

Re: Comments by NETFOCUSIN TECHNOLOGIES on the Consultation Paper dated 25th March 2022 on “Rating of Buildings or Areas for Digital Connectivity”

From: NETFOCUSIN TECHNOLOGIES

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## INTRODUCTION

TRAI’s consultation paper dated 25th March 2022 on “Rating of Buildings or Areas for Digital Connectivity” provided different infrastructural bottlenecks in providing state of the art digital connectivity across entire nation primarily in an attempt to benefit Information and Communication Technology (ICT) sector. Our high-level comments to the various issues and proposals in the paper are provided below.

## HIGH LEVEL OBSERVATIONS

First of all, thanks to TRAI for the detailed research done in order to bring out critical and relevant quality issues that pose as showstopper for offering a good digital connectivity option to user.

It should be noted that, poor quality issues cannot be attributed solely to poor infrastructural. Telecommunication services are impacted by several sources of pure natural barriers like atmospheric attenuation, absorption and scattering of radio waves by hills, buildings and trees causing shadow zones, natural sources of noise etc. Such inherently natural barrier to radio signal propagation has created issues in both radio wave propagation from the very beginning. Such barriers can never be removed through infrastructure planning and therefore the benefit that would be realized by undertaking such huge infrastructural revamp would be marginal to say the least.

Moreover, this type of infrastructural improvement should happen throughout the country uniformly. Such initiatives have been successful worldwide in dense urban areas with very high Busy Hour Call Attempt (BHCA). A very small percentage of population in India is aware of service quality of ICT and relative cost-benefit analysis of such exercise should be performed before undertaking it on a large scale.

## AN ALTERNATIVE SOLUTION TO INFRASTRUCTURAL BOTTLENECKS

Telecommunication services around the world has grown despite the challenges posed by poor infrastructure. Such challenges have been overcome consistently by network and site planning engineers by cleverly planning technologies to be deployed, abstract and concrete topology of the network to be laid, frequency bands to be used to alleviate issues like atmospheric absorption and so on. At the same time to has been observed in countries with advanced building planning and structured cabling practices that such measures are not foolproof and always there is a need to restructure and replan the network deployment in order to get out of infrastructural impediments.

In some cases, QoS is an important differentiator for companies which offer them on commercial basis. For example, in International Mobile Roaming (IMR) sector, it is common to find Steering of Roaming (SoR) system in home network (HPLMN) that can select appropriate visited network (VPLMN) where its

outbound roamers would use telecommunication services (e.g., make outbound calls). This is a patent example where such linkage between infrastructure spends and quality of service breaks because of lack of effective jurisdiction on a foreign operator. Such steering of roaming can be performed based on pre-determined wholesale inter operator tariff (IOT) consideration (i.e., lower the IOT rates better the network is) and on the available data (obtained through specialized data feeds or crowd sourced) on quality issues such coverage, cell outage history and so on.

## CONCLUSION

Therefore, it is our humble request to TRAI, not to undertake such huge and mammoth exercise on improving infrastructure in general just to provide good quality ICT to users. Rather it would be prudent to focus on R&D in improving Telecommunication infrastructure to alleviate bottlenecks in other types of infrastructures.