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Dated 03.04.2020

To,

Shri Sushil Kumar Mishra Ji,
Director (Consumer Mobility),
BSNL Board, New Delhi

Subject: A suggestion to meet the surge in demand of mobile data in Kerala Circle –Regarding.

Respected Sir,

We would like bring to your kind attention that Kerala Telecom Circle Mobile Data traffic has significantly increased in the recent times. I have been apprised by our Kerala Team that mobile data traffic is now crossing about 500TB and 4G traffic alone reaching 100TB mark (with just 700 numbers of 4G sites). Mobile Data volume of the circle is showing an increment of about 90TB after implementation of Lock-Down, in view of COVID-19 threat. This situation is generating higher traffic and putting our network (3G & 4G) under tremendous overload. Although, other operators' network is also showing the stress but we as a Central Government PSU have higher responsibility to provide stable and optimum services to people of the country in this pandemic crisis.

At this juncture, any efforts from our side to increase the network capacity and improved QoS will give us a positive outlook from Public and government both as well as increase in revenue. It is worthy to add here that even the Hon'ble MoC has said in his Video Conference of dated 30th March that BSNL should rise to the occasion and fulfill its obligation to meet data and voice requirement of people in this hour of crisis as BSNL has shown in every crisis and emergency. In this regard, our technical team of Kerala Circle has suggested some measure (enclosed as Annexure-A) for immediate solution to meet the demand of sudden surge in data traffic. The team has apprised that it can be easily implemented without physical movement in lock-down position.

Therefore it is requested to consider the proposal on merit and arrange for its implementation if found favourable approval of the concerned sections. I am quite hopeful that if implemented in Kerala Circle, it will be a good initiative to meet the expectation of high wireless data demands in other similarly placed circles also.

With warm regards,

Sd/-

[MD. WASI AHMAD]
General Secretary

Copy to:

1. Shri Anshu Prakash Ji, Secretary (T), Government of India, New Delhi
2. Shri P. K. Purwar Ji, Chairman & Managing Director, BSNL, New Delhi

ANNEXURE-A

In order to augment our mobile network to withstand additional requirement of data traffic, following can be done at our wireless network side to meet the demand. This is practically very much feasible to carry out even in this lock-down period as it doesn't require any movement. It has two parts, first part deals with the usage of additional 5Mhz bandwidth allotted to BSNL and second part deals with the augmentation of 3G network to 4G network by minimal requirement.

1. Permission for temporary use of additional 5Mhz bandwidth to cater the sudden surge in demand of data traffic in view of COVID-19 lock-down:

We may seek permission from the Department of Telecommunication, Govt of India for temporarily use of additional 5Mhz in Kerala Circle (*which is already allotted to BSNL but we have not started because of non availability of equipment of Ph 8.4 Add on project*) on testing basis without any recurring charge in order to meet additional mobile data demand in the Radio Part in this critical situation of Corona epidemic to support the government directives to meet additional demands of data of the public in this hour of crisis when the national lock-down is going on to check spread of COVID-19. This will be a good support to our people when entire nation is staying indoors at their home and many of them is also using Work to Home to keep their livelihood. On this, we can revert with some offer of free usage of Data/calls to show our further commitment towards people in this hour of crisis.

It may kindly be noted that it will be a purely temporary approval to use the additional 5Mhz spectrum in the 2100MHz Band, free of any charges, that we may request to the Dept of Telecom, only to be used during the Corona Threat situation for the single purpose of meeting the high traffic demand purely to support the government initiatives to fight the situation. This request to waive off the spectrum usage charges during these critical situation is only for handling the emergency situation and once the government declares that critical situation is over, we will stop using the additional spectrum and will comply to all the mandatory norms of spectrum usage charge for any further usage of the spectrum.

2. 4G licenses from M/S Nokia to use it temporally during the lock down period.

With additional spectrum and 4G licenses we can change existing Nokia 3G sites to 3G+4G (4G with SIMO). This can be done for either maximum of 1000 Nos of Nokia 3G sites working in Kerala or at least for the most overloaded sites. This can be done without any hardware addition and even no physical work or site visit is involved. This will give more than double the Cell capacity (from existing 3G capacity of 22Mbps to 3G+4G without MIMO, capacity of 22+25=47Mbps) and resolve the critical 3G overloading issues now observed in Radio part of the network. Also more importantly we can convert the existing 4G sites presently working with 5Mhz to 10Mhz with a simple configuration change, there by doubling the system capacity.

The above two capacity addition works, which can make substantial difference in customer experience, can be done without any physical works and is practically feasible even under lock down restrictions. This may require our understanding with M/S Nokia for making the necessary 4G licenses available (even the unutilized licenses available due to non-commissioning of 4G in some of the circles can be effectively utilised for this purpose, in case M/S Nokia is not willing to provide the temporary licenses)

As Kerala BSNL network is having around 31 Lakhs of USIM Customers (around 44% of active VLR customers) and almost the same number of LTE Band-1 enabled Handsets, a considerable portion of customers can use 4G Network even without an immediate SIM swapping mechanism and get substantial improvement in their data experience. This will offload 3G network also as some percentage of customers will be shifted to 4G, which will enable our network to handle more data with much better QoS, it will be mutually beneficial for the people, BSNL and the government also.

Summary:

In case the above approval for using the additional 5Mhz spectrum from DoT and 4G licenses from M/S Nokia granted temporarily in view of Corona Crisis, following can be implemented with no change in hardware and without any physical works:

- **Upgrading the existing 4G sites (around 700) in Kerala Circle from 5Mhz to 10MHz spectrum bandwidth.**
- **Converting the existing Nokia 3G sites (around 1000) to 3G+4G (both using 5Mhz & 4G without MIMO)**
- **Doubling the system capacity even in ZTE 3G sites using the Dual cell (dual carrier DC) feature using the additional 5Mhz spectrum, in case of the most severely overloaded cells. (The feature is already successfully tested in Kerala)**