SWITCHING SYSTEMS MANAGEMENT

NO. 3 ELECTRONIC SWITCHING SYSTEM

ASSIGNMENT ADMINISTRATION

WORKING OFFICES

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1. GENERAL

1.01 This section describes procedures for the assignment of lines, trunks, and service circuits in a working No. 3 Electronic Switching System (ESS) office.

1.02 Whenever this section is reissued, the reason for reissue will be listed in this paragraph.

1.03 This section supplements DFMP Division H, Section 11o(1) General Assignment Recommendations and 11o(2) New Offices. It is recommended that the network administrator have a thorough understanding of Section 11o(1), General Assignment Recommendations, as a prerequisite to this section.

2. OFFICE RECORDS

2.01 Each No. 3 ESS is capable of generating complete, printed records of all pertinent assignment information on lines, trunks, and service circuits working in the office. As this information changes, the network administrator may request updates of the office records, page-by-page.

2.02 The office records are printed direct from information stored on a magnetic tape cartridge at the No. 3 ESS. Therefore, these records represent the most accurate information possible.

2.03 These mechanized office records should be the official records of the network administrator for a working No. 3 ESS office. It is recommended that these records be used rather than manually posted records.

2.04 More information on the mechanized office records system can be found in DFMP Division H, Section 11o(5), Office Records.

3. LINE ASSIGNMENT

3.01 The vehicle for delivery of assignable office equipment numbers (OENs) and telephone numbers (TNs) to plant assignment is the *assignment list*. The assignment list may be referenced by other names such as the *availability list* or the *list of assignable lines and numbers.*

3.02 The list is prepared for each office by network administration and is sent to plant assignment upon their request when OENs and TNs on previous lists have been assigned.

3.03 Actually, there are several assignment lists. The OENs and TNs are on separate lists. Also, the OENs and TNs, themselves, may be divided into separate lists. TNs, for example, may be divided into one list for coin and another list for all other classes.

3.04 OENs must be divided into two separate lists, one list for loop start lines and one list for ground start lines. Coin lines, which are not dial tone first, use ground start OENs as do certain PBX trunks. Dial tone first coin lines, all residence, and business lines use loop start OENs or "ground start" OENs which have not been converted to ground start.

3.05 The network administrator should designate whether the OENs on the ground start assignment list have already been converted to ground start or whether network maintenance must make the conversion.

3.06 The network administrator should make certain that plant assignment clearly understand the ground start requirements.

3.07 Select equal quantities of OENs from different concentrators to avoid load imbalances. (See DFMP, Division H, Section 11e, Load Balance.) Do not take OENs for a working office from the preferential network assignment list (PNAL). The PNAL is to be used only for assignments prior to the cutover of a new office.

3.08 TNs in the No. 3 ESS memory are translated in blocks of 100. If only one TN out of a block of one hundred is actually used, space for 100 numbers is opened in memory.

3.09 The network administrator should utilize the entire hundreds block of TNs before opening a new block when preparing TN assignment lists.

3.10 The number of TNs or OENs, which appear on an assignment list, depend on the size and activity of the office. However, the number of entries on a list should, in no case, last plant assignment more than one month.

3.11 The No. 3 ESS assignment is represented by a cross-connect on the distributing frame, and also by entries in the main store memory.

These entries are also stored in a back-up copy on magnetic tape cartridge.

3.12 Plant assignment enters assignment information into memory in a working No. 3 ESS office by using the service order teletypewriter (SOTTY). The SOTTY linked to the ESS processor takes input from the SOTTY, translates it into machine format, and stores it in appropriate memory locations.

3.13 Entries on the SOTTY use a keyword and data format. As an example, the following is a service order for new service as it appears on the SOTTY:

A RC:LINE

ØRD 0001/

TYP NEW/

ØE 10 2110/

TN 555 1150/

LCC 1FR/

END! ØK

These entries mean that this is a recent change for a line (RC:LINE); the service order (ØRD) number is 0001; the type (TYP) of order is new service; and the customer will work on office equipment number (ØE) 10 2110, (concentrator group 10. Concentrator 2, switch group 1, switch 1, level 0) will have the telephone number (TN) 555-1150, and will have the line class code (LCC) of 1FR. The word END followed by an exclamation mark ends the order and the ESS will print ØK if the order is accepted. A complete listing of recent change messages and an explanation of each can be found in the No. 3 ESS input manual.

3.14 The SOTTY can be arranged in one of two ways, dedicated link or autoconnect. A dedicated link connects the SOTTY to the ESS by a separate, nonswitched wire connection. The autoconnect arrangement establishes a link between the SOTTY and the ESS through the switched telephone network.

3.15 With the autoconnect arrangement the service order clerk dials a certain preassigned

telephone number in the No. 3 ESS. Upon completion of the call to the ESS, the ESS returns a tone and the clerk disconnects.

3.16 The ESS then initiates a call to the telephone number assigned to the SOTTY. Upon completion of the call, a connection is made between the SOTTY and the ESS then service orders can be entered.

3.17 The network administration teletypewriter (NATTY) may also be arranged as dedicated or autoconnect; however, the arrangement of the NATTY does not depend on the arrangement of the SOTTY. If both the NATTY and the SOTTY are autoconnect, only one can make a connection to the ESS at a time. The ESS distinguishes between a connection to a SOTTY and a NATTY by the telephone number used to call each. The ESS thereby prohibits the recognition of service orders entered from the NATTY or network administration messages entered from the SOTTY.

3.18 Likewise, separate telephone numbers must be assigned in the ESS to be called for a request for connection by the SOTTY and also for connection by the NATTY.

3.19 A service order entered for new service assigns each line a particular line class code. The line class code is used by the ESS to determine the routing and charging information which should be applied to that line.

3.20 The ESS will only recognize line class codes which appear on the line class code table in machine memory. The line class table is originally built from entries on the ESS 3306 form. Line class codes should be identical to universal service order code (USOC) abbreviations whenever possible.

3.21 If it becomes necessary to create new line class codes, plant maintenance must expand the entries on the existing line class code table. Plant maintenance must consult plant assignment and network administration before proceeding. These groups should jointly determine present and future line class code requirements.

3.22 Special line circuits are required for certain lines. For example, lines with excessive electrical interference causing false requests for service require noise immunity line circuits and dial

tone first coin lines require dial tone first coin line circuits.

3.23 The mechanized office records system identifies line circuit assignments of which the network administrator should be aware. Although the network administrator may not make the actual line circuit assignment, the network administrator should periodically check current office records to see if the quantity of each particular type of line circuit in use is near exhaust.

3.24 The network design engineer should be advised whenever the network administrator finds a potential shortage of line circuits.

4. TRUNK AND SERVICE CIRCUIT ASSIGNMENT

4.01 The network administrator is responsible for making OEN assignments for all lines, trunks, and service circuits in the No. 3 ESS office.

4.02 In addition to OEN assignments, trunks and service circuits added to existing trunk groups require circuit assignments and frame locations. If a new trunk group is established, it requires a new trunk group number, designation of the highest member number, a circuit code, a route index, feature assignments, and a network administration measurement schedule assignment.

4.03 In the above items, the network administrator may be responsible only for OEN and measurement schedule assignments. The network administrator who has total trunking responsibility may find detailed information concerning the above items in DFMP Division H, Section 11p, Trunk Administration.

4.04 The No. 3 ESS does not require trunk and service circuit assignments to be limited to only particular OENs; however, the network administrator may elect to reserve particular switch levels for trunks and service circuits, when possible, in order to simplify record keeping and assignment selection.

4.05 The network administrator should make OEN selections for additional trunks and service circuits so that the trunking load will be spread evenly over the concentrators.

5. SCAN POINT AND DECODER POINT APPLIQUE ASSIGNMENTS

5.01 Scan points for devices which are outside of the No. 3 ESS office require connection to remote scan point appliques (SD-1A210). Decoder points for devices which are outside of the No. 3 ESS office require connection to remote decoder point appliques (SD-3H911). Network maintenance determines the actual assignment of appliques and the network administrator is responsible for keeping a record of customers who have applique assignments and the quantity of appliques in use.

5.02 Scan point appliques are used for make busy keys, mobile radio lines, subscriber loop concentrators and multiplexers, and group alerting line circuits. Decoder point appliques are used for message registers, noise immunity line circuits, sleeve leads, and dial-tone-first coin line circuits.

5.03 A notation of appliques in use may be made on the customer records contained in the mechanized office records system.

5.04 The network design engineer should be advised whenever there is a potential shortage of appliques.

6. MEASUREMENT SCHEDULE ASSIGNMENTS

6.01 The network administrator is responsible for network administration measurement schedule assignments. Register assignments are a part of the service order and trunk order process.

6.02 Register assignments are entered on the ESS SOTTY. Registers for each of the following must be assigned to a measurement schedule.

- New trunk groups

- New service circuit groups

- New multiline hunt groups

6.03 The register data will appear on the assigned schedule after the order is entered into the ESS.

6.04 Additional information on measurements can be found in DFMP Division H, Section 11h, Network Administration and Maintenance Measurements and in DFMP Division H, Section 11i, Data Management.

7. ADMINISTRATION OF NEW NETWORK FRAMES

7.01 This part is reserved for a description of assignment administration in a No. 3 ESS office in which network frames have been added. This information will be included in a later issue of this section.