NO. 2 ELECTRONIC SWITCHING SYSTEM

SERVICE FEATURES

SERIES COMPLETION

1. GENERAL

1.01 This section describes the line hunting feature of series completion that is associated with the No. 2 Electronic Switching System (ESS). This feature is *only available with the LO-1 program.* (A station hunting feature is available with the EF-1 program.)

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

2. DESCRIPTION

2.01 Series completion is a line hunting feature which allows a call to be routed to another telephone number when the called line is busy. If the called line is found busy, another series completion directory number is used in place of the dialed number. Should the series completion line be found busy, another number is selected (when designated). The process can continue until an idle line is found or until the last designated line of the series completion list (chain) is reached and found busy. (Reference Fig. 1.) A maximum of eight lines can be reached using series completion, but the multiline hunt feature is recommended when five or more lines will be used.

3. CONDITIONS OF USE

3.01 Each designated series completion directory number can only hunt to one other directory number in the series completion list, however several numbers may be linked together by making each number series complete to the next number in the list. The only limitation in completing to another number is that the last number in a series must not be arranged to look at another number in the series completion list.

3.02 Series completion assignments may be made to any seven-digit directory number in the office, except numbers having ground start PBX equipment. (Hunt lines associated with ground start PBX equipment must be assigned to a multiline hunt group, reference DFMP Division H, Section 10e(1) Multiline Hunt Group.)

3.03 Series completion numbers may be in any random order. They do *not* need to be sequential directory numbers.

3.04 The dialed directory number plus seven series completion directory numbers may be linked in a single series completion list. The series completion program stops after it has encountered eight busy lines in order to avoid continuous hunting.

3.05 The first line of a series completion group has the directory number of the second line stored in its translation data. When the first line is found busy the program initiates a new directory

number translation for the second line. Each successive number is then examined as though it were the actual number dialed. Since each number translation is time consuming, it is recommended that the quantity of series completion lists exceeding four directory numbers be kept to a minimum to prevent using excessive processor time. When a series completion list in excess of five directory numbers is required, multiline hunt group assignments are recommended. (Reference DFMP Division H, Section 10e(1), Multiline Hunt Group.)

3.06 When a number in a series completion list is dialed, the hunting will start at that number and continue to the end of the series.

3.07 Series completion to a trunk group may be accomplished by using a directory number with a route index. This might be used for example, to direct fire and police overflow to an operator.

3.08 Judgement based on knowledge of the area served by the No. 2 ESS, the office characteristics, hunting growth, etc., must be exercised in determining the type of hunting (MLH or series completion) to assign a particular customer. In addition to the previously mentioned restrictions, certain features and conditions cannot be assigned series completion and are outlined below:

(a) Series completion should not be used when stop hunt, remote make busy, or night stop features are desired with a hunt group.

(b) Series completion should not be used for inward wide area telephone service (WATS) lines.

(c) Series completion should not be used when more than one hunt group or overlapping hunting lists are desired. A multiline hunt group assignment is required when the above conditions are desired.

4. LINE ASSIGNMENTS AND UPDATES

4.01 Series completion directory number assignments are made when the initial translation forms are prepared. Reference the Translation Guide TG-2H, Division 4, Preparation of Forms and Division 5, General Office Translations.

4.02 The service order teletypewriter is used to make updates which add, change, or delete series completion directory number assignments. Reference the Input Manual IM-2H200 for the appropriate message(s).

5. REFERENCES

5.01 The following references may be used for additional information on series completion.

(a) BSP 232-118-101 — Translation Data Description

(b) BSP 680-536-010 — ESS Service Order Procedures

(c) No. 2 ESS Translation Guide — TG-2H; Division 4, Preparation of Forms; Division 5, General Office Translations; and Division 8, Office Records.

(d) Input Message Manual IM-2H200

MACHINE PROCESS   LINE STATUS

START

(THE DIRECTORY NUMBER (DN) HUNT CAN START AT ANY NUMBER IN THE SERIES)

DN (DIALED) —(TRANSLATED TO)→ TEN → BUSY / IDLE

SERIES COMPLETION NUMBER

DN —(TRANSLATED TO)→ TEN → BUSY / IDLE

SERIES COMPLETION NUMBER

DN —(TRANSLATED TO)→ TEN → BUSY / IDLE

SERIES COMPLETION NUMBER

DN —(TRANSLATED TO)→ TEN → BUSY / IDLE

SERIES COMPLETION NOT DESIGNATED

RETURNS BUSY SIGNAL TO DIALING PARTY

LIMITED TO A MAXIMUM OF SEVEN DIRECTORY NUMBERS WITH A SERIES COMPLETION NUMBER. (IN TRANSLATIONS)

LEGEND:
TEN = TERMINAL EQUIPMENT NUMBER

Fig. 1—Series Completion Hunt Process (All Lines Busy)