

Critical Release Notice

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The content of this customer NTP supports the
SN07 (DMS) software release.

Bookmarks used in this NTP highlight the changes between the baseline NTP and the current release. The bookmarks provided are color-coded to identify release-specific content changes. NTP volumes that do not contain bookmarks indicate that the baseline NTP remains unchanged and is valid for the current release.

Bookmark Color Legend

Black: Applies to new or modified content for the baseline NTP that is valid through the current release.

Red: Applies to new or modified content for NA017 that is valid through the current release.

Blue: Applies to new or modified content for NA018 (SN05 DMS) that is valid through the current release.

Green: Applies to new or modified content for SN06 (DMS) that is valid through the current release.

Purple: Applies to new or modified content for SN07 (DMS) that is valid through the current release.

Attention!

Adobe Acrobat Reader 5.0 or higher is required to view bookmarks in color.

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For the SN07 (DMS) release, 10.03, the following changes were added:

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Added additional NetworkBuilder-related data schema information to the CAINPARAM table to address CR Q00816405.

Volume 2

No changes

Volume 3

Added notes for CAIN parameter TRTMTCD_COMPCODE_ZAPPED_ZERO to address CR Q00816405.

Volume 4

No changes

Volume 5

No changes

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SN06 (DMS) Standard release 10.02. Added LNP_EVALUATE_AFTER_OTC_CIC information per CR Q00 509677-06.

Volume 2

No changes

Volume 3

No changes

Volume 4

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Volume 5

No changes

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Digital Switching Systems

UCS DMS-250

NetworkBuilder Application Guide, Volume 2 of 5

UCS17 Standard 10.01 July 2002

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NetworkBuilder call processing

Call processing controls the way a call is routed, translated, and delivered between customers. Call processing handles all aspects of a call.

NetworkBuilder call processing changes the way a call is handled. The switch no longer controls all aspects of a call. By off-loading some of the call processing functions to an intelligent service control point (SCP), the switch can be relieved of some responsibilities, allowing you to create new services with minimal or no changes to the switch.

ATTENTION

Various NetworkBuilder features require certain SOC options in order to function. Refer to Volume 5, Chapter 5, “NetworkBuilder SOC functionality,” for more information.

NetworkBuilder table interaction flowchart

Figure 1-1 shows the flowchart conventions used in this chapter.

Figure 1-2 begins the flow of a NetworkBuilder call. The flowchart shows the progression of a call from the time it enters the switch until the call is routed out of the network.

Note: Refer to *UCS DMS-250 CAIN/FlexDial Interactions* for more information on support for AXXESS agents.

Figure 1-1
Flowchart conventions

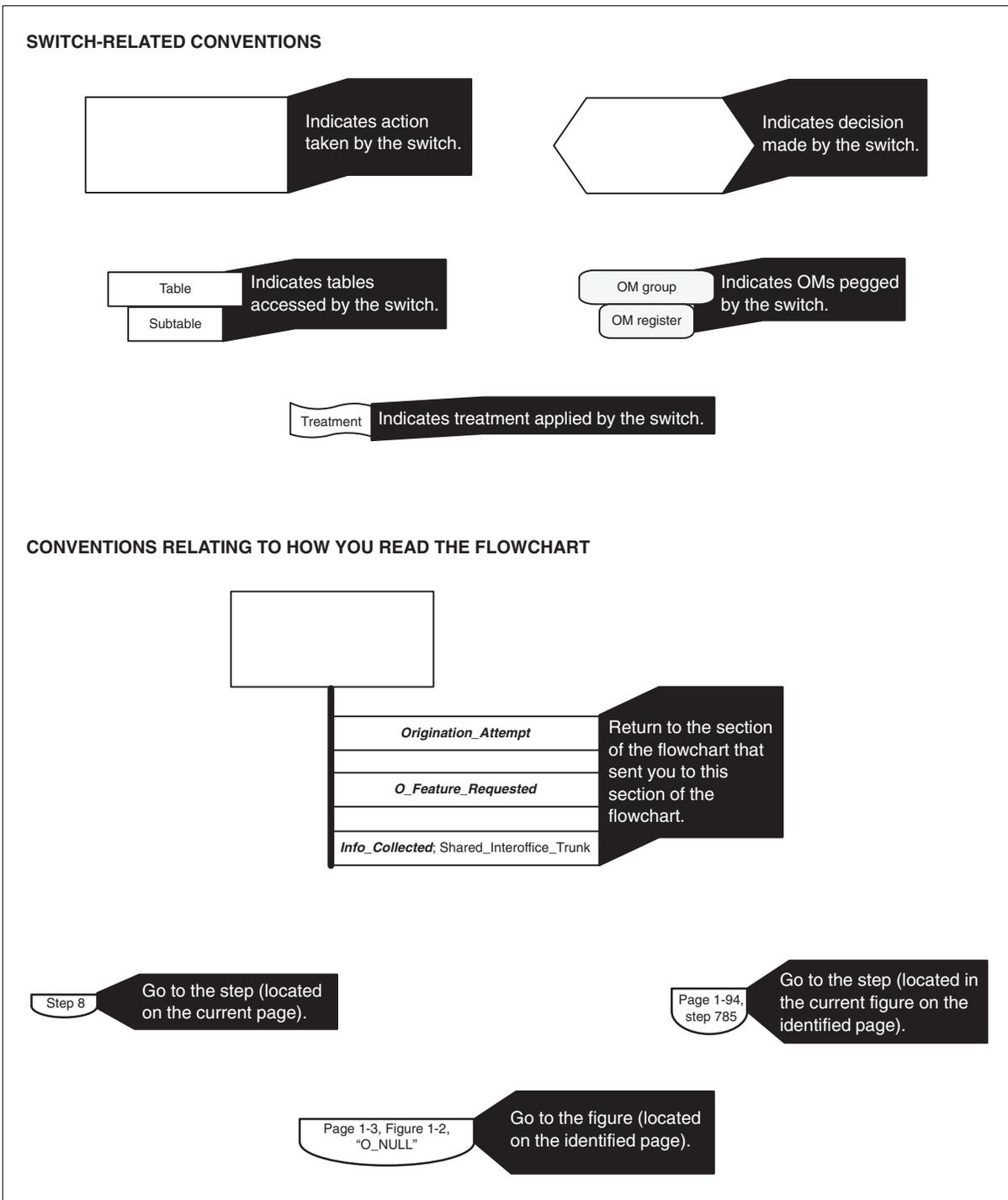
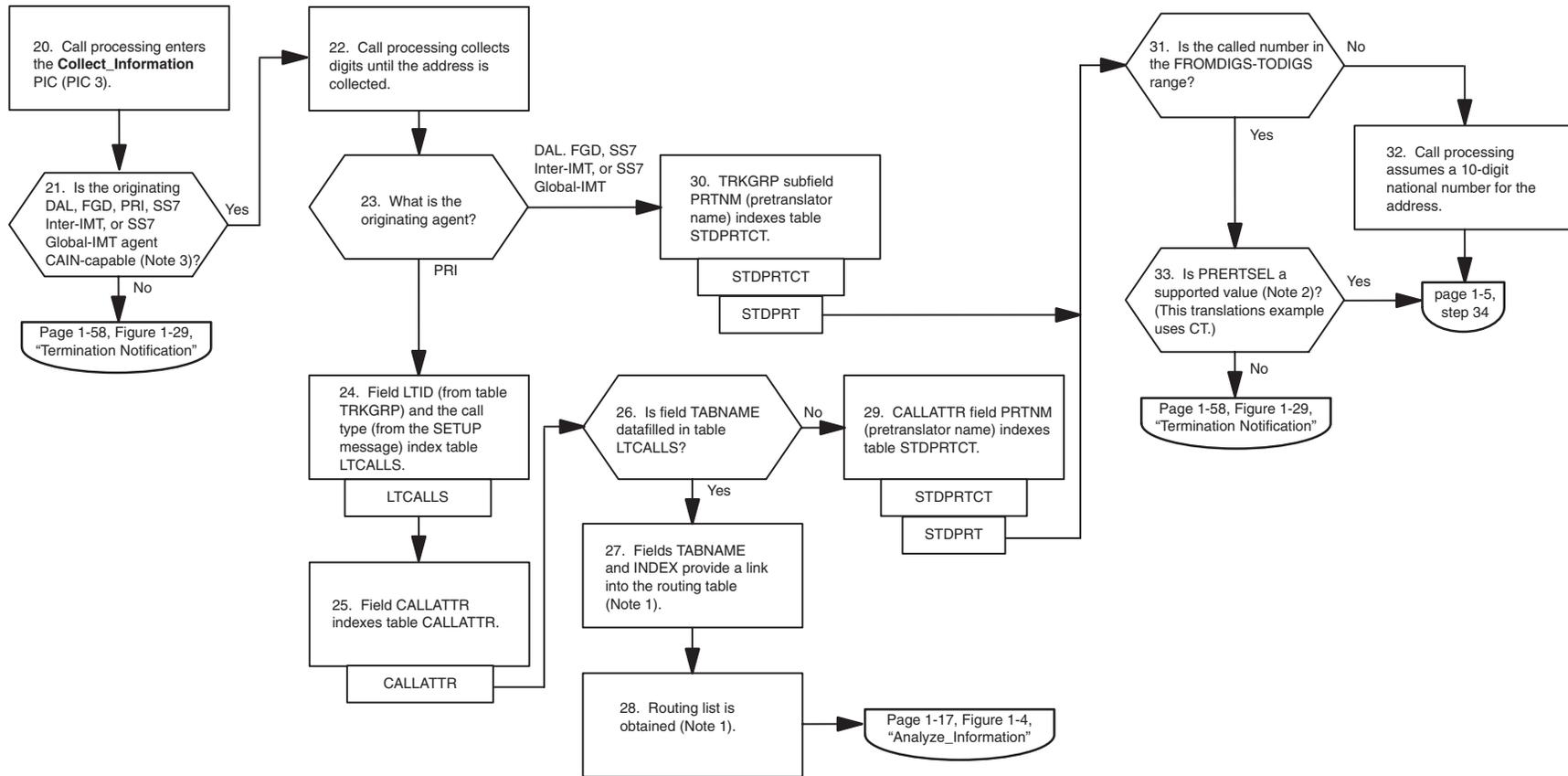
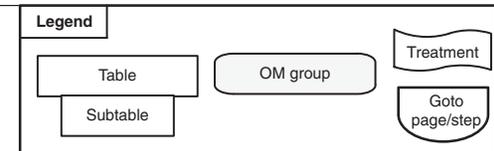


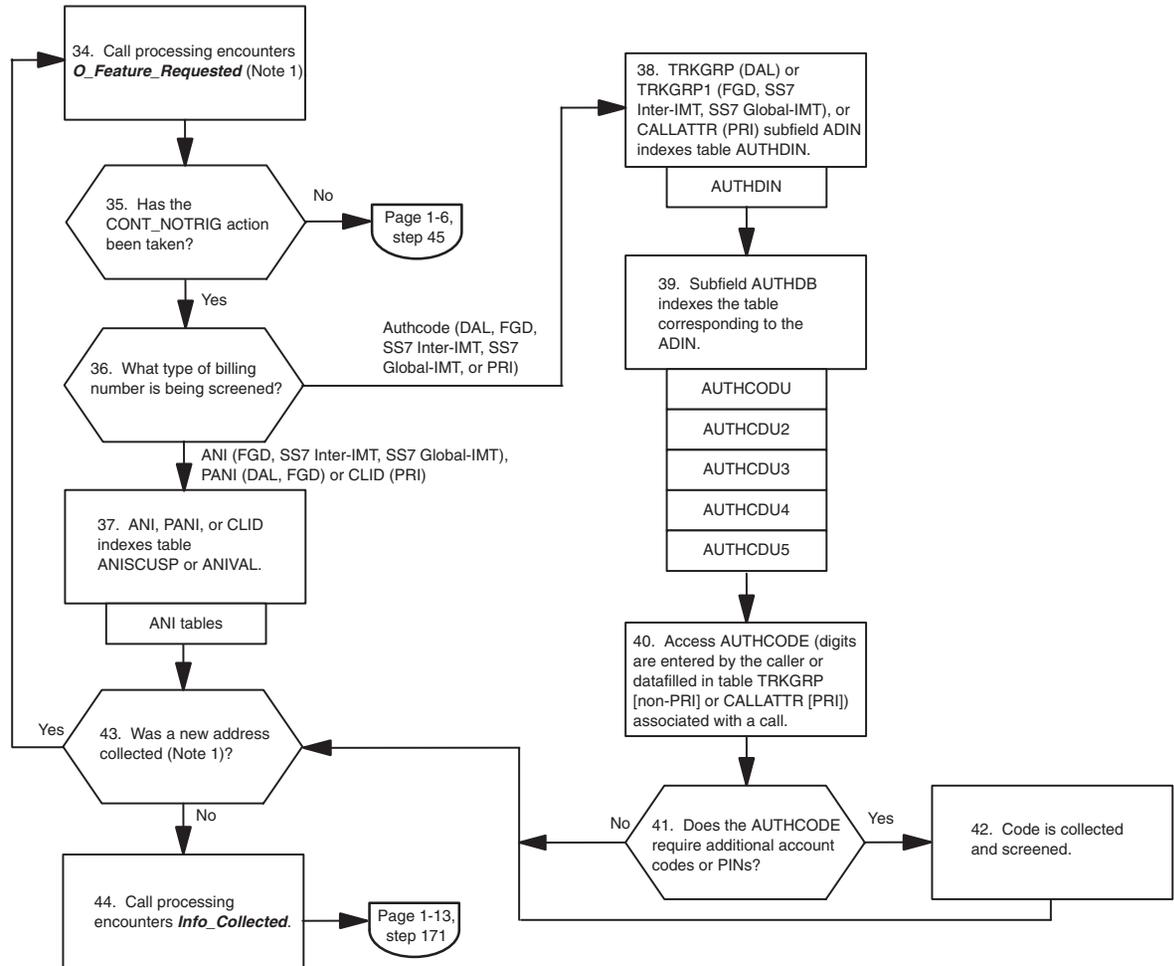
Figure 1-3
Collect_Information – PIC 3



Note 1 :Routing lists may be obtained from a routing table, such as OFRT.
Note 2 :Supported selectors are: CT, ES, UA, UAX, and NT.
Note 3 :Refer to UCS DMS-250 CAIN/FlexDial Interactions for call processing with AXCESS agents.

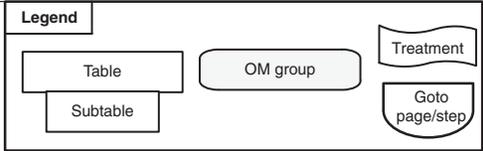


Collect_Information – PIC 3 (continued)

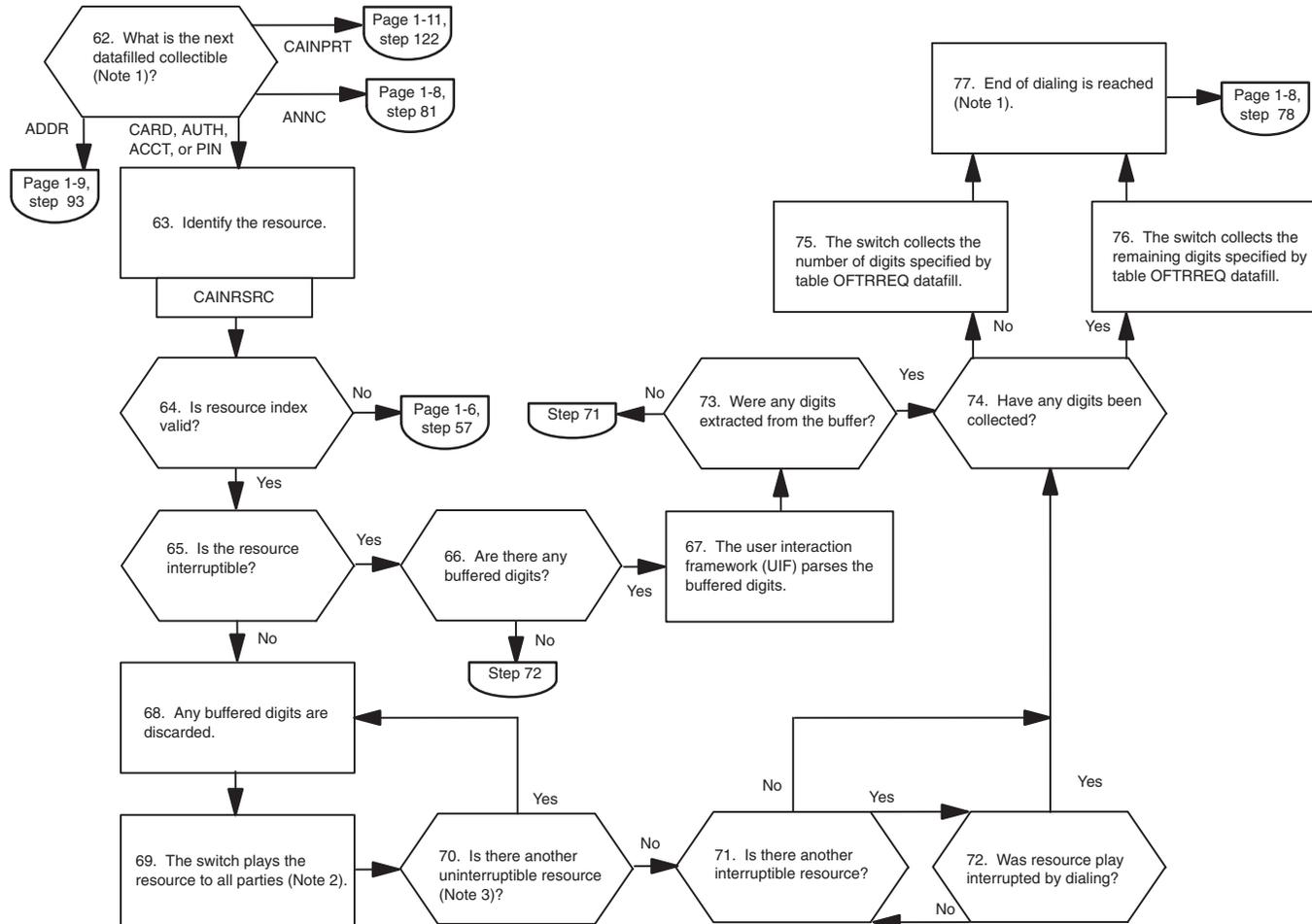


Note 1 :When call processing collects an address during **Collect_Information**, **O_Feature_Requested** is immediately encountered. Therefore, when completing certain dialing plans, **O_Feature_Requested** can be encountered multiple times.

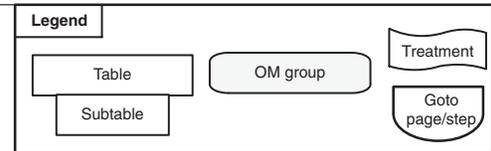
Note 2 :The AUTHCODE table is one of the following: AUTHCODU, AUTHCDU2, AUTHCDU3, AUTHCDU4, AUTHCDU5. Authcode subscription is only checked for calls with an authcode.



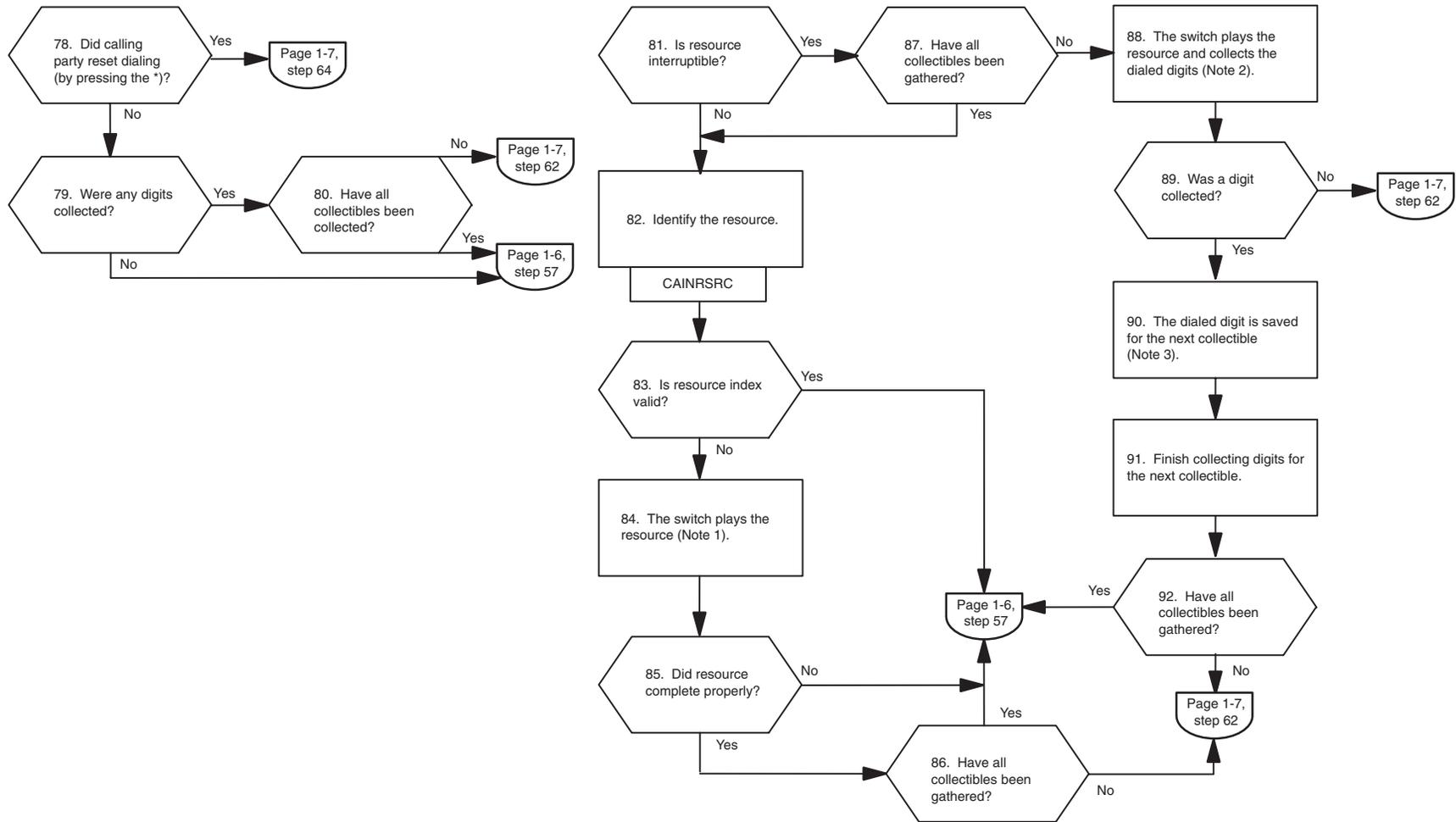
O_Feature_Requested collectible processing



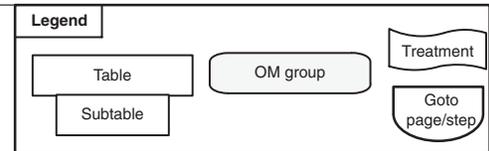
Note 1 :Collectibles are processed in the datafilled order.
Note 2 :Any information digits received from the SCP are ignored.
Note 3 :The switch can play up to 3 uninterruptible resources.



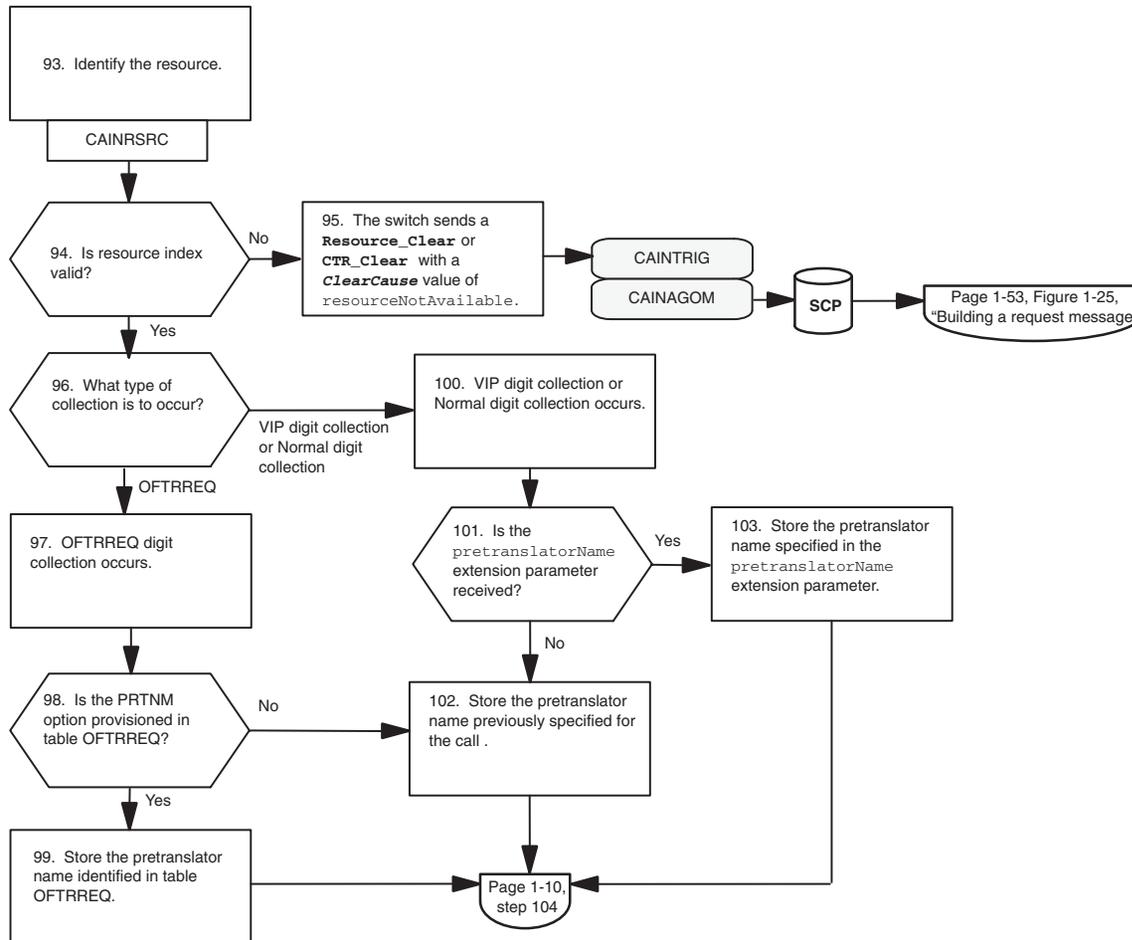
O_Feature_Requested collectible processing (continued)



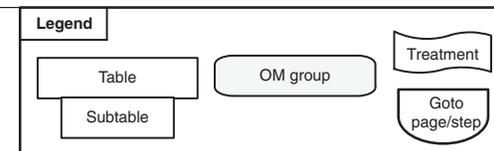
Note 1 :Digits are not collected during uninterruptible resource play.
Note 2 :Play of the resource may be stopped by the first dialed digit.
Note 3 :The resource associated with the next collectible is not played.



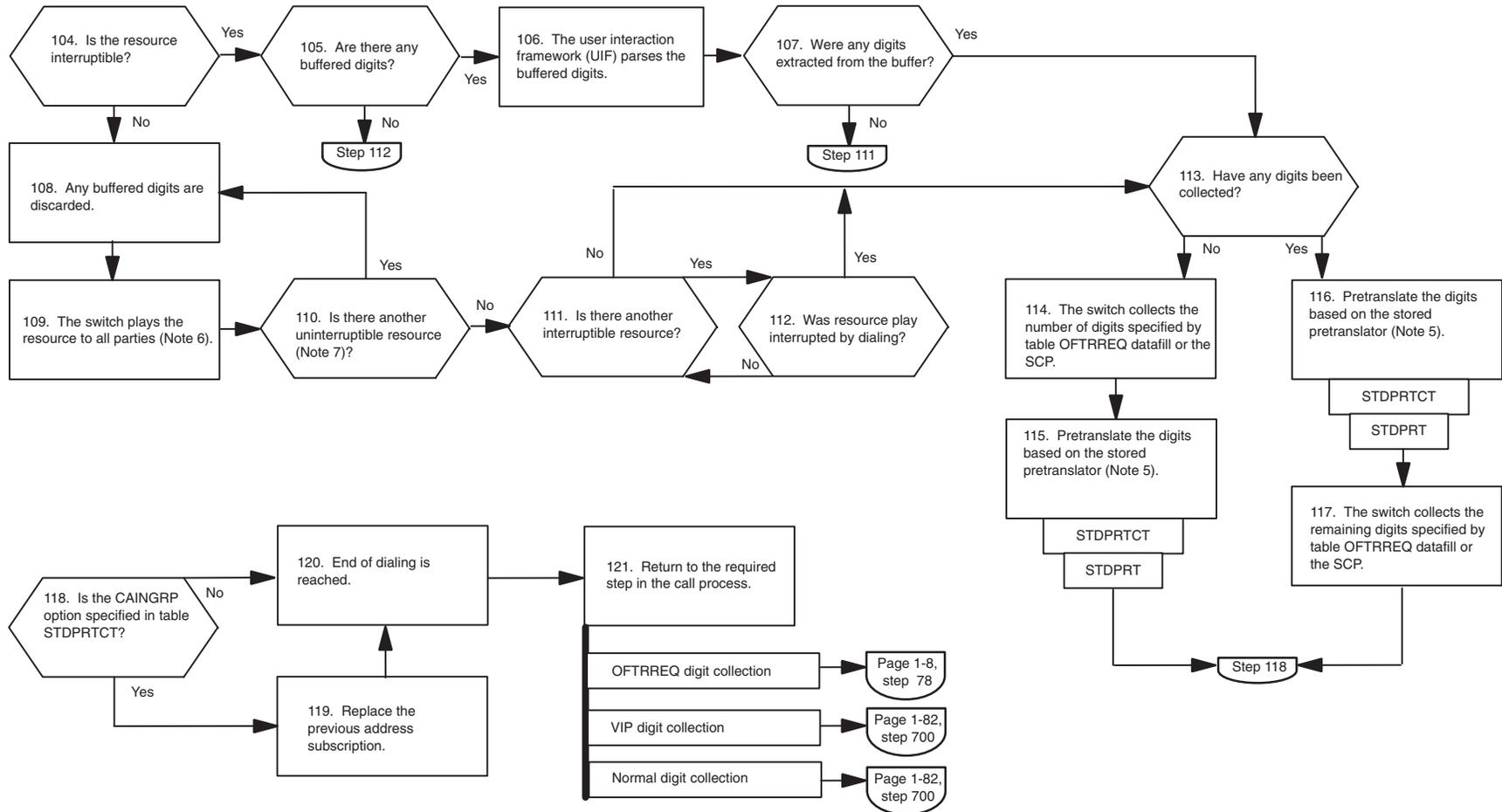
Address (ADDR) collection



Note 4 :ADDR subscription is reset and replaced with a CAINGRP if provisioned in table STDPRTCT.



Address (ADDR) collection (continued)

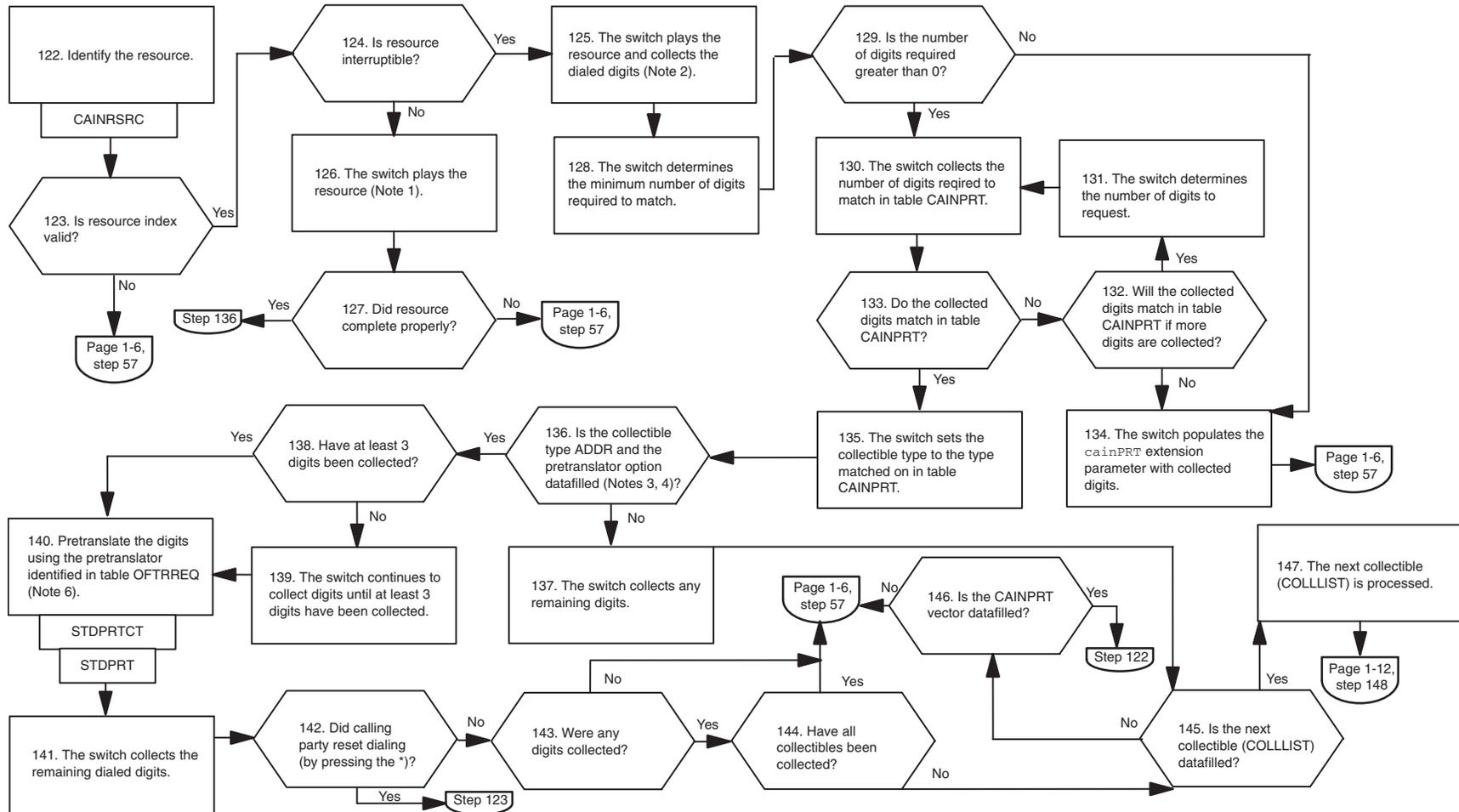


Note 5 :The switch resets the ADDR subscription and replaces it with a CAINGRP if provisioned in table STDPRTCT.

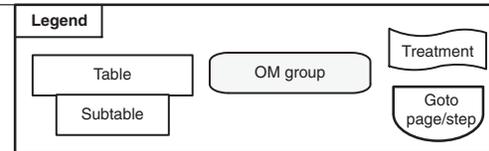
Note 6 :Any information digits received from the SCP are ignored.

Note 7 :The switch can play up to 3 uninterruptible resources.

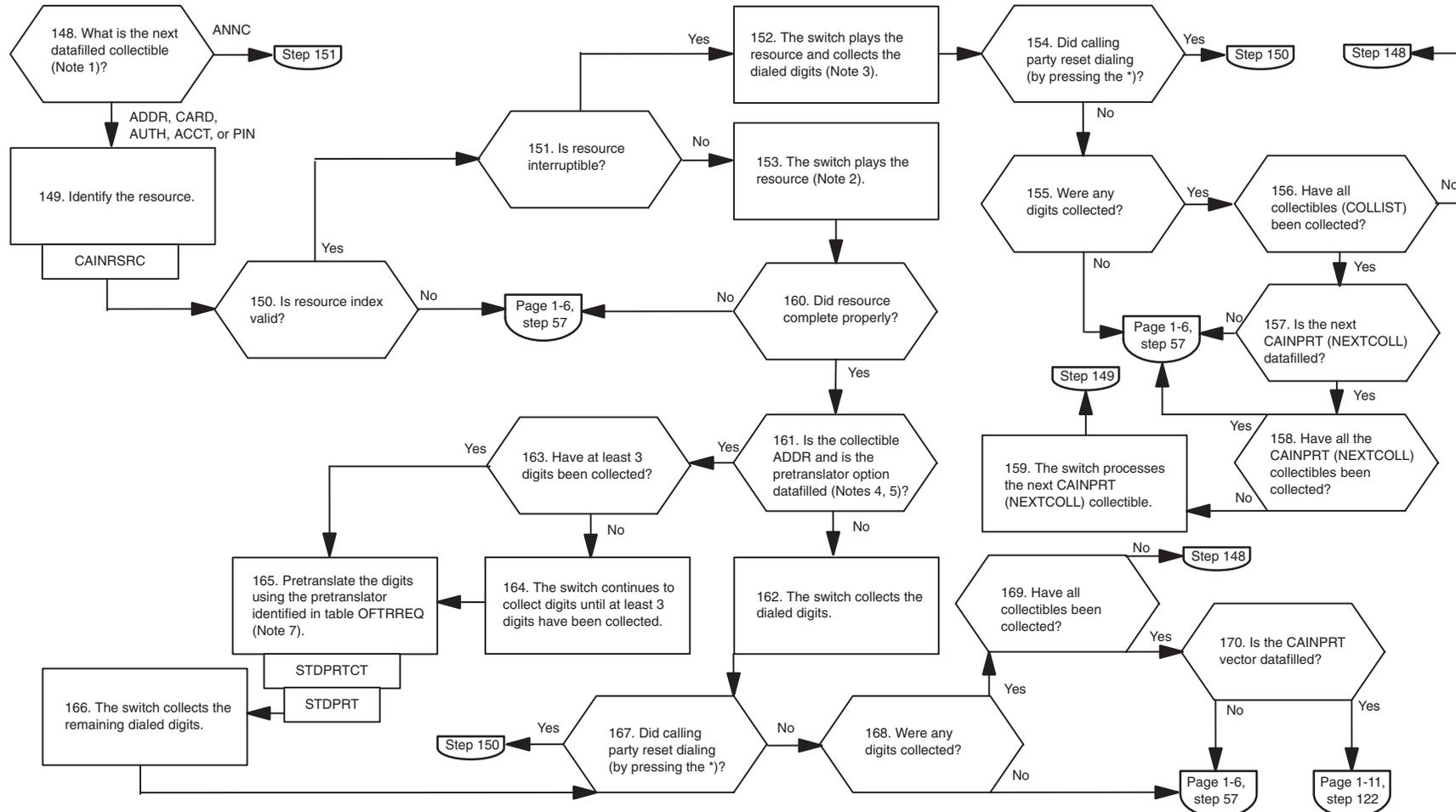
CAINPRT collectible processing



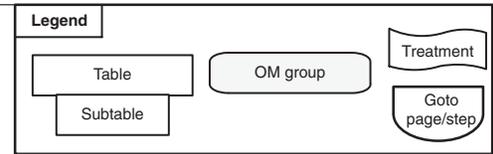
- Note 1** :Digits are not collected during uninterruptible resource play.
- Note 2** :Play of the resource may be stopped by the first dialed digit.
- Note 3** :The pretranslator option is only used for the ADDR collectible
- Note 4** :The pretranslator datafilled in table OFTRREQ is used for reoriginations.
- Note 5** :Calling party dialing reset is available.
- Note 6** :This call causes ADDR subscription to be reset.



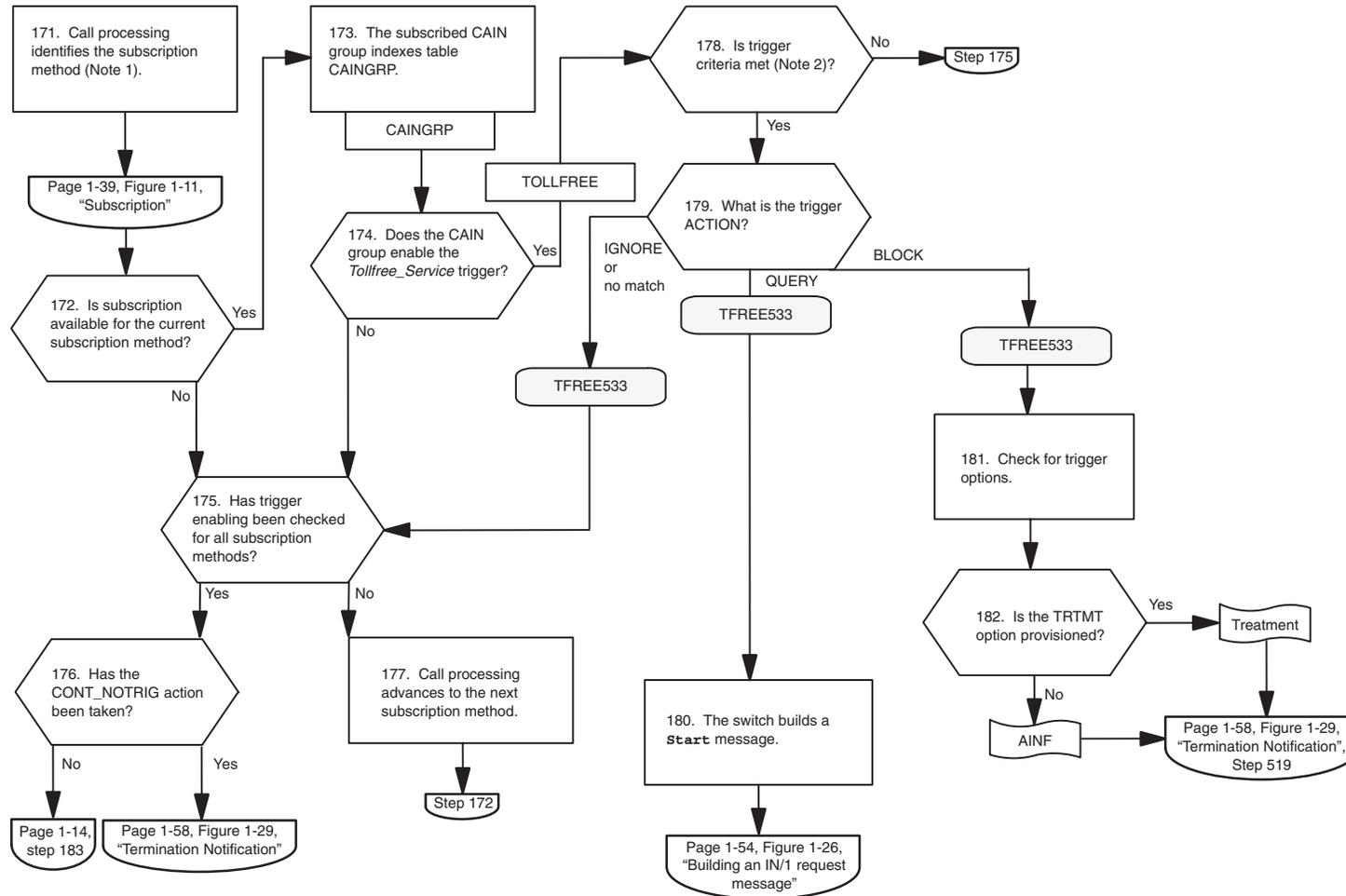
CAINPRT collectible processing (continued)



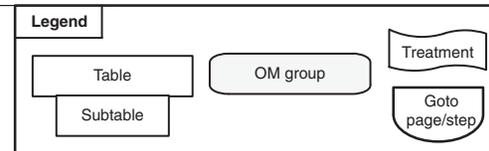
- Note 1** :Collectibles are processed in the datafilled order.
- Note 2** :Digits are not collected during uninterruptible resource play.
- Note 3** :Play of the resource may be stopped by the first dialed digit.
- Note 4** :The pretranslator option is only used for the ADDR collectible
- Note 5** :The pretranslator datafilled in table OFTRREQ is used for reoriginations.
- Note 6** :Calling party dialing reset is available.
- Note 7** :This call will cause your ADDR subscription to be reset.



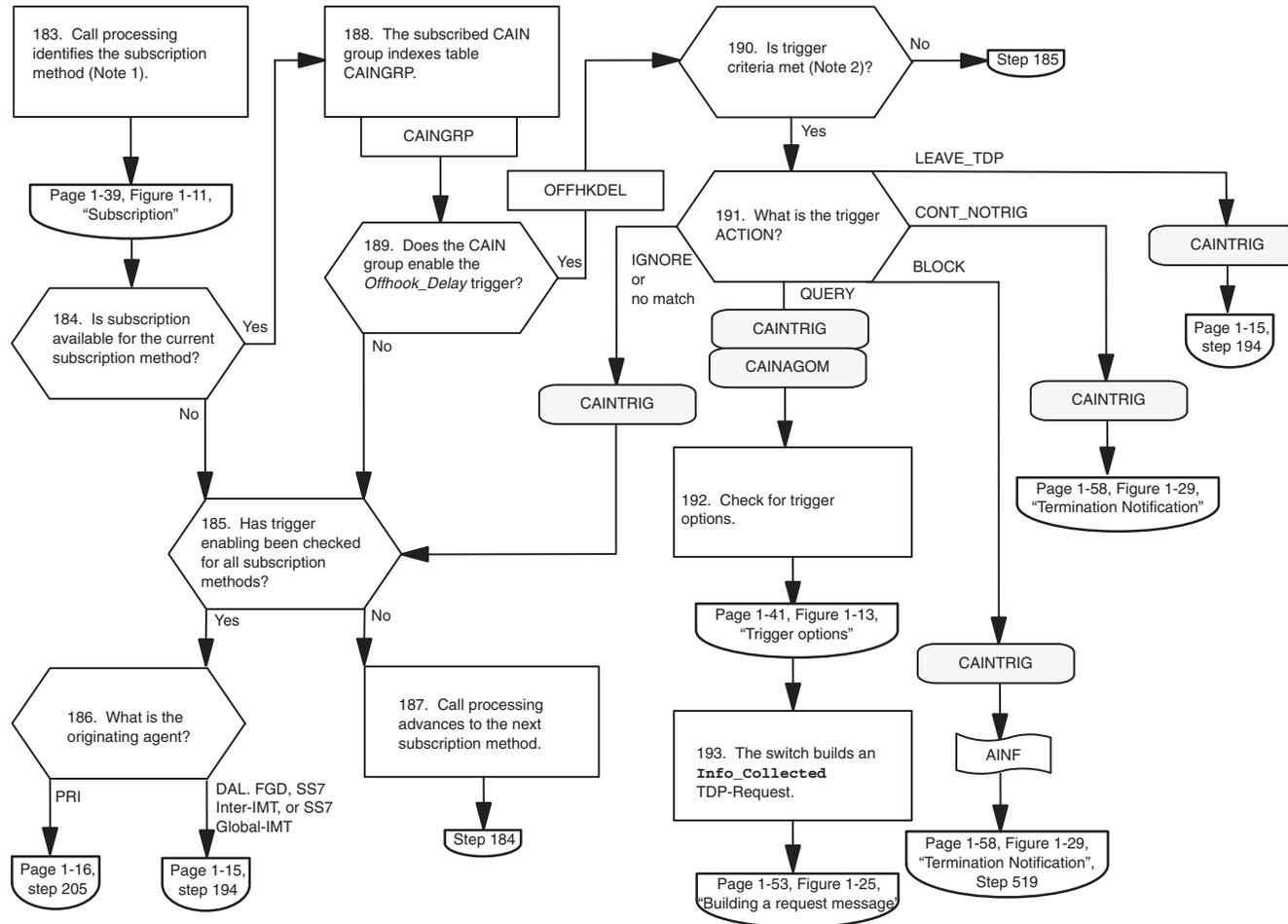
Tollfree_Service trigger



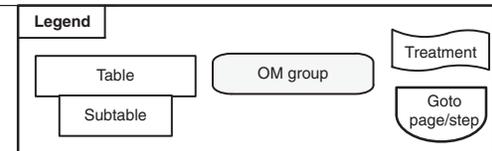
Note 1 :SCP-returned subscription is only available at **Collect_Information** PIC for re-originated calls.
Note 2 :Trigger criteria consists of an implied address for TOLLFREE.



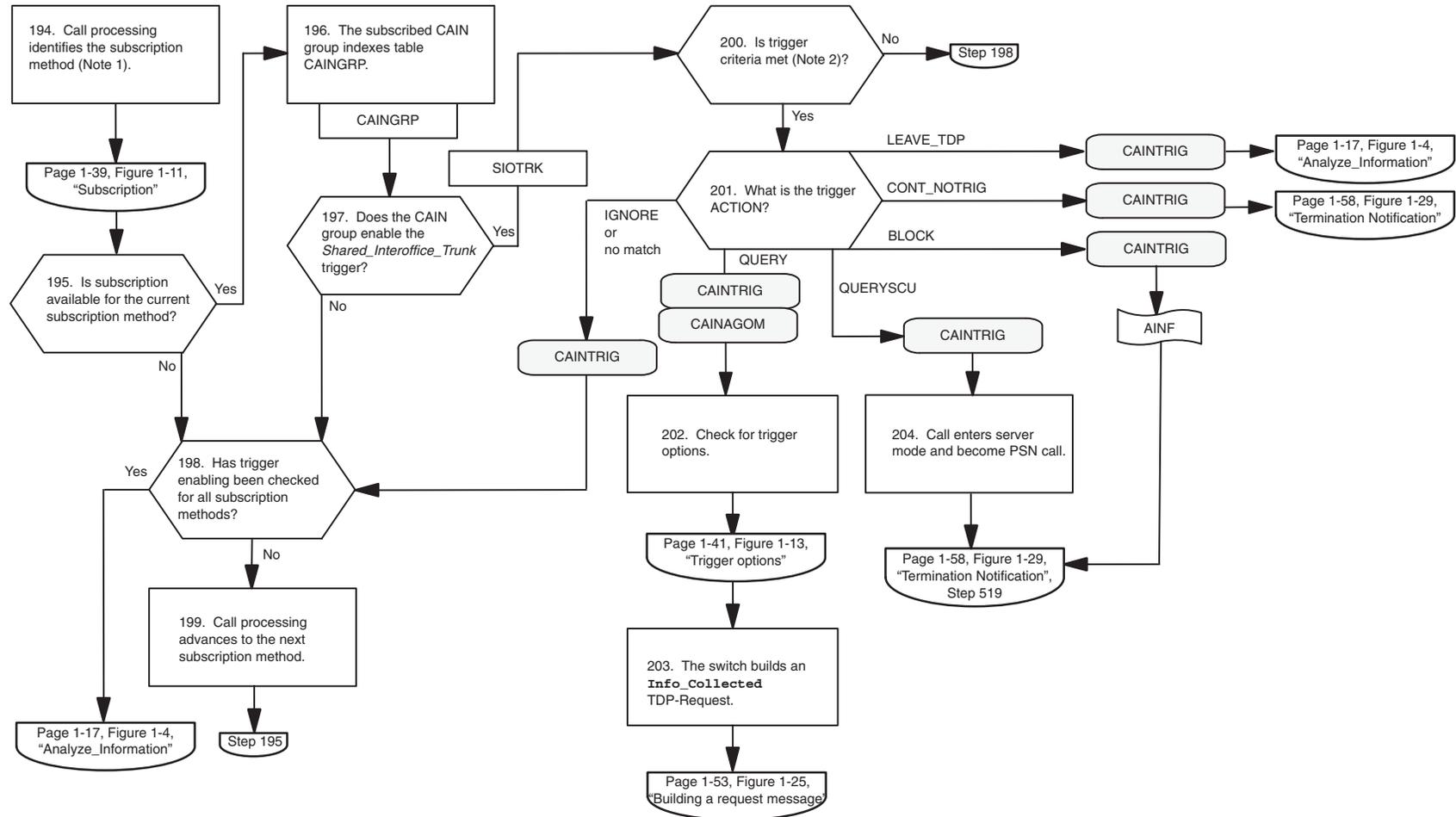
Offhook_Delay trigger



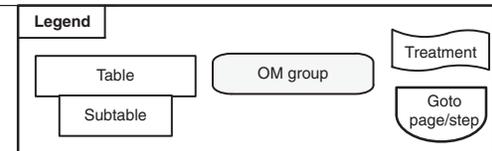
Note 1 :SCP-returned subscription is only available at **Collect_Information** PIC for re-originated calls.
Note 2 :Trigger criteria consists of a datafilled range of information digits, ADIN, ANI, address, or CIC for OFFHKDEL.



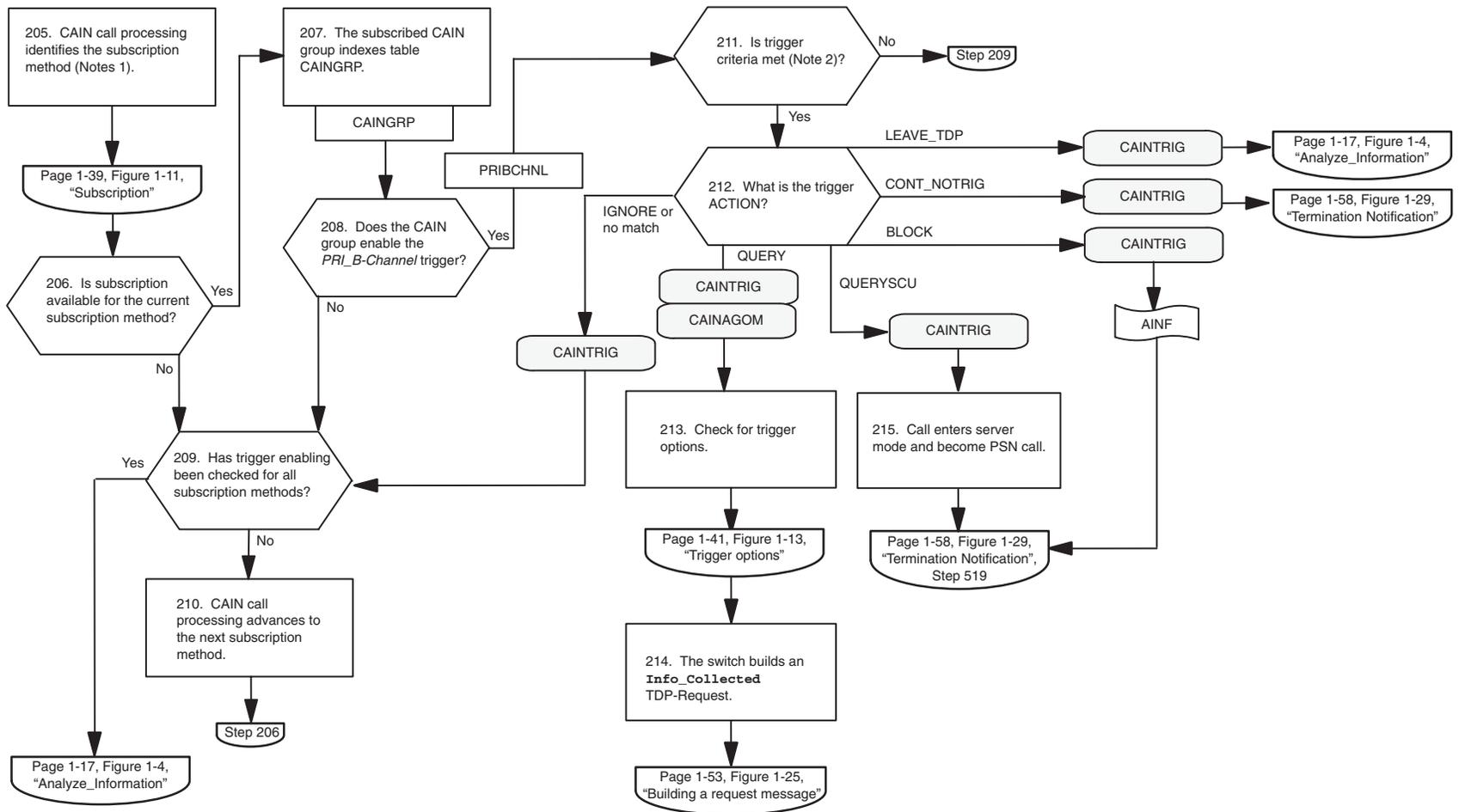
Shared_Interoffice_Trunk trigger



Note 1 :SCP-returned subscription is only available at **Collect_Information** PIC for re-originated calls.
Note 2 :Trigger criteria consists of a datafilled range of information digits, ADIN, ANI, address, or CIC for SIOTRK.



PRI_B-Channel trigger



Note 1 :SCP-returned subscription is only available at **Collect Information** PIC for re-originated calls.

Note 2 :Trigger criteria consists of a datafilled range of ADIN, CLID, or address digits for PRIBCHNL.

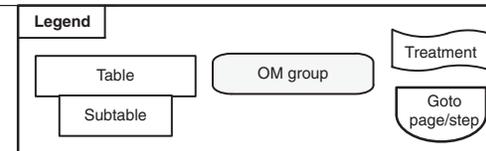
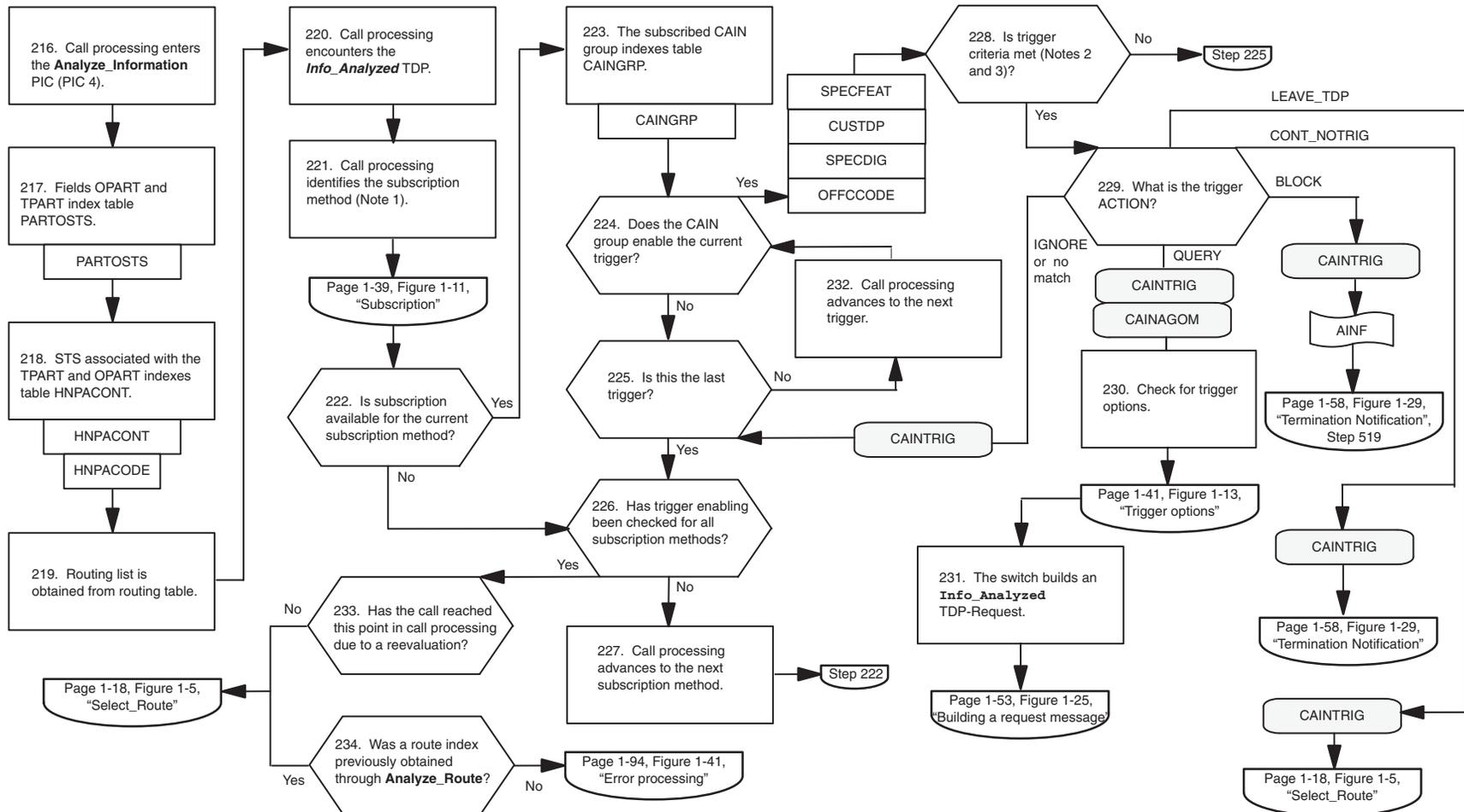


Figure 1-4
Analyze_Information – PIC 4



Note 1 :SCP-returned subscription is available at **Analyze_Information** PIC.

Note 2 :Refer to Volume 1, Chapter 5, "Analyze_Information PIC," for details on trigger criteria for each trigger.

Note 3 :When re-encountering the **Analyze_Information** PIC because of an **Analyze_Route** message, only XLAADDR trigger criteria is evaluated.

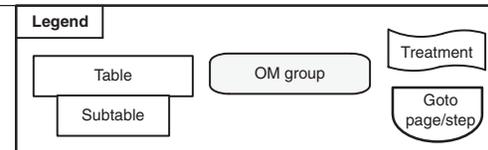
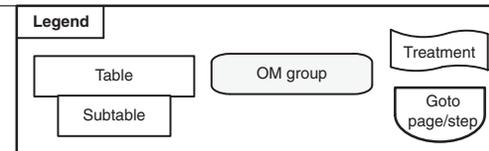
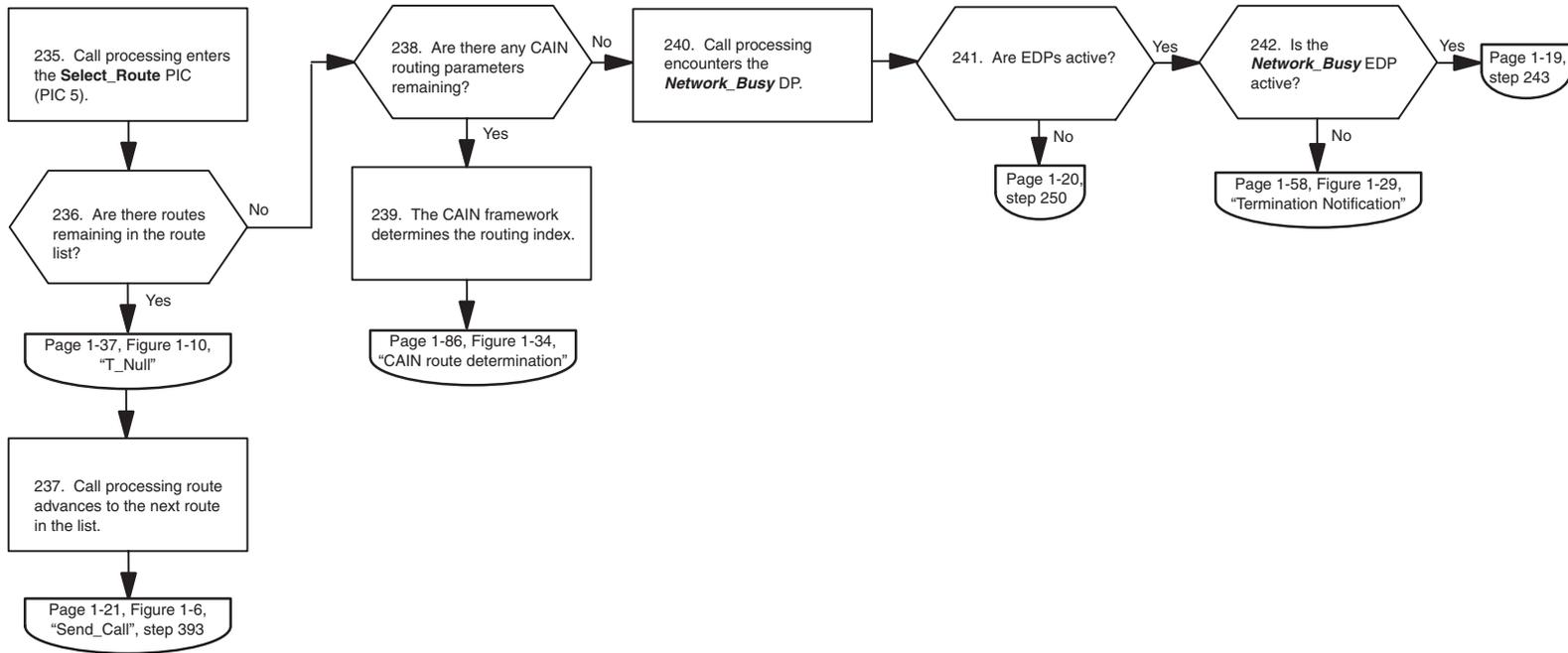
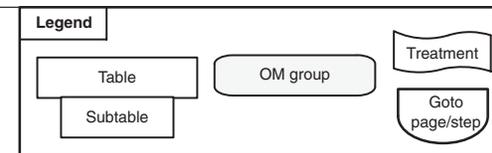
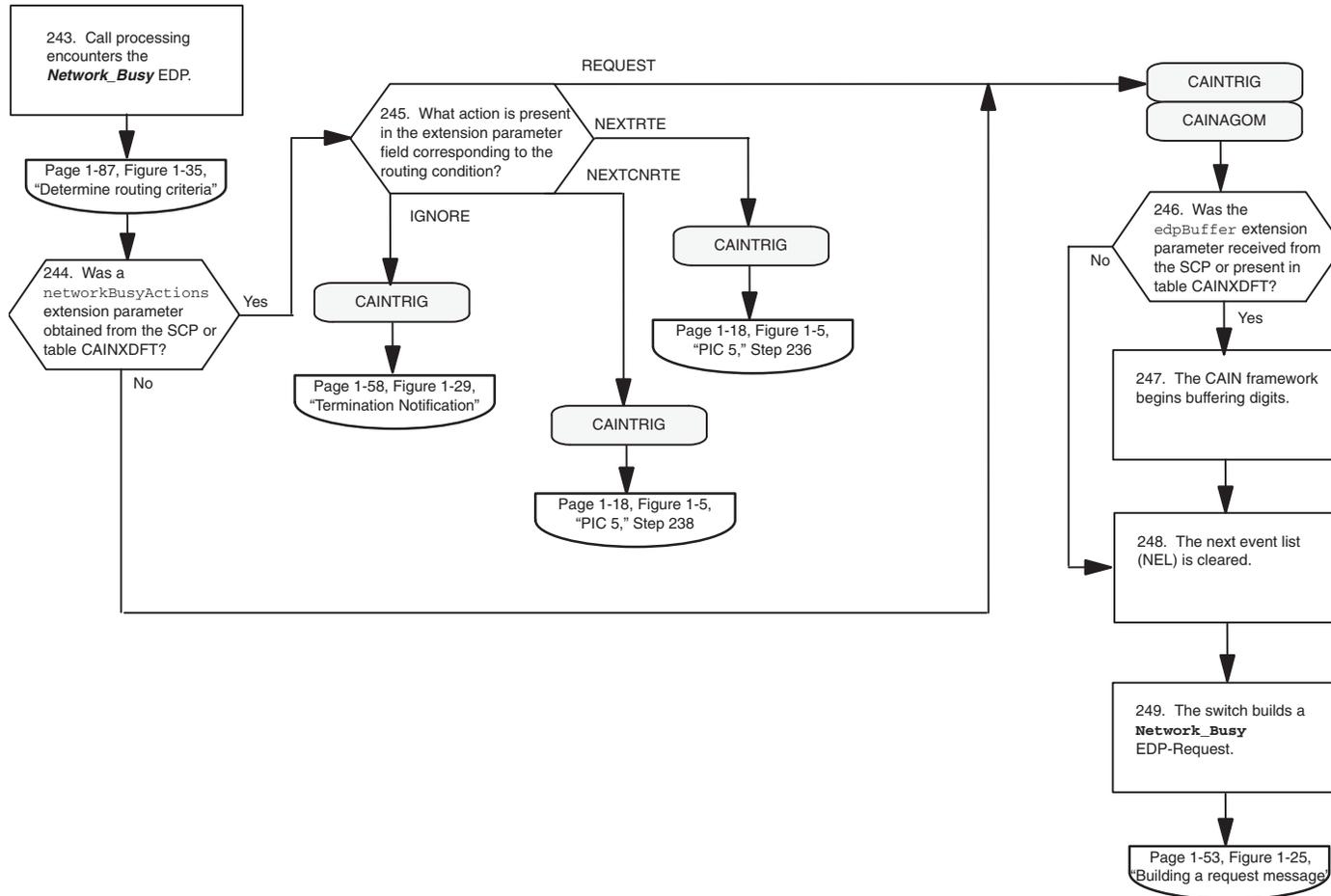


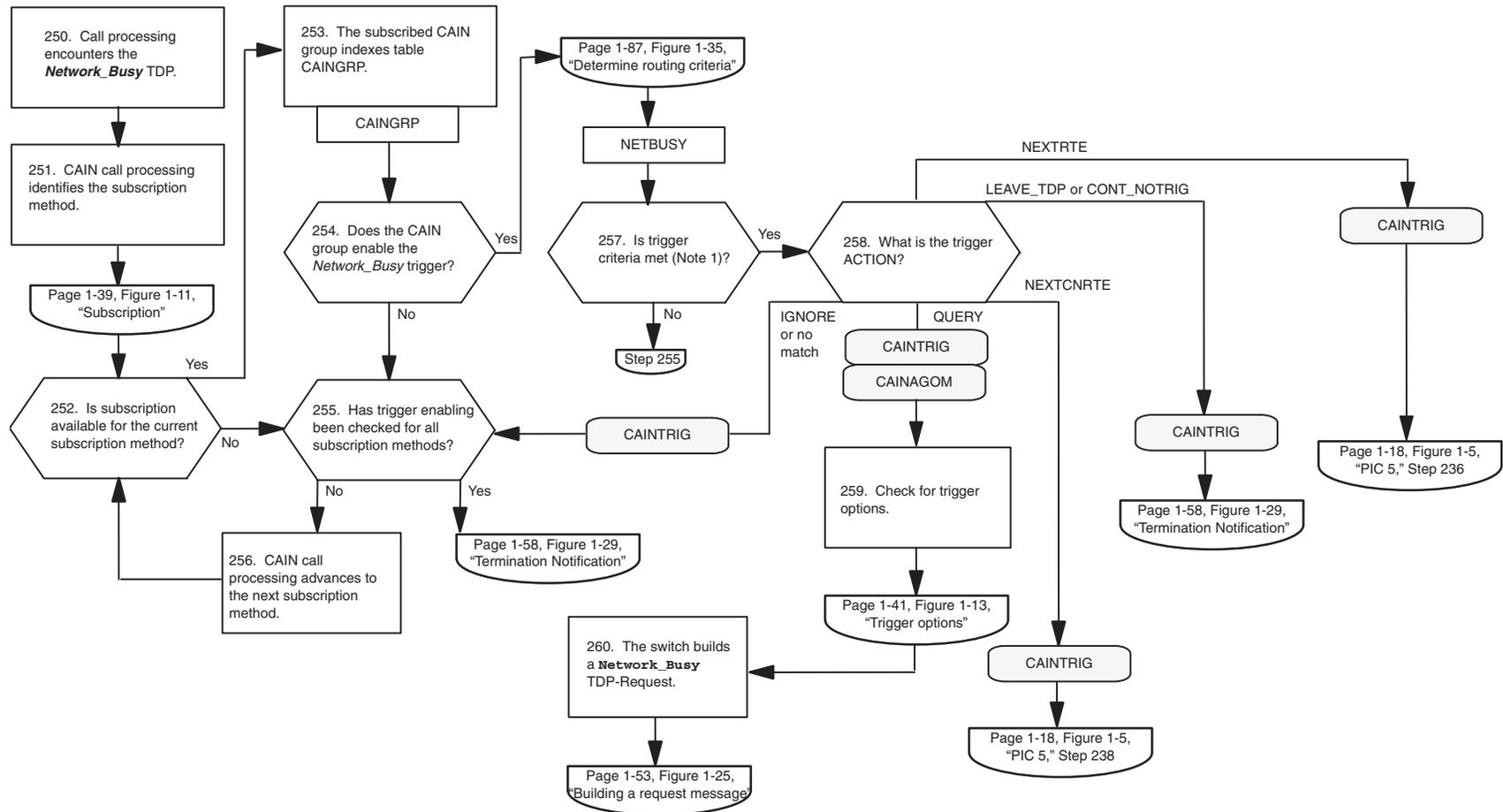
Figure 1-5
Select_Route – PIC 5



Network_Busy EDP



Network_Busy TDP



Note 1 :Trigger criteria consists of criteria (RTEAVAIL, RTESDONE, or TERMRTG_GNCT) and a datafilled range of information digits, ANI, XLAADDR, address, or CIC.

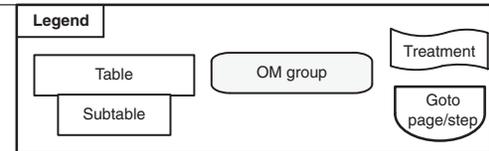
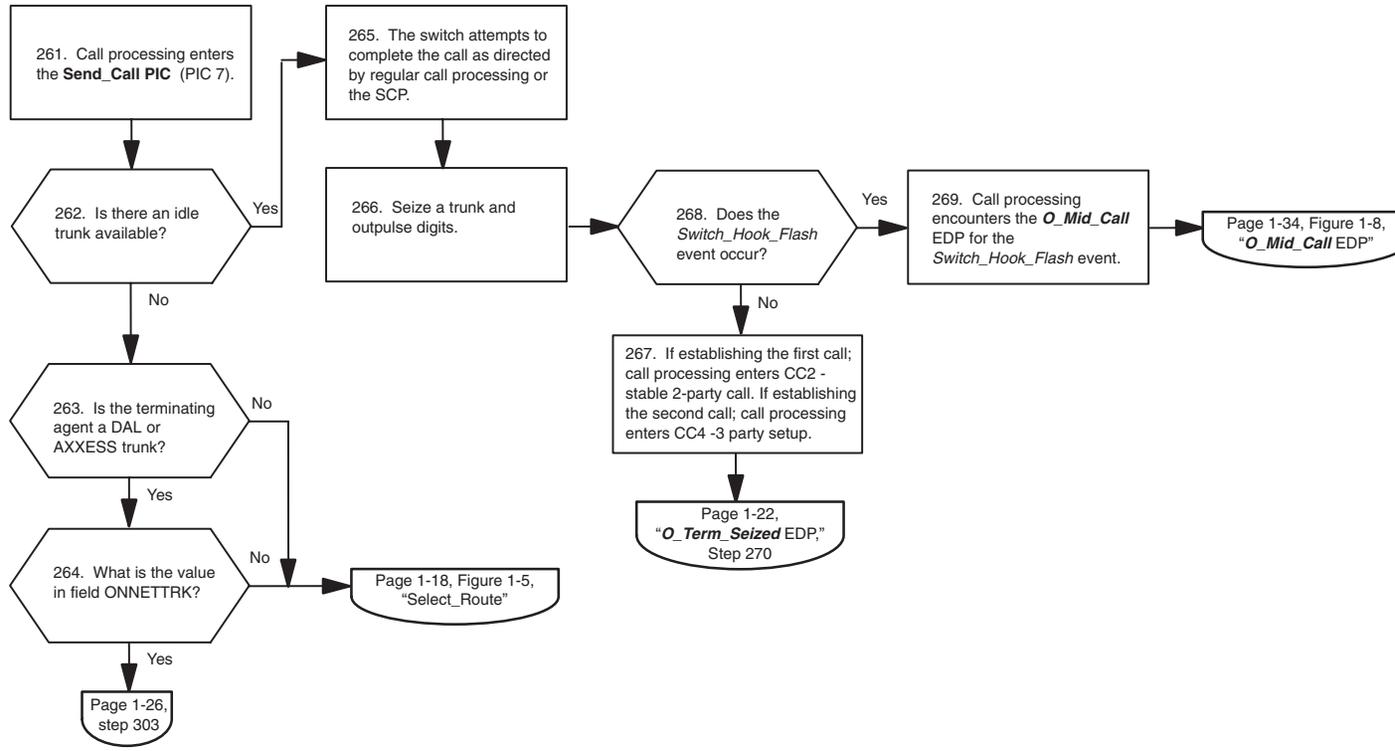
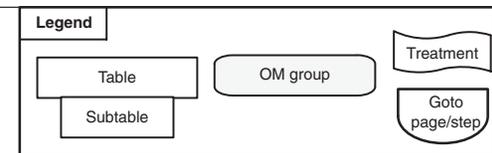


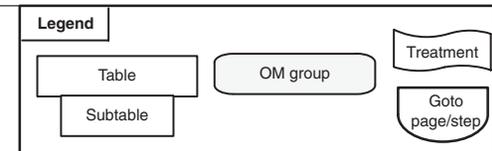
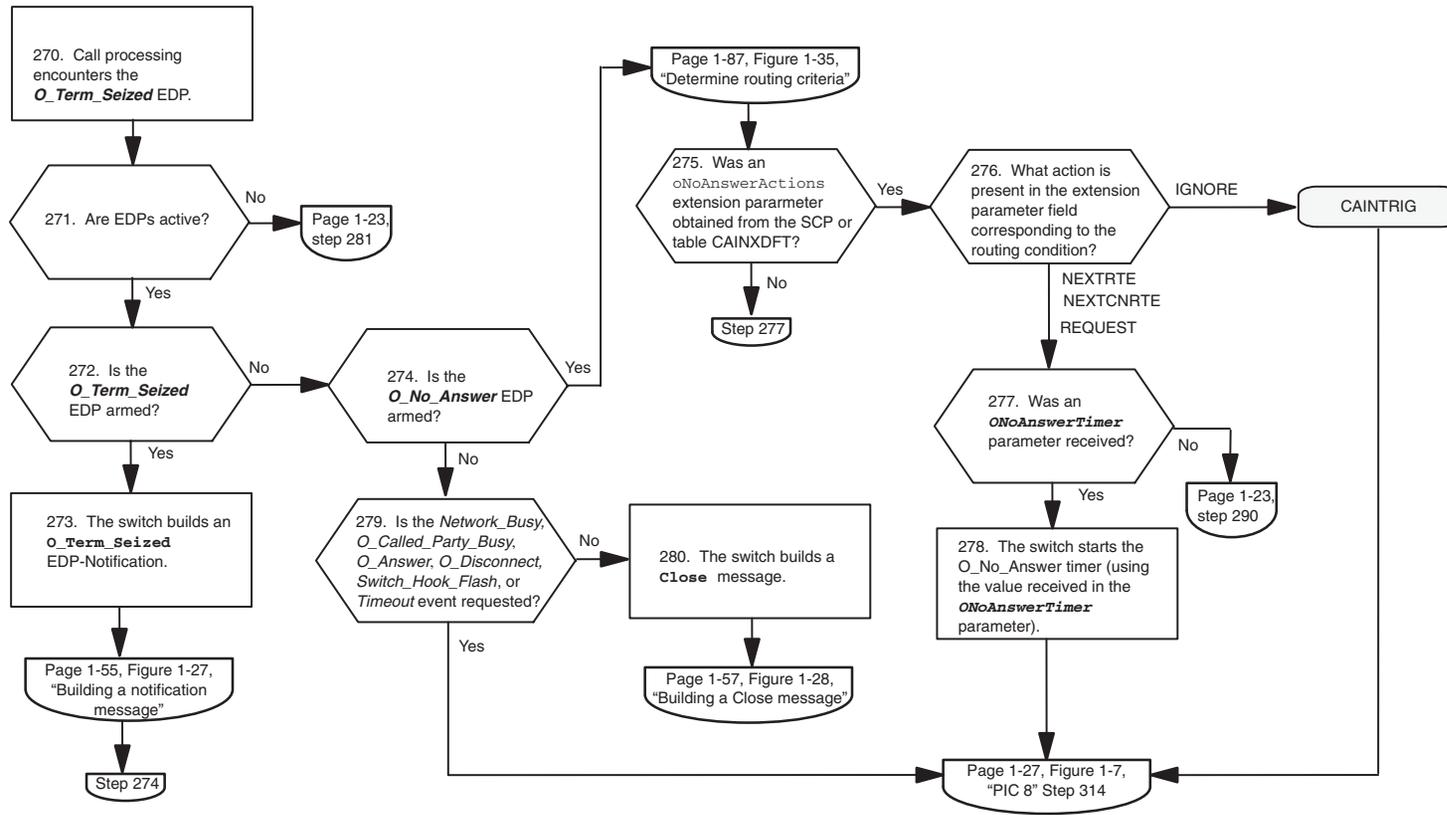
Figure 1-6
Send_Call – PIC 7



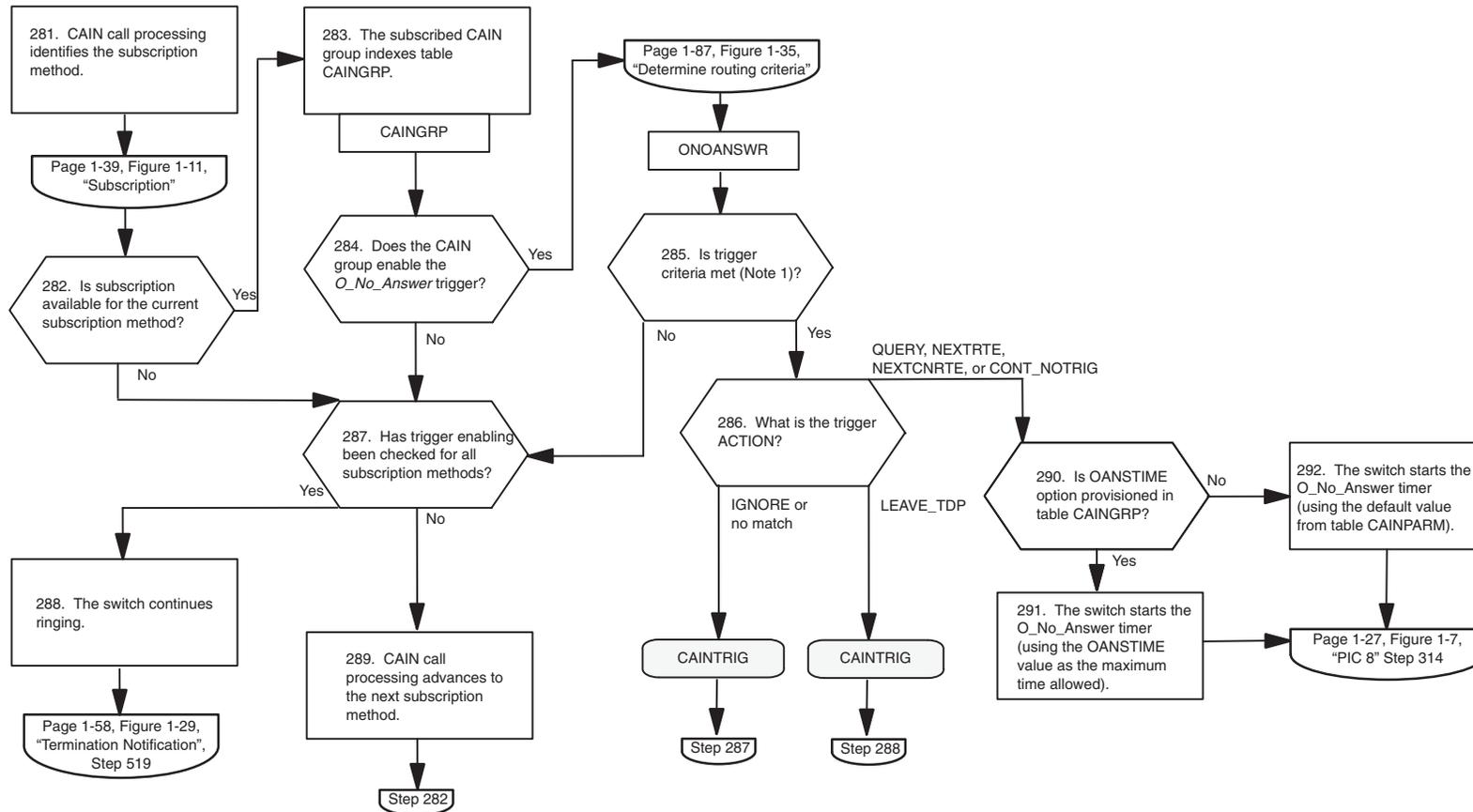
Note :For DAL trunks, ONNETTRK is in table TRKGRP. For AXCESS trunks, ONNETTRK is in table TRKFEAT.
Note : If a reorigination indication is received, go to page 1-35, step 375.



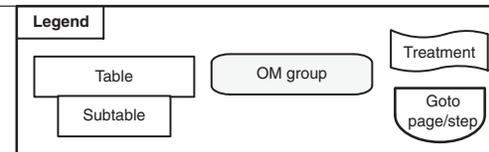
O_Term_Seized EDP



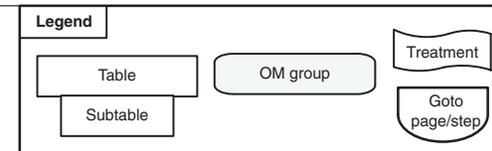
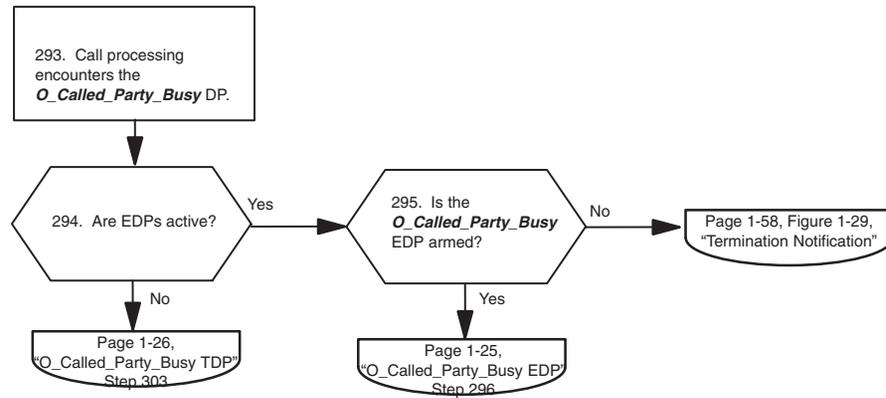
O_No_Answer Trigger



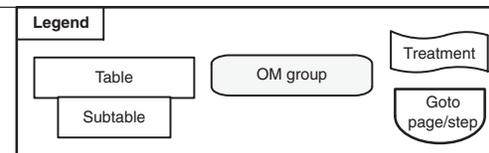
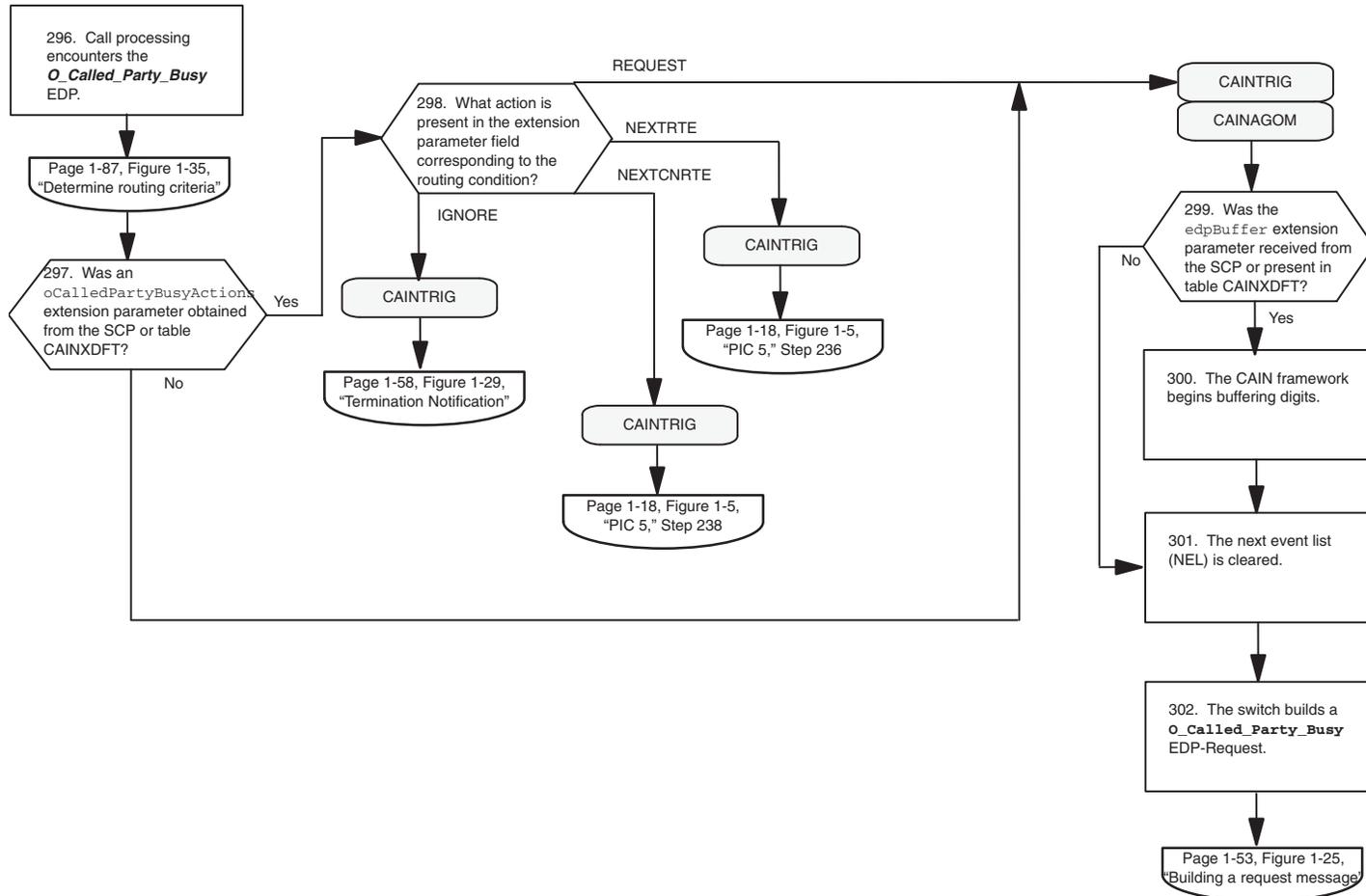
Note 1 :Trigger criteria consists of criteria (RTEAVAIL or RTESDONE) and a datafilled range of information digits, ANI, address or CIC.
Note 2 :The O_No_Answer timer may be cancelled when **O_Called_Party_Busy** or **O_Answer** is encountered.



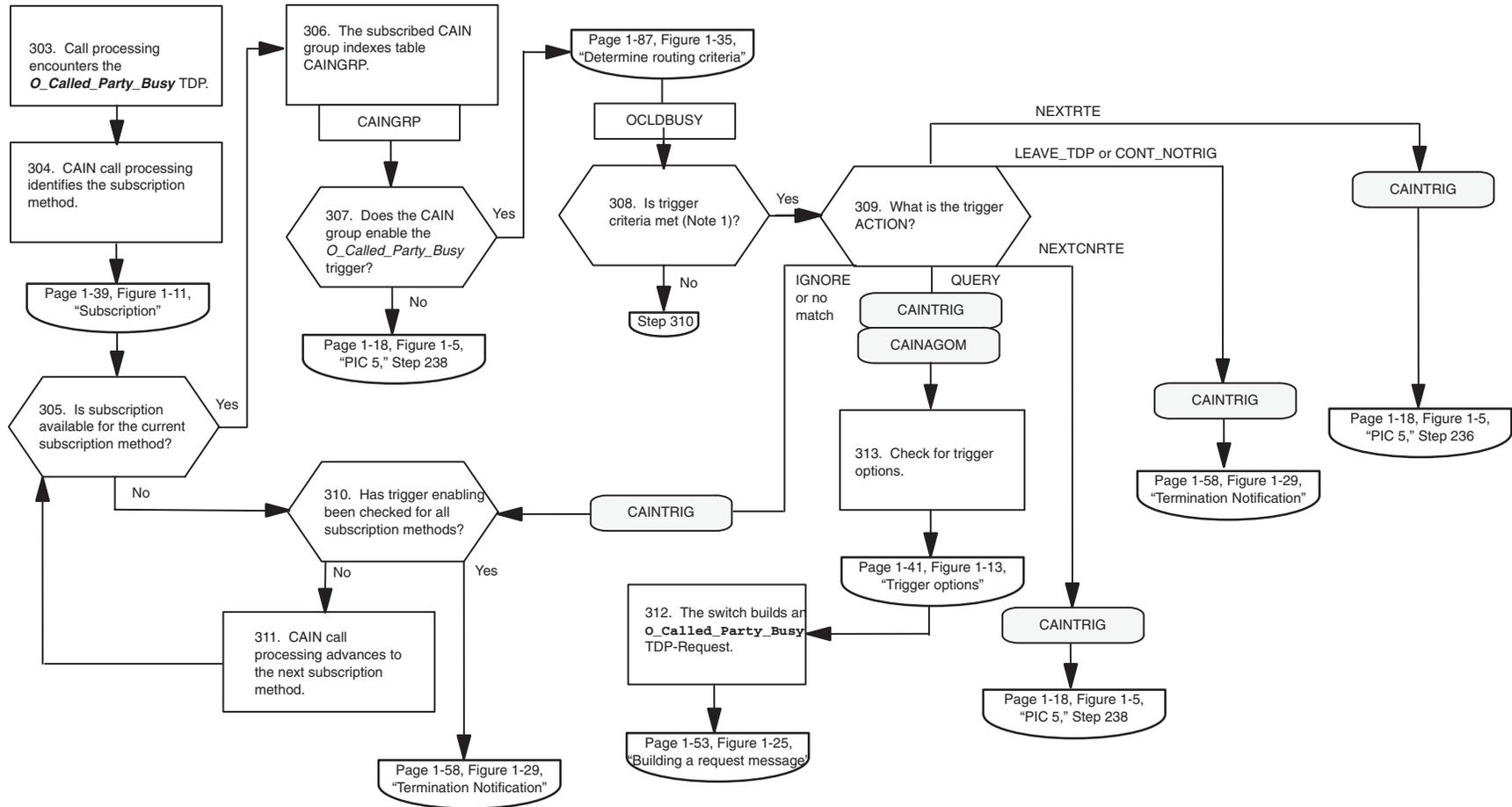
O_Called_Party_Busy DP



O_Called_Party EDP



O_Called_Party_Busy TDP



Note 1 :Trigger criteria consists of criteria (RTEAVAIL, RTESDONE, or TERMRTG_GNCT) and a datafilled range of information digits, ANI, XLAADDR, address or CIC.

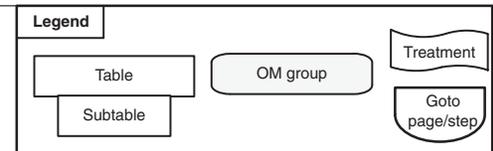
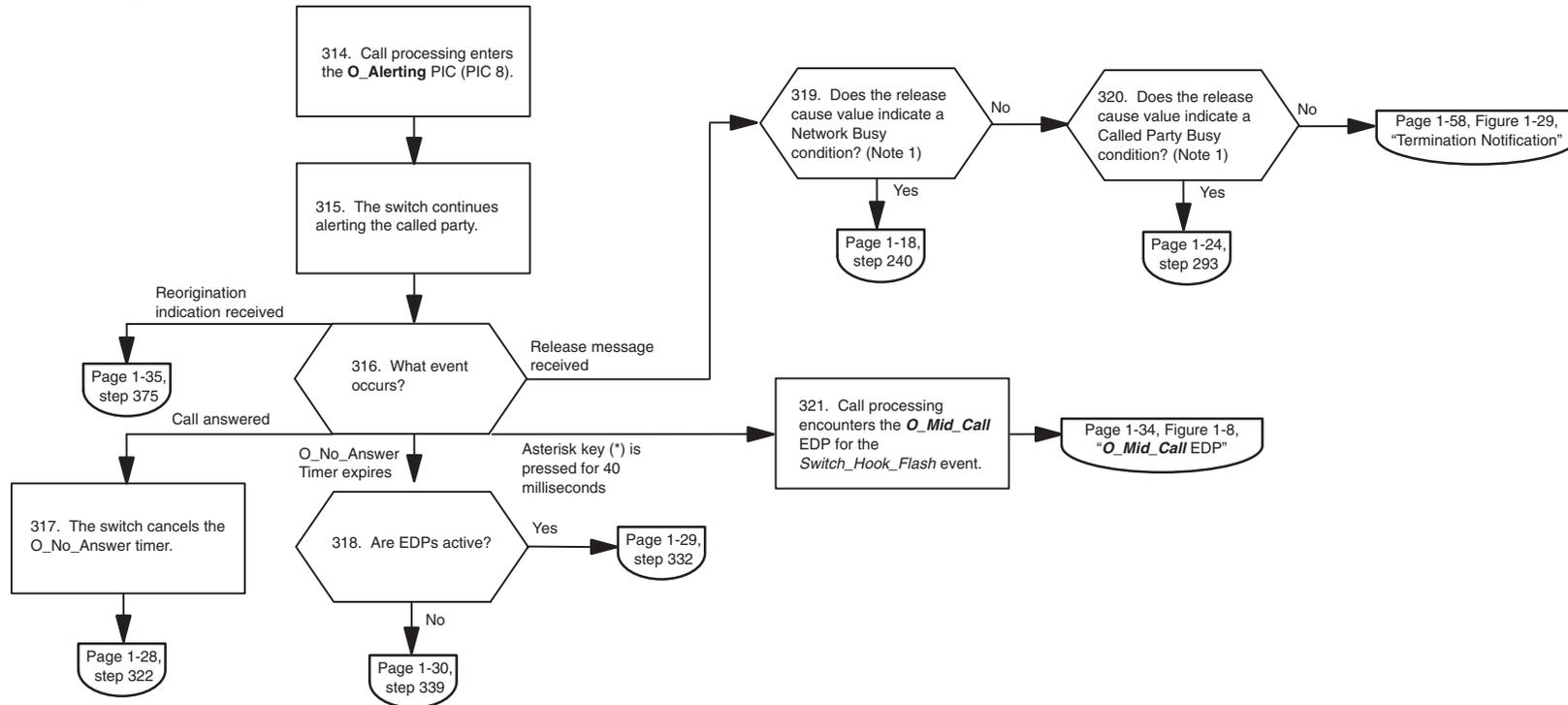
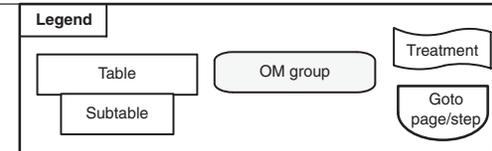


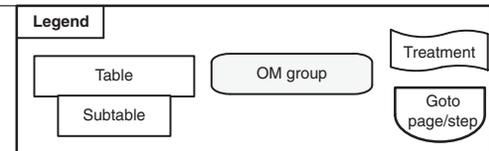
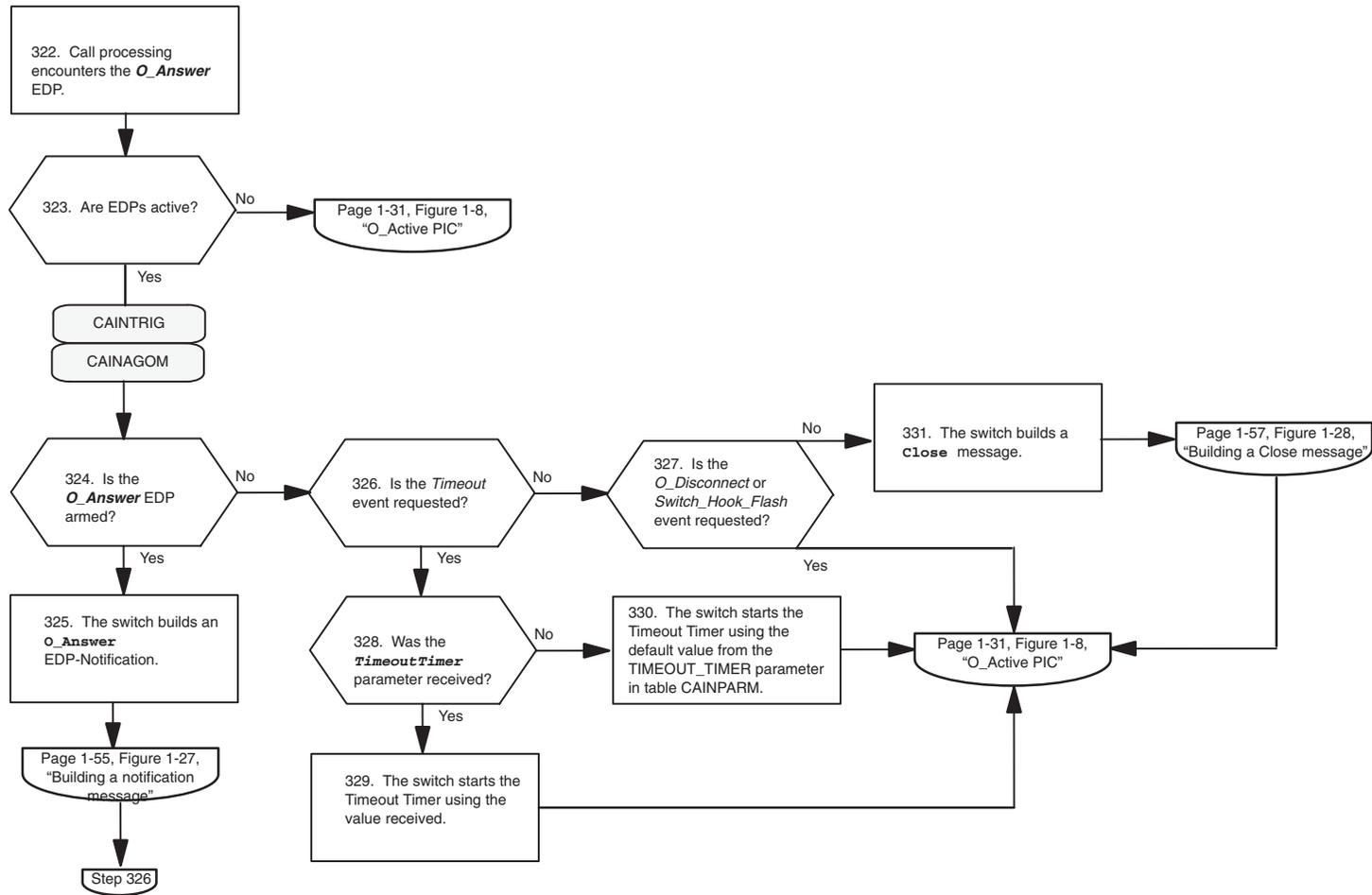
Figure 1-7
O_Alerting – PIC 8



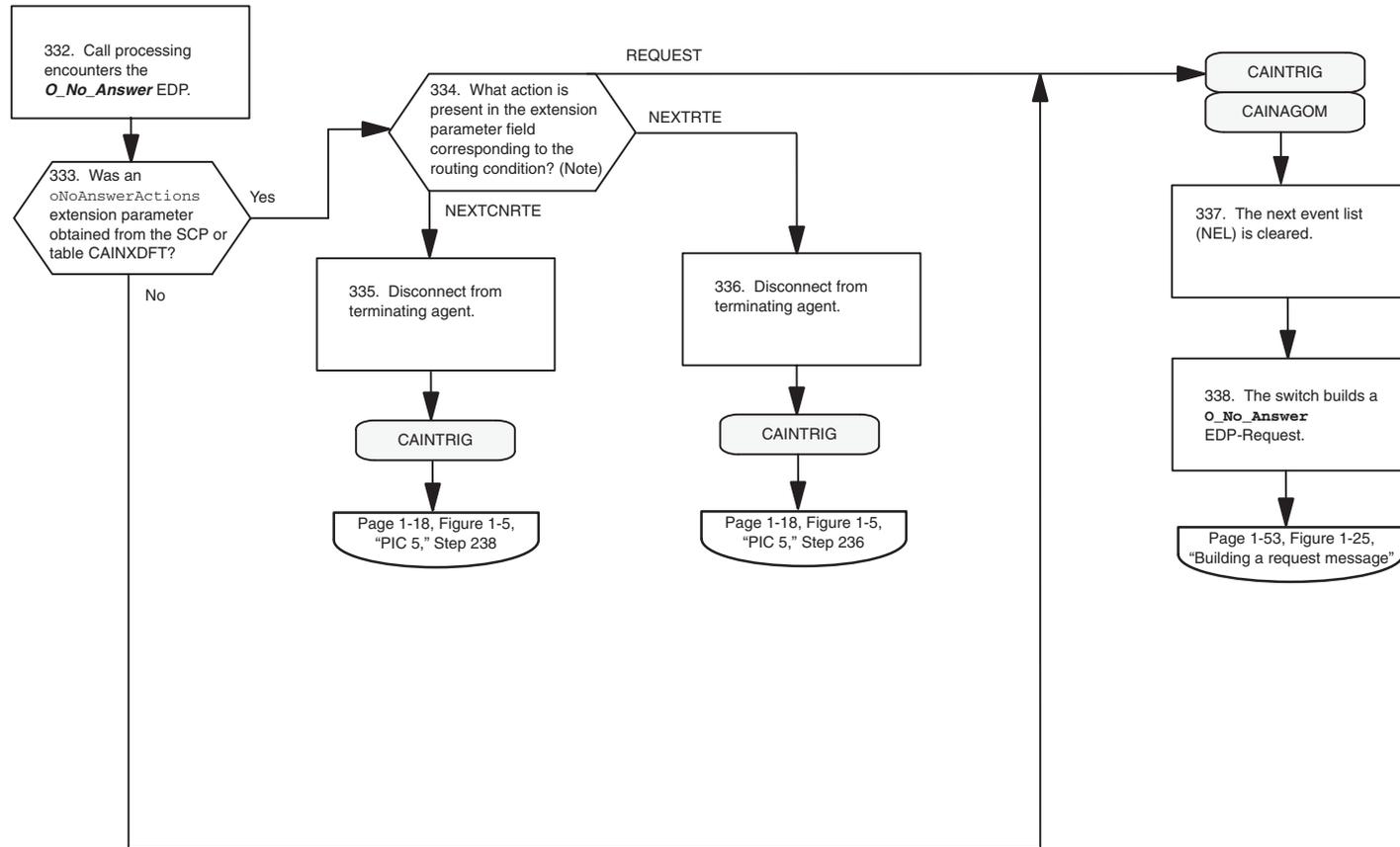
Note 1 :The O_No_Answer timer may be cancelled when *Network_Busy* or *O_Called_Party_Busy* is encountered.



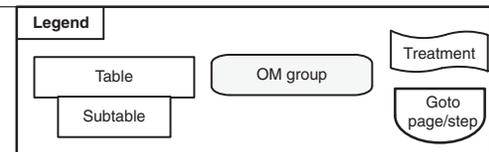
O_Answer EDP



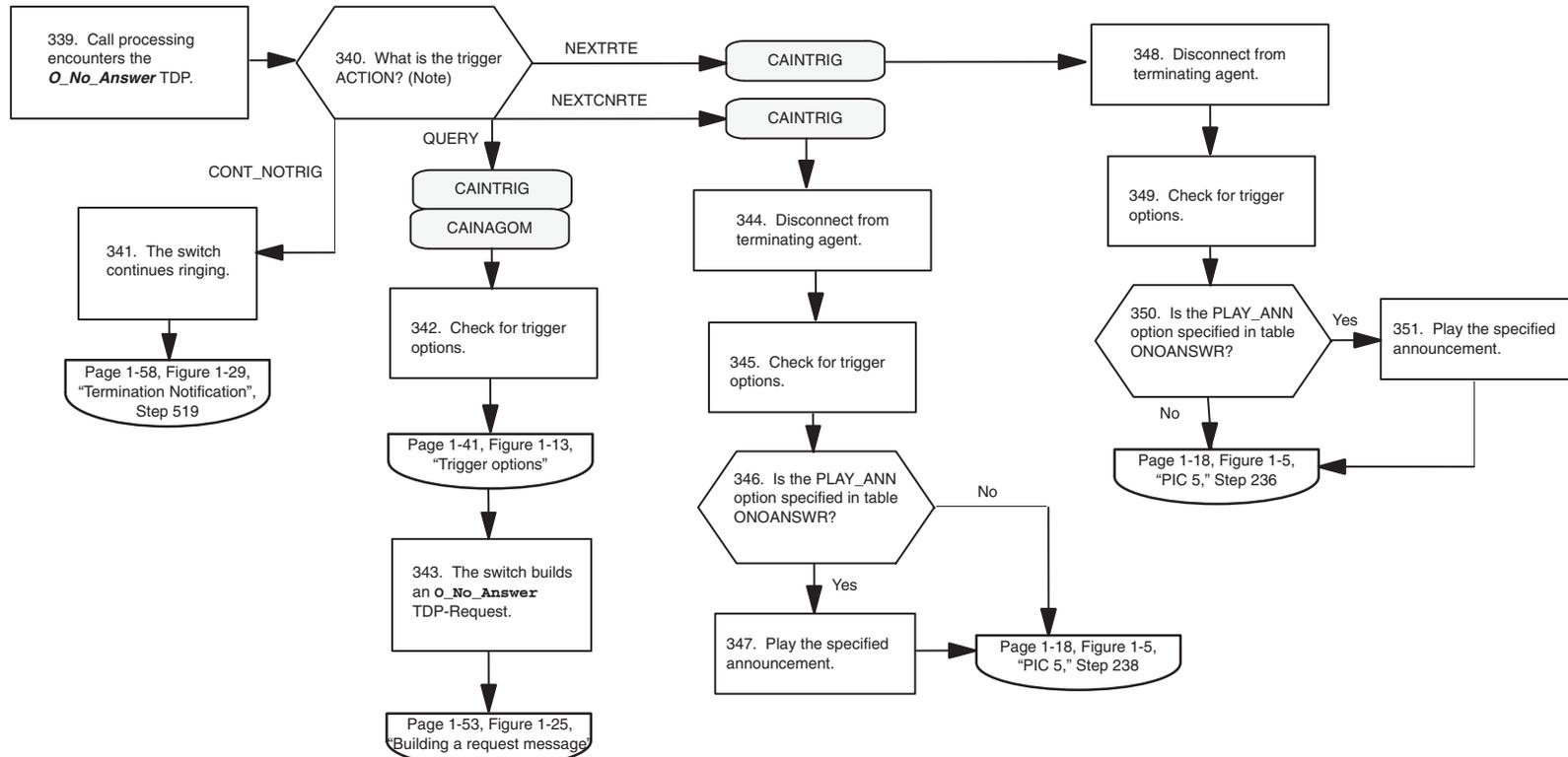
O_No_Answer EDP



Note :There is no need to account for the IGNORE action at this point in the call processing flow chart. If the action was IGNORE, the *O_No_Answer* timer would not have been started; therefore, call processing would never reach the *O_No_Answer* EDP.



O_No_Answer TDP



Note 2 :There is no need to account for the IGNORE, LEAVE_TDP, or NO_MATCH actions at this point in the call processing flow chart. If one of those actions was set, the *O_No_Answer* timer would not have been started; therefore, call processing would never reach the *O_No_Answer* TDP.

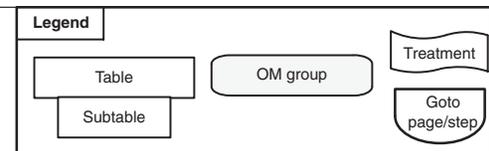
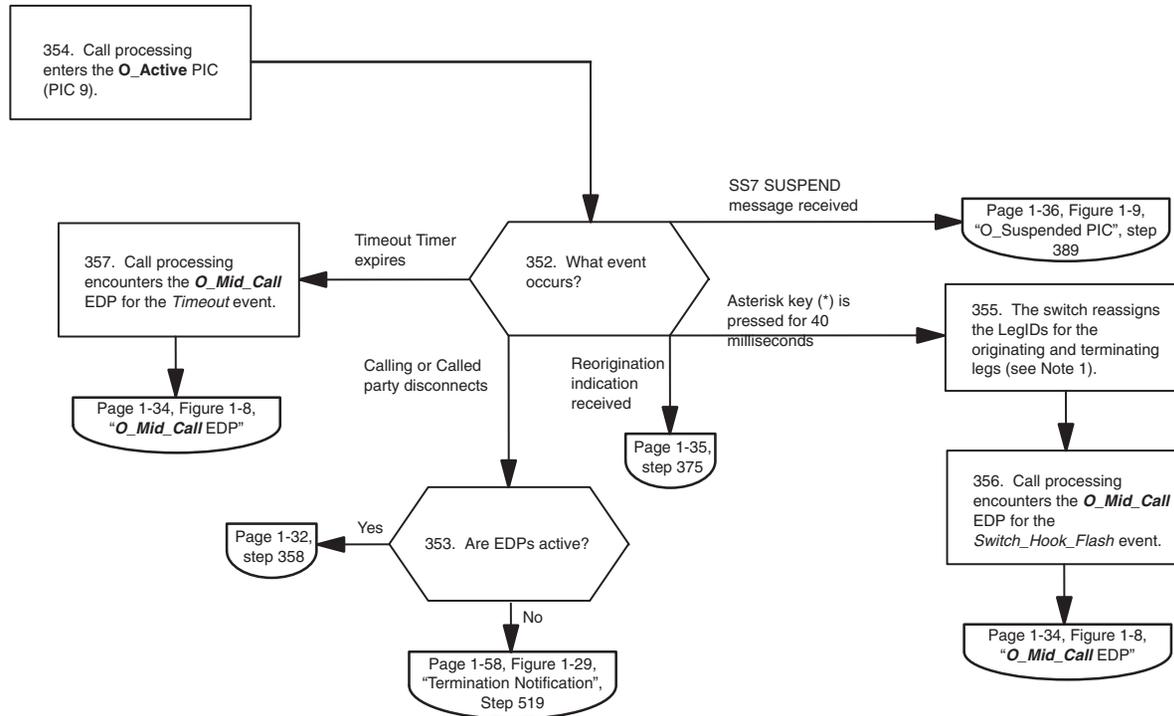
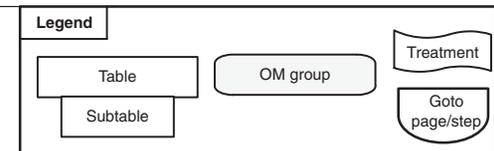


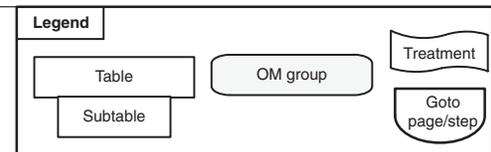
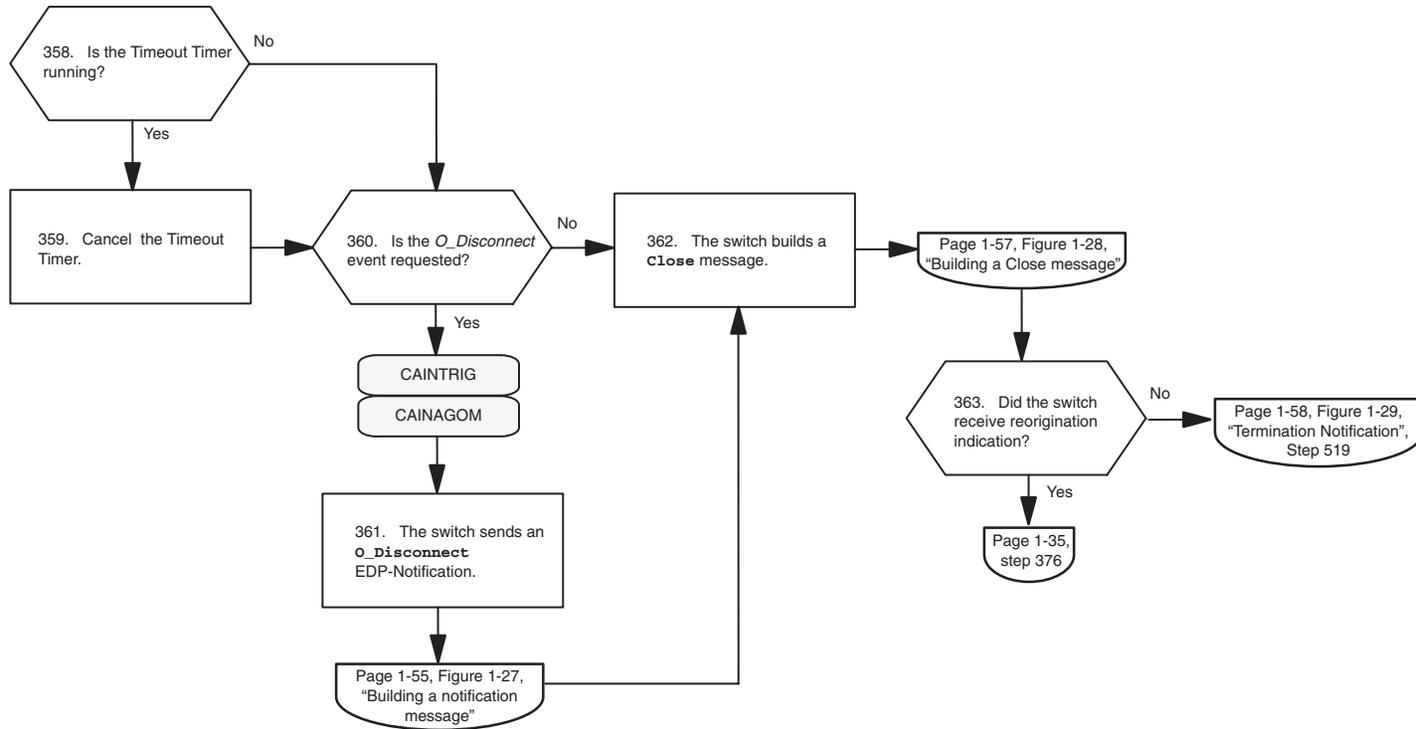
Figure 1-8
O_Active – PIC 9



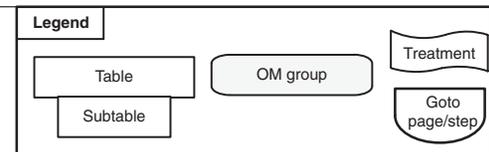
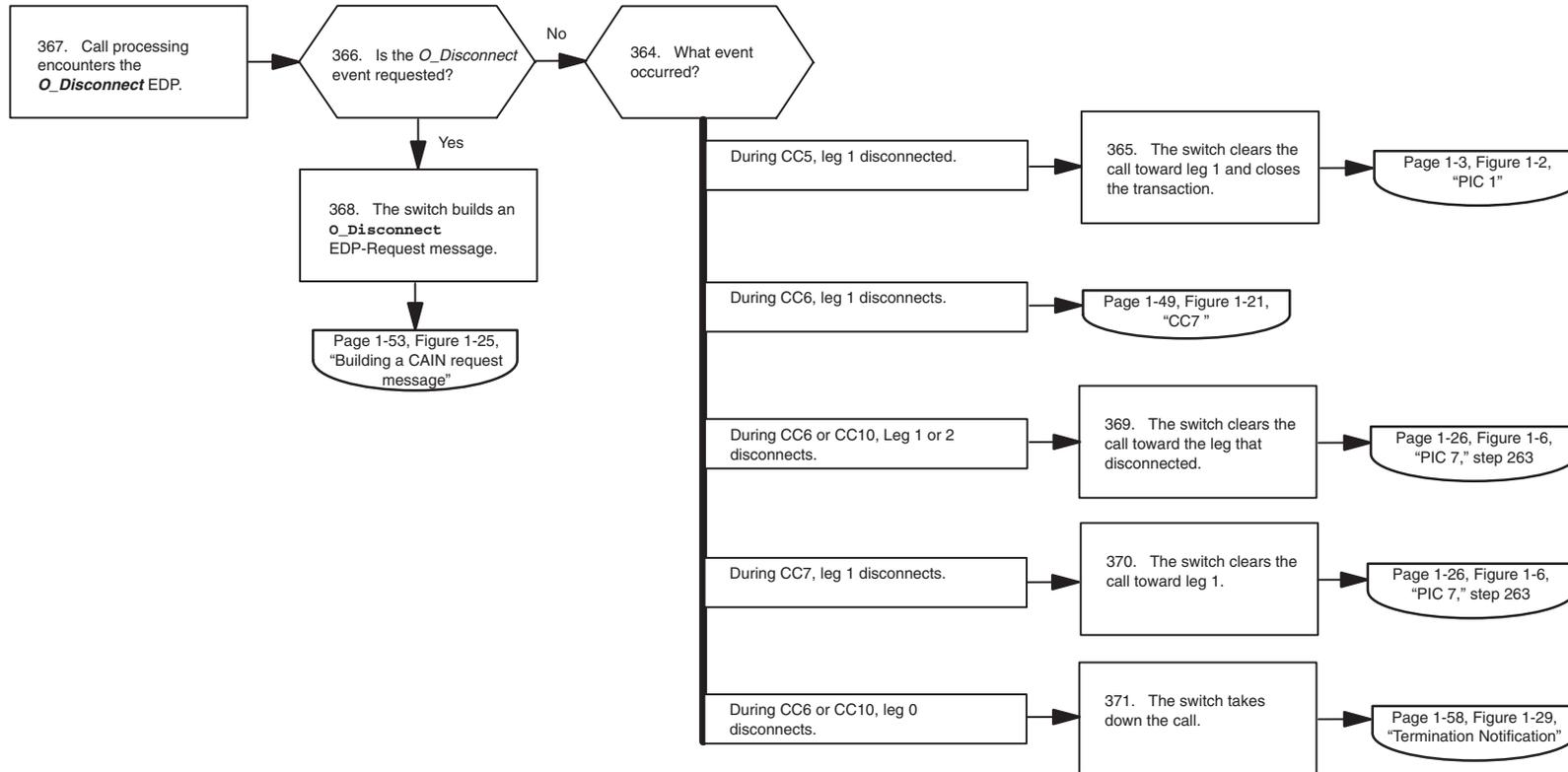
Note 1 :For more information on the reassigning of LegIDs, refer to Volume 3, Chapter 4, "Call Configurations."



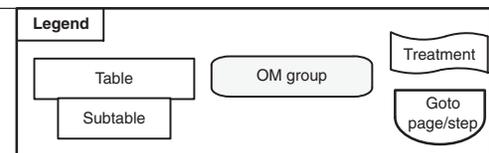
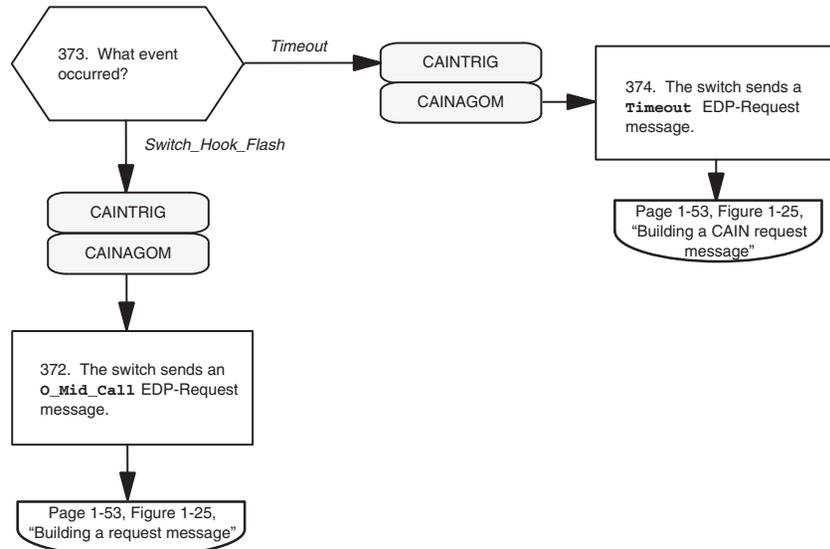
O_Disconnect EDP (notification)



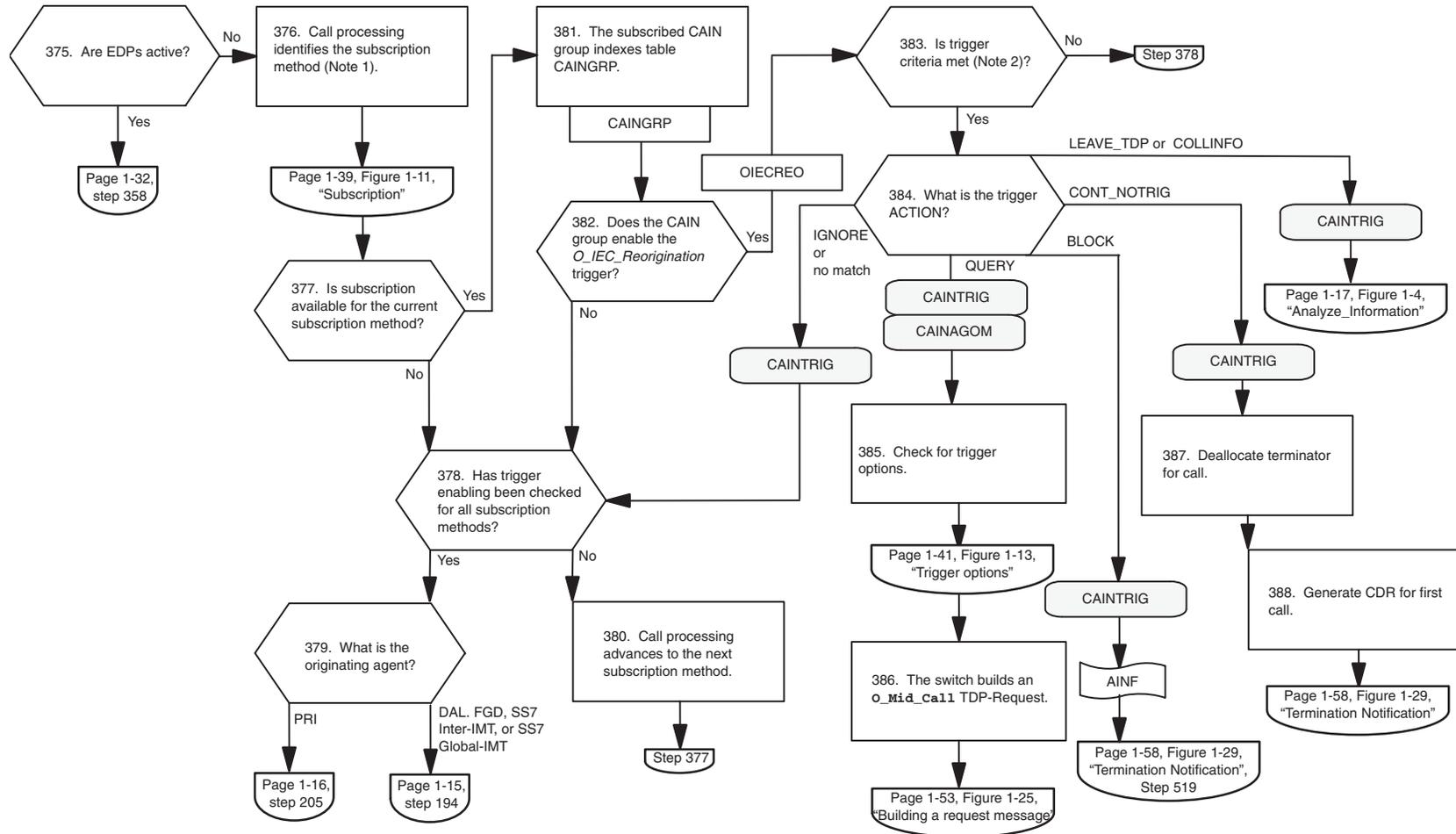
O_Disconnect EDP (request)



O_Mid_Call EDP



O_Mid_Call TDP



Note 1 :SCP-returned subscription is only available at **Collect_Information** PIC for re-originated calls.
Note 2 :Trigger criteria consists of a datafilled range of information digits, ADIN, ANI, address, or CIC for OIECREO.

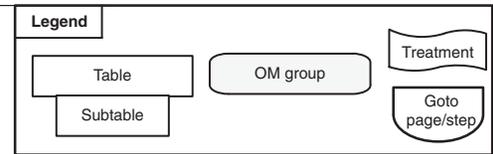


Figure 1-9
O_Suspended PIC 10

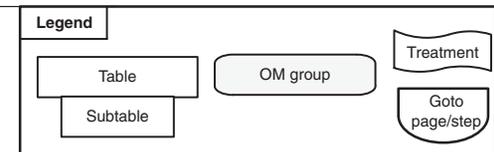
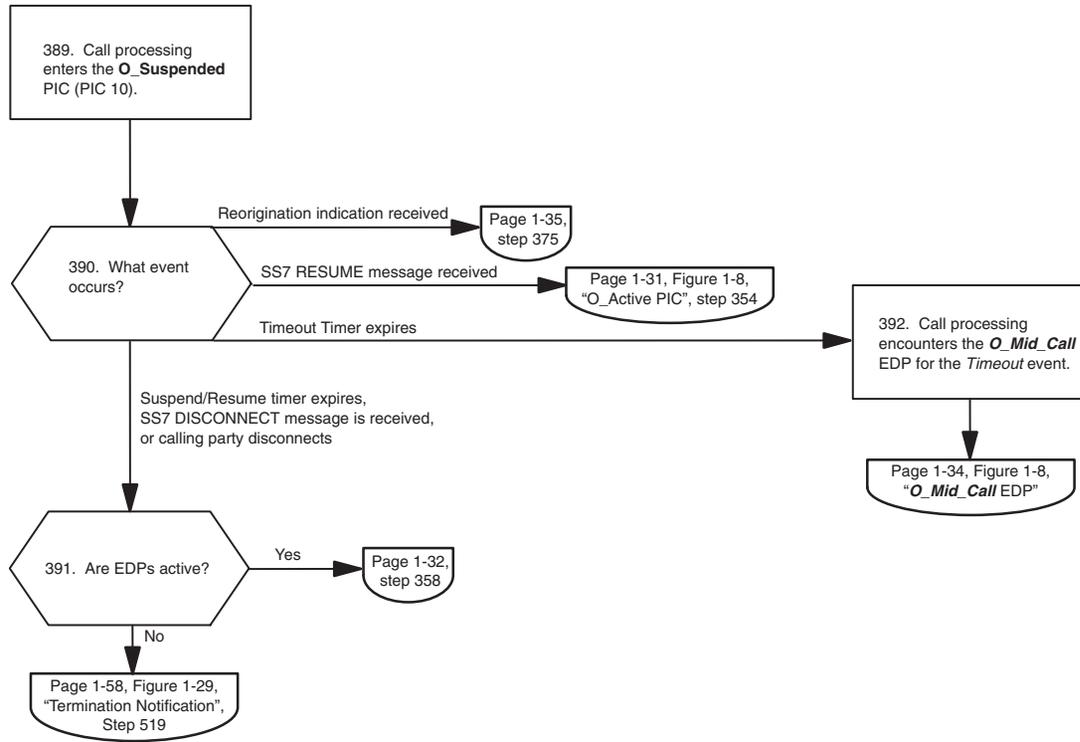
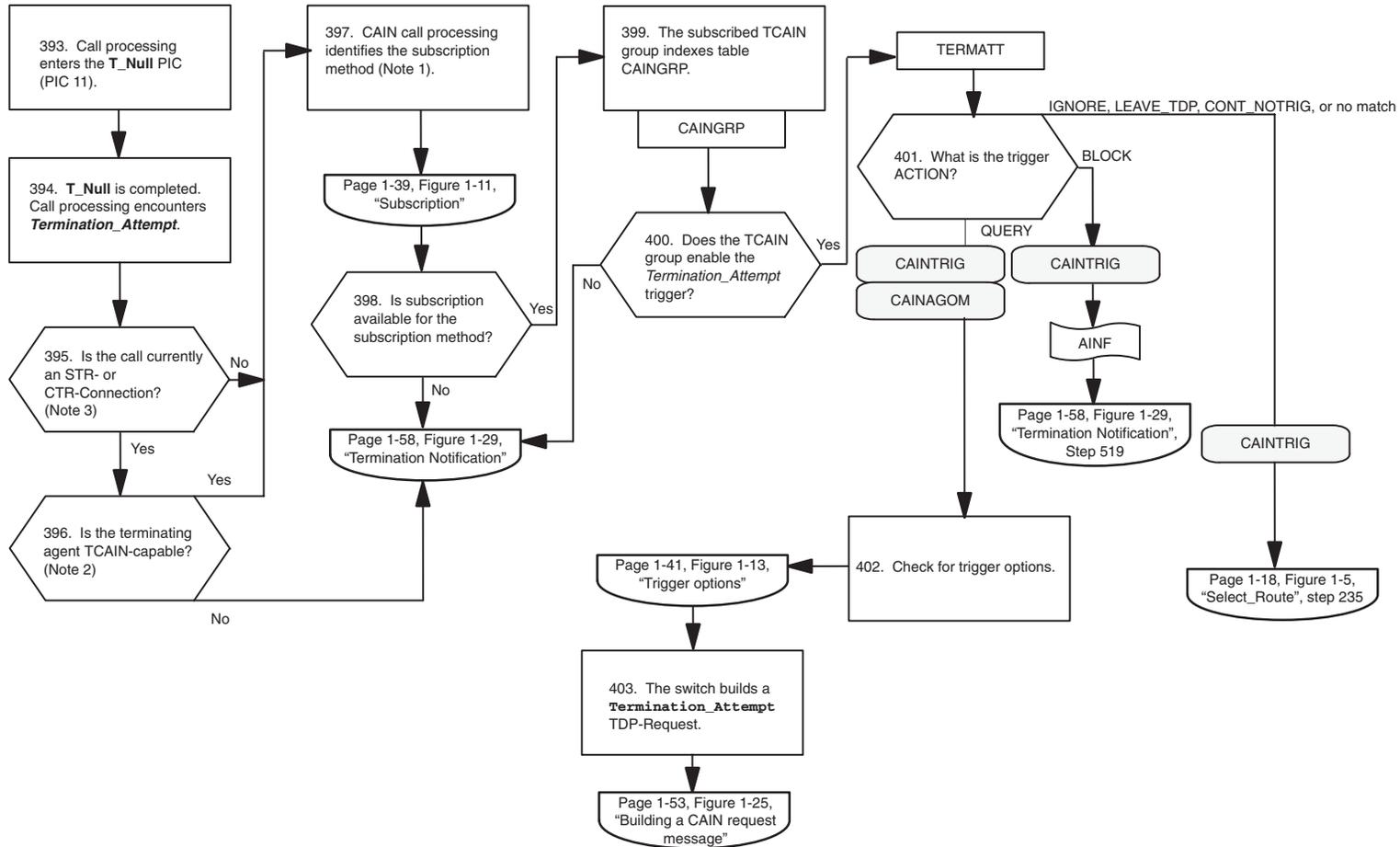


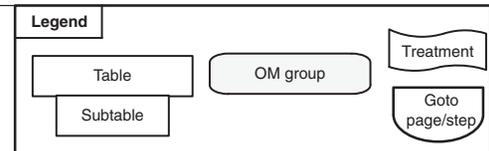
Figure 1-10
T_Null – PIC 11



Note 1 :Only agent subscription method is valid for **Termination_Attempt**.

Note 2 :Supported terminating agencies (DAL, FGB, FGC, FGD,IMTs, PRI, AXCESS).

Note 3 :Refer to Volume 4, Chapter 2, "STR-Connections," and Chapter 3, "CTR-Connections," for more information of messaging and call flows for STR- and CTR-Connections.



O_Abandon EDP

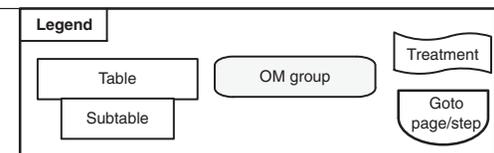
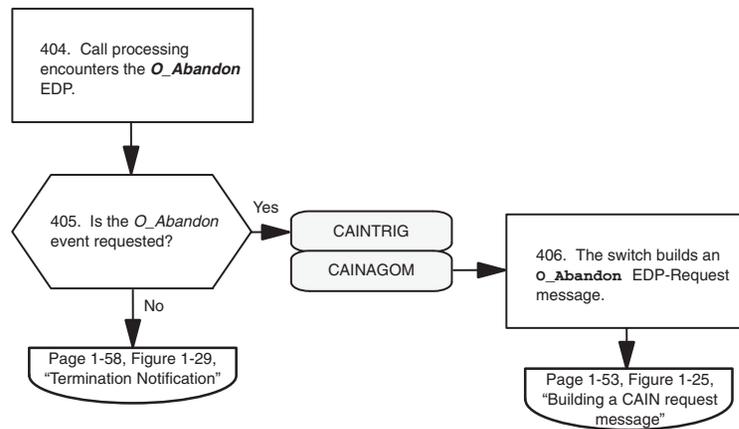
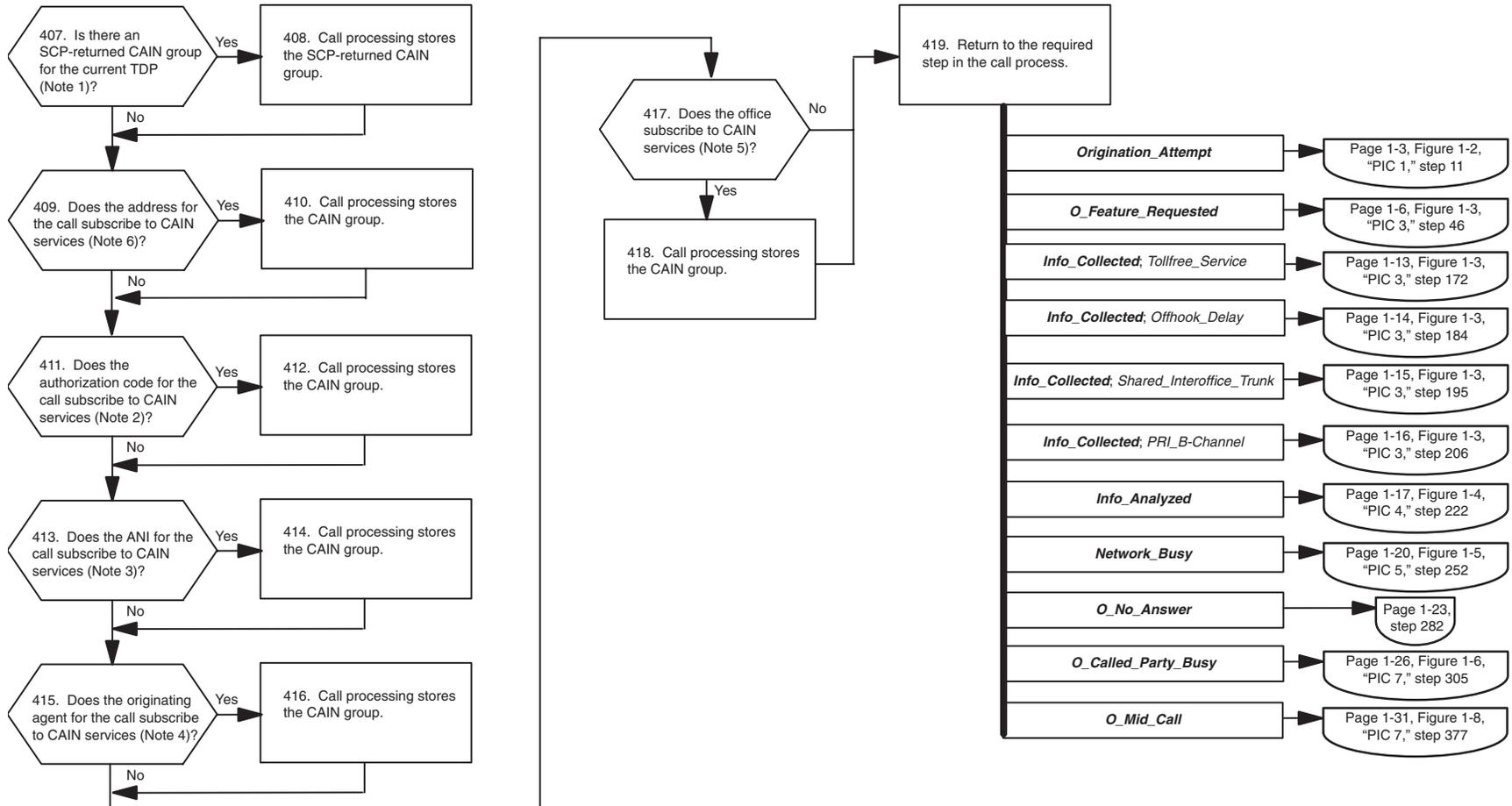


Figure 1-11
Subscription (originating call model)



Note 1 :SCP-returned subscription is assigned when the switch receives an **Analyze_Route** message containing the **cainGroup ExtensionParameter**.

Note 2 :Provision authorization code subscription in one of the following tables: AUTHCODU, AUTHCDU2, AUTHCDU3, AUTHCDU4, or AUTHCDU5. **O_Null** does not support authcode subscription. Call processing may reassign this CAIN group during **Collect_Information**.

Note 3 :Provision ANI subscription in table ANISCUSP. **O_Null** does not support ANI subscription. Call processing may reassign this CAIN group during **Collect_Information**.

Note 4 :Provision agent subscription in table TRKGRP (DAL, FGD, SS7 Inter-IMT, or SS7 Global-IMT originating agents), table TRKFEAT (AXCESS originating agents), or table CALLATTR (PRI originating agents).

Note 5 :Office subscription is provisioned in table CAINPARM, parameter CAIN_OFFICE_GROUP.

Note 6 :Provision address subscription in table STDPRCT, subtable STDPRT.

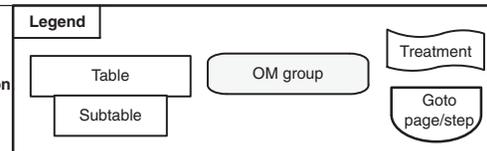
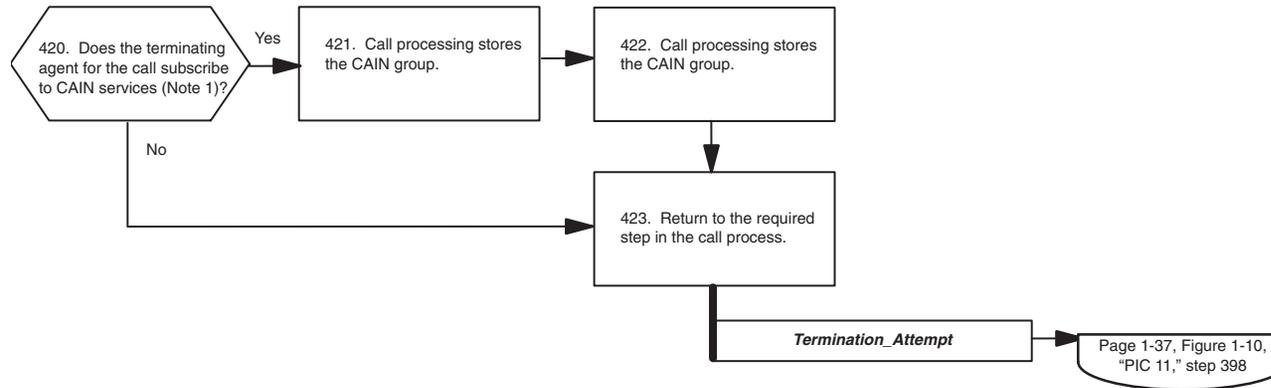


Figure 1-12
Subscription (terminating call model)



Note 1 :Provision agent subscription in table TRKGRP (DAL, FGB, FGC, FGD, IMTs terminating agents), table TRKFEAT (AXXESS terminating agents), or table CALLATTR (PRI terminating agents).

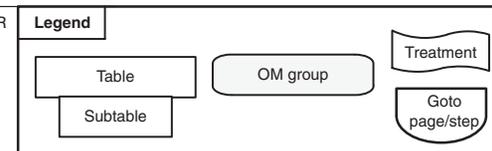


Figure 1-13
Trigger options

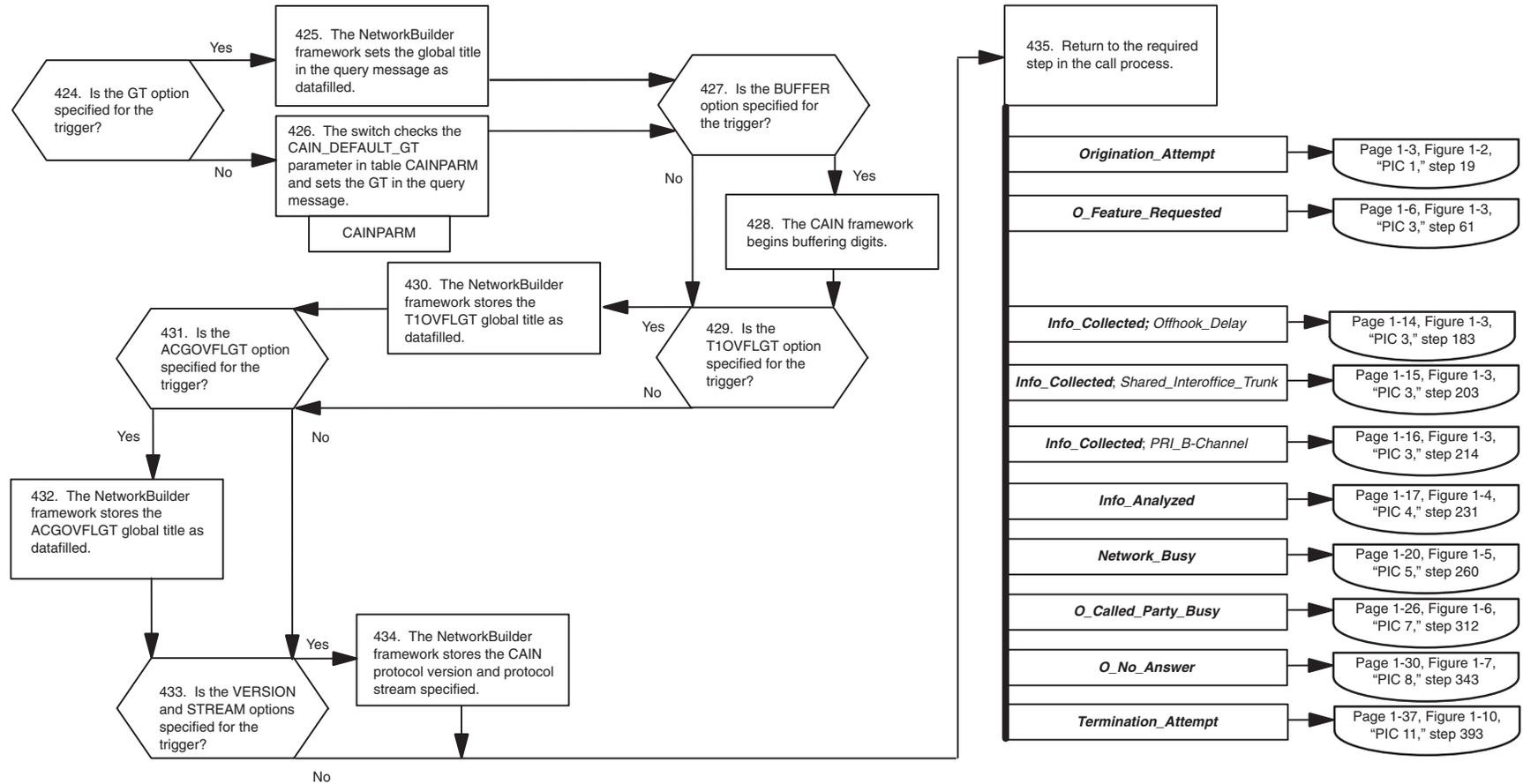


Figure 1-14
CC0 - Null

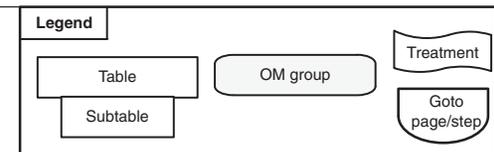
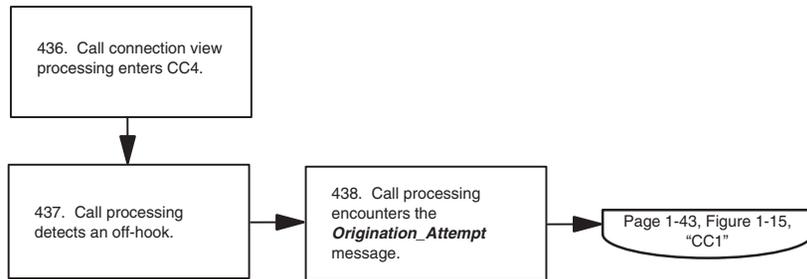
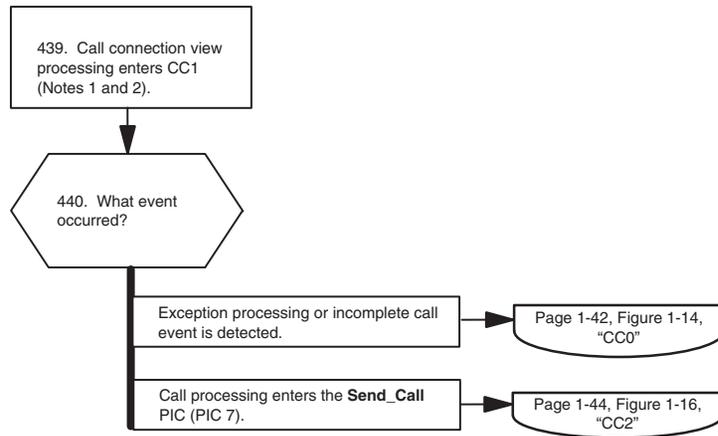


Figure 1-15
CC1 - Originating 2-party call in setup phase



Note 1 :For PIC 3, no transition occurs for the CC when *Info_Collected* is encountered.
Note 2 :For PIC 4, no transition occurs for the CC when *Info_Analyzed* is encountered.

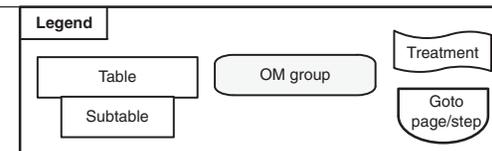
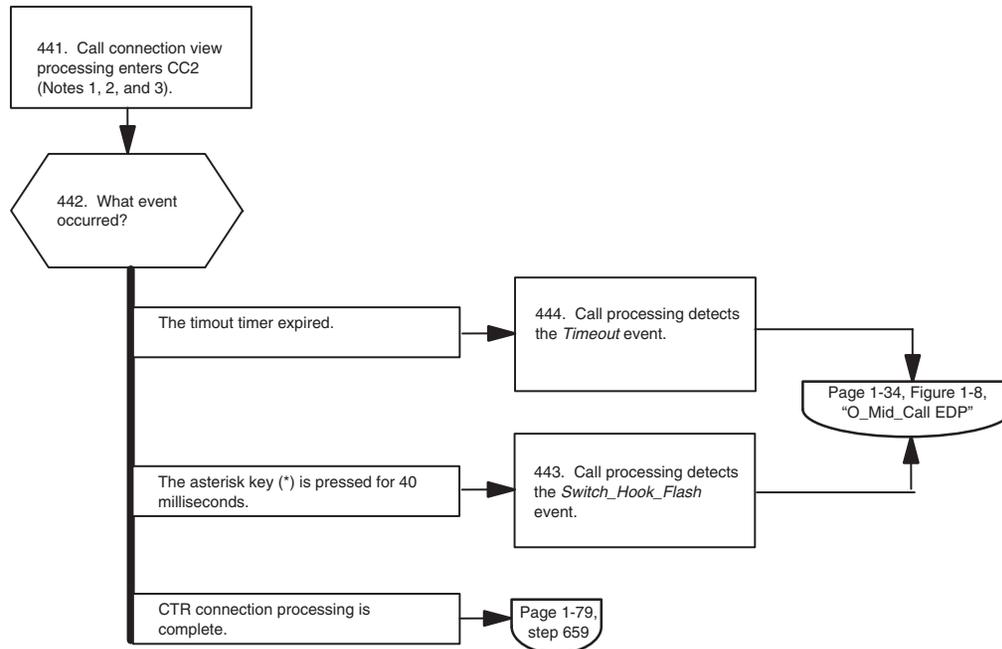


Figure 1-16
CC2 - Stable 2-party call



Note 1 :No transition occurs for the CC when a *Switch_Hook_Flash* event is detected and a *Connect_To_Resource* message is received from the SCP.
Note 2 :No transition occurs for the CC when the switch sends a *CTR_Clear* message, and the switch receives a *Connect_To_Resource* message.
Note 3 :No transition occurs for the CC when call processing detects a *Timeout* event, and the switch receives a *Connect_To_Resource* message.

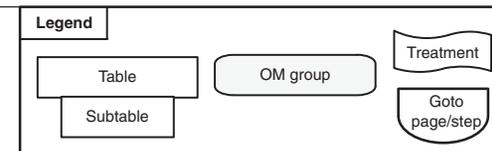
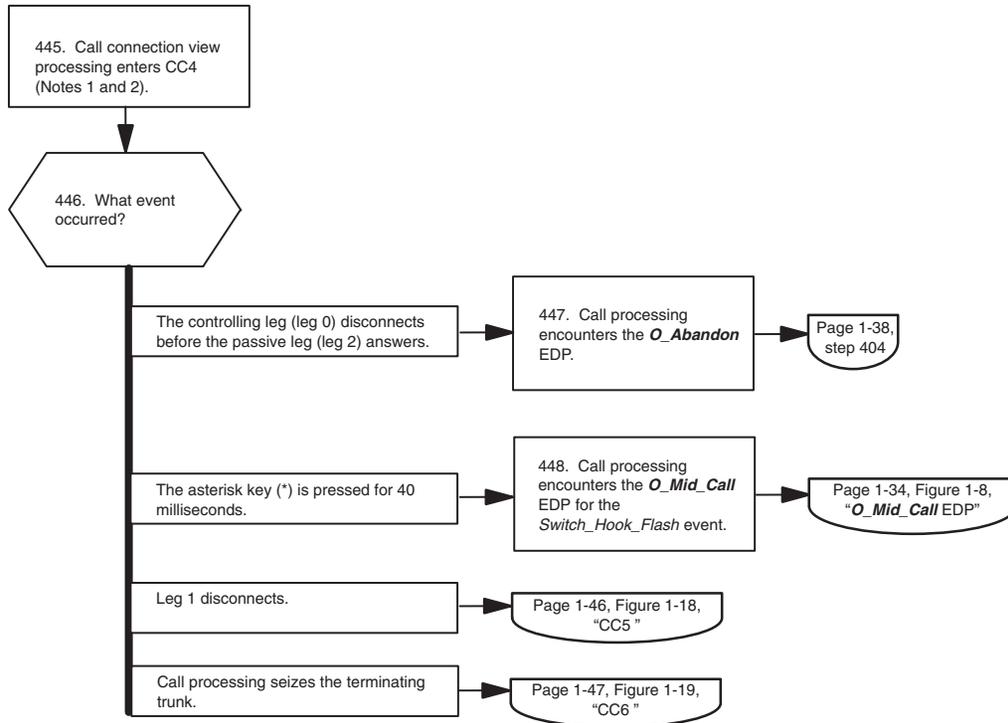


Figure 1-17
CC4 - 3 party setup



Note 1 :No transition occurs for the CC when a **Connect_To_Resource** is received in response to a **Failure_Outcome** message generated from an **Originate_Call** message.

Note 2 :No transition occurs for the CC when a **Connect_To_Resource** is received in response to a **CTR_Clear** message for leg 0.

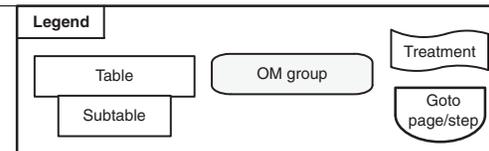


Figure 1-18
CC5 - 3 party setup complement

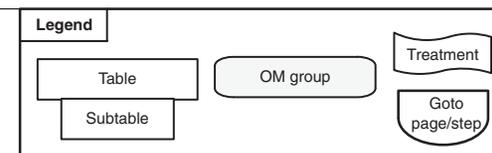
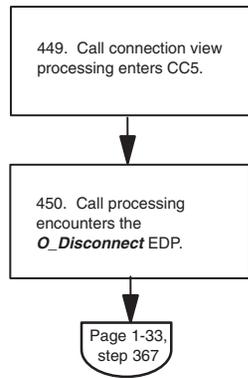
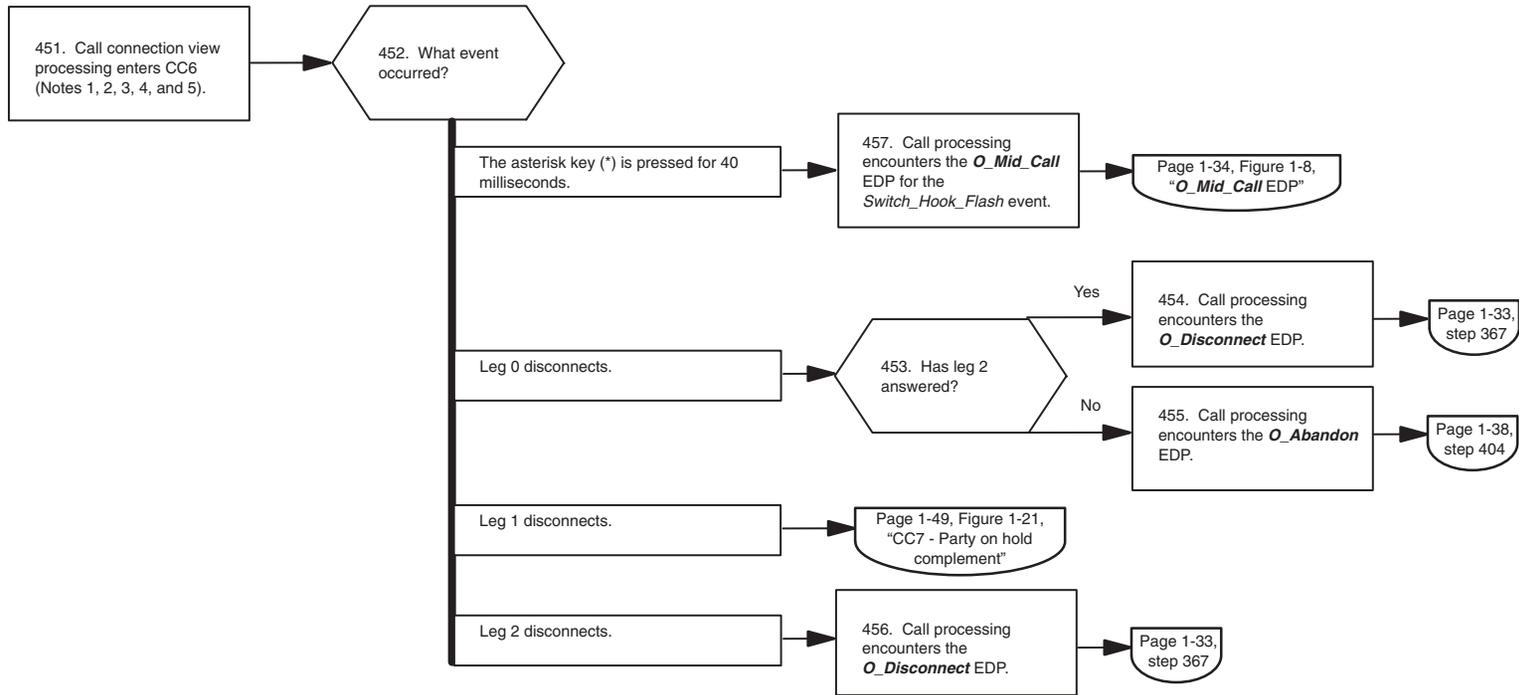


Figure 1-19
CC6 - Party on hold



Note 1 :No transition occurs for the CC when a **Connect_To_Resource** message is received with the **LegID** set to 0 or 2 in response to an **o_Mid_Call** EDP-Request message for the **Switch_Hook_Flash** event.

Note 2 :No transition occurs for the CC when an **Acknowledge** message is received in response to a **o_Mid_Call** EDP-Request message for the **Switch_Hook_Flash** event.

Note 3 :No transition occurs for the CC when a **Connect_To_Resource** message is received with the **LegID** set to 0 or 2 in response to a **CTR_Clear** message with the **LegID** set to 0 or 2.

Note 4 :No transition occurs for the CC when an **Acknowledge** message is received for a **CTR_Clear** message with the **LegID** set to 0 or 2.

Note 5 :No transition occurs for the CC when a **Connect_To_Resource** message is received with the **LegID** set to 1 in response to an **o_Abandon** EDP-Request message.

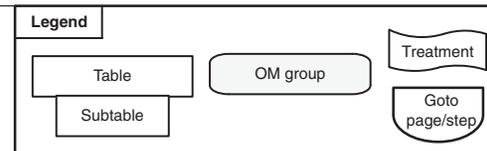
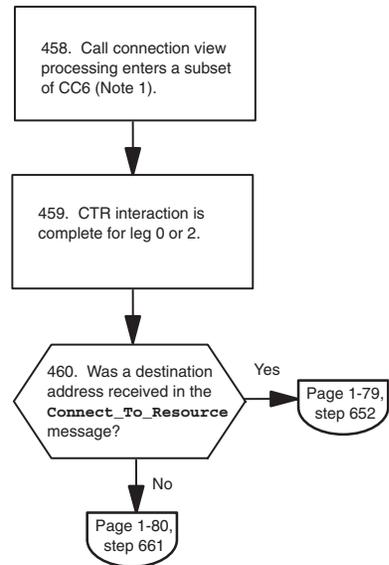


Figure 1-20
Subset of CC6 - Party on Hold



Note 1 :No transition occurs for the CC when a **Connect_To_Resource** message is received in response to a **CTR_Clear** message.

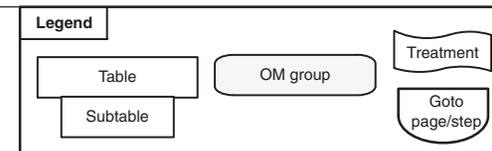


Figure 1-21
CC7 - Party on hold complement

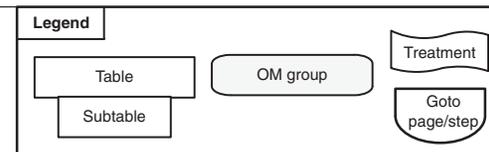
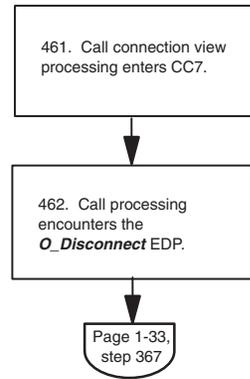


Figure 1-22
CC10 - Stable multi-party call

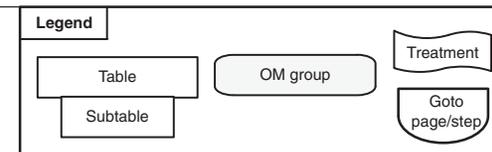
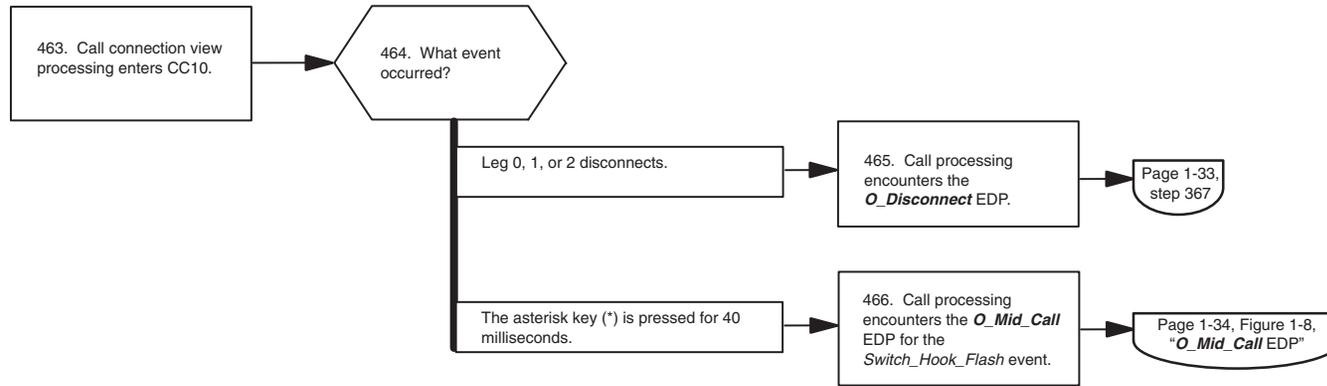
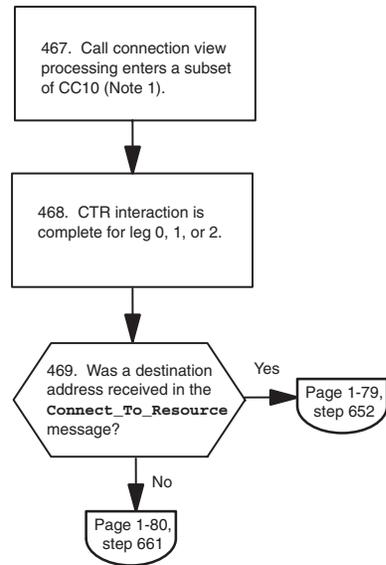


Figure 1-23
Subset of CC10 - Stable multi-party call



Note 1 :No transition occurs for the CC when a **Connect_To_Resource** message is received in response to a **CTR_Clear** message for leg 1 or 2.

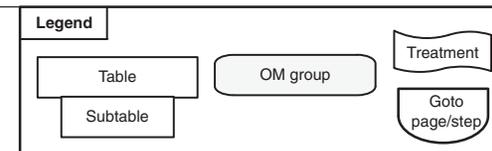


Figure 1-24
CC11 - Transfer

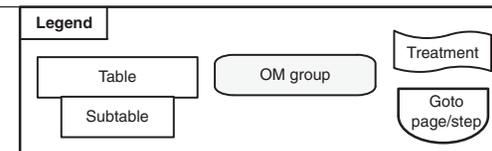
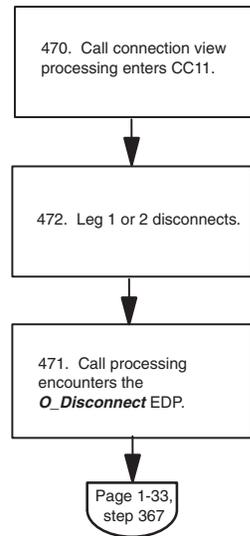
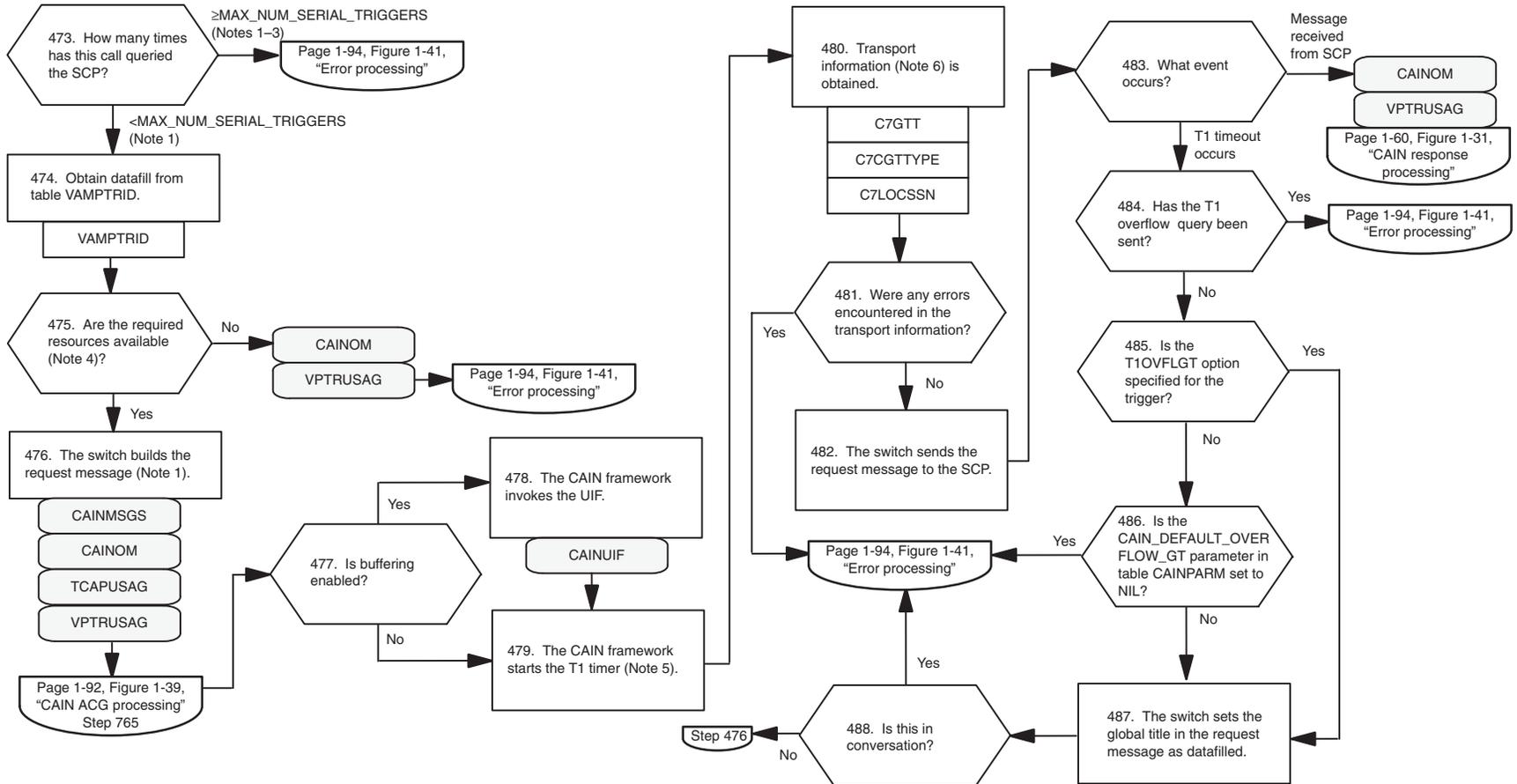


Figure 1-25
Building a CAIN request message



- Note 1** :Parameter MAX_NUM_SERIAL_TRIGGERS is provisioned in table CAINPARAM (default is 3).
- Note 2** :When MAX_NUM_SERIAL_TRIGGERS is reached at **O_No_Answer**, the switch continues ringing instead of performing an error action.
- Note 3** :When MAX_NUM_SERIAL_TRIGGERS is reached at **Network_Busy** or **O_Called_Party_Busy**, the switch returns to normal call processing instead of performing an error action.
- Note 4** :Required resources are: extension blocks, transaction identifiers, component identifiers, and message blocks. Refer to Volume 1, Chapter 2, "Provisioning NetworkBuilder," for more information.
- Note 5** :Parameter CAIN_T1_TIMEOUT is provisioned in table CAINPARAM (default is 2 seconds).
- Note 6** :Refer to Volume 3, Chapter 1, "TCAP messaging," and the *UCS DMS-250 NetworkBuilder AIN 0.2 TCAP Protocol Definition* for more information.

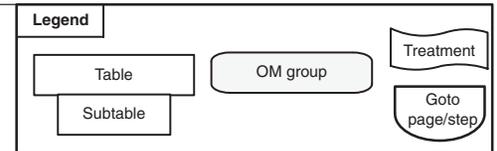
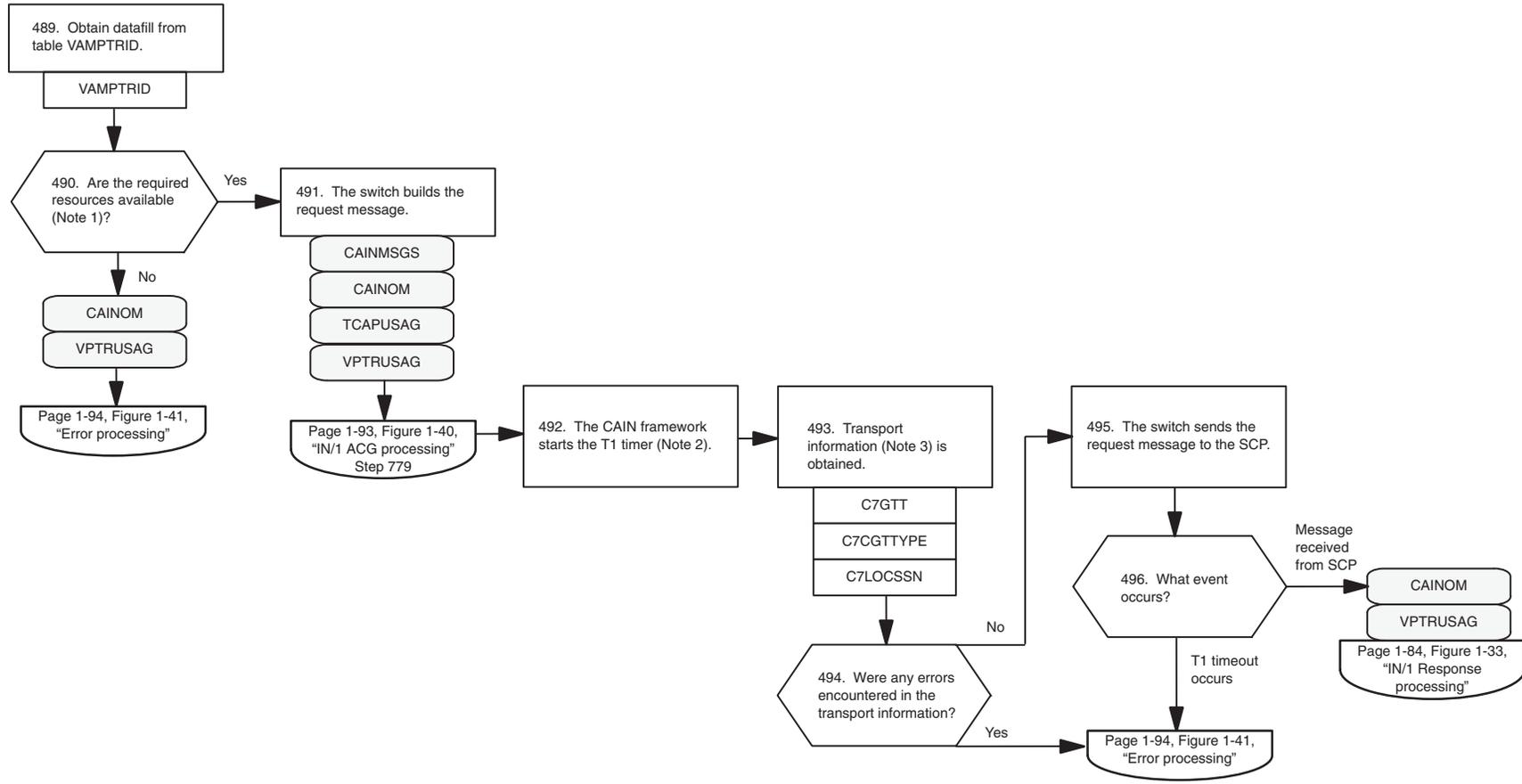


Figure 1-26
Building an IN/1 request message



Note 1 :Required resources are: extension blocks, transaction identifiers, component identifiers, and message blocks. Refer to Volume 1, Chapter 2, "Provisioning NetworkBuilder," for more information.

Note 2 :Parameter CAIN_T1_TIMEOUT is provisioned in table CAINPARAM (default is 2 seconds).

Note 3 :Refer to Volume 3, Chapter 1, "TCAP messaging," the *UCS DMS-250 NetworkBuilder AIN 0.2 TCAP Protocol Definition*, and *TR-NWT-000533* for more information.

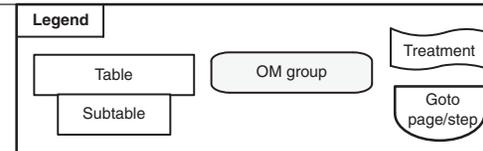
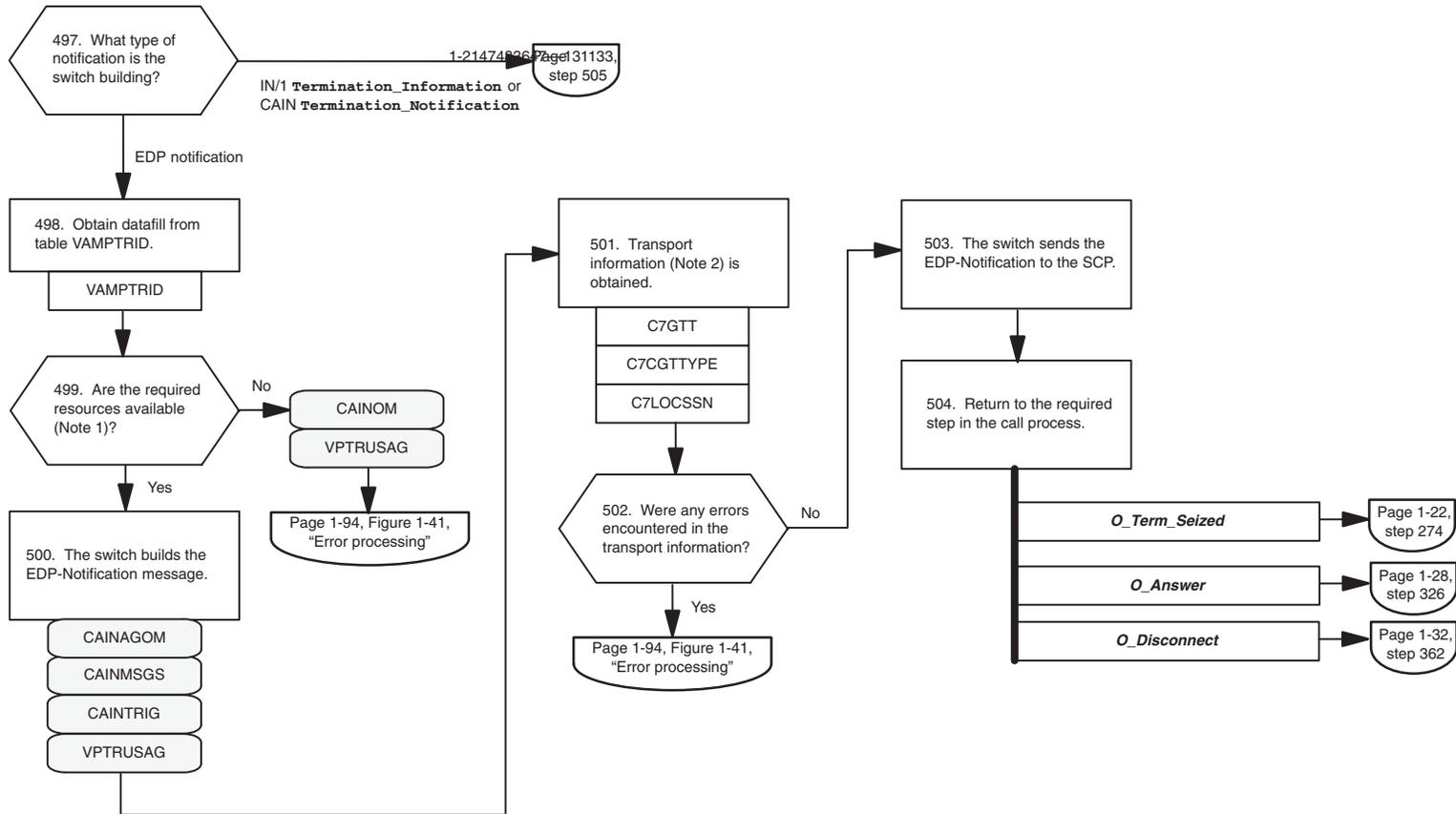
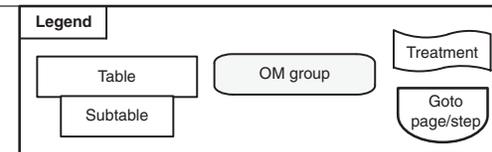


Figure 1-27
Building a notification message

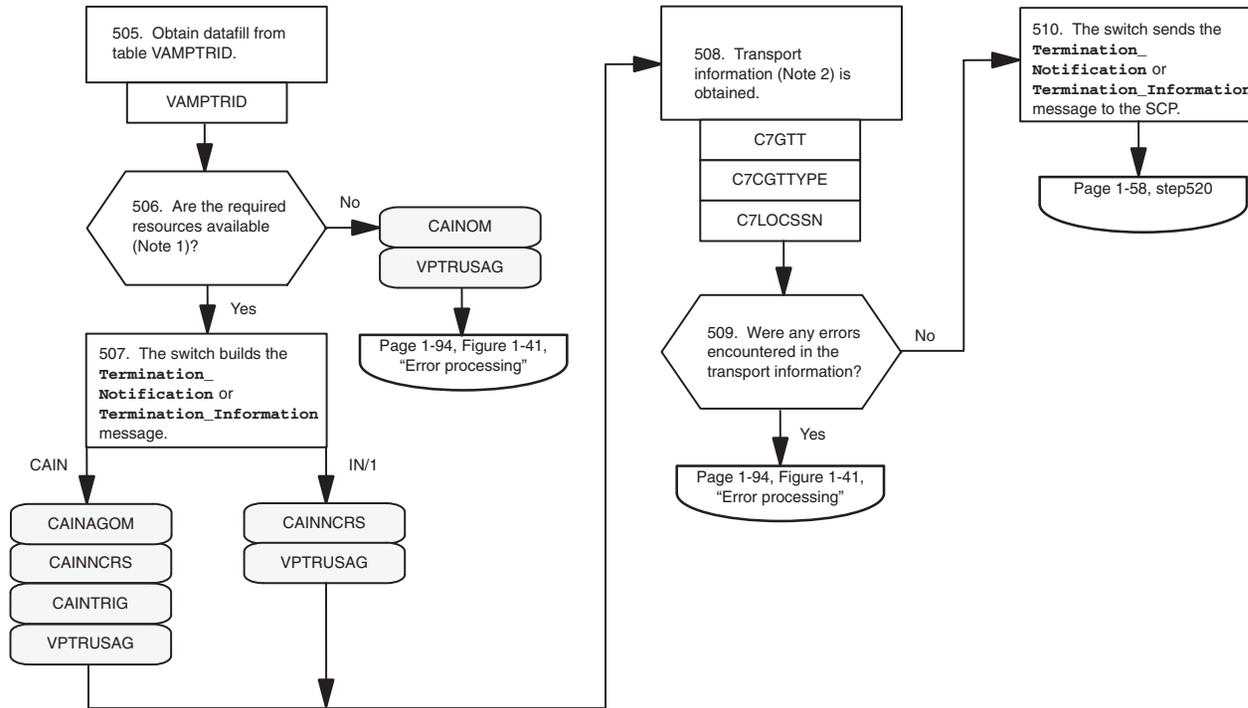


Note 1 :Required resources are: extension blocks, transaction identifiers, component identifiers, and message blocks. Refer to Volume 1, Chapter 2, "Provisioning NetworkBuilder," for more information.

Note 2 :Refer to Volume 3, Chapter 1, "TCAP messaging," and the *UCS DMS-250 NetworkBuilder AIN 0.2 TCAP Protocol Definition* for more information.



Building a notification message (continued)



Note 1 :Required resources are: extension blocks, transaction identifiers, component identifiers, and message blocks. Refer to Volume 1, Chapter 2, "Provisioning NetworkBuilder," for more information.

Note 2 :Refer to Volume 3, Chapter 1, "TCAP messaging," and the UCS DMS-250 NetworkBuilder AIN 0.2 TCAP Protocol Definition for more information.

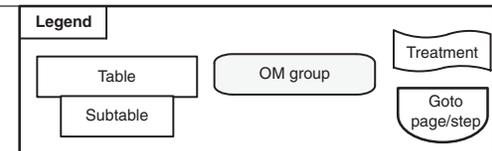
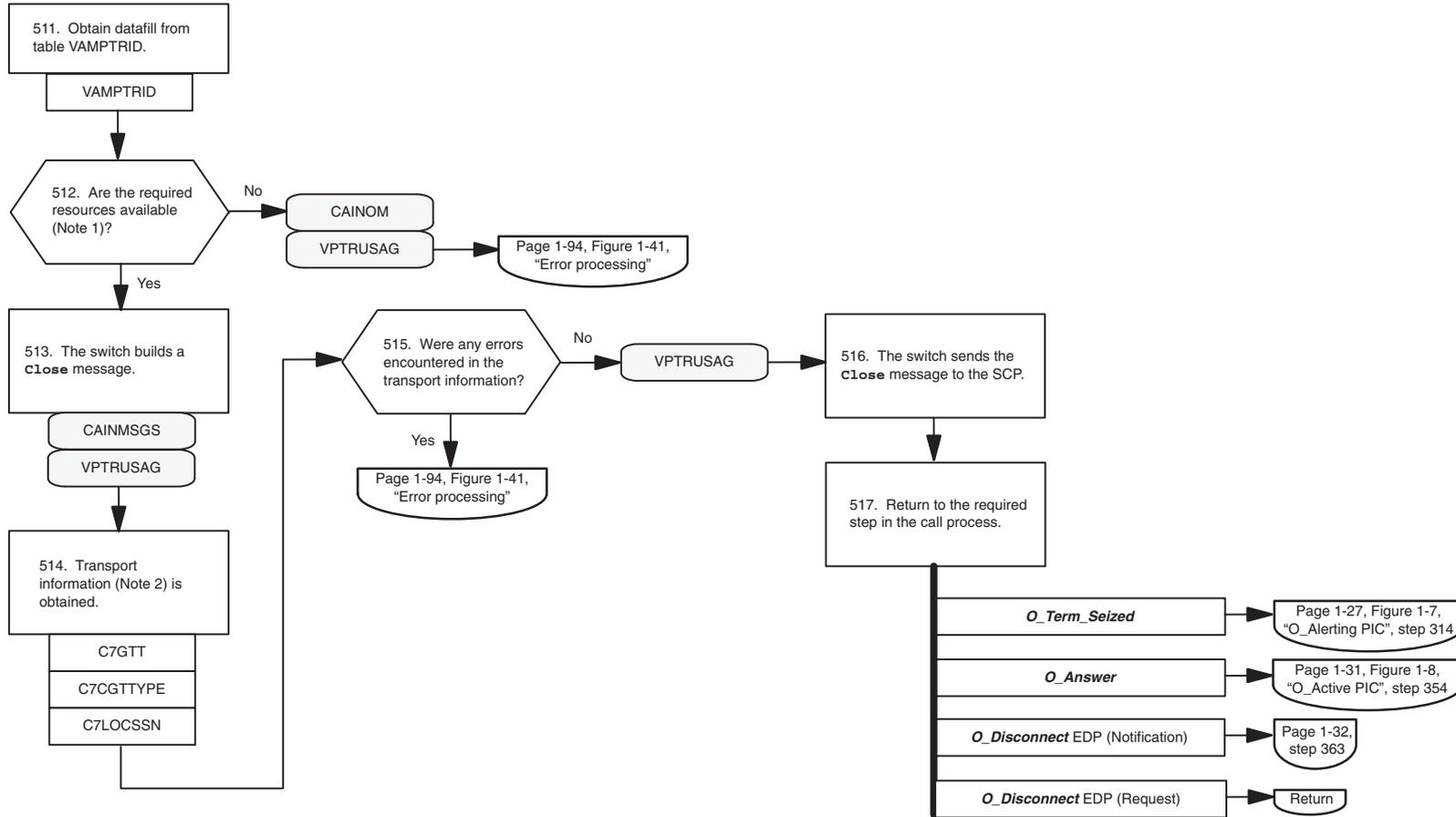


Figure 1-28
Building a Close message



Note 1 :Required resources are: extension blocks, transaction identifiers, component identifiers, and message blocks. Refer to Volume 1, Chapter 2, "Provisioning NetworkBuilder," for more information.

Note 2 :Refer to Volume 3, Chapter 1, "TCAP messaging," and the UCS DMS-250 NetworkBuilder AIN 0.2 TCAP Protocol Definition for more information.

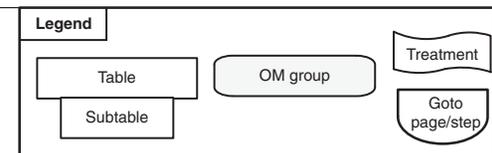


Figure 1-29
Termination_Notification

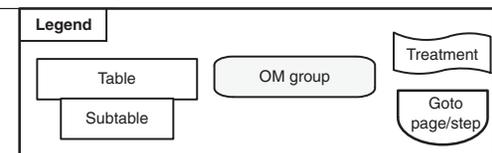
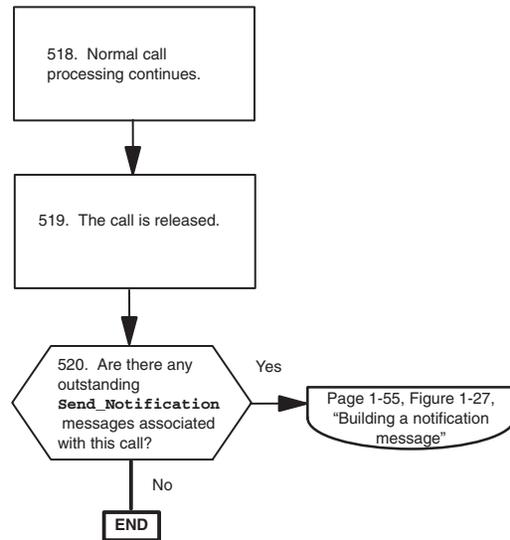
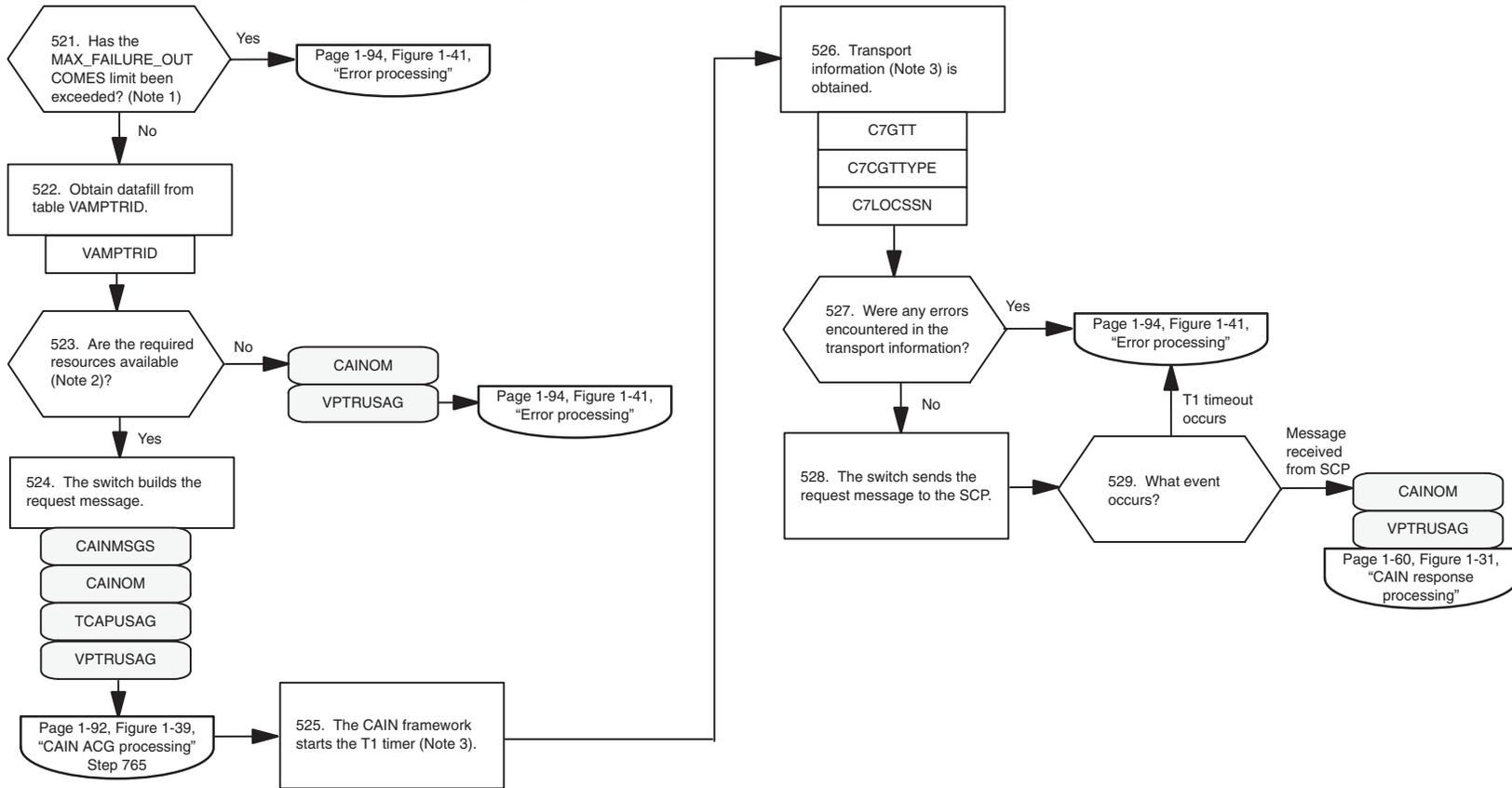


Figure 1-30
Building a Failure_Outcome request message



Note 1 :Parameter MAX_FAILURE_OUTCOMES is provisioned in table CAINPARAM (default is 2).
Note 2 :Required resources are: extension blocks, transaction identifiers, component identifiers, and message blocks. Refer to Volume 1, Chapter 2, "Provisioning NetworkBuilder," for more information.
Note 3 :Refer to Volume 3, Chapter 1, "TCAP messaging," and the UCS DMS-250 NetworkBuilder AIN 0.2 TCAP Protocol Definition for more information.

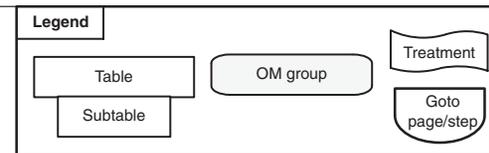
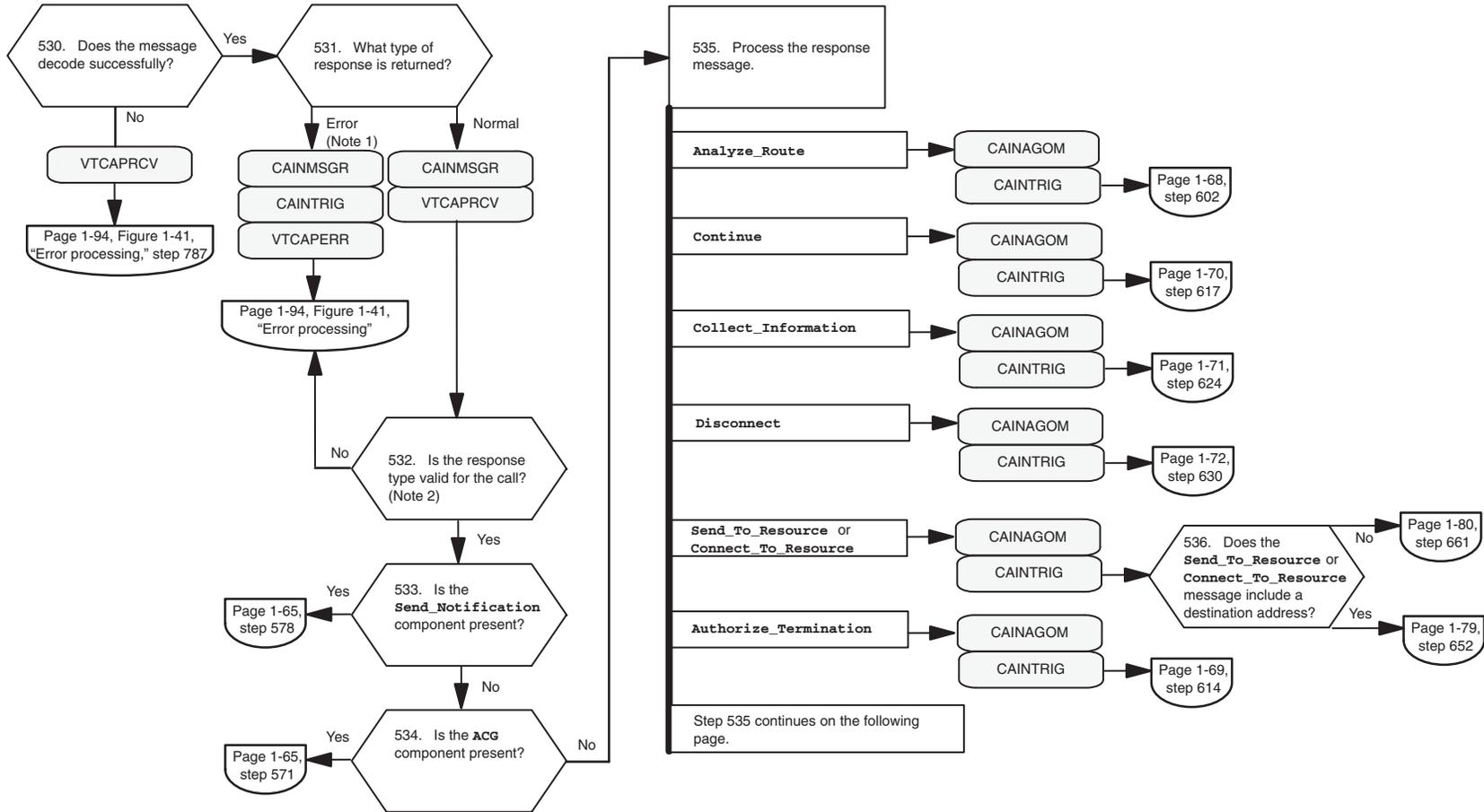
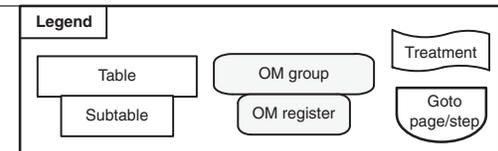


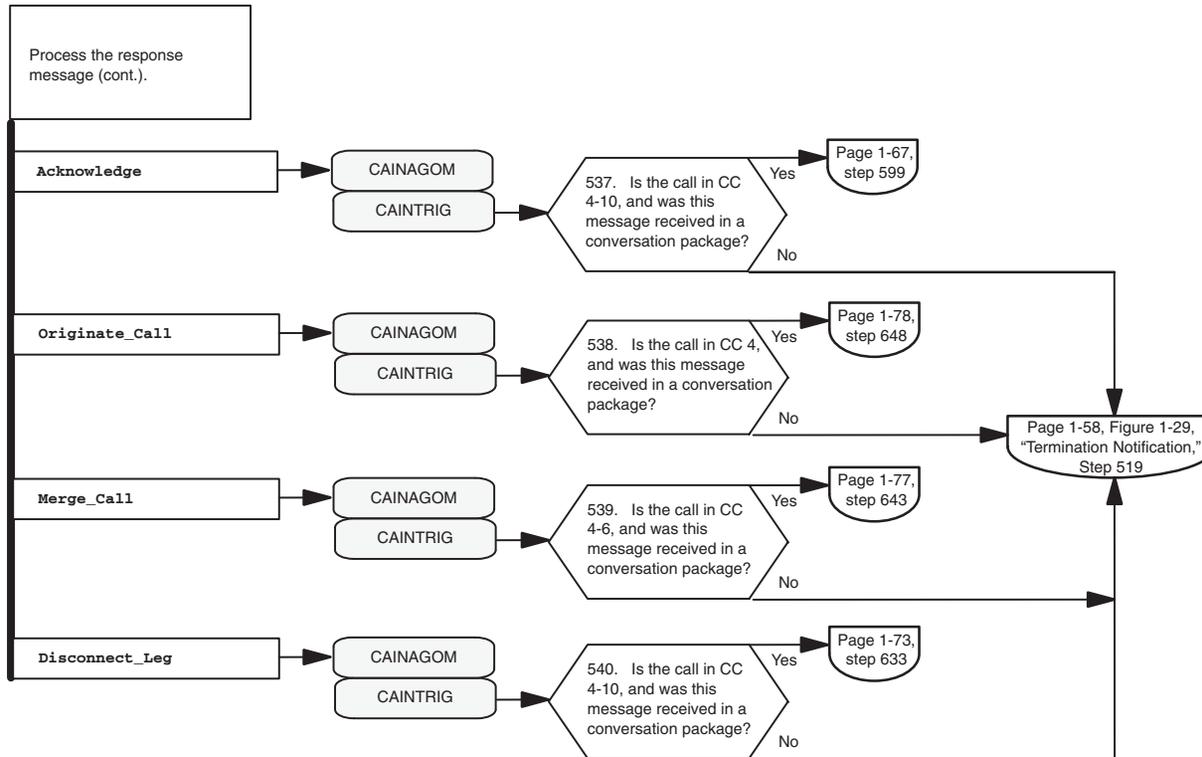
Figure 1-31
CAIN response processing



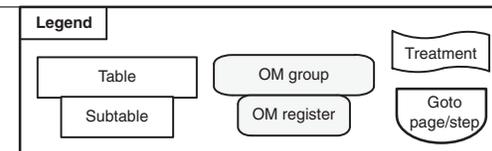
Note 1 :Error responses include nonvalid messages and error messages.
Note 2 :Refer to Volume 3, Chapter 1, "TCAP messaging," for a list of valid responses.



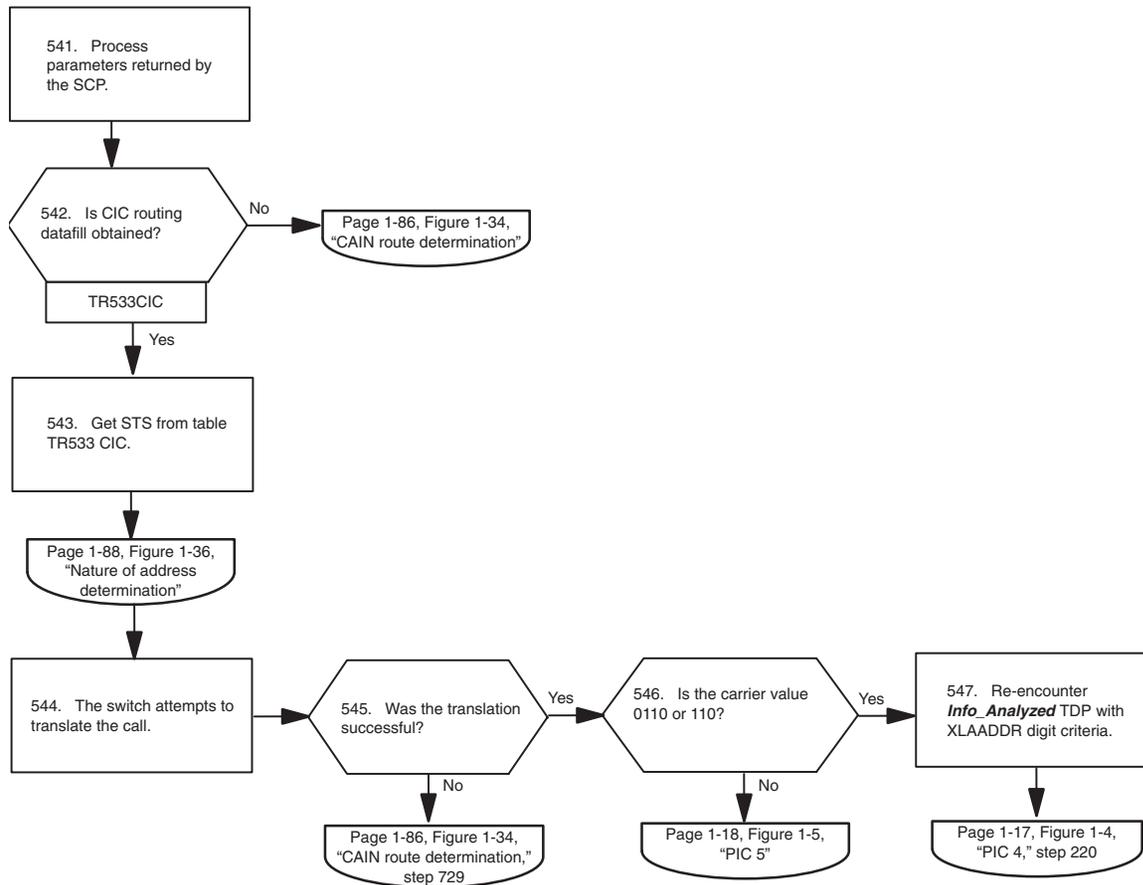
CAIN response processing (continued)



Note 1 :Error responses include nonvalid messages and error messages.
Note 2 :Refer to Volume 3, Chapter 1, "TCAP messaging," for a list of valid responses.



IN/1 Connect message processing



Note 1 :If the COS parameter is returned, multi-COS screening is performed. Screening directs the call to step 740, page 1-89 or provides COS treatment.

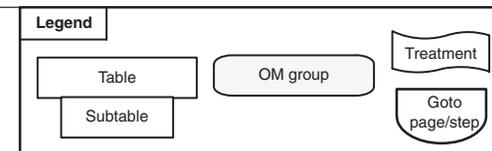
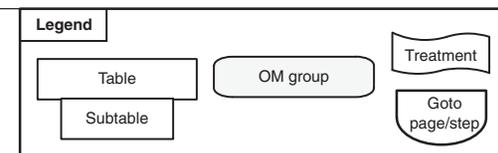
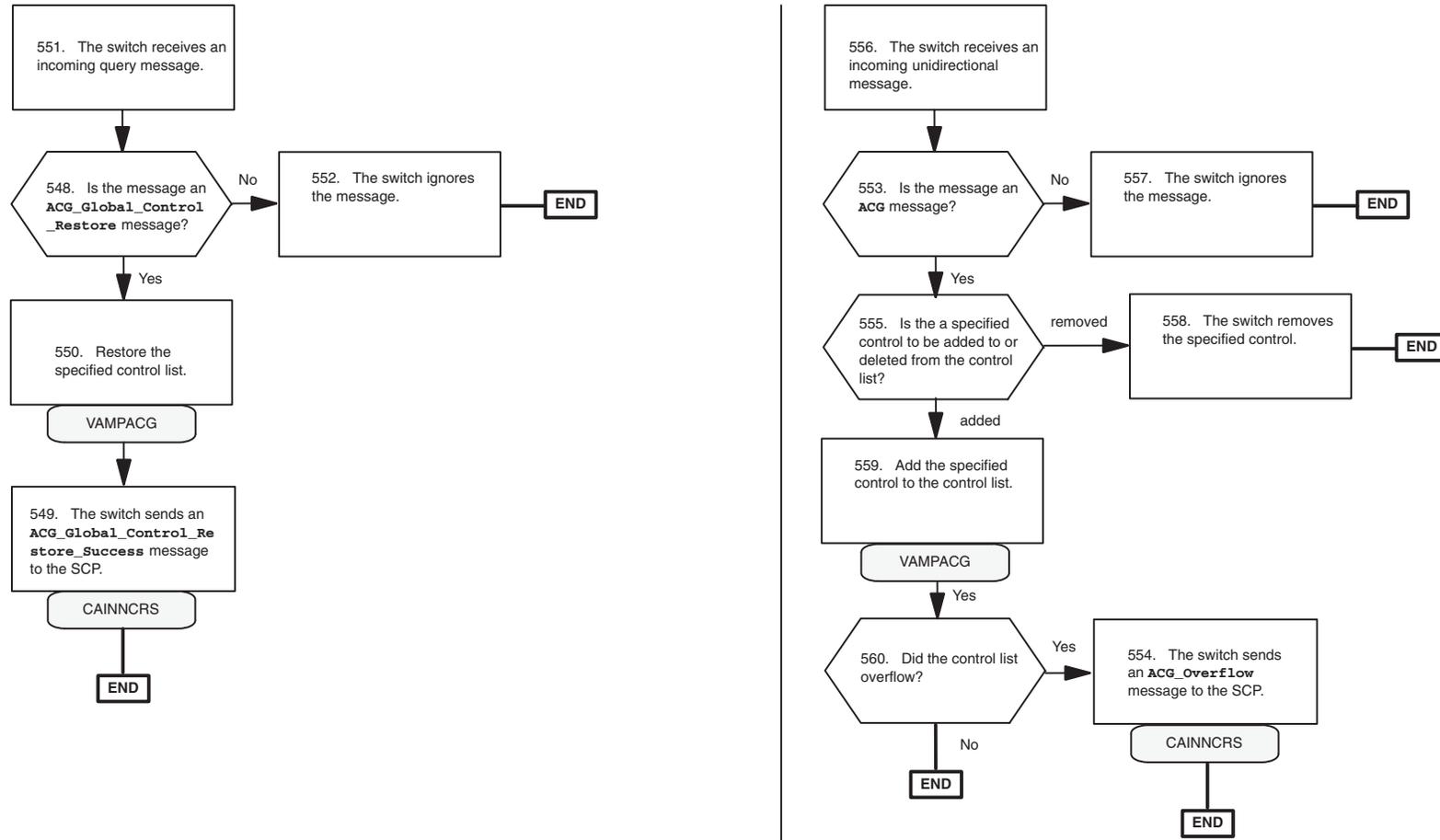
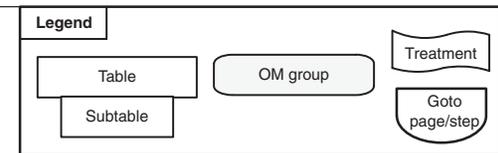
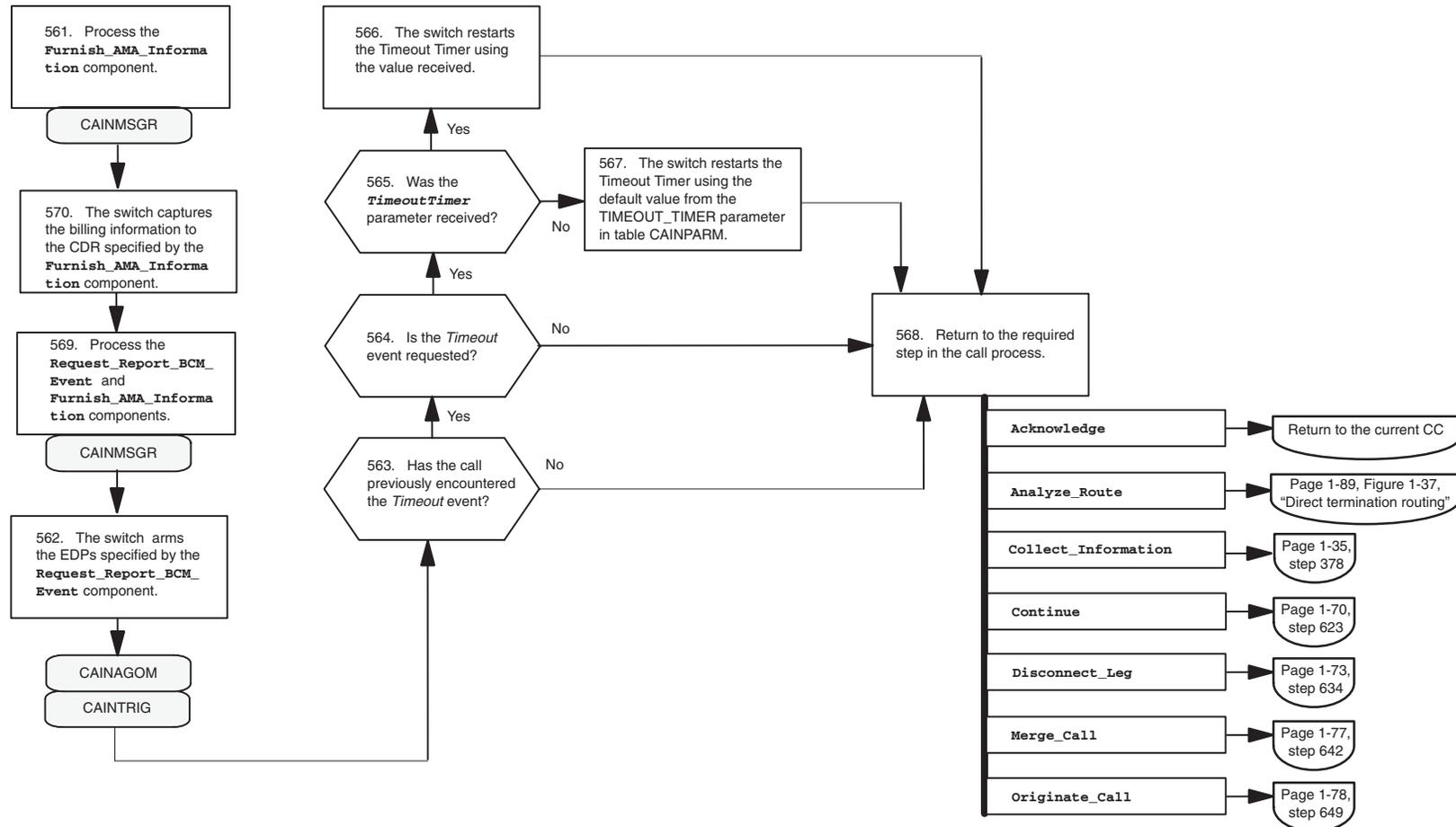


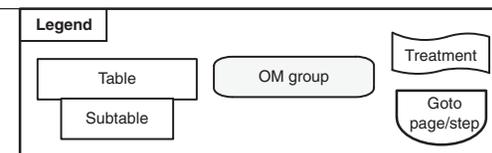
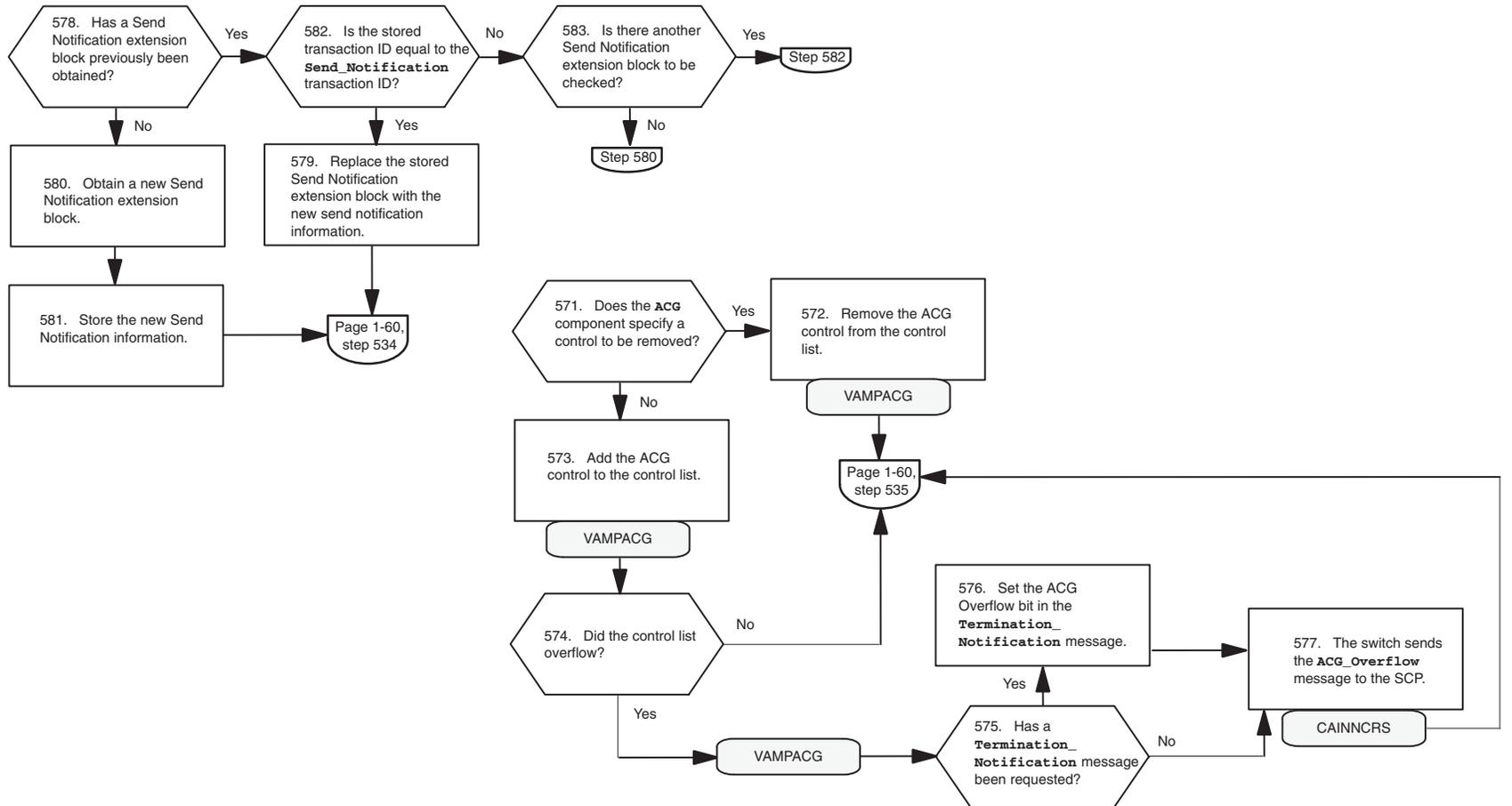
Figure 1-32
CAIN ACG messaging



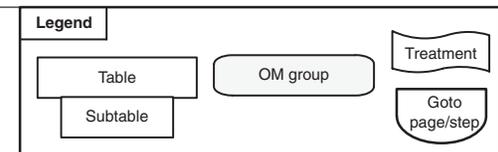
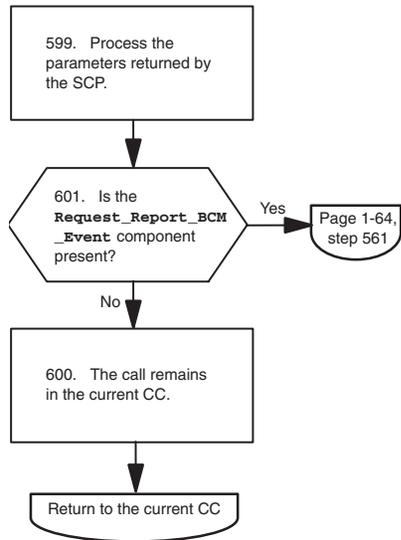
CAIN non-call related component processing



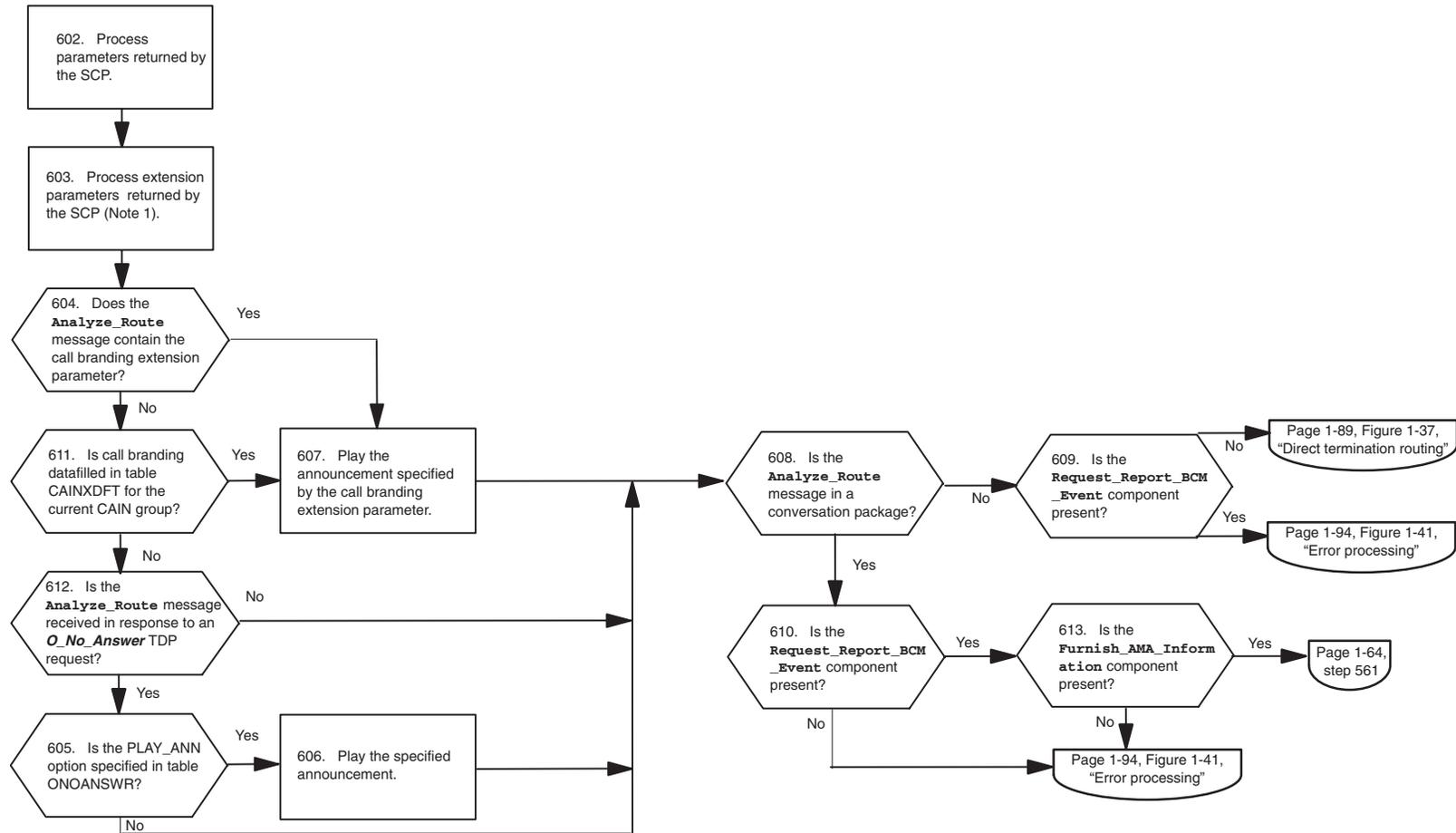
CAIN non-call related component processing (continued)



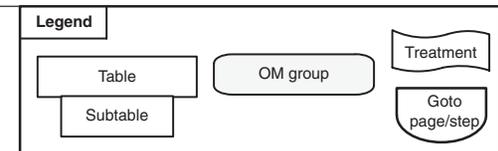
Acknowledge message processing



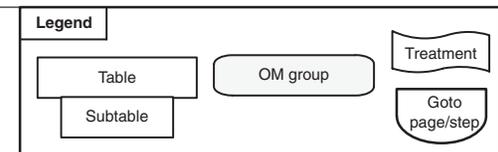
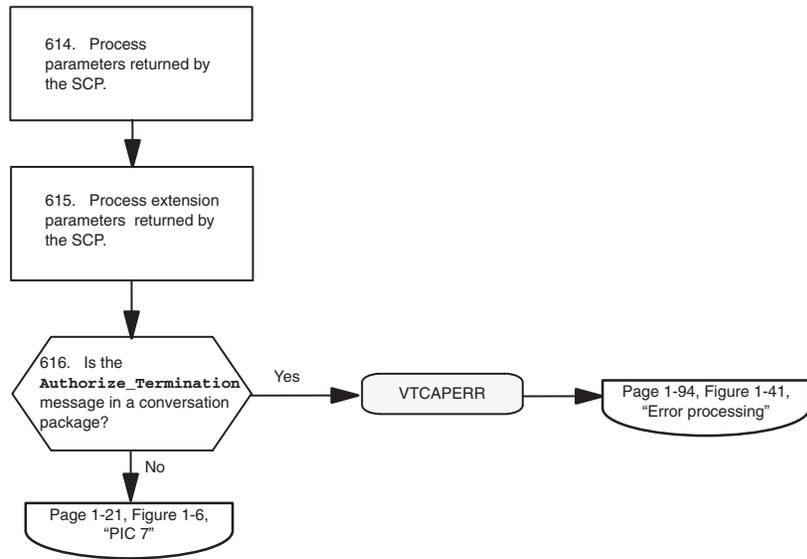
Analyze_Route message processing



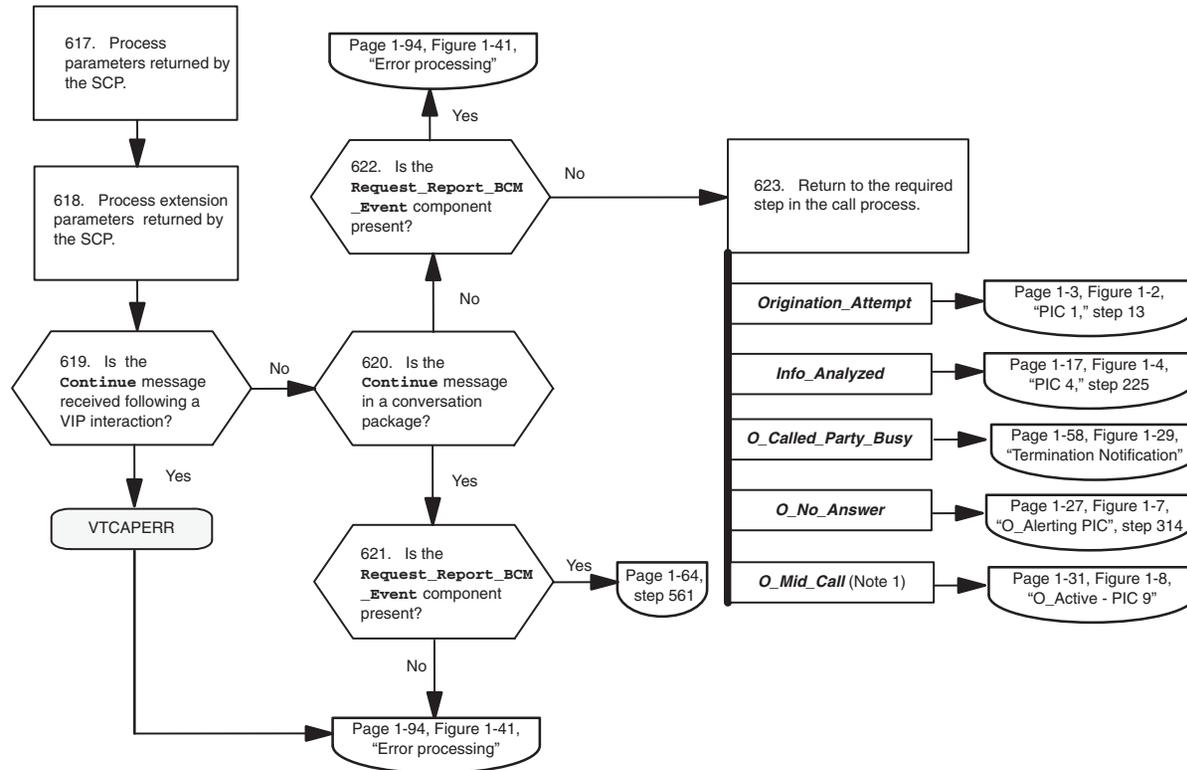
Note 1 :If the COS parameter is returned, multi-COS screening is performed. Screening directs the call to step 740, page 1-89 or provides COS treatment.



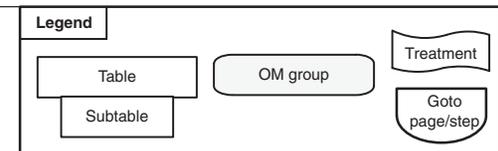
Authorize_Termination message processing



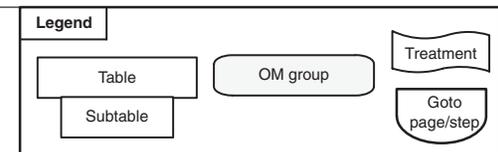
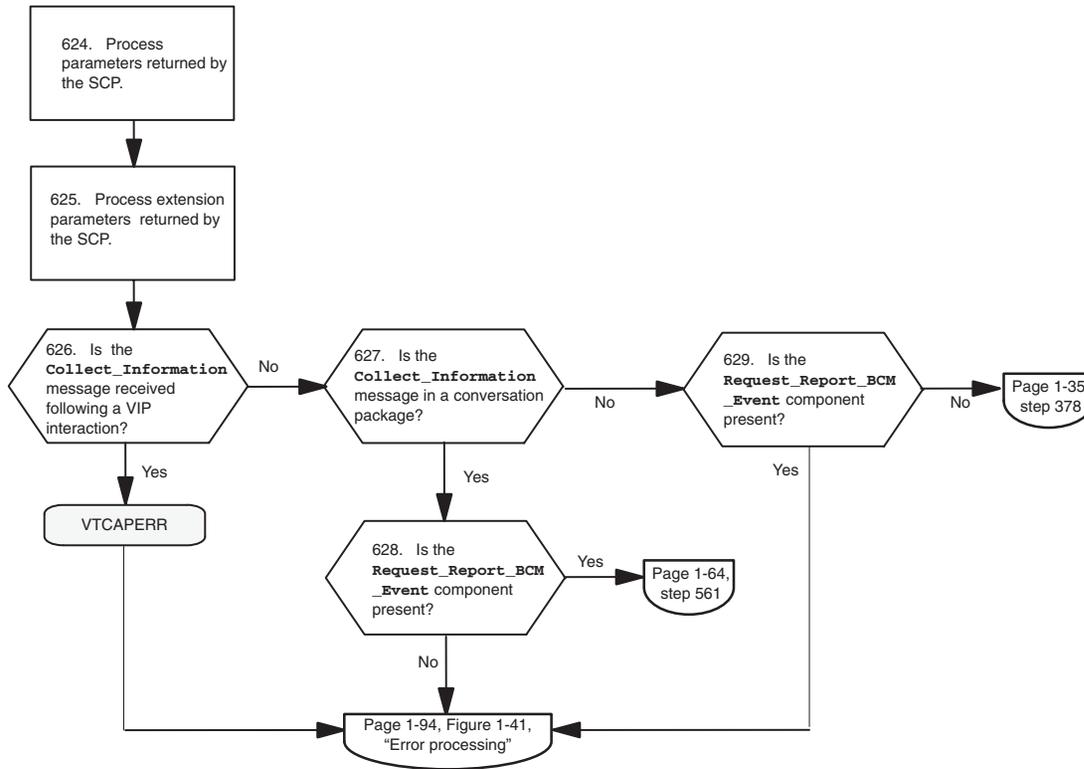
Continue message processing



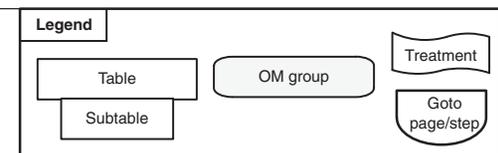
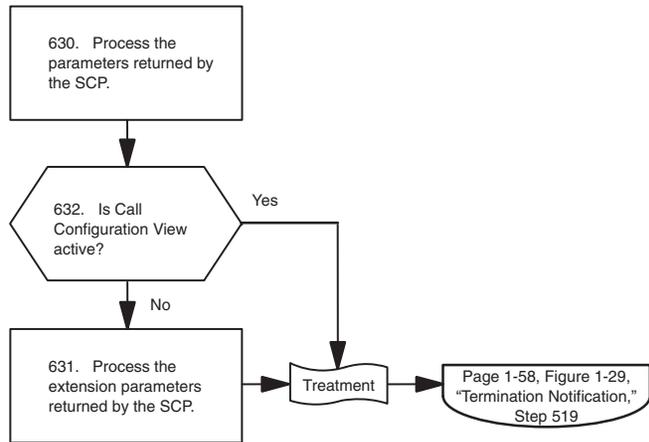
Note 1 :At the *O_Mid_Call* DP, the *Continue* message is only allowed in response to *CTR_Clear*.



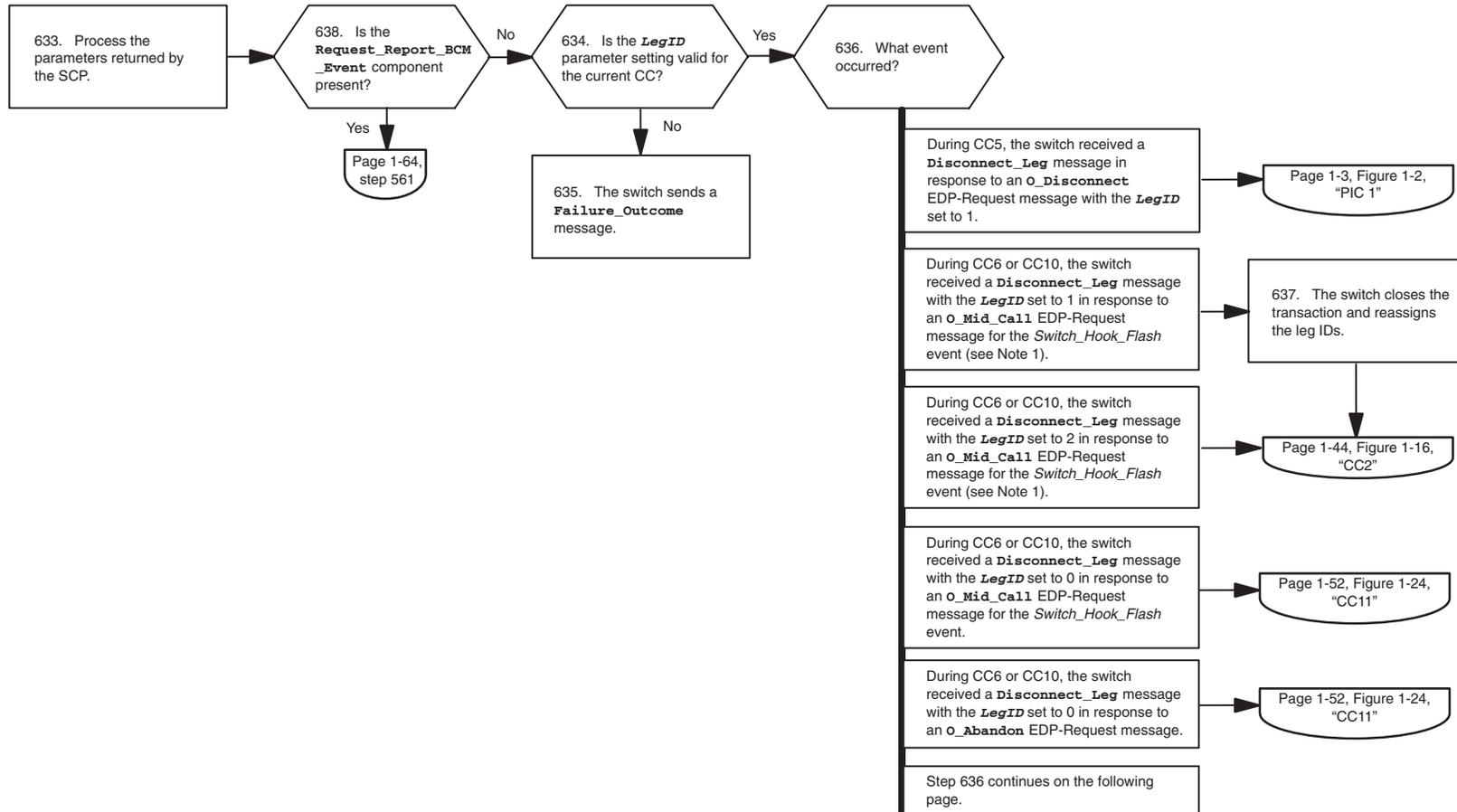
Collect_Information message processing



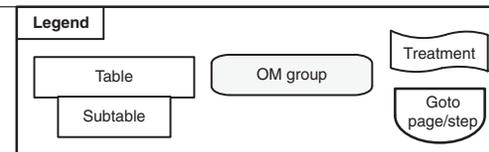
Disconnect message processing



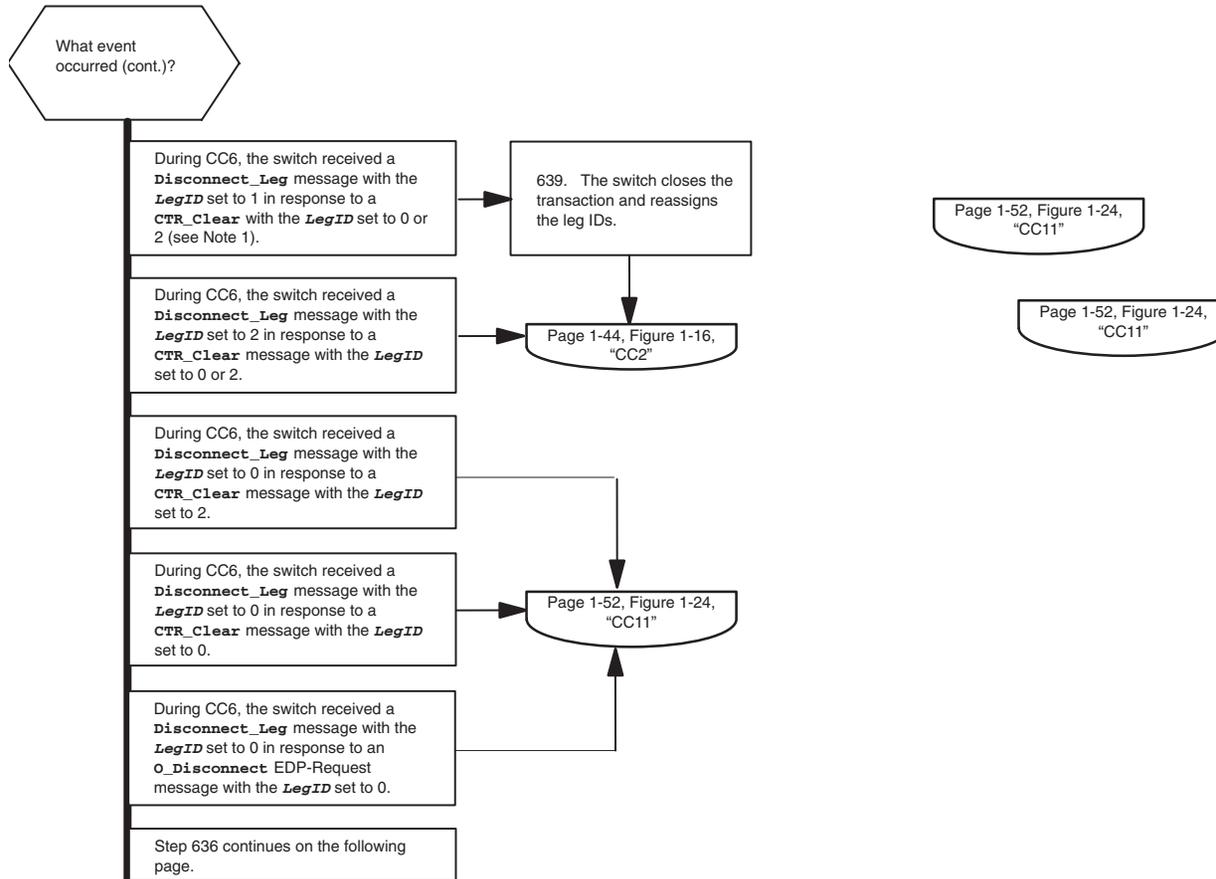
Disconnect_Leg message processing



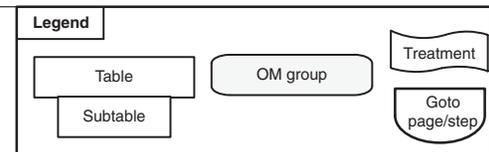
Note 1 :A **Failure_Outcome** message may result if the switch cannot carry out the requested operation.



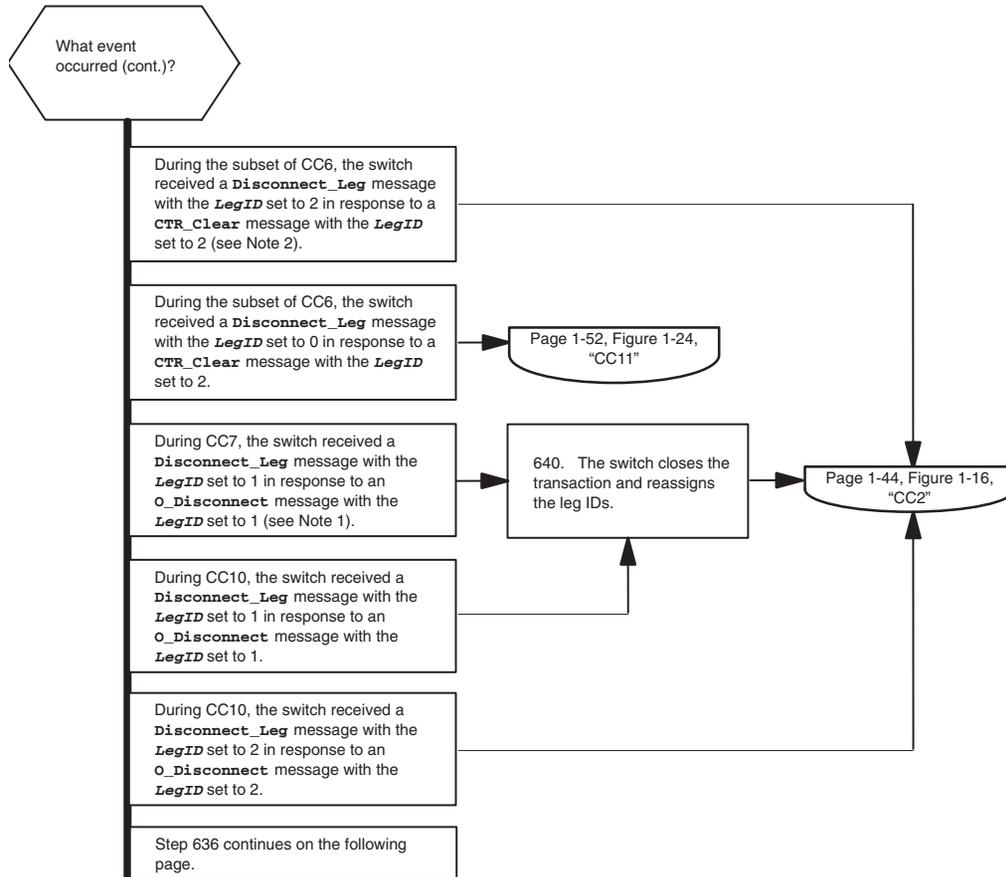
Disconnect_Leg message processing (continued)



Note 1 :A **Failure_Outcome** message may result if the switch cannot carry out the requested operation.

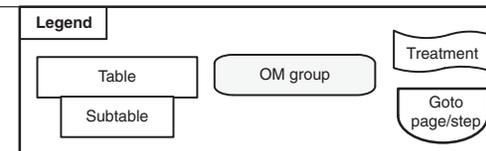


Disconnect_Leg message processing (continued)

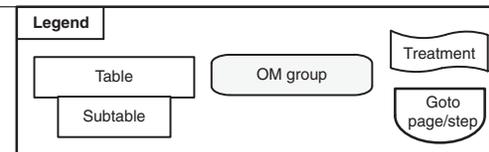
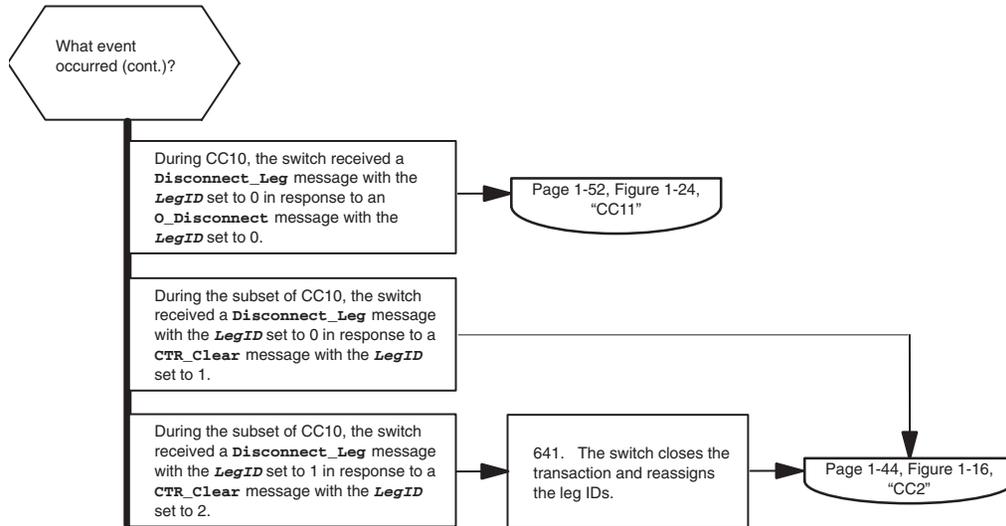


Note 1 :A **Failure_Outcome** message may result if the switch cannot carry out the requested operation.

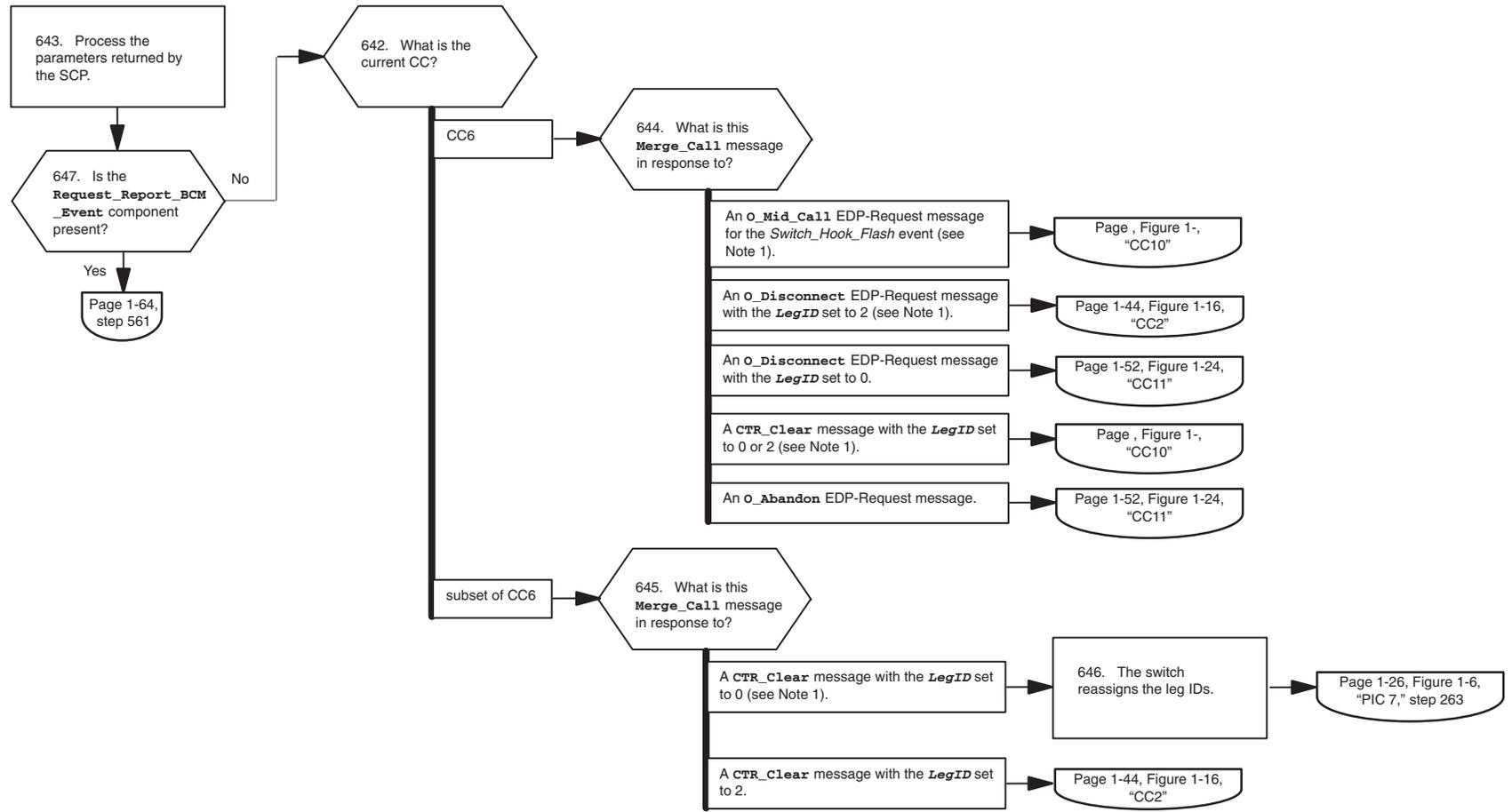
Note 2 :When the party on leg 2 fails to answer, the party on leg 0 presses the asterisk key (*). The switch sends an **o_Mid_Call** EDP-Request for the **Switch_Hook_Flash** event and the SCP responds with a **Connect_To_Resource** message. The resource requests that the user enter digits. The switch sends those digits to the SCP in a **CTR_Clear** message. The SCP then sends a **Disconnect_Leg** message, directing the switch to disconnect the specified call leg. The switch disconnects leg 2, and returns leg 0 to call segment 1.



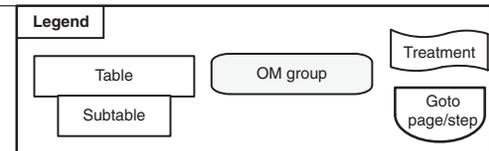
Disconnect_Leg message processing (continued)



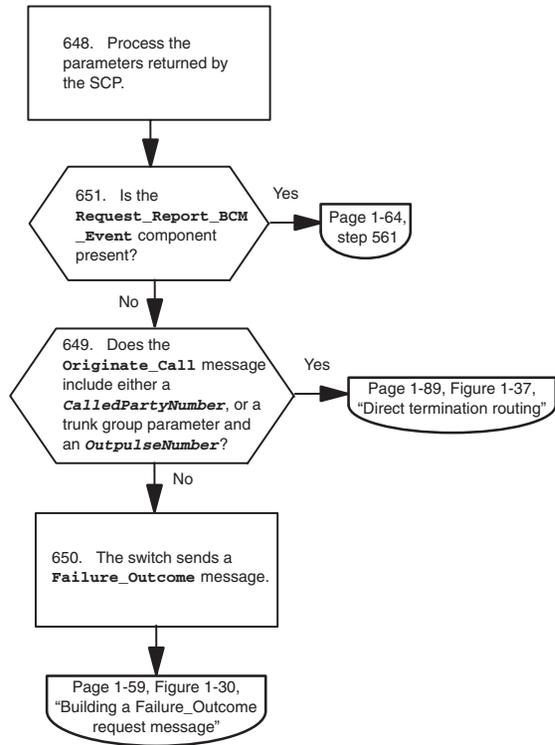
Merge_Call message processing



Note 1 :A Failure_Outcome message may result if the switch cannot carry out the requested operation.



Originate_Call message processing

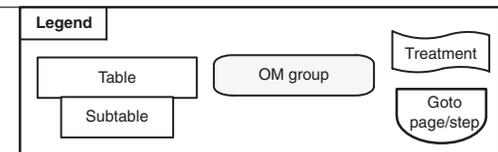


Note :The call transitions from CC2 to CC4 when the switch receives an **Originate_Call** message.

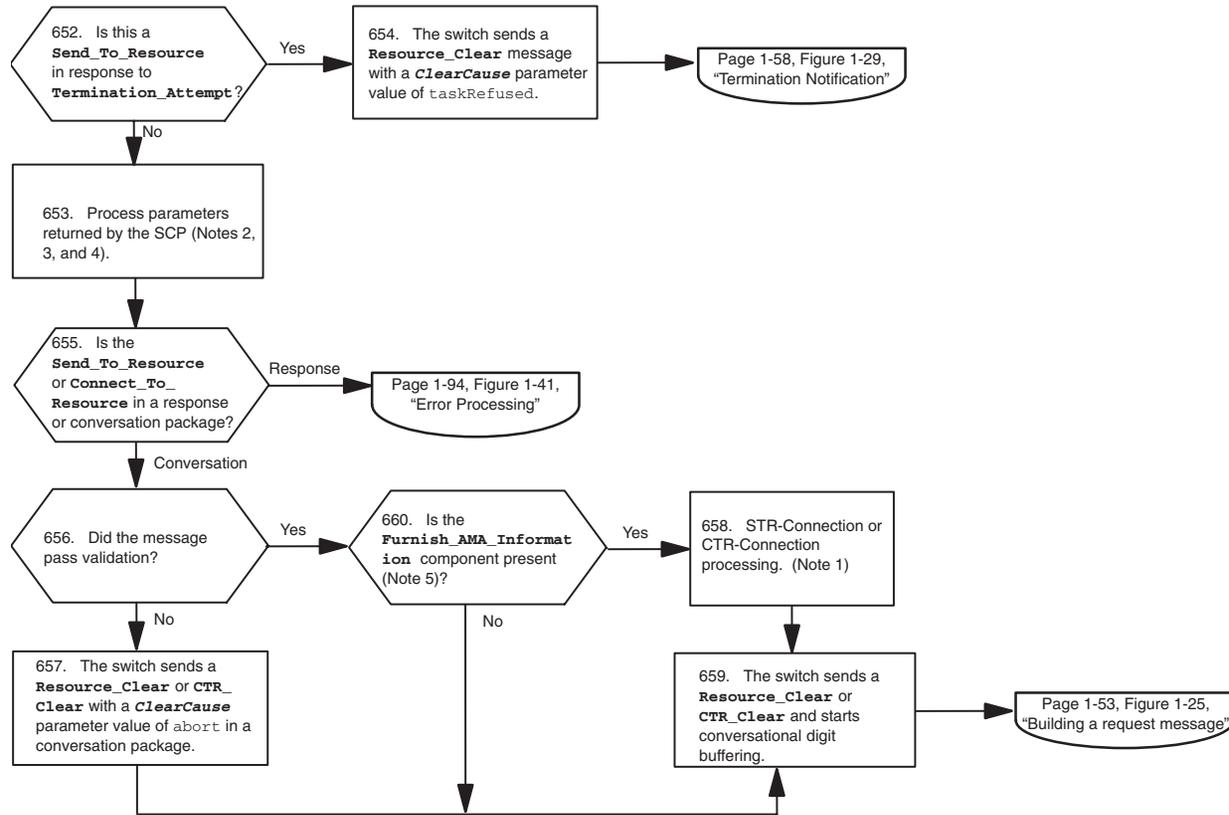
Note :The call transitions from CC4 to CC6 when the switch seizes the terminating trunk.

Note :During CC2, the switch receives a **Connect_To_Resource** message and sends a **CTR_Clear** message. The **CTR_Clear** message contains digits.

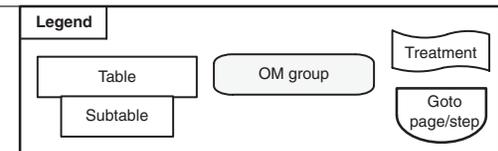
Note :During CC4, the switch receives a **Originate_call** message. The **Originate_call** message contains routing information and the called number. The switch processes the parameters and routes the call based on the routing parameters.



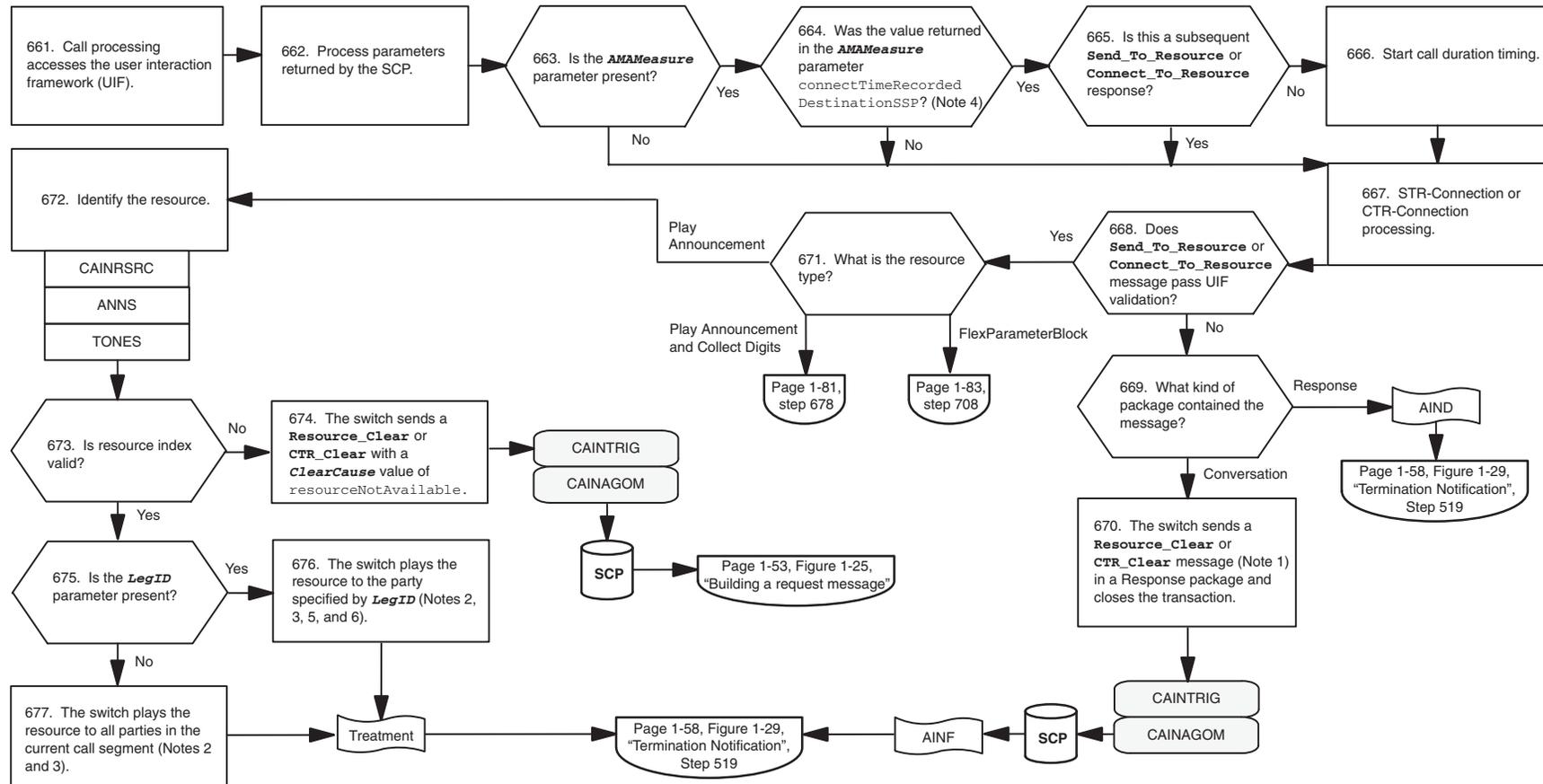
Send_To_Resource or Connect_To_Resource with destination address



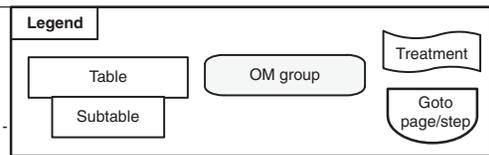
- Note 1** :Refer to Volume 4, Chapter 2, "STR-Connections," and Chapter 3, "CTR-Connections," for detailed information on STR- and CTR-Connection processing.
- Note 2** :The call transitions from CC6 to the subset of CC6 when the **LegID** parameter is set to 0, and the **Connect_To_Resource** message is in response to an EDP-Request message caused by leg 2 disconnecting.
- Note 3** :The call transitions from CC6 to the subset of CC6 when a **Connect_To_Resource** message with the **LegID** parameter set to 2 is received in response to an **O_Disconnect** EDP-Request message with the **LegID** parameter set to 2.
- Note 4** :The call transitions from CC10 to the subset of CC10 when a **Connect_To_Resource** message is received in response to an **O_Disconnect** EDP-Request message with the **LegID** parameter set to 1 or 2.
- Note 5** :The **Furnish_AMA_Information** component is not allowed with the **Connect_To_Resource** message.



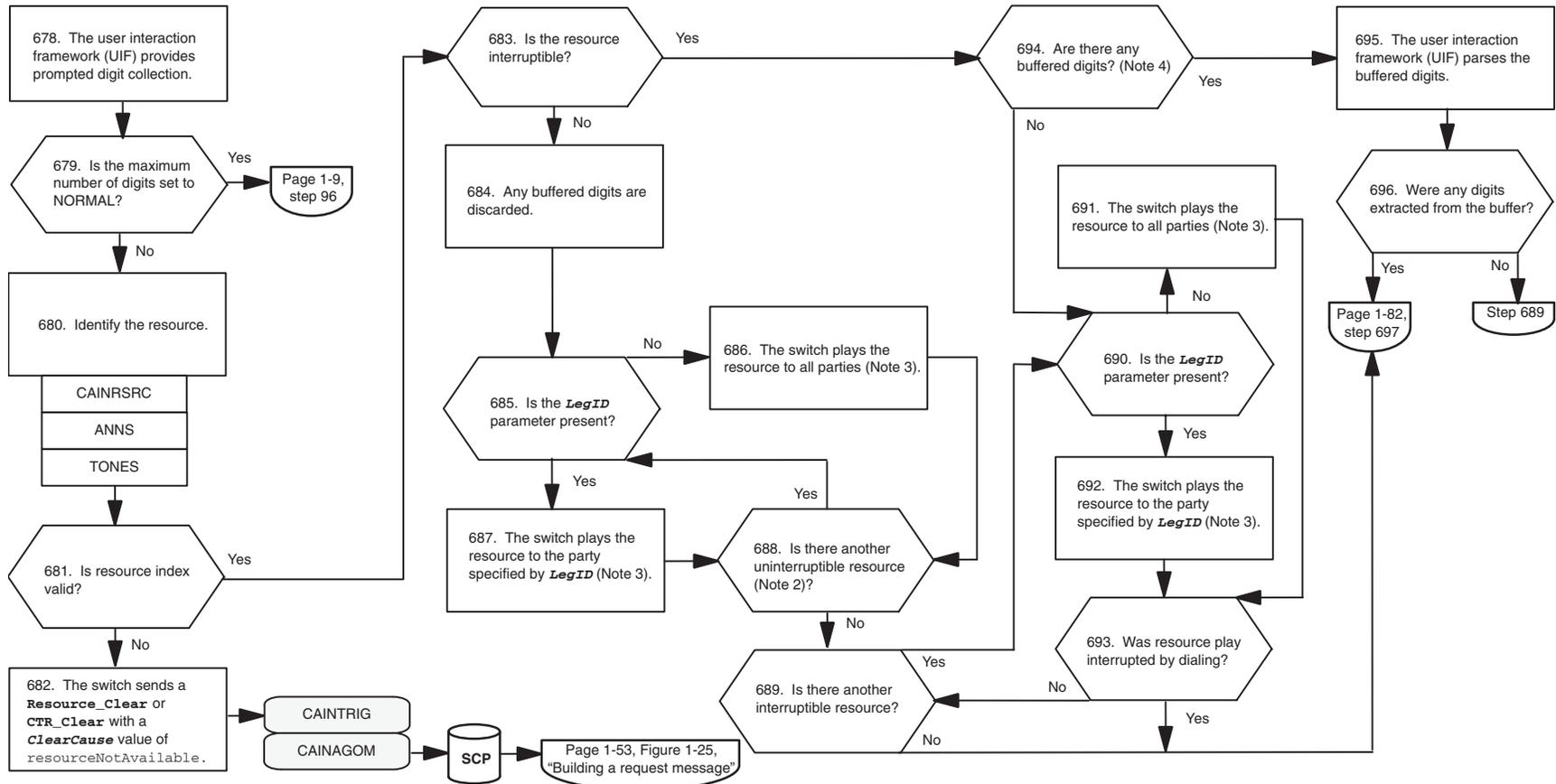
Send_To_Resource or Connect_To_Resource without a destination address



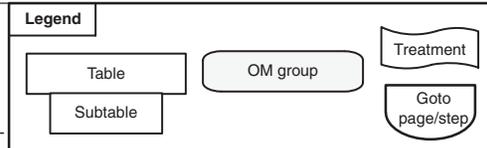
- Note 1** :The UIF sets the **ClearCause** value to one of the following: `taskRefused`, `protocolError`, `resourceNotAvailable`, or `failure`.
- Note 2** :The switch will play up to 3 uninterruptible resources.
- Note 3** :Any information digits received from the SCP are ignored.
- Note 4** :For specific billing scenarios related to CTR-interactions in response to the *Timeout* EDP-Request, refer to Volume 4, Chapter 3, "CTR-Connections."
- Note 5** :CC6 transitions to the subset of CC6 when, in CsiD 2, a passive leg disconnects and the switch connects the controlling leg to a resource. Refer to page 1-47, "CC6 - Party on Hold," for more information.
- Note 6** :CC10 transitions to the subset to CC10 when, in CsiD 2, a passive leg disconnects and the switch connect the controlling leg and the remaining passive leg to a resource. Refer to page 1-50, "CC10 - Stable multi-party call," for more information.
- Note 7** :When the switch receives a **Connect_To_Resource** during CC2, the switch sends a **CTR_Clear** message. The **CTR_Clear** message contains digits. The SCP sends routing information in the **originate_Call** message. When the switch receives the **originate_Call** message, the call transitions from CC2 to CC4.



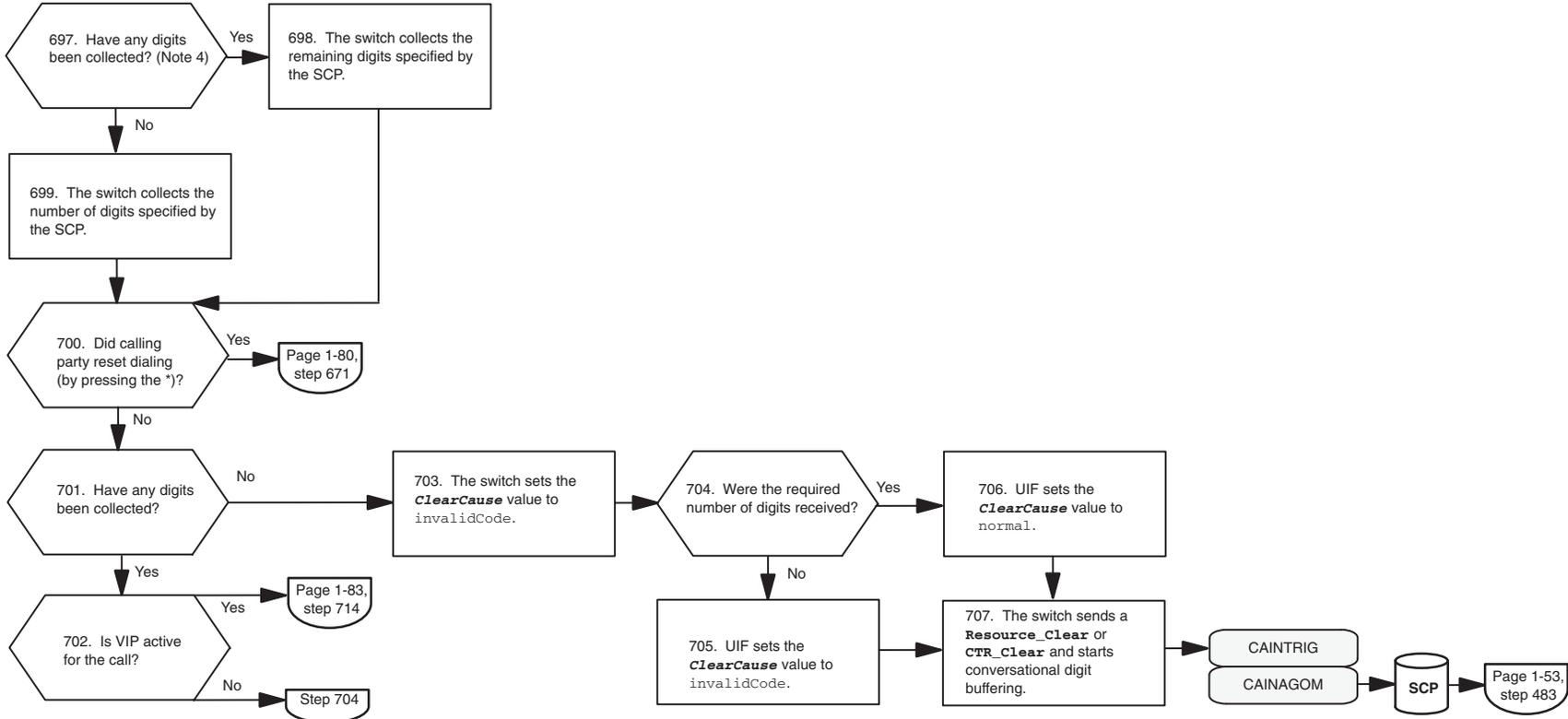
Send_To_Resource or Connect_To_Resource without a destination address (continued)



- Note 1** :End of dialing is reached when one of the following occurs: 1) The user indicates end of dialing by pressing #. 2) A permanent signal timeout occurs. 3) A partial dial timeout occurs. 4) A fast interdigital timeout occurs. 5) The maximum number of digits is dialed.
- Note 2** :The switch will play up to 3 uninterruptible resources.
- Note 3** :Any information digits received from the SCP are ignored.
- Note 4** :As with all digit collections, three digits are checked against the STDPRT subtable before determining how many digits are needed.
- Note 5** :CC6 transitions to the subset of CC6 when, in Csid 2, a passive leg disconnects and the switch connects the controlling leg to a resource. Refer to page 1-47, "CC6 - Party on Hold," for more information.
- Note 6** :CC10 transitions to the subset to CC10 when, in Csid 2, a passive leg disconnects and the switch connects the controlling leg and the remaining passive leg to a resource. Refer to page 1-50, "CC10 - Stable multi-party call," for more information.



Send_To_Resource or Connect_To_Resource without a destination address (continued)



- Note 1** :End of dialing is reached when one of the following occurs: 1) User indicates end of dialing by pressing #. 2) A permanent signal timeout occurs. 3) A partial dial timeout occurs. 4) A fast interdigital timeout occurs. 5) The maximum number of digits is dialed.
- Note 2** :The switch will play up to 3 uninterruptible resources.
- Note 3** :Any information digits received from the SCP are ignored.
- Note 4** :As with all digit collections, three digits are checked against the STDPRT subtable before determining how many digits are needed.

Legend

- Table
- Subtable
- OM group
- Treatment
- Goto page/step
- SCP

FlexParameterBlock processing

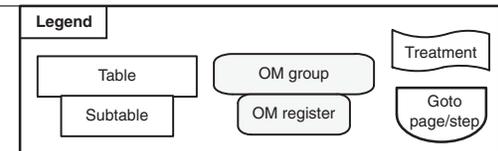
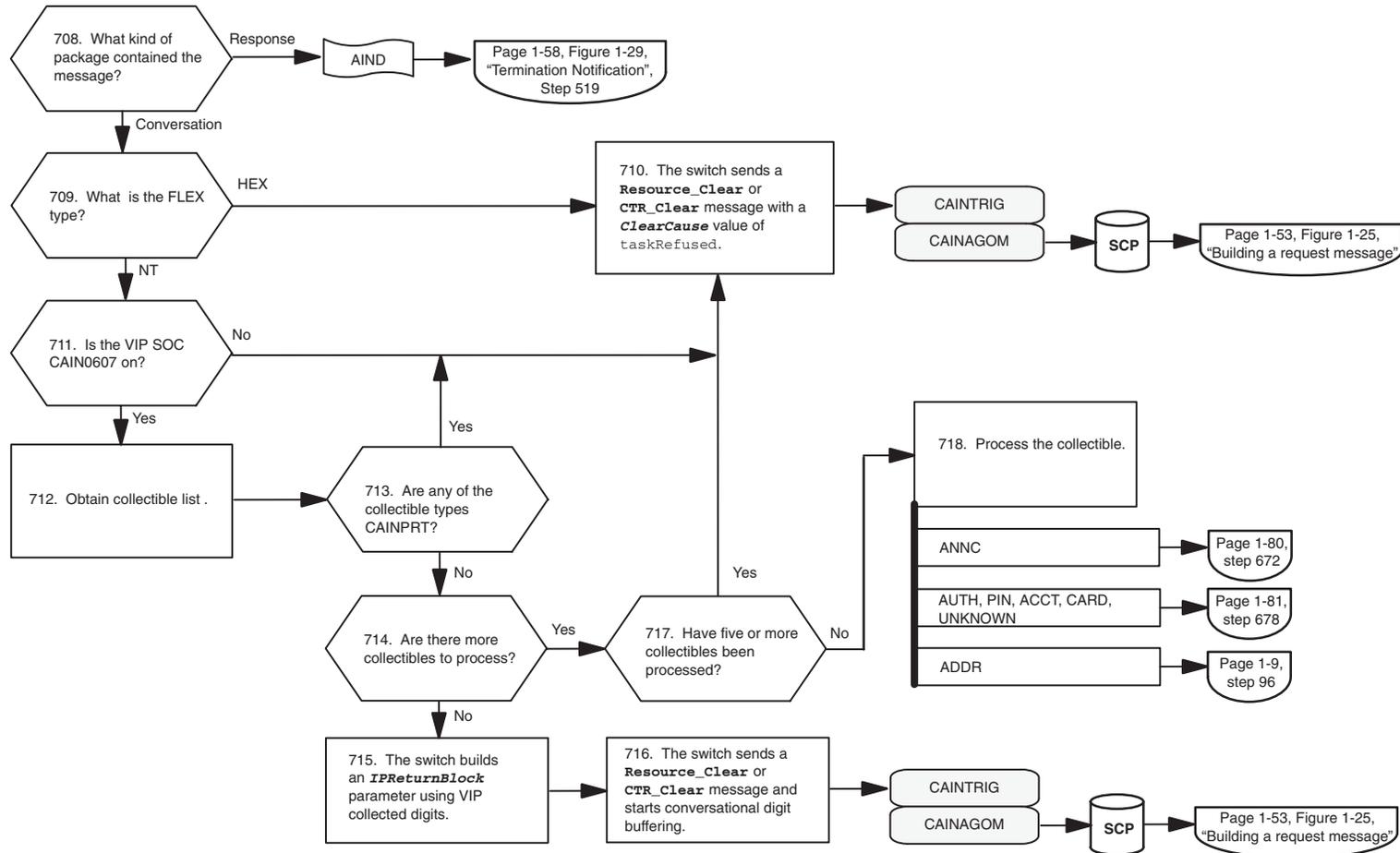
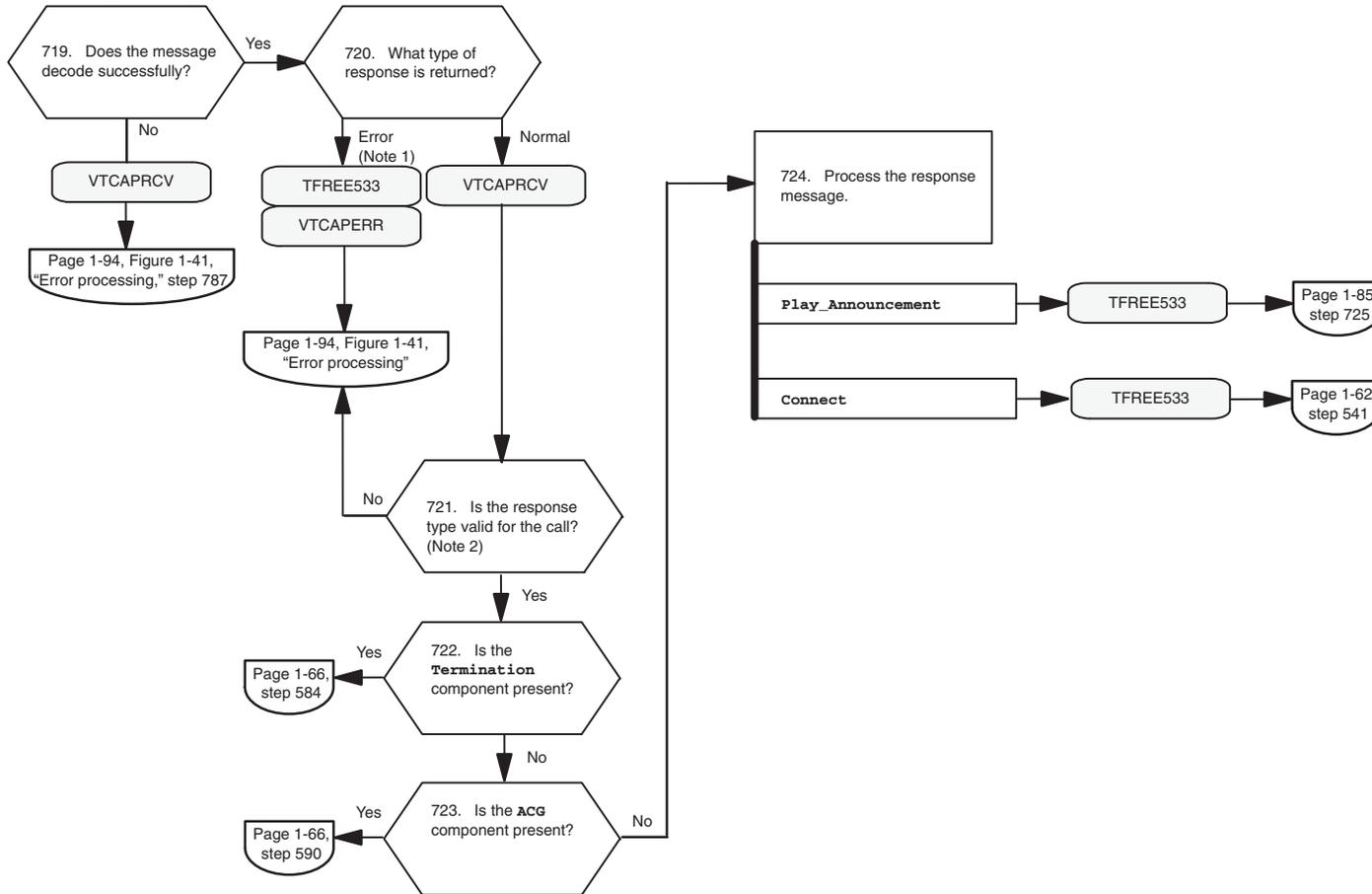
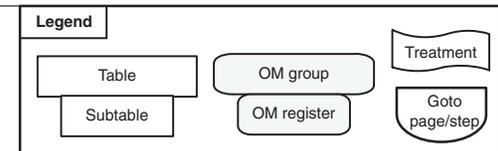


Figure 1-33
IN/1 Response processing



Note 1 :Error responses include nonvalid messages and error messages.
Note 2 :Refer to Volume 3, Chapter 1, "TCAP messaging," for a list of valid responses.



IN/1 Play_Announcement message processing

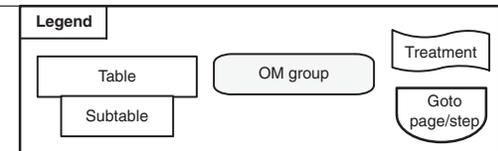
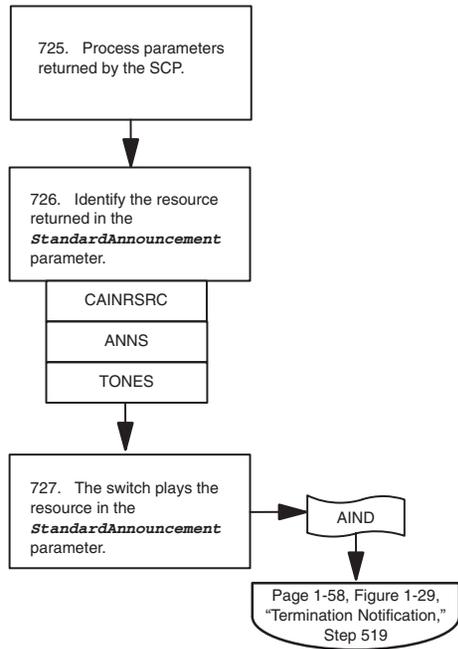


Figure 1-34
CAIN route determination

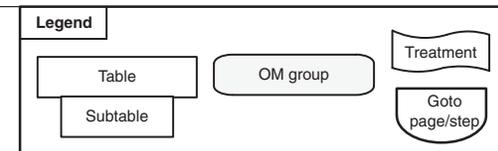
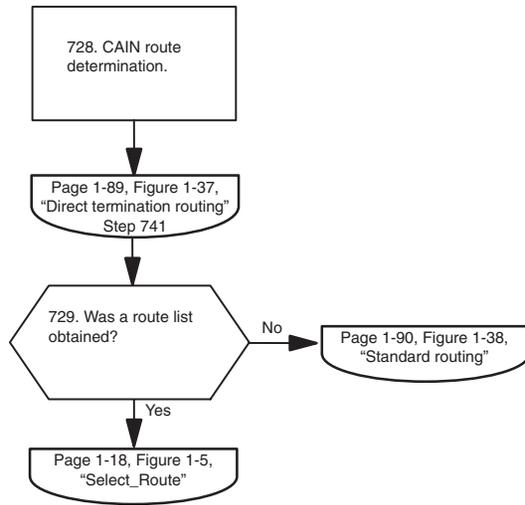


Figure 1-35
Determine routing criteria

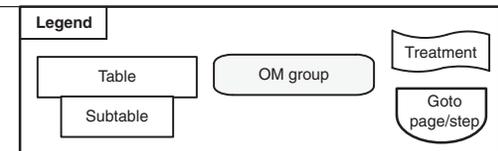
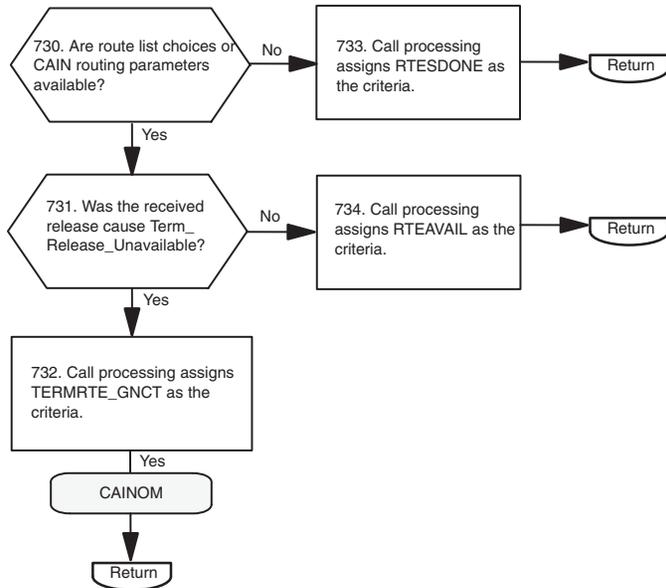


Figure 1-36
Determine nature of address (NOA)

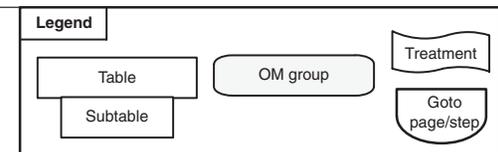
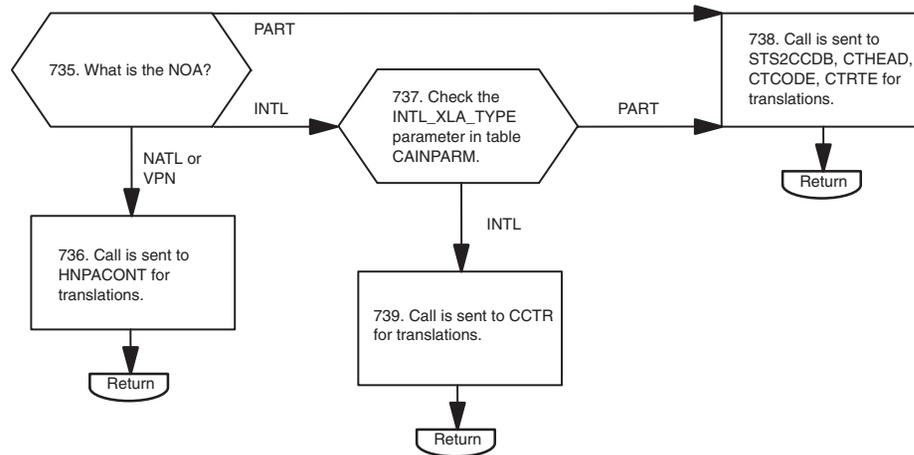
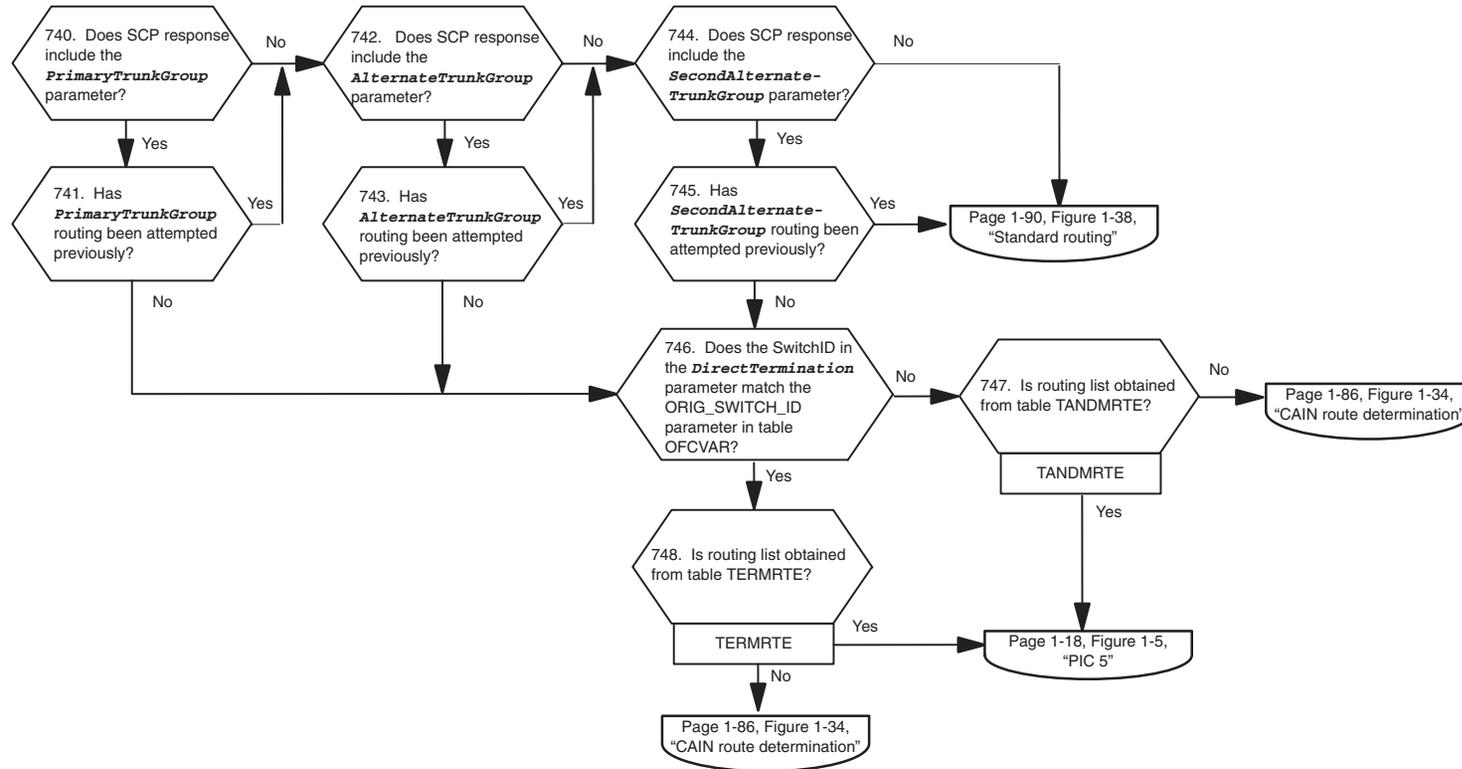


Figure 1-37
Direct termination routing



Note :For the second call segment, the parameters being processed and used during routing come from the **Originate_Call** message.

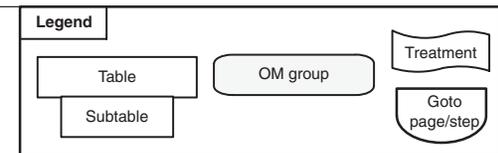
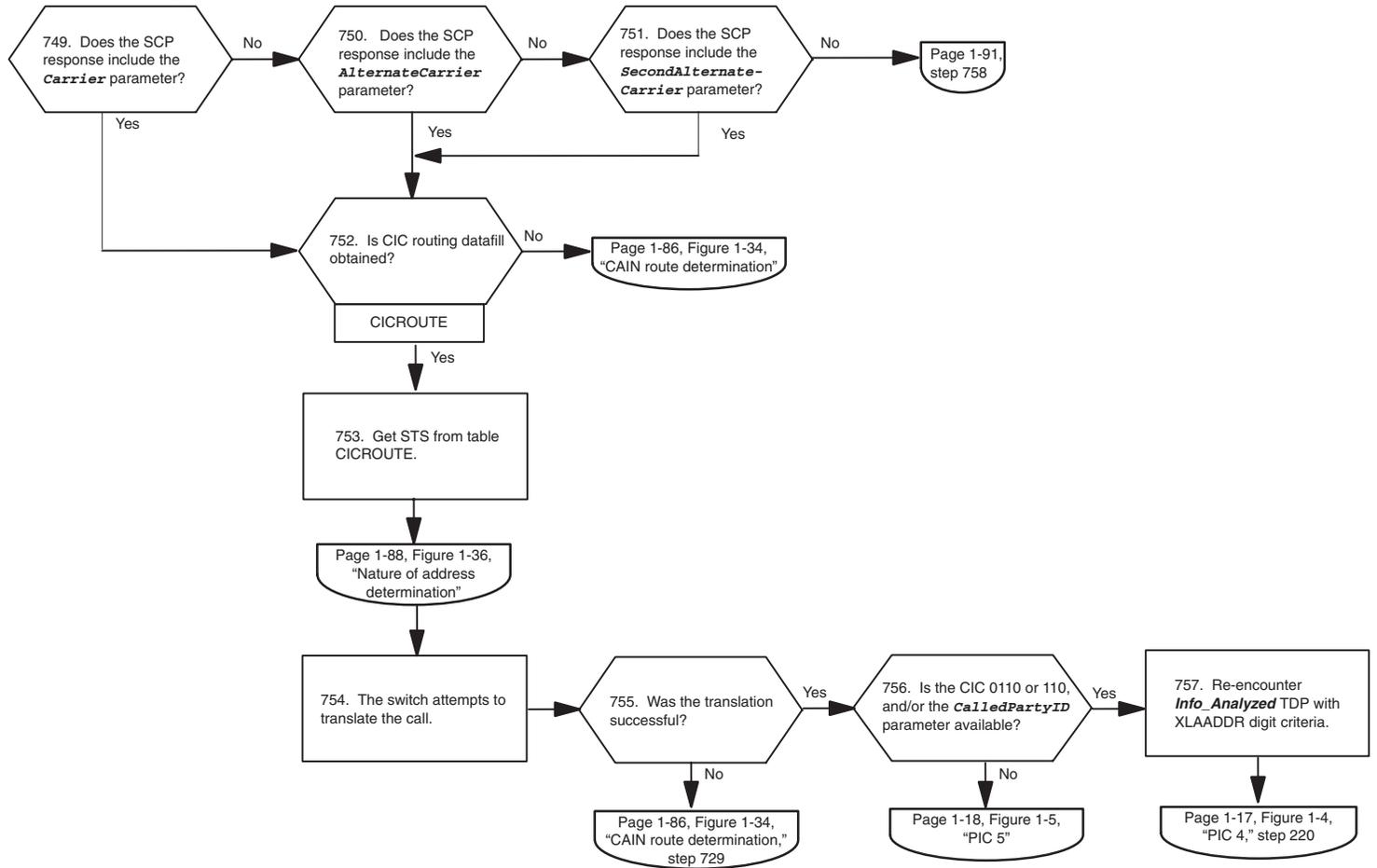
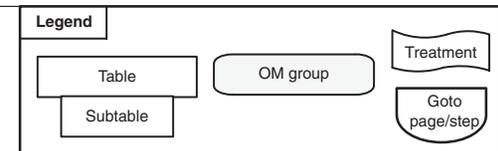


Figure 1-38
Standard routing



Note 3 :For the second call segment, the parameters being processed and used during routing come from the **Originate_Call** message.



Standard routing (continued)

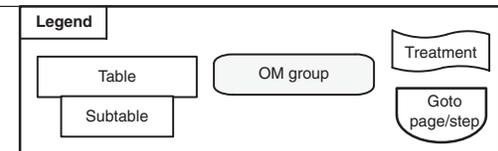
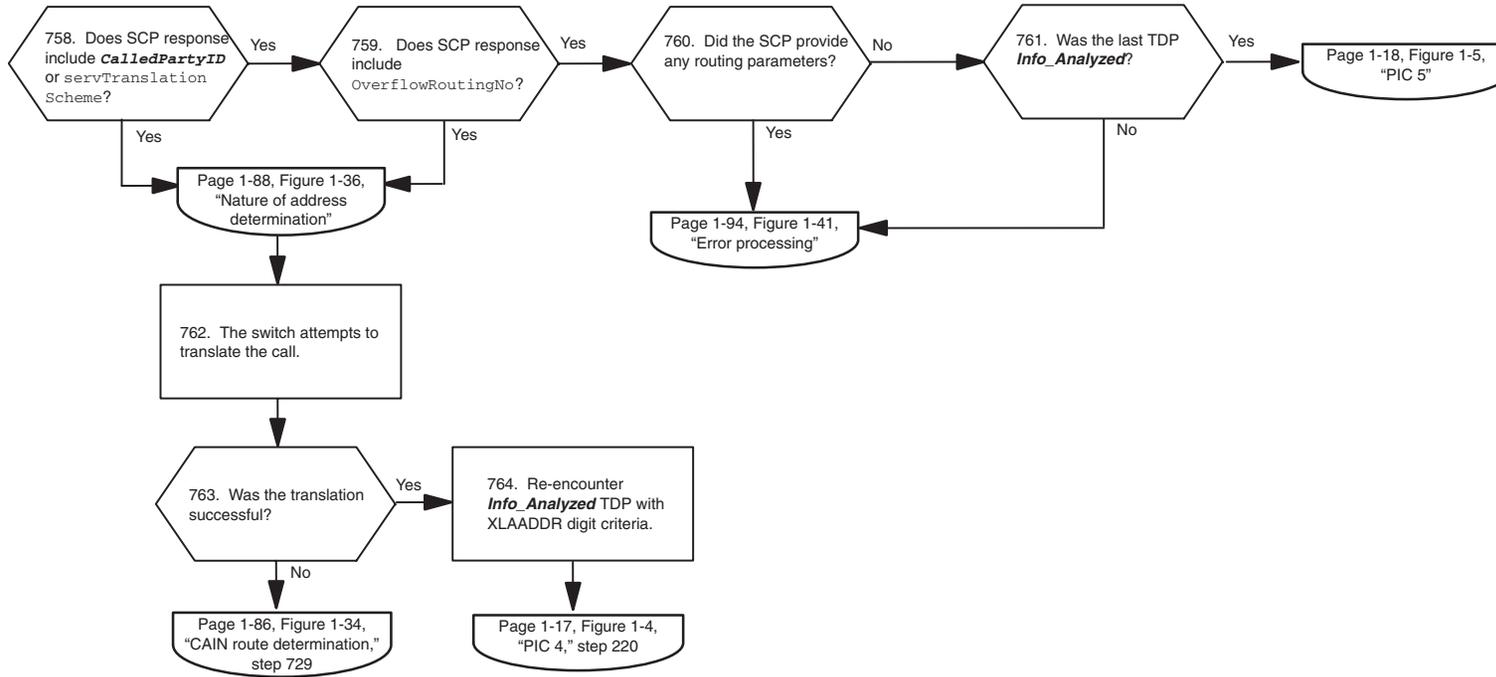
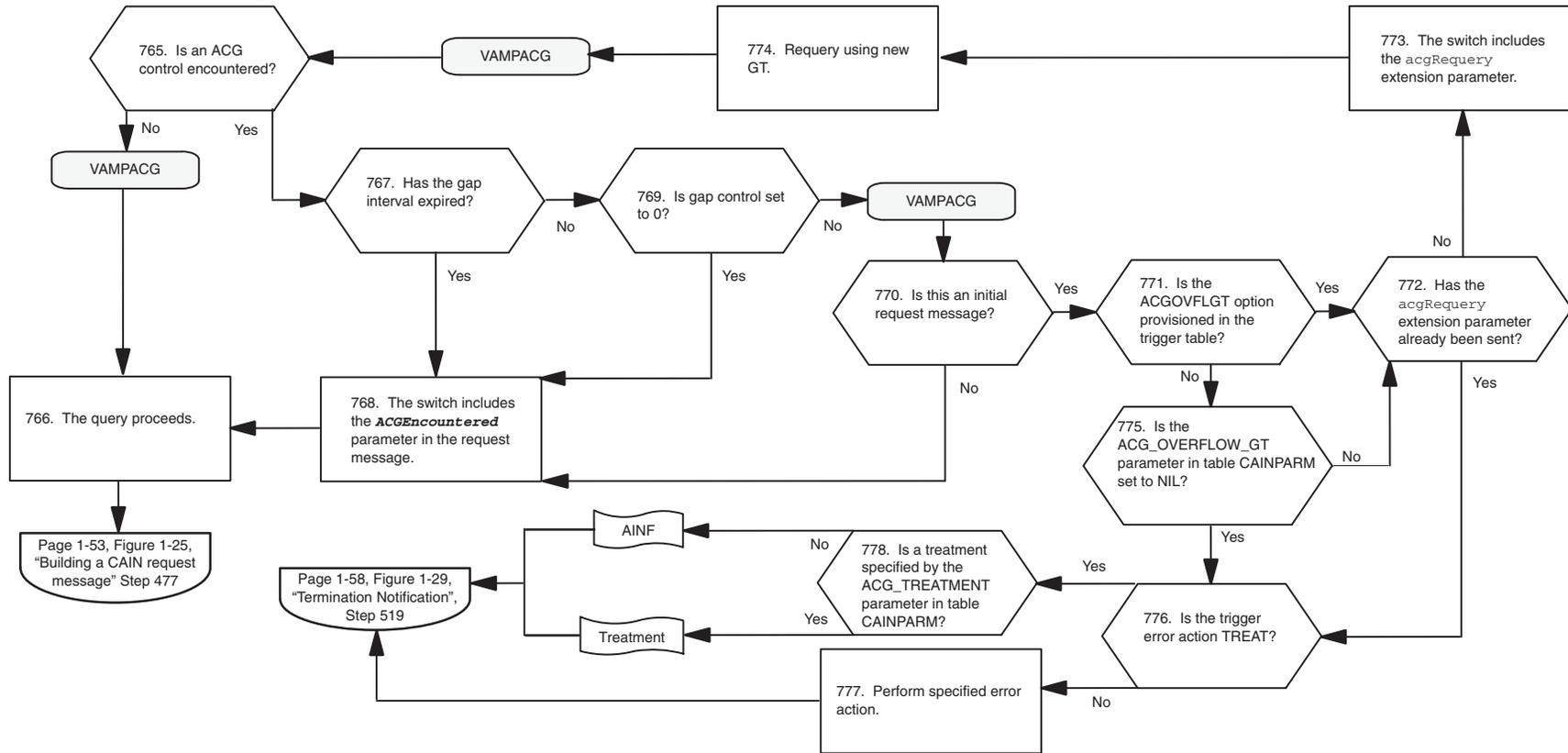


Figure 1-39
CAIN ACG processing



Note 1 :Required resources are: extension blocks, transaction identifiers, component identifiers, and message blocks. Refer to Volume 1, Chapter 2, "Provisioning NetworkBuilder," for more information.

Note 2 :Parameter CAIN_T1_TIMEOUT is provisioned in table CAINPARAM (default is 2 seconds).

Note 3 :Refer to Volume 3, Chapter 1, "TCAP messaging," and the UCS DMS-250 NetworkBuilder AIN 0.2 TCAP Protocol Definition , and TR-NWT-000533 for more information.

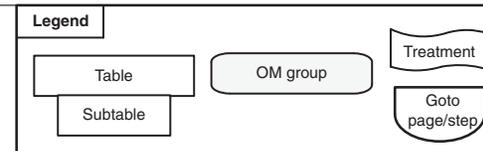
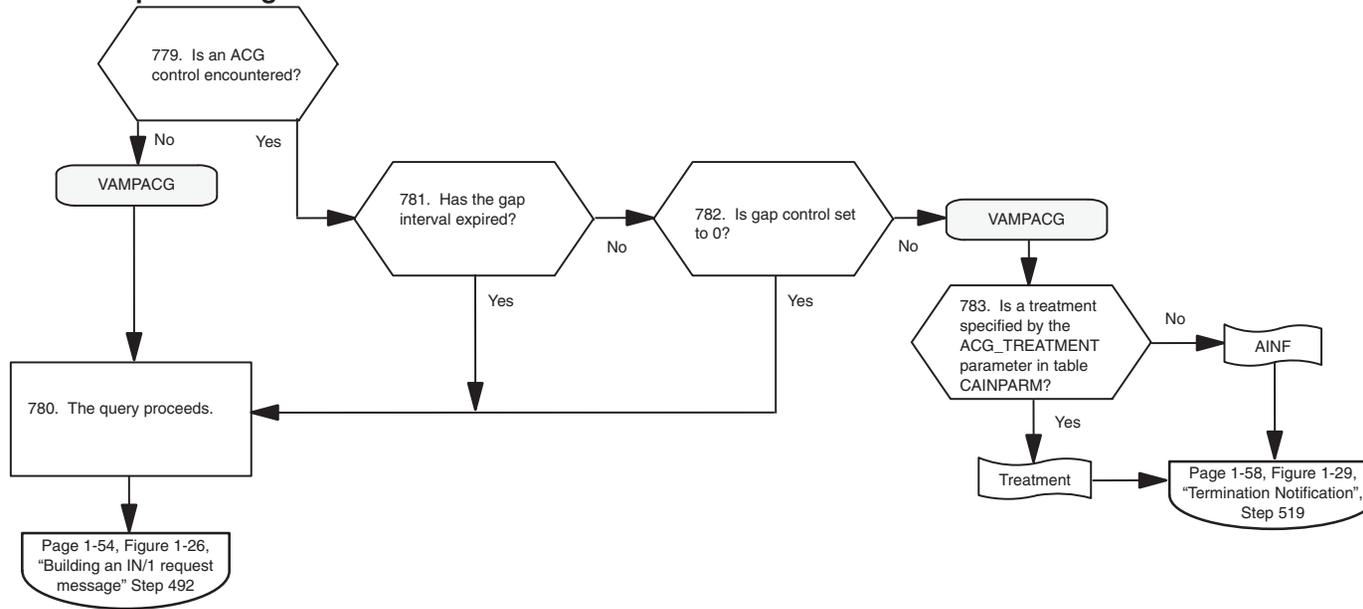


Figure 1-40
IN/1 ACG processing



Note 1 :Required resources are: extension blocks, transaction identifiers, component identifiers, and message blocks. Refer to Volume 1, Chapter 2, "Provisioning NetworkBuilder," for more information.

Note 2 :Parameter CAIN_T1_TIMEOUT is provisioned in table CAINPARAM (default is 2 seconds).

Note 3 :Refer to Volume 3, Chapter 1, "TCAP messaging," and the UCS DMS-250 NetworkBuilder AIN 0.2 TCAP Protocol Definition , and TR-NWT-000533 for more information.

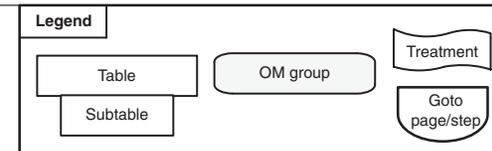
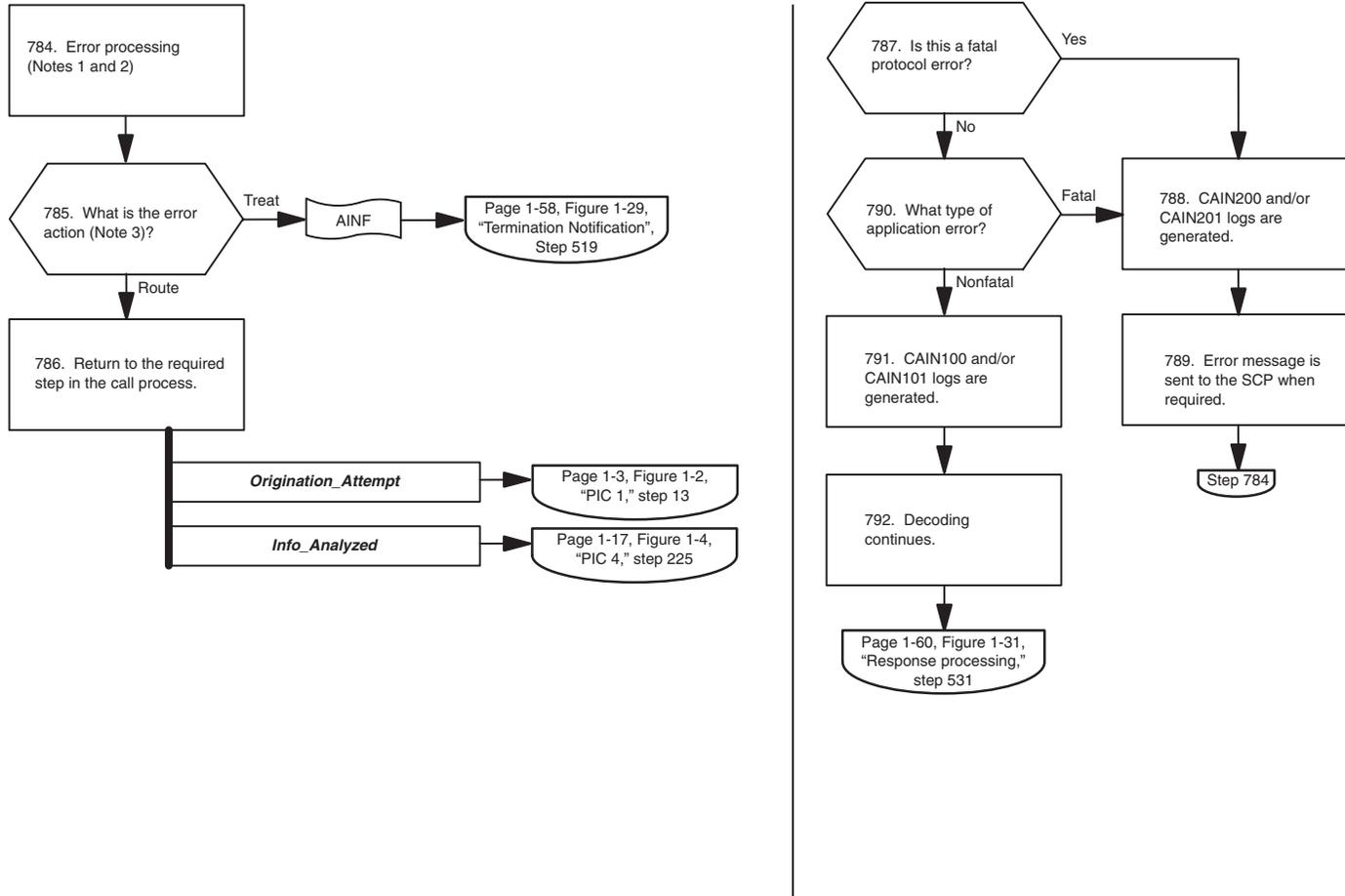
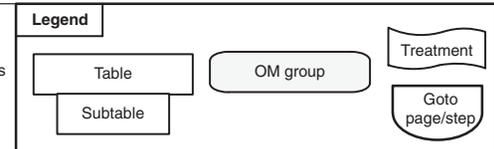


Figure 1-41
Error processing



Note 1 :Error processing covers all errors including T1 timeouts, MAX_NUM_SERIAL_TRIGGERS exceeded, TCAP decoding, and error messages returned from the SCP.
Note 2 :Refer to UCS DMS-250 NetworkBuilder AIN 0.2 TCAP Protocol Definition and Bellcore specifications GR-1298-CORE and GR-1299-CORE.
Note 3 :Off_Hook_Immediate, Customized_Dialing_Plan, and Specific_Digit_String allow you to provision an error action in the corresponding trigger table; Office_Code has default error action of ROUTE; all other triggers and all EDPs have a default error action of TREAT.



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UCS DMS-250
NetworkBuilder Application Guide,
Volume 2 of 5

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