

# **CORE COMMITTEE SUGGESTIONS**

**BY**

**SNEA (I)**

**Tamilnadu Circle**

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**At JEEVAN JOTHI HALL, Egmore, Chennai.**

## **What is the objective behind constitution of core committees?**

Core committee is basically an instrument to bring about complete coordination between the management and the work force down the level to address to the grievances of the users of the organization. Even though the concept of constitution of core committee remained dormant in a monopolized set up, it acquired extreme significance in the context of globalization and existence of free market economy.

In the present scenario where BSNL is under tremendous financial strain and there is an all round talk of enforcing draconian anti labour measures, the existence of core committees has not only become inevitable but a critical source of meeting the challenges that confront BSNL. Quality of service and customer interface are two well identified and core issues that go a long long way in arresting migration of users and enhancing the market share. Identifying and addressing bottlenecks that lead to poor quality of service and customer support is one of the big challenges before the core committees. Quality of service and customer interface, besides depending upon the equipment component, is heavily dependent upon the attitudinal aspect of the work force and it is precisely here that the role of core committees becomes significant and very decisive.

Core committees are to function virtually as parallel managements in overseeing all the issues relating to growth of network as well as quality of service and customer interface, and, wherever necessary, create compulsions on the local management to take prompt policy/commercial decisions to take care of users. Management has to be dealt with firmly to ensure that it becomes responsive to the customer needs and deals with issues relating to both the growth of network as well as quality of service in a highly professional and committed manner.

Core committees are undoubtedly going to be the nerve centres in turning around BSNL and protecting bread and butter of telecom workers in BSNL whose future today stands threatened. Core committees can unquestionably prove to be the mightiest force in revival of BSNL provided the crucial role they are expected to play in present grave crisis is well understood and executed by them. Core committees should not be allowed to become power centres to settle petty local issues and arm twist local management. That would be dangerous and highly counterproductive. Core committees should restrict their role exclusively to growth of services and arresting customer migration by developing a strong mechanism to improve quality of service and customer interface.

**G.L.Jogi**

**General Secretary, SNEA(I)**

## **About Core Committee formation by SNEA(I) , TN Circle - GS, CHQ**

TN/SNEA(I) acts decisively, aggressively and objectively to set the clock ticking - A path breaking initiative undertaken by our TN circle organization has started producing desired results in terms of number of critical viability related issues surfacing in the course of series of combative and mind boggling interactive sessions at the grass root level. What appeared at the beginning merely a traditional kind of approach is turning out to be a huge success, throwing up innumerable vital issues related to growth of BSNL, needing focused and single minded strategy and plan of action from policy makers in the Corporate office, Circle headquarters, and our organization at different levels.

Formulation of appropriate strategy and execution and monitoring of appropriate plan of action are going to be the next phases of the initiative. It all started with constitution of zone wise Core Group Committee (CGM), followed by holding of zone wise workshops where opinion and feedback from grass root for giving momentum to the growth and enhancing revenues was solicited. Overwhelming enthusiasm and response from the grass root level made the entire effort yield astounding results in terms of crystallization of definite opinion on some crucial growth related issues.

First South Zone CGM work shop comprising of Tirunelveli, Tuticorin, Virudhunagar, Karaikudi, Madurai and Nagercoil SSAs was conducted at Madurai on 26.6.2011. Smt. S.E. Rajam, ITS, GM, Madurai, inaugurated the workshop and set the tone for the work shop. She spoke about revenue generation and individual participation for turning around the BSNL, among other things. All the core group members have cogently presented their view point much to the delight of the gathering.

West CGM workshop comprising of Chennai, STR, STP, Nilgiris, Coimbatore, Salem, Dharmapurai, Erode and Vellore SSAs was held on 6.7.2011 at Vellore. Shri. Natarajan, ITS, GM, Dharmapuri, addressed the gathering. He stressed the need for owning up responsibility, personal involvement and mutual understanding. He also suggested that compact teams are to be formed for better monitoring and implementation of programs.

Shri. Ganesan, ITS, GMT, Vellore stressed the need for concentrating in the Broad band and leased lines as both of these sections are showing consistent improvement in revenue earnings. This is the time to work for BSNL with true involvement and commitment, he added.

General Secretary/SNEA(I) also participated in the deliberations by reiterating that the company should introduce new business processes and mechanisms for development of business and failure in this strategic area will adversely affect the growth of the company. He further emphasized that in order to successfully compete in the present day intense business environment, formulation, execution and close monitoring of series of policy initiatives are needed. BSNL is being surrounded by vendors who scuttle every effort towards its transformation and revival. BSNL is not having any strategy, plan of action and road map or blue print for its growth. GS also underlined urgent need on our part to adapt quickly to drastic attitudinal changes to ensure that users get quality uninterrupted services. Customer interface and quality of service are going to be the key to turning around BSNL, GS exhorted. Company has given best to everyone and it is high time that each one of us gives his

befitting best to the company, notwithstanding whether our career aspirations at the moment are being met or not, GS urged the gathering.

EAST Zone CGM Work shop representing Tiruchirappalli, Tanjore, Kumbakonam, Cuddalore, Pondicherry SSAs, Electrical and Civil Divisions was held on 17.7.2011 at Tanjore. It was an impressive gathering. Shri. J.V. Raja Reddy, ITS, GM, Tanjore in his address praised the concept of Core Group. He added that individual effort is the only key for the success of the BSNL. He pitched strongly for the latest BB plan which is fetching high revenue and 28 % interest. He lamented that SDEs/ JTOs have stopped control over subordinates. Supervision slackness should not be there. For revenue generation, special attention is required for scrapping unwanted materials and Posts in alignments. Civil and Electrical wings have to re think about evolving and maintaining high standards. Saving in each SSA will contribute to turn around BSNL. No other organization is paying wages like BSNL. With team work and appropriate work culture we can turn around the BSNL, he added.

In all the above workshops, besides core committee members, Circle President Com. Secretary Com. M.Gopinathan, Circle Treasurer, S.Sundarakrishnan, Circle Com.V.Jayaraman and Jt Secy/South, CHQ, Com.R.Rajan also participated, giving highly valuable suggestions and making significant contribution leading to the emergence of number of critical growth related issues listed below that now need focused policy intervention.

- VAS content providers must be integrated with the Service Delivery Platform ( SDP ) for hassle free service to the customers.
- Addressing Problems faced by subscribers while in International roaming, both inbound and outbound roaming as well as problems with international roaming in piggyback method instead of direct roaming.
- Problems in Barring of call forwarding to other operators number.
- Under utilization of 4.5 m Huawei - IN installed at Bangalore and Hyderabad.
- Low Cost routing of ISD traffic.

The above initiative of our TN/Organization having already resulted in emergence of number of crucial issues having central bearing to the viability of BSNL need to be pushed further to reach its logical conclusion and has to culminate in a very time bound, focused and decisive strategy and plan of action to be acted upon by BSNL CO, TN/Circle and our Organization at base level throughout the Circle.

We whole heartedly congratulate our Comrades of TN Circle for their initiative and strenuous efforts aimed at revival of BSNL and fully assure them of complete support from CHQ in ensuring that appropriate and expeditious policy initiatives are taken by BSNL Co in implementing final plan of action to address the issues already listed. Initiatives already taken will go a long way in revival of BSNL and produce desired results in terms of higher growth and enhanced revenues.

**G.L.Jogi**

**General Secretary, SNEA(I)**

## CONSUMER MOBILITY

### Consumer Mobility Sales & Marketing

#### CHQ:

After sale maintenance by the vendor is absolutely required for GSM FWP instruments and Data cards. That too it is absolutely required after warranty period. At present, after warranty period if it goes faulty we are insisting the customers to purchase new one. Subscribers are ready to pay for the rectification of fault, but there is no vendor support. Hence at the time of tender finalization itself after sale maintenance during and after warranty period by the vendor should be ensured.

#### Circle :

- All orders with respect to implementation of new schemes, tariff rationalization etc are to be intimated well in advance to avoid last minute confusions. After intimation of many instructions, subsequent modifications are intimated due to some technical reasons, this is also creating troubles. Hence tariff rationalization and new schemes shall be implemented after confirming the technical feasibility.
- In addition to every new plan or tariff rationalization order highlights or glimpse of tariff change / new scheme in comparison with the old order is required. If this is available both in English and Tamil, the correct message will reach up to the grass root level employees.
- Earlier UNIFIED SIM was supplied, which can be activated within minimum time. Now RECON sims are being supplied due to capacity crisis. Activation procedure of RECON SIM is consuming 20 to 30 minutes. While conducting Melas and Road shows it is very difficult to face the customers. In other circles both the SIMs are available. USIM is utilized for Melas / Road shows and RECON SIMs are utilized at CSCs, Franchisee show rooms etc. Hence USIM shall be supplied for Melas and Road shows.
- At present there is no facility to change FFL ( Land line indicator ) of ENNANBAN Plan / Anbujodi plans. It is not allowed after six months. Customers are insisting for change of FFL LL indicator, at least after six months. Customers are ready to bear the cost.
- STV for ISD prepaid plans are not popularized.
- Though the Franchisees are performing well in some SSAs, after closing the Sales team business still there are some uncovered areas where our product supply chain is poor or not available. Like Kerala all our exchanges may be allowed to work as point of sales subject to the availability of man power.
- The percentage of student community using BSNL mobile is hardly 2-3%. In the recently modified students plan, the plan is not attractive. The plan should be without mandatory Rs 28/- recharge. For new connection 3000 free SMS and 50 MB data per month for 3 months and after that for Re 33/=( say) students SMS pack 3000 SMS is to be free and additionally 50MB Data to be free. Since the students are the prospective customer, schemes to attract students to be launched similar to YUVA Rajasthan plan ( in which local CUG within college and reduced calling rate within university etc) in Tamil Nadu.

- More number of VAS has to be introduced in 3G.
- Commissions should not be paid to the Franchisees for the business done by our staff.
- Unlimited plan with attractive tariff has to be implemented for 3G customers.
- DSAs may be exempted from paying the deposit amount, since they are purchasing cards after paying cash or DD in advance . In addition, C Top up / SIM may also be issued to them without any deposits.
- Insisting for PAN no. / Deposit etc. is the main hurdle for enrollment of DSA / OSS etc.
- Sales staff shall be selected by selection committee on merit and talent basis.
- Like Prepaid, Postpaid Number selection and SIM replacement shall be made simple. Possibility of doing postpaid activities in Sanchar-Soft shall be explored.
- Frequent recharge problems regarding C top UP. Reversal mechanism of C-top up shall be made more effective.
- To know about offers and New plans USSD menu ( just like \*123# ) may be implemented.
- In consumer mobility any plan to any other plan change over shall be made permissible.
- In case of bundled offers ( 3G / 2G ) - Good looking and latest model handset models should be bundled.
- Validity voucher for 2G special and 3G special plan may be given to retain the customers.
- Staff at office may be utilized for sales and marketing so that the TMs working in Sales Teams may utilized at needy places for maintenance purpose.
- BSNL products ( SIM cards / Vouchers / GSM FWP instruments etc.) shall be issued to staff for sales at concession rate or on incentive basis. Willing officials can promote business. This will also motivate our staff.
- "Porting Code wrong" or "Contractual Obligation error" are the reasons intimated for the failure of majority port In cases. In respect of other operator Airtel more or less 50% cases are getting rejected.
- Fraudulent activity of PRBT service providers are increasing port out customers. Customers are annoyed when some VAS is added by the vendor in the name of OBD (Out bound dialing ) without their confirmation.
- Frustrating and irrelevant messages by the vendors are also one of the reason to increase port out customers. This is to be stopped.
- TN Circle has recently rationalized the prepaid plans in GSM mobile services as per BSNL Corporate Office. Though the rationalization is believed to bring in a positive effect, it is suggested that the following aspects should also be considered for implementation to get more advantage to BSNL in the prevailing marketing conditions:-
  - Unlimited data Recharge Vouchers RCV(s) with longer validity to be resumed.
  - Unlimited SMS Plans / Special Tariff Vouchers (STVs) i.e. Boosters to be resumed.

**PRBT service by M/s. On mobile Communications is promoting more port out customers by their unlawful activity.**

Recently M/s. On mobile communications provided PRBT services to nearly 7000 mobile customers without the knowledge of the customers. Without any confirmation from the subscriber in the name of OBD they provided this facility. Customers were annoyed and large numbers of complaints lodged in the CSCs. Many customers applied for Port out. They are with BSNL only due to its trust worthiness. They never expect such type of unlawful activity from BSNL. Sever Penalty clause should be imposed. Though this facility was withdrawn by the vendor, this type of activity is annoying customers. Similarly other two vendors are also there. Circle should address the vendors in this regard.

**CAF Management related:**

Consumer Mobility marketing wings are vigorously working to increase Prepaid SIM sales. Customers are getting Prepaid SIMs through our supply channel CSRs / franchisees / DSAs / Melas / Road shows after submitting the duly filled up CAF. Mobility FM is making address entry in Sancharsoft and handing over CAF to CAF manager of the SSAs . CAFs are being verified by CAF manager for its correctness in Sancharsoft. All the process has to be completed within Seven days, failing which the sold prepaid SIM will be disconnected by the sancharsoft. In reality due to various reasons, some delay is noticed in making entries in sancharsoft within the stipulated period of 7 days. Hence after 7 days these indicators will be disconnected without the notice of the customer which is tarnishing the brand image of BSNL. Further getting reconnected is another Herculean task. In general, disconnected customers are booking complaint through call centers. All these complaints are forwarded to the technical teams like IN / HLR. The technical team is calling the customer provided alternate contact number is available and requests him to contact the nearest BSNL CSR and submit CAF. But in fact the application was already submitted by the customer at the time of purchase of SIM. Customers are feeling bad and simply throwing away our SIM. It is not possible for the technical team to trace the where about of CAF or analyse the pending entry of CAF in sancharsoft. Hence the technical team is closing complaint with some stereo type reply instead of solving the customer complaint. In some cases continuous Melas and Road shows and limited man power also one of the reason for the delay in making entry. Instead of quoting mere rules, the problems should be addressed in a pragmatic way. In total there is a feeling that there is some misunderstanding between the mobile marketing wing and GSM operations wing. Previously while addressing any complaint to Marketing wing, action was taken by them and problems settled. Now they are simply showing their hands towards operation wing since they are not having any hold on them. This

case is to be addressed in the right spirit. Ego clash should not be permitted to tarnish the image of BSNL.

**Division:**

- As for as Port In cases are concerned, continued persuasion of each cases only yielded the desired end result. As for as Port Out cases are concerned, case by case continual persuasion, co-ordination of IMPCS wing in solving the subscriber's problem yielded good result. Co-operation of IMPCS wing is required to settle the poor coverage cases by re orientation or by optimization. Customers are ready to retain, if they get reliable and quality service and a channel for addressing their grievances. In total, Team work of Consumer Mobility wing together with co-ordination with other sections is required to retain the port out cases.
- Conducting separate Road show / Melas by External sections and Consumer Mobility section in co-ordination with Franchisee shall be conducted which will yield excellent result in SIM sales.
- Immediately after the commissioning of new BTSs, Melas / Road shows shall be conducted in these locations. Perfect co-ordination is required between Planning / IMPCS / NWOP-CM wing to achieve this.
- Special Melas / Road shows shall be conducted at the locations where BTS traffic is low and also especially at Temples / Churches / Mosques etc. during festival seasons.
- Franchisee network has to be concentrated in all SSAs for sale of GSM products. Franchisee manager / RM / RMC should work effectively and check availability of stock of BSNL products.
- Retail Managers feed back reports are to be analyzed suitably by the RMC and it is to be intimated to FM on weekly basis. So that FM can have periodical discussion with Franchisees for the improvement of sales.
- FOS of franchisees to be properly monitored and retailers POS shall be visited often to get better output.
- Stock position of all type of cards with validity period should be known to concerned in charges to avoid last minute stress.
- Periodical meeting with Franchisees / Retailers / DSA / OSS shall be conducted which will pave path for redressing their genuine problems. In turn our business will also improve.
- VAS services are to be known to Each and every JTO/SDEs for marketing the services.
- BSNL Franchisees should appoint sufficient number of FoS as per S&D policy and ensure supply of BSNL products to the Retailers under them. In rural areas our product availability in the retail outlets should be ensured Suitable action should be taken when the set target has not been achieved by Franchisees / Retailers / DSA / OSS by nodal officer concerned.
- The Retailer incentives can be paid in the form of RCV / Topup.
- As much as possible Trade Schemes shall be announced to motivate the private distribution channels viz. Franchisee and retailer for the promotion of sales.



## CDMA WLL

### CHQ :

- Recently, Corporate office has begun purchasing FWT without back up battery. This is another source hardship to the customer.
- EVDO cards having facility of all India roaming except MTNL New Delhi & MTNL Mumbai serving area. For EVDO cards, MTNL Mumbai & Newdelhi area shall be covered by extending roaming facility.

### Circle:

#### A) COMVERSE ( Kenen-FX ) PROBLEMS:

- Bulk closure of CDMA WLL connections are only due to the introduction of COMVERSE ( Kenen-FX ) billing system.
- No separate password is available for each user who is using REPONE-FX. Due to universal password, any officer can execute any other officer's work order.
- No noticeable difference is provided between the work orders for either CCB or normal FWT connection.
- No work order for HIGHSPEED INTERNET is displayable for the outdoor SDE / JTO. Only the Commercial officer using Kenen-FX, who releases the work order has to intimate the outdoor personnel about the work order issued. Hence for providing of High Speed Internet to WLL subscribers, flow should start from Outdoor.
- Reports regarding list of working connections, particulars of exchange wise high speed working connections is not available. These reports are absolutely necessary for out door staff.
- The details of outstanding amount for any subscriber could not be viewed instantly by the out door personnel. It is possible only for the Commercial officer. Out door personnel in a rural place cannot satisfy a subscriber without having the facility to view the outstanding amount and details. Hence this facility has to be extended to outdoor personnel.
- In some cases bills paid in the CSCs are not properly updated in the Kenen-Fx system. The current bill carries the already paid bill amount for previous month as balance to be paid, which irritates the customer. This problem is to be urgently addressed to as otherwise this may lead to drastic disconnection of WLL connections.
- Report generation with respect to billing issue, Reconnection, ESN release procedure, WLL DNP list etc. are pending for long time.
- CCB - Customer creation is still pending.
- Closed FWT terminals ESN can be made available for all SDCAs of respective SSA. At present, the released ESN can only be used within the same SDCA only.

#### B) MSC :

1. AMC - carried out by ZTE / ITI / UTL but spare cards replacements heavily delayed. Circle already very well know these problems. Technical transparency is not extended by the AMC people to BSNL side where as BSNL is extending all support to them.

2. With AMC people, BSNL staff should take earnest efforts to learn the process and procedures for carrying modification/patch up-gradations.

**C) CRBT: ( Like PRBT in GSM)**

M/s. On Mobile communications implemented and offered A/T. Song selection through SMS with song code could not be carried out. Activation through SMS to "56700" is not effected. Also it is observed that after giving SMS we have to wait minimum 6 hours for activation. This activation duration should be reduced to minimum in consultation with ON MOBILE Communication. Already this issue was conveyed to Circle office as well as M/s On Mobile communications.

**D) Requirements for the improvement of CDMA WLL :**

- Inter MSC Roaming (TN Circle) facility for Voice Service is required. Already Data users are provided with All India Roaming facility. Roaming facility is required to all MSC's, so that we can promote the NIC and EVDO card sales.
- Redeployment of WLL BTS can be made from low usage areas and can be installed in the vicinity of educational institutions so that sale of NIC & EVDO Cards can be promoted.
- Mostly HUAWEI & AIRTONE make FWTs are available in the field. For replacement of faulty items, SMPS with internal batteries and adapters are required.
- Data cables for HUAWEI 2288 make FWTs have to be supplied for provision of FAST INTERNET connections.
- EVDO card is not available. Sufficient cards are to be made available. NO spares available for replacement of faulty EVDOs. EVDO CDMA backup routers for BANKS is not available.
- 12V SMPS charger unit should be replaced with portable SMPS adopter.
- Back up Battery inside the FWT instrument is not functioning as prescribed. During power failure period most of the FWT WLL is not working. QA is validating / checking the standards of FWT instruments in the factory. It is suggested that the QA shall test the new FWT Instrument in the external sites (Previously it was done at Madurai site).
- When landline goes faulty, immediately WLL connection to be provided to avoid rent rebate claim.
- During failure of BTS and attending specific sub complaints vehicle facility shall be extended.
- Each SSA shall be provided with staff for exclusive WLL BTS maintenance or BTS maintenance can be taken by GSM-BSS wing in the respective SSA.
- Each SDE / JTO section shall be provided with FWT WLL phone connection for testing purpose as well as checking of BTS working condition.
- Adequate in service training to be given to the staff dealing with WLL to know the new trends and technologies in BSNL.
- WLL prepaid portal to be introduced for CSC's. Plan Migration module in CCM is not working.

## Division:

- All SSAs are provided with Optimization tool with laptop. Regular and periodic Drive tests have to be carried out
- We should analyze, which PN offset is making the interference. Accordingly we can take some corrective measures through MSC or by field staff by fixing the FWT Patch Panel Antenna in the sub premises in the respective direction.
- Inadvertently or knowingly, the BTS tower Antenna locations should not be disturbed without the knowledge of MSC and should get guidelines from respective MSC or respective circle RF planning team. Antenna disturbance leads to many problems to the connections that have been working better otherwise.
- Working condition of BTS shall be checked. Procedure uploaded in sneatn.com. We can easily detect the faults.
- Optical-E1 stream faults should be attended immediately to reduce the fault rate.
- Frequent switch off of the BTS manually due to local reasons should be avoided.
- BTS failures are daily uploaded in circle intranet under CM folder.
- Zero loading BTS - should be loaded or redeployed as per requirement.
- All concerned officials should be made familiar with programming different type of FWT which is available in our website sneatn.com, so that customer needs and queries can be easily attended.
- Routing / charging and new short code creations / level creations shall be monitored effectively.
- All of our service mobile phones should be in a position to contact easily to convey any BTS / MSC failures. This leads to quick restoration of system.
- Marketing of RUIM cards are not done properly. In Some SSAs RUIM cards are kept idle. Awareness of RUIM should be made.
- CDMA WLL recharging problem is there. Availability of WLL prepaid recharge and top ups should be ensured.
- OFC Streams - Tx/Rx pairs: During the provision of E1 stream to our systems, ensure that correct Tx/Rx pairs are identified and wired. Whenever necessary inter change Tx/Rx pairs in either distant end or local end to avoid delay in putting through the E1 stream.
- USO fund -No USO fund is provided for zero meter reading VPTs. The incidence of zero metering in VPT connections can be reduced by visiting the VPTs and check the working condition by at least making one OG call. (10 OG calls - free for 1 VPT every month)
- VPT can be converted as WLL prepaid as per circle office instructions. Quick action is required. WLL prepaid usage details can be viewed at <http://218.248.69.126/cdmaprepaid>. Username: query, p/w - query123.
- All VPT connection has been converted as WLL Prepaid . First Recharge with a value of Rs.69/- . Bonus amount Rs.10/- will be added every month through which we can make 10 O/G calls free to test the VPT working condition and to avoid Zero Meter Reading.
- CDMA external cases to be attended by CFA wing only. JTOs / TTAs / TMs should invariably visit the sub offices at least once in two months. After full migration of

VPT connection into WLL Prepaid, concerned section JTO / TTA / TM shall ensure the functionality of VPT and also regular top-up / Recharge.

- The DNP list pertaining to the WLL subscribers has to be segregated exchange area wise, and then local area wise, further into Street and Door Number wise along with the bill details (bill no with date) and the details of the number of outstanding cases with the amount of each bill. In the villages, most of the subscribers would be available either in the morning up to 09.00 hours or after 17.00 hours in the evening. A flexible time schedule has to be fixed and most of the customers can be met after 17.00 hours. A team of personnel with the section Telecom mechanic shall visit the customers, equipped with a list of details of outstanding dues, Good working WLL FWTs, SMPS, Mini chargers, Landline Telephone instruments, Line Jacks, Antenna feeder cables, Patch Panel Antenna (PPA) etc. One or more teams shall visit the customers in different streets for outstanding dues collections. For the subscribers who complaints of SMPS problem, it could be replaced instantly. For faulty FWTs, the instrument which is faulty could be replaced by another FWT with separate ESN number and programmed there itself. For coverage problem, if necessary, the antenna cable could be replaced and put PPA in proper direction, if there is any deviation from the existing direction due to external factors. The outstanding amount could be collected from the customers along with the requisite preprinted reconnection form. The money collected from the customers shall be paid the very next day. The bill receipt should reach the subscriber at the earliest. The number shall be put through in co-ordination with WLL section for reconnection. For subscribers complaining of land line fault, the drop wires shall be replaced there itself if found faulty, the EPBT instrument shall also replaced if needed. The complaints received from the landline customers shall also be registered manually for segregating the faults as equipment or cable fault and to take follow-up action. Marketing done in the field during this process for new landline connections, identifying the new potential customers , getting the NPC forms duly filled with necessary documents, collecting the deposit money and paying the same the very next day. This process is done during closed holidays and even during Sundays also.
- Wll Prepaid CDR can be checked through the following URL <http://218.248.69.125>.
- Telecom Mechanics can sell RCVs / TUs and C Topups also.

### Consumer Mobility NWOP

#### Circle:

- In most of the SSAs many towers are installed in proposed BTS site locations which are not at all utilized for RF radiation yet. BSNL is paying rent to these sites for more than a year without generating any revenue. Action should be taken either to utilize the towers quickly or to go in for IP sharing with other operators.
- RF coverage tests should be done periodically and proper coverage should be ensured in all BTS locations and reduction of coverage area while commissioning of new BTS sites should be watched and to be corrected in time. RF team for Optimisation shall be essentially formed in all SSA head quarters.

- Best possible optimization is to be done in the GSM network and in problematic areas boosters can be installed and erection of new BTS can be avoided and incurring of huge expenditure can be avoided.
- In Free Cooling System in IMPCS sites after power failure if the EA has not started within the set time the battery will discharge and the GSM equipment will get switch off at say 44V. But still after that the Free cooling Fan is working will the low battery supply and further drain the battery till the power comes. This will discharge the battery heavily and the cells get weak and it will not get recharge. So a cut off mechanism is to be devised for free cooling fan also to prevent over drain of the battery. ( Electrical Division says cut off mechanism is there ). FREE cooling system has to be done as per the specification of Electrical wing. Free cooling system along with AC units has to be done to maintain temperature in selected sites where there are more than one BTS. In city BTS sites where more than one BTS (one 900+one 1800 + Node B) is housed, the required temperature is to be maintained to avoid BTS outage. In these sites Free cooling should be avoided for better performance of BTSs.
- Many problems are being faced due to non maintenance of Temperature in the BTS sites. GSM sites are not delivering proper service due to High temperature.
- Getting spares for Nortel equipments and for servicing Huawei OF modem, field units are facing difficulty.
- Equipments compatible for Single phase EB supply are being used in the new BTS sites. This is creating problem. Equipments compatible with three phase EB supply should be purchased in future.
- Most of the BTS failures are infra related issues like PP, BTY,E/A. Weak Battery cells /sets are to be replaced & Power plant module faults are to be attended then and there for proper charging of Batteries.
- For better maintenance of BTSs, either BSS team has to be attached with SSA or Infra has to be attached to BSS wing.
  - ( Merging of IMPCS units with SSA - At present 1st level BTS site maintenance already carried out by SSA CM NWOP wing. BTS fault occurrence is Very less. Vendor AMC is also available. In GSM Network Supply, Installation, Testing, Commissioning, Annual Maintenance, and RF Optimization itself carried out by vendor only. Hence IMPCS unit BSS wing may be attached with SSA or Infra may be attached with IMPCS.).
- All 3G BTSs shall be upgraded to 14.4 Mbps.
- BSS/ RF team of CMTS has to be provided with proper Mobile Handsets for measuring 3G parameters in the field. ( At present Not available).
- Most of the E/As installed in the field has to be utilized. ( At present E/As are kept idle since there is no staff to operate.).
- In the forthcoming Phases of GSM, all infra items have to be purchased and have to be installed by our BSNL directly. The INFRA indigenously manufactured can be purchased by BSNL itself and the equipments which are to be necessarily imported may be purchased from vendors. Eg.: In GSM all the BTS, BTY, POWERPLANT were purchased as a package from HUWAEI ( where as BTY POWER PLANT are at cheaper cost with AMC pack in India itself ).

- For reducing the electricity charges we can go for Out Door BTS for new sites and slowly the existing room sites may be converted to Out Door BTS sites.
- Spare Cards availability for GSM Equipments must be ensured for less outage of service.
- Quality of the Infra materials should be ensured.
- CM Wing must be strengthened. Transmission wings of SSAs shall be strengthened to reduce the outages of the BTSs. All BTS shall be brought under the transmission rings.
- Before any tender implementation especially in BTS's a model site must be put by the vendor as per the tender specification and all the infra items must be tested rigidly for quality to have smooth maintenance in future.
- Circle planning may analyze the connectivity for the node B's in IP platform. A clear cut strategy may be worked out for every site. Since the number of ports available in NIB is less, we may explore the possibility of providing aggregator.
- Coverage issues should be sorted out by upgrading equipment/expertise.
- Network congestion should be avoided.
- By expanding the 3G Network all customers can be given 3G facilities - Existing confusion between 2G & 3G services is to be eliminated.
- It is suggested that in forthcoming tenders Turnkey projects shall be avoided and equipments alone may be purchased. Infra items can be purchased by BSNL separately and installed by BSNL.
- Data Plan customers are being provided with email id in Mail server of bsnl.co.in which is not being used by customers since the same is not user-friendly and not working efficiently viz. auto save, file attachments, loss of message while in preparation etc.

### Division:

- USO site maintenance - Maintenance by Electrical wing . Proper co-ordination with SSA maintenance to be ensured to minimize the BTS outage.
- CMTS-IMPACS and NWOP-CM wing's co-ordination is must to address cases of no coverage and poor coverage problems.

### IP sites

#### Circle office:

- Several IP sites are working in unimportant and unwanted areas. These should be identified and further extension shall be stopped. Also possibility of closing IP sites which is earning meager revenue which is not sufficient for operating cost itself must be analysed. Selection of IP Sites in remote rural areas is non-profitable. For an IP site, in rural area, we are paying at least Rs.40, 000/- to Rs.45000/-. whereas revenue

generated from rural IP is very much less. If possible these loss making IP sites shall be closed and an alternative method to cover this area may be explored (like repeaters / boosters from other nearby site). In future IP sites may be planned only in urban areas where we can earn revenue. IP sites after one year, if there is no additional entrant is not there, then also the rent should be reduced. Tender clause should be implemented to avoid revenue leakage.

- In semi urban and urban areas, if we are unable to fix NBSNL site we shall go for IP sites. Because any deviation from the reference location (Lat/Long) will affect our network, which leads to coverage problems and also affect revenue generation.
- IP outage penalty cap of RS 10,000/- has to be modified (MSA agreement).
- Energy model submitted by TAIPA ( circulated for comments in the field ) should not be accepted ( which is in higher side)
- Where ever BSNL alone is having the tower ( like BHEL campus Trichy, Valparai CBE SSA etc) and BSNL gets more revenue, in those places infra sharing should not be given. Some of the officers recently retired from BSNL and presently working in private operator's company are trying to influence and change these BSNL towers as IP sites. We should be more vigilant. Such officers are to be exposed and there pension should be stopped as per the prevailing rules.

#### Division:

- IP sites energy bills are to be passed after visiting each site by verifying the correctness of EB reading and Diesel consumption.(Most of the IPs are charging more than the actual)
- IP outage penalty deduction has to be done in the field itself.
- Temporary advance to STR TEAM on need basis is to be given immediately. It is very difficult to maintain the existing system without allotting funds for operational expenditure.

### IN and MSC

#### CHQ:

#### A) VAS content providers must be integrated with the Service Delivery Platform ( SDP ) for hassle free service to the customers:

At present TN BSNL Live, BSNL Streaming services, etc are routed through Service Delivery Platform ( SDP ) but content providers (Onmobile, Apalya, Minimobitv, etc.,) are not routed through SDP.By routing through SDP customer's complaints can be analyzed from a single platform and also some control will be there over the Content providers. Most of the customers are complaining that content services are activated by Content providers without their knowledge in the name of out band dialing. One of the main reason for porting out is cheating subscribers by the content providers. It is tarnishing the brand image also. Since CPs are not integrated with SDP, we are not in a position to analyze the data and

also complaints. Hence VAS content providers must be integrated with the Service Delivery Platform ( SDP ) for hassle free service to the customers.

VAS Deactivation & Activation and Changes shall be taken through CALL CENTRE until the Service Delivery Platform (SDP) is launched in South Zone.

#### **( Note on Service Delivery Platform (SDP) )**

**What is SDP?**

- It is a common platform where all the network elements are integrated
- SDP Provides various bearers for service Access to Subscribers
- SDP Interacts with various Content Providers through Adapters
- SDP is Accessed from the internet by Subscribers/CP'S/ASP

**Why it is required?**

- Existing VAS are independently connected to network elements (prbt, mobile radio, MMS etc.)
- Not possible to analyse status of data on a single platform
- Simplifies the complexity of the network.
- Ease of operation.

**Need for SDP**

- All content providers are connected at a single Platform
- Generation of single MIS report.
- Revenue Sharing and Bills Settlement can be done easily
- Centralized Service Creation
- Operator Control on the Services to end Subscriber )

### **B) Problems faced by subscribers while in International Roaming :**

Our esteemed, international roaming customers are not satisfied with our service due to the cumbersome procedures involved.

#### **How International roaming (IR) implemented in BSNL:**

BSNL implemented IR through Roaming Replicator, Which allows an operator to "piggyback" onto another network's existing roaming relationships. Roaming Replicator is a SS7/MAP node with full SCCP capability

#### **Inbound Roaming**



Roaming Replicator makes the 'Foreign Network' thinks that its subscriber is roaming in 'Partner Network'.

### Outbound Roaming

Roaming Replicator makes the 'Foreign Network' thinks that the 'Partner Network' subscriber is roaming in its network.

BSNL has been using triple IMSI (IMSI of Spice, IMSI of WB LSA and IMSI of home LSA) SIMs for facilitating international out roaming to BSNL subscribers. International Roaming customers have to follow the following procedure through STK to get roaming service in foreign.

### STK (SIM Tool Kit) application for international roaming.

- After landing into foreign country, switch ON the phone and go to Menu.
- Click on Cellone or BSNL Mobile and select Network.
- In the network you will get option of National and International.
- Select International, you will get CellOne and Partner Network.
- Select the option Cellone; you will get a message - "CellOne International Selected".
- Wait for two minutes you will get the Network automatically.
- If it fails, please select the network manually. (By selecting Setting and then Network in your phone).

### Problems with international roaming in piggyback method instead of direct roaming:

- Before leaving to the foreign country, customers have to personally visit our CSCs to change his single IMSI SIM to Triple IMSI SIM.
- Customers have to do the messy exercise of network selection.
- Serious problems of using triple IMSI instead of Single IMSI :

The agreement for 'Roaming Service on revenue sharing arrangement' with M/S Idea Cellular Limited (erstwhile M/S Spice Communications Limited)' was expired on 31-07-2010. At present, only direct bilateral international roaming arrangement exist and West Bengal (INDWB) continues as nodal circle. Hence BSNL customers availing International Roaming Services require only dual IMSI i.e West Bengal LSA like IMSI in addition to IMSI of its home LSA in the SIM. The Spice like IMSI, as available in existing triple IMSI SIMs became in-effective after 31-7-2010. But still our customers are using triple IMSI SIMs hence the international roaming customers getting the following Menu.

Menu Step 1	Step 2	Step 3	Step 4
CELLONE or BSNL MOBILE >>>>	National		
	International	Cellone Network	West Bengal IMSI
		Partner Network	Spice IMSI (Invalid)

**CELLONE or BSNL MOBILE >>>> International>>>>Partner Network >>>>Spice IMSI (Invalid). Most of the time the customer is selecting the invalid partner network IMSI.** Hence the customer is not getting International Roaming. Many customer care centers are not aware of this problem. Our esteemed High ARPU IR customers are very annoyed and slowly porting out to other operators. BSNL CO already issued order vide No 55-14/2008-CMTS (Pt-II) dated 28-07-2010 to procure dual IMSI SIMs, but till date the customers are using Triple IMSI SIMs only.

**What our competitors are doing:**

Our competitors having direct roaming agreement for the international roaming. Hence their customers are very comfortable and feeling like in home, No need to follow any network selection procedure after landing in foreign country. Many of our customer having alternate number with our private competitor hence they are bitterly complaining about **why BSNL only creating so many problems in international roaming.**

**Leading questions to be answered:**

- Why BSNL is not having direct roaming agreement for all circle SIM ranges? If the answer is Signing international roaming agreements for all circle SIM ranges is laborious process, How our competitors are having such agreements?
- Why still we are using Triple IMSI SIM cards instead of Dual IMSI SIM cards though it is evident that it is creating great confusion among the IR customers from 31.7.2010?
- What is the problem in procuring dual IMSI SIM cards?
- Why it was not done even after one year of order vide No 55-14/2008-CMTS (Pt-II) dated 28-07-2010 to procure dual IMSI SIMs?

( Note: Corporate office has intimated that Dual IMSI is available at Telecom Factory, Bombay, but none of the circles submitted indent. But on enquiry Marketing section says that, indent placed but item not received.)

## **B ) Problems in Barring of call forwarding to other operators number:**

Hitherto, Forwarding from BSNLs Mobile number to any other operators mobile number within the LSA is permitted as per BSNL CO order number No. MOB-16/Opn-2006 Dated 04-8-2006. Many BSNL customers are enjoying this facility. We are also getting double revenue for both originating leg and terminating leg. If A and B are BSNL and B forwarded the call to C, Where C is other operator. BSNL is getting revenue for A to B and B to C. Private Operator also getting revenue for B to C call termination.

Now, BSNL CO Decided to restrict call forwarding with in BSNL and within LSA (Including ported in and non ported numbers) vide BSNL CO letter No. MOB- 16 / Operations - 2011 Dated 4<sup>th</sup> July, 2011. If this order is implemented, it will deeply embarrass our esteemed customers and BSNL may also lose the revenue.

### Difficulties in implementation of this order:

It is not possible to prevent the customers from registering call divert to the private operator level in HLR, because in the MNP scenario any level number can be ported to any operator. We can only bar the forwarded call in MSC/GMSC based on LRN (Location Routing Number). This will invite many complaints from dissatisfied customers because customer can able to register call divert to operator but actually call divert will not happen.

### Leading questions

- What is the necessity to the barring of call forwarding to other operators number?
- What are the benefits to the BSNL?

## **C) Under utilization of 4.5 m Huawei - IN installed at Bangalore and Hyderabad:**

Two 4.5 million capacity Huawei IN with new features were installed one at Bangalore and another at Hyderabad long back. Till date re distribution of subscribers was not carried out due to vendor non co-operation. Huge number of capacity with new features are kept idle in these Huawei INs. At the same time other INs in southern states are heavily loaded and creating frequent problems which leads to poor customer satisfaction. This problem is to be addressed to Corporate office and action shall be

taken against the vendor under tender clauses for non co-operation. Re distribution is to be carried out immediately and proper vendor support is to be ensured after re distribution.

#### **D) Low Cost routing of ISD traffic :**

For the past two years the ISD customers are charged in the ringing phase itself. This is only because of our Low Cost Routing policy from our corporate office. So the routes where ever the problem persists it may be changed to a premium route to resolve the issue. By this LCR we have already lost our ISD revenue and also brand image.

#### **E) Discrepancies in LBS ( Location based service / RTMS - Resource Tracking and Management Services ):**

EB wing marketed RTMS service to some elite customer despite the fact that many connectivity issues in the network. Now the customers bitterly complaining about our poor service. Though we are having two SMLC in TN Circle instead of one, we are not in a position to ensure the flawless service. Vendors also not interested to solve the issue because already AT completed for all NEs. At present, it is felt that there is no control over the vendors.

Many VAS services not included in the AT schedule, hence AT not carried out for Services like SDP & LBS.

Why VAS not included in AT schedule? To be investigated by the appropriate level. At present we have integration issue with SMLC and Huawei NEs. Now, the ball is with the Vendor.

#### **SMLC(Serving Mobile Location Center)**

SMLC solution provides the location information to GMLC. SMLC collects the required measurement data from network and makes calculations to give best accurate position value based on enhanced algorithms

#### **GMLC (Gateway Mobile Location Centre)**

GMLC solution enables GSM operators and service providers to request and receive location information from the network to be used in location based services.

#### **LCS ( LoCation Services)**

LCS solution provides privacy management based on subscribers preferences such as by whom, when, where to be located. LCS also has a map engine and digital map to manipulate and display geographically referenced information.

## GSM-VAS RELATED POINTS

### CHQ:

- **STANDARD COMMON SOFTWARE FOR SCRUBBING MOBILE NUMBERS WITH NCPR/PCPR DATA TO BE SUPPLIED BY BSNL:** SMS campaign is found to be very cost effective activity for publicity without incurring any extra expenditure. Similarly, Telemarketing is also being carried out by BSNL on commercial basis. In this connection the scrubbing of mobile numbers with the NCPR / PCPR data is to be done frequently to comply with the TRAI guidelines. Standard and uniform **scrubbing software** across the country should be provided by BSNL since it involves heavy penalty clause as per TRAI.
- As SMS is the only internal source of marketing for the Basic services as well as Value added services. Whenever messages are to be sent to all BSNL customers, the High speed SMSC should be directed to execute it to avoid delay. Other (special lists) SMS campaign may be done by Circle marketing section, for the effective usage of the available sources.

### Circle:

- Now a days customers are asking for bulk sms to a particular city / town. This can be envisaged by using offline server data (to get the customers of the particular city / town). Un utilized servers of closed Ericson IN ( Coimbatore) can be utilized for this purpose.

## Consumer Fixed Access

### CHQ:

#### Rearranging the landline tariff :

#### MARKET STUDY - BFone segment

	BSNL	OTHERS
TARIFF	Lowest in the Industry. Pulse Rate with 180 secs for all Landlines within India, 120 secs for BSNL mobiles within Tamil Nadu& 60 secs to all private mobiles calls through out India	Pulse Rate with 180 secs for Direct Dialling within SDCA, 60 secs within state & 30 secs for all other calls Airtel offers 60 sec pulse STD calls on select plans

<b>ONE INDIA</b>	All the customers are now One India customers	On high end plans above Rs700 per month
<b>VARIOUS TAILOR MADE PLANS</b>	Special, S.Plus, Super, Premium for High end customers.  Sulabh, Economy for Low end users.  Long Time Annual, Biennial & Triennial plans for customers' convenience	Limited Plans only.  Airtel targets High end customers only with minimum rental of 365/month, 495/month and above  Reliance targets Low end customers with prepaid plans
<b>ADDITIONAL FACILITIES</b>	ITC, Sancharnet, CallNow cards, Netone, Call waiting, Call Forwarding, Caller Id and free service numbers access facilities	Limited services only.  No operator has prepaid calling card facility on existing postpaid connection except reliance. Caller Id facility is being charged by Reliance & Tata
<b>BILLING</b>	Transparent Billing with Detailed Call Records if requested by customer. No Hidden charges like Account Leveling charges or Reactivation charges	Only minutes of usage for 95 calls, local calls are given. Account leveling charges are claimed. Reactivation charges are claimed if the faulty telephone was set right

- Various plans are quite confusing.
- Customers feel, it is difficult to choose the best.
- Calling pattern are not uniform continuously for any customer
- Due to the multiplicity of plans BSNL staff & officers themselves are not familiar with the plans, features, advantages and are not in a position to guide the customers

At present the tariff for the landline calls are very high compared to mobile phone tariff. Even though CDMA Tech is spectrum efficient, less SAR value and good coverage etc the public perception is CDMA is inferior to GSM. Similarly the sub do not takes into account the 3 minute per call throughout India but calculates the rate for a call made to his relative / friend's mobile. The landline to landline calls are very minimum. Public feels that the tariff of land line is very high and so nobody uses landline and only keeps for number/sentiment/ office purpose etc that too for incoming purpose only. So in order to make people feel comfortable to speak in land line the tariff has to be rearranged.

( Taking in to consideration of the latest market trends, for Repositioning of fixed line segment, Corprate office has issued instructions on 03-08-2011 to all Circle to forward the suggestions. All suggestions regarding this shall be sent through proper channel to Circle office )

#### STDPT segment

- In spite of high commission, market share and revenue is in declining trend
- Inadequate advertisement and publicity about BSNL STDPTs and its commission structure
- High revenue STDPTs running Call Conference business have migrated to private operators
- Low revenue STDPTs are unable to remit the minimum guarantee amount

#### Suggestions to improve the STDPT operators base and revenue

- Minimum Guarantee amount shall be reduced to 180 per month or at par with residential connections
- High Revenue STDPTs running call conference business shall be provided with higher commission or the slab of 42.5%, 45% & 47.5% shall be reduced to 10000units, 20000 units & 30000 units respectively
- Providing Call conference facility to STDPTs on LL
- Door to door canvassing is essential like pvt operators
- Bundling offer with Coin Box instruments is must.( Now M/s. Navitel introduced)
  
- Provision of NPCs. / BB etc. for mtce. purpose the necessary Jelly filled cable for 10 / 20 / 50 / 100 / 200 pr Jeely filled cable is absolutely necessary for maintenance purpose.
- Poor quality jelly is being supplied with some KITs.
- Modernize landline switch with NGN within 1 year and go for prepaid plans to solve billing, cash collection, O/S dues and TRA accounting issues.

#### Circle:

- Cable fault locator can be purchased at all SSA's for identifying the cable route. There is difficulty in finding the route of the cable in many areas due to road widening, filling of gravel, etc., The Cable locator will easily find the route of cable and can be purchase by floating tender.
- Landline / BB complaint booking through SMS.
- Customers making more number of calls can be offered with UITC card / or free talk time for the mapped mobile indicator as a compliment.
- More BB usage customers can be offered EVDO / Data cards.
- All PSU employees may be given consessional tariff to prevent surrender of LL and BB.

- SMS based FRS system : Fault booking and fault status enquiry by subscriber, fault ordering, fault set right information by TM, after testing fault test report and closing of cases - all to be made through SMS by integrating the CDR FRS system with an SMS server at circle level. This should be coupled with SMS based on duty and off duty system
- Higher level coordination and action with other departments is required to prevent damage to cable system. Since majority of the faults are cable faults separate task force to be earmarked to attend cable faults.
- Pending cable damage claims from private operator's is not being realized. The private operator cable damage claims were previously adjusted in the POI amount. Now it is not possible to adjust the damage claims in the POI amount, since it was challenged by M/s. Reliance. Huge amount is yet to be collected. This issue is to be addressed.
- All Forms should be made uniform through out the circle
- Service request on phone / internet shall be provided.
- Add On services like CallerID, Electronic locking, shall be provided on phonic / internet request from the customer
- Public feels that BSNL is having Poor customer interface. Attitude of staff and executives towards the customers are to be made more friendly and result oriented.
- Inadequate publicity of the advantages of BSNL BFone among the public.
- All orders with respect to implementation of new schemes, tariff rationalization etc in Broad band, UITC etc , are to be intimated well in advance to avoid last minute confusions. Tariff rationalization and new schemes shall be implemented after confirming the technical feasibility.
- In addition to every new plan or tariff rationalization order highlights or glimpse of tariff change / new scheme in comparison with the old order is required. If this is available both in English and Tamil, the correct message will reach up to the grass root level employees.
- Pamphlet model / Flex banner model shall be prepared in English and Tamil by Circle office Marketing wing and printing can be executed at SSA level. This will save man power. Since in SSAs man power is wasted for translation, preparing models etc.

### Division:

- Cable route diagram is to be maintained / prepared at all Exchanges
- All U/G cable pair terminated at the MDF should be tested at both ends. Missing cables should be identified. Action should be taken to find out all missing cables.
- For providing Broadband only good pair should be used. All subscribers cannot be treated as same. Since Broad band connection is yielding higher ARPU priority should be given to BB and high calling subscribers.
- External unit should be a vibrant unit since it is the delivery Point for customer after CSC.
- Since our TMs are the front end employee, they should be motivated to meet the customer often and especially at the time of attending faults. They should create the impression that customers are being cared.
- During his visit the TM can also function as an marketing person and ascertain the customer's requirements if any, and become a lead generator. Some incentive points



can be given if the lead materializes subsequently. The line staff can also be compensated in the form of basic reimbursements. Broadband /BB VAS /data card etc. can be promoted during his visit.

- As already instructed by the Corporate office, each land line connection should be mapped with a mobile number. Top priority is to be given in the field for completing this mapping. In case of fault of LL indicator, the possibility of giving call diversion at free of cost of faulty indicator to the mapped mobile indicator may be explored. The status of fault clearance and monthly billed amount etc. shall be forwarded through SMS.
- Each unit should work for churn management / analysis of 'zero' meter reading cases of VPTs / Telephone Lines and especially BB connections.
- Fault booking of BB / clearance should be closely monitored and should be escalated.
- For all BB customers all BSNL marketing information can be sent through e mail. As per corporate office instruction e mail id of each sub is to be mapped in CDR. Telephone bills can be sent through e mail thus we can save the amount being spent for postage. Field units of SSA's has to complete the job at the earliest.
- A separate task force for clearance of BB fault in urban areas to be formed so that the fault can be rectified within an hour.
- As per corporate office instruction to clear cable fault a separate task force at SDCA H/Q level is to be formed under JTO/SDE.
- Prompt delivery of Telephone bills is to be ensured which causes huge voluntary closures.
- In the field units display boards depicting clearly the contact numbers of staff addressing and attending customer grievance shall be displayed in all offices and Exchange premises.
- Phone mechanics has to perform the jointing work and as per requirement arrangements shall be made for assistance. Supervision slackness should be avoided at all levels.
- Existing cable faults should attend and also recovery of cable can also be done if it is cost-effective.
- Educating the staff & officers about various plans, features and the advantages.
- Motivating the staff & officers for a better customer interface

### CSC / CSR / CCC

#### Circle:

#### A) Tariff rationalization regarding:

- In the recent past, it has become routine practice to issue tariff rationalization orders or new scheme implementation orders at the eleventh hour from corporate office or Circle office. Similarly extension of promotional orders will be intimated at short notice and within an hour or day extension order will be issued. After the announcement of implementation of new schemes, within a day modification orders will be issued due to technical reasons. Officers at other end should know that CSC employees are front end employees and they are the personnel dealing subscriber

directly. They should be given sufficient time to absorb and assimilate the new tariff and schemes. Failure to provide breathing time to CSC staff is creating an impression that BSNL personnel do not know about their own product. There should be perfect interaction by the S&M wing with the CSC / Field personnel. Mere posting the order in the website and instructing the other section personnel will not yield good result. Finally after the intervention of the SSA GMs modifications are taking place. Eg. Sale of GSM FWT under promotional offer case on the day of implementation of seven pages tariff rationalization order.

- Though highlights of tariff changes are sent subsequently, it is requested that this highlights of any tariff change or new scheme should find place along with tariff change orders form circle office. It is preferable to prepare the highlights in the regional language TAMIL also. Then only it will reach all the employees.
- A team may be formed centrally at circle level to prepare the highlights of tariff changes / new scheme. Phrases for marketing in English / Tamil may also be prepared with professional touch. Now each SSA is doing that job by wasting man hour.

#### **B) Sales of Data cards / ADSL modems etc.**

- Now we are selling Data cards / ADSL modems with one year warranty. After one year, if the Data card or ADSL modem goes faulty we are requesting the sub to purchase new one. No after maintenance arrangement for BSNL sold products. This is being criticized adversely by the subscribers and even they are under the impression BSNL is cheating them. They are ready to pay the repair cost. Hence in future the vendors supplying the item should be insisted to have after sales maintenance arrangements in all part of the country.
- 3G data cards rate were drastically reduced to Rs.2000/- for Terracom product. But Visiontek is selling the same data card ( configuration may be higher) for Rs.2499/- . After the intervention of CSC incharges only they have reduced the sale price to Rs.2000 with Tax extra ( App. Rs.2099/-).Still in many SSAs data cards are being sold by Visiontek for Rs.2500/-.).

#### **C) Requirements for the improvement of CSC:**

- Earlier CSC's and franchisees were supplied with UNIFIED SIMs, which can be activated within seconds. Now RECON sims are being supplied . Activations procedure consumes 20 to 30 minutes. Hence procedure for activation of RECON SIMs should be made easy.
- Mobile and WLL bills paid through CDR PMS module. Delay noticed in updation of payments from CDR server to Kenen FX server.
- Availability and sale of SIM cards, RCV's and TOPUP in all CSCs / CCCs / CSRs should be ensured . Still there are CSCs in which only Bill collection alone is being carried out.
- All CSC should be given access to Pay-One FX module for accepting Mobile / WLL bills online. By extending this facility re connection problems will also be solved.
- Tamilnadu Circle with 17 SSAs consisting of 122 SDCAs is catered by only around 200 CSCs and 80 extension counter(s). More number of CSCs is to be opened to

serve/redress our customer grievances. As a first step, the extension counters are to be upgraded to the level of CSCs and sufficient number of CSCs should be opened so that customers should walk-in to the CSCs and get the BSNL Services & complaints redressed.

- ALL CSC / CCC / CSR working hours should be 8 am to 8pm.
- Continued motivational classes to be conducted by SSAs to the staff working CSCs. The staffs working in CSCs are to be provided with all the instructions / guidelines given by Circle / Corporate Level and updated knowledge about all revision / changes made now and then.
- For better performance and to address customer needs properly, CSC / CSR shall be manned by newly recruited TTA's and JTO's in the front end.

#### **D) CSC / CSR ( Resolving GSM related operational issues at CSR )**

Public are in the opinion that, many of our CSRs not handling the technical complaints related to mobiles properly. They have to run from pillar to post for addressing their complaints. In fact almost 95% of the complaint can be resolved in the CSC / CSR by our staff themselves if they know the GSM operational issue. In some places for handling PIN & PUK complaints, they have to depend on some selected personnel. Though most of the personnel are trained by our Training centre faculties, the actual requirement is they should be trained to resolve the complaints related to operational issues which is not dealt in the training session. At this juncture, we can arrange for training on GSM operational issues and complaint handling for our CSR staffs and front line executives by a team of executives who are daily dealing with operational issues at CSRs and MSCs. To avoid expenditure, this team can visit every SSA for imparting training or training can be arranged for selected personnel from each SSA at a common place like Coimbatore. In turn these trained personnel should train other front end personnel of the respective SSA.

#### **Division:**

- Validity of IN Prepaid cards should be checked and extension of validity period shall be carried out well in advance.
- Stock position with validity period should be known to the concerned Incharge.
- It is the primary duty of each and ever front end personnel to familiarize with the products, up to date tariff, product comparison with private operator, availability of products etc. Since they are the front end personnel representing BSNL, it is their prime responsibility to acquaint them selves with up to date information.

#### **CDR**

#### **Circle:**

- All CDR related issues are to be given top priority. Due to CDR Problems we are gradually loosing our revenue in all SSAs.

- Bills are not issued for all working connections in CDR. Bill generation and delivery of all working connections should be ensured.
- While implementing CDR all "BNP-DISC" category LL numbers are not properly transferred. They have been shown as working connections in CDR.
- To provide Unlimited Business Bandwidth ie. 850, 1350 in P2 DSLAM, modifications are to be done in CDR.
- For Multi exchange shifts CDR raises the Deposit to the Customer, This problem needs to be resolved.
- Interlinking of CDR with COMVARSE software is essential especially for dealing Technically not Feasible LL Shift cases. For providing the shift through WLL, new Deposit amount is to be raised in COMVARSE Software, as the connection is treated as new one. Because of this feature, BSNL loses Rural Compensation too as the compensation is eligible only for those connections working prior to 1-10-2000.

### BB related issues in CDR:

- Port binding or modification done on p3 portal is not getting modified in CDR.
- CDR IS NOT HAVING MODIFIED PORT BINDING DATA
- Size of the file >= 1024 bytes are taken into account for calculation in CDR. The lesser bytes are not taken into calculation. It causes loss of revenue in CDR
- CDR BB INVOKE ERROR Problem for shifting cases
- CDR usage portal <http://selfcare.sdc.bsnl.co.in> is to be made free from accounting.
- BB SMS usage intimation is not proper

### Divisions:

Service Tax is now being levied for ABF ( Amount billed for ) and not for the amount realized. Hence utmost care is required in the front end while entering data at the time of providing NPC.

### Broadband, Leased Line etc.

#### Corporate office:

- Purchase of new 64 Port DSLAM ( Under NG BB project ) can be avoided, since plenty of 64 port and mini DSLAMs are already working in the filed. When higher capacity DSLAMs are supplied and installed, these available mini DSNAMs can be reused for small areas. This avoids scrapping of available mini equipments. This will help to equip single DSLAM in a site, minimizing requirement of OFC fibres.
- There is no compatibility between DSLAM equipments purchased. Broadband equipment cards purchased in Multiply Project is not compatible for use in equipments purchased in 3 Million Project. The cards purchased under 3 Million Project will not be compatible for the equipments we are going to purchase in the future projects. There is no compatibility even among the vendors who supply the same capacity of equipment in the same purchase order. Hence DSLAMS are to be procured from a single vendor

so that a unique maintenance procedure can be adopted and control of vendor will also be made easy.

- Equipments already purchased in the 3 Million project, racks are having spare position and by simply adding cards we can increase the capacity of Broadband without any extra infrastructure requirement ( Space, ip address , SFT module, OFC medium, port at the Tier 2 switches).
- More than 60% capacity can be added by purchasing cards alone and utilizing in spare position in 3 Million Project DSLAMs.
- 960 port equipment supplied by the vender is not actually 960 port. Only 2 nos of 480 ports are mounted in one frame, and both equipments needs separate connectivity to Tier II switches wasting our transmission resources ie. Fibres and Tier II ports.
- Broadband modems are purchased from different vendors with different make and model. Broadband modems supplied by vendors are not identical. If modems supplied are identical, replacement and maintenance will be easy. Configuring the modems by explaining the subscriber over phone will be also easy.
- Most of the time, the broadband modems are going out of order due to the power adapters fault only. After the one year warranty period, the customers are now insisted by BSNL to purchase a new modem at a cost of either Rs 1100/- or Rs 1900 /- according to the requirement of TYPE of modem. For an adapter failure the sub is forced to purchase new modem. Subscriber is ready to bear repair cost or cost of adapter. Availability of adapters for replacement can be made at BSNL customer care since the adapters are not available in the market.
- Assured speed is not getting in broadband when connected through international gateway.
- Purchase of software from IT companies can be avoided, since BSNL itself is having more qualified Engineers. Hence they are to be deployed for software development and R & D.
- Maintenance of other company networking ( Both in India and abroad ) has to be explored by DNW New Delhi to increase the revenue. Wipro, TCS, Cognizant are presently doing.
- Inventory Control Management software is to be incorporated with ERP like HR Package is to be introduced so that unutilized stores available in one circle / SSA can be diverted to other circle / SSA.
- ERP package to be implemented effectively in all circles as soon as possible so that inventory control can be monitored.
- To retain the ILL customers and new customers, decentralization of sanctioning power up to Rs. 5 Lakhs to be given to the Head of the SSAs and up to Rs 10 Lakhs to the head of the Circle.
- Traffic decenarlisation power has to be given to CGM circle.
- We are paying heavily to private operators viz TATA, BHARTI AIRTEL, RELIANCE for owning the backbone IP gateway Bandwidth. To avoid this we have to enter into ILD operations by owning a separate Core BANDWIDTH for International Operations. This is very important. Because these private operators are giving more competition at SSA level for getting ILL customers and one side we succeed them in getting ILL

customers for lower tariff but the other side 2/3 of the amount we are spending to these private operators in getting International BW.

- LOW Speed Problems in ILL and BB customers are faced by all Circles and SSAs.
- It is need of the hour to augment the international Gateways to survive in the competitive field because broadband is having high ARPU.
- IPv6 is to be implemented in BSNL. Hence the procurement of BB CPEs and other network elements are to be checked for IPv6 compatibility.
- Customers are not able to update their CPEs firmware from the vendor sites. Hence actions are to be taken to host all firmware, patches, user manual of all models in our web site [www.bsnl.co.in](http://www.bsnl.co.in)
- Moreover, customers are accustomed to check the speed test from [www.speedtest.net](http://www.speedtest.net). Hence BSNL has to host a speed test in [www.speedtest.net](http://www.speedtest.net) for our BSNL customers. And also to host speed test in our website [www.bsnl.co.in](http://www.bsnl.co.in) like airtel has done.
- USO Fund Exchanges are to be increased in all circles.
- GoD (Games on Demand service) and Hungamma service unde BB VAS is to be controlled immediately. Since they are renewing the customers without their knowledge and also without their confirmation. This is adversely affecting the face value of BSNL and customers are coming for refund of Rs. 200 only after a bi monthly bill interval. But we are not in a position to refund them.
- Revenue sharing of all VPN Circuits Point to Point and MPLS VPN Circuits are to be shared between all circles and concerned SSA's irrespective of billing at the A end Stations.
- Turnkey projects are to be avoided and revenue sharing of equipments ( Managed capacity model ) to be adopted like private vendors. i.e Vendor will install and maintain and we will provide the service. Revenue sharing may be adopted. Because of this we can save expenditures in incurring AMC of the equipment and one time investment in procuring the same. This has to be given priority since all electronic equipments have no depreciation value.
- BB Fault escalation mechanism is to be streamlined in all circles.
- AMC of all the vendors are to be clearly well defined and preventive maintenance of the DSLAMS are to be done by all vendors in all circles.
- The category of Business class and Home class are to be removed.
- At present, no Unlimited plans in P-2 DSLAM except home 625 & H750. Business establishments in rural areas cannot have U/L plans. Hence new U/L plans for business class should be launched or else Plan 850, 1350 the bandwidth should be made available for rural business class without differential bandwidth (higher speed up to certain GB and lower speed beyond that).
- Prepaid Broad band is consuming exclusive ports. At present there is no mechanism to check whether a Prepaid BB Customer keeps his account active or not. Hence one port is reserved and kept idle for non active prepaid BB customer. A way has to be found out to de activate the idle prepaid BB customer's port after optimum cooling period. So that DSLAM ports can be utilized judiciously. Within some validity period if the sub is not recharging, some mechanism should be provided to disconnect that port.
- Unable to provide additional static IPs on charge basis to customers with low end plans. Technical modification to provide additional static IPs to customers.

- Too many plans that makes it difficult for the customers to choose the appropriate.
- Uploading can be increased to 1 Mbps.
- Static IP is also to be offered free of charge to high end plans
- Competitors are offering plans similar to BSNL BB as a dedicated leased line with fibre as last mile connectivity. Hence we shall also provide BB unlimited plans on copper or fibre or RF which will be at 50% rate of our competitor.
- Empanelled vendors are essential with rate lists approved by circle or corporate office.
- MPLS VPN is being given by Tulip & Tata. Modems and hard wares of low end routers are also being supplied by them, we in BSNL should also arrange for supplying hardware. Their rates are irrespective of distance while providing leased lines. More PE routers, QMH cards, MLLN modems are required to put through the circuit.
- Local lead charges & channel rent are to be waived off permanently. Now case by case approval is being got.
- Regarding ECT approval. Now it is approved by Corporate office comparing private operators tariff. If possible powers can be de centralized at Circle level.
- In Long duration payment BB scheme, Option should be there for changing this option before the validity of commitment period or for changing to some other plan within commitment period.
- A software MOTIVE, for dealing TR59 and TR69 complaints should be discontinued. As this will definitely save money to BSNL. This "MOTIVE will not support Window7, Vista, MAC, Linux and other platforms and majority of the sub cannot use it. Also time taken by it to restore is enormous .This causes additional work to the staff dealing BB complaints. It is learnt that we are paying Rs. 1000 per connection per year. Previously in DOTSOFT we have to activate manually but in CDR, MOTIVE is activated irrespective of which operating system the sub is having in PC. Tremendous pressure is applied by the Corporate office to implement this application.
- Wimax can be provided in technically not feasible areas, but the customer feels that modem cost is very high. Some solution is required to solve this issue.
- An important factor to be taken is " IPV6 " plat form. It is reported that DSLAMs supplied by HUAWEI ,etc will not support IPV6 implementation and UTSTAR will support after up gradation. ZTE is yet to respond to the call. Also some of the routers in BNG also does not handle IPV6 request. These problems need to be addressed in time.
- Another point of concern to be emphasized is the quality of the CPEs supplied recently by new vendors like Syrmatech, Teracom etc. These CPEs have compatibility issues with some DSLAMs of P2.2 project. Also adapters supplied are of low quality. This leads to poor quality of service and also annoys the customers.
- MPLS nodes should be installed in all the LDCAs. This will be economical and reduce the OPEX as BB,ILL,WIMAX and now 3G are to be connected to this Broadband IP network. Also QOS will be good, if International Gateway is augmented.
- Procurement of MPLS-VPN / Leased line modem has to be stream lined so as to avoid delay in providing the Data circuit.

## Circle :

- The connectivity given from Nagercoil Tier 1 to BNG of Tirunelveli is 1GB Ethernet port. In Nagercoil Tier1, many ILL circuits for colleges and various organisations, IP Tax, DSLAM's, 1 Gpbs connection for NI University are connected and in future all the 3G BTS (NodeB) and also the leased line circuits are to be connected. Now the speed of the NI University 1Gpbs connection is getting only 14 Mbps in the Nagercoil Node and also the ILL circuits are of very low speed than their actual capacity.(eg. 2 Mbps ILL is getting a speed of only max of 1 Mbps only). This makes hardship in satisfying the existing ILL customers and also bringing new ILL customers. This can be solved by increasing the bandwidth from NGC Tier1 to TVL BNG
- OFC feasibility for 1 Gpbs connection for 14 Colleges in K.K District were submitted already. Each 1 Gpbs connection will fetch 2 Crore revenue for BSNL. For this type of connection only 25 % (approx. 50 lakhs for 10 yrs. Connectivity) is to be paid by the Institution and the remaining by MHRD. Only one 1 Gpbs connection for NI University provided. Further many institutions are asking this type of connectivity. With the infra available at the end node i.e in SSA's it is possible to provide 1Gpbs connection. To promote this type of big revenue areas action can be taken. Also last week order was released from Circle Office for providing LAN connectivity for this 1Gpbs connection. These also fetch huge revenue for BSNL if these types of connections are provided.
- VPN over BB request was given by many Engineering Colleges for their students. This will also bring lump sum of revenue if provided to all the students of that College at their residence. The College will market and collect the amount from the students and they will pay to BSNL. This is a potential area for revenue increase. For this sufficient DSLAM ports are not available.
- Steps should be taken to remove all the converters working for DSLAM and direct Ethernet connectivity can be provided wherever MADM rings are available and this will increase the connectivity speed of the customers and thereby the quality of service can be increased and due to ring connectivity of MADM uninterrupted service can be given to users.
- MLLN modems are not available. VPNoBB is recommended instead of MLLN. But sub is insisting for MLLN connections only.
- All the P3 ports supplied in the 3 Million project have been provided with splitters at MDF. No spare splitters supplied for maintenance. Since the splitters are imported item and also not available in the open market several ports are kept idle. Spare MDF splitters should be arranged for maintenance purpose.
- One DNS server is to be installed in Madurai to cope up the DNS problem in southern region. Southern region of Tamilnadu is having more than 1000 nos of ILL customers and more than 50,000 BB customers.
- Differential Tariffs in BB plans are to be removed. A unique plan is to be introduced like AirTel Rs 1200 speed up to 2 Mbps ULD. We can also introduce a student BB tariff in TN speed upto 1 Mbps with 4 GB Uplad / Download limit and after that 0.10 paise charging / MB. Minimum rent of Rs. 300 with a free LL can be fixed. Since lakhs of laptops are to be issued by TN Govt. to students at free of cost, EB



cell shall make a move with TN Govt. to provide free laptop with Broadband at affordable rate for student community.

- It is mandatory to utilize our staff in the New Tech. installation of all NIB electronic equipment as we adopted during Electronic Exchanges installation previously. All the staff are to be trained for this. Knowledge based portal is to be hosted by all vendors by BSNL with Member Login.
- DSLAMS can be installed at the BTS site.
- Type II modems ( Wireless) scarcity is there.
- One MPLS PE Router is to be installed at Tirunelveli to reduce the traffic at Madurai MPLS Node and to provide spare E1 ports for Madurai.
- NGC,TTN,TVL SSAs BB & MPLS VPN traffic may be routed to the newly installed Router at Tirunelveli.
- ILL customers can be given connection from the Customer's nearest DSLAMs or OCLANs. Hence ILL customers connected on MPLS VPN Router may be diverted to OCLANs to make that E1 ports available for VPN circuits.
- Gateway Port utilization report, contacts list, and other reports may be hosted in Dashboard site
- FTP Server may be installed in MPLS NOC to facilitate the speed test measurement for ILL customers
- All sorts of reports like RPR Levels, DSLAM loading is to be put up in intranet. bsnl.co.in server
- EMS client shall be given some rights.
- Rural DSLAMs of higher capacity can be replaced with lower capacity which can be re-deployed at urban areas to meet the demand.
- We are having Exchanges within every 9 or 10 KM throughout the country. Connections can be given to any customer by building up BB service on RF for high end Business plans not less than BB 4999 with annual payment option & commitment. BB modem will be at our MDF. Output will be build up on RF to customer where he will have a mast & receive the data. For uninterrupted continuous service ADSL modem is to be provided with 230 V inverter supply or 0.5 KVA standalone UPS supplied by the customer
- Adequate supply of GSM data cards with national roaming directly by BSNL & not through visiontek like companies
- Continuation of the present free netone offer.
- Automatic testing every 15 minutes of all DSALMs and fault reporting to the concerned In charges of the DSLAMS through SMS by installing a server at circle level / SSA level.
- Bringing all the exchanges under Ring and centralized monitoring the Ring system at SSA HQ.
- At present multi vendor procurement of DSLAMs is being done. This causes lot of inconveniences at the time of relocation for expansion. Hence DSLAMs of a particular vendor alone be allotted to one SSA which can resolve the issues of cascading.
- DSLAMs supplied under 3M project houses exchange side splitters at the MDF point. Till recent time faulty splitters were duly replaced by the vendors but now vendors are not replacing faulty ones. They are reporting that splitters are consumables and not covered under warranty/AMC .This is to be addressed.

- Problem caused by overload of DNS makes lot of inconvenience to the customers.
- Annual bills for renewal of ILL should be checked for payments
- Every month NMEICT connections are being disconnected for non payment, even though annual payment collected by BSNL.
- Provision of BB KIOSKs under USOF scheme will earn Rs. 20,000 per quarter. This area is to be concentrated more. But the BB KIOSK subscriber feels that the charge per hour is less and this is a non profitable business.

#### Leased Line:

- MLLN V.35 modems are required for Kumbakonam SSA. V.35 modem is essentially required to provide Leased Circuits with Higher Band width of 2 Mbps. At present requirement of KMB SSA is 5 Nos. Available ten numbers of STU-160 MLLN Modem cannot be used in KMB SSA due to non-compatibility with the existing MLLN Node. Hence, this STU-160 Modems 10 Nos can be diverted to needy SSAs and in turn KMB SSA may be given 5 Nos. V.35 MLLN Modem.

#### Problems faced by Hosur Transmission wing for the provision of Leased Line Circuits:

- Hosur is one of the important Industrial towns and more Potentials for Leased Line MLLN circuits and Broadbands
- At present more MPLS and ILL Circuits with Higher Bandwidths are kept pending. At Hosur no MLLN ports are available .MLLN DXC or MLLN Node have to be installed to clear the Advice Notes
- More MLLN Circuits are kept pending due to want of MLLN TELAB Modems Customers are not ready to arrange modem on their own cost
- Since more work orders for provision of MPLS VPN-ILL are being generated every day for Hosur, for easy and quick provisions , One or Two STM -I port from PE router of Salem MPLS VPN to Hosur Transmissions is to be allotted. Already the proposal in this respect has been sent to the Circle office.
- Since Hosur SDCA is having more than 6000 Broadband customers with Higher bandwidths, IPR Tier -I Switch may be installed at Hosur (IPR Tier-I is kept idle at Dharmapuri) At present OCLAN Switch is available which is connected with BNG at Salem
- For Redundancy purpose alternative route from Broadband OCLAN Switch at Hosur may be designed. Already proper approval have been issued for alternate route but not yet been implemented.
- M/s Ashok Leyland company at Hosur has applied for 100 Mbps ( Chennai- Hosur), 20 Mbps for MPLS , another 20 Mbps Point to point leased line circuits . Proper equipment may allotted for Hosur Transmission.

## **Division:**

- All leased line circuits are to be checked for proper realization of bills. Especially for NMECIT projects it is to be checked.
- Broadband KIOSK is to be provided. Working Browsing centers may also be converted as Broadband KOISK centers.
- Ensure realization of payment for all BB plans.
- It is necessary to enhance the employee's potential in the field of Broad band and NIB.
- <http://smsnoc.bsnl.co.in> url is hosted by DNW Bangalore. All Node in charges are requested to register their phone numbers and concerned DSLM in charge Nos and IP addresses of the DSLAMs.
- P2 DSLAMS can be converted into P3 Multiply Network wherever we are unable to provide ULD BB plans in P2.
- P2 accounts can now be deleted. Options are available in Itellian server.
- Time delay in attending fault should be reduced since BB connections are earning more ARPU. We have to concentrate on Land line, Broadband and leased lines which are yielding high ARPU.
- Rural Broadband connections working in rural areas should be converted to USO plans
- Applications of BB, like running SAP, ERP, CCTV, Webcasting, IP surveillance are to be made familiar for staff and also among common public.
- Prepaid CUG connections can be promoted in institutions and Organizations.
- Special drive can be done for promoting services like web hosting, Wi-Fi Connectivity, VPN over BB for institutions/ students. When compared to private agencies web hosting charges are very high for higher web space.
- In colleges for NMICET projects where already OF connectivity is available for leased lines instead of providing direct connections from exchange install a DSLAM of 8/16 port and extend the connections from there.
- Long duration payment BB scheme should be given importance and it can be promoted since this plan is yielding 28% interest. Option should be there for changing this option before the validity of commitment period or for changing to some other plan within commitment period.
- After BB disconnection spare jumpers shall be removed periodically. Working BB connection is to be reckoned on regular basis. Spare ports are to be identified by In charges and intimated to CSCs and other sales wing on regular basis.
- Broadband disconnection is on of the important aspect, which needs to be addressed. Reasons for which almost leads to poor maintenance of last mile copper leads, Faulty CPE etc. Customer is expecting quality service.

## **BUSINESS PROMOTION & MARKETING ( BP&ME ) ACTIVITIES:**

### **CHQ:**

- The fund under BPME was drastically reduced during the month of September 2010. All Marketing Advertising / Campaign activities have come to a stand-still. The presence of our BSNL was not felt due to **"No Marketing Activity"** during the **last 10 months**. For the financial year 2011-12 only around 4.23 Crs have been allotted to TN Circle against the budget projection of Rs.16 Crs. With this 25% of the projected funds no ATL (Above the Line) activities viz. release of print/electronic media advertisements, hoardings etc. could be carried out for publicity. Only BTL (Below the Line) activities like distribution of pamphlets, hand bills etc. are being carried out to publicize our products/services. Sufficient funds shall be provided for BP&M activities and the financial restrictions are to be analyzed and it should be in a realistic manner to meet out the cut throat competition faced in the market with other operators.

### **Circle:**

- The BSNL outlets and other distribution channels like Franchisees/ retailers/ DSAs etc are not being supplied with sufficient information through pamphlets, brochures, posters etc as is being done by competitors. Due to the prevailing financial hurdle printing and supply of POP materials is not being arranged by Marketing Units of SSAs / Circle.

## **Call centre**

### **Circle:**

At present Mobile Call Centre at Chennai caters to the need of mobile subscribers' complaints & enquiries through 1503. It is felt that all subscribers that the service offered at Call Centre is very poor. The present outsourced call centre employs personnel with qualification only 10<sup>th</sup> STD or Plus-2. Because of lack of knowledge and experience, satisfactory service is not being provided by the Call Centre.

We may segregate the call centre services as Enquiries and Complaints allotting 2 different numbers i.e. 1503 for enquiry and some other 4 digit number for complaints. We may be able to provide better service to the subscribers with well experienced staff through CSCs and through SSA-/Circle Nodal Units. The complaints calls pertaining to an area on dialing 1503 may be routed to CSC of that area. One CSC may be earmarked for handling complaint in each SSA. For enquiries the common IVRS at one of MSCs may be commissioned and the information may be

updated periodically by using the services of our Staff. In this arrangement, we may require routing arrangement on technical side and posting of experienced and courteous staff on administrative side.

## **Enterprises Business**

### **Circle:**

#### **Single Point Of Contact:**

- Corporate customers expect this type of support for their networks/services taken from BSNL.
- They are very bitter to talk / coordinate with different persons of BSNL.
- They complain that they are made to run from "Pillar to Post" to resolve any performance issue.
- This is one major area where our competitors are doing well.
- This gives the comfort feeling to the EB customer that anything in BSNL will be taken care by this "SPC"

### **Division:**

#### **Service Assurance:**

- It is easy to get the business even by competing with other Service providers but difficult to maintain the business.
- The long down time especially in the leased line / MPLS / Internet leased line circuits leads to the customer's dissatisfaction.
- Special task force may be formed at SSA's level to bring down the down time to attend the faults in the late hours / night hours like other SPs.

### **PRI connectivity through GSM:**

- PRI connectivity can be given through GSM also EB wing of SSA may be asked to use it and generate revenue
- Periodical verification of bill payments and renewal of leased circuits and hot lines to be done.
- Leased line tariff should be at par with other operators to provide 1Mbps / 2Mbps.

### **( What we need to do?)**

- **Learn About BSNL Services & Offers of BSNL.**
- **Educate the Officers concerned.** (*Commercial Officers, Account Officers, Data Group, Marketing & EB, and Sales EAM*)
- **Educate The Customers with your services.**
- **Make them thirst to consume More Data**
- **Identify the potential customers**
- **Assess the requirements**
- **Work out the Solutions & proposals.**
- **Provide Service wise SOLUTIONS if not Total Solutions.**
- **Take care of the Customers. (Meeting them frequently, Informing the status of circuits, Updating them with the latest in BSNL).**

- Identify the requirements of the customers.
- Work out the solution.
- Know about the prevailing competitive scenario.
- Tell the +S, Premiums of BSNL.
- Start with Technical Discussion and Close the deal with commercials.
- Business Nothing But Relationship
- You make the impact of BSNL and You on Customer
- You are the face of BSNL from the customer's view.

#### What we should not do?

- **Don't count your business by Discounts**
- **Pricing alone is not the winning factor**
- **Special Pricing is always extended based on the customer's profile and the volume of the business. Don't share the special pricing of the one customer to another.**
- **Don't give up at any stage till the realization of the business.**
- **The efforts and hard work are the same for both winning and losing the business.**

#### Please remember:

- Let us have positive mindset of our services.
- Our services are premium services and our rates are competitive.

- QoS and other service level attributes are key factors for the decision making from the customer's point of view.
- APPLE to APPLE Comparison - Industry Trend )

## TO IMPROVE USO REVENUE

### Division:

- Ten MCUs free per month per VPT can be best utilized by SSAs, by making wide publicity of this 10 free calls concept to all VPT custodians and ensure at least one call is made per VPT per month, and ascertain the meter reading every month and thus per Quarter to claim full/maximum subsidy without any loss.
- DNP VPTs >3months should be restored by relocation. Outstanding dues should be collected at least in easy installments from custodians without fail.
- Post paid CDMA VPTs should be converted to prepaid CDMA VPTs and thereby no data, ZMR ( Zero meter reading ), DNP etc are avoided and 100% functionality of VPT shall be ensured by field staff by frequent visits. ARPU of VPT also can be increased as targeted by Corporate Office and subsidy also can also be assured for these VPTs.
- New VPTs provided as per New VPT agreement and census 2001 should be maintained very scrupulously, because Rs.25,000/- FLS ( front loaded subsidy ) we have received per VPT and Rs.790/- EAS (Equated Annual Subsidy) per VPT should be ascertained /assured by SSAs. (Eligible for 5 Years from Date of Installation). All New VPTs should be moved to commercial location (even in less than 100 population villages ) as far as possible ultimately, to maintain agreement conditions and functioning of SPV panel to WLL VPTs should be monitored carefully since we have received Rs.6,250/- per SPV per WLL VPT (included in Front loaded subsidy).
- Among New VPTs, DSPT VPTs working in Salem SSA and Dharmapuri SSA should be carefully maintained for another 5 years from the date Of Installation, since we have claimed Rs.1 Lakh FLS (Front Loaded subsidy) per DSPT VPT. Total 2 Lakhs received this year (EAS Rs.2,735 per Quarterly for 5 years).
- For all VPTs USO Compensation is to be claimed. No VPT is to be left with Zero meter reading.
- Regarding Rural Broad Band provision the target was fixed by Corporate Office this year, for connection, Nova Pcs and kiosk provision. All SSAs should try to achieve the target in full so that maximum subsidy component can be achieved in full on respect of Rural Broad Band agreement. For a connection, we get (4500 FIs +850 modem) Rs.5350/- on provision and maintenance subsidy of Rs.200/- approximately per Quarter for 2 years from Date Of Installation,. For one kiosk we get Rs.20,000/- equated quarterly subsidy per Quarter and we continue to receive for 3 years from Date of Installation for maintaining. Kiosk should be kept opened between 0800 AM to 0400 PM and wherever provided in Rural Exchanges, leakage of revenue should be avoided and monitored closely by viewing CDR billing every month. Nova PCs closure should be intimated to vendor every month by BSNL local authorities and Pcs

should be recovered from closure connections and provided to NPCs every month since PCs are claimed on net addition basis. Otherwise vender has to lose the amount already claimed, for closure connections with Pcs.' Corporate Office also should Co-operate and coordinate regarding the issues/clarification raised by Circle and in clearing the dues/claim from DOT Cell in coordination with USOF (A) for quick settlement of subsidy claimed by circle.

- 100% USO fund realization is to be ensured in each Rural DSLAM site. Each working connection is to be converted in such a way that no working BB connection is exempted from USO fund claim.

## Regulation wing - To curb leakage of revenue

### Division:

#### I. IOBAS migration to CDR Platform

- Attend the IOBAS TIME GAPS which is issued twice in a month in IOBAS Web Portal (22<sup>nd</sup> and 3<sup>rd</sup>) by POI -in-charges without fail. Non verification of IOBAS time gaps will lead to loss of revenue to BSNL and **delay in raising INVOICES by Data Centre, Hydrebad.**
- Run the CDRAS Software on 2<sup>nd</sup> of every month and enter the Call Count / MOU in 'MOU details' of CDR Portal on the same day itself.
- Compare the Pre-Estimate invoices issued by IOBAS with CDRAS output every month. Any discrepancy should be brought to the notice of IOBAS wing to avoid supplementary invoices.
- The final Invoice of all OLOs should verified with previous month invoice and any short fall must analysed to arrest revenue leakage.
- Two certificates in respect of attending the IOBAS TIME GAPS and Running of CDRAS should reach DGM (Regulation) office on 5<sup>th</sup> of every month.
- The TGP particulars of OLO (both I/C & O/G) available at IOBAS web portal should be verified to avoid revenue leakage.

#### II. Port and Infra charges

The details of Port availability of OLOs with DOC/DOS is required for updating and for raising the Annual Rental Claim. In most of the SSAs there was short billing by clubbing of Ports taken by the Pvt. Oprs. This should be verified and if any detected, the same may be billed immediately and recovered under intimation to Regulation wing to avoid loss in revenue.

#### III. Equipment details and Duct Sharing by OLOs

- In most of the field, the actual consumption is reported as the rated power supply and also claim raised only for this. Charges are different based on Amps. Upto



10Amps -Single: 10>20Amps it is doubled; the charges are to be claimed for maximum capacity of the equipment. The same has to be verified and any short billed , n/a action should take to raise and recover the Miscellaneous Charges for the maximum capacity of the equipment.

- The equipment details of OLOs ,Duct sharing for both active and passive links, No. Of Bays used in the System, and Leased Line details are to verified and updated for raising the annual rental claims to avoid any loss to BSNL .

#### **IV. Cable damages caused by Private Operators.**

- In most of the cases, where the BSNL cables were damaged by the Contractors of the OLOs the cable damages claim were raised, acceptance certificate from the contractor had not received. There was a dispute in number of cuts. For a single cut of OF cable, the claim is RS.1,50,000. **Hence, the certificate from the Contractor is very much essential and the same must be received on the occurrence itself.**

#### **V. POSTING OF SDEs (Nodal Officers) EXCLUSIVELY FOR NC / IOBAS ACTIVITIES.**

**One SDE may be posted at each SSA Heads exclusively to Co-ordinate with POI-in Charges and TR Wing to Co-ordinate the above activities thereby to avoid revenue leakage and at the same time to realize the revenue in time.**

- VI. Signalling Charges which has raised against OLOs. The case is under subjudice. Since the outstanding amount is very huge, action may be taken at corporate office level to speed up the cases .
- VII. UASLs are using our expensive CCS7 resources for SMS services. For this claims are yet to be raised.

#### **Billing and Collection :**

- **Monthly / Bimonthly bills may be served in the first week of every month in order to improve the collection efficiency.**
- **Before pay date and also after pay by date BSNL personnel should contact subscriber over phone and remind about the pending bill.**
- **Section TM should be empowered to collect bill amount.**
- **Repetitive trials will improve collection efficiency.**
- **Separate Reconnection Melas can be conducted in each exchange area.**
- **Billing problems in Video on Demand services. Facility is provided by default to Broad Band customers. Procedure for canceling this service by customers is very cumbersome.**
- **ATD for leased ccts to be raised without fail for all ccts.**
- **In each SDCA head quarters one JAO or AO shall be posted to settle the customer billing complaints . Accounts officers shall be posted in Level 1 CSCs to settle the WLL Billing (CDMA) problems.**

- Action should be taken to collect the outstanding dues instead of simply waiving off by HPC to achieve the target.

## Training Centre

### Circle:

- Point of Sales to be opened at training center also.
- JTO Phase II training can be modified like up gradation training.
- Training center can be utilized for Market survey, Data analysis and churn management.
- Free SIM card to IPT/Project students ( Being supplied at SSAs for Eng. College Students attending BSNL One week training programme ).
- Various computer courses (Morning / Evening / Weekend classes) may be conducted to Public / School / College students Vigorous marketing for In-Plant Training, Industrial training, Project work etc., to College students.
- High profile oriented courses like OF Cable, Mobile Communication, RF optimization courses may be introduced.
- More Field Training Program / Webminar shall be conducted for marketing and sales activities.
- Trainings and Webinars are not sufficient for practical working. Work shop have to be conducted periodically at Divisional / Sub divisional level. In the workshop, all the staff from the lowest level to highest level shall be be made aware of BB, FWT, FWP, Maintenance of Cable N/W etc. Importance can be given to Cable faults maintenance ( preventive / Corrective ), Handling of all type of measurement meters, Utilisation of Cable fault / route locators to avoid trial and error method, prudential utilization of available resources, etc in that workshop. More workshop shall be conducted for field problems.
- Summer Training for Engineering students, Special courses for college going students shall be given wide publicity by Circle and also by SSAs.

### Training centre:

- Power off the model exchanges and AC units whenever there is no training programme.
- Publishing eNews letter for various technologies.

## Online service payment ( E-payment ) :

### Circle:

- At present on line payment is available for subscribers having internet banking. Bill payment through credit / debit cards in online payment facility is required. Like TNEB e-receipt should be issued for subscribers paying money using on line.

- Arrangements is to be made for On line payment of all types of bills pertaining to Enterprise Business to avoid delay.

## Scrapping of un serviceable stores

### Division:

Scrapping of unserviceable stores shall be done in a war footing manner. Separate special drive team should be formed at each SSA level and the task is to be completed within 3 months.

## CFA-NWOP

### Circle:

- Frequent failure of GSM Net work Elements (NEs) due to the poor planning of transmission media connectivity: GSM Net work Elements (NE) like MGWs ( Media Gate ways ) are connected to the core N/W via active and standby connectivity. But it seems that in some cases both active and standby connection is extended through the same route and same equipment, which leads to total blackout during transmission failures. Transmission media connectivity route audit shall be done to settle this problem.
- Supply of OTDR, Splicing Machine, Optical Power Meter, 2Mb/s Tester to each SDCA HQ for attending of OF cable / OF System fault and supply of vehicle is required at SDCA level. This will minimize the duration of fault and un necessary shunting between SSA H/Q to SDCA H/Q.
- It is observed that there is short supply of OF Cables. But lot of PLB pipes is laid along roads and are now idle. In Nagercoil SSA itself more than 60 KM pipe laid and waiting for OF Cable allotment. But still Circle is giving PLB pipes for laying and they are not giving Cables. Recently 32 KM of PLB pipes are allotted to NGC SSA and asked to lay the pipes without giving Cables. Laying of 1KM of PLB pipe makes an expenditure of approx 1.5 Lakhs. Without giving Cable why the PLB laying was done. This should be stopped or sufficient OF Cable is to be supplied.
- There is a shortage of VMUX ports for providing leased line circuits. So procurement of VMUX equipments is necessary.
- DOT time standard for allotting fibers to Circle wing is to be changed. 90% of dark fibers should be utilized for revenue generation.
- For all OF Systems, purchase orders issued as a package (eg.) ADM CPEs with equipment racks and sub racks. As most of the systems are installed at O/D BTS sites or in Exchanges where the space is available in working bays, the racks supplied with equipment are kept idle by the side of Staircases.
- Proper utilization of supplied MADM equipments is to be ensured to convert capital into assets in time. The equipments supplied for NMECIT projects are kept idle for a long time.
- There is no co ordination with SSA, STR and STP in allotting fibre and laying cable. At several places where dark fibre is available with STR, SSA or STP is laying cable. In

some other places SSa and STP are laying cable in the same route. Thus huge amount of money is wasted just due to lack of co-ordination.

- NH, PWD, SH is asking Track rent for the Cables. This should be dealt at higher level and payment of Track rent should be avoided. Also NH authorities are not giving permission for digging. This creates difficulty in commissioning of new BB DSLAM's and new IMPCS sites. The Central Ministry has given instructions to permit the OF laying in NH routes. This should be taken with the NH authorities and should be solved. As directed by CMD periodical meetings at higher level are to be conducted with NH / PWD / SH authorities.

## STR

### CHQ:

- Performance of new equipments shall be checked well before the purchase rather than testing at the field after installation (eg : UTL equipment). The vendor is performing R & D operation at the site to meet the requirement.
- Hardware requirements for new systems are to be planned after getting input from field and equipments must fulfill the actual needs. ( Eg.: FE PORT, GE PORT, STM 1 PORT etc. ).
- Purchase of obsolete and out dated equipments shall be stopped.

### STR / Chennai:

- Since ring route is established fully and cable route KM is also on the higher side, staff strength to look after the outdoor route is to be increased (TTA /JTO / SDE ).
- Temporary advance to STR TEAM on need basis is to be given immediately. It is very difficult to maintain the existing system without allotting funds for operational expenditure.

### General :-

- TAC ( Telephone Advisory Committee ) shall be dispensed with.
- 3G and GPRS facility is to be provided for all executives in service mobile numbers. ( Orders issued by Circle office under trial basis for 6 months ).
- GSM FWP instrument is worth full. To promote this GSM FWP, it can be supplied to BSNL employees on payment basis. ( TN Circle has decided to supply on concessional rate in installments )
- Staff Grievance cell / legal cell in circle level is to be implemented in full fledge to settle down the issues raised by the staff. This may avoid many court cases. So that huge expenses for court cases may be cut down.

- **AMC for the maintenance of C Dot MBM, OCB and other new tech switches shall be stopped immediately. It can be well maintained by our staff.**
- **Dynamic locking facility in CDOT - Local barring using dynamic locking will bar level 9 and 0. Now level 7 and 8 are also given to mobile service. Using the present facility this levels cannot be barred. Action shall be taken to settle this issue in consultation with CDOT. Corporate office has to issue necessary instruction.**
- **Purchase of obsolete and out dated equipments shall be stopped.**
- **3G data card usage - No Thresh hold alert intimation like Broad band is available. Consumers wants this alert to be sent, while they crossing their free limits.**
- **Since IP Tax already commissioned in most of the places Vendor training is must for better maintenance.**
- **Vellore SSA is already having a C-DOT card repair centre and now they are extending the facility of repairing ADSL modems also. This may be followed in other SSAs also. Similarly to attend P/P module faults, AC Unit fault, AFD faults, instead of outsourcing a team has to be formed at SSA level to rectify the same to curtail expenditure.**
- **Instead of scrapping all cells of life expired batteries, good cells has to be preserved to replace the faulty one at needy places.**
- **WI -Max has to be commissioned at the earliest.**
- **Project Sanjay is to be implemented in true spirit. In several SSAs it is not implemented in the right sense. Case by case before implementation ( Physical / Expenditure ) of the project and after implementation is to be verified. Several SSAs are merely diverting funds for payment. Responsibility shall be fixed and action shall be initiated for completion within the time frame. This is the main area which is consuming un necessary expenditure.**
- **To avoid expenditure, process for ISO recertification / renewal and all ISO related activities are to be stopped, as per the instruction of the Corporate office.**
- **An executive alone by changing his attitude, can not bring out optimum result. Attitudinal changes should take place from lowest level to highest level. Since we are middle level managers, we can conduct staff meetings or inter action meetings at regular intervals at Divisional / Sub Divisional level and motivate our staff. Our first duty is to make them aware of the real situation. Team work with good leadership can only solve all problems. Indecisiveness and shirking mentality all levels should be stopped.**

- We should be aware of what we are having in our stores. According to that only we can do business. Within the SSA level or Divisional level or Sub divisional level we should take a decision to divert materials as per requirement and necessity.
- Responsibility is only collective and not individual.
- Everyone should work willingly with a positive approach in co ordination with others, superiors, colleagues and subordinates, which would help to utilize the available human and material resources to the optimum level.
- Work study has to be carried out. Redeployment of staff ( Preferably without changing head quarters ) is to be done. Potential areas like sales / marketing / Data section / BB / MPLS area should be given importance. Right person in the right section is the need of the hour.

## Electrical

### I) Energy saving opportunities from SMPS power plant and Packaged Air conditioners:

Based on the Energy audit study conducted in various BSNL exchanges the following initiatives are proposed for optimizing the energy consumption in the building.

- By way of switching OFF the excess modules in the Power plant
- Replacing of faulty thermostat and Maintaining the conditioned area temperature at 23<sup>o</sup>C

#### Switching OFF the excess modules in the Power plant:

- Four power plants are working for various Exchange in this building
- The total load of the power plant is 400 KW. This is 25.4% of total connected load.
- In some power plants modules are working in excess than the justified level
- By way of switching of Excess modules the expected energy saving per year is 30240 units. (Calculation sheet enclosed)
- Demand will reduce by another 3.52KVA.
- The expected savings in amount is Rs.1, 75,392 / year.
- Since it is a no cost measure it can be implemented immediately

#### Package AC Units - Maintaining 23<sup>o</sup> C by using proper thermostat:

- In most of the Exchanges Package AC units are operated below 23<sup>o</sup>C. In some Exchanges it is operated even at 18<sup>o</sup>C.
- As per Corporate office guide lines the Temperature shall be maintained not below 23<sup>o</sup>C.
- Readings taken at one exchange and cost benefit analysis for operating it 23<sup>o</sup>C is enclosed here with.
- In order to maintain the Temperature at 23<sup>o</sup>C proper thermostat setting is required.

- By way of providing electronic thermostat this problem can be easily addressed.
- Life of compressors will be increased.
- By providing Electronic thermostat and maintaining temperature at 23°C expected saving for a Package Ac units is given in table.

**Recommendations:-**

- Excess modules in SMPS may be switched off to avoid no load losses.
- These modules may be put into circuit in cyclic operation.
- This may increase the life of the Module.
- Frequent failure of modules thus avoided.
- Maintaining the temperature of switch room 23°C.
- Providing Electronic Thermostat for maintaining proper temperature.

**Conclusion:-** Since Power plant and Package Ac units contributes major load in Telephone Exchange These Equipment may be maintained properly.

**PERFORMANCE EVALUATION OF POWER PLANT**

Sl.No	Description	Make	Type	Capacity	Total No. of Modules	No. of modules working at a time	INPUT				Efficiency in(%)	Battery capacity
							Power in KW	Voltage (in DC)	Current (in DC)	consumption in KW		
1	TXM,BB,DLC	Himachal Exicom	SMPS	1800A	14 Nos	11 nos	17.06	53.4	288	15.38	90.1%	2x3000AH
2	OCB MSU	ITI	SMPS	1600 A	16 Nos	16 nos	47.27	52.5	827	43.42	91.9%	2x4000 AH
3	GSM	Himachal Exicom	SMPS	3000A	30 Nos	27 nos	43.46	53.2	664	35.32	81.3%	2x5000AH
4	AXE	Ericsson	SMPS	1400 A	14 Nos	7 nos	4.47	54	71	3.83	85.8%	2x2000AH

**Calculation of Energy saving by way of switching OFF Excess modules**

Description	TXM,BB DLC	OCB MSU	GSM	AXE
DC Current for Switch	288 A	827 A	664 A	71 A
DC current for Battery charging	600 A	800 A	1000 A	400 A
Total DC current required	888 A	1627 A	1664 A	471 A
Capacity of Each Module	100 A	100 A	100 A	100 A
Total no. of Module Justified	9 Nos.	16 Nos.	17 Nos.	5 Nos.
No. of Modules working at present	11 nos	16 Nos.	27 Nos.	7 Nos.
Excess Module available	2 nos	0 nos	10 nos	2 nos
Energy loss in individual modules	0.15 KW	0.24 KW	0.30 KW	0.09 KW
Expected energy saving by way of switching off the modules/hr	0.31 Kwh	0.00 Kwh	3.01 Kwh	0.18 Kwh
Expected units saving/day	7.33 Kwh	0.00 Kwh	72.31 Kwh	4.36 Kwh
Expected units saving/month	220 Kwh	0 Kwh	2169 Kwh	131 Kwh
Expected units saving/year	2640 Kwh	0 Kwh	26028 Kwh	1572 Kwh



<b>Total Energy Savings/year</b>	<b>30240 Kwh</b>
<b>Expected amount of saving /year ( @ Rs.5.80)</b>	<b>Rs. 175392</b>
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<b>Expected amount of saving /year ( @ Rs.5.80)</b>	<b>Rs. 175392</b>

<b>Description</b>	<b>Performance at present</b>	<b>Performance expected after rectification</b>
<b>No of Ac units working</b>	<b>3 nos</b>	<b>3.0 nos</b>
<b>Average Total TR Delivered</b>	<b>24 TR</b>	<b>21 TR</b>
<b>Average Total Power Consumption</b>	<b>42 KW</b>	<b>42 KW</b>
<b>Total Running hrs /day</b>	<b>24 hrs</b>	<b>20 hrs</b>
<b>Total No.of units consumption/hr</b>	<b>42 units</b>	<b>42 units</b>
<b>Total No.of units consumption/day</b>	<b>1003 units</b>	<b>840 units</b>
<b>Total No.of units consumption/month</b>	<b>30089 units</b>	<b>25200 units</b>
<b>Total No.of units consumption/year</b>	<b>361066 units</b>	<b>302400 units</b>
<b>Total cost of Energy @ Rs. 5.8/unit/year</b>	<b>Rs.2094180</b>	<b>Rs.1753920</b>
<b>Expected total Units saving/year</b>	<b>58666 units</b>	
<b>Expected total amount saving/year</b>	<b>Rs.340260</b>	
<b>Expenditure for Electronic Thermostat for 8 nos @ Rs.2000/each</b>	<b>Rs.16000</b>	
<b>Pay back period</b>	<b>0.56Months</b>	

## Cost- Benefit Analysis

Average Tonnage delivery of these units are 8 TR

If the Units are working properly 2 nos. Ac units are sufficient

Thermostat are not functioning and Room Temp is 18.9°C

If the thermostat is set right and conditioned area temperature is maintained at 23°C the savings will be expected as below.

## **II ) ENERGY CONSERVATION AT GSM SITES**

Sample Energy audits were conducted for more than 25 GSM sites to arrive the efficiency of GSM power plant and to identify the energy saving opportunities.

### Observation on Power plants

- It is observed that in some places GSM switches are co-located with WLL / RSU exchange.
- In these sites GSM is provided with a separate single phase power plant with a capacity of 8x25 A with 4-5 modules in working condition.
- The Co-located WLL / RSU exchange is also catered with 4x50A three phase power plants with 2-3 modules in working condition.
- GSM exchange is provided with 2sets 400 AH batteries
- Similarly WLL / RSU exchange is also provided with 2sets of 400 / 600AH batteries.
- The current consumption of GSM is between 19Amps to 40Amps.
- The current consumption of WLL / RSU is between 5Amps to 15 Amps.
- The single phase power plant provided for GSM is either Amara Raja or XL telecom in most of the places.
- Efficiency of these power plants is between 88-98%
- Whereas three phase power plants are provided for WLL Exchange which is DACS / ITI
- Efficiency of these power plants are between 60-75%.
- In most of the rural areas two phase supply is available for 12-16 hrs, three phase supply is available for 6-8 hrs. Total power cut for 2 to 4 hrs.
- The WLL exch. Power plant will not switch on during two phase supply.
- Engine is switched on during this time.
- The maximum current consumption put together (GSM+WLL/RSU) is around 40 to 50A DC
- The charging current will be maximum 80A (40A for each set)
- Total current is around 130 A (DC)

- So 6 modules of 25A capacity may be provided in GSM power plant to cater both GSM and WLL load.
- Since the batteries are 2x400AH capacity, they have to with stand minimum 20 hrs.
- So Engine need not be required to switch ON because Total power shut down will not be more than 4 hrs.

#### Observation on Air-Conditioning System:

- Most of the BTS sites are provided with 2 nos. 1.5 TR S/T W/T AC units.
- Generally these AC units are working satisfactorily barring minor defects such as filter cleaning, Low CFM, Low gas.
- Most of the sites are maintained between 23°C- 25°C.
- It is inferred that when the temperature of the rack goes above 40°C, the GSM rack automatically switches OFF and when the temperature comes normal level it automatically switches ON.
- Based on this observation it is concluded that generally cards are not becoming faulty because of rise in temperature.
- As per corporate office guide lines these sites can be maintained at 30°C.
- In most of these sites Thermostats are not working otherwise it has kept in low range thus compressor is not tripping.

#### Recommendations

- In co-located site three phase power plant catering for WLL / RSU may be removed and the load may be transferred to GSM power plant. Which is single phase
- As these sites are having 4 nos. 400AH Battery sets, Two sets of 400 AH capacity battery set may be removed.
- If the efficiency of the battery is doubtful 3sets of 400AH battery may be provided and 1 set of 400 AH may be removed and reinstalled in some other site.
- The GSM Power plant (Single phase) may be connected in good / healthy phase. (I.e. this phase will be always available during two phase/three phase)
- Co-located sites are provided with 2 nos. 15 KVA EA sets. As the total load of co-located site is less than 9 KVA, One EA set is sufficient to cater the entire load. So all the loads may be transferred to one EA set to reduce diesel consumption.
- Thermostat may be set right kept in working condition and the temperature range may be set at maximum. So that Energy savings can be achieved and compressor may come for a longer life.
- Life Expired AC units may be scrapped as it is consuming more energy and delivering less output.
- New energy efficient AC units may be provided.
- Installation of Free cooling system as per corporate office guidelines

#### Benefits expected

- One power plant can be dispensed.
- The energy consumption of that power plant is absolute saving

- One/Two sets of battery can be dispensed and it can be used in other sites there by resources can be utilized effectively.
- Since the GSM power plant is having higher efficiency the energy consumption for whole exchange will be considerably reduced. (These power plants are designed for operating for a Wide range of voltage.)
- If the battery is in good condition running the Engine can be avoided. Which in turn reduces the diesel consumption and related issues.
- By setting thermostats to maximum range minimum of 3-5% savings in existing energy consumption is expected in each site.

#### Challenges to be faced

- ? In most of the sites though 2 sets of 400 AH batteries are provided these batteries are expected to cater the load for minimum 20 hrs. But these batteries are not withstanding for even half an hour.
- ? Maintenance of AC units

#### Crux of the problem

- ✓ It shall be ensured that battery sets has to deliver its output as per the standards.
- ✓ Connecting the single phase power plant in good/healthy phase
- ✓ Maintenance of AC units at 26°C. Keeping thermostat at working condition.

### III ) Energy audit as Business for BSNL

#### Why Energy Audit ?

#### The main aim of Energy audit is

- To determine the ways to reduce energy consumption per unit of product output
- To lower operating cost
- Optimize the use of energy for effective energy management
- To minimize energy costs / waste without affecting production & quality
- To identify the energy conservation opportunities
- To minimize environmental effects
- To set benchmark (reference point) for different equipment
- To identify the specific energy consumption of the equipment
- To evaluate the performance of the equipment

#### Need for the audit

In any type of industry the top three operating expenses are Energy, men (Labor) and material. Among these the energy is the potential cost saving component,

So Energy Audit will help to understand more about the ways energy and fuel are used in any industry, and help in identifying the areas where waste can occur and where scope for improvement exists.

This audit will focus on energy cost reduction, preventive maintenance and quality control which are very important for production and utility activities.

This audit will help in analyzing the cost of various type of energy, availability of energy, reliability of the available energy , optimizing the energy requirement, identifying the energy conservation technologies and retrofit for energy conservation equipment.

#### Type of Industries to be audited

Energy Intensive Industries and other establishments specified as designated consumers by Bureau of energy efficiency is to be audited

- Aluminium
- Fertilizers
- Iron and Steel
- Cement
- Pulp and paper
- Chlor Alkali
- Sugar
- Textile
- Chemicals
- Railways
- Port Trust
- Transport Sector (industries and services)
- Petrochemicals, Gas Crackers, Naphtha Crackers and Petroleum Refineries
- Thermal Power Stations, hydel power stations, electricity transmission companies and distribution companies Commercial buildings or establishments

#### Scope of the energy audit

The Scope of energy audit is verification, monitoring and analysis of use of energy including submission of technical report containing recommendations for improving energy efficiency with cost benefit analysis, identifying the economic viability of the product, an action plan to reduce energy consumption and recommendations.

#### Energy audit as Business for BSNL

Already BSNL is having Enterprises business wing which is providing telecom solutions to various IT companies and other Government organizations. As an integral part of the business we can provide energy solutions to them by way of conducting energy audit to their firm.

While offering Telecom solutions we can offer them to support on the designing aspect and capacity selection of UPS, Air conditioners Lights and fans and Engine alternators for their equipment with a nominal cost . The cost can be included in the bid. Even if we do at nominal cost it will be benefit for BSNL.

Further lot of government organizations are calling tenders for conducting energy audit to their firm/client. We can also participate and conduct energy audit at a reasonable cost.

Already Electrical wing in Kerala is conducting Energy audit for High court, LIC and banking sectors and earning for BSNL.

#### **IV ) General:**

##### **Recommendations on Electrical Wing Issues**

- Honourable Prime Minister of India has set a target for energy conservation of 10 % and BSNL has set a target of 20% which is practically achievable.
- Energy Conservation Measures implementation on a larger extent.
- No cost measures
- Low cost measures
- High cost measures
- Contract demand rationalization of Substations
- Power factor improvement
- Switch OFF stand by Transformer
- Maintaining 23 Degree temperature in switch room. BSNL HQ/DoT has instructed to maintain  $23 \pm 3$  degree in switch rooms and to maintain 30 degree in BTS rooms. For every rise in one degree, there will be 3 percent reduction in EB expenditure. Electronic thermostat which has high accuracy can be used for setting temperature in Package AC units for effective control.
- Since the AC units and Power plants constitute more than 65 % of the exchange loads, the concentration should be on these major components.
- Only Star rated AC units should be used whenever the old units are replaced.
- Free cooling system: 100 % implementation for BTS sites wherever outdoor temperature is less than 30 Deg throughout the year and for other BTS site 25 % implementation. The cost of the Microprocessor based free cooling system is about Rs.40,000 with the monthly saving of minimum Rs.5,000 per BTS.
- Switching OFF excess modules in SMPS can result in to a significant saving since the power plant load is nearly 45% of the total exchange load. The modules required for working DC load current and for battery charging alone can be considered.
- External Works: External construction works along with Civil wing can be undertaken in a larger way especially in Govt/PSU sectors. Energy auditing of buildings of other organizations such as State Govt, Central Govt, PSUs etc can be undertaken as is being done in Kerala Circle.
- Conversion of EB tariff from commercial to Industrial tariff as in Maharashtra Circle.
- Conversion of Conventional bulb into CFL Lamp.
- Replacement of Electronic Choke wherever necessary
- CFL lamps shall be used to replace conventional lamps.
- Electricity bill contributes to the major part of our expenditure. WIND FARM shall be consulted for wind energy production which will bring down the Electricity Bill to bearest minimum.

- Exchange working connections shall be concentrated on required minimum racks. Power supply to balance racks shall be switched off. Space shall be saved by reducing the switch room space. Merger of MBMs, conversion as RSUs , Re-arrangement of TUs., LM / BM as per working connections will also save Electrical consumption charges.
- To minimize the current consumption, all working connections in the indicators working in different BMs shall be shifted to a Single BM so that after re arrangement BMs having no connection can be switched off. The difference between working connection and equipped capacity should not be more than 10% to avoid huge AMC for idle equipments.

### Closing down the Electrical Stores & Streamlining the procurement of materials to prevent financial loss to BSNL

As of now Electrical Stores like A/C units, light fixtures, fans and Cables are being procured through DGS & D rate contracts, stocked in stores, and issued to works as and when the need arises.

Of late it is seen that the rates of DGS&D are much closer to the market rates and in some cases like A/C units the cost is higher than that of the reputed manufacturers and also the materials available in the local market are far more superior and suited for our installations besides the inherent advantages listed below:

1. Market price is less than DGS&D.
2. Advantages of Off-Season rates can be availed.
3. Installation can be done by local & authorized dealers.
4. Availability of good service dealers locally.
5. Ease of claims on warranty and quick response.
6. Ready availability of spares, which is almost absent with the DGS&D firms
7. Items can be procured from reputed brands, thus having flexibility in the makes of equipment and wide range of models.
8. Latest models can be procured as & when launched in the market, thus taking advantage of the latest technology
9. AC units purchased from the open market are guaranteed for 6 years by the reputed manufacturers like Voltas, LG etc (Prescribed life of AC units is 6 years as per BSNL orders).
10. Can be procured at rates less than market, rate if we go in for competitive tenders for bulk quantities.
11. Some manufacturers are even offering buy-back arrangement for the old used units which will definitely fetch a higher price than that offered for auction through MMTC or other accredited agencies.
12. AMC can also be entered along with the bulk purchase order, thus ensuring the trouble - free performance and quality spares from OEM dealer at lesser cost compared to the present system.
13. Manufacturers can be empanelled for supply of units based on proto-type approval, which can be reviewed periodically, as done for Package AC units.

### Disadvantages of DGS & D items:

1. Rates are much higher than market rates.
2. Rates once fixed are not revised for almost a year, hence advantage of price reduction.
3. Bad performance of the equipments / items procured through the DGS&D rate contracts
4. Frequent failures.
5. Poor response for the service calls from the DGS&D firms.
6. Adverse remarks and negative feedback for these items from the exchange maintenance authorities.
7. DGS&D purchased AC units are guaranteed for One year only.

It is not denied that in earlier days, the stores were needed in view of urgent and enormous requirements due to huge new construction activities and installation of large number of RSU / Main exchanges and the paucity of suppliers/vendors/dealers in the local markets and the time consumed in the procurement.

Also a lot of working capital is blocked in the stores which may work out roughly Rs.100 crores per annum.( Rs.70 Lakhs for each stores and minimum 7 stores per telecom Circle). As we know, that due to intensive competition from private telecom players, the wise decision of BSNL will be to reduce the blocking of money in non moving items and put to the benefit of the Organization.

With the changing environment, ready availability of almost all the electrical items with the reputed manufacturers and their local vendors /dealers and also due to the day to day reduction in the rates due to market competition, it is sure that BSNL will be benefited financially.

The Civil wing administration has taken a policy decision to close down its stores long back.

It is also pertinent to mention here that BSNL has already issued orders, stopping purchase of all stores (except Electrical items) through DGS&D for the above said reasons. Hence it is suggested for stopping the procurement of Electrical items through DGS & D firms and instead draw up rate contracts with reputed manufacturers.

Besides the core committee also requests for closing down the existing electrical stores as its operation is totally in fructuous besides causing the recurring expenditure, due to rental of storage space, Depreciation, locking of capital,



expenses for watch and ward and also enormous burden on the existing JTO(E)s in maintenance of stores, due to large scale shortage of JTO(E)s.

## Civil

### Utilization of Manpower available in Civil, Electrical and Architecture wings:

#### CHO:

- By Merging these wings with Telecom Mainstream, they can be utilized for Marketing, maintenance of Buildings, PowerPlant, Battery and AC plants etc. The Present officials, who are working in the above fields, can be utilized purely for Telecom technical areas. The establishments for the different wings will no longer be required. By this way huge expenditure involved in maintaining the establishments of different wings will be curtailed.
- DOT has given presidential order to make over real estates at vital places for their TERM cell utilization ( Eg. PGMT office building at Ethiraj salai, Chennai.). This is to be taken up at higher level.

#### Circle:

- Commercial utilization of Vacant lands
- In most of the BSNL buildings, vertical extensions are possible. The buildings which could be commercially utilized may be extended to its ultimate level. By this way value of the asset will increase over the period of time and also BSNL will also get revenue.
- Effective Maintenance such as structural repairs and other periodical maintenance works of BSNL buildings regularly to avoid the huge expenditure if it is attended on later stage. Expenditure involved to maintain the buildings will enhance the value of the asset and it will serve its full lifetime.
- Civil and Electrical wing has to re think about maintaining high standards ( Civil - CPWD ).
- All our recreation clubs, conference halls may be given for outsiders for conducting meetings on rental basis.
- MOU should be signed with more banks to install ATMs in the prominent Exchange / Office locations where we can gain major revenue through high rent.
- Free space to be rented out to state central govt / PSUs.
- At present vacant quarters are rented out to employees of State Govt., Central Govt. and PSUs. This facility should be extended to Retired employees of State Govt., Central Govt. and PSUs.

### SPACE AUDIT ( Tuticorin SSA)

At Tuticorin the GMT office is functioning in a rented building for which app. two lakhs rupees is paid as rent. Sufficient space is available in Telephone exchange and Telegraph office. Hence the rented office of GMT shall be shifted to departmental building. This is to be implemented within the stipulated target.

### **Space Audit : ( Kumbakonam SSA )**

SDE offices working in rented buildings at Sembanarkoil, Kuttalam & Thirupanandal shall be shifted to the Departmental Building available at these places itself. Thiruvengadu SDE office was already shifted to departmental building but the rented building is yet to be made over to the building owner. The General Manager Office itself is functioning in rented Building which expenses about 1.5Lakhs / month as Rent.

Nearly about 10 ( Ten ) IQs are available at Kumbakonam alone. ( Tansi Site - 4 , MBM Premises - 2 IQs ( one at MBM building & 2<sup>nd</sup> at Old Tk Xge Building ), Swamimalai - 2 Nos

Old Telecom Quarters ( Bhakthapuri Street ) - 2 Nos. Actual requirement of IQs are to be analyzed keeping in mind the expenses being carried out for IQs in the name of electricity bills, care taker salary etc. The STR equipments already shifted to MBM Main Exchange along with Indoor staff office. The Remaining staff are utilizing the entire first floor of STR building for which EB bill is being paid by SSA.

Space audit shall be conducted with a separate team and with mutual consultation, unwanted IQs can be closed and office accommodation can be re arranged. By doing this recurring expenditure can be reduced.

### **Space Audit : ( Trichy SSA )**

Old Call centre of Tamilnadu at Trichy shall be merged with the new Call centre at Chennai without dealy. This merger will help BSNL to get a large accommodation in DATX building and there by many CMTS projects which were diverted from TRICHY can be brought to TRICHY. TRICHY BILLING section is functioning in a rented building, which is incurring app Rs 1 lakh per month. This section shall be shifted to DTax building after the closure of Call centre.

### **Space Audit : ( Cuddalore SSA )**

The vacant quarters can be given to other PSU / Central / State Government employees. Our retired staffs are also willing to occupy our vacant quarters. But the modalities / guidelines are not clear.

Lending our vacant sites: In Cuddalore SSA enormous space is available in Cuddalore Sipcot Exchange, Marakanam - in coastal area and also in ECR road. Now days vacant places are given for rent for keeping container transport. We can also lend our vacant spaces for rent.

In CDL SSA, we are paying nearly RS. 30,000/- per month as rent to the warehouse for keeping our stores, mostly obsolete ones. Per year we are spending app Rs. 3,60,000/- . If we construct a closed shelter with light metal sheets in a low cost budget, all the stores which are essential to kept away from water, can be put inside the shelter.

### Property Tax :

DGM (P&EF), TN Circle office has given instruction on 16-07-2011, to pay property tax, where ever claims are raised by local bodies. The instructions are given referring Corporate office letters dated 14-08-2001, 16-05-2005 and 26-07-2005. But Kerala High court judgment dated 01-12-2007 favours BSNL. Further Supreme court order on Civil 9458-63 / 2003 / Rajkot municipal Corporation verses UOI and others, instructs to pay service charges on par with local state govt. (ie.) To pay service charges only that too like state govt pays it to local body. OM of Ministry of UD, GOI dated 17-12-2009 also instructs to SC order. OM of MOC dated 6<sup>th</sup> Jan 2010 also endorses the Min of UD order. Hence payment of property tax is to be analysed once again.