Directorate of Urban Administration and Development
Government of Madhya Pradesh

Palika Bhawan, Shivaji Nagar, Bhopal

No. /UADD/SC/2017/ 614 Bhopal, Date 17/01/2017

To,

Sh. Sanjeev Banzal
Advisor(Network Spectrum&Licensing)
TRAI
New Delhi

Subject:- Request for comments on TRAI Consultation Paper 'Spectrum, Roaming and QoS related requirements in MtoM Communication'

Ref.:- Letter No. 103-3/2016-NSL-II dated 25/11/2016

With reference to the above subject, please find enclosed the copy of some of the observations on Cansultation Paper **'Spectrum, Roaming and QoS related requirements in MtoM Communication'** for your kind perusal.

Encld.:- As above.

17/01/17

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M2M Communications – Spectrum, Roaming and QOS related requirements:

Someof theobservations are detailed below:-

Prevention of Misusing M2M communications:

1. Prevention of Unintentional misuse of machines resources are not properly covered in this document. To prevent users from unintentional error, few simple steps are required to be explained:-
    a. Setting Path Variable: One should take care to set the path variable correctly. Otherwise, it can accidentally run a program that was introduced by someone else. The intruding program can corrupt our data or harm our system.
    b. Assigning Restricted Cell: The restricted shell enables you to limit a user's ability to stray into the system files. The shell creates a limited environment for a user who needs to perform specific tasks. The restricted shell is not completely secure, however, and is only intended to keep unskilled users from inadvertently doing damage.
    c. Restricting to Data in Files: After establishing login restrictions, we can control access to the data on your machine. I might want to allow some users to read some files, and give other users permission to change or delete some files. I might have some data that Ido not want anyone else to see.

Answers of queries are given below:-

Q1. What should be the framework for introduction of M2M Service providers in the sector? Should it be through amendment in the existing licenses of access service/ISP license and/or licensing authorization in the existing Unified License and UL (VNO) license or it should be kept under OSP Category registration? Please provide rationale to your response.

Ans: ISP License would be a better option. It will create healthy competition among them and finally end users will get benefit of services.

Q2. In case a licensing framework for MSP is proposed, what should be the Entry Fee, Performance Bank Guarantee (if any) or Financial Bank Guarantee etc? Please provide detailed justification.

Ans:

Q3. Do you propose any other regulatory framework for M2M other than the options mentioned above? If yes, provide detailed input on your proposal.

Ans: This is one of the new upcoming areas and it would not be prudent to comment on the same at this stage.

Q4. In your opinion what should be the quantum of spectrum required to meet the M2M communications requirement, keeping a horizon of 10-15 years? Please justify your answer.

Ans:

Q5. Which spectrum bands are more suitable for M2M communication in India including those from the table 2.3 above? Which of these bands can be made de-licensed?

Ans: We need to re-phrase our requirements and on the basis of this we can ask Brands to provide their matching specification rather than selecting any individual brand mentioned in Table 2.3.

Q6. Can a portion of 10 MHz centre gap between uplink and down link of the 700 MHz band (FDD) be used for M2M communications as de-licensed band for short range applications with some defined parameters? If so, what quantum? Justify your answer with technical feasibility, keeping in mind the interference issues.

Ans:

Q7. In your opinion should national roaming for M2M/IoT devices be free?

(a) If yes, what could be its possible implications?

(b) If no, what should be the ceiling tariffs for national roaming for M2M communication?

Ans:

Q8. In case of M2M devices, should;

(a) roaming on permanent basis be allowed for foreign SIM/eUICC; or

(b) Only domestic manufactured SIM/eUICC be allowed? and/or

(c) there be a timeline/lifecycle of foreign SIMs to be converted into Indian SIMs/eUICC?

Ans: Option “C” seems more viable to start and after some cooling period we can move for Option “B” to make the market more competitive.

(d) any other option is available? Please explain implications and issues involved in all the above scenarios.

Q9. In case permanent roaming of M2M devices having inbuilt foreign SIM is allowed, should the international roaming charges be defined by the Regulator or it should be left to the mutual agreement between the roaming partners?

Ans: Pre-defined charges is more suitable for roaming partners as well as users.

Q10. What should be the International roaming policy for machines which can communicate in the M2M ecosystem? Provide detailed answer giving justifications.

Q11. In order to provide operational and roaming flexibility to MSPs, would it be feasible to allocate separate MNCs to MSPs? What could be the pros and cons of such arrangement?

Ans:

Q12. Will the existing measures taken for security of networks and data be adequate for security in M2M context too? Please suggest additional measures, if any, for security of networks and data for M2M communication.

Ans: To start with, this security features is OK, later stages when if new challenges comes then we can think further in this area. Few points on misusing the system is defined starting of my comments which may require to incorporate.

CISCO has defined some framework on M2M which is useful and that may be considered. Link is given below:

http://www.cisco.com/c/en/us/about/security-center/secure-iot-proposed-framework.html

Q13. (a) How should the M2M Service providers ensure protection of consumer interest and data privacy of the consumer? Can the issue be dealt in the framework of existing laws?

(b) If not, what changes are proposed in Information Technology Act. 2000 and relevant license conditions to protect the security and privacy of an individual? Please comment with justification.

Ans: Option A – Existing laws are good enough to start the services. In future, if any deficiency comes in the picture then we can make amendment in our existing laws.

Q14. Is there a need to define different types of SLAs at point of interconnects at various layers of Heterogeneous Networks (HetNets)? What parameters must be considered for defining such SLAs? Please give your comments with justifications.

Q15. What should be the distributed optimal duty cycle to optimise the energy efficiency, end-to-end delay and transmission reliability in a M2M network?