RECOMMENDANDATION FOR REVIVAL THE OF CFA SECTOR IN LINE WITH DoT APPROVED REVIVAL PACKAGE

Our proposals are for the Revamping of present condition of CFA sector which is in quagmire due to its fragility of providing new age services and data services up to expectations of new age Customer who lives in a Tec mania age.

Our Suggestions are categorized in to

1. The role/Scope of BSNL in CFA Sector

2. Why BSNL CFA Sector is loss even with more than 75 % wired connection in entire market

3. What is the Salient Challenges /Opportunities for the Revamping/Restructuring of CFA Sector

4. What are the ways the CFA Sector to be restructured and how can be made it Financially profitable sector of BSNL services

5. The Model OF Execution and its merits/demerits

1. The role/Scope of BSNL in CFA Sector

BSNL is the national leader in wire line Business around 1.1 crore wired connections, through that we offers both Voice and Data services. BSNL have most trusted brand in wired sector due to its legacy of transparency and vast last mile connectivity to all villages and even to the most remote places in India.

As BSNL is categorized as the Strategic Asset of India in Telecom Sector, we need to serve as facilitator of secure/Stable telecom service for Defense and other Military Forces. So BSNL CFA Sector needs to be maintained for National Interest too in situations which happened recently in State of Jammu Kashmir too.

CFA as whole is a major revenue generating sector in our different services, and as of now it is working as the backbone for revenue generation from **Enterprise business, BB and Leased lines.** Presently it is almost 40% of gross adjusted Revenue. So CFA sector is one of the most potential areas to be maintained.

2. Why BSNL CFA Sector is loss even with more than 75 % wired connection in entire market

BSNLs 95% of CFA connections are working on our legacy copper network, which was a gold mine in olden days where voice was the main business in Telecom industry and the maintenance of copper network was easy in olden days as the developmental work rate in the external field was too negligible and it as so protected till 2000 as it was purely controlled by GOI. But due to boom in telecom and infrastructure industry the scenario changed a lot. With the development in Telecom sector the telecom requirement of a customer changed from voice oriented needs to more Data oriented and presently which even at AI enabled data oriented Services. Due to infrastructure developments and age of network and natural /PWD works, our copper networks are heavily damaged and due to deterioration of quality, stability and capacity to provide bandwidth requirement of present age customer is not met to the expectation

Out of 32000+ telephone Exchanges maintained by BSNL, around 25000+ is in **operating loss, which is mainly due to the maintenance cost of our legacy copper networks, Electricity/Diesel, Building Rent, Supporting Infrastructure Maintenance and the Salary Bill of Employees**. In the last financial year the adjusted revenue from CFA sector was around 5000 Cr and the expenditure without wage bill was about 8000 Cr, with addition of wage bill it will be further widen to 11000 Cr.

Due to the inherited nature of copper network, there is a need of huge manpower to maintain the vast network, even with that too BSNL is unable to provide the required class of art service to the customer expectations as it is not able to provide huge bandwidth requirement which resulting in huge disconnections and dissatisfaction to our valuable customers

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3. Salient Challenges/ Opportunities for the Revamping/ Restructuring of CFA Sector

The main Challenges BSNL facing during revamping of CFA sector is the up gradation of present last mile access network of mainly on **copper to Fiber based network which can offer endless bandwidth requirement needs of any type of customer**. The challenges are mainly due to the vast network area and huge investment needed for the up gradation works which we may have to start from foundation and the execution time for the roll out.

The opportunities are

a. Readily available Last mile Fiber networks of local cable TV operators / Facilitators

b. Availability BSNL/N-BSNL BTS sites in all Exchange serving area with power availability

c. Customers affinity to the present Indicators they owe which can be easily assigned to FTTH as BSNL already upgraded to NGN networks

d. The brand “BSNL”.

The Real Challenges are

a. Huge investment needed for purchase of Customer premises Equipment’s

b. Almost 70% CFA customers are very low revenue generating /Voice only customer base

c. Shortage of staff /maintenance mechanism after the proposed VRS

d. Disconnections happening due to poor operational parameters, low customer satisfaction due to poor bandwidth availability and repeated faults in copper based network

e. Mounting loss from CFA sector which widen due to further disconnections

4. What are the ways the CFA Sector to be restructured and how can be made it financially profitable sector of BSNL services

a. BSNL should cut over its access network from copper to fiber in phased manner at the earliest

b. The Basic service in CFA sector should be re brand as VOICE+DATA than present Voice only service

c. The Centralized Exchanges should be decentralized with co-location of OLTs in each BTS area.

d. The numbering scheme presently allotting should be made available to FTTH services by configuring it in the core network/ NGN

e. After Up gradation of basic service from Voice only to Voice + Unlimited Calls, Voice + UL Data, the tariff should be scaled upwards on data limit / bandwidth

f. Offer cloud based services to any customer those who wants it

The Use of BTS sites for installation of OLTs will save the energy charges, Building rents/taxes, Air conditioning Charges, Security/Up keeping Expenses, establishment and operating expenses of exchanges and we can also scale down the capacity of Battery and power plants presently using at many exchanges.

The main expenditure of CFA Sector in recurring natures are of above listed, which will be in range of 1 lakhs to 5 lakhs per exchanges/month depending on capacity of 200 DELs to 10000 DELs. By locating OLTs in BTS, which can be work as an Exchange as our core switching network is only IPTax’s and NGN core, this alone can save around 3600 crores per annum to the BSNL

After migration to the fiber network in last mile, fall in DELs will arrest and there will be growth in DELs & revenue, which will turn scenario of CFA Sector

Most importantly this will cater the reduced manpower requirement in the changed scenario of BSNL after VRS. Capital/ maintenance works can be outsourced and can be monitored accordingly.

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5. The Model OF Execution and its merits/demerits:

We are proposing a plan which will reduce our expenditure in one side and increase the revenue in other side with phased change over to Fiber

Last mile media to fiber depending on DELs with BSNL owned OLTs/ONTs

First phase it may be done for

1. < 500 Lines exchanges
2. City /Urban area BB customers
3. Rented building exchanges

Second Phase

1. < 1000 line exchanges
2. City/ Urban Voice only customers
3. Semi Urban BB customers

Third phase – Complete changeover

When First phase is under operation, the non-executive staff available after VRS proposal may be re-deployed in City/ Urban area exchanges where there is a > 500 line.

During the above 3 phases for maintaining copper network, a Contract labour assistance with per 1000/ 1500 lines one person may be planned till cut over is completed. **During this phase, wherever staff deployment is difficult may go for exchange line maintenance with revenue sharing model as proposed in Maharashtra/ MP Circles.** In our analysis the exchanges with less than 500 DELs are making much loss to the CFA sector as the recurring expenditures itself is not met by the revenue generated out of it.

First phase / immediately we should avoid the recurring fixed expenditure of these exchanges by use of BSNL BTS sites or BSNLs owned point of presence.

a. Fiber network for last mile connectivity can be either by BSNL/by an agreement with LCO operator /Facilitator. Make an agreement with facilitator/LCOs for providing end to end connectivity from BSNL owned OLTs to ONTs with SLA and SOP

b. The OLT may be either owned by BSNL or by Facilitator, if facilitator supplies the OLT, then BSNL only should have access - creation rights& complete control over the OLTs, as in future BSNL can create any sort of services in addition to basic services of voice+Data/Tripple play Services without any intervention of LCO/facilitator and Network deployment and maintenance by franchisee which is leased by BSNL for last mile connectivity

c. Should take the fiber media from LCO/Facilitator on **fixed charges** wise irrespective of data/plan we are offering than revenue sharing concept.

Merits of the System

a. BSNL will be able to reduce the expenditure on recurring fixed nature

b. BSNL will be upgraded to the network which can satisfy any requirement of present time without any additional cost on roll out in Last mile connectivity

c. The maintenance activities in the last mile fully by LCOs/facilitator

d. The exchanges with any amount of loss will change to profit making with the a minimum percentage

Difficulties may arise and its solutions

a. **Last mile entirely giving to LCO/facilitator**

There will be a chance of future sabotage/tug of war between BSNL and LCO but this can be easily solved with a huge bank security and conditions of taking over of last mile media on any act of sabotage

b. **Investment needed for OLTs/ONTs for existing customers**

This can be solved by the model of procurement of OLTs/ONTs on leased basis/Revenues sharing basis as presently happening in Telecom market and may repay the cost of OLT/ONTs on fixed share basis from revenue earnings through that connected OLT

c. **Existing Leased lines and MLLNs lines**

Leased line and MLLN lines to be converted to BSNL s own fiber network/**dedicated fiber leasing** from Facilitator as it is high revenue generating once from our nearest point of presence such as BTS/ owned main Exchanges/OLT locations

d. **Non availability of Fiber network of Facilitator to the entire exchange area**

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This issue can be solved by Utilizing 64-320 ports NGN Equipments as standalone exchanges like UT Star NGN B-1205 model equipments as too compact size with ETSI 482.66mm Width Compliant. This can be installed in any BSNL owned BTS sites which will be near to present copper network. Can use copper network to minimum level till full fiber change over with expansion of Fiber network

Immediate non availability of Same Indicators of Landline to FTTH till UT Star Core/NGN Core gets ready

Till BSNL is able to provide same indicator via OLTs/fiber media, we can use full call diversion for destination numbers like aseem plan ,so that customer will not miss any of his valuable calls and customer will be able to retain his indicator which presently using as their Unique Identity.

e. Cases of very low ARPU Customers

Most of the cases of low ARPU can be solved by changing basic service as Voice+data, if any really uneconomical cases comes ,it should be converted to Fixed wireless Terminals with call diversion like Aseem

There should be communication between each and every BA heads with local bodies, PWD, municipalities, Corporations etc and cable damages are to be made least. To make any project to be successful the officers of Planning / nodal officers must be well learned , cooperative and dynamic. Completely automatic infra monitoring and cloud based storage, presentation and decision making. Unnecessary work like giving target of Wings/Aseem/LFMT/Cable mapping/ reports of exchanges should be minimized. E CAF must be implemented for all applications , including FTTH

Less than 100 line exchanges should be closed by replacing FTTH to BB customer from nearby exchanges. Low ARPU landlines should be converted to sim based desk phones (fwt) at our own cost at the earliest. Ready availability of spare OF cables, Joint closures & other necessary inventory with each maintenance divisions.

If Phone/Internet connection is more than 100 in a flat/in a campus, we should go for AC powered Mini OLTs to serve. Circle should be given authorization to Purchase FTTH CPE, and other Customer related accessories.

Marketing segments/wing should be separated with their staff at subdivision level as in case of other operators. They should control Franchises directly, not with concern SDEs. SDE has to see the network and service only. Similarly Account people has to take the responsibility of TRC in all Subdivision and deal with adalat ,deposition of cash ,revenue collection and monitoring at sub divisional area

Suggestions for further Easiness

If BSNL can partner with a Technology solution provider, then we can go for customized modem depends on requirements of Customers, like ONT with Power backup ,ONTs with multiple POT ports, 4G/LTE embedded ONTs for providing back up /maintenanace services by Mobile network, set top Boxes for IPTV services with unique support to BSNL Networks etc.

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The Income / Expenditure : Telephone exchanges

Expenditures in present working set up

Fixed Recurring Expenditures

Salary +Maintenance Expenditure of copper network

Now this comes to 50K/1 lakh per month, this can be nullified of can be brought to level of 5k to 10 K by using nearest BTS Sites /OLTs. Bare minimum infrastructure can keep for transmission s/s, where shifting of that may not be possible

sources of income in present working set up

Income from Exchange Operations

Income from LCO model business

Income from Exchange direct operation decreasing due to disconnections and due to revenue sharing happening in high ARPU Customers switching to LCO part, as most of the LCO based customers are of present BSNL Customers only. Most cases total revenue of Exchanges showing negative trends only except a few Marginal increases

Proposed Model By AIGETOA

Fixed Recurring Expenditures

Salary +Maintenance Expenditure

Per line fixed rental /revenue sharing to LCOs/facilitator

Income from Exchange Operations +Income from Vacated spaces renting

Fixed Recurring expenditures can be brought to 5k-10 k as we propose to use OLTs in BTS sites/ BSNL Owned sites.

Expenditure towards salary can be brought down to maximum as mntce of last mile fully by Facilitator.

Expenditure to LCO/Facilitator media Fees: As we are proposing a fixed charge mechanism, there will be a fixed charges toward media and its maintenance, as BSNL changes basic service as Voice+data. This will be comes around 30-40% of gross income from operations in turn facilitator gets fixed monthly income of no. of connections*rent

As net revenue Part increases and net expenditure decreases considerably, we can make CFA Sector to most trusted sources of Income