TELECOM REGULATORY AUTHORITY OF INDIA

E-NEWSLETTER FOR TRAI REGISTERED CONSUMER ORGANISATIONS

TRAI AT INTERNATIONAL EVENTS

Chairman, TRAI speaking at Opening Keynote Panel on *"Objectives and Priorities for Regulators in Developing and Advanced Economies: Adapting to digital transformation, new tipping points and the pace of convergence"* at IIC 48th Annual Conference, 2017 held from 9-12 October, 2017 at Brussels.

Chairman, TRAI with other distinguished panellist at "The Annual Internet of Things Asia Pacific Summit 2017" and "On Smart Cities and e-Government" held from 21-22, September, 2017 at Bangkok, Thailand

OHD/WORKSHOPS

1. Open House Discussion (OHD) on Consultation paper on "Issues related to Digital Radio Broadcasting in India"

An Open House Discussion (OHD) on the consultation Paper on "**Issues related to Digital Radio Broadcasting in India**" was held on 25.10.201.7 at "Tagore Chamber", Scope Convention Centre, SCOPE Complex, Gate No. 18, 7, Lodhi Road, New Delhi- 3.

2. OHD on Data Speed under Wireless Broadband Plans

TRAI conducted an Open House Discussion (OHD) on 3rd October, 2017 in New Delhi on **Data Speed under Wireless Broadband Plans**. The OHD was attended by various stakeholders like TSPs, Telecom Associations, individuals etc.

3. Workshop on "Solution Architecture for Technical Interoperable Set Top Box"

A Workshop on "**Solution Architecture for Technical Interoperable Set Top Box"** was held in Delhi on 26th September 2017 at "Gulmohar" Habitat World, India Habitat Centre, Lodhi Road, New Delhi-110003.

4. Workshop on "Review of International Termination Charges"

TRAI conducted a Workshop on "**Review of International Termination Charges**" on 16.10.2017 at New Delhi. This Workshop was attended by International Long Distance Operators (ILDOs) who carry voice traffic to/from India and Access Service Providers (ASPs). They made presentation on their view points with respect to the approach to be used for prescribing International Termination Charge.

5. Setting up of Public Wi-Fi Networks:

TRAI's recommendations "**Proliferation of Broadband through Public Wi-Fi Networks**" sent to DoT on 9th March, 2017, inter-alia, mention that a new framework should be put in place for setting up of Public Data Offices (PDOs). Under this framework, PDOs in agreement with Public Data Office Aggregators (PDOAs), should be allowed to provide public Wi-Fi services. This will not only increase number of public hotspots but also make Internet service more affordable in the country. This will also encourage village level entrepreneurship and provide strong employment opportunities, especially in rural areas.

2. In order to demonstrate a proof of concept for interoperability, the Authority has initiated a pilot trial of this framework in October, 2017 by laying down a network architecture. The Pilot is currently underway.

1. Regulations

1.1 The Telecommunication Interconnection Usage Charges (13th Amendment) Regulations, 2017.

TRAI has issued "The Telecommunication Interconnection Usage Charges (Thirteen Amendment) Regulation, 2017 (5 of 2017)" on 19.09.2017. Through these Regulations, the termination charge for wireless to wireless local and national long distance calls has been reduced from erstwhile 14 paise per minute as follows:

(a) Re. 0.06 (paise six only) per minute with effect from the 1st October, 2017 to the 31st December, 2019; and
(b) 0 (Zero) with effect from the 1st January, 2020.

2. Recommendations:

2.1 Recommendations on 'Approach towards Sustainable Telecommunications' – Issued on 23.10.2017:

(I) TRAI received a reference from the Department of Telecommunications for requisite Recommendations on (i) Methodology of measuring Carbon Emission, (ii) Calibration of Directives issued by DoT in 2012 and approach for implementation.

(II) The Recommendations on 'Approach towards Sustainable Telecommunications' has been submitted to DoT on 23.10.2017. the salient features of Recommendations are as under:

- The formula for calculation of Carbon foot print has been revised as per ITU standard.
- Only the target for overall Carbon footprint reduction has been recommended and no sub targets for induction of Renewable Energy Targets (RET) has been recommended.
- Directives of DoT dated 04.01.2012 have been calibrated and target for reduction in Carbon Emission has been tightened as 30% by he year 2019-20 and 40% by the year 2022-23 taking base year as 2011-12.

2.2 Recommendations on "Spectrum, Roaming and QoS related requirements in Machine-to-Machine (M2M) Communications" dated 5th September 2017

Machine-to-Machine (M2M) communications is the basis for automated information exchange between machines and can impact various industry verticals like Smart City, Smart Grid, Smart Water, Smart Transportation,

Smart Health etc. Government of India has recognized the potential of M2M and emphasized the same in the National Telecom Policy 2012.

TRAI received a reference from Department of Telecommunications on 5th January 2016. DoT sought the recommendations of TRAI on three aspects related to M2M communications:

(a) M2M Spectrum Requirements
(b) M2M Roaming Requirements
(c) Quality of Service in M2M Services.

After due consultation process, the TRAI on 5th September 2017 issued its recommendations on "**Spectrum, Roaming and QoS related requirements in Machine-to-Machine (M2M) communications**". The salient features of these recommendations are:

I. Licensing and Spectrum related aspects:

- All access service providers' viz. CMTS, UASL, UL (AS) and UL holders using licensed access spectrum shall be allowed to provide M2M connectivity within the area of their existing authorizations. Also, all Basic Services licensees and ISP licensees shall be allowed to provide M2M connectivity, including on unlicensed band, within the area of their existing authorizations, barring M2M cellular services. DoT may suitably amend the license conditions in respective licenses.
- All UL (VNO) holders shall also accordingly be allowed to provide M2M connectivity as authorized in their existing authorizations. DoT may suitably amend the license condition of UL (VNO) Connectivity provider using LPWAN technologies operating in unlicensed spectrum should be covered under licensing through a new authorization under UL namely UL (M2M). Such licensees shall be allowed to bid for licensed spectrum to provide exclusively M2M services.
- UL (M2M) authorization shall comprise of three categories i.e. UL (M2M) Category-A-National area, UL (M2M) Category-B -Telecom Circle/Metro area, UL (M2M) Category-C-SSA/District area.
- Amount payable in the form of Entry Fee, PBG, FBG for obtaining authorizations under UL (M2M) Category 'A' for National area, UL (M2M) Category 'B' for Telecom circle/ Metro area and UL (M2M) Category 'C' for SSA area, should be at par with the existing provisions in UL for ISP category.
- Government, through DoT, should identify critical services m M2M sector and these services should be mandated to be provided only by connectivity providers using licensed spectrum.
- Regulatory authorities whose sectors will get impacted by M2M communications like TRAI, Central Drug Standards Control Organization, National Highways Authority of India, Inland Waterways Authority of India, Central Electricity Regulatory Commission, etc. and Ministry of Law & Justice should also be members in M2M apex body formed by DoT.
- M2M Service Providers (MSPs) should register with DoT as M2M service provider. This registration will be exclusive for the MSP and not part of existing OSP registration.
- A National Trust Centre (NTC), under the aegis of TEC, should be created for the certification of M2M devices and applications (hardware and software).

- Spectrum allocation should be technology and service neutral. No separate spectrum band is to be allocated exclusively for M2M services.
- Requirement of additional licensed spectrum for access services to meet the projected influx of connected devices due to M2M communication will be revisited by the Authority after WRC-19.
- In order to facilitate smooth roll out of M2M services utilizing the license exempt spectrum, 1 MHz of spectrum at 868 MHz (867-868) and a chunk of 6 MHz of spectrum at 915-935 MHz is recommended to be delicensed.
- Delicensing the V-band (57-64 GHz) as recommended by the Authority on various occasions may be done on priority.

II. SIM and Roaming related aspects:

- Devices with pre-fitted embedded Universal Integrated Circuit Card (eUICC) should be allowed to be imported only if it has the ability to get reconfigured 'Over the air' (OTA) with local subscription. GSMA approved guidelines shall be followed for provisioning of new profile remotely with OTA mechanism.
- Devices fitted with eUICC shall be allowed in operation in roaming for maximum three years from the date of activation of roaming in the network of Indian TSP and mandatorily converted into Indian TSPs SIM within the stipulate period or on change of ownership of the device, whichever is earlier.
- International roaming in M2M shall be allowed under the well recognized framework of GSMA 'M2M Annex' to keep uniformity of the parameters and processes.
- In order to boost the M2M IoT manufacturing in India, the government may consider feasibility of allowing extra-terrestrial usage of IMSI ranges with suitable framework on the basis of country specific bilateral agreements.

III. QoS, Security and Privacy related aspects:

- QoS is in the exclusive domain of TRAI. Therefore, once the M2M sector develops, the Authority will put in place comprehensive regulations on QoS parameters in M2M communication, as per service requirements.
- At present stage of deployment of M2M devices and services, a duty cycle of 10% both at device level and network level would suffice to meet the requirements.
- On the issues related to data security and privacy in M2M, the Authority will issue comprehensive recommendations after due deliberation on the issues highlighted through consultation paper "Privacy, Security and ownership of Data in telecom sector" issued on 9th August, 2017.

2.3 Recommendations on 'Introduction of UL (VNO) for Access Service authorization for category B license with districts of a State as a service area' dated 8th September 2017

Through its reference dated 11th July, 2016, the Department of Telecommunications (DoT) has requested TRAI to issue recommendations for Access Service authorization for category 'B' license with districts of a State as a service area for Virtual Network Operators (VNOs).

2. In the wireline segment, in order to supplement its efforts of providing telecom facilities to the public, DoT introduced a scheme called Direct Inward Dialing (DID) in the year 1994 to provide facilities of group Electronic Private Automatic Branch Exchange (EPABX) by private entities as franchisees of DoT.

3. Pursuant to TRAI recommendation on 'Introduction of Virtual Network Operators in telecom sector' dated 1st May 2015, DoT issued guidelines on 31st May, 2016 for the grant of Unified License (VNO). Further, vide its notification dated 5th July 2016, DoT separately issued guidelines for grant of UL (VNO) for authorization for category 'B' license with districts of a State as a service area for entrepreneurs like Direct Inward Dialling (DID) franchisees.

4. TRAI issued a Consultation Paper on 'Introduction of UL (VNO) for Access Service authorization for category B license with districts of a State as a service area' was issued on 20th March, 2017, seeking the comments / counter comments of the stakeholders.

5. After analyzing various issues involved and considering the comments received from stakeholders in their written responses and during the OHD, in-house analysis & research, TRAI finalised its recommendations on 8th September 2017. The salient features of the recommendations are:

- A new category of authorization may be introduced under Unified License (VNO), for Access Service as Category 'B', license with districts as a Service Area on non-exclusive basis. To continue their services, existing DID franchisees should migrate to UL (VNO) Category 'B'.
- New license should not be restricted only to existing DID franchisees and should be open to all entities intending to offer such services.
- Scope of proposed UL (VNO) Cat 'B' license should be to provide only wireline access services within a district. Wireless access services shall not be a part of the scope of UL VNO Cat B.
- Duration of UL (VNO) Cat 'B' license shall remain consistent with UL (VNO) policy.
- Entry Fee of Rs. 1,65,000 for 10 years of duration of license shall be applicable to the UL (VNO) Cat 'B' licensee. Financial Bank Guarantee (FBG) of Rs.1,00,000 shall be applicable to UL (VNO) Cat 'B' licensee.
- UL (VNO) Cat 'B' licensee shall posses the minimum networth of more than Rs. 5 lakhs per authorization.
- In order to promote fixed line Broadband, DoT should implement TRAI recommendations dated 17th April, 2015 on 'Delivering Broadband Quickly: What do we need to do?' wherein the license fee on the revenue earned from fixed line Broadband should be exempted for at least 5 years.
- On introduction of VNO regime an issue of double taxation has arisen. DoT may consider review of AGR components and charges paid by VNO licensee to the TSP/NSO for procurement of services should be allowed to be deducted as pass through charges for the purpose of calculating the AGR, similar to other pass through charges permitted under UL like IUC, roaming charges etc. This will be in line with the Input Tax Credit (ITC) feature under Goods and Service Tax regime.
- The amount of maximum penalty on UL (VNO) Category 'B' licensee should be same as provisioned for ISP Cat 'C' in UL (VNO) policy. UL (VNO) Cat 'B' licensee has to comply with obligations arising from Tariff orders/regulations /directions etc. issued by TRAI from time to time.
- In order to meet the requirement of connectivity UL (VNO) Cat 'B' licensees may

be allowed to have arrangement for connectivity at different locations with different TSPs/NSOs in its licensed area of operation i.e. within the geography of a district, only in case of provision of wireline access services through EPABX.

- UL (VNO) (Access service) license may be amended to enable the provision of allowing parenting with multiple NSOs by a VNO for wireline network at different locations of the LSA only in case of provision of wireline access services through EPABX.
- The arrangements for allowing connectivity from more than one TSP/NSO at same EPABX can be allowed only after suitable examination and approval by TEC/DoT with desired specifications. Further continuation of such arrangements shall depend on the outcome of the decision of DoT/TEC.
- The provider TSP/NSO shall mandatorily enter into Service Level Agreement (SLA) with UL (VNO) Cat 'B' licensee.

2.4 Recommendations on "Regulatory framework for Internet Telephony"

TRAI had released its Recommendations on "Regulatory framework for Internet Telephony" on 24.10.2017.

The salient features of the recommendations are:

i. As per Authority's understanding of present Access service licences, Internet Telephony service is un-tethered from the underlying access Network. In other words, Internet Telephony Service can be provided by Access service provider to its subscriber who may be using Internet of other Access service providers. DoT should issue a clarification to the effect. If DoT has a different understanding, the Authority recommends that the DoT may issue amendment to Access service licences so that Internet Telephony service is un-tethered from the underlying access Network.

ii. The UL (VNO) licensee with access service authorization should also be allowed to provide un-tethered Internet Telephony in the designated service area.

iii. Internet Telephony calls originated by International out roamers from international locations should be handed over at the International gateway of licensed ILDOs and International termination charges should be paid to the terminating access service provider. In case the Access provider is not able to ensure that Internet Telephony call originated outside of the country is coming through ILDO gateway, International out-roaming to Internet Telephony subscribers of the access provider should not be allowed.

iv. The mobile numbering series should be used for providing Internet Telephony by a service provider. TSPs should be allowed to allocate same number to the subscriber both for Cellular Mobile service and Internet Telephony service.

v. The SDCA linked numbering series may also be used for providing Internet Telephony by a service provider. However, in this case, mobility should be limited to consumer premises.

vi. The access service licensee should use private ENUM in its network for Telephone number mapping from E.164 to SIP/H.323 addresses and vice-versa.

vii. In case of provision of Internet Telephony by VNO with access service authorization, the numbering resource allocation should be done by the parent NSO.

viii. The access service providers providing Internet Telephony service may be encouraged to facilitate access to emergency number calls using location services; however they may not be mandated to provide such services at present. The subscribers may be informed about the limitations of providing access to emergency services to Internet Telephony subscribers in unambiguous terms.

ix. QoS on Internet Telephony may be left to the market forces. The service providers must inform QoS parameters supported by them for Internet Telephony so that the subscribers can take an informed decision. The Authority shall review the decision regarding mandating QoS to Internet Telephony service providers at appropriate time.

3. Directions

3.1 Direction with regard to closure of commercial services by M/s Reliance Communications Ltd in Gujarat service area dated 19th September 2017

M/s Reliance Communications Ltd (M/s RCL) informed that it has acquired Unified License (UL) dated 31st July 2017 for Access Services (AS) authorization in Gujarat LSA, which is effective from 30th September 2017, as their current UAS license is expiring on 29th September 2017 and also upgrade its existing GSM subscribers to 4G/LTE services that will continue to be provided by M/s RCL under the new UL(AS) using the 800 MHz band spectrum which is valid upto the year 2035; and requested the Authority (i) to issue suitable instructions to the MNP service providers to allow port out of customers with AON less than 90 days from RCL network; and (ii) to allow the validity of the UPC codes expiring on midnight of 30th October 2017 for another 60 days.

After detailed examination, the Authority issued direction on 19th September 2017 to M/s RCL, other TSPs and MNPSPs, to facilitate mobile number portability for subscribers of M/s RCL.

4. Consultation Papers

4.1 Consultation Paper on "Unsolicited Commercial Communications"

TRAI issued Consultation Paper on Unsolicited Commercial Communications on 14th September 2017, for seeking the comments of stakeholders. This consultation paper deliberates following issues:

- Regulatory framework for UCC is required to be reviewed for appropriate changes in the framework or for introducing new entities or processes required.
- Analyses of present preference registration system and explores ways and means to make system more effective and efficient.
- Explores options to provide more choices to the customer for preferences.
- Registration System for related entities. It explores the possibility of registration of new entities like content Providers, Aggregators and Intermediaries.
- Suggests introducing new entities for Header Assignments, consent recording etc.
- Issues related to UCC Complaint handing and suggests to make system more efficient e.g. by reducing time-line.

4.2 Consultation Paper on In Flight Connectivity (IFC) 29th September 2017

Department of Telecommunications through its reference dated 10th August 2017 has communicated that there is a proposal to introduce In-Flight Connectivity (IFC) for voice, data and video services over Indian airspace for domestic, international and overflying flights in Indian Air Space. DoT has also requested TRAI to furnish its recommendations on licensing terms and conditions for provision of IFC for voice, data and video services and associated issues such as entry fee, license fee, spectrum related issues including usage charges and method of allocation and other conditions.

In this regard, a consultation paper has been floated on 29th September 2017 for seeking the comments of the stakeholders.

4.3 Consultation Paper on 'Next Generation Public Protection and Disaster Relief (PPDR) communication networks 9th October 2017

Public Protection and Disaster Relief (PPDR) communications supports a wide range of services related to day to day life of public such as maintenance of law and order, protection of life and property, disaster relief and emergency responses.

2. The advancement of the technology has provided PPDR networks with latest and enhanced features in terms of capability, capacity and interoperability. Broadband PPDR supports wide range of applications such as

sending live images, videos and texts apart from the voice communications. Existing PPDR networks in the country are analog and digital systems supporting narrowband voice and data communications. Introduction of advanced PPDR communication networks can be a great enabler in decision making and handling of PPDR operations for personnel and organizations involved.

3. Keeping in view the need to have a robust policy framework for the introduction of an advanced, reliable, robust and responsive PPDR communication system in the country, TRAI has initiated *suo-motu* a Consultation Paper (CP) on 9th October 2017 on 'Next Generation Public Protection and Disaster Relief (PPDR) communication networks' for the comments of the stakeholders.

4. The consultation paper has elaborated on the issues and shortcoming with existing PPDR networks, features of Next Generation PPDR networks, technical specifications and spectrum availability and future requirements. Execution models prevailing in various countries for Next Generation PPDR network have been deliberated and included in this consultation paper as international practices.

4.4 Consultation Paper on "Promoting Local Telecom Equipment Manufacturing"

TRAI has come out with a Consultation Paper on "Promoting Local Telecom Equipment Manufacturing" on 18.09.2017. The consultation paper is issued with the following objectives:-

(a) To identify the policy measures required to boost Innovation and productivity of local Telecom manufacturing in India.

(b) Examine the existing patent laws in context of promoting local manufacturers.

(c) Examine the issues of Standardization, Certification and Testing of Telecom Equipments and suggest a framework for improvement to support local telecom equipment manufacturing.

(d) Examine issues related to IPR affecting the local telecom equipment manufacturing industry.

(e) Examine the current fiscal incentives to promote the local telecom manufacturing and recommend measures for implementation in the future.

(f) Identify measures to be taken to attract foreign investment for setting up establishments in India.

5. Other Information

5.1 Telecom Subscription Data as on 31st July, 2017

Particulars	No. of Wireless subscribers (in Millions)	No. of Wire-line Subscribers (in Millions)	No. of Total subscribers (Wireless + Wire-line) (in Millions)
Urban Subscription	682.69	20.28	702..97
Rural Subscription	504.10	3.63	507.73
Total Subscription	1186.79	23.92	1210.71
Overall Tele-density	92.03	1.85	93.88
Share of Urban Subscription	57.52%	84.81%	58.06%
Share of Rural Subscription	42.48%	15.19%	41.94%
No. of Broadband Subscribers	292.73	18.14	310.87

Active wireless subscribers on the date of Peak VLR in July 2017 were 1,022.75 million.

In the month of July, 2017, 5.91 million requests were made for MNP. So far 294.87 million consumers have availed MNP facility.

5.2 Indian Telecom Services Performance Indicator Report

TRAI has released the 'Indian Telecom Services Performance Indicator Report' for the quarter ending June, 2017. The report provides broad perspective of the Telecom Services as well as cable TV, DTH and radio broadcasting services in India for the period from 1st April, 2017 to 30th June, 2017.

6. TRAI EVENTS

6.1 Consumer Outreach Programmes:

TRAI organized 10 Consumer Outreach Programmes in the month of September, 2017 and October, 2017 at the following places:

Mangalore (Karnataka)	08.09.2017
Barasat (West Bengal)	14.09.2017
Sonepat (Haryana)	14.09.2017
Nagapattinam (Tamilnadu)	19.09.2017
Tuticorin (Tamilnadu)	21.09.2017
Bhandara (Maharashtra)	21.09.2017
Vadodara (Gujarat)	23.09.2017
Neyyatinkara (Kerala)	11.10.2017
Rampur (Uttar Pradesh)	12.10.2017
Korba (Chhattisgarh)	26.10.2017

PHOTO GALLERY

CoP at Bhandara (Maharashtra) held on 21.09.2017

CoP at Vadodara (Gujarat) held on 23.09.2017

CoP at Neyyatinkara (Kerala) held on 11.10.2017

CoP at Rampur (Uttar Pradesh) held on 12.10.2017

CoP at Korba (Chhattisgarh) held on 26.10.2017

Full details of the Directions/Orders, Consultation Paper/Report, Subscription Data, etc mentioned in this newsletter are available on TRAI website www.trai.gov.in

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