Field Problems
Reported at Workshop
on
C-DOT DSS Products,
held at JABALPUR
from 7/8 to 9/8/02

Table of Contents

Name of the Site/Circle : Tamil Nadu

S.No.	Problem Detail	Solution/Comments
1.	In a multi module type CDOT switch during A/T of line-to-line call between two RSUs one sub in on RSU to sub in the other RSU it was observed that there was no speech condition in a cyclic fashion (perhaps every 28). It was solved in the subsequent patch by blocking some specific time slots for voice calls. Whether in the new version the above time slot is made available for all type of calls	The problem was solved from s/w 4.26 own ward and now all the slots are available for speech.
2.	The switch should be designed in such a way that there should not be any limitation for equipping RSU BM. (i.e.) to say that in a multi Module-XL type switch all the 32 BMs can be configured as remote BMs.	This requirement has been taken care in new H/W design of VE-CM & BM.
3.	In the present x-code modification utility there are some problems. To quote a few that if there is any hot line equipped in a particular BM that level cannot be modified. Those numbers under frozen status the meter reading becomes zero after modification of the X-code.	– Caution regarding withdrawal of Hot line/call diversion facility has been mentioned in X-code Modification procedure – Meter reading problem of frozen Nos. will be taken care in subsequent S/W Release.
4.	Utility should be developed to sort numbers according to subscribers priority, and for changing the BM number. This is a field requirement to release the co-located even BMs for creating new remote BMs.	Requirement is under consideration.
5.	Among the switches working in the Indian net work it is seen that the C-DOT type of switches are the most affected one against lightning, even after taking all known precautionary steps to avoid such heavy discharge that may occur during the period of lightning	Secondary protection has been provided in the newly designed LCC Card of 16 port. This card will be available with new H/W of VE-BM/CM.
6.	A fool proof tool for testing of the switch for its BHCA capacity should be made available as part of the software, as unavailability of sufficient number of LTG and its reliability because of its wear and tear poses problems to the installer. The present restriction of changing the system parameter SPL-RNG during the testing in a working exchange does not seem to be a workable one. In addition the tool should be similar to the one that of the present LTG (such as with the option of number of calls to be generated, specifying	CTS-B tool is the only solution available at present.

S.No.	Problem Detail	Solution/Comments
	the period of testing.)	
7.	If the switch acts as POI for other operators there should be some method that should block diverted call from the private operators switch.	This issue is to be decided by TEC.
8.	If a subscriber under safe custody is deleted the line status is not updated in the IOP. Suppose the same number is created later and in case the number has to be taken to BNP annc the same could not be done. Datpat utility is required to get the status of the line changed in both IOP s, which may not be possible for all field staff. Care should be taken in the software that a number could be deleted only if it is a normal line.	This problem has been solved in S/W 2_1_7.5_1 release.
9.	"trans-etnl" error report on console after transaction files exceeds some limit. In such cases it was observed that the activities done in a particular IOP is not getting up dated in the other. In such a situation some files such as IOTMSG, IOTIND are to be nullified. Whether this problem has been sorted out in the new software?	Will be considered in the subsequent S/W Release.
10.	The test schedule to the manufacturer should be modified in such a way that the space switch in both the complex (ss-0, ss-1) and bus-0, bus-1 should be thoroughly tested for supporting the 64 Kpbs data transfer. All the BMs even if it is a line BM it should be tested with DTU for # 7 working with CM in all those above combination for fool proof # 7 support. This becomes very much essential in the present scenario and if the switch is configured as SSP at a later date.	This much rigorous testing schedule will only delay the production of the switches.
11.	It is seen that due to CM mother board problem (noise developed if equipped - pattern mis-match) in a working CM-L / CM-XL some slot has to be left while creating a new BM	Suggestion for testing the CM for all the IFCs & SWC slots will be considered.
12.	BMs working well for speech calls and posing problems for data calls should be avoided by testing all BMs for data calls for which the speed is 8 times more than a ordinary voice call.	Already covered at Sl. No. 10
13.	The synchronization of IOPs should be fast enough that it should be over in less than 50 minutes even for a exchange of 35000 lines capacity.	Present architecture does not support this.

S.No.	Problem Detail	Solution/Comments
14.	There should be provision to measure the revenue of the exchange against a particular tariff slab and against a particular charge band / chare rate number.	Not supported in the present file structure.
15.	C7 link is not coming up immediately in most of the exchanges. Is it due to hardware / software lacuna.	• Upgrade s/w to 2_1_6.11_1 or higher. • Ensure that there are proper EPROMs in BPC/HPC/SHM cards in SUM frame. • Ensure proper jumper setting of BME card. • Take 1st CCS7 PCM from home BM itself.
16.	The operator should be able to establish a link (8.5 terminal link) instead of the system to allot to establish a link between sum and a particular BM.	This is not required. • Ensure that system parameter INT-THR and NO7-THR are properly tuned.
17.	There should be some On line command to see which PHC terminal has been allotted by the system between sum and a BM. This is required to fix problems when a data call is not through in a particular BM as the TSC of the TK.BM, Home BM and CM is involved in establishing the link.	Although ON-Line command is not available, same can be seen through BP-Terminal. Commands can be seen in Application Note on BP-Terminal commands.
18.	Stand alone BM for ISDN support is not successful till date with all patches released till date. What is the solution? In case the SBY TUC of the ISTU is made out of service, the active copy goes to suspect and becomes normal, resulting all the calls already established are disconnected. The DGN of TSC fails in the cross combination of ITC / ICC.	Solved In S/W 2_1_6.11_1 onward.
19.	In case of a multi module switch as soon as the ISTU is equipped in a particular BM the DGN test of the TSC of that BM fails though the TSC is perfectly normal. The DGN of the TSC passes only after making the ITC / ICC which is under suspect to operator. Has this problem is solved in the new version.	Solved In S/W 2_1_6.11_1 onward.
20.	In one exchange BMS goes to critical (stable clear) with reason that the link with higher module is faulty. But actually it was located that a particular MFC card was the culprit. How to isolate these types of problems without trial and error method.	In such cases BP Terminal is very helpful and gives clue about any suspect unit at the time of DGN.

S.No.	Problem Detail	Solution/Comments
21.	The present BRI hardware poses many problems. The ECN suggested has not been widely circulated and suggested as a solution to those approach C-DOT. As this has been seen in almost at all sites C-DOT should circulate a letter informing the ECN requirement to the BRI cards to solve problems so for noticed in the field. Whenever NT is switched off and again switched on ISDN ports are not coming in to service automatically.	ECN No 50027, 50028, 50029, 50030, 50031 have been issued for ISTU cards. Details can be had from C-DOT DELHI/ BANGALORE.
22.	There should be some On Line commands to measure the slip, as is available in other technology switches.	Off line utility is available and details are covered in User Manual of NSE (Chapter 5).
23.	NSC hardware (a costly and limited availability because of its high cost) is not rugged. Performance of this card from many of the supplier is poor and it is felt some hardware/software engineering is required to make it as a trouble free one.	This is due to poor Quality of the crystal used in one batch. This problem has been taken care of in subsequent despatches.
24.	CM-XL engineering requires revision as routing of data / clock cable without disturbing the existing BMs seems to be an impossible task. The hardware also should be rugged. Even a small disturbance affects the clock distribution.	This will be taken care of in next hardware design of CM.
25.	On line deletion of a Module (BM) should made possible.	Will be taken care in subsequent S/W Release.
26.	On Line deletion of RBMSA mapping should be possible.	Now new command 'cre-rbmnlm-config' is available in S/W 2_1_4.26_1 own ward.
27.	While loading BD a warning message should come as " bd belongs to the period from ... to ...: are you sure of the date etc." to avoid loading of wrong BD.	As per correct procedure of copying-out 'BD' back up 'VOL-NAME' indicates the date on which 'BD' was taken. So Administrator must ensure the date of BD Backup. More over 'BD' backup is not used to restore old billing records. For this BC should be used.
28.	There should be some tool to check that the "ED", "BD" copied out from the disk is corruption free.	No utility is available to verify corruption in ED/BD files.
29.	While invoking the exchange code modification utility it should prompt the user that the " did routes has not been deleted " and it should abort the process by itself (if the system has a did rout). Since it has been observed that the user invokes the utility with out deleting the did route and lands in to difficulty.	Deletion of 'DID' routs has been included in the 'X-Cod' modification procedure in all the S/W Retrofit Procedure documents.
30.	Plenty of problems are being faced after equipping NSC in the current 2_1_4.26_3 version software. When contacted C-DOT they suggest 7.2 patch to solve problems of C7 & NSC. In this	Patches have to be released to meet the enhancements required & problems reported from the fields. Getting every patch release cleared from 'TEC' is not feasible as it is long drawn process. Only

S.No.	Problem Detail	Solution/Comments
	connection it is to inform that the BSNL is very specific that only proven software should only be installed in the working exchanges, after due validation by TEC. But it is seen that though many patches have been released since the introduction of 2_1_4.19_3 (4.21 / 4.22 / 4.26 / 6.7 / 7.2 and so on.) but the supplier still supply the switch with 4.19 patch only. This results in different exchanges working with different version resulting some confusion to the maintenance staff. It is felt that necessary action should have been taken to at least offer recent patches to the TEC and instructs the supplier to supply the switch with this version.	final link will be cleared by TEC.
31.	It is seen that after the introduction of 2_1_1_1 software version the accounts personals could not extract the metering information for the PDN numbers from the " bc " back up. The maintenance has to take hard copy for the meter reading of the PBX numbers. It is not understood why this happens though "frmt" files are part of the "bc" back up. What is the solution?	This is due to problem in Billing Package used as it is not taking care of hgfrmt* files and as a result unable to get reading for PBX Nos. The package has to be modified.
32.	Whether announcement mapping is done for the ISDN numbers in the new version.	No
33.	Necessary modification has to be done in the RGEN utility "ssbr2" for showing the deactivation time in addition to the activation time.	It will be taken care of in the next release of RGEN.
34.	Data corruption is more frequently happens though it was told at the time of ' introduction of the 2_1_1_1 version that due care has been taken that seldom data will get corrupted.	In the subsequent releases, effort will be made to reduce data corruption to minimum level.
35.	It is seen that in an MBM exchange when PSM is working in a particular slot there is no problem. When using ESL / ESM for equipping a remote BM noise was found. In most of the cases it was found to be a hardware problem (poor quality of these multiplexing cards) and in a specific case it was found that the noise was developed by the mother board itself.	This problem was observed initially in ESL & ESM cards which was corrected after making some component changes. Some more hardware changes are being incorporated in these cards to reduce noise factor which will be released after thorough testing.
36.	In an MBM-L exchange equipped with NSE, when NSE failed due to some reason it was seen that the performance of the clock card (Sck-04) was worser than the Sck-02. It is understood that the stability of the crystal in sck-04 is inferior to that of sck-02. Is it so? In some case sck-04 has introduced noise. In general it is felt that the testing methods used in the factory has to be updated to	The crystal quality used in 'SCK-S04' is poor which has been initially done to reduce the cost, as clock functionality will be taken care by 'NSE' equipment which will supply very stable synchronised clock to system.

S.No.	Problem Detail	Solution/Comments
	sufficient extent that the cards supplied is free from defects.	
37.	In one MBM-L site (without NSE) there was no complaint from subscribers regarding internet connectivity. After equipping one RSU it was reported that the internet calls got disconnected frequently. This got solved only after installing NSE why this problem was not there before creation of remote BM?	With the introduction of new ESL cards for RSU's, noise might have surfaced in the system causing deteriation of Internet working, which got solved by 'NSE' provision.
38.	In one MBM-L (with collocated BMs & remote BMs) it was observed that in one particular RSU BM whenever any subscriber is made OOS-OPR though the command got successfully executed, the modification command was not allowed stating that the number is not "OOS". At the same time modification activities is possible in the other BMs (collocated as well as remote). The above problem got sorted out only after giving a code load to the system. Why this has happened?	Problem is still under observation and solution will be provided in the subsequent patches.
39.	In one exchange a BM equipped with ISTU gone to critical condition and becomes in service normal by itself. But no dial tone to the ISDN subscribers though the controllers were normal. Only jacking out & jacking in THR BRL card has helped. Is this problem is due to hardware / software?	S/W upgradation to 2_1_6.11_1 or above and ECN Implementation on BRL/ICC/ITC cards will solve the problem.
40.	It was seen that even when there is no disturbance in the medium the reference clocks of NSC have gone to suspect and then to system, it has never restored by itself. Only by making it "OOS" and "ins" the problem got sorted out. Are these problems due to hardware / software?	• S/W of the exchange should be 2_1_6.11_1 or higher.
41.	In one existing MBM-L exchange sum was introduced. Till that time that BM never gone for any sort of loading. After equipping sum in that BM (home BM) the home BM frequently goes to critical condition and finally the problem was sorted out by replacing the TSU frame, which never gave problem before the installation of sum. Why this condition?	This is a site specific problem. TSU change might have reduced noise in the BM-CM link & SU frame - TSC link, which stabilised the No.7 BM.
42.	In one occasion the system reports that both the memory of the SUM as SBY. Why this has happened? The problem was sorted out by giving part init to the system.	This is a case of non updation of actual status of the units. Cases have been minimised in subsequent S/W releases.
43.	At times both the switch plane SS-0 & SS-1 was shown as SBY by the system. After verifying which clock is active, the concerned SS	This is again a status updation problem. Actual status can be seen using BP Terminal. Then frc-out/frc-ins of SBY unit will solve the

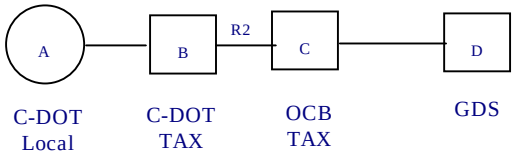
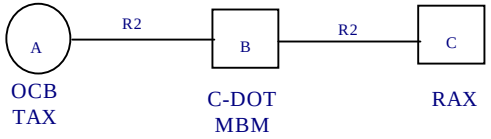
S.No.	Problem Detail	Solution/Comments
	was made OOS and then ins. Why this has happened?	problem.
44.	The factory testing of the ETS card requires serious modification. Whenever the supplier was contracted for discussing the ETS card problems, the supplier reports that the card is being tested as per the test schedule given by C-DOT. Especially cards from M/s HTL, CHENNAI is often tested bad in the field. The presence of one ETS card disturbs the other copy. All the PCMs 17 to 20 goes to suspect and becomes normal the moment bus-0 card is jacked out. What can be the hardware problem that can cause this?	This problem was due to S/W as well as H/W. S/W problem have been solved in S/W 2_1_4.26_1 own ward. H/W problem of ETS card is under investigation.
45.	Suppose the RBM is switched OFF after taking the RBM to critical and again switched on (Bus-0 side in the OFF condition) the BM never comes up unless the Bus-0 TSC/ETS given a reset or card jacked out. What can be the problem? After reporting this observation, cards now supplied by M/s ITI is perfectly ok where as not from M/s HTL, Chennai.	Same as mentioned in Sl. No. 44.
46.	Sufficient protection should be there that all the SHM ports couldn't be made "OOS". The system should prompt that a minimum of this much port should be in service.	Suggestion is noted.
47.	While diagnostic is done for SS the system reports that CBX reset failure. The fault could be set right only by jacking out jacking in the CBX card.	It may happen that 'DGN' fails 1st time. If 'DGN' is repeated it will automatically pass without jack out/jack in the CBX card.
48.	In one exchange the maintenance person typed "rc" instead of "crp" in iop 5c prompt, the IOP switched over from inservice level to warm start level this has been verified again and the same observation was noticed. Whether there is any command as "rc". Kindly explain.	'rc' is a unix file, which gets executed, but should not be used to shut down IOP.
49.	These should be provision for selecting TGP Vs category.	Although on-line command is not available, off-line utility in 'rgen' as 'tgpchr2' can be used to verify TGP category.

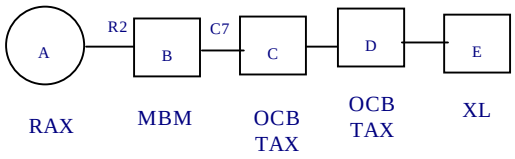
Name of the Site/Circle : Dindigul, Tamil Nadu

S.No.	Problem Detail	Solution/Comments
1.	HGP Meter not available in mate IOP when formatted files are sent by fsnd command to the mate IOP.	For 'HGP' meters separate format file in the name of hgfrmt is being generated as o/p of "frmt-blg-cntrs".
2.	**MOD-SUB-TEN :** Mod Sub ten command has given for post changing from BM1 to BM7. BM7 given port-init due to some field problems. All STD sub/ISD subscribers with clip facility went to local condition. When Displ sub command is given it showed LOCAL only. Thus integrity of the system is questioned.	After giving 'MOD-SUB-TEN' across two BMs, 'part-init' is not to be given before at least 1 hour (so that new counter dumps are received in IOP) and at least one call has been originated from such Nos. In case DIRNO is deleted & recreated online, then such precaution is not required.
3.	A subscriber with clip facility was given STD Barring facility. Sub OG bar facility has not been removed. He is still getting STD whereas displ-sub shows it as local. This case is not at all times. Here also the integrity of the system is questioned.	This is as per implementation. Correct procedure is to give 'wtd-sub-fac' for Sub-og-Barr" before changing 'ACC-BARR' of sub from STD to LCL.
4.	Disk space is going low. IOSIF file in Temp directory is increasing. The following Message is received in console Error in delete MCP file. Error in validate MCP delete record. Error in update alm file Error in allocate-history buffer Reason : No free history buffer. Error in add-sbrd-file. Reason: Isam error 100. Duplicate record. Unnecessary messages in Console coming. Trans etnl/error isopen-iotmsg error(10)	• Recreate 'IOSIF' process in both the IOP's : • Bring IOPs in simplex Active mode. Verify Dynamic locking & Alarm booking if OK then synchronize the IOP's in slack hour. 'Trans-elnl' messages are due to corruption of Transaction files, which can not be deleted by normal crp command. Problem generally occurs after 20000 records have been written & over writing starts. Problem is under investigation & solution will be given in subsequent releases. Immediate solution is to remove the old files after proper permission of administrator and copying the files fresh from BMDC in both IOP's.
5.	OOS-TRANS status not changed automatically to INS-FREE status when stream is ok.	Problem is under investigation.

S.No.	Problem Detail	Solution/Comments
6.	MOD-SUB-TEN modification report required in Rgen utility (Displ-Trans is the only solution)	Since 'MOD-SUB-TEN' is not recorded in COM-BILL-RECORD so rgen utility 'linmod2' cannot record it too.
7.	Inconsistency in displ-trans in both lOPs. All the Transactions are not uniform in both IOP.`	Transfer of Trans files during IOP synchronization is not done to avoid delay in Duplex procedure, which may lead to non-uniformity in Trans Records.
8.	102 test-set is not reliable. Shows Eth-A&B=O But No is ok - If tested again parameters are ok. (Nilakottai & Ouziliamparai) SBM XL	In this case 'TTC' card has be changed and that particular BM should be given 'code-load'.
9.	Password could not be registered for all new subscribers. For old subscribers there is no problem even after withdrawn/reregister. For, new subscribers they could not register and `grnt-ocr-sub' also does not work.	Same as in Sl. No. 4 above.
10.	Ref clock going OOS-SUS quite often.	This may happen due to mismatch of clock O/P between / ACT & SBY NSC (Clk 0/1), In this case one NSC card should be changed.
11.	RSU-always try to load only through copy '0'. Loading through Copy '1' when ETS-0 card is removed.	Problem of 'ETS' card hardware. Use fresh ETS cards. Interchanging of ETS from Copy-0 to Copy-1 will not help.
12.	***C7-reliability:*** Ccts are found in normal condition. But call is not through. After Soft start call is through.	C7 stability is being taken care in new s/w release 2_1_7.5_1.
13.	ISDN NO. INS-FREE- But no Dial Tone. Only after card out of service & in service. ISDN line getting dial tone. Which results in disconnection of ISDN subscribers often, Individual trm OOS and INS will not solve any problem. CARD is stuck up?	• Verify required ECN on BRL/ITC cards as specified on Sl. No. 21, Page 4 • Use latest BRL/ITC Cards. • Upgrade S/W to 2_1_6.11_1 or higher.
14.	In one of the Exchange while giving displ-trans command, message received is "No record found. Again all software were loaded. ED & BD copied, but no improvement. How to correct it? How to get TRANS again ?	• Most likely trans group files iotmsg* & iotind* files have corrupted. Only solution is to copy these files fresh from BMDC.
15.	***IN Problem at BTL, SSP.*** Both IOPs will not sync. In IOP-0, it will say AP-Com No. When reset to BM is given loading will start and after BM is loaded, (when SUM starts loading), it will go to critical again. IOP goes to warm start Same observation when HPC of sum is changed. For other IOP all the cards are Ok in dgn.	This is a site specific problem. Ensure proper EPROMs in BPC/SHM cards of SUM & jumper setting of BME. Try changing BPC, BME cards with fresh ones.

Name of the Site/Circle : RMC, Chennai

S.No.	Problem Detail	Solution/Comments
1.	 In open numbering working, call was successful only with following conditions : a) `A' exchange was made `leading' by making TGP type at `B' as TTAX and b) `B' was defined as parented local exchange at `C' (i.e. C was sending charging to B). Both a & b above are non-standard arrangements. How to solve the problem.	As per standard, only leading TAX should handle the call link by link, while all other TAXs/LE nodes should do signalling end to end. Call analysis at the site only can decide the exact cause.
2.	 In the above case, if CRG RTN was defined as 1 (i.e. PRD-TAX) for the I/C TGP at B for the ROUTE to C, about 40% calls were getting disconnected (busy tone) when called party answered. When CRG RTN 4 (NO-METR) was given, there was no problem. What is the reason ?	This is a case of wrong data creation. For I/C call from TAX and 'going to parent station 'C', crg-rtn as 'PRD-TAX' causes confusion in the software as neither pulses are required to be sent or to be received. So only 'No-Mtr' crg-rtn should be used.

S.No.	Problem Detail	Solution/Comments
3.		After IDT at 'A', clear forward will be sent to 'B', which should generate Release message towards 'C' for release of Trk.
4.	Call completion timing to receive A6 or A3, whether starts after the receipt of last digit dialled or after the receipt of digit corresponding to `ROUTING' ? Is it same as IDT ?	Routing parameter will be used for processing of the Call. If, digits received are less than the value of routing parameter then call will be dropped. IDT is used for receipts of digits from the subscriber, which is '10' secs. A6 is extended by a TAX exchange after 5 secs towards proceding exchange if called party status/ACM is not available by that time from succeeding exchange.
5.	Whether IDT timing is different in following conditions : a) `Send next digit (A1)' demand is available from forward exchange. Waiting for next digit. b) There is `no demand for next digit (i.e. waiting to send A3 or A6 signal) after receiving required digits.	Signal Time Out timing are different from subscriber IDT, which is 10 secs.
6.	For calls from OCB to CDOT : Calls are OK with R2, whereas calls are failing on C7, for some calling line categories like STD PCOs.	Problem needs investigation.
7.	Calling subscriber's categories (priorities) which are spare as per ITUT recommendation (e.g. 4) should not be sent on the network even if used within the exchange. Similarly category reserved for operator should not be used for subscriber	In C-DOT, subscriber category as '1' (ORD-SUB) or 2 (priority sub) is floated on network. If it receives subscriber category as '5' it automatically maps it to priority '13'.
8.	To get detailed bill for calls made from each SSP, instead of ROI wise. This is required to compare the metered units at TAX for any revenue loss/leakage.	Requirement noted.
9.	Facility to use PC as terminal (instead of VDU) so that printouts can be captured in hard disk or in floppy. (offline processing can be done).	Procedure has been explained in Annexure - I.

S.No.	Problem Detail	Solution/Comments
10.	ROD should be ROUTE specific instead of TGP specific to enable sending different calls through same TGP.	Suggestion is noted.
11.	CAMA should be ROUTE specific instead of TGP specific. This is required in GDC to pre-collect CLI only for 0&95 levels.	Suggestion is noted.

Name of the Site/Circle : Narsingpur (M.P.)

S.No.	Problem Detail	Solution/Comments
1.	`VCC' calls on route `160233' not accessible by 256 RAX subscriber directly parented to C-DOT MBM(XL)-TAX. He gets announce-ment "This facility is not currently available on your Telephone".	Site specific but related to improper data creation.
2.	Spurt in metering observed on subscribers of SBM/MBM connected to Level 2 TAX (C-DOT-XL) on MOD-R2, while further connectivity from C-DOT-TAX-XL to Level-1 TAX is on CCS7.	This happens, when terminating exchange extends some metering pulse along with answer and specially when 'EWSD' TAX is in the chain. Solution is to re-define data at terminating exchange to extend 'ANS' only. i.e. putting a 'NON-MTRD' 'crg-rtn' with ANS-EXP'.
3.	It is observed in LM Rack, when a call is already on & reset is given to Active TIC of that `TU', the call remains in progress & hence protected by the standby TIC. But if the active TIC to the next TU of the same concentration chain is given reset, the established calls in TU get cut. Why this is so ?	To be verified.

Name of the Site/Circle : Rajgarh, Alwar (Raj)

S.No.	Problem Detail	Solution/Comments
1.	Dynamic Lock is required for `95' barring. At present barring is made effective by priority, but this diallows `IN' service also for `LE' subscribers of SSP at Bhiwadi.	Priority should not be used for 95 barring. So there is no solution at present for such a problem.
2.	In 2_2_1_3 (2.10) S/W, IOP synchronization problem is very severe.	Solution will be provided in subsequent S/W release (2_2_1_4).

S.No.	Problem Detail	Solution/Comments
3.	Transfer of one command from one class to other class is required.	Suggestion is noted. Re-classification can be done as per field requirement.
4.	In S/W 2_1_7.3_1 at Alwar TAX, problem of erratic charging on certain route occurs, which gets solved by code load to system only which is very much undesirable.	Problem has been taken care of in S/W 2_1_7.5_1.
5.	In S/W 2_1_1_3 (2.10) in SBM, `MOD' command for subs's or Trk ports not getting executed due to `Trml not OOS' error although these have been forced `OOS' already.	Problem is under investigation.
6.	From 256P RAX, CLI is not coming along with `0' as prefix.	Implementation is like that.
7.	CCS7 Trks not working OK in BM's other than home BM.	It is not always so. But due to excessive noise in BM-CM link problem may arise at some sites. This can be solved by changing H/W like IFC's & TSCs at CM/BM level.

Name of the Site/Circle : X

S.No.	Problem Detail	Solution/Comments
1.	While implementing password management, it is not possible to keep any particular command in operator's account.	Explained at Sl. No. 3 above.
2.	The subscribers having CLI facility are not getting I/C calls from distant TAX or from parented exchanges.	This may happen due to incomplete data creation regarding CLI at intermediate TAX exchanges or parented exchanges.
3.	RSU not working in standalone mode whenever link is down. It does not recover of it own when DTK's are restored.	Problem existed in s/w 2_1_4.19_1 down ward, if RBM is having Nos. more than 1000. Solved in s/w 2_1_4.26_1 own ward. If problem still exist, than change ETS/ESL or ESM cards.
4.	When part-init is given to the system, sub's who have locked their lines up to 10* level complain that their lines get unlocked up to local level.	Implementation is like that. Default status of 'ACC-BARR' in IOP is OG-UPTO-LCL, which will be updated whenever PART-INIT/CODE-LOAD to BM will be given.

Name of the Site/Circle : Katni (M.P.)

S.No.	Problem Detail	Solution/Comments
1.	`RBM-XCOD' is automatically deleted after sometime when command given on-line.	'MOD-RBM-XCOD' should be given in 'GRWOTH-MODE' only & then 'PART-INIT' to system should be given.
2.	On executing the command file for creation of DIRNO, only some of the nos, get created & all the commands are not executed.	• While executing command file [BRK-OPT]:No' should be given. • No. of commands in one cmd file should not exceed 999.
3.	In `Displ-arm-List' it shows `30' Trks. out, although only 15 trks are equipped.	This is due to occasional hanging of False alarms of ADP. Procedure to clear hanging Alarms has been given in work shop document released earlier.
4.	A NSE-4 equipment at SBM comes only for 15-20 minutes and then goes OOS-polling. PCM used for this purpose is absolutely stable. Internet working is very-2 poor for its own sub's and for 256P RAX subscribers connected to it.	• Cable length between Resource DTK & NSE and between CM & NSE should not exceed 10-12 meters.
5.	External clock is not getting selected in 256P RAX though RNS is equipped.	• Generally cable wiring in connectors is wrong. To be corrected as per revised document. • ECN or RAP card to be verified.
6.	DIRNO required for INTERNET DHABA' is to be barred from getting Local nos. only internet accesses should be allowed.	• Procedure has been issued by C-DOT for opening DIRNOs with this requirement.
7.	Subscriber control is required for barring `95' facility though local calls should be allowed.	With the change of Dialling patterns & Numbering Scheme, '95' requirement will become redundant.
8.	Detail Billing for `95' calls is frequently being asked from subscriber.	No need in future. However sub can be put in 'LCL-Blg' for the time being.

Name of the Site/Circle : Tadepalligudem (Tamil Nadu)

S.No.	Problem Detail	Solution/Comments
1.	ISD calls metering on particular routes (i.e. 00968, 00969, 00971.....with change Band 18) is not incrementing for the calls originated from C-DOT 256/SBM Exchanges connected to C-DOT MBM-XL, TGM. Only single unit is recording and subsequent pulses are not coming from SIEMENS TAX when call is routed on CCS7/CHB method/PRD-TAX pulse. But with CCS7/CHU method/ PRD-LCL, the metering is taking place for the above said routes perfectly.	This is a definite case of CRG-RTN/CHB No. mismatch. Verify the Data again, both at TAX & Local exchange.
2.	Synchronisation of IOPs is failing before step 5 when 3 to 4 months billing cycle information is available in IOPs.	As per standard procedure, Billing Cycle Data (BC) should not be kept in IOP's for more than 2½ months, so that sync operation is successful.
3.	COPY-IN command is not working when IOPs are in duplex.	This is as per strategy as 'copy-in' in Duplex mode will cause Exchange Data Mismatch between the two IOP's.
4.	While taking TGP meter readings with DISPL-TGP-MTR or Rgen tgpmtr2 commands, it was noticed that 83,88,608 units are recorded in LOCAL/STD/ISD counters of TGPs IC/OG counter readings. The same units were recorded previously with 4.22 patch for a subscriber local counter when the call transfer facility is in activated condition.	Problem is under investigation.
5.	The subscribers dynamic locking status which was in OG-UPTO-10X stage is automatically changing to OG-UPTO-LCL stage, when a BM is given parti-init.	This is as per implementation, as default status of sub's under sub-og-barring is kept as 'OG-UPTO-LCL' which will be restored after Part-init.

Name of the Site/Circle : Chembukkavu (Trichur) A.P. IN Problems

S.No.	Problem Detail	Solution/Comments
1.	Rebooting/initialisation due to a) Software counter over flow b) ETE link failure c) BP Overload Whenever a rebooting of the BP is taking the VCC patch is cleared and has to be loaded manually. If this is not monitored continuously, calls may not be metered properly. This situation is alarming and calls for 24 hrs observation of the switch. OR a mechanism to load the patch automatically after rebooting may help to some extend.	All SSP sites are to be upgraded to 2_2_1_3 (4.7), there is no private patch over this release hence problem does not exist. For your information PPL gets removed if BM goes for code load or patch-init. It remains intact after softstart or stable clear to system.
2.	Non-metering of calls with duration of less than 5 units.	Metering of IN calls is proper if CCS7 link between SSP and SCP is OK during conversation. Balance updation on ITC card is done after every 5 units, this is as per design. If during conversation link between SSP and SCP goes down, then it is possible that call is under-charged up to a maximum of 5 units.
3.	Non-availability of the detailed bill for certain calls in the SCP.	Detailed bill and call logs of every calls are made at SCP but they are to be fetched by ROI. The old logs are purged by Kolkata SCP administrator. If during conversation the CCS7 link between SCP and SSP goes down, then that call remains in conversation but call logs will not be made for this particular call.
4.	***Effectiveness of the VCC/VCC1/VCC2 patch***. After loading this patch (for non-metering cases) we requested C-DOT for comparison of the detailed bill records of the SCP and SSP for few days. Since, the CDR's are maintained in ORACLE DATABASE it is very easy to compare. I strongly believe that, this is the only mechanism through which the effectiveness of the patch can be ascertained. Comparison based on the known PSN numbers for whole day is impractical.	All SSP sites are to be upgraded to 2_2_1_3 (4.7), there is no private patch over this release. VCC1/VCC2/VCC does not exist on 2_2_1_3 (4.7). These patches were made to fix the problem of undercharging of VCC calls. The patches were to be installed on 1_5_1_2(9.1)/ 2_2_1_3 (2.10) on SBM and MBM respectively.

S.No.	Problem Detail	Solution/Comments
5.	***Non-availability of the Service and instability of the PHC links :*** It is observed that INAP service is prohibited to the SCP Bangalore randomly. This is being restored by giving either PART UNIT to the SUM MODULE or by putting the PHC cards out of service and Inservice. After this the service is getting restored. This problem is occurring randomly. At present, SSP at Tiruvella is experiencing this problem. In the last week Trichur SSP is having this problem.	May be due to GT corruption of Bangalore SCP. Through MDEB, the status of GT can be checked and corrected. The procedure is given in document "IN DATA CREATION AND ROI INSTALLATION"
6.	***Non-availability of announcement ccts and MF CCTs*** It is observed that, 40 to 50% of the calls are fed with tones due to lack of announcement ccts during normal traffic and this figure is high during peak hours. This is confirmed and leading to artificial traffic and above all greater inconvenience to the customers. Also observed that MF ccts are also not available for processing of the calls. I personally checked at various SSP's and found that most of the SSP's are feeding tones instead of announcements. This calls for thorough analysis on the dimensioning of the Announcement and MF ccts.	In one BM there are 4 MFC cards. Hence 60 resources can be configured as DTMF or MF Sender or MF receiver. Depending upon the type of trunks and traffic they should be tuned. It is suggested to make at least 48 DTMF resources. If calls are failing due to less announcement resources then one more EAC card should be equipped.

Name of the Site/Circle : Chennai/Bangalore/Hyderabad/Thiruvananthapuram (IN Problems)

S.No.	Problem Detail	Solution/Comments
1.	Following metering problems were noticed at different stations like Chennai, Tiruvalla, Kottayam, etc. when calls were made using India Telephone Cards. a) In the `charge allocation threshold' messages observed at OCB TAXs some calls with metered units as 572,667 & 800 were observed for calls from IN C-DOT exchanges All these metered units correspond to 20 minutes duration set as the maximum limit for any call in IN exchanges. When some customers who made those calls were contacted, most of them have informed that they have made calls using only 105 Rupees cards and they were able to speak on ISD for 20 minutes, in some cases,	All SSP sites are to be upgraded to 2_2_1_3(4.7), there is no metering problem in this release. VCC1/VCC2/VCC does not exist on 2_2_1_3(4.7). These patches were made to fix the problem of undercharging of VCC calls. The patches were to be installed on 1512(9.1)/2213(2.10) on SBM and MBM respectively. Due to under charging of calls difference of call units were noticed.

S.No.	Problem Detail	Solution/Comments
	even after talking for 20 minutes, some balance amount was still available. Detail bill data (ROI) for the affected calls were not available.	
	b) Metered units taken at IN CDOT exchange (ROI) was less by about 3000 to 5000 units daily when compared with the metered units taken at OCB TAX to which IN CDOT was parented.	
	c) After a call was established, call was not cut even if the SCP was inaccessible during the conversation phase. If the SCP was inaccessible at the time of clearing (releasing) of the call, metering information was not updated.	If during conversation the CCS7 link between SCP and SSP goes down, then that call remains in conversation but call logs will not be made for this particular call. Since CCS7 link is broken between SCP and SSP this call will be under charged, up to a maximum of 5 units.
	d) Similarly, if the "SUM" in the SSP gets initialized, call in progress at that time was not disconnected and also metering was not updated.	Metering is proper if CCS7 link is OK, if during conversation link between SSP and SCP goes down or SUM gets initialised, last 5 units may not be charged.
	e) If the SCP was inaccessible for part of the conversation time, metering for that period was not updated. If the duration of the SCP inaccessible was very less, it was not affecting the metering.	Already explained in detail in problem (c)
	f) In one exchange, when the first COC (out of the 2 COCs) between OCB TAX and IN was put out of service during the conversation period, metering was not updated even though second COC was in service.	It is inter working problem and being analysed.
	g) Even correctly metered calls were getting disconnected after 20 minutes due to the threshold set in SSP. *(**Note:** Observations were not taken at SCP)*	The maximum conversation time can be set by changing the value of sys-param i.e. CL-CNVRS. It should be set to 60,00000, if so then call will not cut.
2.	This type of revenue loss is very serious in the case of ISD calls since BSNL has to pay to VSNL for these calls even though no revenue is realized from customers Detailed analysis were made at the above stations. Some of the probable reasons for the metering anomalies are given below:	
	a) SSP gets the charge band information from the TAX and computes the metered units Since SSP is not disconnecting	The number of messages problem has been fixed in 2_2_1_3(4.7)

S.No.	Problem Detail	Solution/Comments
	computes the metered units Since SSP is not disconnecting the call after expiry of the card value, it is felt that SSP has to send the meter update information periodically to SCP whenever a meter pulse is due. This has been confirmed from the SCSLA observation at OCB TAX It was found that average number of C7 messages sent first time from SSP was more than 30 per call (i.e. for every USA call, for every 1.5 seconds, one set of messages may be transmitted) Also, number of error messages and "Confusion[5] messages from IN exchanges were found high (NTC in SCSLA & in SARLA). These error/confusion messages further increase the number of C7 messages due to retransmission, etc. Due to this large number of C7 messages transacted, SSP and SCP may be getting overloaded. This may be the reason for the 'SUM[5] getting initialized in IN exchanges or losing of some C7 messages	
	b) OCB TAXs are having limitation for the number of C7 STP message processing This can be seen from the STP threshold messages. When STP threshold is exceeded, some STP messages may be lost.	OCB's Problem to be discussed with TEC.
	c) Due to using large capacity level 1 OCB TAXs (which are having heavy traffic) like Chennai Haddows Road, Bangalore Central, Hyderabad, etc for STP working for both mobile roaming calls & IN calls, these TAXs are getting further overloaded. Hence, load modification ofC7 equipments like PUPE and PC are observed frequently daily When the PC jamming takes place, STP working is affected completely till the active PC is changed or PC is initialized. Hence, during PC jamming periods and during PC / PUPE load modification, SCP may become inaccessible or some STP messages may be lost	This is OCB issue, while creating the data of STP this may be taken care at OCB TAX.
	d) When more than one COC is available between two stations (e.g. IN & TAX, TAX & STP), if proper traffic distribution law is not used at both ends, only one COC will handle the traffic. When that COC fails, complete traffic may be affected even if other COCs are in service.	In C-DOT exchange it is being followed in all s/w versions.

Name of the Site/Circle : SCP, Ulsoor, Bangalore ('IN' Problem)

S.No.	Problem Detail	Solution/Comments
1.	SMP switching-over problem persists.	We have minimized the SMP switchover cases in new SMP release, which is being planed at Mumbai, Ahmedabad and Lucknow.
2.	If more and more ROI login, SCP %idle time gets low causing replication problems	Does not depend upon number of ROI users. But if call logs are more at SCP, then fetching of call logs take more time. There is a provision of 16 simultaneously ROI logins in Kolkata SCP and 32 at Bangalore SCP.
3.	No proper solution still exits to work with value/date expired card deletion simultaneously with card printings without disturbing IN service It is requested to provide an utility for date expired card deletion for all locations in one press of button.	It is suggested that when we are deleting the cards new cards should not be printed at the same time, since the same offsets may get allocated for new cards.
4.	A user menu of manual fetch & pack utility is not working at SMP.	Only well defined procedure is to be followed at SMP.
5.	During peak hours (i.e. between 2000 hrs to 2300 hrs) successful calls rate is very very low. i.e.; 14%. During this period the IN services (160244) is interrupted intermittently. At the time of IN failure the observations are as follows (at some of the SSPs for ex : Amreu, Bhavanagar Junagadh, Trichur, Trivendrum, Nasik & Kottayam). a) Getting the announcement 'This service is not available currently, try after sometime*. b) NET status between SCP & SSP is accessible and available (when. Interrogated at SSP) c) At SSP all LS status is ok. This intermittent availability of IN services at all SSP locations inviting ITC card users complaints, and complaints are mounting.	May be SUM module is inactive at that time, or the GT status of the SCP has corrupted Check the following status, EAC card, availability of DTMF circuits, GT status.
6.	No. of cards printed on a particular day. No. of card date-expired & no of cards value- expired, location wise, list may be made available at ROI utility.	Suggestion noted.

S.No.	Problem Detail	Solution/Comments
7.	It is requested to provide an utility for date expired card deletion for all locations in one press of button.	Suggestion noted.
8.	tnslistener.exe application at SMP is not working whenever oracle tnslistencr fails. But lisnercheck.log report tnslistener is running at every 10 mts.	Whenever tnslistnercheck.exe application is not running operator should wait for 10-15 minutes. Listner check starts automatically and updates the listnercheck.log.
9.	No metering through VCC reported pertaining to VCC card of PSN 86016 printed at TRIVANDRUM. (SBM Trivandrum 1_5_1_2 and patch 'scp28' contact Phone 0471-558888). Something also reported from Karwar location (Contact Phone 08382-22077) where thresholds of ITC MCUs are above 250. This requires further investigation from your side. These type of isolated calls leads to heavy revenue loss to BSNL. It is requested to implement/suggest remedial measures to overcome this type of problem at an urgent basis.	Already explained in detail at problem no.16

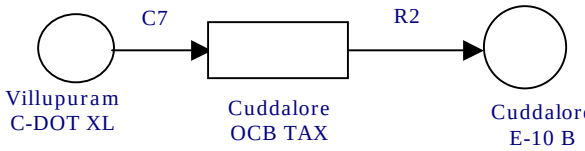
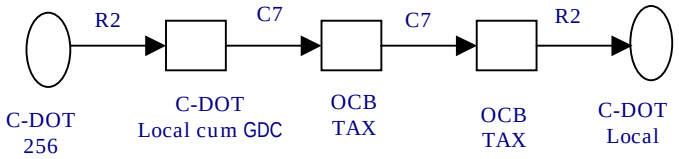
Name of the Site/Circle : Ulsoor, Bangalore ('IN' Problems)

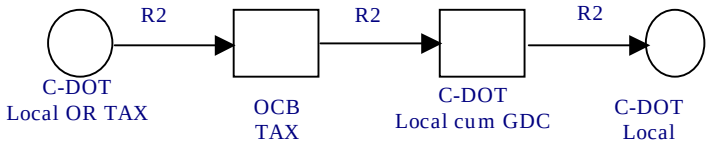
S.No.	Problem Detail	Solution/Comments
1.	Often the status of some SS#7 route sets becomes "X^9 (transfer not allowed) and the SCP / administrator has to de-activate and activate the route set through sysopr management. It seems the link does not automatically recover after if any media fluctuation occurs. The cause of problem needs to be analyzed in detail.	It is not a C-DOT problem, some interworking issues of CCS7 which are being analysed.
2.	For UAN service, detailed billing records are not generated in SCP.	At the time of UAN number creation, call log and detailed bill record check boxes should be checked. If any specific case exists then discuss with C-DOT.
3.	AS per Tariff guidelines UAN service should support split charging, that is the calling party has to pay call charges up to SSP and the called party has to pay from SSP to destination number. In the present implementation only calling telephone is billed for whole charges.	No split charging is implemented, in case of UAN (National) calling party has to pay for diversion of the call.

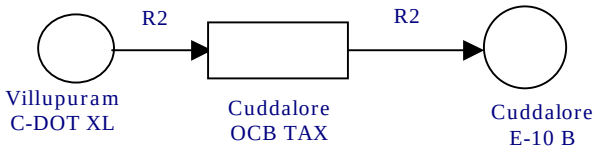
S.No.	Problem Detail	Solution/Comments
4.	In VPN, if an E-lOB exchange number is included in VPN group, SCP does not recognize it as virtual on-net number while it works fine if VPN group is created in SCP Calcutta.	Check the CLI at SSP end, CLI is must for Virtual on net subs.

Name of the Site/Circle : RMC Chennai

S.No.	Problem Detail	Solution/Comments
1.	***Inter-working problems :*** From Cuddalore C-DOT, 6 digits calls like 000116, 044131, etc. were failing when routed through TAX trunk group with R2MF as well as CCS7 signalling, in open numbering working. When value of “routing” (e.g. 6, in system parameter) was less than the value of “min digit seize fwd” (e.g. 8, in trunk group), if number of digits dialled was equal to “routing” (e.g. 6, for 044131)_ but less than “min digit seize fwd”, call was not maturing. Outgoing circuit was seized after the “inter digit timing” and routing tone was fed continuously for about 3 minutes. But, all such calls were failing. In other systems like E-10 B & OCB such calls were maturing. In C-DOT also, with fixed number length, calls to 180, etc. were maturing through trunk group with “min digit seize fwd” as 4. Due to this problem, “min digit seize fwd” in TAX TGP could not be increased to a value more than “routing” at C-DOT XL to improve CCR and to reduce number of CCS#7 message.	• System parameter 'routing' is referred by the call processing for O/G calls on routs with 'open Numbering'. Say routing = 6. Then call on this route will be analysed after receiving minimum '6' digits. In case route of 5 digits is opened with Open Numbering Scheme, then call on this route will not pass. • 'Min-Subs-Dials' system parameter should have value ≤ Directory No. digit length of the exchange. For analysis of Local/OG call this value is referred during call processing. • 'TGP' parameter 'min-dgt-seize-fwd' indicates the No. of digits received after which 'Trk' will be seized for sending. This parameter is referred only after 'Min-subs-Dials' & Routing' has been seen. However for I/C-OG (Transit) call, only 'min-digits-seize-fwd' will be referred for close Numbering route. • For Level 1 routs parameter 'min-subs dials' & routing will not be referred. However 'min-dgt-seize-fwd' will still be seen for seizing the Trk.

S.No.	Problem Detail	Solution/Comments
2.	For calls from Villupuram C-DOT to Cuddalore E-10 B busy number, "Parking tone" was fed instead of busy tone, after timing out. i.e. for C7-R2 calls transited through OCB to a busy subscriber number (as in the figure above), busy release signal (Header "OC" with message "020003849") was not recognized by C-DOT. 	Investigation of problem required
3.	Sometimes SUM was getting initialized at Cuddalore C-DOT resulting in call failures.	• Try by changing SUM BPC/HPC & SHM cards. • Upgrade S/W to 2_1_7.5_1/2_2_4.3_4.
4.	C-DOT was sending "confusion" messages (Header 2F) for IAM and CRG messages. (Refer: Annexure-1). For one received message sometimes upto four 2 F messages were transmitted by C-DOT. OCB was releasing the call if four "confusion" messages were received continuously or if "confusion" messages were received for consecutive two messages.	Problem is under investigation.
5.	Sometimes, C-DOT was not responding to release messages and hence, OCB was repeating release message every 10 seconds. (Refer: Annexure –2).	Under investigation.
6.	For some calls, C-DOT was sending "suspend" and "resume" message (Header OD & OE) continuously. (Refer: Annexure - 3).	Under investigation.
7.	Paras 4 to 6 might be causing overloading of SUM as well as PUPE at OCB. PUPE "Load modification" at OCB might be resulting in low CCR in many routes. 	Yes it could be one of the probable reasons.

S.No.	Problem Detail	Solution/Comments
8.	Many C-DOT to C-DOT calls transited through OCB TAXs (as in the above figure) were failing due to non-receipt of called subscriber status. OCB TAX was force releasing the call after 20n seconds. This problem was observed more during night busy hours when traffic was maximum ((Refer: Annexure – 4).	OCB should extend 'A6' signal to originating C-DOT exchange after '5' seconds of putting the last digit as switch signal to avoid call failure.
9.	Many call failures at C-DOT were observed due to Inter Digital Timing (IDT), since called subs status was not received within 5 seconds after completion of dialing in open numbering working ((Refer: Annexure - 5). When more R2 links were involved in the chain, it was not possible to get called subscriber status within 5 seconds, especially with compulsory CLI pre-collection in the network. This timing should be increased as done in OCB and EWSD systems.  	Same as above at Sl. No. 8.
10.	When end-to-end signalling was adopted in complete R2 MF working, as shown in the figure above, calls were routed to NU Tone (Refer: Annexure –6). What are the correct "xchg type" to be defined at different exchanges like a) Pure Local, b) Local-cum-Group Dialing Centre, c) Pure TAX and d) Local-cum-TAX? What are the correct "TGP type" to be defined at above exchanges for different TGPs from/to local exchanges, inter-TAXs, GDCs, etc. when metering information is a) generated locally and b) obtained from higher level exchanges. a) Generated locally. b) Obtained form higher level TAX.	**Exchange** — **Sys Param (Xchg Type)** Pure Local — 2 Local-cum-GDC — 2 Pure TAX — 4 Local-cum-TAX — 4 • In Local Exchange: 'TGP-TYP' for I/C & O/G TGP's from Parent Exchanges should be 'ORD'. For TAX exchange TGP-TYP should be TTAX. • In TAX/ILT exchange: For I/C & O/G TGPs from/To parented exchanges TGP-TYP should be ORD. For TGP's To/From other TAX/ILTs. It should be TTAX. • This Planning is valid irrespective of Metering information.
11.	In the **MF Signal Analyser** printout (Refer: Annexure - 6), actual time relative to the circuit seizure is not shown for each MF signal received / sent. If actual timings are shown call failure cause can	Suggestion Noted.

S.No.	Problem Detail	Solution/Comments
	be analyzed better.	
12.	**CLIP Problems** : If Area code for CLIP was defined without prefix 0, ISD calls to some codes like 00965796 were failing from C-DOT XL exchanges in Kerala routed through Ernakulam GDS. When first digit 0 is not included in the area code, C-DOT XL was sending the NAI of the calling number as 1. If first digit 0 is included in the area code, C-DOT XL was sending the NAI of the calling number as 3. Dubai exchange was not allowing the calls if the NAI in CLI was 1. (C7 message printout taken at GDS is enclosed).	Necessary modification is being done in consultation with TEC.
13.	If area code was defined with 0, C-DOT XL was sending the CLI without 0 when calls were routed through CCS#7 signaling. Whereas, if the call was routed through R2MF signaling, CLI was sent with 0 (i.e. from the same exchange, two different types of CLI were received depending upon the signaling used).	Same as above at Sl. No. 12.
14.	C-DOT XL was sending additional digit 0 as prefix to CLI to the subscriber, for incoming calls on CCS#7 signalling.  	Same as above at Sl. No. 12.
15.	In the above example of cal with end-to-end signalling (transit working at OCB, as per BSNL HQ lt. No. 19-29/97-PHM dt. 22/25.2.2002 & TBSW/CLI/2002-TEC dt.18.2.2002), it was observed that CLI was pre-collected by OCB and then switched through to E-10 B. When CLI was demanded again by terminating E-10 B exchange for calls to CLIP numbers, C-DOT XL was sending only filler 0's i.e. CLI was received by the called subscriber as 0000000000. When CLI was demanded more than once, C-DOT XL was sending only 0's for the second set.	This is not a valid case. The first TAX in the Chain has to function leading TAX & perform link by link signalling.

Name of the Site/Circle : Tiruvalla

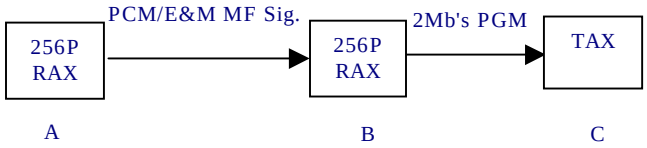
S.No.	Problem Detail	Solution/Comments
1.	Speed was very slow for Internet calls from **MBM XL ISDN** numbers.	Technically it does not seem to be possible. It needs further investigation at site itself.
2.	Intermittent noise was occurring in XL and connected RSUs (may be due to fault in Network Synchronisation Card).	NSC card could be a possibility. Which can be changed with fresh one & observation taken.
3.	***Problems of IN SSP/SCP*** It is understood that IN SSP in sending the charging updation to SCP for every 5 metered units. By this arrangement, there is a possibility of allowing a maximum of 4 metered units free for every card (at the end), when calls were made using ITC cards. Also, the number of meter updation messages between SSP and SCP will be high for ISD calls. To avoid the above problems, SCP can calculate the metered units based on the charge band received from SSP and both SSP & SCP can monitor available card value and initiate call disconnection when card value is exhausted Patches should be of permanent nature instead of loading the patch every time SSP is initialized (refer. VCC 2 patch). (Reported by A.K. Kalaiarasu, DE, RMC, Chennai.)	• Under this strategy, charging of call is done at SCP. • TEC/C-DOT are making specifications for SCP based charging. • SCP based charging scheme will be implemented in near future for which new H/W as well as S/W platform is required.

Name of the Site/Circle : DET Gadag Telecom District

S.No.	Problem Detail	Solution/Comments
1.	RAP card password management.	RAX has two types of Passwords a) Super user password b) User password Both the passwords have same access levels, except super user can modify user password whereas user can not modify super user

S.No.	Problem Detail	Solution/Comments
		password.
2.	Problems in copying spare RAP card: Duplex RAP not possible.	Super user password is required for bringing system in duplex mode. Procedure for duplexing is : a) Login to super user password b) Jack in the RAP card c) give reset The RAP card will come in duplex mode after some time.
3.	Unless RAP card password known, the card cannot be used for another C-DOT board at different exchanges. Easy method of retrieving Password of RAP must be known.	Password retrieving is not possible and also not desirable.
4.	RMF card often going faulty.	In version 4-2-1, some cases of RMF hanging has been taken care of. This may also happen due to wrong configuration of RMF resources or overload on RMF resources. Also it may happen due to hardware fault of RMF card.
5.	95-locking facility not available.	95-locking can be obtained by configuring this route as REG-STD route.
6.	No protection for mother board.	IPMs are provided at MDF.
7.	Level of password for different operation not possible.	Explained at sl. no. 1 above.
8.	Restricted detail-billing facility.	DUMP or CoMaC software tools can be used.
9.	11th port in 256 upgraded board in 4-2-1 version, OG facility 95 and 0 going out of order frequently.	Copy of Database is required to analyse the problem.
10.	In 256 board upgraded version digital stream will go out of service, only on resetting of RMF card stream will be restored.	Problem may be due to RMF card hardware, or due to wrong configuration of RMF resources or due to overload on RMF resources.
11.	In 256 upgraded version in OG restriction facility given, subs. will not get STD calls at all.	More details required as to status of Individual Digital Ports, Status of digital stream, Status of RMF card. If this problem exists with OCB or E-10B than the problem is to be sorted out at E-10B or OCB.

Name of the Site/Circle : Alwar Rajasthan Circle

S.No.	Problem Detail	Solution/Comments
1.	After Upgradation of C-DOT 256 from 2-1-1 version to 4.2.1 the equipment is not working in duplex Mode. It is working in simplex mode only. The equipment also fails occasionally reported by Sangli (Rajasthan)	Explained at Sl. No. 2 above.
2.	After loading 7.3 patch. Del-Trk is not possible. This command gives error message that trk is not out of service while trk actually remains out of service.	Problem is under investigation.
3.	 Exchange A & B are situated at some place & connected with each other on MF signaling. Exchange is connected by TAX or some other parented exchange on signaling. Exchange B is connected by TAX or some other parented exchange on MF signaling It is found that trunk circuit gets blocked. If we made decadic signaling between A & B or B & C problem is sort out i.e. two PCMs or media Cannot be connected on MF signaling other wise frequent blocking problem takes place. It consist in 4-2-1 version also. Due to this IN service cannot be provided in 2nd C-DOT 256 P exchange i.e. (A exchange).	This is due to limitation of MF resources in 256P RAX. Preferably RAX should not be used in transit working with MOD-R2 signalling on both side. Instead, direct PCM should be provided between TAX & 256P RAX A.
4.	***Suggestion :*** As MSC & MSD has been combined in one card, MEM cards have been replaced by TME/ BME. In a similar fashion TSU cards T/C (TSS, TSI, TSM & TSC should be combined in one or two cards so that fault probability may be reduced & diagnosis of faulty card may be easy. Some busy link arrangement may be done to change for RBM or main BM, when TSC comes in picture.	This has been achieved in next version of TSU i.e. VSU used in VE-BM.

Name of the Site/Circle : Telecom Dhoraji, Rajkot

S.No.	Problem Detail	Solution/Comments
1.	***Sub:*** Spurt in subscribers Meter Reading in 256-RAX-C-DOT. In connection with the above cited subject, we have observed spurt in subscribers meter reading on random basis. A specimen case of Samadhiyala 256-RAX, Version 4-2-1 parented with Upleta MBM, C-DOT through OFC-PCM-8 Mb system is given here. The observation is taken for below mentioned dates and time & Detail calls and Spurt are noted in attached sheet on Annexure -1A". ***Sl.No. Date Time*** 1. 30/06/2002 08:34 Hrs. 2. 30/06/2002 09:11 Hrs. 3. 01/07/2002 08:21 Hrs. 4. 02/07/2002 16:07 Hrs. 5. 02/07/2002 16:22 Hrs. All the Print out for above mentioned date & Time are attached herewith for your necessary action. Incoming call counter of Samadhiyala RAX at Upleta MBM are also obtained and Print-out attached herewith which shows the normal condition of Incoming calls from Samadhiyala exchange.	Some cases of meter corruption have been taken care of, by change of RAP proms in S/W 4-2-1. This PROM can be obtained from C-DOT.

Name of Site/Circle : DE Telecom Rural Barshi

S.No.	Problem Detail	Solution/Comments
1.	Traffic failure due to other reasons – details are required.	Refer Annexure-II.
2.	Alternate route – Calls are not passing via alternate route at Barshi MBM.	For this EXCH-TYPE system parameter should be defined as '4' as alternate routing is a feature of TAX exchange.
3.	Maximum no. of circuit in TGP in version 2-1-1-1 of MBM.	We can add up to 496 (16 PCMs) in CCS7 & 17 PCMs in CAS signalling, so that total $\leq$512
4.	162 not getting activating in Barshi MBM. For C-DOT 256, if MF signaling is given on Route subscribers are not getting DTMF.	• Port should pass 103 test. • TTC card can be faulty.

Name of Site/Circle : DE Installation Nellore

S.No.	Problem Detail	Solution/Comments
1.	In 4.26 version, if any TGP, kept in observation is to be deleted, the system is giving report as "TGP under observation" though the TGP is removed from observation. With the suggestion of C-DOT unit, BG, the solution was tried in DATPAT by giving the value as 0 in dt-obs-typ for the particular TGP. But the problem is still persisting.	Remove TGP from Detail bill observation using rem-tgp-blg command.
2.	Some of the TIC cards, though they are passing the DGN, coming INS-ACT, are observed faulty, as some of the ports are going SE, RNP in some ports etc.	DGN of TIC does not cover complete functionality of SPC as a result this fault may occure.
3.	Is there any procedure for testing DTKs extended /to be extended to the CM in the RSU installation ?" Presently we are unplugging the cable in CM and extending these stream to a DTU by a temporary patch card, testing them by giving loop and break in the plug at TSU (of RSU).	Through check of DTKs of RSU can be done through BP terminal put at RBM end. Detailed procedure has been given in Application Note on BP Terminal Commands.
4.	Whenever any stream shown connected to CM is disturbed, (not total break, but disturbed) the CM is going into STABLE CLEAR	Problem is under investigation.

S.No.	Problem Detail	Solution/Comments
	loading repeatedly. This problem is observed in RAGHUNATHPALLI and PEMBARTHY RSUs connected to jangaon MBM. Even in case of stream disturbance)(which are extended to DTU), the concerned BMs are going into STABLE CLEAR.	
5.	Presently the observation of TGPs is done in multiples of 4. In most of the exchanges, we had to split the working TGPs to suit this. Can this be changed so that the TGPs can be put under observation irrespective of the number ?	Putting TGPs on observation in the multiple of 4 should not pose any problem. However, effort is being done for putting more than 40 TGPs on observation simultaneously.
6.	In some of the RSUs some times it is observed that the numer of DTKs created are in excess of actual requirement and the streams are needed for some other site, etc. In such a case , if we disconnect these streams, alarm is extended to ADC, though the RBM is working. Can we delete the DTKs connected to RBM?	These can be deleted through BP Terminal put at RBM end. Contact C-DOT for on-line deletion of the DTK PCMs

Name of Site/Circle : DE Mtce, Nellore

S.No.	Problem Detail	Solution/Comments
1.	Problems observed by DE. Nellore after converting the 256P switch from 2-1-1 to 4-2-1 are as follows: AT VENKATACHALA SATRAM (2 * 256 C-DOT):- In first board (Stream connected to Nellore) all routs are being corrupted and again to be added very frequently for getting numbers.	To analyse the problem, Exchange Data PROMs at position U11 & U18 of RAP card can be sent to Bangalore office of C-DOT.
2.	RMF channels show error sometimes and show no communications and again the RMF channels are to be reconfigured.	• RMF card itself can be faulty. • Due to overload of MF traffic.
3.	STD available on STD barred numbers. Ex. 383273 indicator changed to 383267.	Same as in Sl. No. 1 above.
4.	Some nos. 383210 and 383211 are changed to 383271 and 383271 due to announcement (this facility not available) instead of dial tone.	Same as in Sl. No. 1 above.

S.No.	Problem Detail	Solution/Comments
5.	Abnormal meter reading incremented for the following DNP/Spare nos. 15/9 15/10 15/11 31/10 29/7/02 383360 3711 5312127 6098557 5705343 16322175 383376 715 15930014 70392 14095009 15667883 383392 16777215 15930014 125829011 3801087 (30/6) In 2nd board it is observed subs block are enabled instead of disabled condition. At that time announcements are being observed instead R.B. tone.	In 256P RAX meter spurt of an indivual number can happen due to following reasons. 1. PSU Off/On 2. RAP card reset 3. Exchange is allowed to shutdown due to complete battery drainage. 4. Software version in RAP cards of active and SBY is different.

Name of Site/Circle : Oiili/Momidi (Problem of 256P RAX)

S.No.	Problem Detail	Solution/Comments
1.	Spare nos. (even though in deleted condition) are getting meter readings incremented 2 o 3 units very often in F/N meter readings statement.	Problem has been debugged and solution will be given in next S/W release.
2.	Commands CONFG 5,1 & 5,2 are being corrupted. 5,1 shows primary Tax route no. instead of restricted STD routes. Change of primary Tax route not accepting.	<config> <5><2> command has been deleted. For Primary TAX deletion <config> <5><1><2> & creation it is <config><5><1><1>.
3.	STD subs are not getting STD after creation and dynamic lock granted. They get STD facility only after re-setting dynamic lock with command.	Problem is under investigations.
4.	Monthly twice or thrice some of the subs slots fails without dial tone. At that time the board is to be re-set with power off/on.	Site specific problem. Can be solved by changing RAP card or fresh data creation.

Name of Site/Circle : MBM Installation I, Chennai

S.No.	Problem Detail	Solution/Comments
1.	Trans-etnl-iot-msg error- no x, flows continuously even after rebooting both IOPs.	Trnsf-gp files iotmsg* & iotind* have to be copied fresh from BMDC in both IOP's. Shutdown & reboot IOP's and make them ACT/SBY.
2.	Use of 'cre-space' command gives error message “huge directory/data dump-call administrator” message comes for core*, .log and *. bat files even after deleting ‘ioh, trnsf and tf’ files.	Due to limitation of unix command to scan huge directories (/data/dump etc.). 'cre-space' need not be used. Use 'del-fgp-file' to delete ioh, tf & bc group files.
3.	ISDN : For the numbers under MSN, meter is updated to the PMSN directory number at one site for all the calls made from individual MSN numbers, but in another site it is found that the meter readings are updated in individual MSN numbers for the calls made from those respective MSN numbers.	[Mapd-NO] is same for PMSN & MSN nos. then meter reading will be updated in PMSN only. Therefore [MAPD-NO] should be different for PMSN & MSN Nos.
4.	Separate charge table for voice, video and data calls on ISDN lines is required,. If the BSI/BS2BS3 part of charge table could be used for this purpose, the procedure may be given.	Yes, it is possible. For each 'crg-rtn' seperate charge-pulse can be given for BS1, BS2 & BS3. BS1 is valid for voice call, BS2 for FAX call while BS3 is valid for Data/Video call.
5.	On line (crp) commands for bulk creation and deletion of subscribers is required for installation and maintenance purpose.	Suggestion Noted
6.	For “Internet dhaba” OG up to the 172xxx access code should only be given for the purpose of taking some traffic data from that number alone.	Route-code '172' can be put on rout observation and traffic observations taken.
7.	Detailed billing report should include the calls made on “95” routes also.	Enhancement required.
8.	IN-PCO are liberally installed in field for the purpose of facilitating the ITC card holders to make NLD/ILd calls from those phones. If hotline facility is given to Level-1 services then creation of these INPCOs would be possible directly.	Enhancement will be incorporated in the next S/W release.
9.	It is requested that a periodic document may be released providing maintenance tit-bits, as a support to maintenance problems.	For this 'TELEMATICS' is released every 3 months and useful information regarding enhancements/implementation is given.

S.No.	Problem Detail	Solution/Comments
10.	Creation of more number of users in SCP, for installing ROI at all the SSPs. It may also be kept in mind that in future each SSA may get an SSP in the LDCC HQ.	More SCPs will be installed to take care of this problem. (Lucknow & Ahamedabad will have their own SCPs.)
11.	**Problems in CCS7 working :** ➢ In one site it is observed that at a time only one out of the two data links is active, while the other one never comes to active status. ➢ It is observed many times at many sites that CCS7 route hangs up suddenly even without any disturbance to the PCM junctions and the data links. Only after the initialization of SUM the CC7 routes become normal.	• In LS creation MIN/MAX links available may be '1' only. It should be modified to '2'. • PHC channels may not be available for external use, as these are made available, using system parameters 'INT-THR' and 'NO7-THR'. These parameters should be tuned properly. • S/W upgradation to 2_1_7.5_1 may solve the problem.
12.	**Exchange revenue assessment :** 13. Quite often the higher offices require the exchange revenue details for a given period of time. Using the available "regn." utilities these data are collected by fully deploying one of the IOPs exclusively for this purpose. Some times when IOP is in simplex mode in certain exchanges, the report generation becomes difficult. It is requested that an utility may be developed to generate these reports for exchange revenue details facilitating to format, generate and print these records of total call counters of local/STD/ISD calls.	For this purpose, off line Billing packages can be used. BSNL can initiate development of such packages.
14.	While assigning call diversion facility to subscribers, option may be given to restrict the diversion up to local/91/STD, in a multi operator environment to ensure rational billing for inter operator calls	Requirement can be forwarded to TEC for laying down specifications for the same.
15.	Frequent no dial tone cases are observed in the ISDN lines in some sites. Reasons and solutions may be given for this problem.	Problem is under investigation.
16.	Hot line services on TEN in addition to D:RNO may be extended.	Not feasible in the present S/W architecture.
17.	"bd" back up could not be taken in SBM exchanges at certain times. It becomes possible after shutdown and reboot of both IOPs.	It is a site specific problem, may be due to fault in IOPs. Fresh loading of S/W in IOP's may help.
18.	"cntr" files are updated periodically, but the meter readings are shown as "0"., when the report is generated using "regn" utility. When one of the IOPs is taken to warm start level the other IOP	Site specific problem of status updation mismatch between two IOPs.

S.No.	Problem Detail	Solution/Comments
	shows the correct meter reading, after the next counter dump.	
19.	When all the links to an RSU are down the RSU goes to RBMSA mode. Suppose the links 17 to 20 only (still links 1 to 4 out) are restored, RSU does not change over to normal mode from SA mode. Only a reset to the TS gives solution. Reason and solution required.	• ETS in TSC-1 & corresponding ESM in CM required to be changed. • In some cases, complete cards (SCIC, TSC, BMS) in TSU should be changed.
20.	Report on DGN test for IFC (ESM/ESL or PSM/SSM) should give some more details than "TDRA test failed" for the RBMs, so that localization of such faults is speeded up.	In this case, corresponding TSCs. If two BMs to be made OOS & than DGN taken. In case of RSU, DTK's should be isolated then corresponding TSC/Data Cable/Clock cable or DTK wiring may be changed.
21.	Re-engineering of CM-XL Hardware is required to enable the smooth addition of data and clock cables into the CM-XL rack when BMs are added to the exchange.	Suggestion is noted.
22.	**Re-engineering of TSU Hardware:** The connectorised cables used to interconnect the copy-o and copy-1 motherboard of TSU are not flexible causing improper seating into the jacks. Theses cables are to be changed with more flexible cables to avoid transient faults generated in the time switch/message switch area, resulting in loss of voice channels/outlets for calls.	Suggestion is noted.
23.	Field problems and solutions to those problems are to be hosted on the CDOT web site, for easy reference.	Only documents like this can be circulated. These can not be put on web site.

Name of Site/Circle : E G SSA, AP Circle

S.No.	Problem Detail	Solution/Comments
1.	At times in 2_1_1_1 version of CDOT SBM / MBM as and when streams are Disturbed, exchange goes to repeated loading for stable clear, showing the reason as " Software recovery counter over flow"	This problem has bee solved in S/W relese 2_1_4.26_1 onward.
2.	Trunk ports appear to be in service normal (INS – NRML) but actually Ports will not carry traffic . And also in the distant end the corresponding port is in block condition . After giving part in it to	This problem has been solved in S/W relese 2_1_6.11_1 onward.

S.No.	Problem Detail	Solution/Comments
	the BM the fault will be set right.	
3.	In CCS – 7 signalling I/C TGP counter incrementing is not proper.	More feedback required for analysis.
4.	It is not possible to get the status of the TGP if the TGP is having more than 40 trunks.	One utility 'TGPUTIL' is available in 'RGEN' through which status of TGP having more than 40 trks can be taken.
5.	There is a considerable delay in accepting the command of making one Subs port OOS.	This is site specific only.
6.	In RGEN utility for TGPs observation at a time TGPS under observation should be multiples of 2 or 4 . This may be changed and even for a single TGP the observation should be accepted.	Due to software limitation.
7.	In case of transit call between two MBM Exchanges with CCS-7 signalling call is failing. If the number is busy, caller gets the congestion tone instead of busy tone.	If C-DOT exchange is parented to OCB exchange this problem has been observed. This is under investigation.
8.	In case of different priorities given to some particular Subscribers, calls from such subscribers in certain directions calls not through.	In MOD-R2 signalling, subs having priorities 2 to 6 will be treated as "priority subs" and for them priority '2'(Line cat2) must be allowed in all the routes in subsequent exchanges.
9.	Subscribers having priority other than '1' (Normal priority) are not able to access IN services in particular ITC.	It could be due to same reason as mentioned above at sl.no.8.
10.	ISDN Subs of both L and XL versions are not getting DATA calls for example they will not get INTERNET through ISDN line. In some exchanges they are getting even though the switch program is identical.	This is basically due to programming mismatch at ISP node for ISDN calls.
11.	Very frequent corruption of / data / dump directory . Reasons not known . This is observed where single IOP is working.	This is normally due to non cleaning of IOP Disk. As a result /data/dump directory gets choked. It is important to follow standard disk cleaning procedure.
12.	Even though the format billing counters command is given , the counters are not formatted properly . In display Sub – mtr – command the up dated meter reading is displayed.	Problem is under investigation.
13.	Suggestion is requested for the sanity of the back ups being taken.	No solution for the time being.
14.	It is becoming very difficult in restoring the #7 link by giving few commands when the link is disturbed.	Improved performance in software release 2_1_7.5_1.

S.No.	Problem Detail	Solution/Comments
15.	Call budgeting facility, which is now available in 256P exchanges of 4.2.1. version may also be extended to SBM / MBM exchanges.	This feature is being withdrawn from 256P RAX. There is no plan for SBM/MBM.
16.	IOP hanging problem: IOP remains in Active / Stand by but does not respond to the user.	Due to transient problem in s/w & h/w of IOP.
17.	**256P exchanges :** If the link in the intermediate stations is #7 from 256P exchanges call is failing.	Due to improper programming of 'CLI' sending data in 256P RAX, call may fail in some cases. Normally this problem has not been reported so far.
18.	Inter net calls are disconnected abruptly even before 3 minutes in some cases and after 3 minutes compulsorily in all the cases .	Main probability of call disconnection is the absence of Network Synchronisation in MBM/SBM exchange.
19.	The data speed is very slow in case of Internet and the speed is maximum 4.8KBPS only . Hence the Subscribers of 256P exchanges are bitterly complaining .Similarly while using COMAC same problem with frequent disturbance observed.	Network Synchronisation is required in 256P RAX also, in addition to SBM/MBM to which it is connected. This is possible in s/w 4-2-1 after introducing 'RNS' card in 256P RAX.
20.	Excess/ irregular metering complaints in 256 P exchanges in 4.2.1 version is observed in case of working and even spare numbers	Problem has been debugged and solution will be given in next s/w patch.
21.	For COMAC operation presently super user only accessible . User also may be given access , since S.U pass word in some cases may not be available.	Super user password is must for commac use.
22.	In case of thundering / lightning MP unit is going faulty or the link between switch and MP unit is failing . Any further protection may be suggested.	No additional protection is there right now.

Name of Site/Circle : TDM Chhindwara

S.No.	Problem Detail	Solution/Comments
1.	With slight increase in temperature of switch room systems goes for initialization. One way speech observed. Noise also observed.	It is not possible.
2.	CCS-7 for “SUM” PCM’s gets hang. They are to be brought in working by “OUT & IN PROCEDURE”.	S/w release 2_1_7.5_1 can be retrofitted for better performance.

S.No.	Problem Detail	Solution/Comments
3.	In some cases certain PCM goes “OOS TRANS” & is put right by “OUT & IN PROCEDURE” . In some cases PCM goes to ‘INS FRC’ &call gets fail. They are to be made “INS FREE”.	'OOS-Trans' problem is under investigation while 'INS-FRC' problem has been taken care of in 2_1_6.11_1 onwards.
4.	RSU of different SDCA in connection to LDCA, CLI of LDCA is extended, it should be of particular SDCA. Same thing is observed for WLL BTS.	This is as per implementation. Enhancement is needed in the s/w.
5.	In call transfer cases after making call transfer normal it does not get normal.	Site specific. Needs more input.
6.	Morning alarm does not work for all BM’s.	This happens more in duplex mode of IOP working. Problem is under investigation.
7.	“MAL OBSN” from different TAX does not record.	This may be due to intermediate TAXs not able to pass on CLI to terminating exchange.
8.	IN CCS-7 signaling “Metering Problem” observed, on certain routes, certain time.	This may happen in case Terminating exchange is extending periodic metering pulses in addition to ANS. So proper CRG-RTN (NON-MTRD) should be created for I/C calls at terminating exchange.
9.	On certain route parameter of TGP type is TTAX & on certain routes TGP type parameter is to be given as ordinary, then only call matured. So also MF signaling “CLIP” extends big ring for calls with in SDCA.	Only standard data creation should be done as stated at Sl. no. 10 page 25.
10.	In “HUNT GRPTYPE” junction get hang & corruption is observed in respective file.	Site specific due to data corruption in HGP related files.
11.	V 5.2 interface CCTs get hang & are put in service by “INIT MOD” only.	For better performance upgrade to 2_2_1_4.
12.	In MDF arrangement for IPM should be on exchange side.	Arrangement at MDF is irrespective of exchange technology.
13.	Along with directory No. Name, Address numerically & alphabetically should be made available.	Not possible.
14.	Full rate calls if finished in half rate it is charged as full rate.	It is not so. Please check your observation again.

Name of Site/Circle : Satara SSA

S.No.	Problem Detail	Solution/Comments
1.	Reset of Local counter version 2-1-4.26-1 In Satara C-DOT MBM Exch. there are 5 BMs with 2 LMs in which 1 is RSU BM (Total 17 BMs). The meter reading of the number get disturb due to reset of the Local Counter of the numbers with index number 1679 to 1687. Affected Unit: Meter reading of the numbers with Index No. from 1679 to 1687	Problem is still under investigation.
2.	Noisy Ring Back Tone for RSU BMs version 2-1-4.26-1 Satara C-DOT MBM exch. is having two RSU BMs located at position 18 & 20 Four ESM cards are in stalled for it with EPM at slot no. U-14 shows checksum 3 36D. There is Noisy Ring Back Tone when RSU numbers are dialed. The same EPM at other stations is having checksum as 81 D5. Affected Unit : The Ring Back Tone is noisy for the both BMs But if one of the IFC 25 and IFC26 made OPR it gives clear RBT. Otherwise TSC-1 of the BMS are to be made OPR	Normally this problem gets rectified after changing ESM and corresponding PSS (SWC) card in the particular BUS/SS plane. Even after this the problem exist, contact C-DOT Control room at Bangalore.
3.	Instability Due to NSC version 2-1-4.26-1 The synch. CLK of NSC-0 frequently going OOS-SYS, which cases the SUS status of the SS-O and CLK-O. This causes the disturbance in the Exchange. Any major problem in the exchange normally seen starts with the problem in synch CLK of NSC. Affected unit In some sites due to clock problem the all the PCM junctions working get affected. All the junctions goes to the BLK status.	Problem is due to one batch of crystal oscillator crystal used in NSC cards. For this replace NSC with new good card.
4.	SS Plane goes to INS-FTC State version CM-XL The SS plane either 0 or 1 goes to the INS-FRC. Recovery from he problem is quite complex. The frequency of the problem is considerable due to which the maintenance people experience the instability in the exchange as com-pare to the contemporary New	This normally happening if one of the NSC card is not functioning well. Only solution is to replace it with good card and then observe the system.

S.No.	Problem Detail	Solution/Comments
	Technology exchanges.	
5.	Soft-Loading of BM in SBM while PCM goes OOS-TRAS version SBM with 2-1.1-1 If the junction PCM of the SBM goes OOS-TRANS then the BM get disturbed and start loading in Soft Start mode. The continuous loading of the BM causes disturbance in dial tone in the exchange. This trend continues when the BM is working in the Group exchanges.	This was solved in s/w 2_1_4.26_1 and 2_1_6.x_1, but some how again noticed in 2_1_6.11_1 onwards. This is under investigation and solution will be provided in subsequent patches.
6.	ISDN BM-Soft-Start required frequently version MBM 2-1-4.26-1 The ISDN number in the exchange shows problem in functioning. It has been observed that after the soft-start is given they will work properly. This has been seen while accessing the Internet the number does not respond for the initial connectivity. But it gets connected immediately after connection.	ISDN working stability has been improved in next version (2_1_6.11_1 onward), in which BRI/PRI EPROMs have been changed. It will be better to upgrade version to 2_1_7.5_1.
7.	**GENERAL PROBLEMS AND SUGGESTIONS:** Locking of the SUB-OG-BAR and ALARM after AM related work was done: If the work on the CM or AM are carried out in exchange it causes the SUB-OG-BAR facility gots disturbed. It is even observed that just to applying SOFT-START to the AM the Activation of ALARM facility of the some number is not possible. The solution observed that for such case the number has to be deleted and recreated.	In such cases, do following:- i) Bring IOP in simplex. ii) In active IOP; recreate iosif processes. iii) Verify Alarm & sub-og-bar. These must be OK after this. iv) Synchronize the IOP during slack hours.
8.	The Calls to the number to which malicious observation imposed get cut immediately. This is observed especially with CCS7 signalling.	This is a problem of next level TAX, which is unable to pass CLI to originating exchange within predefined time causing call disconnection.
9.	Limitation on the number if TGP put under observation. There is no flexibility observed in this case. The limit of the 40 TGP for put in observation caused practically problem in the current TRAFFIC centric and analysis environment.	Requirement is already with C-DOT and effort is being done to increase the limit.
10.	The first call in case of the CALL-WAIT facility gets cut while attending Second call. This phenomena observed especially in the 2-1 4.26 1 version.	This is a site specific problem. It may happen temporarily due to code corruption. It will be better to upgrade to system 2_1_7.5_1.

S.No.	Problem Detail	Solution/Comments
11.	The Report Generation Utility: The C-DOT provides the rgen utility with new version and modification. But the new version disturbs the original some files giving faithful report, for example the New rgen distributed by the C-DOT includes file TGCBR2, but the report does not give the reports of the number of the parent exchange for calls on the TGP.	The existing utility 'tgcbr2' is meant for Detail Bill of I/C TGPs only, while separate file is available in new RGEN as ogtgcbr2 for O/G TGPs.
12.	Signaling Information and Support from C-DOT: C-DOT is expected to circulate signaling information for the connectivity for the different exchanges or TAX exchanges. Especially we found it difficult for connecting to the CI CAS and E1 PRI to the Internet Equipment.	For standard data creation in TAX exchanges refer solution to Problem No. 10 at Page 25.
13.	**Limitation on the CLIP facility :** There is limitation of the providing CLIP facility i.e. only 2 out of 8 in one LCC card gets the CLIP facility. This caused practical problem for giving the facility secondly the record keeping in MDF section get disturbed due to the PORT change for providing CLI facility.	In the present H/W limitation will remain. But in the new H/W (16 port line card), there will be no such limitation.
14.	**Online Support from the C-DOT** The C-DOt site should emerge as the main Technical Support platform for the Maintenance people. The site should help the maintenance people in their daily maintenance activity as well as critical situation.	Web site can not be used for problem & solutions. Telematics & documents like this will help field people to know about solutions of problem in different links.

Name of Site/Circle : Muzaffarpur, Bihar

S.No.	Problem Detail	Solution/Comments
1.	At present in Muzaffarpur SSA, two C-DOT MAX-XL exchange are present. C-DOT MAX-XL - K + 4 K RSU (2-2-1-3 (4.4) C-DOT TAX-XL – 6 K (2-1-1-1 (6.7)	S/W 2_2_1_3(4.4) should be upgraded to S/W 2_2_1_4(4.3) S/W 2_1_6.7_1 should be upgraded to 2_1_7.5_1.

S.No.	Problem Detail	Solution/Comments
	The following are the problems at the Muzaffarpur C-DOT Switch:	
2.	The sudden jump in the TGP meter counter for incoming and outgoing TGPs. The solution has not been provided till date and in multi-operator Scenario with revenue – sharing concept the incoming and outgoing TGP meter should be perfect.	Problem is under investigation
3.	Frequent booting of BMs of TAX. It has been observed that SRF counter overflow recovery is very frequent in C-DOT tax.	This may be due to wrong data creation for some directions. For standard data creation, refer Prob. 1 at Page No. 11.
4.	In CCS#7 circuit, the status INS-NRM-S7BSY, the call does not mature. Similarly, INS-FRC-S7BSY also the call does not mature. Reason for this status is still not known.	This problem has been taken care in 2_1_7.5_1
5.	At present in MAX-XL (2-2-1-3 (4.4), the status of BM is getting struck for eg no modification takes place in line B.M. or Trunk B.M. The modification only possible after giving part in it. The solution is not given till date.	Problem is under investigation and solution will be propagated in subsequent patches of S/W release 2_2_1_4.
6.	In V 5.2 Interface at MAX-XL, the interface with Lucent BSC, sometime Secondary protection does not come up automatically. Therefore part-initialization has to be given, to bring up both the primary and secondary protection.	Upgrade the software version to 2_2_1_4.
7.	Overloading of VMU message is coming even after introduction of (2-2-1-3 (4.4).	System should upgraded to 2_2_1_4(4.3)
8.	Sometimes the records in trans – file does not come in MAX-XI. (Local Exchange).	This may happen if trunk gp files are full & overwriting has started. Get around is to copy these files fresh from BMDC. Effort is on to rectify this problem permanently.
9.	Some records also do not come in commercial bill record in MAX-XL (Local Exchange).	BM initialisation can lead to such a case.

Annexure - I

Procedure for Transferring Files From IOP to PC and Vice-Versa

---

INTRODUCTION:

There are two utilities namely 'rz' and 'sz' present in directory $TOOLP which are used to transfer the files from IOP to PC/LAPTOP and vice-versa.

1. 'rz' is the utility to transfer the file from PC/Laptop to IOP
2. 'sz' is the utility to transfer the file from IOP to PC/Laptop.

PROCEDURE:

For using the 'rz' and 'sz' utilities follow the procedure given below.

- Copy the 'rz' and 'sz' utilities in $TOOLP directory in IOP.
- Connect the com port (say com2) of PC/Laptop to ASIO port of IOP using RS-232 cable having female connector on both side .
- Go to Hyperterminal option on the PC/Laptop available in Accessories.
- In the top menu of Hyperterminal,click on 'file' and select the 'properties' to change the setting of Hyperterminal. Select Port as 'COM2' and click on 'configure'. In the port setting of 'COM2' give the following values for the given parameters

  a) Bits per second = 9600

b) Data bits = 8

c) Parity = None

d) Flow control = None

- Click 'OK' after setting all these parameter . Now click 'Setting' and select 'Emulation' as 'VT100' and click 'OK'.
- After connecting the cable and changing the setting the above setting login prompt will be obtained on the Hyperterminal.
- Login as 'admn' and password as 'CDOTadmn'
- The file from IOP to PC/Laptop can be transferred by using the 'sz' utility. For this run the following command at IOP prompt:

  IOP 5x> sz filename

  This will transfer the file from IOP to Hyperterminal(PC/Laptop) at Desk Top as icon.
- The file from PC/Laptop to IOP can be transferred using the utility 'rz'. For this run the following command at IOP prompt:

  IOP 5x> rz ↵

  In the top menu of Hyperterminal,click on 'transfer' and select the 'send file'. A browser window will get opened . Select the Protocol as 'Z modem' and the file name to be transferred to IOP.

CABLE PERPARATION

1. RS-232 cable having female connectors on both sides should be used.
2. Pin connection for cable should be 2-3,3-2,5-5. → loop back test
3. Pin no 1-4-6 should be shorted both side.

Annexure - II

Explanation of the Traffic Report Field 'Any Other Reason'

A. For 'ORG-TERM' calls, calls failed due to any other reasons are :

1. Failure because of feature interaction.
2. Call failing because of non-availability of 3 way Time.
3. DBE Calls failing due to invalid equipment No./non-availability of service circuits.
4. Calls failing due to user rejection by ISDN Subs.

B. For ORG-OG Calls

1. Calls failing due to no route to requested transits network/no route to destination.
2. No response from ISDN user ring tone out occurs i.e. No Answer is received.
3. Called subscriber out of order.
4. Temporary failure on route.
5. Faulty signalling.
6. Service ckts not available.
7. Incomplete address information.

8. Invalid exchange code/route code.

9. Calls failing because of O/G restrictions.

10. Calls failing due to invalid EQN.

11. Calls failing due to junction faulty/spurious ANSWER.

C. OG TRUNK

1. Ring Time out

2. Called No. was unobtainable (Non Existing/frozen)

3. Called No. in LLO state

4. Called No. is accessed barred

5. Signalling failure

6. Invalid signalling

7. Backward signal permanent

8. Forward signal permanent

9. Congestion in Trunk

10. Remote Congestion

11. Junction faulty

12. Blocking

13. Dual Seizure

14. Spurious Answer

D. IC-TRNK

Same as given in 'C' with two additional reasons :-

1. Remote Congestion (in transit calls)

2. Outgoing Restriction (in transit calls)

E Total successful Calls Attempts

It indicates total local calls which originated from PSTN subscriber/operators, for which information about state of called user was received. Apart from completed calls, they include calls released due to:

i) Abandonment after dialling complete

ii) Calls to CP busy subs.

iii) Calls to subs out of order

iv) Called subs being access barred

v) No Answer at the end of ringing

vi) Number unobtainable

vii) Called No. changed

viii) System terminating calls (i.e. subs initiated features like Activation/deactivation of a supplementary service, automatic line testing, calls which get forwarded.