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To,
Advisor (NSL),
Telecom Regulatory Authority of India,
Mahanagar Doorsanchar Bhawan,
Jawahar Lal Nehru Marg,
(Old Minto Road), New Delhi-02

(Kind attention: Sh. Syed Tausif Abbas)

No: Regln/1-25/2019/ 8890

イル Dated:29 July, 2018

**Sub**: Comments on Consultation paper on "Allotment of spectrum to Indian Railways for Public Safety and Security services".

Kindly refer to TRAI's Consultation paper on "Allotment of spectrum to Indian Railways for Public Safety and Security services" released on dated 24-06-2019. In this context, kindly find herewith BSNL comments on the above mentioned Consultation Paper. It is requested to condone the delay in submission of comments by BSNL. AS it is an important issue, the comments of BSNL may also be considered please.

Q.1 Whether spectrum in 700 MHz band should be assigned to Indian Railways for RSTT in India? Please provide justification for your response.

Comment: 700 MHz Band provides better cellular penetration (i.e. in-building reception) and best coverage with fewer deployed cell sites. Allocating 700 MHz to railways will limit the usage of the band along the railway tracks, therefore the band will remain unutilized along all Himalayan region extending from J&K to North East. The band can be utilised in a better if given to Telecos. The band is useful for PPDR communication network in view of public safety & security where real time exchange of data communication is required among various agencies.

Even if Indian Railways request is being conceded, then in view of better utilisation of the spectrum, the allotment of 700 MHz band may also be given to BSNL free of cost for improving the services and launching 5G services in future in the areas not covered by Railway Track.

700 MHz is a best radio waves for long distance communication services so this spectrum must be auctioned and Indian Railways should participate in the same.

Moreover, European regulators are pushing ahead with awarding the 700 MHz band to mobile operators. By 2020, 700 MHz may be largely be used for Mobile in Europe. In coming 6-8 years, 700 MHz band could be used for mobile services across world. Therefore, choking this band, by giving to IR is not recommended.

Q.2 In case your answer to Q1 is in affirmative, how much spectrum should be assigned to Indian Railways?

Comment: BSNL is not in favour of assigning of 700 MHz spectrum for limited use, instead it should be used on Pan India basis including providing Broadband wireless coverage in unserved area.

At present Railways has already been assigned some spectrum in 1800 MHz which is under harmonization. A possibility may be explored to utilise existing spectrum allotted by assigning additional spectrum for LTE. Any other spectrum which is not having much commercial value can be assigned free and railways may have dedicated equipment for use safety related issues.

Q.3 In case your answer to Q1 is negative,

- i) What are the other bands (including 450-470 MHz) in which spectrum can be assigned for RSTT,
- ii) How much spectrum should be assigned to Indian Railways?

**Comment:** The spectrum in 450-470 MHz available may be given to Indian Railways for RSTT services. However same to be given where it can be used by railways. Being a lower frequency band, this can also meet coverage requirement of IR.

Q.4 In case it is decided that spectrum in IMT bands which have already been earmarked for mobile services, be assigned to Indian Railways for RSTT in India, what should be the methodology (including price) of allotment of spectrum?

**Comment:** If it is decide that spectrum in IMT bands which have already been earmarked for mobile services, be assigned to Indian Railways for RSTT in India then auction should be there, India Railways along with other Telecos should be allowed to participate in auction as it is planning to give Wi-Fi services to on board passengers and this is a commercial activity which will affect the revenue of Telecos.

Q.5 In case it is decided to assign spectrum in other spectrum bands (including 450-470 MHz band), what should be the methodology (including price) of allotment of spectrum?

Comment: May be given administratively only for specific use as non-liberalized.

Q.6 Do you foresee any challenges, if IR makes internet services available on board i.e. within the train using spectrum allocated for signalling purpose?

**Comment:** Surely this is a commercial activity or in case its given free than the services being provided to public are to be made free as national resources are being made available freely therefore, services being provided using spectrum also to be free. However this will be a direct hit on revenue of TSPs and chances of interference would also be there.

Railway can implement LTE Radio through any of the TSP.

- Q.7 Whether the requirement of IR for RSTT can be fulfilled using the following alternate methods:
- i) Alternate method suggested in para 4.47, wherein a TSP could build, deploy and maintain LTE-R network for IR; while the control, use and operation of the LTE-R network may be with IR.

OR

ii) Alternate method suggested in para 4.48, wherein there could be a common integrated network (with common spectrum) for Public Safety i.e. Public Protection and Disaster Relief (PPDR) and Railways, using PS-LTE and LTE-R technology respectively.

OR

iii) Any other method as may be suggested by the stakeholders. (Please provide detailed response with justifications and required enabling provisions.)

**Comment:** Method (i) is a good option wherein TSP-BSNL could build, deploy and maintain LTE-R network for IR; while the control, use and operation of the LTE-R network may be with IR.

Q.8 If there are any other issues/suggestions relevant to the subject, stakeholders may submit the same with proper explanation and justification.

Comment: No Comment

Yours sincerely
Ved Prakash Verma
AGM (Regln-II)