriber,
- Number of Test subscribers may be limited to 10% of the installed capacity of the network of TSP,
- No time limit for Test phase,
- No Tariff/Fee of any kind to be charged from Test user,
- All license requirements to be fulfilled by TSPs during test phase namely condition 37.4, 39.18,39.17(i) except tariff related condition 17.1.

**Q4. Is there a need to have a defined timeline for testing phase i.e. period beyond which a TSP should start offering commercial services? If yes, what should be the timeline? Please justify your response.**

The Comments the Stakeholders are broadly summarized as below:

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Eight Stake holders (TSPs)have said that there should be a time line for test phase recommending different time frames individually varying. Two have recommended 90 days, others have recommended 30 days, 45/60 days,90 days and some have recommended no time because after getting the spectrum, the TSP gets sufficient time for testing.

One Stakeholder wants it to be left to TSP to decide. New TSP to decide time line with the scale of testing and technical challenges foreseen. No rationale for timelines imposed on auctioned spectrum as the new TSP is biggest looser for delayed monetization. Time limit for test will compel TSP to commence the service without ensuring meeting all the service requirements leading to QoS issue.

One stakeholder said three-month time sufficient

Two stake holders (Service Associations) desire it to be defined with 3 months being more than sufficient.

One Stake holder has said there is need to define pre commercial period. TSPs to be allowed either technical trails with long duration or pre-commercial trail for 90 days.

One stake holder says definitions of commercial launch and roll out should be reviewed and made stringent.

### COUNTER COMMENTS:

After the network is in place and offered to DoT (90 days' prior notice) for testing of requisite monitoring facilities to LEAs, DoT gives permission for commencement of service after the monitoring facilities are successfully demonstrated and accepted by LEAs/TERM cell.

However, before commercial launch the new TSP has to be sure that the new technology is extensively tested with the matching eco system, prescribed QoS parameters are met after getting adequate POIs as demanded by him, till such time the new TSP in any case cannot be forced to commercially launch the service prematurely within any prescribed time frame.

In view of above, new TSP cannot be and should not be forced to commercially launch the services in any defined time frame and it should be left solely to its judgment on readiness after successful completion of testing. **It cannot be believed that the testing phase will continue for indefinite period. Any TSP will like to monetize his investment as soon as possible after making huge investments in network deployment, technologies, manpower, equipment, developing matching eco-system and acquiring spectrum through auction. Therefore, no time line can be imposed as long as the new TSP is not himself satisfied with the QoS. The decision on launch of commercial service may be left solely to new TSP, that is to the market conditions. In any case BWA spectrum roll out obligations are very stringent and time bound. In case of failure to fulfil obligations, license can also be revoked.**

**Q5. In case enrolling of subscribers as test users before commercial launch is allowed, whether subscriber related conditions and regulatory reporting requirements laid down in the license, be imposed for the test subscribers enrolled before commercial launch? Please provide justification to your response.**

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**The Comments the Stakeholders are broadly summarized as below:**

Three Stake holders (TSPs) view that subscriber cannot and should not be enrolled during Test phase. One Stakeholder has said that during test phase all users should be considered as Test user /test participant for network testing and not subscribers. License conditions and other regulatory requirement for subs verification would not be applicable for test phase.

One Stakeholders(TSP) has a different view indicating that before enrolling test subs, the TSP network should be LIM and CDRs etc. compliant and subs verification guidelines should be adhered to because the test user will act as subs of the service provider. However, during test phase only bare minimum and critical reporting requirement should be mandated.

Another set of three Stakeholders (TSPs) have said that during the test phase no regulatory obligation except Subs verification, information to licensor and security agencies. One of them wants no financial obligations as well.

Service Associations have differing views one recommending no enrolment during test phase the other with minimum regulatory requirements like Subs verification, information to licensor and security agencies.

One Stakeholder has said that SIM should be distinguishable. strict regulatory requirements on enrolment of test users with due process of KYC. License conditions to include nature and duration of trail phase. TSPs can be provided certain level of operational flexibility while making sure that phase is not being used for commercial purpose.

One Stakeholder has said that license conditions no 37.4, 39.17(i), 39.18 should be applicable during trial period for enrolling subs. Tariff clause to include zero (free) /nominal charges

One Stakeholder has said that regulatory and reporting compliances should not be imposed for Test users.

One Stakeholder has said that Regulatory reporting for Test subs to be ensured.

**COUNTER COMMENTS:**

As stated in earlier counter comments, we reiterate that the first step after network is in place is to offer testing for monitoring facilities for LEAs to DoT (90 days' notice). After the LEAs/TERM cell accept the monitoring facilities (including event log and CDR generation), DoT gives permission for commencement of services.

It is only after this step that any subscriber including test subscriber can be enrolled. **Thus, subscriber verification guidelines of DoT are to be scrupulously followed even in testing phase.**

The provisions of License Agreement quoted by the Authority in Para 1.17 in Consultation Paper (License condition Nos. 37.4, 39.17(i) and 39.18) are in fact applicable in testing phase also.

**However, we feel that subscriber related regulatory reporting requirements to test subs should be minimum during the test phase.**

For advisory@iCTrobot

S.S. Sirohi

**Q6. Should test users/subscribers of such licensees be given the facility of MNP? Please justify your answer.**

**The Comments the Stakeholders are broadly summarized as below:**

All the stakeholders barring one who has said that MNP is a critical consumer right, have recommended for not permitting MNP to test users.

**COUNTER COMMENTS:**

The Test Subscribers/Users of the new TSP should not be given the MNP facility. **This is to maintain a differentiation between the Test subscriber in Test phase and the normal subscriber during commercial service.** However, in all fairness of things, **it will be prudent that the Employees and Business partners of new TSP whose mobile phone(s) may already be working with other TSPs, may be allowed to avail MNP for migration to their parent company's TSP whose services are in Testing phase.** The tariff applicable to such migrated subscribers may be same as general Test subscriber.

**Therefore, the Test Subscribers/Test users of the new TSP should not be extended MNP facility with the exception of those who are Employees and Business partners of new TSP.**


**Q7. If there are any other issues/suggestions relevant to the subject, stakeholders may submit the same, with proper explanation and justification?**

**Comments of stake holders are broadly summarized as below:**

1. no ambiguity in regulation. otherwise loss of revenue, Distortion of competition. Regulator to curb any malpractice such as these.

2. With new technologies, network testing should not only test his own network but whole ecosystem. Authority should mandate all TSPs to fulfil their obligation towards interconnection MNP and PoIs, notwithstanding the testing for commercial status.

3. Only 1or 2 E1s for test phase to limit voice traffic from test users. Prolonged test phase causes call drops network congestion and voice quality deterioration and has adverse implications around QoS, IUC and other regulatory aspects, complete violation of level play field. This consultation paper is belated.

4. Free service/offer should be limited to 30 days. Any noncompliance to be assessed for long term sustainability of tariff, long term impact on completion. Economic analysis should be applied for tariffs for anti-competition, non-predatory, non-discriminatory, not below cost, transparency, consistency and misleading.

5. Network testing and prior approval from licensor should not be mandatory so as not to delay the commercial launch of services. Requirement of a new TSP are entirely different from existing TSP therefore should not be linked with the issues in this consultation paper.

For advisory@iCTrobot

S.S. Sirohi

6. Requirement of a new TSP are entirely different from existing TSP therefore should not be linked with the issues in this consultation paper.

7. MTC SHOLD BE ABOLISHED. Spectrum cost only 6.22 paisa per minute.

8. There is difference between getting a foothold in the market and driving out competitors from the market by a new player. R IJIO new Player does not enjoy SMP status. Adequate PoIs not given to the new player to thwart competition. New entrant to be given opportunity to gain minimum level of market share before subjecting it to regulatory requirement on tariff.

## COUNTER COMMENTS:

A. We agree to the followings observations from the stakeholders:

- With new upcoming technologies, network testing should not only test his own network but whole ecosystem,
- Authority should mandate all TSPs to fulfil their obligation towards interconnection, MNP and POIs, notwithstanding the testing or commercial status of the network.
- There is difference between getting a foothold in the market and driving out competitors from the market by a new player. Adequate PoIs were not given by the cartelized incumbent TSPs to the new player to thwart competition.

B. We also do not agree with one of the stakeholder that the spectrum cost per MOU is 6.22 paisa. In fact, the Authority in eleventh IUC Regulation 2015 has determined the spectrum cost per minute as 0.78 paisa only.

C. **With a view to bring in full clarity even at the cost of repetition, we respectfully recommend the following:**

**Licensing and regulatory regime has stood the test of time successfully. There is no need to revisit it in Network Testing perspective. However, if the regulator decides to lay down guidelines in the matter to be applicable for any new licensee, we recommend the following:**

1. **Enrollment of Test Subscribers/Test users by new TSP in accordance with DoT guidelines of 09-08-2012. Proper KYC is important for enrolment of Test users from national security aspect.**

2. **No time limit to test phase. The test phase duration should be entirely left to the New TSP.**

3. **Test user may be enrolled to the extent of 10% of the installed capacity and without any restriction on test duration.**

For advisory@iCTrobot

S.S. Sirohi

4. These test subscribers should not be charged in any manner during test phase for the services/onboarding.

5. However, to maintain a differentiation between a test subscriber and a normal subscriber, MNP may not be permitted to the Test users of the new TSP during the test phase except to those belonging to employees and business partners.

6. Informing the Test Subscribes while on boarding about his test status and limitations.

7. No other restriction of any kind on Test Subscriber.

8. Seamless migration to normal Commercial Services subject to Test Subscriber's consent, ensuring no inconvenience is caused to him.

9. Regulatory and Reporting requirements may be minimal for the Test Subscribers.

10. All reporting requirements contained in License Agreement Conditions Nos. 37.4, 39.17(i) and 39.18 should be applicable to the Test Subscribers.

For advisory@iCTrobot
S.S. Sirohi