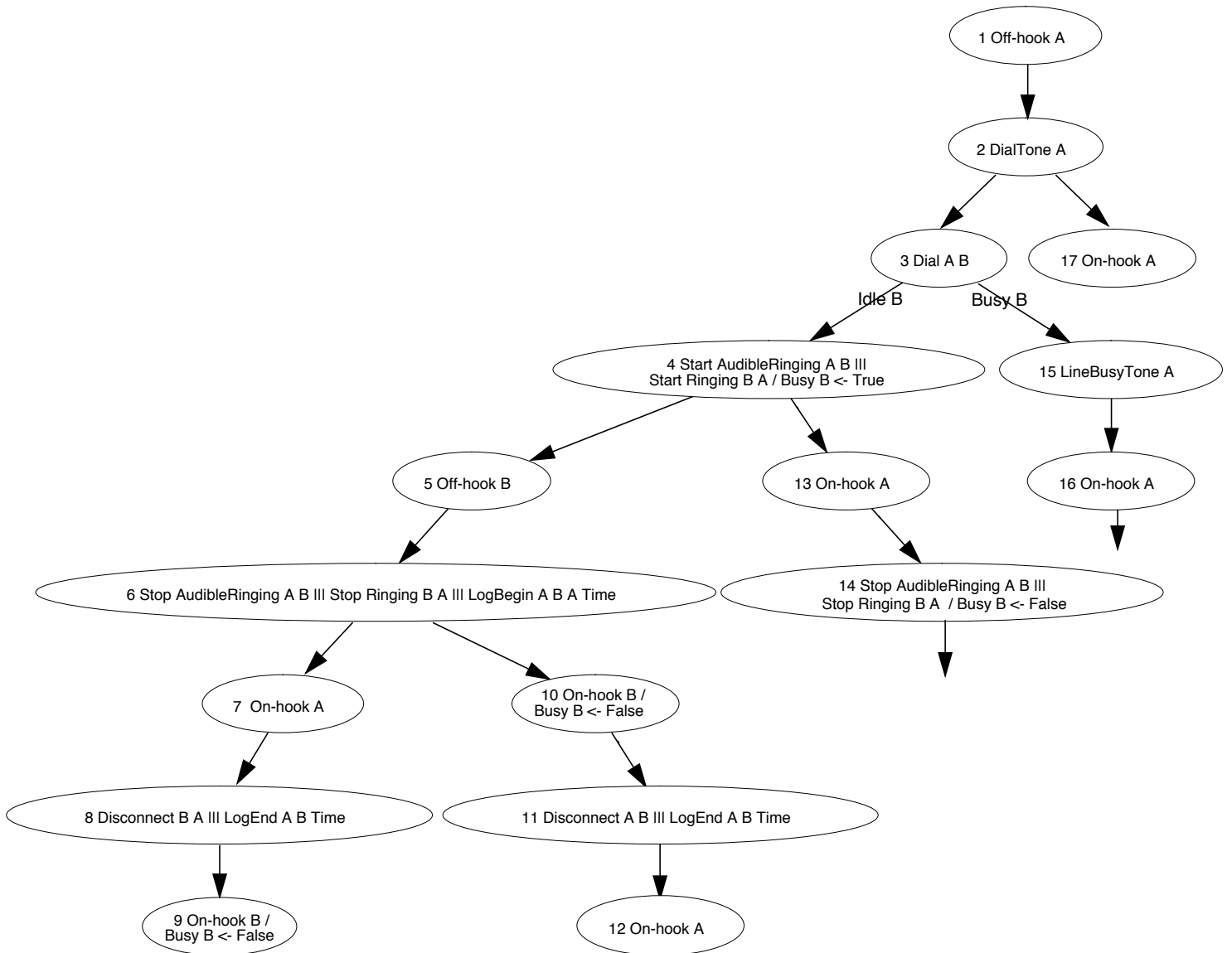


POTS

This is the Basic Call Model.

Variables:

Busy A: true between an Off-hook A event and the next On-hook A event; between a Start Ringing A B event and the next Stop Ringing A B event, if no Off-hook A intervenes; or between a Start Ringing A B event and the next On-hook A.
 Ringing A B: true between a Start Ringing A B event immediately following a Dial B A event and the next Stop Ringing A B event.
 AudibleRinging A B: true between a Start AudibleRinging A B event immediately following a Dial A B event and the next Stop AudibleRinging A B event.
 All of the POTS event sequences start and end with Busy A = False (Idle A = True).
 The values of Busy B in the diagram have been given in the preceding rules, but for illustration we show the value changes, in nodes 4, 9, 10, and 14.



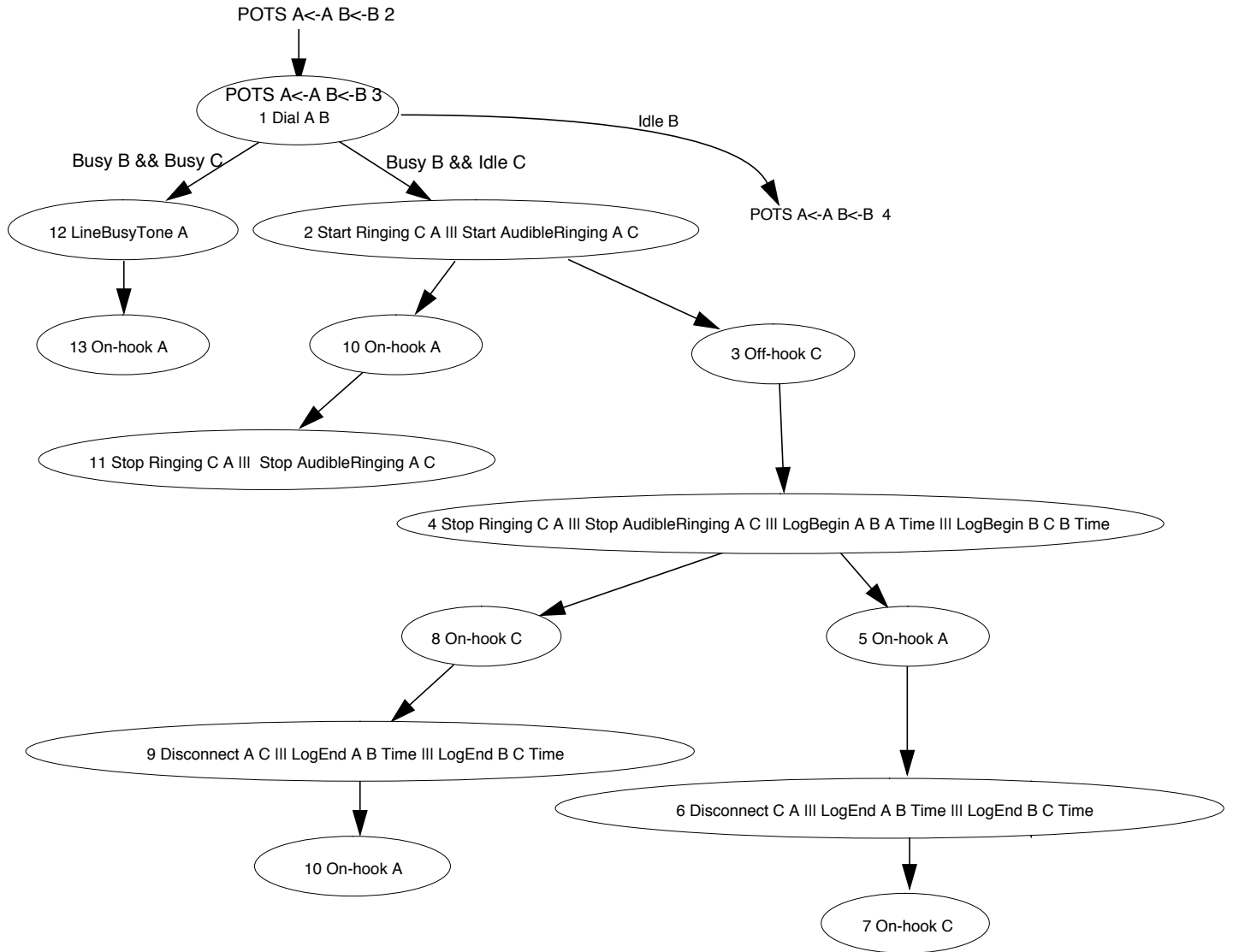
1. Call Forwarding Busy Line

This feature permits a subscriber to have incoming calls that encounter a busy condition to be re-directed.

New Variables: BLForward B is the line to which incoming calls will be redirected if they encounter a busy condition. If B subscribes to CFBL, this variable is defined and unchanging.

In the sequence diagram below, C = BLForward B.

All of the event sequences in this diagram end with Busy A = False (Idle A = True).



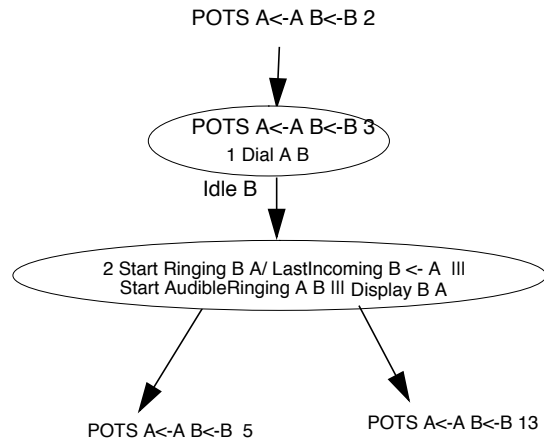
2. Calling Number Delivery

This feature enables the subscriber's telephone to receive and display the number of the originating party on an incoming call.

New Variables:

LastIncoming A is the address of the originator of the last call to the subscriber A.

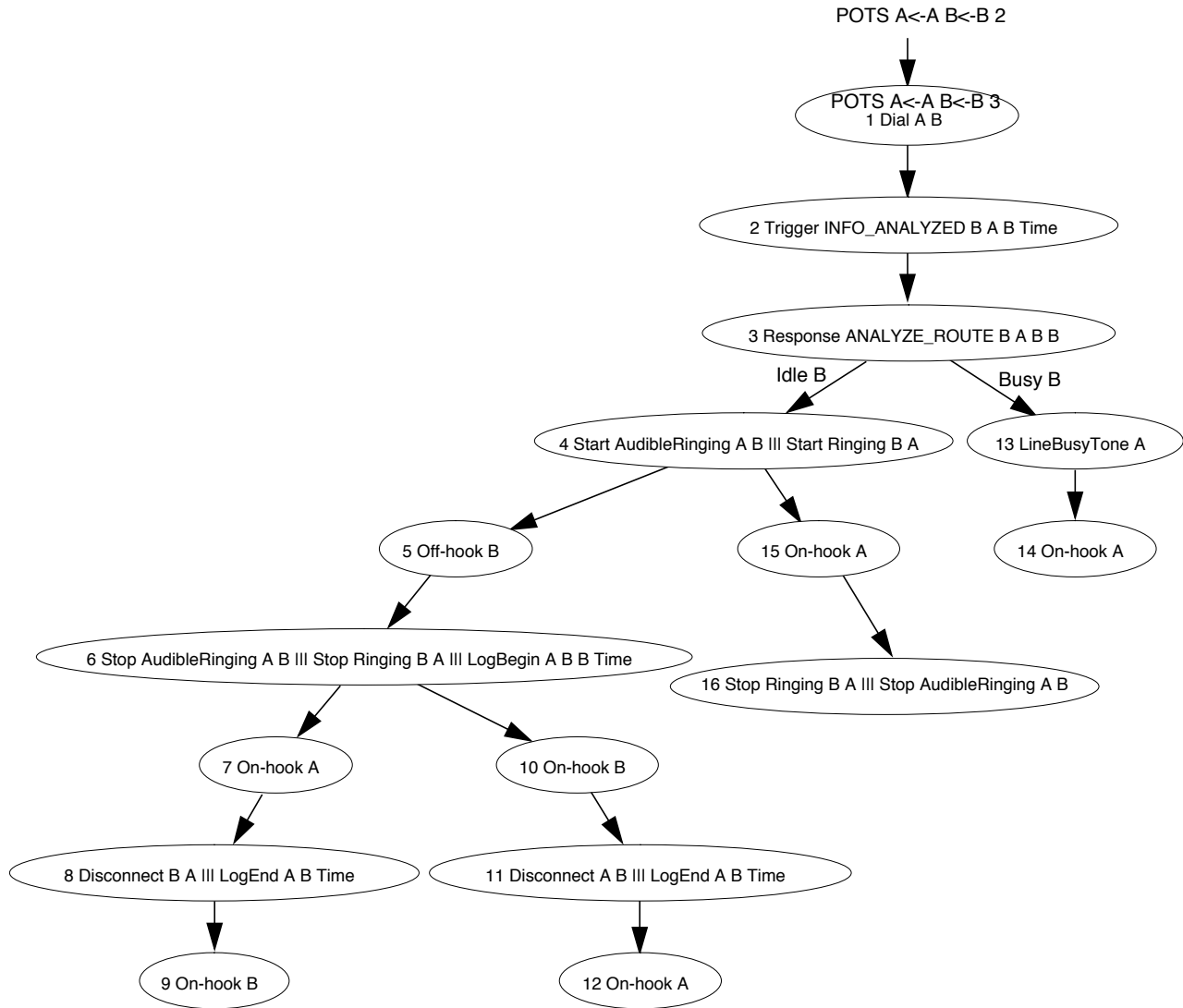
It is always undefined in POTS. For a subscriber to Calling Number Delivery, the value is changed at each Start Ringing event..



3. IN Freephone Billing

This feature allows the subscriber to be charged for incoming calls. Freephone normally includes routing as well, but we define that as a separate feature in Figure 4.

New Variables: None.



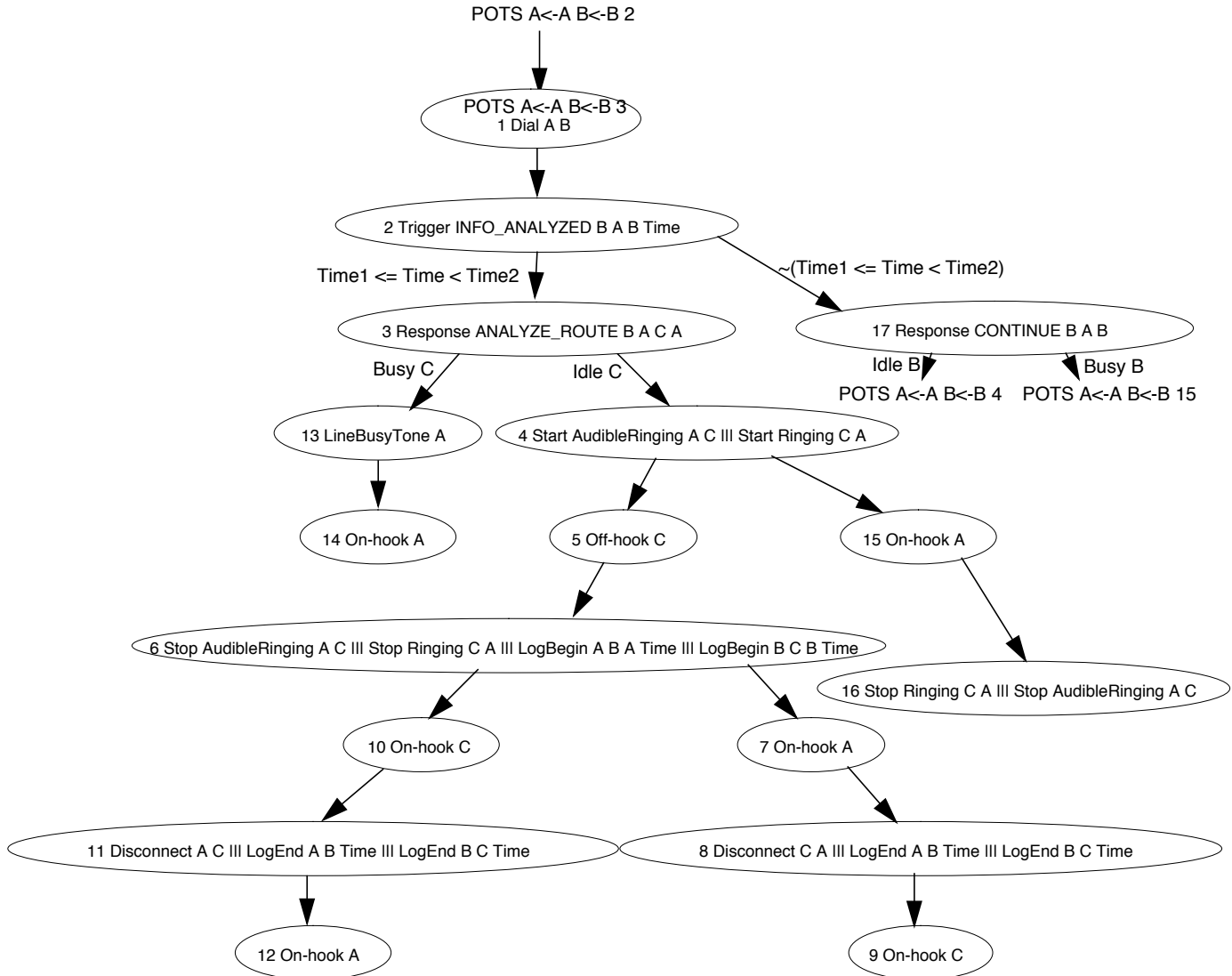
4. IN Freephone Routing

This feature allows the subscriber to redirect a call to various telephones, potentially using all or part of the calling number and the time of day.

New Variables:

Redirect A B Time1 Time2 is the line to which a call is redirected when the subscribed line (B) is called from line A between Time1 and Time2. It is undefined for POTS. In the following sequence diagram,

C=Redirect A B Time1 Time2



5. IN Teen Line

This feature restricts outgoing calls based on the time of day. The restriction can be over-ridden by entering the correct PIN.

New Variables:

TeenPIN A is the valid teen-line PIN for subscriber A. It is undefined for POTS.

TeenTime A Time1 Time2 means that the PIN must be used from Time1 to Time2 in order to initiate a call.

These variables are defined and unchanging for subscribers to Teen Line.



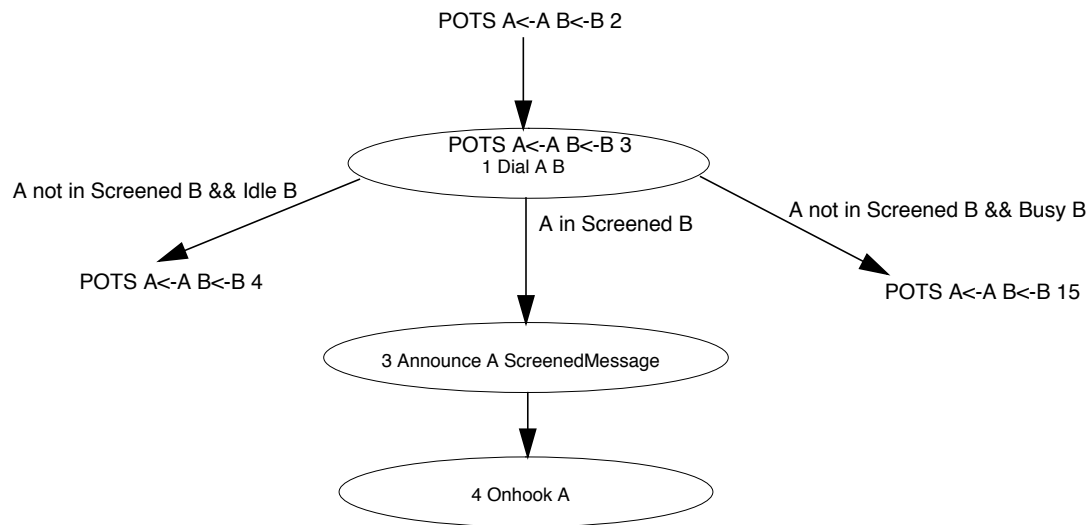
6. Terminating Call Screening

This feature allows a subscriber to screen calls based on the originating number.

New Variables:

Screened B is a set of lines from which subscriber B does not accept calls.

This variable is undefined in POTS, defined and unchanging for subscribers to Terminating Call Screening.

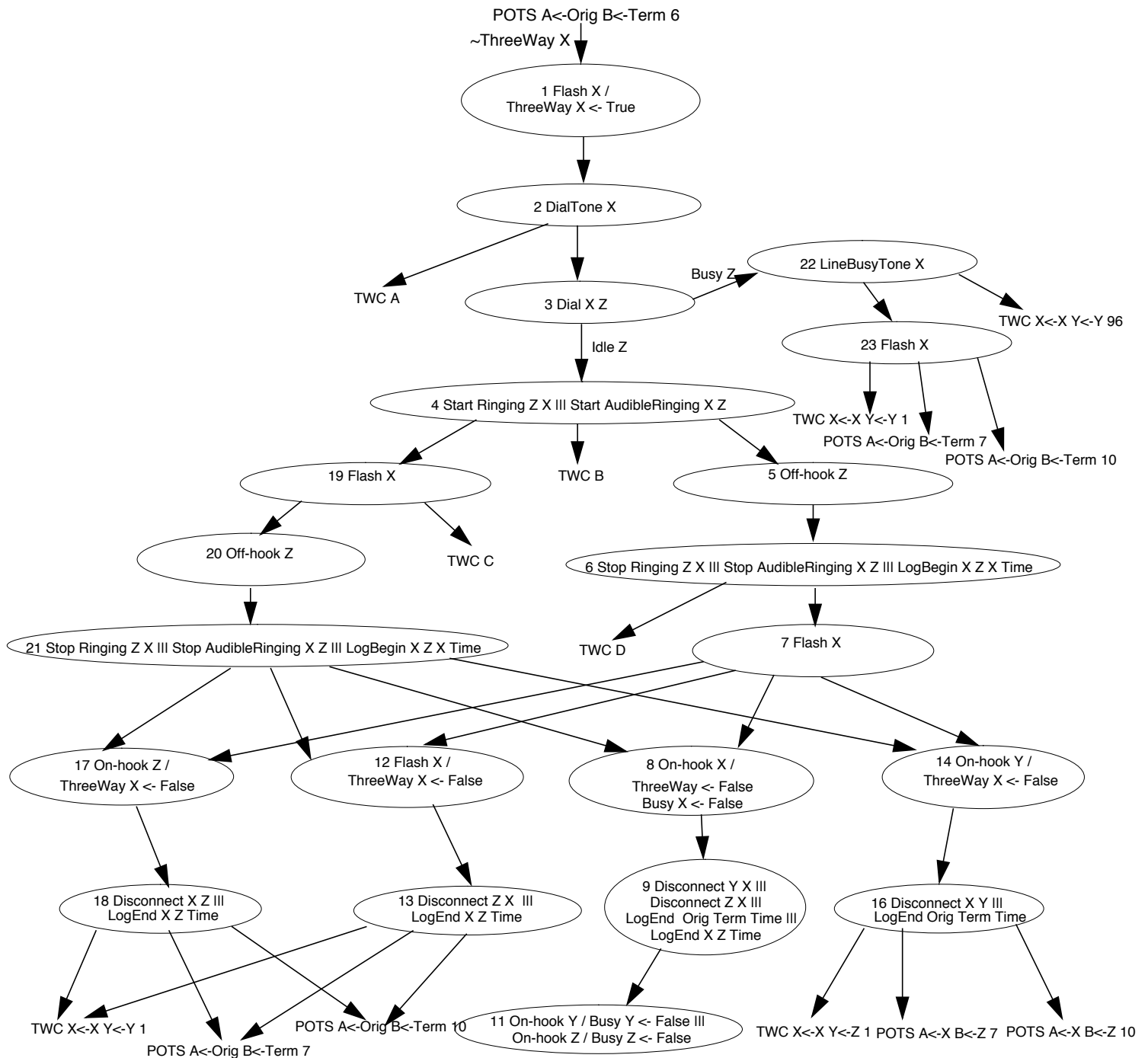


7. Three-Way Calling

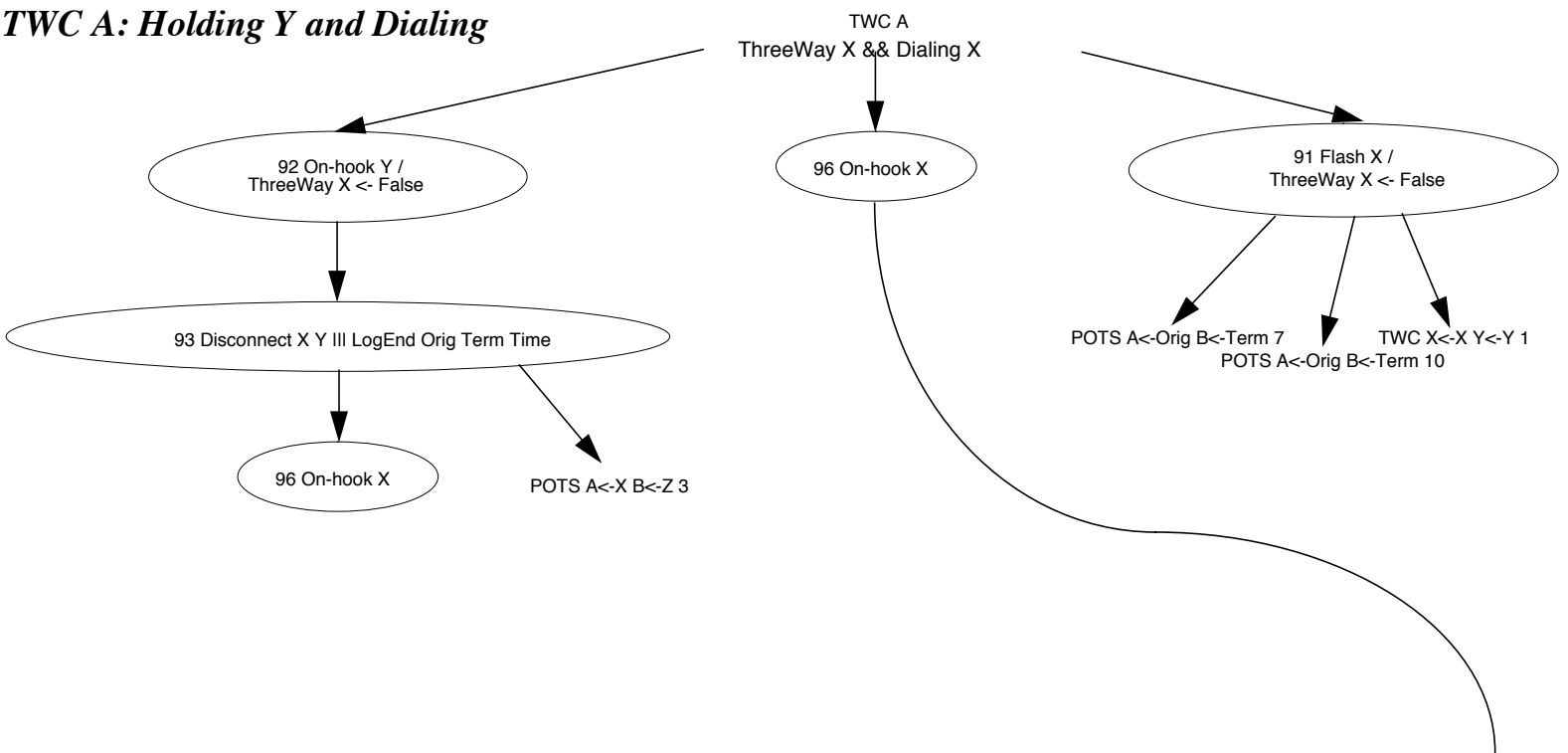
This feature allows the connection of three parties in a call. The following diagram represents two different cases, one with X as the originating party and one with X as the terminating party. The symbols “Orig” and “Term” stand for X and Y respectively when X is the originating party, and for Y and X respectively when X is the terminating party. Each use of this diagram when constructing an event sequence introduces a new Z; if it were expanded, we might write Z1, Z2, ... The symbols TWC A, TWC B, ... direct you to another part of the diagram on a subsequent page.

New Variables:

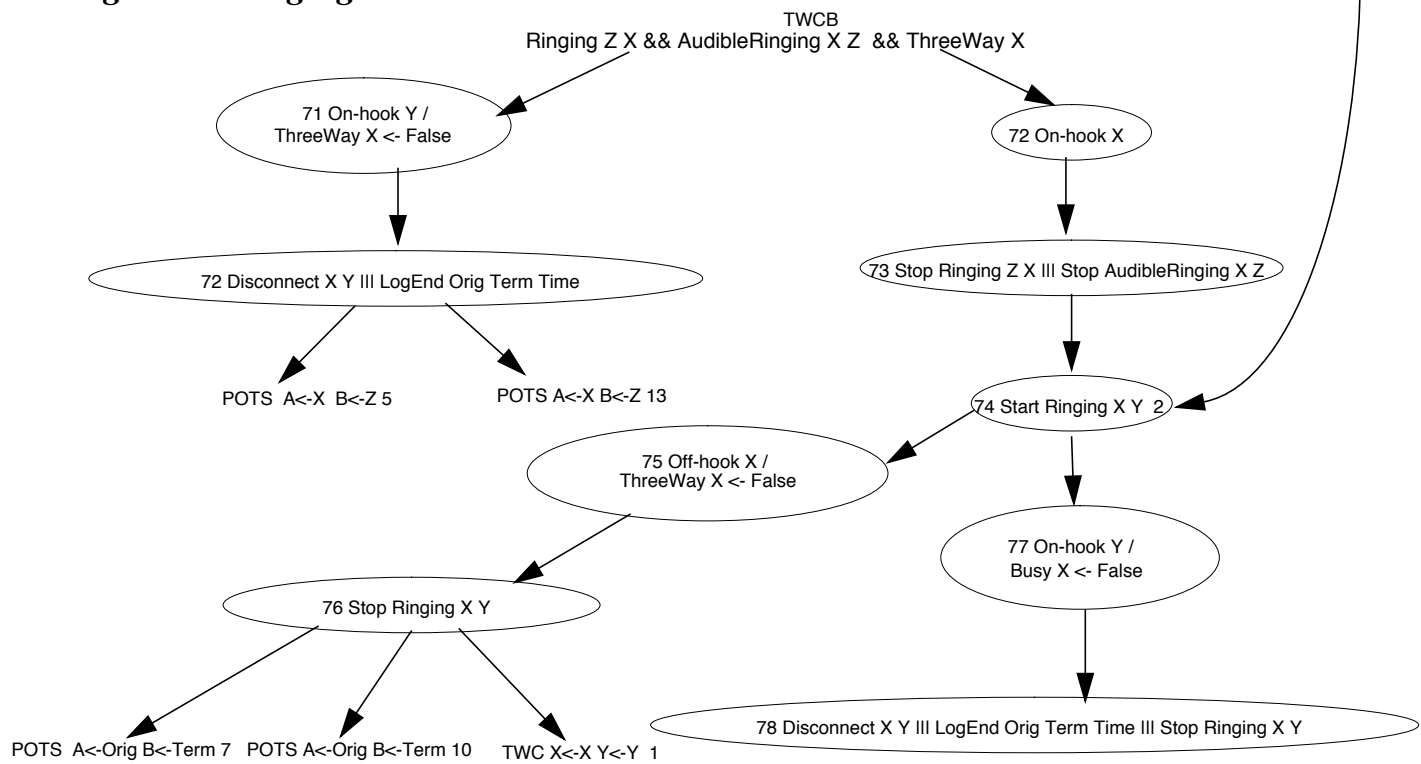
ThreeWay X is true when the Three-Way Calling feature is controlling call behavior. Changes in its value are shown in the diagrams. Busy X is changed somewhat by this feature, so its changes are also given in the sequence diagram



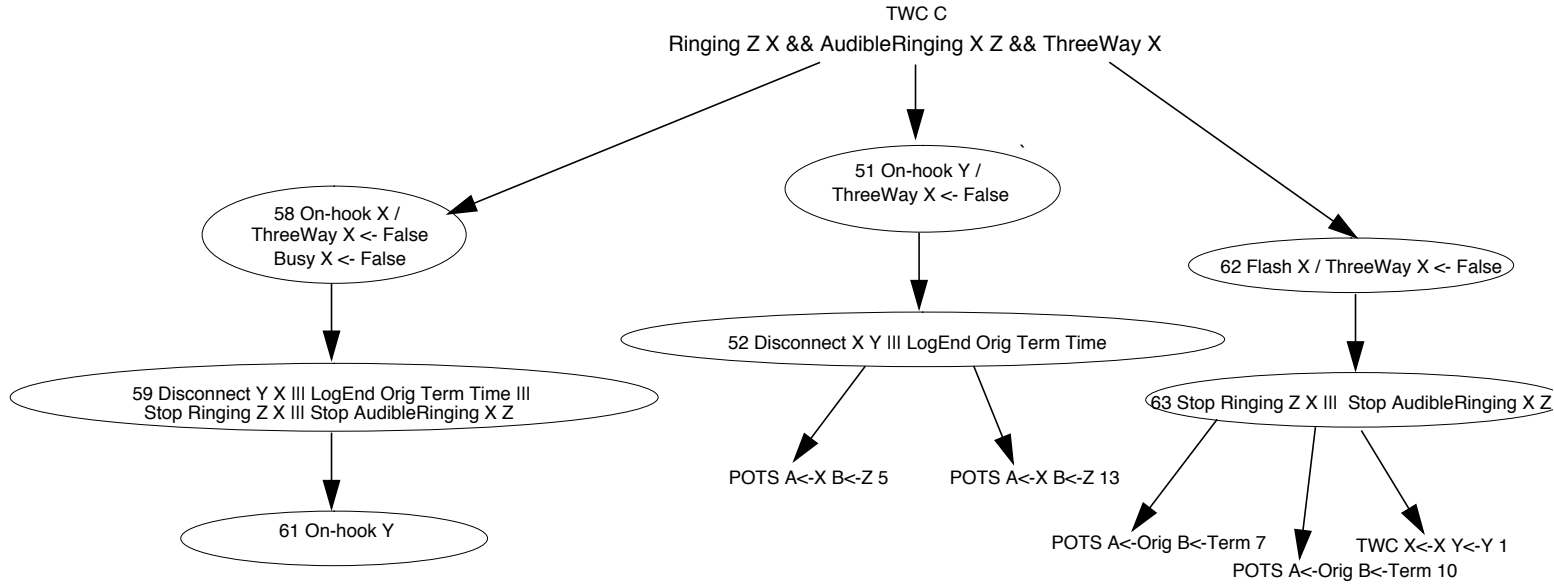
TWC A: Holding Y and Dialing



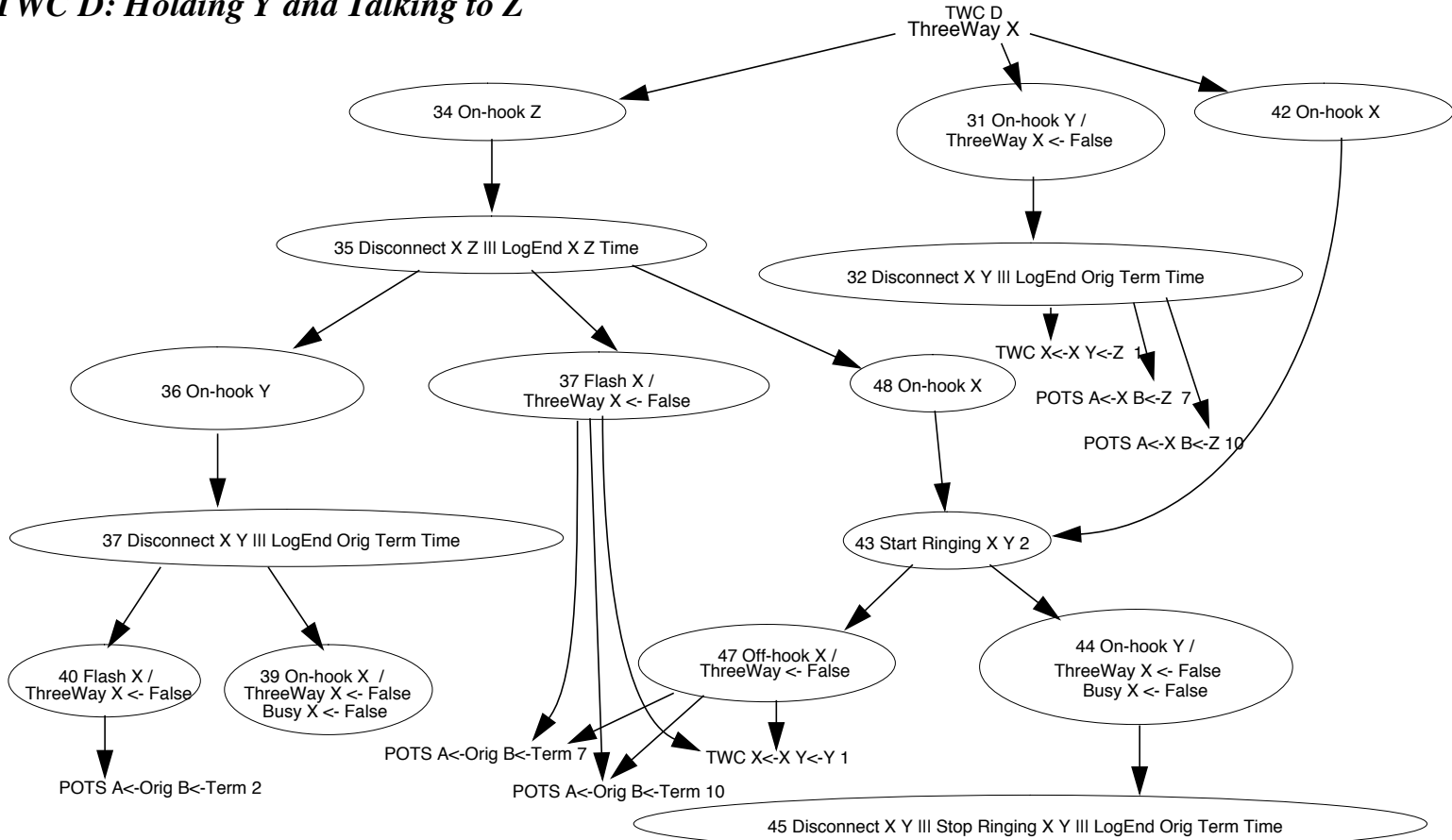
TWC B: Holding Y and Ringing Z



TWC C: Talking to Y and Ringing Z



TWC D: Holding Y and Talking to Z

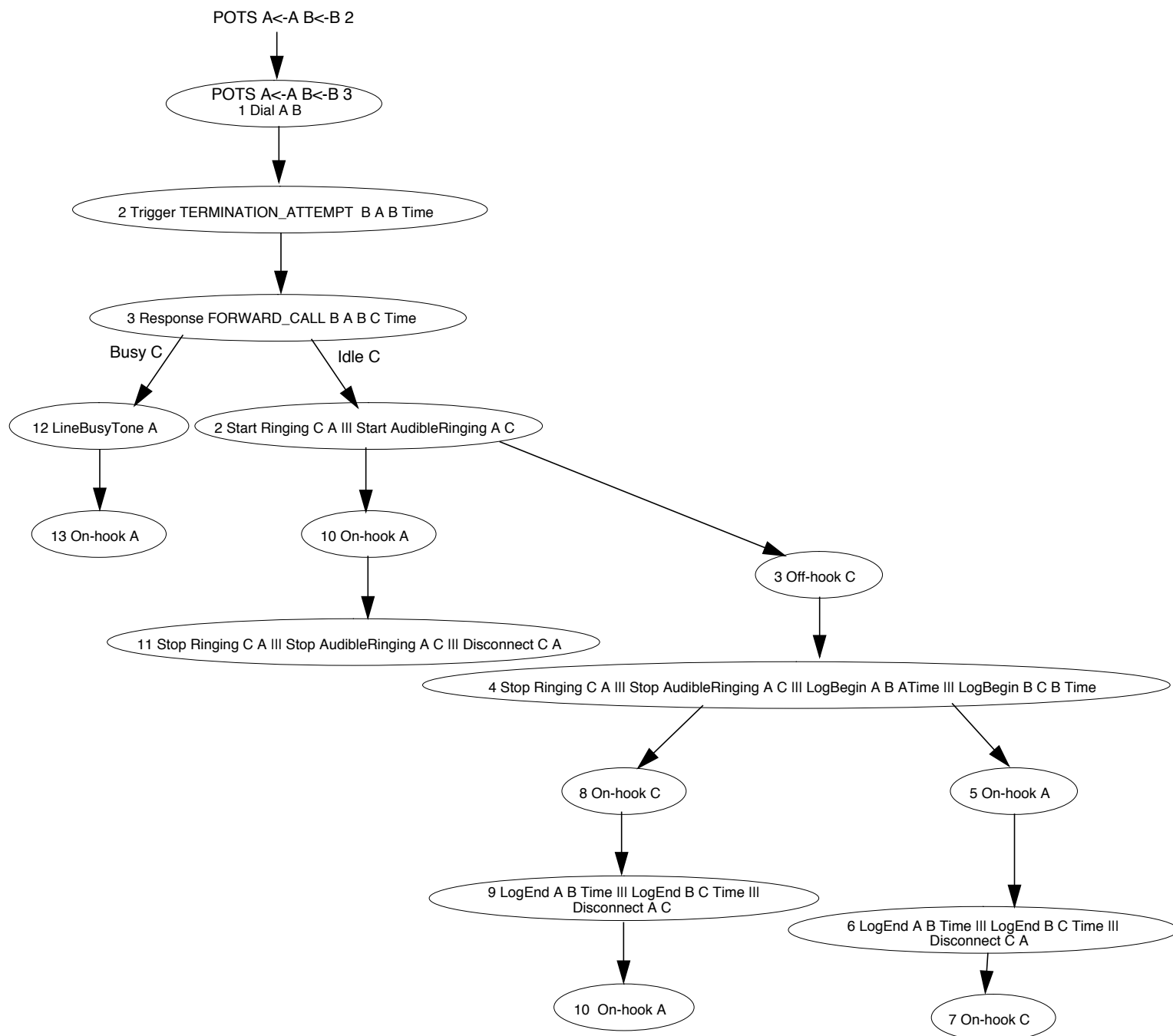


8. IN Call Forwarding

This feature permits a subscriber to have all calls forwarded. The subscriber pays the charges on the forwarded leg.

New Variables: ForwardeToB is the address of the forward-to line for Call Forwarding subscriber B's calls.

It is defined and unchanging for subscribers B to IN Call Forwarding. In the following diagram, C=ForwardTo B.



9. Call Waiting

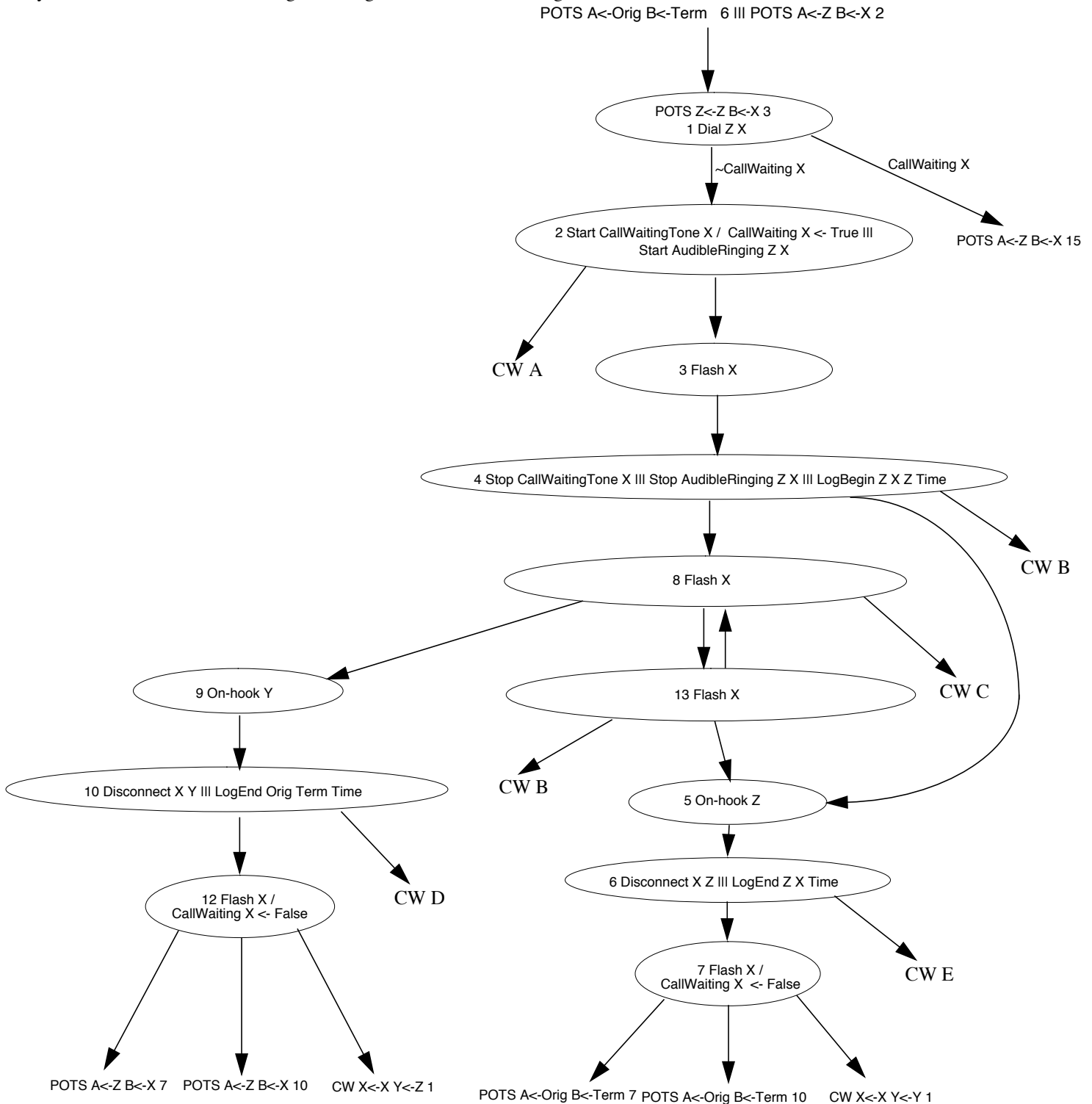
The call waiting feature permits the subscriber to accept a second call when the telephone is already in use. The drawing on this page includes just the "sunny day scenario." Less usual user behaviors are shown in diagrams CW A-E.

As in the Three-Way Calling diagram, the following diagram represents two different cases, one with X as the originating party and one with X as the terminating party. The symbols “Orig” and “Term” stand for X and Y respectively when X is the originating party, and for Y and X respectively when X is the terminating party. Each use of this diagram when constructing an event sequence introduces a new Z.

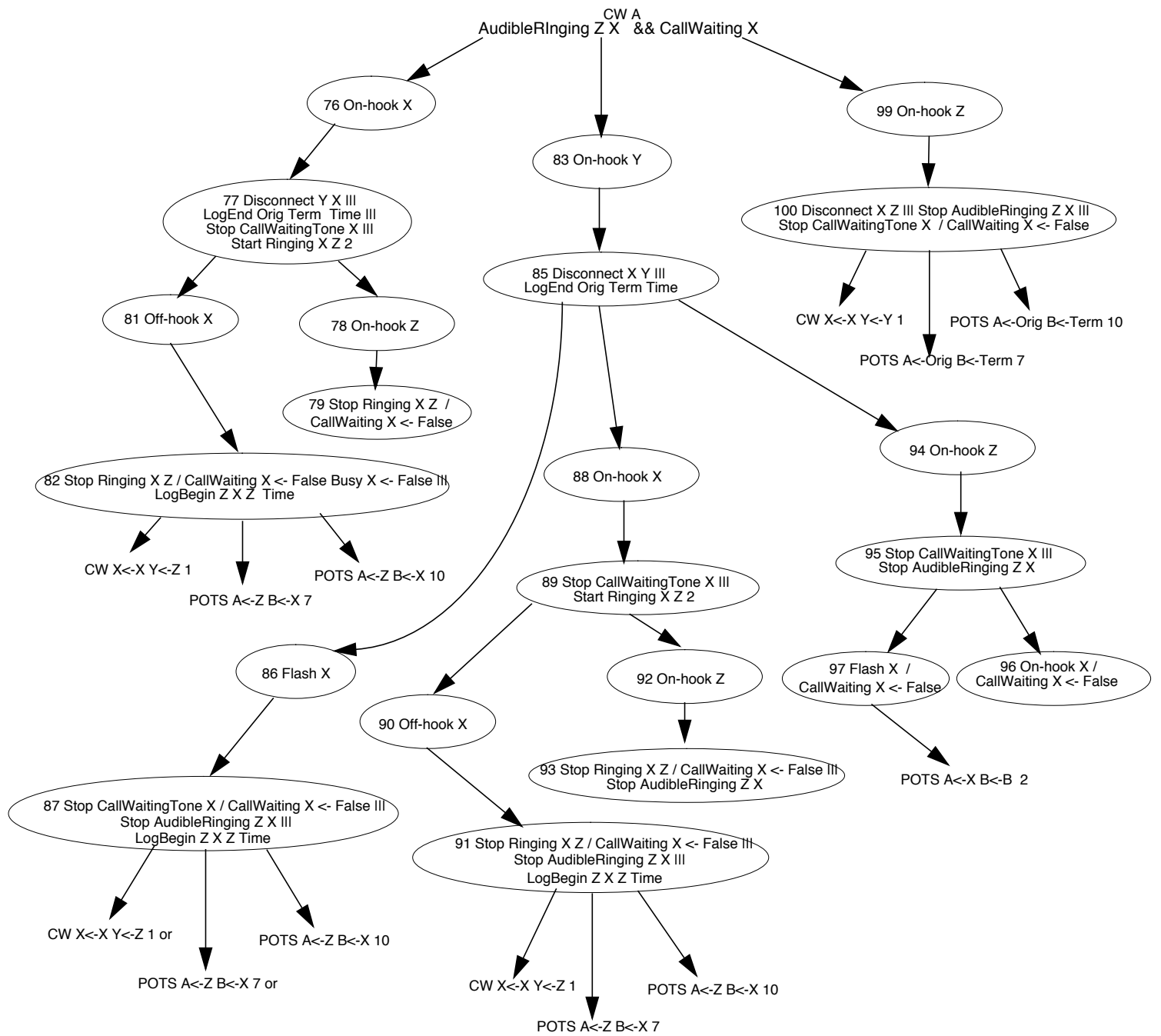
New Variables:

CallWaiting X is true when the Call Waiting feature is controlling the call processing for subscriber X.

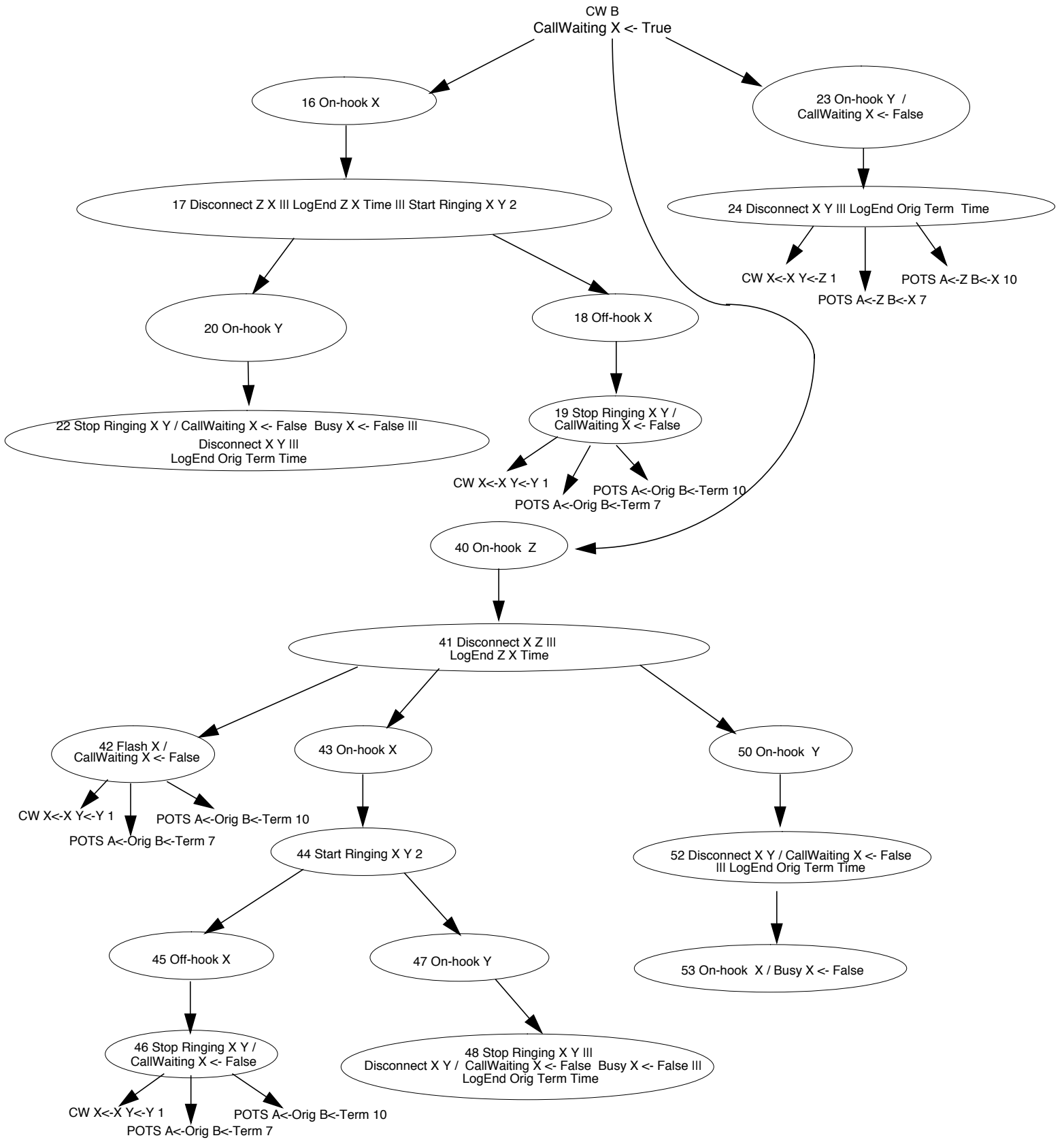
Busy X is redefined for Call Waiting, so changes are shown in the diagram.



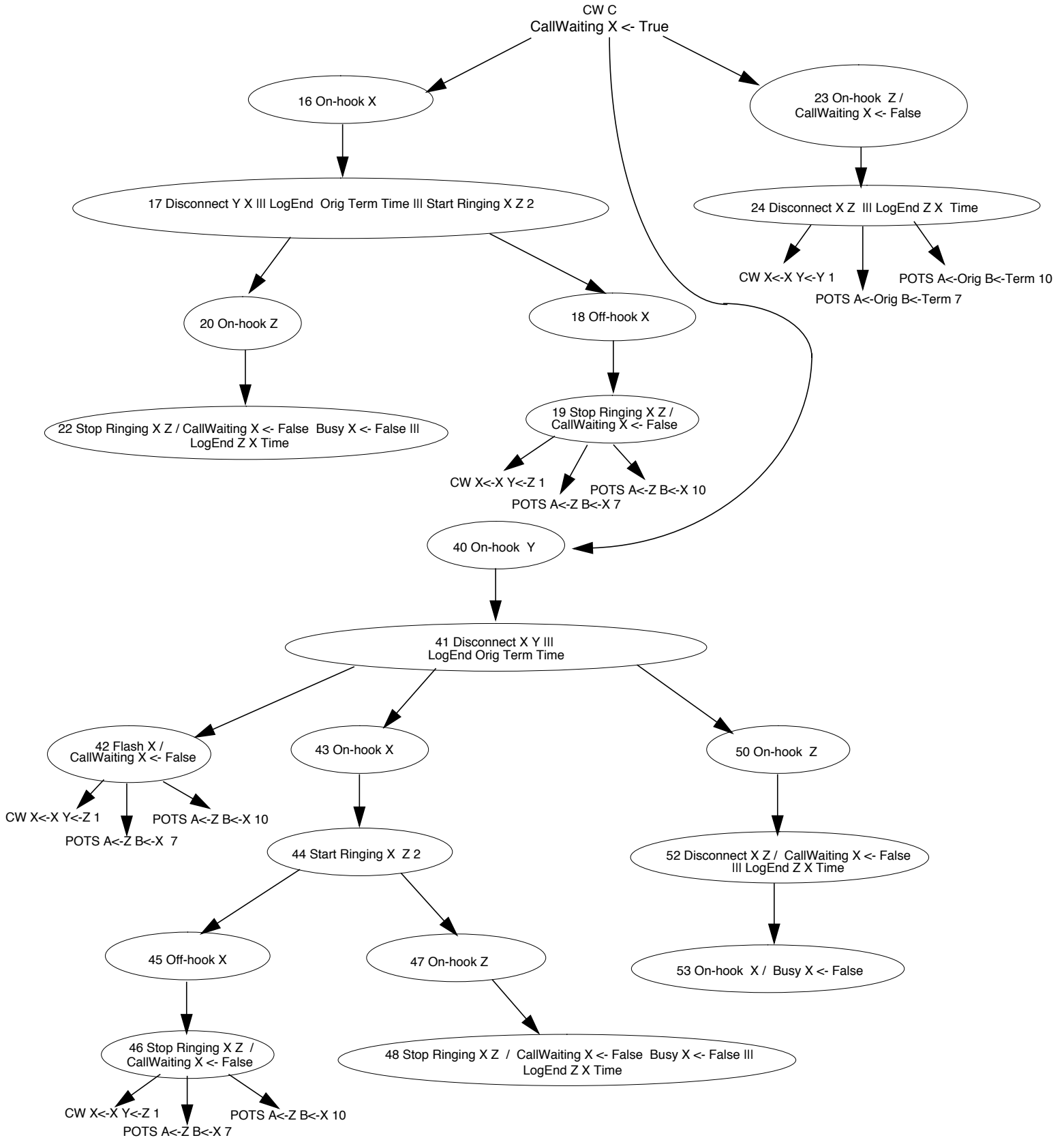
CW A: Call Waiting - Talking to Y, Waiting Z



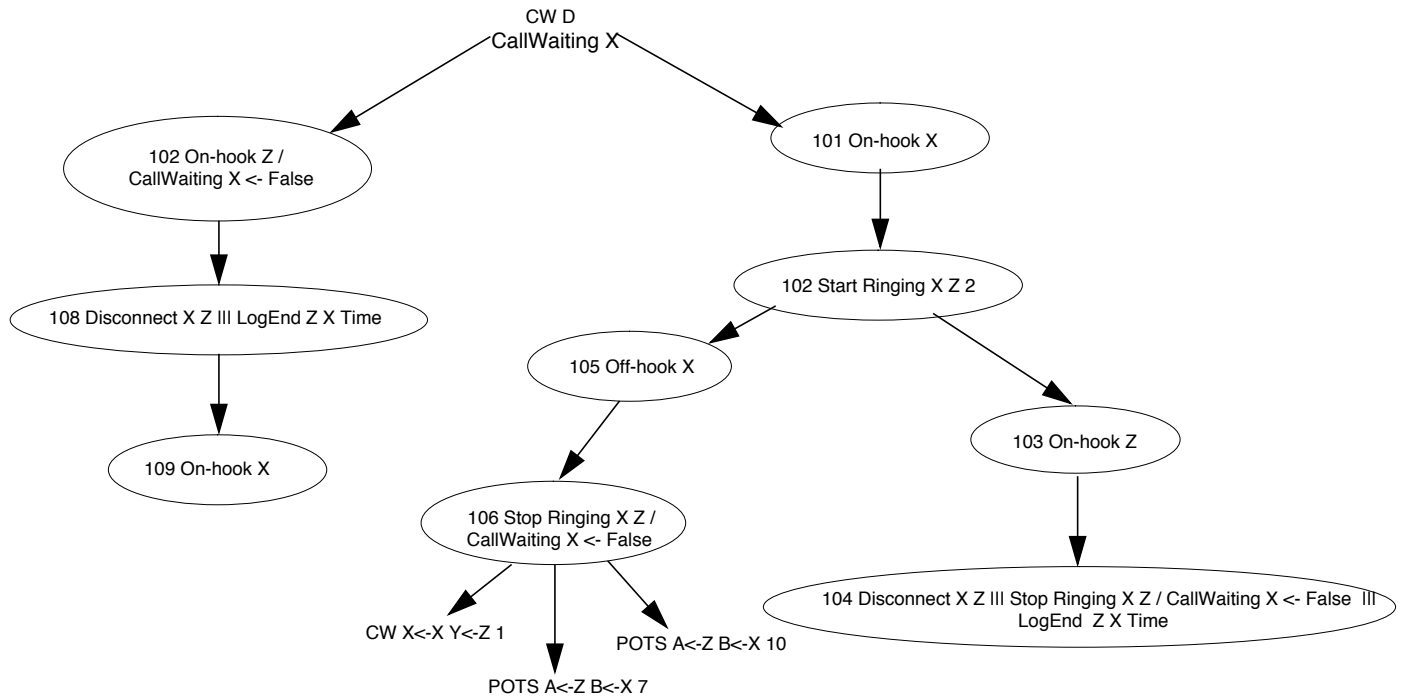
CW B. Call Waiting - Talking to Z, Holding Y



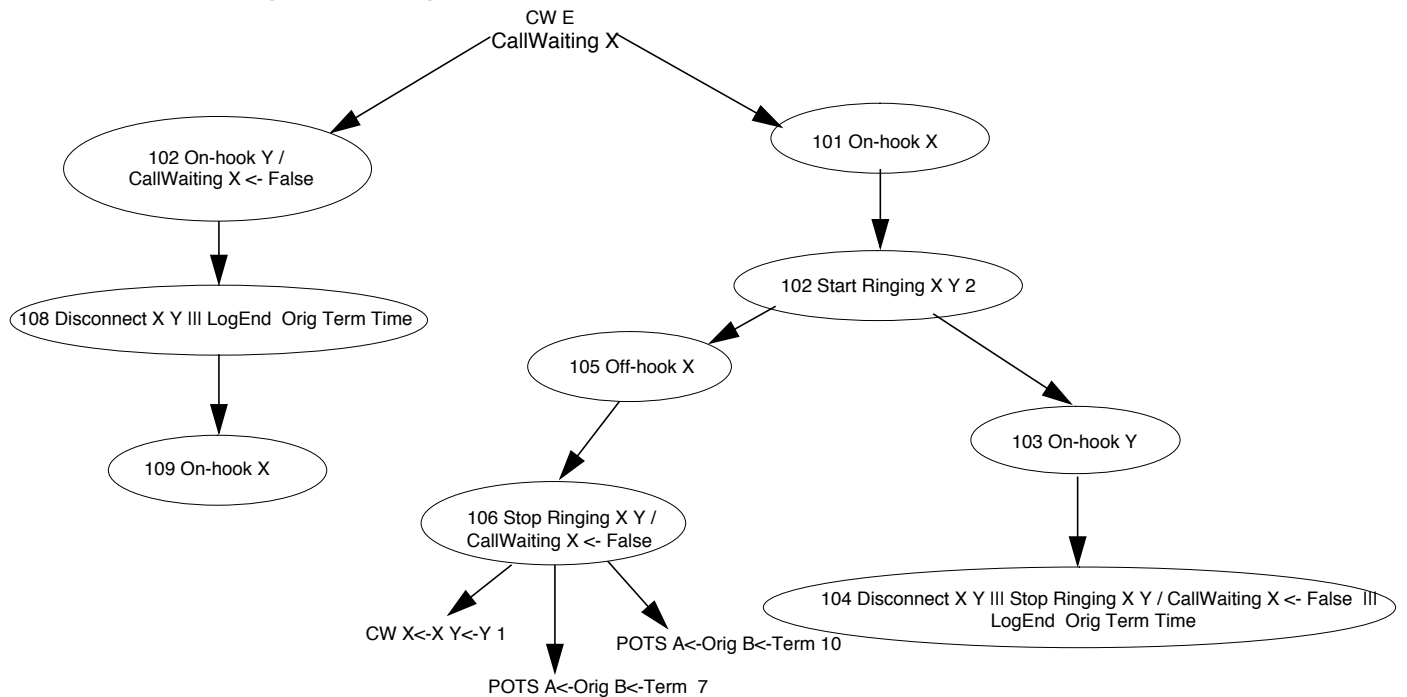
CW C. Call Waiting - Talking to Y, Holding Z



CW D. Call Waiting - Holding Z



CW E. Call Waiting - Holding Y

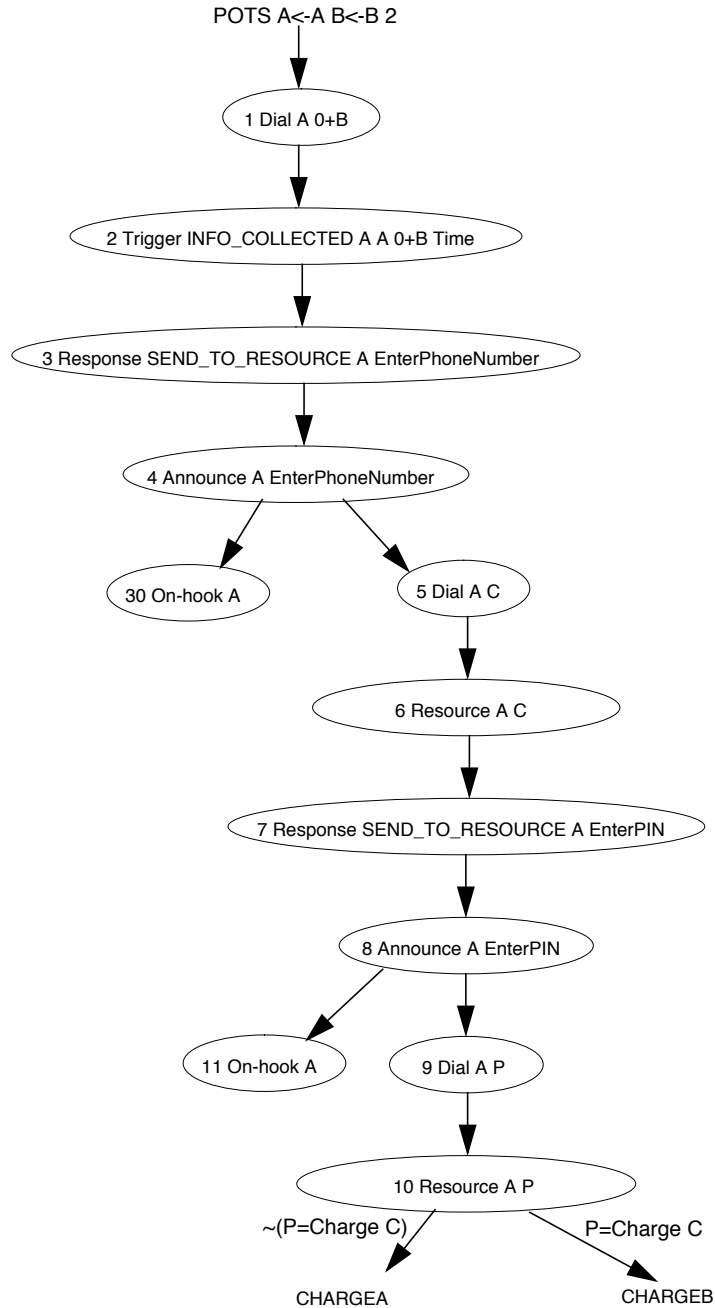


10. Charge Call

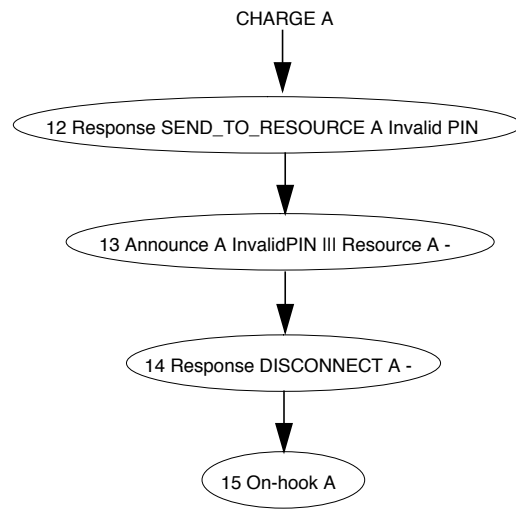
This feature permits a subscriber to charge a call to a different address than the originating address, if the correct PIN is entered

New Variables:

Charge C is the PIN for C



CHARGE A: INVALID PIN



CHARGE B: VALID PIN

