PLANT SERVICE CENTER RESPONSIBILITIES FOR SWITCHED SERVICES NETWORKS

1. GENERAL

1.01 This section outlines trouble reporting procedures and office responsibilities associated with Switched Services Networks (SSN). It also includes a brief description of these networks.

1.02 A Switched Services Network consists of access lines, network trunks and tie trunks interconnected by switching machines using common control switching arrangements to transmit voice, data or other forms of communications between a customer's locations. This customer may be Government, Military, or a private company.

1.03 More detailed information concerning customer trouble reporting, trouble handling, trouble analysis and office responsibilities for SSNs is found in Sections 310-200-000 through 310-200-005.

1.04 A general description of the features of SSNs, including a glossary of SSN terms, can be found in Section 310-200-100.

2. TROUBLE REPORTING

2.01 Two new locations are used in SSN trouble reporting — Switched Services Bureau (SSB) and Switched Services Report Center (SSRC):

(a) An SSB is associated with each Switched Services Network office (No. 5 Crossbar, or No. 1 Electronic Switching System —ESS) and may be located at or near the 17E, 19A, or equivalent testboard.

(b) An SSRC is a reporting center that may be established near a main PBX serving a PBX complex if the SSRC is in a better position than an SSB at a distant point to receive network trouble reports from the PBX complex.

Stations with PBX or CENTREX Attendants

2.02 Station users will report all troubles encountered to the attendant.

2.03 The attendant will refer to the Serving Plant Service Center (SPSC) all station and PBX troubles and difficulties encountered on calls between stations served by the same PBX. This will be done using the code or number listed for the SPSC.

2.04 Difficulties on network calls identified by (1) user dialing access code, (2) attendant manually connecting to access line or tie trunk, or, (3) user having direct access from a station set to a Switched Services Network office, should be reported to the SSB or SSRC.

(a) This is done in the following manner:

(1) The attendant dials the SSB via the network.

(2) If this cannot be done via the network, the attendant places a collect call to the SSB or SSRC.

Stations with No Attendants

2.05 Certain locations having no attendants can connect directly from the station set to the SSN office. In these cases, any station troubles should be reported to the SPSC using the listed code or number.

2.06 When the station user has difficulty making a network call, a report should be made to the SSB by placing a collect call.

2.07 Network trouble reports directed to the SPSC should be relayed to the proper SSB and excluded.

3. RESPONSIBILITY

3.01 The PBX and station plant will be maintained by the SPSCs in accordance with existing practices. The SPSCs will receive customer reports caused by troubles in the local ex-

change plant and station equipment. In addition, the SPSCs may receive customer reports which indicate trouble in the SSN access line, network, or far-end plant. The SPSCs should be capable of quickly identifying these troubles involving access lines, the network or far-end plant. Such troubles should be referred to the appropriate SSB or SSRC for further analysis and action.

3.02 If the SSB or SSRC locates trouble in an access line, it may be necessary to refer the trouble report to the SPSC for clearing. The report should be taken as "Referred-In" and disposition information furnished to the SSB or SSRC promptly.

3.03 The SPSCs must keep the SSB or SSRC informed of any trouble in the PBX complex likely to delay traffic to or from the network. The SSB is responsible for keeping the Network Control Office informed of any conditions that do or could affect service to any location.

3.04 Trouble report tickets shall be prepared, processed, and filed by the SSBs and SSRCs. Daily, the SSBs transmit details of every network report they received to the Network Control Office. Here, the reports from the entire network are sorted for pattern analysis. Pertinent details are sent to the respective SSBs to take action as required.

3.05 Periodically, the SSB will furnish each SPSC with a record of network difficulties encountered by the SPSCs served locations. This will enable local plant management to discharge their responsibilities for the quality of service furnished to a customer. This record will be in the form of a printout of a calling number sort and a called number sort. See Fig. 2 for an example.

(a) ***Calling*** number sort will include all network reports made on calls ***from*** the PBXs served by a SPSC.

(b) ***Called*** number sort will include all network reports made on calls ***to*** the PBXs served by a SPSC.

3.06 Detailed explanations of the entries in each column of the calling and called number printout are shown in Fig. 1. On these printouts, codes are used to indicate who originated the report, what was reported, and how it was disposed of. Form E-5121, Classification and Codes for the Handling of Trouble Reports, front and back shown in Figs. 3 and 4, lists all these codes. This form is available on a 5″ by 8″ card with a light green color band at the top for use at the SPSC, if desired.

Detailed explanations of the codes can be found in Section 310-200-003.

4. SERVICE RESULTS MEASUREMENT

4.01 Since a Switched Services Network Measurement Plan is being developed, service results data for SSNs will be excluded from the "Private Services Results Plan" and "The Customer Trouble Report Analysis Plan."

GE CO SWTD SVC RPTS CLG NO 61164

CLD NO ①	RPT LOC ②	CLG NO ③	TYP RPT ④	CUST ⑤	MO DA ⑥	TIME ⑦	TRBL LOC ⑧	DISP ⑨	OUT TM ⑩	LN LOC ⑪	STDY CD ⑫
325 4467	6	252 2228	123		06/08	21	6	71			
256 7344	6	252 2232	123		06/10	13	6	11	0025		

COLUMN	TITLE	DEFINITION
①	CLD NO	— ***Called Number*** or number dialed. An individual PBX can be identified from the prefix or the prefix plus the thousands digit. Some networks (example, FTS) use a numbering plan compatible with regular telephone service in which case the NPA code is also needed to reach or identify a PBX.
②	RPT LOC	— ***Reporting Location*** is the number of the SSN office preparing the trouble report ticket. The numbers are listed for each SSN office in Section 310-200-007.
③	CLG NO	— ***Calling Number*** made up of 7 or 10 digits depending on network. See further explanation in ① above.
④	TYP RPT	— ***Type Report*** is made up of two segments. The ***first digit*** indicates ***who*** originated the report. (See top portion of E-5121, (Front), Fig. 3.) The ***last two digits*** indicate the type of report that was made. (See lower portion of E-5121, (Front), Fig. 3.) This is always in a two-digit form showing the subgroup of the type of report.
⑤	CUST	— ***Customer*** initiated reports are totaled in this column for SSB summary purposes. It is not necessarily applicable to individual SPSC summaries.
⑥	MO DA	— ***Month*** and ***Day*** the customer made the report.
⑦	TIME	— ***Time*** the customer made the report. Entry shows only the hour on a 24-hour clock basis, generally on local time. Some networks may use Greenwich Time.
⑧	TRBL LOC	— ***Trouble Location*** is the number of the SSN office in whose territory the trouble locates. It is another use of the list of numbers described for Reporting Location in ② above.
⑨	DISP	— ***Disposition*** is a two-digit code number indicating how the report was disposed of. Form E-5121 (Back), Fig. 4, shows all the dispositions and their code numbers used in SSNs.
⑩	OUT TM	— ***Outage Time*** shown in hours and minutes. The first two digits show hours and the last two show minutes.
⑪	LN LOC	— ***Line Location*** of an Access Line in the serving No. 5 Crossbar machine if known.
⑫	STDY CD	— ***Study Code*** will be specified by Network Control Office as required.

Fig. 1 – Column Details of Typical Network Trouble Report Printout

Example of Calling Number Sort

GE CO SWTD SVC RPTS CLG NO 61164

CLD NO	RPT LOC	CLG NO	TYP RPT	CUST	MO DA	TIME	TRBL LOC	DISP	OUT TM	LN LOC	STDY CD
342 2685	13	431 1055	157		06/04	15	10	01			
272 7634	13	431 1056	136		06/05	15	13	71			
432 4377	13	433 2011	126		06/04	21	13	63	0020		
283 2011	13	433 2011	133		06/05	21	13	71			

Example of Called Number Sort

GE CO SWTD SVC RPTS CLD NO 61164

CLD NO	RPT LOC	CLG NO	TYP RPT	CUST	MO DA	TIME	TRBL LOC	DISP	OUT TM	LN LOC	STDY CD
432 2011	1	233 6011	126		06/05	18	13	01			
432 4011	6	252 7011	123		06/10	20	13	01			
432 4377	13	433 2011	126		06/04	21	13	63	0020		
433 1242	1	233 9065	135		06/08	13	1	71			
433 2364	1	235 3881	123		06/09	19	1	71			
433 2546	1	235 0111	551		06/05	15	1	71			

These are examples of a calling number sort and a called number sort of network trouble reports for three PBXs represented by network telephone number prefixes 431, 432 and 433. (See CLG NO column in Calling Number Sort and CLD NO column in Called Number Sort.)

These summaries will be sent periodically (usually every four weeks) to the SPSC serving the PBXs represented.

See Fig. 1 for details of column entries.

Fig. 2 – Examples of Calling and Called Number Sorts of Network Trouble Reports

E-5121
12-63

Classifications and Codes FOR THE Handling of Trouble Reports

ORIGIN OF REPORT

1	ATT	(Attendant Initiated)
2	CUST	(Customer Initiated)
3	NCO	(Network Control Office)
4	CSBR	(Central Office #5 X-Bar Machine)
5	SO	(Service Observing)
6	C4	(Employee Report)
7	RN	(Referred in Report)

TYPES OF REPORTS

GROUP		SUB GRP	TROUBLE REPORT
ORIG. CALL	1 CC – NDT CAN'T CALL NO DIAL TONE	11	NDT (No Dial Tone)
		12	NREG (No Register)
		13	SDT (Slow Dial Tone)
ORIG. CALL	2 CC – OTH CAN'T CALL OTHER	21	CBDT (Can't Break Dial Tone)
		22	DTAD (Dial Tone After Dialing)
		23	NRNA (No Ring No Answer)
		24	GWN (Get Wrong Number)
		25	AALB (All Access Lines Busy)
		26	DA (Don't Answer)
		27	REC CKT (Recording on Circuit)
ORIG. OR TERM. CALL	3 TRANS – NOISE TRANSMISSION NOISE	31	CH (Can't Hear)
		32	CBH (Can't Be Heard)
		33	NSY (Noisy)
		34	FT (Foreign Tone)
		35	CRS TLK (Cross Talk)
		36	CO (Cut Off – Cut Out)
		37	TTY (Teletypewriter)
		38	CTRD (Can't Transmit/Rec. Data)
TERM. CALL	4 CBC CAN'T BE CALLED	41	DGC (Doesn't Get Call)
		42	CTR (Can't Trip Ringing)
		43	FR (False Ring)
		44	BDR (Bell Doesn't Ring)
	5 MISC. MISCELLANEOUS	51	RO (Reorder)
		52	PS (Permanent or False Drop/Line Seizure)
		53	SUPVN (Improper or No Supervision)
		54	SS (Stuck Sender)
		55	RTF (Routine Test Failure)
		56	TI (Trouble Indication)
		57	OTH (Other)
		58	Release

Fig. 3 – Form E-5121 (Front)

Disposition

CODE 1 – STATION, PBX AND OTHER LOC FAC
- 10 Sta Eqpt
- 11 PBX
- 12 DATA-PHONE Subset
- 13 Rept & Assoc. Eqpt
- 14 Carr Term.
- 15 Sig Eqpt
- 16 Local Fac
- 17 Sta Eqpt (ICO)
- 18 PBX (ICO)
- 19 Other

CODE 2 – NETWORK TRUNK
- 21 Rept & Echo Supp
- 22 Sig Eqpt
- 23 Carr Chan
- 24 Voice Condr
- 25 Employee Activities
- 26
- 27
- 28 Network Trunk Release
- 29 Other

CODE 3 – TIE TRUNK (TOLL FAC)
- 31 Rept & Echo Supp
- 32 Sig Eqpt
- 33 Carr Chan
- 34 Voice Condr
- 35 Employee Activities
- 36
- 37
- 38 Tie Trunk Release
- 39 Other

CODE 4 – ACCESS LINE
- 41 Rept & Echo Supp
- 42 Sig Eqpt
- 43 Carr Chan
- 44 Voice Condr
- 45 Employee Activities
- 46 ICO (Fac)
- 47
- 48 Access Line Release
- 49 Other

CODE 5 – CENTRAL OFFICE
- 51 Frames
- 52 Line Ckt
- 53 Comm Eqpt
- 54 Trunk Circuit
- 55 Calling Party Hold and Equipment Off Normal
- 56 Plant & Traffic Opr
- 57
- 58
- 59 Other

CODE 6 – CUSTOMER ACTION
- 61 Receiver Off-Hook
- 62 Misoperation
- 63 Other
- 64 Sta Eqpt (COAM)
- 65 PBX (COAM)
- 66 Other (COAM)

CODE 7 – TEST OK
- 71 TOK

CODE 8 – FOUND OK – IN
- 81 FOK SSN Ofc – Switching Eqpt

CODE 9 – CAME CLEAR/FOUND OK – OUT
- 91 FOK – Local Fac
- 92 CC Network Trunk
- 93 CC Tie Trunk
- 94 CC Access Line
- 95 CC – FOK (ICO)
- 96 CC – FOK (COAM)

CODE 0 – REFERRED OUT
- 01 RO

Fig. 4 – Form E-5121 (Back)