MOST ECONOMICAL ROUTING (MER)

(CENTREX)

NO. 2 ELECTRONIC SWITCHING SYSTEM

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FEATURE DEFINITION AND DESCRIPTION

1. DEFINITION

1.01 The Most Economical Routing (MER) feature is an arrangement which permits the centrex station user to dial an access code (set of preassigned digits), followed by a directory number, and have the call automatically routed to its destination in a preselected pattern (which is usually the "most economical" route).

1.02 In a No. 2 Electronic Switching System (ESS), most economical routing is a service that is offered to centrex customers whereby calls to direct distance dialed (DDD) numbers are automatically routed over customer-owned private facilities or DDD network via a preselected pattern of routing as selected by the customer. The facilities to be used may be selected from foreign exchange (FX), common control switching arrangement (CCSA), and wide area telephone service (WATS).

1.03 The MER feature is provided on a per-centrex customer group basis in a No. 2 ESS office. Since MER is a software feature that makes the best use of existing customer facilities, no special hardware is required for implementing this feature into the system. However, an office data administration (ODA) run is required to set up the proper routing and screening translation information within the No. 2 ESS.

1.04 The EF-1 generic program is required to implement MER in a No. 2 ESS office.

2. DESCRIPTION

A. Customer (User) Perspective

2.01 The customer uses the MER feature by dialing an access code of one to three digits. A second dial tone is provided if the customer is permitted MER service. The customer then dials a 7- or 10-digit DDD number. Ten digits are required when the call is placed outside of the customer's home numbering plan area (NPA). From this point, the No. 2 ESS processes the call via a preselected routing pattern as described in the following paragraphs.

B. System Implementation

2.02 Implementation of MER requires the customer to define all DDD codes that will be used for each MER access code. During the planning stage, the customer should assist the telephone company in determining the facilities and alternate facilities the customer wishes to use in completing MER calls. If the customer wishes to have more than one way of handling calls to the same DDD code by different groups, these different ways must be defined.

2.03 The actual routes which may be selected by the No. 2 ESS for MER calls include:

- Various FX facilities
- CCSA trunks
- Various WATS bands
- Regular DDD network.

Alternate routing is provided among the above facilities; however, DDD service is used only as a final choice. When all of these facilities have been exhausted without successfully routing the call, the calling customer receives reorder tone.

MER Operation Procedure

2.04 When the centrex customer dials the MER access code, the centrex digit interpretation program is activated to interpret the dialed digits. At this point, the centrex access treatment (CAT) code of the calling party is checked against the restriction code bits to determine whether the station user is allowed access to MER. If access is allowed, a second dial tone is returned to the calling party and control is given to the digit interpretation program (PD-2H204).

2.05 The screening class associated with the MER access code is taken from the terminal entry of the centrex digit interpreter table (DIT) and is used within the 3-digit translator in the same manner as that for a normal noncentrex call or for a centrex "dial 9" call. From this screening class, and the next three digits dialed (refer to note), the 3-digit translator generates a route index (RI) and a charge index (CI) to indicate how to route the call and with what charging treatment. For noncentrex calls (and for centrex "dial 9" calls),

the routing is generally to another switching machine via an interoffice trunk. For MER calls, the route index generated is usually a MER route index. (The route index generated can be a normal "non-MER" route index where distinctive MER routing and distinctive MER charging are not necessary.)

> ***Note:*** "Three digits" in this FD refer to the office code dialed or to the 6-digit area code plus office code where six digits are necessary to determine the routing.

2.06 The MER route index can take on one of four forms. These four choices correspond to the four types of routes listed in 2.03:

- FX
- CCSA
- WATS
- DDD.

These four can be used (or omitted) in any order with the restriction that if DDD is used, it must be the last choice. For any given 3-digit code, a number of FX choices or WATS choices may apply. For example, the MER routing for a particular 3-digit code for a particular centrex customer might be as follows:

(1) FX Group 1

(2) CCSA Group

(3) FX Group 2

(4) WATS Band 1

(5) WATS Band 2

(6) WATS Band 3

(7) DDD Overflow.

Each 3-digit code for each centrex customer with the MER feature may yield a separate MER routing pattern. The MER routing pattern above is more complex than is typically the case, but makes a good example since it illustrates most of the salient points about MER.

2.07 This example in 2.06 is described in detail in the paragraphs that follow. Figure 1 illustrates the various offices and trunk groups involved. Figure 2 illustrates the MER routing pattern. The centrex station user in office A wishes to reach the station in office G. For this example, the NPAs are different, so that the centrex station user must dial 10 digits after the MER access code. (The MER access code may be any 1-, 2-, or 3-digit access code. The digits "71" are used in this example.) After the centrex station user dials the MER access code, the station's CAT code is checked against the MER restriction code in the DIT terminal entry. If the centrex station is allowed to dial MER access, second dial tone is returned to the station. (Otherwise, dialing error treatment is given.)

2.08 After receiving the first three digits ("815"), the 3-digit translator determines that three more digits are necessary in order to route the call. After three more digits are dialed ("777"), the 3-digit translator now has enough digits to determine the routing of the call. The 3-digit translator uses the screening class as described in 2.05, and enters the flowchart in Figure 2 at the point labeled "MER Routing from 3-Digit Translator." (Other screening classes may cause the program to enter the flowchart in Figure 2 at the point labeled "Noncentrex and Centrex Dial 9 Routing from 3-Digit Translator.")

2.09 The first MER route in this example is FX Group 1. The FX MER route index indicates the following:

(1) The FX trunk group to use. This FX trunk group is dedicated to this particular centrex customer.

(2) The CI to use. For FX, the CI ultimately yields "Entry Type 01."

(3) Prefix and delete information. For FX trunk group 1, this information is marked "delete 3 digits ("815") with no prefixing."

(4) An indicator which tells the outgoing trunk program to collect 10 digits as opposed to 7 digits ("7D" = 0).

(5) An alternate MER route index.

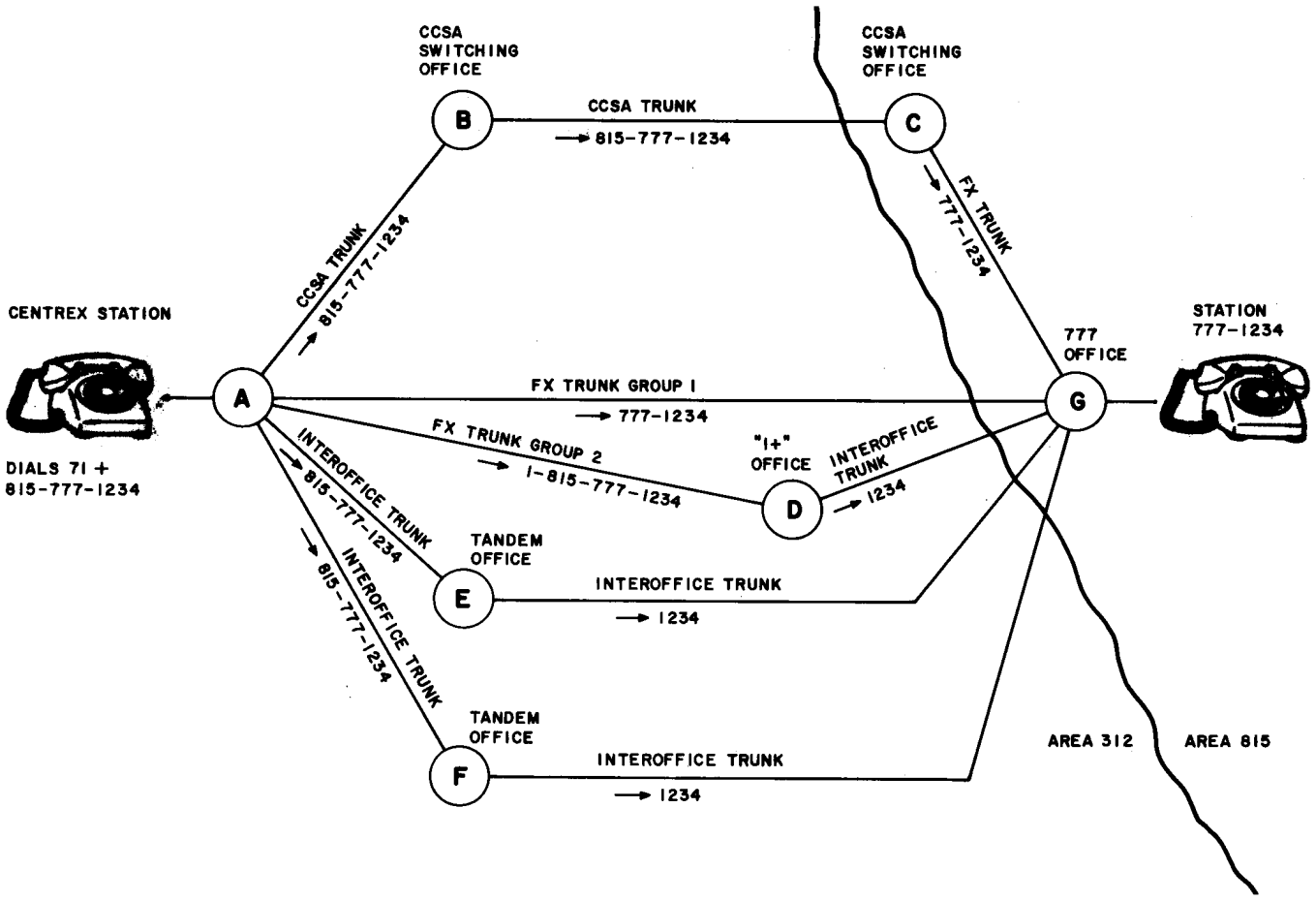


Fig. 1—MER Routing Example

The program checks FX trunk group 1 to determine if any members are idle. If so, the MER part of the call is finished, and the call completes to office G as a normal FX type of call (with three digits deleted, so that "777-1234" is outpulsed). If all trunks are busy in FX trunk group 1, the program expands the alternate MER route index associated with FX trunk group 1.

2.10 This alternate MER route index is the second route to be tried in this example, and leads to office G through a CCSA network associated with the centrex customer. This CCSA network must provide "off-net" calling to office G over an appropriate FX group (from CCSA switching office C). This MER route index indicates:

(1) The CCSA trunk group to be used. The CCSA trunk group is dedicated to this particular centrex customer.

(2) The CI to be used. (The previous one mentioned in 2.09 is discarded.) For CCSA, this CI ultimately yields "Entry Type 09."

(3) Prefix and delete information. For this route, none applies.

(4) An indicator which tells the outgoing trunk program to collect 10 digits ("7D" = 0).

(5) An alternate route index.

The program checks the CCSA trunk group to determine if any members are idle. If so, the MER part of the call is finished, and the call completes to office G via offices B and C as a normal CCSA call (with no prefixing or deleting in office A). If all trunks are busy in the CCSA trunk group, the program expands the alternate MER route index.

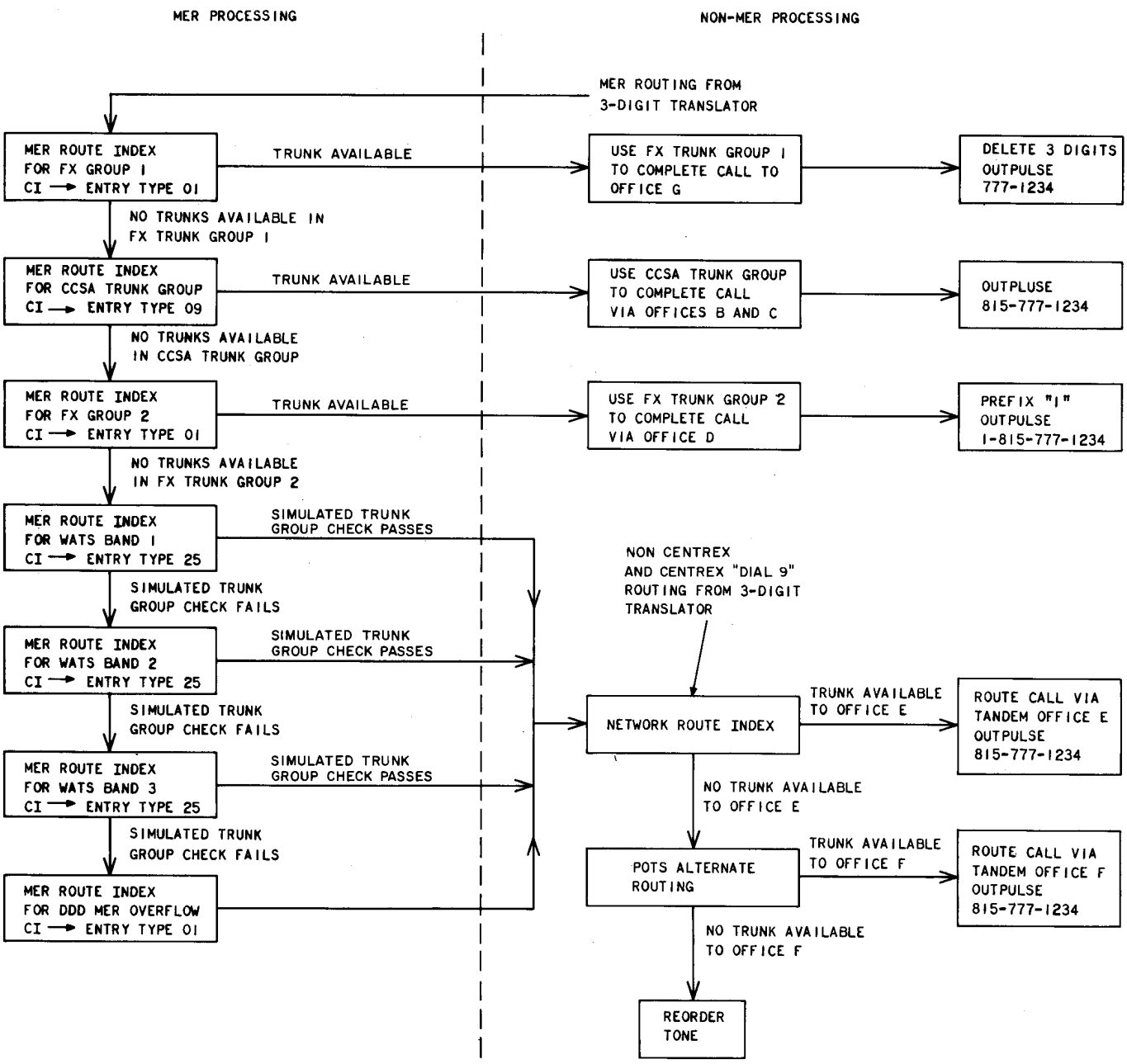


Fig. 2—MER Routing Flowchart Example

2.11 This alternate MER route index is the third route to be tried in this example, and leads to office G through intermediate office D. This MER route index indicates:

(1) The FX trunk group to be used. As in 2.09, this FX trunk group is dedicated to this particular centrex customer.

(2) The CI to be used. This CI is probably the same one used in 2.09 and ultimately yields "Entry Type 01."

(3) Prefix and delete information. For sake of example, office D is assumed to be a "1+" office, in that toll calls must be preceded by the digit "1". For FX trunk group 2, the prefix and delete information is marked "prefix one digit ("1") with no deleting."

(4) An indicator which tells the outgoing trunk program to collect 10 digits ("7D" = 0).

(5) An alternate MER route index.

The program checks FX trunk group 2 to determine if any members are idle. If so, the MER part of the call is finished, and the call completes to office D as a normal FX call with the digit "1" prefixed, and on to office G as an interoffice call. If all trunks are busy in FX trunk group 2, the program expands the alternate MER route index.

2.12 This alternate MER route index (WATS Band 1) is the fourth route to be tried in this example, and leads to office G through the normal Bell System DDD network. This MER route index indicates:

(1) The simulated trunk group to be used for WATS Band 1. (A simulated trunk group is a software device to allow no more than a specified number of calls of a certain variety to be in progress simultaneously. For example, no more than four WATS Band 1 calls can be in progress at any given time.)

(2) The CI to be used. For WATS, this CI ultimately yields "Entry Type 25," and a specific "message billing index" for WATS Band 1. Previous CIs have been discarded.

(3) Network route index. The network route index yields the noncentrex routing (including any noncentrex alternate routing) for a given dialed 3-digit code.

(4) An alternate MFR route index.

The program checks the simulated trunk group for WATS Band 1 to determine if this call is allowed. If so, the MER part of the call is finished, and the call completes using the network route index, which in this example, means via tandem office E, with overflow to tandem office F. If the maximum number of WATS Band 1 calls are already in progress, the simulated trunk group check fails, and the alternate route index is expanded.

2.13 The alternate MER routes of WATS Band 2 and WATS Band 3 are essentially the same as for WATS Band 1, except that each WATS Band has its own simulated trunk group, its own CI, and its own message billing index.

2.14 The alternate MER route index from WATS Band 3 directs the call to "DDD MER Overflow." This route index indicates:

(1) The network route index, which is the same as in 2.12. (If the network route index happened to be set to all ones, the "direct route index" from the "code index expansion table" would have been used.)

(2) The CI to be used. For DDD MER overflow, this CI yields "Entry Type 01." (This MER route index is necessary so that this CI will be defined, and any previous CIs will be discarded.)

(3) "Dial 9" simulated trunk group. (This does not apply in this example, but would apply if "dial 9" calls used a simulated trunk group.)

There is no alternate MER route index for this DDD MER overflow case. At this point, the MER part of the call is finished, and the call completes using the network route index via tandem office E, with overflow to tandem office F.

2.15 This example illustrates a number of points:

(1) This example is not typical, in that it is not necessary to use all of the four routing choices for any given MER routing pattern. (A single choice of DDD MER overflow could be valid for some particular 3-digit code.)

(2) The order and composition of the routing choices for each 3-digit code is established by the telephone company (in conjunction with the centrex customer), and remains fixed until the next ODA update.

(3) MER alternate routing stops at the point where an appropriate trunk group is found to have an idle member, or where an appropriate simulated trunk group indicates that processing may continue. Blockage beyond this point does not allow the program to reenter the MER routing pattern. These calls are given reorder tone.

Note: Blockage can occur because the actual trunk selection takes place after the last four digits are dialed ("1234"). This could be many seconds after the initial test to determine that at least one trunk in the appropriate trunk group is idle. Another unrelated call could have selected that trunk in the interim. Another source of blockage is lack of response from the distant end of a trunk once that trunk is selected.

(4) In general, different centrex customers will not share MER routing patterns, since each pattern is comprised of facilities (FX trunk groups, CCSA trunk groups, and WATS simulated trunk groups) which are unique to a single centrex customer.

3. FEATURE FLOW DIAGRAM

3.01 The feature flow diagram that outlines the functional operation of the Most Economical Routing feature is shown in Figure 3.

4. INTERACTIONS

4.01 The MER feature is a customer option that requires a 1-, 2-, or 3-digit access code plus the 7- or 10-digit directory number to complete a call using MER routing. This feature interacts with FX, CCSA, WATS, and/or regular DDD service.

4.02 MER calls are AMA recorded.

(1) FX—Normally, non-MER FX calls are not AMA recorded. When used as part of a MER routing pattern, FX calls are AMA recorded, with Entry Type = 01. The AMA initial entry is made after outpulsing is complete on FX overlap calls, and before outpulsing begins (and before prefixing and deleting, if applicable) on FX nonoverlap calls. The AMA answer entry is made after outpulsing is complete, since answer supervision cannot be guaranteed on FX calls. This means that all three AMA entries are recorded (initial, answer, disconnect) even on FX calls that reach busy, don't answer, etc.

(2) CCSA—There is no difference between the AMA record of a CCSA MER call and a CCSA non-MER call. Both use "Entry Type 09."

(3) WATS—There are two differences between the WATS non-MER AMA initial entry and the WATS MER AMA initial entry:

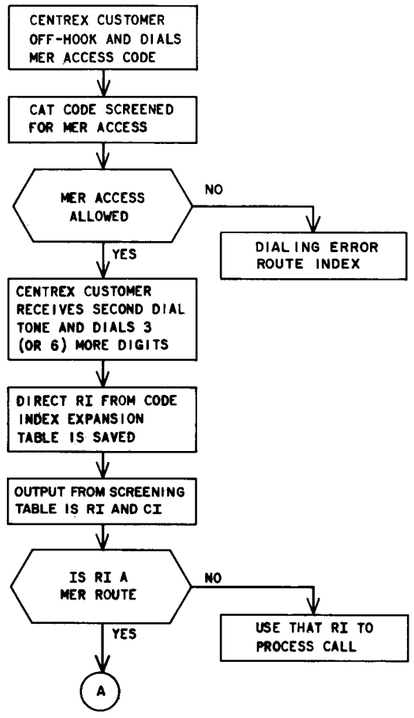
(a) For WATS non-MER, the calling number recorded on the AMA tape is a WATS billing number associated with the particular WATS access code dialed. This is always the same number whether the calling party is a centrex station, the centrex attendant, or an incoming tie trunk that has WATS access. For WATS MER, the calling number recorded is the individual station number when the calling party is a centrex station, the centrex group billing number for the centrex attendant, or a tie trunk group billing number for an incoming tie trunk.

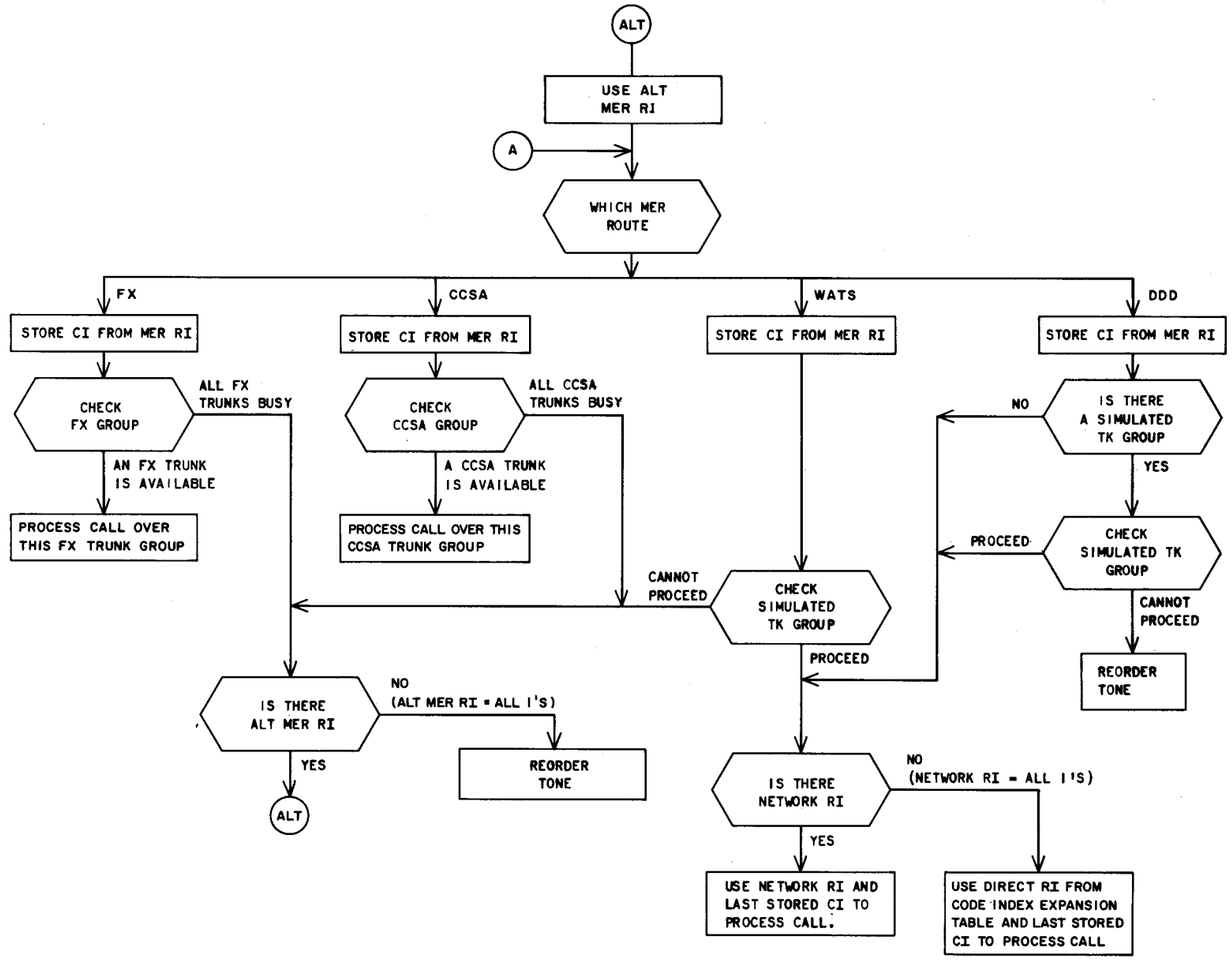
(b) For WATS non-MER, the AMA initial entry does not contain a "message billing index" (MBI). For WATS MER, it does. This MBI is used by the telphone company accounting centers to determine the WATS Band used by any particular WATS MER call.

These two points are what differentiate "Entry Type 11" (WATS non-MER) from "Entry Type 25" (WATS MER) as recorded on the AMA initial entry.

(4) DDD MER Overflow—There is no difference between the AMA record of a DDD MER overflow call and a centrex "dial 9" call. Both use "Entry Type 01."

4.03 The ACOF feature (Attendant Control of Facilities or Attendant Control of Trunk Group Access) allows the centrex attendant to intercept calls to certain trunk groups. There is





LEGEND:
ALT – ALTERNATE
CCSA – COMMON CONTROL SWITCHING ARRANGEMENT
CI – CHARGE INDEX
DDD – DIRECT DISTANCE DIALING
FX – FOREIGN EXCHANGE
RI – ROUTE INDEX
TK – TRUNK

Fig. 3—MER Functional Flow Diagram

no ACOF for MER calls, even over facilities that are normally controlled.

4.04 Thru-dial is a feature which allows the centrex attendant to dial an access code, receive second dial tone, and allow the SOURCE party (a centrex station) to complete dialing. For thru-dialed MER calls, the AMA record is as though the attendant dialed the whole number. That is, the calling number recorded is the centrex group billing number.

4.05 CAT code screening (miscellaneous trunk restriction) applies to MER access.

4.06 Toll Restriction is a term which only applies to centrex "dial 9" calls. Each centrex station may have one of four screening classes associated with the particular centrex customer group. This screening class tells the 3-digit translator how to route any "dial 9" call made by this station. On the other hand, the screening class for a MER call is obtained from the terminal entry of the centrex digit interpreter table associated with the particular centrex customer. This screening class is used by the 3-digit translator (in the same way as a "dial 9" screening class) and tells how to route a MER call, as described in Part 2.

4.07 Tie trunks cannot be used in a MER routing pattern. One of the basic reasons is that tie trunk calls generally require a 4-digit extension number after the tie trunk access code, whereas MER calls require a 7- or 10-digit Bell System DDD number after the MER access code. The same is true for tandem tie trunk operation. In addition, the pausing for successive dial tones with tandem tie trunk operation is not compatible with MER processing.

4.08 Trunk group busy (TGB) lamps are lamps on the centrex attendant console which indicate to the attendant when all trunks in a given trunk group (real or simulated) are busy. For any real trunk group not associated with a TGB lamp, the "all busy indicator" is not set when the last available trunk in the group is selected, but is set when the next selection attempt fails. On the other hand, for any real trunk group that is associated with a TGB lamp, the "all busy indicator" is set when the last available trunk in the group is selected. This indicator is tested (in the three decision boxes in the upper left-hand corner of Figure 2) in MER processing. To avoid an occasional MER route selection failure, it is recommended that TGB lamps be provided on FX trunk groups and CCSA trunk groups that are involved in MER routing. (TGB lamps for WATS access may be provided if desired, but the recommendation in 4.08 does not apply to WATS.)

ATTRIBUTES

5. STATION/SYSTEM

5.01 The MER feature is provided on a per-centrex customer group basis. Since this is a software feature in a No. 2 ESS office, no additional equipment is required.

6. LIMITATIONS

6.01 There are 254 screening classes and these map into only 64 screening indexes. The total number of screening tables is 64. The process of screening results in routing and charging information for DDD calls. The total number of different treatments of calls for various classes of lines determines the amount of screening translation that must be provided. Centrex groups using MER adds to the requirements for screening indexes by one (or possibly two) for each customer group.

6.02 The number of route index entries is 512 maximum. In general, a different route index is required for each facility used with each MER access code, plus noncentrex requirements.

6.03 Second dial tone is optional after centrex "dial 9," tie trunk access, CCSA trunk access, etc. Second dial tone is not optional but is always provided after MER access.

6.04 The example in paragraph 2 depicted seven MER routing choices. The maximum number for any MER pattern is eight.

7. RESTRICTION CAPABILITY

7.01 MER access is restricted by checking the CAT code of a centrex station against the MER restriction bits in the terminal entry of the digit interpreter table for MER access code.

7.02 The screening class code associated with a MER access code applies to all lines having access to the MER code and only when the code is dialed. The "dial 9" calls are not affected.

8. COST DATA

8.01 The costs attributable to MER-type calls are the program store translation words required for each MER access code and associated route indexes. Each access code requires two translation words and each route index and alternate route index also require two translation words.

8.02 Since a screening class and hence one of the 64 possible screening indexes are dedicated for each MER access code, one entry in every screening table is also dedicated. The number of screening tables varies directly with the number of independent routes and charging treatments required for MER, as well as for other types of calls. Additional cost variations are caused by the various facilities required (FX, CCSA, WATS, etc.) for completing MER calls. Therefore, the greater the number of possible MER routes, the greater the cost due to additional translation space.

INCORPORATION INTO SYSTEM

9. PLANNING

9.01 The MER feature is provided as part of the EF-1 generic program in a No. 2 ESS office.

9.02 In planning for this feature, completion of certain translation guide ESS input forms is required.

9.03 Access codes for MER should be established with the dialing plan for each centrex customer group. If MER is a possible future feature, the customer's dialing plan should be flexible enough to allow its later introduction. The access code may be a 1-, 2-, or 3-digit code.

9.04 In cooperation with the customer, all DDD codes to be dialed using the MER access codes and the facilities to be used in completing the MER calls must be determined. Additional MER access codes may be required if the customer wishes different treatment for calls made by certain groups of lines.

9.05 Planning consists of listing all of the dialable DDD codes to be included in MER, and for each code listing the order that the facilities should be tested for availability. All codes that can be routed similarly over the same facilities should be noted. The number of different routings (including sequence of alternate routes) provides the number of additional route indexes that must be provided.

9.06 During the planning stage, it is necessary to determine whether the associated facilities such as the various FX trunks, CCSA trunks, or WATS bands are available. Trunk group busy lamps should be planned when FX or CCSA trunk routes are used as described in 4.08.

9.07 Proper coordination between the responsible department of the telephone company and Western Electric Company must be made to perform the necessary ODA run to implement MER.

10. HARDWARE ENGINEERING

10.01 Since MER is a software feature, there are no special hardware requirements except that the various associated facilities (FX and CCSA) must be available in a No. 2 ESS office.

10.02 The MER routing can only be built into the 3-digit translator via an ODA run. This is not recent changeable.

11. SOFTWARE ENGINEERING

11.01 Program and call store provisions must be made for translations in the stores for customer group and per-line requirements that may be needed to engineer MER.

11.02 When MER is to be provided, it will be necessary to reserve sufficient translation memory for the screening tables and route index expansions. In general, 200 words should be sufficient for most applications. Refer to the Traffic Facilities Practices—TFP Div. D, Section 12, for the details in engineering the stores.

12. COMPATIBILITY

12.01 There are no compatibility or equipment interface problems associated with the MER feature, providing that the FX, CCSA, or DDD facilities necessary for completion of MER calls are available in a No. 2 ESS office.

13. OFFICE DATA

A. Translations

13.01 The translators affected by the addition of the MER feature include the centrex number translator, 3-digit translator, and route index expansion. Figure 4 depicts a typical translation routing of MER calls.

B. ODA Information

13.02 In order to activate the MER feature in the No. 2 ESS office, an ODA run is necessary. This is accomplished by appropriately completing the following ODA ESS input forms:

- ***ESS 2101***—Centrex Directory Number Table. This form is used to indicate which centrex lines possess which CAT code, which in turn allows or denies MER access.

- ***ESS 2109-2 (9B)***—Centrex Group Table. This form identifies the MER access codes for any given centrex customer.

- ***ESS 2202-2***—Trunk Group Table. This form contains information concerning the operating company assigned trunks having groups 070 and higher.

- ***ESS 2202-3***—Centrex Trunk Group and Simulated Facilities Group Table. This form is used to define information required for centrex trunk groups identified on ESS 2202-2. Also contained in this form are entries for the simulated facilities group expansions associated with MER.

- ***ESS 2301***—Rate and Route Table. This form is used to provide zone indexes for MER routing and charging. Prior to the completion of this form, Charge Tables ESS 2302 and Route Index Expansion Tables ESS 2303 must be completed. The line class code on this form identifies the type of treatment a trunk or line may have for different types of calls.

- ***ESS 2302***—Charge Information Table. This form identifies the AMA recording information for both MER and non-MER calls.

- ***ESS 2303-1***—Route Index Expansion Table. This form defines the routing information for an office. This form also defines the MER route indexes for MER calls.

The above forms must be completed by the Telephone Company Dial Administrator and submitted to the Western Electric Company Regional Center for processing. Normal scheduling procedures should be observed. The reproducible input forms are in Division 11, Section 1, of the Translation Guide, TG-2H.

C. Recent Change (RC) Messages

13.03 The input message A RC:L/ is the RC message for customer line service orders. This message plus the key word CAT is used to recent change the line's access treatment and is used to either allow or deny a line to access MER. Proper restriction code bits must be defined for MER access. Refer to the Input Message Manual IM-2H200 for further details of key words associated with MER.

13.04 The A VY:L/ input message is used to verify that the line has access to MER.

13.05 The A RC:DIT/ is the recent change message for a terminal entry in the digit interpreter table. This message and the data type (DTP)—MER is used to change the information contained in the terminal entry. Refer to IM-2H200 for further details.

13.06 The A VY:DIT/ is the RC message used to verify the contents of a specified terminal entry in the digit interpreter table. This message will verify that the data type—MER is contained in the terminal entry for an individual centrex group.

14. GROWTH/RETROFIT PROCEDURES

14.01 The MER feature may be added to any centrex group in a No. 2 ESS office by an ODA run. Refer to SOFTWARE ENGINEERING and OFFICE DATA for the proper input forms required.

15. TESTING

15.01 The MER feature does not require special tests in order to be incorporated in a No. 2 ESS office. When a station user dials a MER access code, the station's centrex access treatment code is checked against the MER restriction code bits. If the system allows MER access, the station user will receive a second dial tone. The station user then proceeds to complete the dialing process by dialing the area code and directory number of the party being called. When the user is denied MER access, centrex dialing error treatment is given to the station user.

ADMINISTRATION

16. MEASUREMENTS

16.01 There are seven registers used for line screening class measurements. Since a screening class is dedicated to a centrex customer MER access code, a line screening class access peg count by the above registers can provide counts of MER access. Refer to Section 232-120-301—Traffic and Plant Measurements for further details.

17. RECORD KEEPING

17.01 The following translation administration record forms reflecting MER information must be maintained by the operating companies after each ODA run is made:

- ESS 2109-R—Centrex Group Record
- ESS 2202-R—Trunk Group Record
- ESS 2301-R—Rate and Route Record
- ESS 2303-R—Route Index Record
- ESS 2500-5C-R—Master Table Index capacity and Office Options Record

17.02 A record of all RC messages must be maintained as part of office records.

18. CHARGING

18.01 Charging for MER calls is made in accordance with local tariff regulations. Refer to 4.02 for details of AMA recording.

AVAILABILITY

19. NEW INSTALLATIONS

19.01 The MER feature is available with Issue 3 of the EF-1 (extended feature) generic program.

20. GROWTH/RETROFIT

20.01 As stated in 19.01, MER is an EF-1 feature in a No. 2 ESS office. However, an office equipped with LO-1 (local office) generic program may be retrofitted to EF-1 so that MER can be made available.

20.02 The MER feature may be added to an existing system that is equipped with the EF-1 generic program by submitting the appropriate ESS input forms to Western Electric Company Regional Center for ODA processing and inserting the new translation into the No. 2 ESS office.

SUPPLEMENTARY INFORMATION

21. GLOSSARY

21.01 The following is a listing of abbreviations and/or acronyms used in this document:

ACOF—Attendant Control of Facility

AMA—Automatic Message Accounting

CAT—Centrex Access Treatment

CCSA—Common Control Switching Arrangement

CI—Charge Index

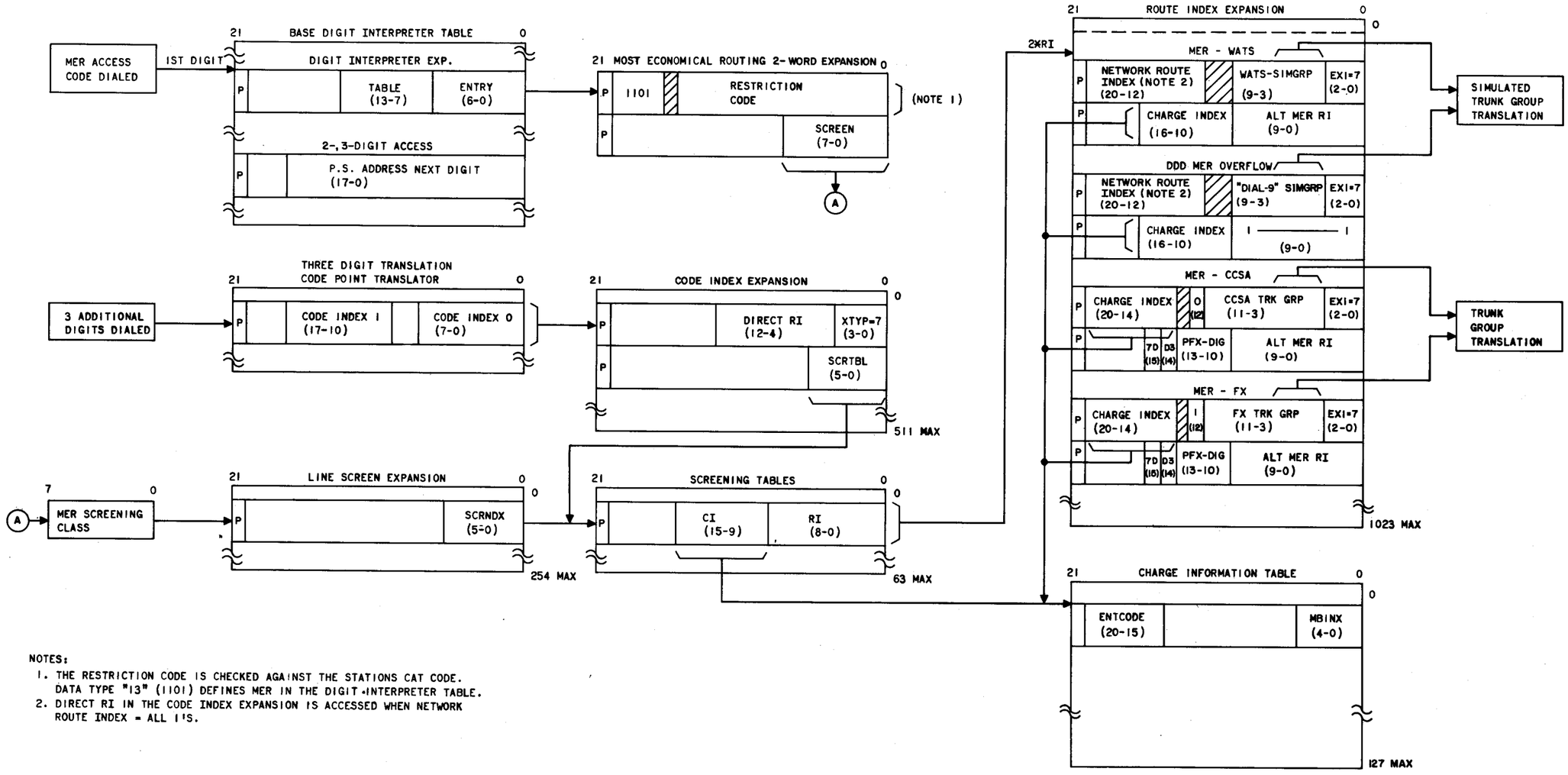
DDD—Direct Distance Dialing

DIT—Digit Interpreter Table

EF-1—Extended Feature generic program

FX—Foreign Exchange Trunk Facilities

LO-1—Local Office generic program



NOTES:
1. THE RESTRICTION CODE IS CHECKED AGAINST THE STATIONS CAT CODE. DATA TYPE "13" (1101) DEFINES MER IN THE DIGIT INTERPRETER TABLE.
2. DIRECT RI IN THE CODE INDEX EXPANSION IS ACCESSED WHEN NETWORK ROUTE INDEX = ALL 1'S.

Fig. 4—Translation Layout of MER

MBI—Message Billing Index

MER—Most Economical Routing

NPA—Number Plan Area Code

ODA—Office Data Administration System

RC—Recent Change message

RI—Route Index

TGB—Trunk Group Busy lamps

WATS—Wide Area Telephone Service

22. REASONS FOR REISSUE

22.01 This is the initial issue of this document.

23. REFERENCES

23.01 The following are major references used as the supporting documentation for this document:

- PD-2H305-01 No. 2 ESS Centrex Trunk Program
- Translation Guide, TG-2H
- IM-2H200 Input Message Manual No. 2 ESS
- OM-2H200 Output Message Manual No. 2 ESS
- TFP—Division D Section 12—Traffic Facilities Practices—No. 2 ESS
- Section 232-120-301—Traffic and Plant Measurements