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भारत संचार निगम लिमिटेड
(भारत सरकार का उपक्रम)
BHARAT SANCHAR NIGAM LIMITED
(A Govt. of India Enterprise)
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To,

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

No: Regln/1-32/2014/9876 Dated: 3rd Mar, 2020

{Kind Attn: Shri. Sayed Tausif Abbas}

Sir,

Sub: Comments on Consultation paper on "Provision of Cellular backhaul connectivity via Satellite through VSAT under Commercial VSAT CUG Service Authorization".

Kindly refer to your office press release no. 12/2020 dated 29th Jan, 2020 vide which a Consultation paper on "Provision of Cellular backhaul connectivity via Satellite through VSAT under Commercial VSAT CUG Service Authorization" was released for inputs/ comments from the stakeholders.

In this context, kindly find herewith the BSNL comments on the above mentioned consultation paper:

Q1. Keeping in view the connectivity requirements in remote and difficult areas, should the Commercial VSAT CUG service provider be permitted to provide backhaul connectivity for mobile services and Wi-Fi hotspots via Satellite? Please justify your answer.

BSNL Reply: Yes, the Commercial VSAT CUG service provider be permitted to provided backhaul connectivity not only for mobile service (BTSs) and Wi-Fi but also for telephone exchanges, DSLAMs or any other network elements (NEs) via satellites (i.e. VSAT Network) . Further, VSAT service provider be permitted to provide point to point links for backhaul connectivity. Such authorization is required for remote and inaccessible areas where deployment of terrestrial technologies is techno-economically unfeasible as well as for other areas.

The telecom services are required across the length and breadth of the country. While terrestrial connectivity (OFC & MW) is feasible & economically viable for deployment in urban areas, however in case of rural and remote areas, the following challenges are exists:

a) Terrestrial media is not feasible due to difficult terrain.
b) Right of Way charges may be very high.
c) It is difficult to maintain the terrestrial network in such areas.
d) Satellite is cost effective and economic.

Further, providing connectivity to a BTS to its BSC is forming part of access network and it is not falling under NLD connectivity. Similar is the case for other NEs. As the Hub of VSAT is located at a centre point but finally the connectivity from

VSAT hub is extended back to the respective BSC. Thus considering the BTS to BSC connectivity is NLD connectivity is fundamentally wrong. It may be noted that the requirement of VSAT backhaul will be very much essential in case of 5 G Mobile network, as satellite is integral part of 5 G eco system.

Q2. Whether the scope of Commercial VSAT CUG Service Authorization be enhanced under both Unified License and UL(VNO) license to enable the provision of the said backhaul connectivity? Please justify your answer.

BSNL Reply: Yes, the scope of Commercial VSAT CUG license should be enhanced for providing the back haul connectivity of BTSs, Wi-Fi, exchanges, DSLAMs etc.
Further, limitation of data Rate, as specified in TEC Interface Requirements is also needs to be modified and there must not be any limit for data rate for down link, as the same is not dependent on the size of remote VSAT antennas.
For providing, the backhaul services, scope of license is required to be enhanced.

Q3. Should the licensee having authorization for both Commercial VSAT CUG and NLD services be allowed to share VSAT Hub & VSAT terminals for the purpose of providing authorized services? Please justify your answer.

BSNL Reply: There should not be separate category of authorisation for providing backhaul services by VSAT operators. The existing VSAT operators may be permitted to provide VSAT CUG service including backhauling of NEs.

Q4. Whether the licensee should be permitted to share its own active and passive infrastructure for providing various services authorized to it under the other service authorization of UL and/ or other licenses?
[In other words, whether clause 4.3 of Chapter -VIII (Access Service authorization) be made applicable for all other authorizations also]
Is there a need to impose any restrictions? Please enumerate and justify your answer.

BSNL Reply: A licensee should be permitted to use its own infrastructure (both active & passive) in a shareable mode for providing various services authorised to it. Other incumbents offering similar services should also be permitted to do the same, so that the regulation is applicable to all.

Q5. Whether formula-based spectrum charging mechanism for VSAT services in NLD/Access license is adequate and appropriate? If not, whether spectrum charging for VSAT services in NLD/Access service license should be made on AGR basis instead of existing formula basis mechanism? Whether it will require accounting/ revenue separation for satellite based VSAT services under NLD/Access license? Please elaborate and provide proper justification.

BSNL Reply: No, the formula based spectrum charging mechanism is not appropriate for VSAT Network as well as for point to point satellite links, due to the reason the connectivity of remote locations is not a NLD connectivity but an access connectivity. For example, if a BTS located in remote Island of A & N (say Campbelbay) is to be connected to its BSC located at Port Blair or at Kolkata / Chennai, it is not NLD connectivity, as the BSC will be available at a central location. Thus, there is need to rationalise the SUC for VSAT CUG Licences as well for point to point satellite links. This should be in line with existing TRAI Recommendations of 2017 and in accordance with the NDCP guidelines for rationalisation of levies & spectrum charges. Thus SUC should be 1% of AGR based irrespective of data rate, as recommended by TRAI in its recommendations dated 7th March, 2017.

The operating expenditure (OPEX) for satellite connectivity is very high due to high charges for satellite bandwidth, spectrum charges and also on account of high Opex due to remote number of customers. The formula based charging, wherein the spectrum charges are levied on the basis of each link is a restrictive for the growth of Satellite based services in India as it tends to penalize use of satellite instead of promoting it. It may be noted that the lease charges that can be realized from a satellite link are a fraction of total OPEX involved. The SUC in formula-based regime are very high as compared to the AGR based regime. Such a high cost of SUC makes satellite based backhauls unviable.

Q6. Please give your comments on any related matter not covered in this Consultation paper.

BSNL Reply:

1) Use of Point-to-Point satellite links for backhaul**:** The backhauling of remote BTSs, Wi-Fi AP, exchange or DSLAM can also be done using point to point satellite links. Therefore, point to point satellite links may also be considered for backhauling of various NEs from remote locations. The VSAT license may also be authorised to provide such links and the SUC for such links should also be prescribed on AGR basis.

2) While calculation AGR, the satellite charges and spectrum charges realised by VSAT Operator from the end users may be considered as " revenue of pass through nature actually passed on to other service providers", as the same is passed on the Satellite operator (M/s Antrix). If Government wants to levy LF and SUC of this, same may be levied from the satellite provider.

The Hon'ble Authority is requested to kindly consider the BSNL's comments on above mentioned Consultation paper.

Yours sincerely

03-03-2020

(Ved Prakash Verma)
AGM (Regln-II)