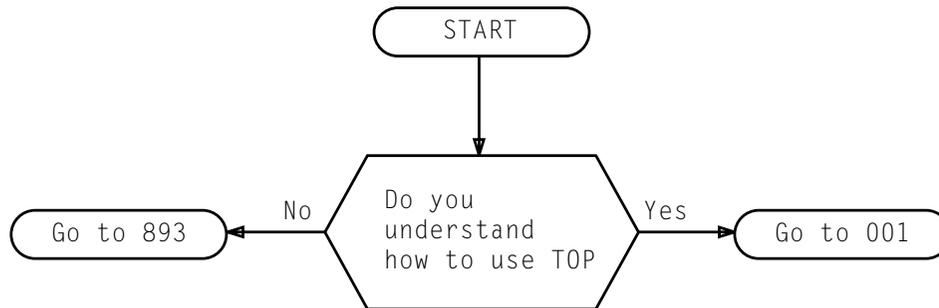




Task Oriented Practice (TOP)

4ESS™ SWITCH

Common Network Interface Growth/Degrowth



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FIND YOUR JOB IN THE LIST BELOW THEN GO TO

Acceptance	NTP-002
Activate Signaling Links(s) On Existing Link Interface Pack	NTP-003
Add AT&T Trigger Platform Jr. (ATP) Node Growth	NTP-004
Add D-Channels in Ring Node Cabinets 00 and 32 to IRN2 – Support to Installer	NTP-023
Add DCHAN Node Growth – Support to Installer	NTP-005
Add D-Channel Cabinets 12, 14, 44, 46 – Support to Installer	NTP-029
Add D-Channel Shelf for Cabinets 12, 14, 44, 46 – Support to Installer	NTP-030
Add D-Channel Node for Cabinets 12, 14, 44, 46 – Support to Installer	NTP-031
Add CCS7 Node Growth – Support to Installer	NTP-007
Add Ethernet Interface Node (EIN) for CDRP – Support to Installer	NTP-026
Add IMS User Node (IUN) Growth for EIN	NTP-025
Add IMS User Node (IUN) Growth – Support to Installer	NTP-009
Add International Link Node (ILN) – Support to Installer	NTP-006
Add International Link Node (ILN) Cabinets 28 and 60 – Support to Installer	NTP-008
Add SADC Node Growth – Support to Installer	NTP-010
Add SCSI Interface Node (SIN) Growth for CDRP – Support to Installer	NTP-011
Add SSI Ring Node Cabinet (RNC) Growth – Support to Installer	NTP-012
Add Link Interface (LI) Pack to Existing DCHAN Node(s) – Support to Installer	NTP-013
Add ULN CCS7 High Speed A-Link Node(s) – Support to Installer	NTP-020
Convert Direct Link Node (DLN) to DLN With IRN2	NTP-024
Convert Existing SCSI Interface Node (SIN) to EIN – Support to Installer	NTP-022
Convert IUN Node(s) To CCITT7 – Support to Installer	NTP-014
Convert IUN Node(s) To CCS7 – Support to Installer	NTP-015

FIND YOUR JOB IN THE LIST BELOW THEN GO TO

Convert IRN2 IUN Node(s) To DCHAN Node(s) – Support to Installer	NTP-016
Convert IUN Node(s) To SADC – Support to Installer	NTP-017
Convert IUN Node(s) With IRN to DCHAN With IRN2	NTP-018
Degrow of D-Channel Growth for Cabinets 12, 14, 44, and 46 – Support to Installer (INST)	NTP-032
Degrow EIN Shelf Unit – Support To Installer (INST)	NTP-021
Degrow Shelf Unit and/or Link Node(s) – Support to Installer	NTP-027
Determine Node Data for All Growth Nodes	DLP-561
Relocate Shelf Unit – Support to Installer	NTP-019

Acceptance tests are not required for verification of the growth procedures contained in this volume. The readiness acceptance of a frame or unit to become a part of the operating system is established by the successful completion of the particular growth procedure in its entirety. This acceptance is covered within NTPs contained herein.

ACCEPTANCE

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DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

		RESPONSIBILITY	
	<p>NOTES: 1. AMA data should be transferred (tape and/or teleprocessing) prior to start of each night's growth activity</p> <p>2. This procedure must be performed during light traffic periods</p> <p>3. If DCHAN signaling link(s) is being grown, nailup for each link must be assigned in ODA</p> <p>4. This procedure contains soak interval for verifying system operation and stability during growth. During the soak interval, all abnormal conditions (such as interrupts, interjects, and diagnostic failures related to growth) must be investigated and resolved immediately. Growth equipment, being soaked, must be error free for at least the time specified</p>		
1	If This Procedure Is Being Performed Immediately After Link Node, Link Interface Pack, or High-Density Backplane Growth Cabinet, Go to Item 10	TELCO	-
2	Determine if Space Is Available for Growth Signaling Link(s) on Existing Link Interface Pack of Same Node Type. If Space Is Not Available, Discontinue This Procedure	TELCO	DLP-532
3	If Cables Are Required To Be Connected for This Signaling Link(s), Perform Items 4 and 5; Otherwise, Go to Item 6	TELCO	-
4	Dress Cables, Required for This Growth, in Place and Connect per SD-3F037-01 (for SSI Cabinet 00 or 32) or SD-3F050-01 (for HDRNC Cabinet)	TELCO	-
5	If Signaling Link Terminates at Digital Facility Access (DFA) Frame or Digital Crossconnect Frame:		
	A. If Signaling Link Terminates at Digital Facility Access Frame:		
	1. At Each 2500 Series Data Service Unit (DSU) for Each Growth Data Link, Set Options Using 2500 Series Data Service Unit User's Manual	TELCO	-
	2. At Each 2500 Series Data Service Unit for Each Growth Data Link, Depress LL Pushbutton Switch to In Position	TELCO	-
	B. If Signaling Link Terminates at Digital Crossconnect Frame:		
	1. Using Office Drawing T-nnnn-Hn-407, Determine Crossconnect Assignments for Each Growth Signaling Link (n = Office Unique Drawing Identification Number)	TELCO	-
	(Continued on Page 2)		

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

5 (Contd)	2. At Digital Crossconnect Frame, Connect Hairpin Plug (Loopback) for Each Growth Signaling Link at Location(s) Determined in Item 5.B.1	TELCO	-
6	Verify System Status	TELCO	DLP-544
	NOTE: Items 7 through 9 are being performed to ensure clean file system before starting growth		
7	Copy Incore Equipment Configuration Data Base (ECD) to Disk	TELCO	DLP-519
8	Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
9	Update Backup Data Base	TELCO	DLP-521
10	If DCHAN or SADC Signaling Link(s) Is Being Grown, Change Growth DCHAN or SADC Signaling Link(s) to Unavailable Using Data Base Management System (DMS)	TELCO	DLP-546
11	If This Procedure Is Being Performed After Link Node or Link Interface Pack Growth, Go to Item 14	TELCO	-
12	Verify That Far-End Common Language Location Identification Has Been Assigned for Growth Signaling Link(s)	TELCO	DLP-533
13	If CCS7 or DCHAN Signaling Link(s) Is Being Grown, Test (Prove-in) Growth Signaling Link(s):		
	A. If CCS7 Signaling Link(s) Is Being Grown	TELCO	DLP-514
	B. If DCHAN Signaling Link(s) Is Being Grown	TELCO	DLP-515
14	Change Growth Signaling Link(s) to Available Using Data Base Management System	TELCO	DLP-543
15	Soak Growth Ring Hardware for 1 Hour To Ensure No System Problems Exist With System Operation After Growth	TELCO	-
16	Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
17	Update Backup Data Base	TELCO	DLP-521
18	If Activated Signaling Link(s) Terminates at Digital Facility Access Frame, at Each 2500 Series Data Service Unit Associated With Activated Signaling Link(s), Depress LL Pushbutton Switch to Out Position for Normal Operation	TELCO	-
	(Continued on Page 3)		

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

19	If Activated Signaling Link(s) Terminates at Digital Crossconnect Frame, at Digital Crossconnect Frame, Remove Hairpin Plug (Loopback) for Each Activated Signaling Link	TELCO	-
20	Write 3B Computer Backup Tapes	TELCO	DLP-522
21	Verify Backup Tapes	TELCO	DLP-525

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

		RESPONSIBILITY	
	<i>WARNING: An antistatic wrist strap must be worn to prevent electrostatic discharge and possible damage to circuit packs while handling</i>		
	<p>NOTES: 1. The system must be sane and the office environment stable before these changes are made since these procedures are critical to office operations that directly impact customers</p> <p>2. This procedure must be performed during light traffic periods</p> <p>3. Verify the stability of the CNI by ensuring that all equipped ring nodes have been in the active state and functioning trouble free for at least 48 hours. Verify that all ring audits have been active for 48 hours</p> <p>4. Before beginning the upgrade, UCB forms, which include all changes, should be filled out for the affected forms needed to add the ATP node</p> <p>5. This procedure assumes that the 8-node CCS7 shelf at group levels 06 and 38 has been installed</p>		
1	Ensure That the 4ESS™ Switch Is Running on the 4E19 or Later Generic Program and the 3B Computer Is Running on the 4AP<13> Generic Program	TELCO	—
2	Ensure IRN2 Circuit Packs (UN304, MC3F024A1B) Needed for ATP Node Growth, Are Either Installed in RNC 6 and 38, Node Position 8, or Are Available for Installation	TELCO	—
3	At MCRT, Enter Message OP:STATUS:LISTDIR, FN"/database/cni/lndata" ! To Ensure that LKdata Does Not Exist on RNC 06 and 38 Node Positions. If Data Exists, Contact Appropriate Support Organization for Resolution	TELCO	—
4	Verify System Status	TELCO	DLP-544
5	Safe Point To Temporarily Stop This Procedure	TELCO	—
6	If Procedure Was Stopped in Item 4, Verify System Status	TELCO	DLP-544
7	At MCRT, Enter Following Messages To Inhibit Automatic Diagnostics: • INH:DMQ;SRC REX! • INH:DMQ;SRC ADP!	TELCO	—
8	Perform the Following To Ensure Clean File System Before Starting Growth:		
	1. Copy Incore Equipment Configuration Data Base (ECD) to Disk	TELCO	DLP-519
	2. Run File System Audits To Ensure No File System Errors	TELCO	DLP-520

ADD ATP NODE GROWTH

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

8 (Contd)	3. Update Backup Data Base	TELCO	DLP-521
	NOTE: Items 9 through 21 are being performed to set a feature flag letter to an "A". During a backout of the ATP node feature, the "A" is removed from the seventh position.		
9	On MCRT, Look at First Line on Display to Right of Office Name And Determine If the Letter "A" Is in Seventh Character Position of Feature Flag. If "A" Is Not Present, Perform Items 10 through 21; or If "A" Is Present, Go To Item 22	TELCO	-
10	Set CNI Ring Feature Flag to an "A" in Seventh Character Position	TELCO	DLP-564
11	On MCRT, Depress EA DISP (PF1) Key	TELCO	-
	NOTE: When performing Items 12 through 14, some unsuccessful ring initialization attempt failure printouts will be received. If printout indicates any hardware failures, these must be corrected before continuing		
12	Enter 42 in Command Mode	TELCO	-
13	Enter G in Command Mode	TELCO	-
14	Enter 50 in Command Mode To Start Up Ring Processes; Wait for PRM_1 ED00 E201 xxxx xxxx xx xx xx Message To Be Received	TELCO	-
15	Verify Ring Processes Are Started Up	TELCO	DLP-505
16	Using REPT AIMCHK STATUS Printout (Item 15), Ensure atpcm Is Listed Under NAME Column and Verify Associated STATE Is LIVE	TELCO	-
17	Enter Message INH:RCV;APPDB,APP ALL! and Wait 1 Minute Before Continuing	TELCO	-
18	Enter 15 in Command Mode on EAI Page To Reinitialize Craft Interface Processes. Wait for REPT CFTSHL TERMINAL IN SERVICE Message And 102 Page To Display	TELCO	-
19	Enter Message CHG:GEN! To Ensure that CNI Report Will Reflect The New Feature Flag. Wait for RING CHG GEN COMPL Message	TELCO	-
20	On MCRT, Look at First Line on Display To Right of Office Name. Ensure an "A" Is Included in List of Feature Flag Indicators and Is in Seventh Character Position	TELCO	-
21	Enter Message ALW:RCV;APPDB,APP ALL!	TELCO	-
22	If Necessary, Depress CMD/MSG (PF3) Key	TELCO	-

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

23	On MCRT in Message Mode, Enter Message EXC:ENVIR:UPROC, FN "ports",ARGS("141")!. Wait for EXC ENVIR UPROC ports COMPLETED port#141 owned by xxxxx Message (xxxxx = Process ID for the atpcm Process) and Record Process ID Number To Be Used in Item 37	TELCO	-
24	On MCRT, Enter Message OP:RING;DETD! and Ensure No "i" Is Listed for Any Link Node ("i" = Isolated). Only One Area on CNI Ring Can Be Isolated at a Time. If Any Link Node Is Isolated, That Link Node Will Have To Be Restored Before Continuing	TELCO	-
25	Enter 1106 in Command Mode To Obtain Display Page 1106	TELCO	-
26	If RNC Group Containing ATP Node Is Not Displayed, Enter 606 in Command Mode	TELCO	-
27	Enter Message RMV:LN06 08! To Remove Node Being Grown. Ensure RING RMV LN06 08 COMPLETED Message Is Received	TELCO	-
28	Enter Message CFR:RING, LN06 08;EXCLUDE! To Isolate Node Being Grown. Ensure RING CFR RING LN06 08 COMPL Message Is Received	TELCO	-
29	On 1106 Page, Ensure Major State Is OOS for Node Being Grown	TELCO	-
30	Enter 400 in Command Mode To Obtain BISO-EISO Display. Ensure Node Being Grown Is Isolated	TELCO	-
	NOTE: Item 31 is being recent changed to the correct mv and hv value for the ATP node UCB. The link node is placed in a GROW State; the AUDREC forms are updated and audits are turned on. Item 31 will take a minimum of 5 minutes to complete.		
31	Enter Message EXC:ENVIR:UPROC, FN"/database/tools/atp.grow",ARGS("ATP06")!. Ensure GROWTH OF ATP NODE LN06 8 BY SCRIPT atp.grow COMPLETED Message Is Received	TELCO	-
32	At MCRT, Depress CMD/MSG (PF3) Key and Enter 1106 in Command Mode To Obtain Page 1106	TELCO	-
33	Ensure ATP Node Being Grown Is Isolated and Major State Is GROW	TELCO	-
34	At RNC 6 Node Position 8, Remove IRN-B (MC3F018A1) and LI (MC3F022A1B). Install IRN2 (MC3F024A1B), Circuit Pack Blank and Designation Strip Label. Do Not Remove ED3F004-37 (Data Set) Cable from Backplane, If Connected	TELCO/INST	-
35	At MCRT, Enter Message DGN:LN06 08;RAW! To Diagnose ATP Node. Ensure DGN LN06 08 ATP MSG COMPLETE Message Is Received	TELCO	-
36	Recent Change ATP Node Being Grown to OOS. Enter Message EXC:ENVIR:UPROC, FN"/database/tools/atp.oos",ARGS("ATP06")!. Ensure EXC ENVIR UPROC /database/tools/atp.oos COMPLETED Message Is Received	TELCO	-

ADD ATP NODE GROWTH

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

37	Enter Message EXC:ENVIR:UPROC, FN "kill",ARGS ("-11","xxxxx")!. (Where xxxxx = Process ID for the atpcm Process Record in Item 23.) Ensure EXC ENVIR UPROC kill COMPLETED Message Is Received	TELCO	-
38	Enter 1106 in Command Mode To Obtain Display Page 1106	TELCO	-
39	If RNC Group Containing ATP Node Is Not Displayed, Enter 606 in Command Mode	TELCO	-
	NOTE: When performing Item 40, the following message is expected to be received: REPT ATPN LN06 8 ERR X'3006 SEQ 1 FILE SCmain.c LINE 276 ACTION 0 1 AUX DATA WDS (X') 00000028 STATE_CNTL:TIMED OUT WAITING FOR MATE ID		-
40	Enter Message RST:LN06 08! To Restore Node Being Grown. Ensure RING RST LN06 08 COMPLETED Message Is Received	TELCO	-
41	Enter Message OP:RING;DETD! and Ensure No "i" Is Listed for Any Link Node ("i" = Isolated). If Segment Is Isolated, Enter Message CFR:RING!; Ensure NORMAL CONFIGURATION, NO NODES ISOLATED Message Is Received	TELCO	-
42	Enter 1109 in Command Mode To Obtain Display Page 1109	TELCO	-
43	At MCRT On 1109 Page, ATP Node Should Pump With the Following Configuration: • LN06 08 OOS OOS • LN00 00 OOS OOS	TELCO	-
44	Enter Following Messages To Allow Automatic Diagnostics: • ALW:DMQ;SRC REX! • ALW:DMQ;SRC ADP!	TELCO	-
45	At 1B MCC, Enter Poke Command 810 (SDC-SERVICE DEGRADING FAILURE) To Obtain Service-Degrading Report Printout. If There Are Any Units Listed, Make Corrective Action To Clear Service-Degrading Condition of Each Unit Listed Before Continuing	TELCO	-
46	Copy Incore ECD to Disk	TELCO	DLP-519
47	Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
48	Soak New ATP Node for 12 Hours To Ensure No Problems Exist With System Operation After Growing. If Problems Occur, Contact the Appropriate Support Organization To Assist if Backout Is Required (Use DLP-566)	TELCO	-

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

49	Safe Point To Temporarily Stop This Procedure	INST	—
50	If Procedure Was Stopped in Item 49, Verify System Status	TELCO	DLP-544
51	At MCRT, Enter Following Messages To Inhibit Automatic Diagnostics: • INH:DMQ;SRC REX! • INH:DMQ;SRC ADP!	TELCO	—
52	Perform the Following To Ensure Clean File System Before Starting Growth:		
	1. Copy Incore ECD to Disk	TELCO	DLP-519
	2. Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
	3. Update Backup Data Base	TELCO	DLP-521
53	If Necessary, Depress CMD/MSG (PF3) Key	TELCO	—
54	On MCRT in Message Mode, Enter Message EXC:ENVIR:UPROC, FN "ports",ARGS("141")!. Wait for EXC ENVIR UPROC ports COMPLETED port#141 owned by xxxxx Message (xxxxx = Process ID for the atpcm Process) and Record Process ID Number To Be Used in Item 71	TELCO	—
55	On MCRT, Enter Message OP:RING;DETD! and Ensure No "i" Is Listed for Any Link Node ("i" = Isolated). Only One Area on CNI Ring Can Be Isolated at a Time. If Any Link Node Is Isolated, That Link Node Will Have To Be Restored Before Continuing	TELCO	—
56	Enter 1106 in Command Mode To Obtain Display Page 1106	TELCO	—
57	If RNC Group Containing ATP Node Is Not Displayed, Enter 638 in Command Mode	TELCO	—
58	Enter Message RMV:LN38 08! To Remove Node Being Grown. Ensure RING RMV LN38 08 COMPLETED Message Is Received	TELCO	—
59	Enter Message CFR:RING, LN38 08;EXCLUDE! To Isolate Node Being Grown. Ensure RING CFR RING LN38 08 COMPL Message Is Received	TELCO	—
60	On 1106 Page, Ensure Major State Is OOS for Node Being Grown	TELCO	—
61	Enter 400 in Command Mode To Obtain BISO-EISO Display. Ensure Node Being Grown Is Isolated	TELCO	—
62	Enter INH:AUD:ALL! in Message Mode To Inhibit All 3B20 Computer Audits	TELCO	—
	(Continued on Page 6)		

ADD ATP NODE GROWTH

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

	<p>NOTES 1: Item 63 recent changes the correct mv and hv value for the ATP node UCB. The link node is placed in a GROW State, the AUDREC forms are updated and audits are turned on. Item 63 will take a minimum of 5 minutes to complete.</p> <p>2: After the complete message is received (Step 63), the script dumps a copy of the script log to the ROP.</p>		
63	Enter Message EXC:ENVIR:UPROC, FN"/database/tools/atp.grow", ARG("ATP38")!. Ensure GROWTH OF ATP NODE LN38 8 AND AUDIT FORM ACTIVATION BY SCRIPT /database/tools/atp.grow COMPLETED Message Is Received	TELCO	—
64	Enter ALW:AUD:ALL! To Allow All 3B20 Computer Audits	TELCO	—
65	Enter INH:AUD:ATP! in Message Mode To Inhibit the ATP Node Audits	TELCO	—
66	At MCRT, Depress CMD/MSG (PF3) Key and Enter 1106 in Command Mode To Obtain Page 1106	TELCO	—
67	Ensure ATP Node Being Grown Is Isolated and Major State Is GROW	TELCO	—
68	At RNC 38 Node Position 8, Remove IRN-B (MC3F018A1) and LI (MC3F022A1B). Install IRN2 (MC3F024A1B), Circuit Pack Blank and Designation Strip Label. Do Not Remove ED3F004-37 (Data Set) Cable from Backplane, If Connected	TELCO/INST	—
69	At MCRT, Enter Message DGN:LN38 08;RAW! To Diagnose ATP Node. Ensure DGN LN38 08 ATP MSG COMPLETE Message Is Received	TELCO	—
70	Recent Change ATP Node Being Grown to OOS. Enter Message EXC:ENVIR:UPROC, FN"/database/tools/atp.oos", ARG("ATP38")! Ensure EXC ENVIR UPROC /database/tools/atp.oos COMPLETED Message Is Received	TELCO	—
71	Enter Message EXC:ENVIR:UPROC, FN "kill", ARG ("-11", "xxxx")!. (Where xxxx = Process ID for the atpcm Process Record in Item 54). Ensure EXC ENVIR UPROC kill COMPLETED Message Is Received	TELCO	—
72	On 1106 Page, Ensure Major State Is OOS for Node Being Grown	TELCO	—
73	If RNC Group Containing ATP Node Is Not Displayed, Enter 638 in Command Mode	TELCO	—
	(Continued on Page 7)		

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

85	Following Completion of All Growth Activities for This Job:		
	1. Update Backup Data Base	TELCO	DLP-521
	2. Write 3B Computer Backup Tapes	TELCO	DLP-522
	3. Verify Backup Tapes	TELCO	DLP-525

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

		RESPONSIBILITY	
	<i>WARNING: An antistatic wrist strap must be worn to prevent electrostatic discharge and possible damage to circuit packs while handling</i>		
	<p>NOTES:</p> <ol style="list-style-type: none"> At least 48 hours, prior to the start of this procedure, CNAC must be notified by the on-site work force to enter office-dependent data Obtain your office T-XXXX-Hy-464 prior to the start of this procedure. Where: XXXX = Office base H = 4ESS™ Switch Y = 0 - 1st 4ESS Switch Y = 1 - 2nd 4ESS Switch This procedure must be performed during light traffic periods This procedure contains a soak interval for verifying system operation and stability during growth. During the soak interval, all abnormal conditions (such as interrupts, interjects, and diagnostic failures related to growth) must be investigated and resolved immediately. Growth equipment, being soaked, must be error free for at least 12 hours. No other growth activity can take place until this soak is complete Throughout this procedure, the following term, LNxx yy, is used where: xx = Group Number yy = Member Number 		
	<i>WARNING: If service will be interrupted on existing nodes, a customer release must be obtained prior to starting this procedure.</i>		
1	Ensure Room Is Available for Growth Link Node(s) in the Ring Node Cabinet (RNC)	INST	—
2	Ensure All Cables and Circuit Packs for Growth Link Node(s) Are Available	INST	—
3	Ensure CNAC Has Populated Office-Dependent Node Data	TELCO	DLP-557
4	Verify System Status	TELCO	DLP-544
5	If Node Growth Requires Shelf Being Installed, Perform Initial Installation Activities	INST	—
6	If This Is First DCHAN Node on Shelf, Perform Cross Connection Between T1FA and PTAN/DIF at DSX	TELCO	DLP-563
7	Safe Point To Temporarily Stop This Procedure	TELCO	—

ADD DCHAN NODE GROWTH

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

8	If Procedures Was Stopped in Item 7, Verify System Status	TELCO	DLP-544
9	At MCRT, Enter Following Messages To Inhibit Automatic Diagnostics: • INH:DMQ;SRC REX! • INH:DMQ;SRC ADP!	TELCO	—
10	Perform the Following To Ensure Clean File System Before Starting Growth:		
	1. Copy Incore Equipment Configuration Data Base (ECD) to Disk	TELCO	DLP-519
	2. Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
	3. Update Backup Data Base	TELCO	DLP-521
	NOTE: Only link nodes associated with one shelf unit can be grown prior to entering soak interval. If there are other link nodes to be grown into another shelf unit, this procedure must be repeated.		
11	If Growth Link Node(s) Will Be First Node(s) To Be Equipped on Shelf Unit, Interframe Buffer (IFB) Will Have To Be Moved From Adjacent Lower Shelf:		
	1. Enter 1106 in Command Mode To Obtain 1106 Display Page	TELCO	—
	2. Using 1106 Page, Determine Number of Next Node Lower Than Growth Node(s)	TELCO	—
	3. If Link Node Determined In Item 11.1 Is CCS7, DCHAN, or SADC:		
	1. Notify Appropriate Organizations on the Link Node Determined in Item 11.1 That Their Signaling Links Will Be Temporarily Removed From Service	TELCO	—
	2. Change Active Signaling Link(s) on the Link Node Determined in Item 11.1 to MOOS [Record Modified Signaling Link(s) For Later Use]	TELCO	DLP-526
	4. At MCRT, Enter Message RMV:LNxx yy! To Remove Link Node Determined in Item 11.1	TELCO	—
	5. Using 1106 Page, Determine Number of Next Node Highest Than Growth Node(s)	TELCO	—
	6. If Link Node Determined in Item 11.5 Is CCS7, DCHAN, or SADC:		
1. Notify Appropriate Organizations on the Link Node Determined in Item 11.5 That Their Signaling Links Will Be Temporarily Removed From Service	TELCO	—	
2. Change Active Signaling Link(s) on the Link Node Determined in Item 11.5 to MOOS [Record Modified Signaling Link(s) for Later Use]	TELCO	DLP-526	

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

11 (Contd)	7. At MCRT, Enter Message RMV:LNxx yy! To Remove Link Node Determined in Item 11.5	TELCO	-
12	Enter Message CFR:RING,LNxx yy;EXCLUDE! To Isolate the Growth Link Node(s)	TELCO	DLP-538
13	If IFB Needs To Be Moved, as Determined in Item 11, Perform the Following:		
	1. IFB Pack Is Required To Be Moved From the Node in Item 11.1 to the Highest Growth Link Node in the Cabinet	INST	-
	2. Recent Change Link Node That IFB Was Moved From, To UNEQIP (Do Not Exit Recent Change)	TELCO	DLP-539
	3. Recent Change hv Value for Link Node in Item 11.1 and Change MAJOR State To GROW (Do Not Exit Recent Change)	TELCO	DLP-527
	4. Recent Change Link Node in Item 11.1 to OOS (Do Not Exit Recent Change)	TELCO	DLP-528
14	Determine Node-Specific Data for All Growth Nodes	TELCO	DLP-561
15	Recent Change Node-Specific Variables as Recorded in Step 14 (Do Not Exit Recent Change)	TELCO	DLP-559
16	Recent Change Each Growth Node From UNEQIP to GROW	TELCO	DLP-560
17	At RNC, Connect Unbalanced (Intraframe) Bus Cables and Balanced (Interframe) Bus Cables, as Required, for Growth Link Node(s)	INST	-
18	If Shelf Unit Was Grown in Item 5, Perform the Following:		
	1. At Growth Shelf Unit, Install Load Fuse Followed by Its Indicator Fuse	INST	-
	2. Seat 495FA/410AA Power Unit. Ensure RNC Alarm Is Activated	INST	-
	3. At RNC, Depress ALARM RESET Key To Clear Power Alarm	TELCO	-
	4. At MCRT, Depress ALM RLS (PF4) Key To Clear Power Alarm To Silence Audible Alarm	TELCO	-
19	Seat Circuit Boards:		
	1. SSI RNC:		
	• Verify Jumper(s)	INST	-
	• Seat IRN2, LI4D(s), and T1FA (if required)	TELCO/INST	-
	(Continued on Page 4)		

ADD DCHAN NODE GROWTH

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

19 (Contd)	2. HD RNC:		
	• Install Scatter Board on Backplane (required for each node)	INST	—
	• Seat IRN2, LI4D, and T1FA (if required)	TELCO/INST	—
20	If This Is First DCHAN Node on Shelf:		
	1. Connect T1 Interface Cable at T1FA Circuit Pack	INST	—
	2. Depress Reset Button on T1FA Circuit Pack To Avoid Failing Phase 29	INST	—
21	If Link Node Was Removed in Item 11.4 and 11.7, Perform the Following for That Node:		
	1. At MCRT, Enter Message RST:LNxx yy!	TELCO	—
	2. If Link Node Just Restored Was CCS7, DCHAN, or SADC:		
	1. Change Signaling Link(s) Recorded in Item 11.3 and 11.6 to IS	TELCO	DLP-529
	2. Notify Users on the Link(s) Just Restored to Service To Resume Their Activities	TELCO	—
22	Enter Message DGN:LNxx yy;RAW! To Diagnose Each Growth Link Node. No Diagnostic Failures Are Allowed	TELCO	—
23	Recent Change Each Growth Link Node From GROW to OOS	TELCO	DLP-509
24	Enter Message CFR:RING! To Return Ring Configuration to Normal State	TELCO	DLP-530
25	At MCRT, 1106 Page Is Not Displayed, Enter 1106 in Command Mode	TELCO	—
26	Enter Message RST:LNxx yy;UCL! To Unconditionally Restore Each Growth Link Node	TELCO/INST	DLP-531
27	Test (Prove-in) Growth Associated Signaling Link(s)- Internal Link Check	TELCO	DLP-515
	NOTE: Item 28 is service affecting if performed with active nodes on shelf unit.		
28	If This Is First DCHAN Node on Shelf, Test (Prove-in) Growth-Associated Signaling Link(s)- External Link Check	TELCO	DLP-562
29	Copy Incore ECD to Disk	TELCO	DLP-519
30	At MCRT, Enter the Following Messages To Allow Automatic Diagnostics: • ALW:DMQ;SRC REX! • ALW:DMQ;SRC ADP!	TELCO	—

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

31	Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
32	Update Backup Data Base	TELCO	DLP-521
33	Soak Growth Ring Hardware for a Minimum of 12 Hours To Ensure No Problems Exist With System Operation. If Problems Are Identified, Resolve Before Continuing to Any Other Activities.	TELCO	-
34	Following Completion of All Growth Activities for This Job:		
	1. Write 3B Computer Backup Tapes	TELCO	DLP-522
	2. Verify Backup Tapes	TELCO	DLP-525

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

		RESPONSIBILITY	
	<i>WARNING: An antistatic wrist strap must be worn to prevent electrostatic discharge and possible damage to circuit packs while handling</i>		
	<p>NOTES:</p> <ol style="list-style-type: none"> 1. CNAC must enter office-dependent data prior to the start of this procedure 2. This procedure should be performed during light traffic periods 3. This procedure contains a soak interval for verifying system operation and stability during growth. During the soak interval, all abnormal conditions (such as interrupts, interjects, and diagnostic failures related to growth) must be investigated and resolved immediately. Growth equipment, being soaked, must be error free for at least 12 hours. No other growth activity can take place until this soak is complete 4. Throughout this procedure, the following term, LNxx yy, is used where: xx = Group Number yy = Member Number 		
1	Ensure Room Is Available for Growth Link Node(s) in the Ring Node Cabinet (RNC)	INST	—
2	Ensure All Cables and Circuit Packs for Growth Link Node(s) Are Available	INST	—
3	Ensure That CNAC Has Populated Office-Dependent Node Data	TELCO	DLP-557
4	Verify System Status	TELCO	DLP-544
5	Perform Preliminary Installation Activities	INST	—
6	Safe Point To Temporarily Stop This Procedure	TELCO	—
7	If Procedure Was Stopped in Item 6, Verify System Status	TELCO	DLP-544
8	At MCRT, Enter Following Messages To Inhibit Automatic Diagnostics: <ul style="list-style-type: none"> • INH:DMQ;SRC REX! • INH:DMQ;SRC ADP! 	TELCO	—
9	Perform the Following To Ensure Clean File System Before Starting Growth:		
	1. Copy Incore Equipment Configuration Data Base (ECD) to Disk	TELCO	DLP-519
	2. Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
	3. Update Backup Data Base	TELCO	DLP-521

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

	NOTE: Only link nodes associated with one shelf unit can be grown prior to entering the soak interval. If there are other link nodes to be grown into another shelf unit, this procedure must be repeated.		
10	Enter Message CFR:RING, LNxx yy; EXCLUDE! To Isolate the Growth Link Node(s)	TELCO	DLP-538
11	Determine Node-Specific Data for All Growth Link Nodes	TELCO	DLP-561
12	Recent Change the Node-Specific Variables as Described in DLP-565 (Do Not Exit Recent Change)	TELCO	DLP-559
13	Recent Change Each Growth Node From UNEQIP to GROW	TELCO	DLP-560
14	Connect Unbalanced (Intraframe) Bus Cables and Balanced (Interframe) Bus Cables, as Required for Growth Link Node(s)	INST	—
15	Seat IRN2, LI4D and T1FA Circuit Boards (T1FA Only Necessary for Control Node)	INST/TELCO	—
16	Enter Message DGN:LNxx yy; RAW! To Diagnose Each Growth Link Node. No Diagnostic Failures Are Allowed	TELCO	—
17	Recent Change Each Growth Link Node From GROW to OOS	TELCO	DLP-509
18	Enter Message CFR:RING! To Return Ring Configuration to Normal State	TELCO	DLP-530
19	At MCRT, if 1106 Page Is Not Displayed, Enter 1106 in Command Mode	TELCO	—
20	Enter Message RST:LNxx yy; UCL! To Unconditionally Restore Each Growth Link Node	TELCO/INST	DLP-531
21	Test (Prove-in) Growth-Associated Signaling Link(s)	TELCO	DLP-515
22	Copy Incore ECD to Disk	TELCO	DLP-519
23	At MCRT, Enter the Following Messages To Allow Automatic Diagnostics: • ALW:DMQ;SRC REX! • ALW:DMQ;SRC ADP!	TELCO	—
24	Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
25	Update Backup Data Base	TELCO	DLP-521
26	Soak Growth Ring Hardware for a Minimum of 12 Hours To Ensure That No Problems Exist With System Operation. If Problems Are Identified, Resolve Before Continuing Any Other Activities	TELCO	—

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

27	Following Completion of All Growth Activities for This Job:		
	1. Write 3B Computer Backup Tapes	TELCO	DLP-522
	2. Verify Backup Tapes	TELCO	DLP-525

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

		RESPONSIBILITY	
	<i>WARNING: An antistatic wrist strap must be worn to prevent electrostatic discharge and possible damage to circuit packs while handling</i>		
	<p>NOTES:</p> <ol style="list-style-type: none"> 1. CNAC must enter office-dependent data prior to the start of this procedure 2. This procedure should be performed during light traffic periods 3. This procedure contains a soak interval for verifying system operation and stability during growth. During the soak interval, all abnormal conditions (such as interrupts, interjects, and diagnostic failures related to growth) must be investigated and resolved immediately. Growth equipment, being soaked, must be error free for at least 12 hours. No other growth activity can take place until this soak is complete 4. Throughout this procedure, the following term, LNxx yy, is used where: xx = Group Number yy = Member Number 		
1	Ensure Room Is Available for Growth Link Node(s) in the Ring Node Cabinet (RNC)	INST	—
2	Ensure All Cables and Circuit Packs for Growth Link Node(s) Are Available	INST	—
3	Ensure That CNAC Has Populated Office-Dependent Node Data	TELCO	DLP-557
4	Verify System Status	TELCO	DLP-544
5	Perform Preliminary Installation Activities	INST	—
6	Safe Point To Temporarily Stop This Procedure	TELCO	—
7	If Procedure Was Stopped in Item 6, Verify System Status	TELCO	DLP-544
8	At MCRT, Enter Following Messages To Inhibit Automatic Diagnostics: <ul style="list-style-type: none"> • INH:DMQ;SRC REX! • INH:DMQ;SRC ADP! 	TELCO	—
9	Perform the Following To Ensure Clean File System Before Starting Growth:		
	1. Copy Incore Equipment Configuration Data Base (ECD) to Disk	TELCO	DLP-519
	2. Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
	3. Update Backup Data Base	TELCO	DLP-521

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

	NOTE: Only link nodes associated with one shelf unit can be grown prior to entering the soak interval. If there are other link nodes to be grown into another shelf unit, this procedure must be repeated.		
10	Enter Message CFR:RING, LNxx yy; EXCLUDE! To Isolate the Growth Link Node(s)	TELCO	DLP-538
11	Determine Node-Specific Data for All Growth Nodes	TELCO	DLP-561
12	Recent Change the Node-Specific Variables as Described in DLP-565 (Do Not Exit Recent Change)	TELCO	DLP-559
13	Recent Change Each Growth Node From UNEQIP to GROW	TELCO	DLP-560
14	Connect Unbalanced (Intraframe) Bus Cables and Balanced (Interframe) Bus Cables, as Required for Growth Link Node(s)	INST	—
15	Seat Circuit Boards:		
	1. SSI RNC: Seat NP, RI1 RI0, and LI0	INST/TELCO	—
	2. HD RNC: Seat IRNB and LI0	INST/TELCO	—
16	Connect Interface Cables	INST	—
	NOTE: If Phase 48 Fails, the dataset options are incorrect		
17	Enter Message DGN:LNxx yy; RAW! To Diagnose Each Growth Link Node. No Diagnostic Failures Are Allowed	TELCO	—
18	Recent Change Each Growth Link Node From GROW to OOS	TELCO	DLP-509
19	Enter Message CFR:RING! To Return Ring Configuration to Normal State	TELCO	DLP-530
20	At MCRT, 1106 Page Is Not Displayed, Enter 1106 in Command Mode	TELCO	—
21	Enter Message RST:LNxx yy; UCL! To Unconditionally Restore Each Growth Link Node	TELCO/INST	DLP-531
22	Copy Incore ECD to Disk	TELCO	DLP-519
23	At MCRT, Enter the Following Messages To Allow Automatic Diagnostics: • ALW:DMQ;SRC REX! • ALW:DMQ;SRC ADP!	TELCO	—
24	Run File System Audits To Ensure No File System Errors	TELCO	DLP-520

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

25	Update Backup Data Base	TELCO	DLP-521
26	Soak Growth Ring Hardware for a Minimum of 12 Hours To Ensure That No Problems Exist With System Operation. If Problems Are Identified, Resolve Before Continuing With Any Other Activities	TELCO	-
27	Following Completion of All Growth Activities for This Job:		
	1. Write 3B Computer Backup Tapes	TELCO	DLP-522
	2. Verify Backup Tapes	TELCO	DLP-525

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

		RESPONSIBILITY	
	<i>WARNING: An antistatic wrist strap must be worn to prevent electrostatic discharge and possible damage to circuit packs while handling</i>		
	NOTES: 1. AMA data should be transferred (tape and/or teleprocessing) prior to start of each night's growth activity 2. Associated input/output processor (IOP) and subdevices will be temporarily removed and powered down during growth. Arrangements must be made with users for temporary stoppage when IOP is removed from service 3. This procedure must be performed during light traffic periods 4. If highest link node containing interframe buffer (IFB) in ring node (RN) cabinets 00 and 32 is not an IUN, arrangements must be made with users on those link nodes for temporary stoppage when link nodes are removed 5. This procedure contains soak intervals for verifying system operation and stability during growth. During the soak interval, all abnormal conditions (such as interrupts, interjects, and diagnostic failures related to growth) must be investigated and resolved immediately. Growth equipment, being soaked, must be error free for at least the time specified		
1	Verify System Status	TELCO/INST	DLP-544
2	Perform Preliminary Installation Activities	INST	-
3	Safe Point To Temporarily Stop This Procedure	INST	-
4	Verify System Status	TELCO	DLP-544
5	At MCRT, Enter Following Messages To Inhibit Automatic Diagnostics: • INH:DMQ;SRC REX! • INH:DMQ;SRC ADP!	TELCO	-
	NOTE: Items 6 through 8 are being performed to ensure clean file system before starting growth		
6	Copy Incore Equipment Configuration Data Base (ECD) to Disk	TELCO	DLP-519
7	Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
8	Update Backup Data Base	TELCO	DLP-521

ADD INTERNATIONAL LINK NODE (ILN) CABINETS 28 AND 60 – SUPPORT TO INSTALLER (INST)

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

9	Notify Users on Growth-Associated IOP That IOP Will Be Temporarily Powered Down (IOP 0 for ILN Cabinet 28 or IOP 1 for ILN Cabinet 60)	TELCO	—
10	At Power Switch, Remove From Service and Power Down IOP Associated With Growth ILN Cabinet (Item 9)	TELCO	DLP-500
11	At Powered Down IOP, Connect Scan Point Cables From Growth ILN Cabinet	INST	—
12	Connect ILN Cabinet Alarm Cable to Office Alarm Grid	INST	—
13	Power Up and Restore to Service IOP Associated With Growth ILN Cabinet	TELCO	DLP-501
14	Notify Users on Growth-Associated IOP To Resume Their Activities	TELCO	—
15	Repeat From Step 9 for Other ILN Cabinet and IOP	TELCO/INST	—
16	Perform Power Verification Tests on ILN Cabinets 28 and 60	INST	—
17	At Power Distribution (PD) Frame, Install Fuses for Power Feeders A, B, C, D, E, and F Associated With ILN Cabinets 28 and 60	INST	—
18	At ILN Cabinets 28 and 60, Unseat All Circuit Boards and 495FA Power Units	INST	—
19	At Power Control Unit, Install Cooling Unit Fuses in ILN Cabinets 28 and 60	INST	—
20	Perform Items 21 Through 25 To Verify Power Is Fed to Proper Unit	TELCO/INST	—
21	Seat 495FA Power Units in Unit Being Powered Up (Do Not Seat Circuit Boards)	INST	—
22	At Power Control Unit, Install Fuses for One Node Unit To Be Powered Up. Install Load Fuse First; Then Pilot Fuse	INST	—
23	At ILN Cabinet Power Control Unit, Depress ALARM RESET Key To Clear Power Alarm	INST	—
24	At MCRT, Depress ALM RLS (PF4) Key To Silence Audible Alarm	TELCO	—
25	Repeat Items 21 Through 24 for Each Node Unit in ILN Cabinets 28 and 60	TELCO/INST	—
26	Perform Items 27 Through 32 To Test Power Alarms for ILN Cabinets 28 and 60	INST	—
27	At Fuse Panel, Remove Indicator Fuse; Then Load Fuse Associated With Shelf Unit Being Powered Down	INST	—
28	Unseat 495FA Power Unit in One Shelf Unit To Power Down Respective Shelf Unit. Ensure REPT RING FRAME a POWER ALARM (a = 28 or 60 – ILN Cabinet Containing Shelf Unit Powered Down) Message and Audible Alarm Are Received	INST	—

ADD INTERNATIONAL LINK NODE (ILN) CABINETS 28 AND 60 – SUPPORT TO INSTALLER (INST)

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DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

29	At Fuse Panel, Install Load Fuse, Followed by Its Indicator Fuse Seat 495FA Power Unit (Item 28)	INST	—
30	At ILN Cabinet Power Control Unit, Depress ALARM RESET Key To Clear Power Alarm. Ensure REPT RING FRAME a POWER ALARM CLEARED Message Is Received	INST	—
31	Seat All Circuit Boards in Shelf Unit Just Tested	INST	—
32	Repeat Items 28 Through 31 for Each Shelf Unit in ILN Cabinets 28 and 60	INST	—
33	Perform Items 34 Through 37 To Test Fan Alarms for ILN Cabinets 28 and 60	INST	—
34	At ILN Cabinet Fan Unit, Depress OFF Pushbutton To Turn Cooling Fans Off. Ensure REPT RING FRAME a FAN ALARM (a = 28 or 60 – ILN Cabinet Containing Fans Turned Off) Message and Audible Alarm Are Received	INST	—
35	At ILN Cabinet Fan Unit, Depress ON/RESET Pushbutton To Turn On Cooling Fans	INST	—
36	At ILN Cabinet Power Control Unit, Depress ALARM RESET Key To Clear Power Alarm. Ensure REPT RING FRAME a POWER ALARM CLEARED and REPT RING FRAME a FAN ALARM CLEARED Messages Are Received	INST	—
37	Repeat Items 34 Through 36 for Other ILN Cabinet	INST	—
38	Using Office Drawing T-nnnn-Hn-407, Determine Crossconnect Assignment for Each DS-1 Line to TLFA Circuit for Link Nodes To Be Grown in ILN Cabinets 28 and 60 (n = Office Unique Drawing Identification Number)	INST	—
39	At Digital Crossconnect (DSX-1) Frame, Connect Hairpin Plug (Loopback) To Loop Back Toward Link Nodes of Each DS-1 Line Determined in Item 38	INST	—
40	Safe Point To Temporarily Stop This Procedure. If Stopping, at MCRT, Enter Following Messages To Restore System Operation: <ul style="list-style-type: none"> • ALW:DMQ;SRC REX! • ALW:DMQ;SRC ADP! 	TELCO/INST	—
41	If Procedure Was Stopped (Item 40), Perform Items 42 Through 46; Otherwise, Go to Item 47	TELCO	—
42	Verify System Status	TELCO	DLP-544
43	At MCRT, Enter Following Messages To Inhibit Automatic Diagnostics: <ul style="list-style-type: none"> • INH:DMQ;SRC REX! • INH:DMQ;SRC ADP! 	TELCO	—

ADD INTERNATIONAL LINK NODE (ILN) CABINETS 28 AND 60 – SUPPORT TO INSTALLER (INST)

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

	NOTE: Items 44 through 46 are being performed to ensure clean file system		
44	Copy Incore Equipment Configuration Data Base (ECD) to Disk	TELCO	DLP-519
45	Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
46	Update Backup Data Base	TELCO	DLP-521
	NOTE: Data to be entered in Items 47 and 48 may have been entered earlier by remote data base organization		
47	Add International Point Code to Data Base	TELCO	DLP-545
48	Populate Office-Dependent Link Data Files for Each Link Node Being Equipped (Except IUNs) in ILN Cabinets 28 and 60	TELCO	DLP-542
	NOTES: 1. Link nodes will be added to ILN cabinet 28 first 2. Lowest numbered equipped link node in ILN cabinet 28 will interface with highest numbered equipped link node in RN cabinet 00. Highest numbered equipped link node in ILN cabinet 28 will interface with lowest numbered equipped link node in RN cabinet 32 3. Interframe buffer (IFB) in RN cabinet 00, that interfaces with ILN cabinet 28, will be changed from TN915 to TN918 or TN1508 4. IFB in RN cabinet 32, that interfaces with ILN cabinet 28, will be changed from TN915 to TN1506 or TN1509 5. Figure for Phase 1 in DLP-547 shows the configuration after ILN cabinet 28 is grown		
49	Determine Highest Numbered Link Node Containing an IFB in RN Cabinet 00	TELCO	—
50	If Link Node (Item 49) Is CCS7, DCHAN, or SADC, Perform Items 51 and 52; Otherwise, Go to Item 53	TELCO	—
51	Notify Users on Link Node (Item 49) That Their Signaling Link Will Be Temporarily Down	TELCO	—
52	Change Active Signaling Link(s) in Link Node (Item 49) to M00S [Record Signaling Link(s) That Was Changed for Later Use]	TELCO	DLP-526
53	At MCRT, Enter Message OP:RING;DETD! and Ensure No "i" Is Listed for Any Link Node (i = Isolated). Only One Area on CNI Ring Can Be Isolated at a Time. If Any Link Node Is Isolated, That Link Node Will Have To Be Restored Before Continuing	TELCO	—

ADD INTERNATIONAL LINK NODE (ILN) CABINETS 28 AND 60 — SUPPORT TO INSTALLER (INST)

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

54	Enter Message RMV:LN00 a! (a = Link Node Determined in Item 49) and Ensure RING RMV LN00 a COMPLETED Message Is Received	TELCO	-
55	Enter Message RMV:RPCN32 0! and Ensure RING RMV RPCN32 0 COMPLETED Message Is Received	TELCO	-
56	Enter Message CFR:RING,RPCN32 0;EXCLUDE! To Isolate Nodes (Items 54 and 55) From Active Ring. Ensure RING CFR RING RPCN32 0 COMPL Message Is Received	TELCO	DLP-538
57	Ensure TN918 or TN1508 IFB Circuit Pack Is Installed in Lowest Numbered Link Node in ILN Cabinet 28	INST	-
58	Ensure TN1506 or TN1509 IFB Circuit Pack Is Installed in Highest Numbered Link Node in ILN Cabinet 28	INST	-
59	Replace IFB Circuit Pack on Highest Numbered Link Node in RN Cabinet 00 With TN918 or TN1508 IFB Circuit Pack [IFB To Be Installed Must Be Same Type Installed in Lowest Numbered Link Node in ILN Cabinet 28 (Item 57)]	INST	-
60	Replace IFB Circuit Pack on RPCN in RN Cabinet 32 With TN1506 or TN1509 Circuit Pack [IFB To Be Installed Must Be Same Type Installed in Highest Numbered Link Node in ILN Cabinet 28 (Item 58)]	INST	-
61	Connect Balanced (Interframe) Cables From ILN Cabinet 28 to RN Cabinets 00 and 32	INST	-
62	Recent Change Nodes (Items 54 and 55) to UNEQIP (Do Not Exit Recent Change)	TELCO	DLP-539
63	Recent Change hv Value of Nodes (Items 54 and 55) to a Value Associated With IFB Type of TN918/TN1508 for Node in RN Cabinet 00 and TN1506/TN1509 for Node in RN Cabinet 32; and RI-Type Equipped in Nodes Being Recent Changed and Change Major Status to GROW (Do Not Exit Recent Change)	TELCO	DLP-527
64	Recent Change Growth Link Nodes in ILN Cabinet 28 From UNEQIP to GROW and hv, mv, and Packcode Values, as Required (Exit Recent Change)	TELCO	DLP-540
65	At MCRT, Enter 101 in Command Mode To Obtain Display Page 101	TELCO	-
66	Enter Message DGN:LN00 a;RAW! (a = Link Node Determined in Item 49); No Diagnostic Failures Allowed on Phases Run. Wait for DGN LN00 a CATP (X'00000000 X'40000000) MSG COMPLETE Message	TELCO/INST	-
67	Enter Message DGN:RPCN32 0;RAW!; No Diagnostic Failures Allowed on Phases Run. Wait for DGN RPCN32 0 CATP (X'00000000 X'40000000) MSG COMPLETE Message	TELCO/INST	-

ADD INTERNATIONAL LINK NODE (ILN) CABINETS 28 AND 60 – SUPPORT TO INSTALLER (INST)

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

68	Recent Change Nodes (Items 54 and 55) to OOS (Exit Recent Change)	TELCO	DLP-528
69	At tlFA Circuit Pack in ILN Cabinet 28, Depress Reset Button To Avoid Failing Phase 29 (LEDs Go Off; Then Green LED Goes On for Short Period and Then Off. When Green LED Goes Off, Red LED Goes On)	INST	-
70	At MCRT, Enter Message DGN:LN28 a;RAW! (a = Link Node Member Number) for Growth Link Node; No Diagnostic Failures Allowed on Phases Run. Wait for DGN LN28 a CATP (X'00000000 X'40000000) MSG COMPLETE Message	TELCO/INST	-
71	Repeat Item 70 for Each Growth Link Node in ILN Cabinet 28	TELCO/INST	-
72	Recent Change All Growth Link Nodes in ILN Cabinet 28 to OOS (Exit Recent Change)	TELCO	DLP-528
73	At MCRT, Enter Message RST:LN00 a;UCL! (a = Link Node Determined in Item 49) To Restore Link Node Unconditionally; Ensure RING RST LN00 a COMPLETED Message Is Received	TELCO/INST	DLP-531
74	If Active Signaling Link(s) Was Changed to M00S in Item 52, Perform Items 75 and 76; Otherwise, Go to Item 77	TELCO	-
75	Change Signaling Link(s) (Item 52) to IS	TELCO	DLP-529
76	Notify Users on Link Node (Item 73) To Resume Their Activities	TELCO	-
77	At MCRT, Enter Message RST:RPCN32 0;UCL! To Restore RPCN Unconditionally; Ensure RING RST RPCN32 0 COMPLETED Message Is Received	TELCO/INST	DLP-531
78	Enter Message RST:LN28 a;UCL! (a = Link Node Member Number) To Restore Growth Link Node Unconditionally; Ensure RING RST LN28 a COMPLETED Message Is Received	TELCO/INST	DLP-531
79	Repeat Item 78 for Each Growth Link Node in ILN Cabinet 28	TELCO/INST	-
80	At MCRT, Enter Message OP:RING;DETD! . Ensure No "i" Is Listed for Any Link Node (i = Isolated). If Segment Is Isolated, Enter Message CFR:RING! . Ensure NORMAL CONFIGURATION, NO NODES ISOLATED Message Is Received	TELCO	-
81	Enter Following Messages To Allow Automatic Diagnostics: <ul style="list-style-type: none"> • ALW:DMQ;SRC REX! • ALW:DMQ;SRC ADP! 	TELCO	-
82	Copy Incore Equipment Configuration Data Base (ECD) to Disk	TELCO	DLP-519
	(Continued on Page 7)		

ADD INTERNATIONAL LINK NODE (ILN) CABINETS 28 AND 60 – SUPPORT TO INSTALLER (INST)

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

83	Soak Growth HDB Cabinet for 12 Hours To Ensure No Problems Exist With System Operation After Growth	TELCO/INST	-
84	Verify System Status	TELCO	DLP-544
85	At MCRT, Enter Following Messages To Inhibit Automatic Diagnostics: <ul style="list-style-type: none"> • INH:DMQ;SRC REX! • INH:DMQ;SRC ADP! 	TELCO	-
	NOTE: Items 86 through 88 are being performed to ensure clean file system before starting growth		
86	Copy Incore Equipment Configuration Data Base (ECD) to Disk	TELCO	DLP-519
87	Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
88	Update Backup Data Base	TELCO	DLP-521
	NOTES: 1. Link nodes will be added in ILN cabinet 60 next 2. Lowest numbered equipped link node in ILN cabinet 60 will interface with highest numbered equipped link node in RN cabinet 32. Highest numbered equipped link node in ILN cabinet 60 will interface with lowest-numbered equipped link node in RN cabinet 00 3. IFB in RN cabinet 00, that interfaces with ILN cabinet 60, will be changed to TN1506 or TN1509 4. IFB in RN cabinet 32, that interfaces with ILN cabinet 60, will be changed to TN918 or TN1508 5. Figure for Phase 2 in DLP-547 shows the configuration after ILN cabinet 60 is grown		
89	Determine Highest-Numbered Link Node Containing an IFB in RN Cabinet 32	TELCO	-
90	If Link Node (Item 89) Is CCS7, DCHAN, or SADC, Perform Items 91 and 92; Otherwise, Go to Item 93	TELCO	-
91	Notify Users on Link Node (Item 89) That Their Signaling Link Will Be Temporarily Down	TELCO	-
92	Change Active Signaling Link(s) in Link Node (Item 89) to M00S [Record Signaling Link(s) That Was Changed for Later Use]	TELCO	DLP-526
	(Continued on Page 8)		

ADD INTERNATIONAL LINK NODE (ILN) CABINETS 28 AND 60 – SUPPORT TO INSTALLER (INST)

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

93	At MCRT, Enter Message OP:RING;DETD! and Ensure No "i" Is Listed for Any Link Node (i = Isolated). Only One Area on CNI Ring Can Be Isolated at a Time. If Any Link Node Is Isolated, That Link Node Will Have To Be Restored Before Continuing	TELCO	-
94	Enter Message RMV:LN32 a! (a = Link Node Determined in Item 89) and Ensure RING RMV LN32 a COMPLETED Message Is Received	TELCO	-
95	Enter Message RMV:RPCN00 0! and Ensure RING RMV RPCN00 0 COMPLETED Message Is Received	TELCO	-
96	Enter Message CFR:RING,RPCN00 0;EXCLUDE! To Isolate Nodes (Items 94 and 95) From Active Ring. Ensure RING CFR RING RPCN00 0 COMPL Message Is Received	TELCO	DLP-538
97	Ensure TN918 or TN1508 IFB Circuit Pack Is Installed in Lowest-Numbered Link Node in ILN Cabinet 60	INST	-
98	Ensure TN1506 or TN1509 IFB Circuit Pack Is Installed in Highest-Numbered Link Node in ILN Cabinet 60	INST	-
99	Replace IFB Circuit Pack on Highest-Numbered Link Node in RN Cabinet 32 With TN918 or TN1508 IFB Circuit Pack (IFB To Be Installed Must Be Same Type Installed in Lowest Numbered Link Node in ILN Cabinet 60 [Item 97])	INST	-
100	Replace IFB Circuit Pack on RPCN in RN Cabinet 00 With TN1506 or TN1509 Circuit Pack (IFB To Be Installed Must Be Same Type Installed in Highest-Numbered Link Node in ILN Cabinet 60 [Item 98])	INST	-
101	Connect Balanced (Interframe) Cables From ILN Cabinet 60 to RN Cabinets 00 and 32	INST	-
102	Recent Change Nodes (Items 94 and 95) to UNEQIP (Do Not Exit Recent Change)	TELCO	DLP-539
103	Recent Change hv Value of Nodes (Items 94 and 95) to a Value Associated With IFB Type of TN918/TN1508 for Node in RN Cabinet 32 and TN1506/TN1509 for Node in RN Cabinet 00; and RI-Type Equipped in Nodes Being Recent Changed and Change Major Status to GROW (Do Not Exit Recent Change)	TELCO	DLP-527
104	Recent Change Growth Link Nodes in ILN Cabinet 60 From UNEQIP to GROW and hv, mv, and Packcode Values, as Required (Exit Recent Change)	TELCO	DLP-540
105	At MCRT, Enter 101 in Command Mode To Obtain Display Page 101	TELCO	-
	(Continued on Page 9)		

ADD INTERNATIONAL LINK NODE (ILN) CABINETS 28 AND 60 – SUPPORT TO INSTALLER (INST)

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

106	Enter Message DGN:LN32 a;RAW! (a = Link Node Determined in Item 89); No Diagnostic Failures Allowed on Phase Run. Wait For DGN LN32 a CATP (X'00000000 X'40000000) MSG COMPLETE Message	TELCO/INST	-
107	Enter Message DGN:RPCN00 0;RAW!; No Diagnostic Failures Allowed on Phases Run. Wait for DGN RPCN00 0 CATP (X'00000000 X'40000000) MSG COMPLETE Message	TELCO/INST	-
108	Recent Change Nodes (Items 94 and 95) to OOS (Exit Recent Change)	TELCO	DLP-528
109	At T1FA Circuit Pack in ILN Cabinet 60, Depress Reset Button To Avoid Failing Phase 29 (LEDs Go Off; Then Green LED Goes On for Short Period and Then Off. When Green LED Goes Off, Red LED Goes On)	INST	-
110	At MCRT, Enter Message DGN:LN60 a;RAW! (a = Link Node Member Number) for Growth Link Node; No Diagnostic Failures Allowed on Phases Run. Wait for DGN LN60 a CATP (X'00000000 X'40000000) MSG COMPLETE Message	TELCO/INST	-
111	Repeat Item 110 for Each Growth Link Node in ILN Cabinet 60	TELCO/INST	-
112	Recent Change All Growth Link Nodes in ILN Cabinet 60 to OOS (Exit Recent Change)	TELCO	DLP-528
113	At MCRT, Enter Message RST:LN32 a;UCL! (a = Link Node Determined in Item 89) To Restore Link Node Unconditionally; Ensure RING RST LN32 a COMPLETED Message Is Received	TELCO/INST	DLP-531
114	If Active Signaling Link(s) Was Changed to MOOS In Item 92, Perform Items 115 and 116; Otherwise, Go to Item 117	TELCO	-
115	Change Signaling Link(s) (Item 92) to IS	TELCO	DLP-529
116	Notify Users on Link Node (Item 113) To Resume Their Activities	TELCO	-
117	At MCRT, Enter Message RST:RPCN00 0;UCL! To Restore RPCN Unconditionally; Ensure RING RST RPCN00 0 COMPLETED Message Is Received	TELCO/INST	DLP-531
118	Enter Message RST:LN60 a;UCL! (a = Link Node Member Number) To Restore Growth Link Node Unconditionally; Ensure RING RST LN60 a COMPLETED Message Is Received	TELCO/INST	DLP-531
119	Repeat Item 118 for Each Growth Link Node in ILN Cabinet 60	TELCO/INST	-
120	At MCRT, Enter Message OP:RING;DETD!. Ensure No "i" Is Listed for Any Link Node (i = Isolated). If Segment Is Isolated, Enter Message CFR:RING!. Ensure NORMAL CONFIGURATION, NO NODES ISOLATED Message Is Received	TELCO	-

ADD INTERNATIONAL LINK NODE (ILN) CABINETS 28 AND 60 – SUPPORT TO INSTALLER (INST)

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

121	Enter Following Messages To Allow Automatic Diagnostics: <ul style="list-style-type: none"> • ALW:DMQ;SRC REX! • ALW:DMQ;SRC ADP! 	TELCO	-
122	Copy Incore Equipment Configuration Data Base (ECD) to Disk	TELCO	DLP-519
123	Soak Growth HDB Cabinet for 12 Hours To Ensure No Problems Exist With System Operation After Growth	TELCO/INST	-
124	At MCRT, Enter Message CHG:SLK(a,b);TEST! (a = Group Number, b = Member Number) To Change One Signaling Link in ILN Cabinet To Test and Ensure NEW MINOR STATE Is TEST	TELCO	-
125	Enter Message LKC:SLK(a,b,0,0);LCKI! (a,b = Same Variables Entered in Item 124) To Test Signaling Link to the TLFA . Ensure SLK a b 0 0 LINK CHECK INTERNAL PASSED Message Is Received	TELCO/INST	-
126	Enter Message LKC:SLK(a,b,0,0);LCHK 50! (a,b = Same Variables Entered in Item 124) To Test Signaling Link Loopback. Ensure SLK a b 0 0 LINK CHECK PASSED Message Is Received	TELCO/INST	-
127	Enter Message CHG:SLK(a,b);GROW! (a,b = Same Variables Entered in Item 124) and Ensure NEW MINOR STATE Is GROW	TELCO	-
128	Repeat From Item 124 for Each Signaling Link in ILN Cabinets 28 and 60 Until All Signaling Links Have Been Tested	TELCO/INST	-
129	If CCITT7 Signaling Links Are To Be Activated, Perform Activate CCITT7 Signaling Link in Existing Link Node Procedure. End of Procedure Upon Completion	TELCO	-
130	Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
131	Update Backup Data Base	TELCO	DLP-521
132	Write 3B Computer Backup Tapes	TELCO	DLP-522
133	Verify Backup Tapes	TELCO	DLP-525

ADD INTERNATIONAL LINK NODE (ILN) CABINETS 28 AND 60 – SUPPORT TO INSTALLER (INST)

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

		RESPONSIBILITY	
	<i>WARNING: An antistatic wrist strap must be worn to prevent electrostatic discharge and possible damage to circuit packs while handling</i>		
	<p>NOTES:</p> <ol style="list-style-type: none"> This procedure should be performed during light traffic periods This procedure contains a soak interval for verifying system operation and stability during growth. During the soak interval, all abnormal conditions (such as interrupts, interjects and diagnostic failures related to growth) must be investigated and resolved immediately. Growth equipment, being soaked, must be error free for at least 12 hours. No other growth activity can take place until this soak is complete Throughout this procedure, the following term, LNxx yy, is used where: xx = Group Number yy = Member Number 		
1	Ensure Room Is Available for Growth Link Node(s) in the Ring Node Cabinet (RNC)	INST	—
2	Ensure All Cables and Circuit Packs for Growth Link Node(s) Are Available	INST	—
3	Verify System Status	TELCO	DLP-544
4	Perform Preliminary Installation Activities	INST	—
5	Safe Point To Temporarily Stop This Procedure	TELCO	—
6	If Procedure Was Stopped in Item 6, Verify System Status	TELCO	DLP-544
7	At MCRT, Enter Following Messages To Inhibit Automatic Diagnostics: <ul style="list-style-type: none"> • INH:DMQ;SRC REX! • INH:DMQ;SRC ADP! 	TELCO	—
8	Perform the Following To Ensure Clean File System Before Starting Growth:		
	1. Copy Incore Equipment Configuration Data Base (ECD) to Disk	TELCO	DLP-519
	2. Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
	3. Update Backup Data Base	TELCO	DLP-521
	(Continued on Page 2)		

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

	NOTE: Only link nodes associated with one shelf unit can be grown prior to entering the soak interval. If there are other link nodes to be grown into another shelf unit, this procedure must be repeated		
9	If Growth Link Node(s) Will Be the First Node(s) To Be Equipped on the Shelf Unit, the Interframe Buffer (IFB) Will Have To Be Moved From the Adjacent Lower Shelf:		
	1. Enter 1106 in Command Mode To Obtain the 1106 Display Page	TELCO	—
	2. Using the 1106 Page, Determine the Number of the Next Node Lower Than the Growth Node(s)	TELCO	—
	3. If the Link Node Determined in Item 9.2 Is CCS7, DCHAN, or SADC:		
	A. Notify Users on the Link Node Determined in Item 9.2 That Their Signaling Links Will Be Temporarily Removed From Service	TELCO	—
	B. Change Active Signaling Link(s) on the Link Node Determined in Item 9.2 to MOOS [Record Modified Signaling Link(s) for Later Use]	TELCO	DLP-526
	4. At MCRT, Enter Message RMV:LNxx yy! To Remove Link Nodes in Item 9.2	TELCO	—
10	Enter Message CFR:RING,LNxx yy;EXCLUDE! To Isolate the Growth Link Node(s)	TELCO	DLP-538
11	If the IFB Needs To Be Moved, as Determined in Item 9, Perform the Following:		
	1. IFB Pack Is Required To Be Moved From the Node in Item 9.2 to the Highest Growth Link Node in the Cabinet	INST	—
	2. Recent Change the Link Node That the IFB Was Moved From, to UNEQIP (Do Not Exit Recent Change)	TELCO	DLP-539
	3. Recent Change the hv Value for the Link Node in Item 9.2 and Change the MAJOR State to Grow (Do Not Exit Recent Change)	TELCO	DLP-527
	4. Recent Change the Link Node in Item 9.2 to OOS (Do Not Exit Recent Change)	TELCO	DLP-528
12	Determine Node-Specific Data for All Growth Nodes	TELCO	DLP-561
13	Recent Change the Node-Specific Variables as Described in DLP-565 (Do Not Exit Recent Change)	TELCO	DLP-559
14	Recent Change Each Growth Node From UNEQIP to GROW	TELCO	DLP-560
	(Continued on Page 3)		

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

15	Connect Unbalanced (Intraframe) Bus Cables and Balanced (Interframe) Bus Cables as Required for Growth Link Node(s)	INST	—
16	Seat Circuit Boards:		
	1. SSI RNC:		
	• Seat NP, RI1, and RIO	INST/TELCO	—
	2. HD RNC:		
	• Seat IRN2 or IRNB	INST/TELCO	—
17	If a Link Node Was Removed in Item 9.4, Perform the Following for That Node:		
	1. At the MCRT, Enter Message RST:LNxx yy!	TELCO	—
	2. If the Link Node Just Restored Was CCS7, DCHAN, or SADC:		
	A. Change Signaling Link(s) Recorded in Item 9.3 to IS	TELCO	DLP-529
	B. Notify Users on the Link(s) Just Restored to Service To Resume Their Activities	TELCO	—
18	Enter Message DGN:LNxx yy;RAW! To Diagnose Each Growth Link Node. No Diagnostic Failures Are Allowed	TELCO	—
19	Recent Change Each Growth Link Node From GROW to OOS	TELCO	DLP-509
20	Enter Message CFR:RING! To Return Ring Configuration to Normal State	TELCO	DLP-530
21	At MCRT, If 1106 Page Is Not Displayed, Enter 1106 in Command Mode	TELCO	—
22	Enter Message RST:LNxx yy;UCL! To Unconditionally Restore Each Growth Link Node	TELCO/INST	DLP-531
23	Copy Incore ECD to Disk	TELCO	DLP-519
24	At MCRT, Enter Following Messages To Allow Automatic Diagnostics:		
	• ALW:DMQ;SRC REX!	TELCO	—
	• ALW:DMQ;SRC ADP!		
25	Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
26	Update Backup Data Base	TELCO	DLP-521
	(Continued on Page 4)		

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

27	Soak Growth Ring Hardware for a Minimum of 12 Hours To Ensure That No Problems Exist With System Operation. If Problems Are Identified, Resolve Before Continuing Any Other Activities	TELCO	-
28	Following Completion of All Growth Activities for This Job:		
	1. Write 3B Computer Backup Tapes	TELCO	DLP-522
	2. Verify Backup Tapes	TELCO	DLP-525

ADD IMS USER NODE (IUN) GROWTH

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

		RESPONSIBILITY	
	<i>WARNING: An antistatic wrist strap must be worn to prevent electrostatic discharge and possible damage to circuit packs while handling</i>		
	<p>NOTES: 1. CNAC must enter office-dependent data prior to the start of this procedure</p> <p>2. This procedure should be performed during light traffic periods</p> <p>3. This procedure contains a soak interval for verifying system operation and stability during growth. During the soak interval, all abnormal conditions (such as interrupts, interjects, and diagnostic failures related to growth) must be investigated and resolved immediately. Growth equipment, being soaked, must be error free for at least 12 hours. No other growth activity can take place until this soak is complete</p> <p>4. Throughout this procedure, the following term, LNxx yy, is used where:</p> <p style="padding-left: 40px;">xx = Group Number</p> <p style="padding-left: 40px;">yy = Member Number</p>		
1	Ensure Room Is Available for Growth Link Node(s) in the Ring Node Cabinet (RNC)	INST	—
2	Ensure All Cables and Circuit Packs for Growth Link Node(s) Are Available	INST	—
3	Ensure That CNAC Has Populated Office-Dependent Node Data	TELCO	DLP-557
4	Verify System Status	TELCO	DLP-544
5	Perform Preliminary Installation Activities	INST	—
6	Safe Point To Temporarily Stop This Procedure	TELCO	—
7	If Procedure Was Stopped in Item 6, Verify System Status	TELCO	DLP-544
8	At MCRT, Enter Following Messages To Inhibit Automatic Diagnostics: <ul style="list-style-type: none"> • INH:DMQ;SRC REX! • INH:DMQ;SRC ADP! 	TELCO	—
9	Perform the Following To Ensure Clean File System Before Starting Growth:		
	1. Copy Incore Equipment Configuration Data Base (ECD) to Disk	TELCO	DLP-519
	2. Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
	3. Update Backup Data Base	TELCO	DLP-521

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

	NOTE: Only link nodes associated with one shelf unit can be grown prior to entering the soak interval. If there are other link nodes to be grown into another shelf unit, this procedure must be repeated		
10	If Growth Link Node(s) Will Be the First Node(s) To Be Equipped on the Shelf Unit, the Interframe Buffer (IFB) Will Have To Be Moved From the Adjacent Lower Shelf:		
	1. Enter 1106 in Command Mode To Obtain the 1106 Display Page	TELCO	—
	2. Using the 1106 Page, Determine the Number of the Next Node Lower Than the Growth Node(s)	TELCO	—
	3. Notify Users on the Link Node Determined in Item 10.2 That Their Signaling Links Will Be Temporarily Removed From Service	TELCO	—
	4. Change Active Signaling Link(s) on the Link Node Determined in Item 10.2 to MOOS [Record Modified Signaling Link(s) for Later Use]	TELCO	DLP-526
	5. At MCRT, Enter Message RMV:LNxx yy! To Remove Link Node in Item 10.2	TELCO	—
11	Enter Message CFR:RING,LNxx yy;EXCLUDE! To Isolate the Growth Link Node(s)	TELCO	DLP-538
12	If the IFB Needs To Be Moved, as Determined in Item 10, Perform the Following:		
	1. IFB Pack Is Required To Be Moved From the Node in Item 10.2 to the Highest Growth Link Node in the Cabinet	INST	—
	2. Recent Change the Link Node That the IFB Was Moved From to UNEQIP (Do Not Exit Recent Change)	TELCO	DLP-539
	3. Recent Change the hv Value for the Link Node in Item 10.2 and Change the MAJOR State to GROW (Do Not Exit Recent Change)	TELCO	DLP-527
	4. Recent Change the Link Node in Item 10.2 to OOS (Do Not Exit Recent Change)	TELCO	DLP-528
13	Determine Node-Specific Data for All Growth Nodes	TELCO	DLP-561
14	Recent Change the Node-Specific Variables as Described in DLP-565 (Do Not Exit Recent Change)	TELCO	DLP-559
15	Recent Change Each Growth Node From UNEQIP to GROW	TELCO	DLP-560
16	Connect Unbalanced (Intraframe) Bus Cables and Balanced (Interframe) Bus Cables as Required for Growth Link Node(s)	INST	—

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

17	At HD RNC, Seat Circuit Boards:		
	• Seat IRNB and LI4S	INST/TELCO	—
	• Backplane Application Board(s)	INST	—
18	Connect Interface Cables (SADC to Gateway Frame for IPCC or SADC to Dataset for Other Applications)	INST	—
19	If a Link Node Was Removed in Item 10.4, Perform the Following for That Node:		
	1. At the MCRT, Enter Message RST:LNxx yy!	TELCO	—
	2. Change Signaling Link(s) Recorded in Item 10.3 to IS	TELCO	DLP-529
	3. Notify Users on the Link(s) Just Restored to Service To Resume Their Activities	TELCO	—
20	Enter Message DGN:LNxx yy;RAW! To Diagnose Each Growth Link Node. No Diagnostic Failures Are Allowed	TELCO	—
21	Recent Change Each Growth Link Node From GROW to OOS	TELCO	DLP-509
22	Enter Message CFR:RING! To Return Ring Configuration to Normal State	TELCO	DLP-530
23	At MCRT, If 1106 Page Is Not Displayed, Enter 1106 in Command Mode	TELCO	—
24	Enter Message RST:LNxx yy;UCL! To Unconditionally Restore Each Growth Link Node	TELCO/INST	DLP-531
25	If Non-Gateway SADC, Test (Prove-in) Growth Associated Signaling Link(s)	TELCO	DLP-535
26	Copy Incore ECD to Disk	TELCO	DLP-519
27	At MCRT, Enter Following Messages To Allow Automatic Diagnostics:	TELCO	—
	• ALW:DMQ;SRC REX! • ALW:DMQ;SRC ADP!		
28	Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
29	Update Backup Data Base	TELCO	DLP-521
30	Soak Growth Ring Hardware for a Minimum of 12 Hours To Ensure That No Problems Exist With System Operation. If Problems Are Identified, Resolve Before Continuing With Any Other Activities	TELCO	—
	(Continued on Page 4)		

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

31	Following Completion of All Growth Activities for This Job:		
	1. Write 3B Computer Backup Tapes	TELCO	DLP-522
	2. Verify Backup Tapes	TELCO	DLP-525

ADD SADC NODE GROWH – CABINETS 8 AND 40

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

		RESPONSIBILITY	
	<i>WARNING: An antistatic wrist strap must be worn to prevent electrostatic discharge and possible damage to circuit packs while handling</i>		
	NOTES: 1. AMA data should be transferred (tape and/or teleprocessing) prior to start of the growth activity of each night 2. This procedure must be performed during light traffic periods 3. This procedure contains soak intervals for verifying system operation and stability during growth. During the soaking interval, all abnormal conditions (such as interrupts, interjects, and diagnostic failures related to growth) must be investigated and resolved immediately. Growth equipment, being soaked, must be error free for at least the time specified 4. SCSI interface node (SIN) link node will be grown in ring node cabinets (8 and 40, or 9 and 41)		
1	Ensure Shelf Unit for SCSI Interface Node Is Installed and Grown With IUN (See NTP-009)	TELCO/INST	—
2	Verify System Status	TELCO/INST	DLP-544
3	Perform Preliminary Installation Activities	INST	—
4	Safe Point To Temporarily Stop This Procedure	INST	—
	NOTE: Software tool BWM for growing SCSI interface node must be applied before performing this procedure		
5	If Procedure Was Stopped (Item 4), Verify System Status	TELCO	DLP-544
6	At MCRT, Enter Following Messages To Inhibit Automatic Diagnostics: • INH:DMQ;SRC REX! • INH:DMQ;SRC ADP!	TELCO	—
	NOTE: Items 7 through 9 are being performed to ensure clean file system before starting growth		
7	Copy Incore Equipment Configuration Data Base (ECD) to Disk	TELCO	DLP-519
8	Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
9	Update Backup Data Base	TELCO	DLP-521
	NOTE: SIN link node will be grown in Ring Node Cabinet 09 first		

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

10	At MCRT, Enter Message <code>OP:RING;DETD!</code> and Ensure No "i" Is Listed for Any Link Node (i = Isolated). Only One Area on CNI Ring Can Be Isolated at a Time. If Any Link Node Is Isolated, That Link Node Will Have To Be Restored Before Continuing	TELCO	-
11	Perform the Following To Remove SIN Node and Adjacent IUN Node From Service:		
	A. Enter Message <code>RMV:LN09 04!</code> ; Ensure <code>RING RMV LN09 04 COMPLETED</code> Message Is Received	TELCO	-
	B. Enter Message <code>RMV:LN09 03!</code> ; Ensure <code>RING RMV LN09 03 COMPLETED</code> Message Is Received	TELCO	-
12	Enter Message <code>CFR:RING, LN09 03;EXCLUDE!</code> To Isolate Area on Shelf Unit Where SIN Link Node Is Being Grown. Ensure <code>RING CFR RING LN09 03 COMPL</code> Message Is Received	TELCO	-
13	Depress NORM/DISP (PF2) Key and Enter 1106 in Command Mode To Obtain Display Page 1106	TELCO	-
14	If Ring Node Cabinet Group Containing SIN Link Node Shelf Unit Is Not Displayed, Enter 609 in Command Mode	TELCO	-
15	Ensure SIN Link Node Being Grown Is Not Displayed (UNEQIP). If the Node Is Already Grown as an IUN, It Must Be Unequipped With the "sin.uneqip" Script Using the Following Command: <code>EXC:ENVIR:UPROC, FN"/database/tools/sin.uneqip", ARG("SIN09")!</code>	TELCO	DLP-556
16	At MCRT, Enter Message <code>INH:AUD:ALL!</code> To Inhibit Audits	TELCO	-
17	Initiate Process To Define New mdct and RPCD UCB Records	TELCO	DLP-552
18	At MCRT, Enter Message <code>ALW:AUD:ALL!</code> To Allow Audits	TELCO	-
19	Enter 400 in Command Mode To Obtain BISO-EISO Display. Ensure SIN Link Node Being Grown Is Isolated	TELCO	-
20	At SIN Link Node Being Grown, Unseat UN304 (IRN2 Pack), TN1804 (SCSI Pack), TN69B (Dual Serial Channel Pack) and TN914 (3B Interface Pack) Circuit Packs. At Adjacent IUN Node, Unseat UN303B/UN304 (IRNB/IRN2) Circuit Packs (Do Not Unseat 495FA/410AA Power Units)	INST	-
21	Unseat Both 495FA/410AA Power Units Associated With SIN Link Node Being Grown	INST	-
22	At RNC Power Control Unit, Depress ALARM RESET Key To Release Alarm	TELCO	-
23	At MCRT, Depress ALM REL (PF4) Key To Silence Alarm	TELCO	-
24	Recent Change mv, hv, and Major State for RPCD and SIN Link Node UCB for SIN Link Node Being Grown. <code>EXC:ENVIR:UPROC, FN"/database/tools/sin.grow", ARG("SIN09")!</code>	TELCO	DLP-553
25	Depress NORM/DISP (PF2) Key and Enter 1106 in Command Mode To Obtain Display Page 1106	TELCO	-

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

26	Enter 400 in Command Mode To Obtain BISO-EISO Display. Ensure SIN Link Node Being Grown Is Isolated and MAJOR STATE Is GROW	TELCO	—
27	Connect SCSI Cable With Adapter to Ring Node Cabinet Backplane at TN1804 Circuit Pack Location for SIN Link Node Being Grown	INST	—
28	Connect Dual Serial Channel Cables to Ring Node Cabinet Backplane at TN69B Circuit Pack Location for SIN Link Node Being Grown	INST	—
29	Seat Both 495FA/410AA Power Units Associated With SIN Link Node Being Grown	INST	—
30	At SIN Link Node Being Grown, Seat UN304 (IRN2 Pack), TN1804 (SCSI Pack), TN69B (Dual Serial Channel Pack) and TN914 (3B Interface Pack) Circuit Packs. At Adjacent IUN Node, Seat UN303B/UN304 (IRNB/IRN2) Circuit Packs	INST	—
31	Connect SCSI Cable Associated With SIN Link Node Being Grown to <i>Star Server</i> ® Computer	INST	—
32	At MCRT, if Screen Does Not Display EMERGENCY ACTION PAGE, Depress EA DISP (PF1) Key	TELCO	—
33	On EMERGENCY ACTION PAGE, if CU 0 or CU 1 Is Forced On-Line (FONL), Enter 13 in Command Mode To Clear Force	TELCO	—
34	At MCRT, If CU 0 Is ACT RUN, Enter Message SW:CU! To Make CU 0 Standby	TELCO	—
35	On EMERGENCY ACTION PAGE, Enter 12 in Command Mode To Force CU 1 On-Line (FONL)	TELCO	—
36	Using Power Switch, Remove From Service and Power Down CU 0	TELCO	DLP-500
37	If Office Is Equipped With a Model 1 3B Computer, at CU 0, Determine if UN37 (DMA Pack) Circuit Pack Associated With SIN Link Node Is Installed	INST	—
38	If Office Is Equipped With a Model 1 3B Computer and Does Not Have UN37 (DMA Pack) Circuit Pack (Item 37), Perform Item 39; Otherwise, Go to Item 40	INST	—
39	At CU 0, Insert UN37 Circuit Pack Associated With SIN Link Node Being Grown	INST	—
40	Connect Dual Serial Channel Cable to CU Backplane at UN9/UN9B Circuit Pack Location	INST	—
41	At MCRT, Recent Change Equipage Value for CU 0 CH 12 for SIN Link Node Selected in Item 24 as Follows: EXC:ENVIR:UPROC, FN"/database/tools/sin.cueq", ARG("SIN09", "CU0")!	TELCO	DLP-554
42	At MCRT, if Screen Does Not Display EMERGENCY ACTION PAGE, Depress EA DISP (PF1) Key	TELCO	—
43	Enter 13 in Command Mode To Remove Force on CU 1	TELCO	—

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

44	Using Power Switch, Power Up and Restore to Service CU 0	TELCO	DLP-501
45	Soak CU 0 as Standby CU for 30 Minutes	TELCO/INST	—
46	At MCRT, Enter Message SW:CU! To Make CU 0 Active	TELCO	—
47	Soak CU 0 as Active CU for 1 Hour	TELCO/INST	—
	NOTE: Items 48 through 63 are being performed to connect dual serial channel cable to CU 1		
48	At MCRT, if Screen Does Not Display EMERGENCY ACTION PAGE, Depress EA DISP (PF1) Key	TELCO	—
49	On EMERGENCY ACTION PAGE, if CU 0 or CU 1 Is Forced On-Line (FONL), Enter 13 in Command Mode To Clear Force	TELCO	—
50	If CU 1 Is ACT RUN, Enter Message SW:CU! To Make CU 1 Standby	TELCO	—
51	Enter 12 in Command Mode To Force CU 0 On-Line (FONL)	TELCO	—
52	Using Power Switch, Remove From Service and Power Down CU 1	TELCO	DLP-500
53	If Office Is Equipped With a Model 1 3B Computer, at CU 1, Determine if UN37 (DMA Pack) Circuit Pack Associated With SIN Link Node Is Installed	INST	—
54	If Office Is Equipped With a Model 1 3B Computer and Does Not Have UN37 (DMA Pack) Circuit Pack (Item 53), Perform Item 55; Otherwise, Go to Item 56	INST	—
55	At CU 1, Insert UN37 Circuit Pack Associated With SIN Link Node Being Grown	INST	—
56	Connect Dual Serial Channel Cable to CU Backplane at UN9/UN9B Circuit Pack Location	INST	—
57	At MCRT, Recent Change Equipage Value for CU 1 CH 12 for SIN Link Node Selected in Item 24. EXC:ENVIR:UPROC, FN"/database/tools/sin.cueq", ARG\$("SIN09", "CU1")!	TELCO	DLP-554
58	At MCRT, if Screen Does Not Display EMERGENCY ACTION PAGE, Depress EA DISP (PF1) Key	TELCO	—
59	Enter 13 in Command Mode To Remove Force on CU 0	TELCO	—
60	Using Power Switch, Power Up and Restore To Service CU 1	TELCO	DLP-501
61	Soak CU 1 as Standby CU for 30 Minutes	TELCO/INST	—
62	At MCRT, Enter Message SW:CU! To Make CU 1 Active	TELCO	—
63	Soak CU 1 as Active CU for 1 Hour	TELCO/INST	—
	(Continued on Page 5)		

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

64	At MCRT, Depress NORM/DISP (PF2) Key and Enter 1106 in Command Mode To Obtain Display Page 1106	TELCO	-
65	If Ring Node Cabinet Group Containing SIN Link Node Shelf Unit Is Not Displayed, Enter 609 in Command Mode	TELCO	-
66	At MCRT, Enter the Following Message To Diagnose Each Link Node:		
	A. At MCRT, Enter Message DGN:LN09 04;RAW!; Ensure DGN LN09 04 CATP MSG COMPLETE Message Is Received	TELCO/INST	-
	B. At MCRT, Enter Message DGN:LN09 03;RAW!; Ensure DGN LN09 03 CATP MSG COMPLETE Message Is Received	TELCO/INST	-
67	Recent Change SIN Link Node Being Grown to OOS. EXC:ENVIR:UPROC, FN"/database/tools/sin.oos", ARG("SIN09")!	TELCO	DLP-555
68	Ensure SIN Link Node Being Grown Is OOS	TELCO	-
69	At MCRT, Enter the Following To Restore Link Nodes to Service Unconditionally:		
	A. Enter Message RST:LN09 04;UCL!; Ensure RING RST LN09 04 COMPLETED Message Is Received	TELCO/INST	DLP-531
	B. Enter Message RST:LN09 03;UCL!; Ensure RING RST LN09 03 COMPLETED Message Is Received	TELCO/INST	DLP-531
70	Enter Message OP:RING;DETD! and Ensure No "i" Is Listed for Any Link Node (i = Isolated). If Segment Is Isolated, Enter Message CFR:RING!; Ensure NORMAL CONFIGURATION, NO NODES ISOLATED Message Is Received	TELCO/INST	-
71	At MCRT, Enter Following Messages To Allow Automatic Diagnostics: • ALW:DMQ;SRC REX! • ALW:DMQ;SRC ADP!	TELCO	-
72	At MCC SYSTEM ALARMS Panel, Depress SERVICE DEGRADING FAILURE Key To Obtain Service-Degrading Report Printout. If There Are Any Units Listed, Make Corrective Action To Clear Service-Degrading Condition of Each Unit Listed Before Continuing	TELCO/INST	-
73	Copy Incore ECD to Disk	TELCO	DLP-519
	(Continued on Page 6)		

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

	NOTE: Item 74 is being performed to verify system operation and stability during growth		
74	Soak New SIN Link Node for 1 Hour To Ensure No Problems Exist With System Operation After Growing. If Problems Occur and Backout Is Required, SIN Link Node Must Be Recent Changed to UNEQIP Using "sin.uneqip" Script in EXC:ENVIR:UPROC Message (Item 24) and "redip" Function Executed via "dlnpos" Script. This Procedure Can Be Used Starting at Item 6 To Back Out (DLP-556). Appropriate Support Organization Must Be Contacted to Assist if Backout Is Required	TELCO/INST	-
75	Verify System Status	TELCO	DLP-544
76	Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
	NOTE: Item 77 is Safe Stop Point		
77	Soak New SIN Link Node for 12 Hours To Ensure No Problems Exist With System Operation After Growing. If Problems Occur and Backout Is Required, SIN Link Node Must Be Recent Changed to UNEQIP Using "sin.uneqip" Script in EXC:ENVIR:UPROC Message (Item 24) and "redip" Function Executed via "dlnpos" Script. This Procedure Can Be Used Starting at Item 6 To Back Out (DLP-556). Appropriate Support Organization Must Be Contacted To Assist if Backout Is Required	TELCO/INST	-
78	Update Backup Data Base	TELCO	DLP-521
79	Ensure Shelf Unit for SCSI Interface Node Is Installed and Grown With IUN (See NTP-009)	TELCO/INST	-
80	Verify System Status	TELCO	DLP-544
81	At MCRT, Enter Following Messages To Inhibit Automatic Diagnostics: <ul style="list-style-type: none"> • INH:DMQ;SRC REX! • INH:DMQ;SRC ADP! 	TELCO	-
	NOTE: Items 82 through 84 are being performed to ensure clean file system before starting growth		
82	Copy Incore Equipment Configuration Data Base (ECD) to Disk	TELCO	DLP-519
83	Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
84	Update Backup Data Base	TELCO	DLP-521
	(Continued on Page 7)		

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

	NOTE: SIN link node will be grown in Ring Node Cabinet 41		
85	At MCRT, Enter Message <code>OP:RING;DETD!</code> and Ensure No "i" Is Listed for Any Link Node (i = Isolated). Only One Area on CNI Ring Can Be Isolated at a Time. If Any Link Node Is Isolated, That Link Node Will Have To Be Restored Before Continuing	TELCO	–
86	Perform the Following To Remove SIN Node and Adjacent IUN Node From Service:		
	A. Enter Message <code>RMV:LN41 04!</code> ; Ensure <code>RING RMV LN41 04 COMPLETED</code> Message Is Received	TELCO	–
	B. Enter Message <code>RMV:LN41 03!</code> ; Ensure <code>RING RMV LN41 03 COMPLETED</code> Message Is Received	TELCO	–
87	Enter Message <code>CFR:RING, LN41 03; EXCLUDE!</code> To Isolate Area on Shelf Unit Where SIN Link Node Is Being Grown. Ensure <code>RING CFR RING LN41 03 COMPL</code> Message Is Received	TELCO	–
88	Depress NORM/DISP (PF2) Key and Enter 1106 in Command Mode To Obtain Display Page 1106	TELCO	–
89	If Ring Node Cabinet Group Containing SIN Link Node Shelf Unit Is Not Displayed, Enter 641 in Command Mode	TELCO	–
90	Ensure SIN Link Node Being Grown Is Not Displayed (UNEQIP). If the Node Is Already Grown as an IUN, It Must Be Unequipped With the "sin.uneqip" Script Using the Following Command: <code>EXC:ENVIR:UPROC, FN"/database/tools/sin.uneqip", ARG("SIN41")!</code>	TELCO	DLP-556
91	At MCRT, Enter Message <code>INH:AUD:ALL!</code> To Inhibit Audits	TELCO	–
92	Initiate Process To Define New mdct and RPCD UCB Records	TELCO	DLP-552
93	At MCRT, Enter Message <code>ALW:AUD:ALL!</code> To Allow Audits	TELCO	–
94	Enter 400 in Command Mode To Obtain BISO-EISO Display. Ensure SIN Link Node Being Grown Is Isolated	TELCO	–
95	At SIN Link Node Being Grown, Unseat UN304 (IRN2 Pack), TN1840 (SCSI PACK), TN69B (Dual Serial Channel Pack) and TN914 (3B Interface Pack) Circuit Packs. At Adjacent IUN Node, Unseat UN303B/UN304 (IRNB/IRN2) Circuit Packs (Do Not Unseat 495FA/410AA Power Units)	INST	–
96	Unseat Both 495FA/410AA Power Units Associated With SIN Link Node Being Grown	INST	–
97	At RNC Power Control Unit, Depress ALARM RESET Key To Release Alarm	TELCO	–
98	At MCRT, Depress ALM REL (PF4) Key To Silence Alarm	TELCO	–
99	Recent Change mv, hv, and Major State for RPCD and SIN Link Node UCB for SIN Link Node Being Grown. <code>EXC:ENVIR:UPROC, FN"/database/tools/sin.grow", ARG("SIN41")!</code>	TELCO	DLP-553

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

100	Depress NORM/DISP (PF2) Key and Enter 1106 in Command Mode To Obtain Display Page 1106	TELCO	—
101	Enter 400 in Command Mode To Obtain BISO-EISO Display. Ensure SIN Link Node Being Grown Is Isolated and MAJOR STATE Is GROW	TELCO	—
102	Connect SCSI Cable With Adapter to Ring Node Cabinet Backplane at TN1804 Circuit Pack Location for SIN Link Node Being Grown	INST	—
103	Connect Dual Serial Channel Cables to Ring Node Cabinet Backplane at TN69B Circuit Pack Location for SIN Link Node Being Grown	INST	—
104	At SIN Link Node Being Grown, Seat UN304 (IRN2 Pack), TN1804 (SCSI Pack), TN69B (Dual Serial Channel Pack) and TN914 (3B Interface Pack) Circuit Packs	INST	—
105	Seat Both 495FA/410AA Power Units Associated With SIN Link Node Being Grown	INST	—
106	Connect SCSI Cable Associated With SIN Link Node Being Grown to <i>Star Server</i> ® Computer	INST	—
107	At MCRT, if Screen Does Not Display EMERGENCY ACTION PAGE, Depress EA DISP (PF1) Key	TELCO	—
108	On EMERGENCY ACTION PAGE, if CU 0 or CU 1 Is Forced On-Line (FONL), Enter 13 in Command Mode To Clear Force	TELCO	—
109	At MCRT, If CU 0 Is ACT RUN, Enter Message SW:CU! To Make CU 0 Standby	TELCO	—
110	On EMERGENCY ACTION PAGE, Enter 12 in Command Mode To Force CU 1 On-Line (FONL)	TELCO	—
111	Using Power Switch, Remove From Service and Power Down CU 0	TELCO	DLP-500
112	Connect Dual Serial Channel Cable to CU Backplane at UN9/UN9B Circuit Pack Location	INST	—
113	At MCRT, Recent Change Equipage Value for CU 0 CH 12 for SIN Link Node Selected in Item 99. EXC:ENVIR:UPROC, FN"/database/tools/sin.cueq", ARG("SIN41", "CU0")!	TELCO	DLP-554
114	At MCRT, if Screen Does Not Display EMERGENCY ACTION PAGE, Depress EA DISP (PF1) Key	TELCO	—
115	Enter 13 in Command Mode To Remove Force on CU 1	TELCO	—
116	Using Power Switch, Power Up and Restore to Service CU 0	TELCO	DLP-501
117	Soak CU 0 as Standby CU for 30 Minutes	TELCO/INST	—
118	At MCRT, Enter Message SW:CU! To Make CU 0 Active	TELCO	—
119	Soak CU 0 as Active CU for 1 Hour	TELCO/INST	—

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

	NOTE: Items 120 through 132 are being performed to connect dual serial channel cable to CU 1		
120	At MCRT, if Screen Does Not Display EMERGENCY ACTION PAGE, Depress EA DISP (PF1) Key	TELCO	–
121	On EMERGENCY ACTION PAGE, if CU 0 or CU 1 Is Forced On-Line (FONL), Enter 13 in Command Mode To Clear Force	TELCO	–
122	If CU 1 Is ACT RUN, Enter Message SW:CU! To Make CU 1 Standby	TELCO	–
123	Enter 12 in Command Mode To Force CU 0 On-Line (FONL)	TELCO	–
124	Using Power Switch, Remove From Service and Power Down CU 1	TELCO	DLP-500
125	Connect Dual Serial Channel Cable to CU Backplane at UN9/UN9B Circuit Pack Location	INST	–
126	At MCRT, Recent Change Equipage Value for CU 1 CH 12 for SIN Link Node Selected in Item 99. EXC:ENVIR:UPROC, FN"/database/tools/sin.cueq", ARG("SIN41", "CU1")!	TELCO	DLP-554
127	At MCRT, if Screen Does Not Display EMERGENCY ACTION PAGE, Depress EA DISP (PF1) Key	TELCO	–
128	Enter 13 in Command Mode To Remove Force on CU 0	TELCO	–
129	Using Power Switch, Power Up and Restore to Service CU 1	TELCO	DLP-501
130	Soak CU 1 as Standby CU for 30 Minutes	TELCO/INST	–
131	At MCRT, Enter Message SW:CU! To Make CU 1 Active	TELCO	–
132	Soak CU 1 as Active CU for 1 Hour	TELCO/INST	–
133	At MCRT, Depress NORM/DISP (PF2) Key and Enter 1106 in Command Mode To Obtain Display Page 1106	TELCO	–
134	If Ring Node Cabinet Group Containing SIN Link Node Shelf Unit Is Not Displayed, Enter 641	TELCO	–
135	At MCRT, Enter the Following Message To Diagnose Each Link Node:		
	A. At MCRT, Enter Message DGN:LN41 04;RAW!; Ensure DGN LN41 04 CATP MSG COMPLETE Message Is Received	TELCO/INST	–
	B. At MCRT, Enter Message DGN:LN41 03;RAW!; Ensure DGN LN41 03 CATP MSG COMPLETE Message Is Received	TELCO/INST	–
136	Recent Change SIN Link Node Being Grown to OOS. EXC:ENVIR:UPROC, FN"/database/tools/sin.oos", ARG("SIN41")!	TELCO	DLP-555

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

137	Ensure SIN Link Node Being Grown Is 00S	TELCO	-
138	At MCRT, Enter the Following To Restore Link Nodes to Service Unconditionally:		
	A. Enter Message RST:LN41 04;UCL!; Ensure RING RST LN41 04 COMPLETED Message Is Received	TELCO/INST	DLP-531
	B. Enter Message RST:LN41 03;UCL!; Ensure RING RST LN41 03 COMPLETED Message Is Received	TELCO/INST	DLP-531
139	Enter Message OP:RING;DETD! and Ensure No "i" Is Listed for Any Link Node (i = Isolated). If Segment Is Isolated, Enter Message CFR:RING!; Ensure NORMAL CONFIGURATION, NO NODES ISOLATED Message Is Received	TELCO/INST	-
140	At MCRT, Enter Following Messages To Allow Automatic Diagnostics: <ul style="list-style-type: none"> • ALW:DMQ;SRC REX! • ALW:DMQ;SRC ADP! 	TELCO	-
141	At MCC SYSTEM ALARMS Panel, Depress SERVICE DEGRADING FAILURE Key to Obtain Service-Degrading Report Printout. If There Are Any Units Listed, Make Corrective Action To Clear Service-Degrading Condition of Each Unit Listed Before Continuing	TELCO/INST	-
142	Copy Incore ECD to Disk	TELCO	DLP-519
	NOTE: Item 143 is being performed to verify system operation and stability during growth		
143	Soak New SIN Link Node for 1 Hour To Ensure No Problems Exist With System Operation After Growing. If Problems Occur and Backout Is Required, SIN Link Node Must Be Recent Changed to UNEQIP Using "sin.uneqip" Script in EXC:ENVIR:UPROC Message (Item 99) and "redip" Function Executed via "dlnpos" Script. This Procedure Can Be Used Starting at Item 80 To Back Out (DLP-556). Appropriate Support Organization Must Be Contacted To Assist if Backout Is Required	TELCO/INST	-
144	Verify System Status	TELCO	DLP-544
145	Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
146	Soak New SIN Link Node for 12 Hours To Ensure No Problems Exist With System Operation After Growing. If Problems Occur and Backout Is Required, SIN Link Node Must Be Recent Changed to UNEQIP Using "sin.uneqip" Script in EXC:ENVIR:UPROC Message (Item 99) and "redip" Function Executed via "dlnpos" Script. This Procedure Can Be Used Starting at Item 80 To Back Out (DLP-556). Appropriate Support Organization Must Be Contacted To Assist if Backout Is Required	TELCO/INST	-
147	Update Backup Data Base	TELCO	DLP-521

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

148	Write 3B Computer Backup Tapes	TELCO	DLP-522
149	Verify Backup Tapes	TELCO	DLP-525

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

		RESPONSIBILITY	
	<i>WARNING: An antistatic wrist strap must be worn to prevent electrostatic discharge and possible damage to circuit packs while handling</i>		
	<p>NOTES: 1. This procedure has been modified to include an initial configuration of 4 DLNEs per office. This procedure can not be tested until the next new office goes to the field</p> <p>2. Associated input/output processor (IOP) and subdevices will be temporarily removed and powered down during growth. Notify other users of the IOP that this temporary stoppage will take place</p> <p>3. This procedure is for new start offices only</p> <p>4. This procedure contains a soak interval for verifying system operation and stability during growth. During the soak interval, all abnormal conditions (such as interrupts, interjects, and diagnostic failures related to growth) must be investigated and resolved immediately. Growth equipment, being soaked, must be error free for at least 12 hours</p> <p>5. Throughout this procedure, the following term, LNxx yy, is used where:</p> <p style="padding-left: 40px;">xx = Group Number</p> <p style="padding-left: 40px;">yy = Member Number</p>		
1	Ensure That All Hardware To Be Installed Is Available	INST	—
2	Verify System Status (New Start)	TELCO	DLP-558
3	Perform Preliminary Installation Activities	INST	—
4	Safe Point To Temporarily Stop This Procedure	TELCO	—
5	If Procedure Was Stopped in Item 6, Verify System Status (New Start)	TELCO	DLP-558
6	At MCRT, Enter Following Messages To Inhibit Automatic Diagnostics: <ul style="list-style-type: none"> • INH:DMQ;SRC REX! • INH:DMQ;SRC ADP! 	TELCO	—
7	Perform the Following To Ensure Clean File System Before Starting Growth:		
	1. Copy Incore Equipment Configuration Data Base (ECD) to Disk	TELCO	DLP-519
	2. Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
	3. Update Backup Data Base	TELCO	DLP-521

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

8	Perform the Following Steps for RNC 00 And Then Repeat for RNC 32		
	1. Notify Users On Growth-Associated IOP That IOP Will Be Temporarily Powered Down [IOP 0 for Ring Node Cabinet (RNC) 00 or IOP 1 for RNC 32]	TELCO	—
	2. Remove From Service And Power Down IOP Associated With Growth RNC (Item 8.1)	TELCO	DLP-500
	3. At Powered Down IOP, Connect Scan Point Cables From Growth RNC and DFR Frame	INST	—
	4. Connect RNC Alarm Cable To Office Alarm Grid	INST	—
	5. Power Up And Restore To Service IOP Associate With Growth RNC	TELCO	DLP-501
	6. Notify Users on Growth-Associated IOP That It Has Been Restored	TELCO	—
9	Verify CNI Ring Power Alarms	INST	—
10	Perform Power Verification Tests on Both RNCs	INST	—
11	At MCRT, Depress EA DISP (PF1) Key	TELCO	—
12	Enter 36 in Command Mode To Set Software Check Inhibits	TELCO	—
13	Enter 51 in Command Mode To Initialize the 3B20D Computer	TELCO	—
14	Wait for System To Restore	TELCO	—
15	Set Interprocessor Message Switch (IMS) Flag to Manual Ring Mode	TELCO	DLP-502
16	Create CNI Office Data Files	TELCO	DLP-503
17	Enable CNI Feature Bit	TELCO	DLP-504
18	Start Ring Processes:		
	1. At MCRT, Depress EA DISP (PF1) Key	TELCO	—
	2. Enter 42 in Command Mode	TELCO	—
	3. Enter G in Command Mode	TELCO	—
	4. Enter 50 in Command Mode To Start Ring Processes; Wait for Successful PRM To Print	TELCO	—
	NOTE: Some unsuccessful ring-initialization attempt failure printouts will be received. If printouts indicate any hardware failures, these must be corrected before continuing		
	5. Verify That Ring Processes Have Started	TELCO	DLP-505

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

19	At MCRT, Enter 15 in Command Mode on EAI Page To Reinitialize Craft Interface Processes. Wait for REPT CFTSHL TERMINAL IN SERVICE Message and 102 Page To Display	TELCO	-
20	At MCRT, Observe First Line on Display to Right of Office Name. Ensure an "R" Is Included in the List of Feature Flag Indicators and It Is the Fifth Character Position	TELCO	-
21	Perform Level 4 Ring Init (INIT:RING 4!)	TELCO	DLP-506
22	At MCRT, Verify Display of Ring Status Pages (1105, 1106, 1107, and 1108)	TELCO	DLP-507
23	Enter 1105 in Command Mode To Obtain Display Page 1105	TELCO	-
24	Ensure All Nodes Are Shown as Unequipped (UNEQ = Unequipped)	TELCO	-
25	Recent Change Each RPCN and DLN From UNEQIP to GROW and Update the Node-Specific Variables as Required (Do Not Recent Change Any Other Nodes)	TELCO	DLP-540
26	At Power Switch, Remove From Service and Power Down CU 0	TELCO	DLP-500
27	At RNCs 00 & 32, Remove Power From Interface Units	INST	-
28	Connect RPCN00 0 & RPCN32 0 Interface Cables to Dual Serial Channels (DSCH) in CU 0	INST	-
29	Connect All DLN Interface Cables to DSCH In CU 0	INST	-
30	Recent Change DSCH 12 to 0xff To Equip RPCN And DLN Ports	TELCO	DLP-508
31	Restore Power To Interface Units (Item 27)	INST	-
32	At Power Switch, Power Up And Restore To Service CU 0	TELCO/INST	DLP-501
33	Soak CU 0 as STBY CU for 15 Minutes	TELCO/INST	-
34	AT MCRT, Enter Message SW:CU! To Make CU 0 Active	TELCO	-
35	Soak CU 0 as ACT CU for at Least One Hour	TELCO/INST	-
36	Safe Point To Temporarily Stop This Procedure. If Stopping, at MCRT, Enter the Following Messages To Allow Automatic Diagnostics: <ul style="list-style-type: none"> • ALW:DMQ;SRC REX! • ALW:DMQ;SRC ADP! 	TELCO/INST	-
	(Continued on Page 4)		

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

37	If Procedure Was Stopped (Item 36), Perform the Following Steps:		
	1. At MCRT, Enter the Following Messages To Inhibit Automatic Diagnostics: <ul style="list-style-type: none"> • INH:DMQ;SRC REX! • INH:DMQ;SRC ADP! 	TELCO/INST	–
	2. Copy Incore Equipment Configuration Data Base (ECD) to Disk	TELCO	DLP-519
	3. Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
	4. Update Backup Data Base	TELCO	DLP-521
38	At Power Switch, Remove From Service and Power Down CU 1	TELCO	DLP-500
39	At RNCs 00 And 32, Remove Power From Interface Units	INST	–
40	Connect RPCN00 0 And RPCN32 0 Interface Cables to DSCH In CU 1	INST	–
41	Connect All DLN Interface Cables to DSCH In CU 1	INST	–
42	Recent Change DSCH 12 to 0xff To Equip RPCN and DLN Ports	TELCO	DLP-508
43	Restore Power To Interface Units (Item 39)	INST	–
44	At Power Switch, Power Up and Restore to Service CU 1	TELCO/INST	DLP-501
45	Soak CU 1 as STBY CU for 15 Minutes	TELCO/INST	–
46	AT MCRT, Enter Message SW:CU! To Make CU 1 Active	TELCO	–
47	Soak CU 1 as ACT CU for at Least One Hour	TELCO/INST	–
48	Safe Point To Temporarily Stop This Procedure. If Stopping, at MCRT, Enter the Following Messages To Allow Automatic Diagnostics: <ul style="list-style-type: none"> • ALW:DMQ;SRC REX! • ALW:DMQ;SRC ADP! 	TELCO/INST	–
49	If Procedure Was Stopped (Item 48), Perform the Following Steps:		
	1. At MCRT, Enter the Following Messages To Inhibit Automatic Diagnostics: <ul style="list-style-type: none"> • INH:DMQ;SRC REX! • INH:DMQ;SRC ADP! 	TELCO/INST	–
	2. Copy Incore Equipment Configuration Data Base (ECD) to Disk	TELCO	DLP-519

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

49 (Contd)	3. Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
	4. Update Backup Data Base	TELCO	DLP-521
50	Recent Change Each Growth Link Node From UNEQIP to GROW and Update the Node-Specific Variable as Required (Exit Recent Change)	TELCO	DLP-540
51	Enter Message DGN:RPCN00 0! To Diagnose RPCN00 0. No Diagnostic Failures Are Allowed. Wait for DGN RPCN00 0 CATP (X'00000000 X'80000000) MSG COMPLETE Message	TELCO/INST	-
52	Enter Message DGN:RPCN32 0! To Diagnose RPCN32 0. No Diagnostic Failures Are Allowed. Wait for DGN RPCN32 0 CATP (X'00000000 X'80000000) MSG COMPLETE Message	TELCO/INST	-
53	Enter Message SW:CU! To Switch CUs	TELCO	-
54	Enter Message DGN:RPCN00 0! To Diagnose RPCN00 0. No Diagnostic Failures Are Allowed. Wait for DGN RPCN00 0 CATP (X'00000000 X'80000000) MSG COMPLETE Message	TELCO/INST	-
55	Enter Message DGN:RPCN32 0! To Diagnose RPCN32 0. No Diagnostic Failures Are Allowed. Wait for DGN RPCN32 0 CATP (X'00000000 X'80000000) MSG COMPLETE Message	TELCO/INST	-
56	Recent Change RPCNs From GROW to OOS	TELCO	DLP-509
57	Unconditionally Restore Each RPCN to STBY State	TELCO/INST	DLP-510
58	Recent Change Each Growth Link Node From GROW to OOS (Include DLNs)	TELCO	DLP-509
59	Enter Message CFR:RING! To Place Ring Configuration in Normal State	TELCO	DLP-511
60	Safe Point To Temporarily Stop This Procedure. If Stopping, At MCRT, Enter the Following Messages To Allow Automatic Diagnostics: <ul style="list-style-type: none"> • ALW:DMQ;SRC REX! • ALW:DMQ;SRC ADP! 	TELCO/INST	-
61	If Procedure Was Stopped (Item 60), Perform the Following Steps:		
	1. At MCRT, Enter the Following Messages To Inhibit Automatic Diagnostics: <ul style="list-style-type: none"> • INH:DMQ;SRC REX! • INH:DMQ;SRC ADP! 	TELCO/INST	-
	2. Copy Incore Equipment Configuration Data Base (ECD) to Disk	TELCO	DLP-519
(Continued on Page 6)			

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

61 (Contd)	3. Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
	4. Update Backup Data Base	TELCO	DLP-521
62	Enter Message DGN:LNxx yy! To Diagnose Each Growth Link Node in Both Cabinets. Diagnostic Failures Are Allowed. Wait for DGN LNxx yy CATP (X'00000000 X'40000000) MSG COMPLETE Message	TELCO/INST	-
63	Enter Message SW:CU! To Switch CUs	TELCO	-
64	Enter Message DGN:LNxx yy! To Diagnose Each DLN in Both Cabinets. Diagnostic Failures Are Allowed. Wait for DGN LNxx yy CATP (X'00000000 X'40000000) MSG COMPLETE Message	TELCO/INST	-
65	Enter Message RST:LNxx yy;UCL! To Unconditionally Restore Each Growth Link Node (Includes DLNs)	TELCO/INST	DLP-512
66	Verify API-DLN Stream Status (OP:DLNCM;STREAM!)	TELCO/INST	DLP-513
67	Add Office-Identification Data To Data Base	TELCO	DLP-516
68	Change AUDREC Form To Allow CNI/IMS Audit Scheduling	TELCO	DLP-518
69	Copy Incore ECD to Disk	TELCO	DLP-519
70	At MCRT, Enter the Following Messages To Allow Automatic Diagnostics: <ul style="list-style-type: none"> • ALW:DMQ;SRC REX! • ALW:DMQ;SRC ADP! 	TELCO	-
71	Soak Growth Ring Hardware for a Minimum of 12 Hours To Ensure That No Problems Exist With System Operation	TELCO	-
72	At MCRT, Enter the Following Messages To Inhibit Automatic Diagnostics: <ul style="list-style-type: none"> • INH:DMQ;SRC REX! • INH:DMQ;SRC ADP! 	TELCO	-
73	Clear IMS Manual Ring Flag	TELCO	DLP-502
74	Perform Level 4 Ring Init (INIT:RING 4!)	TELCO	DLP-506
75	At MCRT, Depress EA DISP (PF1) Key	TELCO	-
76	Enter 37 in Command Mode To Set Software Check Inhibits	TELCO	-
77	Enter 51 in Command Mode To Initialize the 3B Computer	TELCO	-

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

78	Wait for System To Restore	TELCO	-
79	At MCRT, Verify Display of Ring Status Pages (1105, 1106, 1107, and 1108)	TELCO	DLP-507
80	Verify API-DLN Stream Status (OP:DLNCM;STREAM!)	TELCO/INST	DLP-513
81	Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
82	Update Backup Data Base	TELCO	DLP-521
83	At MCRT, Enter Following Messages To Allow Automatic Diagnostics: <ul style="list-style-type: none"> • ALW:DMQ;SRC REX! • ALW:DMQ;SRC ADP! 	TELCO	-
84	Turn on Service-Degrading Report for CNI Ring	TELCO	DLP-534
85	Write 3B Computer Backup Tapes	TELCO	DLP-522
86	Verify Backup Tapes	TELCO	DLP-525

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

		RESPONSIBILITY	
	<i>WARNING: An antistatic wrist strap must be worn to prevent electrostatic discharge and possible damage to circuit packs while handling</i>		
	<p>NOTES:</p> <ol style="list-style-type: none"> 1. CNAC must enter office-dependent data prior to the start of this procedure 2. This procedure must be performed during light traffic periods 3. This procedure contains a soak interval for verifying system operation and stability during growth. During the soak interval, all abnormal conditions (such as interrupts, interjects, and diagnostic failures related to growth) must be investigated and resolved immediately. Growth equipment, being soaked, must be error free for at least 12 hours. No other growth activity can take place until this soak is complete 4. Throughout this procedure, the following term, LNxx yy, is used where: <ul style="list-style-type: none"> xx = Group Number yy = Member Number 5. Since LI is being added to an existing DCHAN node with active links, the customers on the active links must sign release papers to allow their links to be temporarily turned down 6. Only one DCHAN node can be modified during the growth session 7. This procedure can only be used in frames 00 and 32 		
1	Ensure Room Is Available for Growth Link Interface (LI) Pack	INST	—
2	Ensure CNAC Has Populated Office-Dependent Node Data	TELCO	DLP-557
3	Verify System Status	TELCO	DLP-544
4	Perform Preliminary Installation Activities	INST	—
5	Safe Point To Temporarily Stop This Procedure	INST	—
6	If Procedure Was Stopped (Item 5), Verify System Status	TELCO	DLP-544
7	At MCRT, Enter Following Messages To Inhibit Automatic Diagnostics: <ul style="list-style-type: none"> • INH:DMQ;SRC REX! • INH:DMQ;SRC ADP! 	TELCO	—
8	Perform the Following To Ensure Clean File System Before Starting Growth: <ol style="list-style-type: none"> 1. Copy Incore Equipment Configuration Data Base (ECD) to Disk 	TELCO	DLP-519

ADD LINK INTERFACE PACK TO EXISTING DCHAN NODE — SUPPORT TO INSTALLER (INST)

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

8 (Contd)	2. Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
	3. Update Backup Data Base	TELCO	DLP-521
9	Ensure That the Appropriate Customer Release Forms Are Available for the Customers Who Have Active Links on the Growth DCHAN Node	TELCO	-
10	Change Active Signaling Link(s) on the Link Node Being Updated to MOOS [Record Signaling Link(s) Set to MOOS for Later Use]	TELCO	DLP-526
11	At MCRT, Enter Message EXC:ENVIR;UPROC, FN"ducb", ARG("LNxx", "yy"), OPL 999!	TELCO	-
12	Enter Message RMV:LNxx yy! To Remove DCHAN Node Being Updated. Ensure RING RMV LNxx yy COMPLETED Message Is Received	TELCO	-
13	Enter Message CFR:RING, LNxx yy; EXCLUDE! To Isolate the Growth Link Node(s)	TELCO	DLP-538
14	Enter 1106 in Command Mode To Obtain Display Page 1106	TELCO	-
15	Enter 400 in Command Mode To Obtain BISO-EISO Display. Ensure IUN(s) Being Converted Are Isolated	TELCO	-
16	If Ring Node Frame xx Is Not Displayed, Enter 6xx in Command Mode	TELCO	-
17	(NT LED Should Be On.) Remove and Replace Circuit Packs, as Required, To Upgrade IUN Nodes to DCHAN Nodes With IRN2 (Seat New Circuit Packs)	INST	-
18	Recent Change Growth-Associated Link Node to UNEQIP (Do Not Exit Recent Change)	TELCO	DLP-539
19	Determine Node-Specific Data for Growth Node	TELCO	DLP-561
20	Recent Change the Node-Specific Variables as Recorded in Item 19 (Do Not Exit Recent Change)	TELCO	DLP-559
21	Recent Change Growth Node From UNEQIP to GROW	TELCO	DLP-560
22	At MCRT, Enter Message DGN:LNxx yy; RAW!; No Diagnostic Failures Allowed on Phases Run. Wait for DGN LNxx yy ATP MESSAGE COMPLETE or DGN LNxx yy CATP (x'00000000 x'40000000) MSG COMPLETE Message	TELCO/INST	-
23	Recent Change Growth Node From GROW to OOS	TELCO	DLP-509
24	At MCRT, Enter Message RST:LNxx yy; UCL!	TELCO	DLP-531
25	Test (Prove-in) Growth-Associated Signaling Link(s)-Internal Link Check	TELCO	DLP-515

ADD LINK INTERFACE PACK TO EXISTING DCHAN NODE – SUPPORT TO INSTALLER (INST)

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

26	Change Signaling Link(s) Recorded in Item 10 to IS	TELCO	DLP-529
27	Notify Users on the Link(s) Just Restored to Service To Resume Their Activities	TELCO	–
28	At 1B MCC, Enter Poke Command 810 (SDC-SERVICE DEGRADING FAILURE) To Obtain Service-Degrading Report Printout. If There Are Any Units Listed, Make Corrective Action To Clear Service-Degrading Condition of Each Unit Listed Before Continuing	TELCO/INST	–
29	Copy Incore ECD to Disk	TELCO	DLP-519
30	At MCRT, Enter Following Messages To Allow Automatic Diagnostics: <ul style="list-style-type: none"> • ALW:DMQ;SRC REX! • ALW:DMQ;SRC ADP! 	TELCO	–
31	Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
32	Update Backup Data Base	TELCO	DLP-521
33	Soak Converted Node(s) for A Minimum of 12 Hours To Ensure No Problems Exist With System Operation. If Problems Are Identified, Resolve Before Continuing Any Other Activities	TELCO/INST	–
34	Following Completion of All Growth Activities for This Job:		
	1. Write 3B Computer Backup Tapes	TELCO	DLP-522
	2. Verify Backup Tapes	TELCO	DLP-525

ADD LINK INTERFACE PACK TO EXISTING DCHAN NODE – SUPPORT TO INSTALLER (INST)

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

		RESPONSIBILITY	
	<i>WARNING: An antistatic wrist strap must be worn to prevent electrostatic discharge and possible damage to circuit packs while handling</i>		
	<p>NOTES:</p> <ol style="list-style-type: none"> 1. CNAC must enter office-dependent data prior to the start of this procedure 2. This procedure must be performed during light traffic periods 3. This procedure contains soak interval for verifying system operation and stability during growth. During the soak interval, all abnormal conditions (such as interrupts, interjects, and diagnostic failures related to growth) must be investigated and resolved immediately. Growth equipment, being soaked, must be error free for at least 12 hours. No other growth activity can take place until this soak is complete 4. Throughout this procedure, the following term, LNxx yy, is used where: <ul style="list-style-type: none"> xx = Group Number yy = Member Number 		
1	Ensure CNAC Has Populated Office-Dependent Node Data	TELCO	DLP-557
2	Verify System Status	TELCO	DLP-544
3	Perform Preliminary Installation Activities	INST	—
4	Safe Point To Temporarily Stop This Procedure	INST	—
5	If Procedure Was Stopped (Item 5), Verify System Status	TELCO	DLP-544
6	At MCRT, Enter Following Messages To Inhibit Automatic Diagnostics: <ul style="list-style-type: none"> • INH:DMQ;SRC REX! • INH:DMQ;SRC ADP! 	TELCO	—
7	Perform the Following To Ensure Clean File System Before Starting Growth:		
	1. Copy Incore Equipment Configuration Data Base (ECD) to Disk	TELCO	DLP-519
	2. Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
	3. Update Backup Data Base	TELCO	DLP-521
	(Continued on Page 2)		

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

	NOTE: Only IUN(s) associated with one shelf unit and adjacent to each other can be converted prior to entering soak interval. If there are other IUN(s) to be converted, this procedure must be repeated		
8	For Each IUN Being Converted:		
	1. At MCRT, Enter Message EXC:ENVIR;UPROC,FN"ducb",ARGS("LNxx","yy"),OPL 999!	TELCO	—
	2. Enter Message RMV:LNxx yy! To Remove IUN Being Converted. Ensure RING RMV LNxx yy COMPLETED Message Is Received	TELCO	—
9	Enter Message CFR:RING,LNxx yy;EXCLUDE! (xx yy = Highest Numbered IUN To Be Converted) To Isolate IUN(s) on Shelf Unit Being Converted. Ensure RING CFR RING LNxx yy COMPL Message Is Received	TELCO	—
10	Enter 1106 in Command Mode To Obtain Display Page 1106	TELCO	—
11	Enter 400 in Command Mode To Obtain BISO-EISO Display. Ensure IUN(s) Being Converted Are Isolated	TELCO	—
12	If Ring Node Frame xx Is Not Displayed, Enter 6xx in Command Mode	TELCO	—
13	For Each IUN Being Converted:		
	1. (NT LED Should Be On.) Add Link Interface Pack, as Required To Convert IUN to CCITT7 (Seat New Circuit Pack)	INST	—
	2. Recent Change Growth-Associated Link Node to UNEQIP (Do Not Exit Recent Change)	TELCO	DLP-539
	3. Determine Node-Specific Data for Growth Node	TELCO	DLP-561
	4. Recent Change the Node-Specific Variables as Recorded in Step 13.3 (Do Not Exit Recent Change)	TELCO	DLP-559
	5. Recent Change Growth Node From UNEQIP to GROW	TELCO	DLP-560
	6. At MCRT, Enter Message DGN:LNxx yy;RAW!; No Diagnostic Failures Are Allowed on Phases Run. Wait for DGN LNxx yy ATP MESSAGE COMPLETE or DGN LNxx yy CATP (x'00000000 x'40000000) MSG COMPLETE Message	TELCO/INST	—
	7. Recent Change Growth Node From GROW to OOS	TELCO	DLP-509
	8. At MCRT, Enter Message RST:LNxx yy;UCL!	TELCO	DLP-531
9. Test (Prove-in) Growth-Associated Signaling Link(s)-Internal Link Check	TELCO	DLP-515	

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

14	At 1B MCC, Enter Poke Command 810 (SDC-SERVICE DEGRADING FAILURE) To Obtain Service-Degrading Report Printout. If There Are Any Units Listed, Make Corrective Action To Clear Service-Degrading Condition of Each Unit Listed Before Continuing	TELCO/INST	-
15	Copy Incore ECD to Disk	TELCO	DLP-519
16	At MCRT, Enter Following Messages To Allow Automatic Diagnostics: <ul style="list-style-type: none"> • ALW:DMQ;SRC REX! • ALW:DMQ;SRC ADP! 	TELCO	-
17	Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
18	Update Backup Data Base	TELCO	DLP-521
19	Soak Converted Node(s) for a Minimum of 12 Hours To Ensure No Problems Exist With System Operation. If Problems Are Identified, Resolve Before Continuing Any Other Activities	TELCO/INST	-
20	Following Completion of All Growth Activities for This Job:		
	1. Write 3B Computer Backup Tapes	TELCO	DLP-522
	2. Verify Backup Tapes	TELCO	DLP-525

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

		RESPONSIBILITY	
	<i>WARNING: An antistatic wrist strap must be worn to prevent electrostatic discharge and possible damage to circuit packs while handling</i>		
	<p>NOTES:</p> <ol style="list-style-type: none"> 1. CNAC must enter office-dependent data prior to the start of this procedure 2. This procedure must be performed during light traffic periods 3. This procedure contains a soak interval for verifying system operation and stability during growth. During the soak interval, all abnormal conditions (such as interrupts, interjects, and diagnostic failures related to growth) must be investigated and resolved immediately. Growth equipment, being soaked, must be error free for at least 12 hours. No other growth activity can take place until this soak is complete 4. Throughout this procedure, the following term, LNxx yy, is used where: xx = Group Number yy = Member Number 		
1	Ensure CNAC Has Populated Office-Dependent Node Data	TELCO	DLP-557
2	Verify System Status	TELCO	DLP-544
3	Perform Preliminary Installation Activities	INST	—
4	Safe Point To Temporarily Stop This Procedure	INST	—
5	If Procedure Was Stopped (Item 5), Verify System Status	TELCO	DLP-544
6	At MCRT, Enter Following Messages To Inhibit Automatic Diagnostics: <ul style="list-style-type: none"> • INH:DMQ;SRC REX! • INH:DMQ;SRC ADP! 	TELCO	—
7	Perform the Following To Ensure Clean File System Before Starting Growth:		
	1. Copy Incore Equipment Configuration Data Base (ECD) to Disk	TELCO	DLP-519
	2. Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
	3. Update Backup Data Base	TELCO	DLP-521
	(Continued on Page 2)		

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

	NOTE: Only IUN(s) associated with one shelf unit and adjacent to each other can be converted prior to entering soak interval. If there are other IUN(s) to be converted, this procedure must be repeated		
8	For Each IUN Being Converted:		
	1. At MCRT, Enter Message EXC:ENVIR;UPROC, FN"ducb", ARG("LNxx", "yy"), OPL 999!	TELCO	—
	2. Enter Message RMV:LNxx yy! To Remove IUN Being Converted. Ensure RING RMV LNxx yy COMPLETED Message Is Received	TELCO	—
9	Enter Message CFR:RING, LNxx yy; EXCLUDE! (xx yy = Highest-Numbered IUN To Be Converted) To Isolate IUN(s) Being Converted. Ensure RING CFR RING LNxx yy COMPL Message Is Received	TELCO	—
10	Enter 1106 in Command Mode To Obtain Display Page 1106	TELCO	—
11	Enter 400 in Command Mode To Obtain BISO-EISO Display. Ensure IUN(s) Being Converted Are Isolated	TELCO	—
12	If Ring Node Frame xx Is Not Displayed, Enter 6xx in Command Mode	TELCO	—
13	For Each IUN Being Converted:		
	1. (NT LED Should Be On.) Add Link Interface Pack, as Required, To Convert IUN to CCS7 (Seat New Circuit Pack)	INST	—
	2. Recent Change Growth-Associated Link Node to UNEQIP (Do Not Exit Recent Change)	TELCO	DLP-539
	3. Determine Node-Specific Data for Growth Node	TELCO	DLP-561
	4. Recent Change the Node-Specific Variables as Recorded in Step 13.3 (Do Not Exit Recent Change)	TELCO	DLP-559
	5. Recent Change Growth Node From UNEQIP to GROW	TELCO	DLP-560
	6. At MCRT, Enter Message DGN:LNxx yy; RAW!; No Diagnostic Failures Allowed on Phases Run. Wait for DGN LNxx yy ATP MESSAGE COMPLETE or DGN LNxx yy CATP (x'00000000 x'40000000) MSG COMPLETE Message	TELCO/INST	—
	7. Recent Change Growth Node From GROW to OOS	TELCO	DLP-509
	8. At MCRT, Enter Message RST:LNxx yy; UCL!	TELCO	DLP-531
	(Continued on Page 3)		

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

14	At 1B MCC, Enter Poke Command 810 (SDC-SERVICE DEGRADING FAILURE) To Obtain Service-Degrading Report Printout. If There Are Any Units Listed, Make Corrective Action To Clear Service-Degrading Condition of Each Unit Listed Before Continuing	TELCO/INST	-
15	Copy Incore ECD to Disk	TELCO	DLP-519
16	At MCRT, Enter Following Messages To Allow Automatic Diagnostics: <ul style="list-style-type: none"> • ALW:DMQ;SRC REX! • ALW:DMQ;SRC ADP! 	TELCO	-
17	Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
18	Update Backup Data Base	TELCO	DLP-521
19	Soak Converted Node(s) for a Minimum of 12 Hours To Ensure No Problems Exist With System Operation. If Problems Are Identified, Resolve Before Continuing Any Other Activities	TELCO/INST	-
20	Following Completion of All Growth Activities for This Job:		
	1. Write 3B Computer Backup Tapes	TELCO	DLP-522
	2. Verify Backup Tapes	TELCO	DLP-525

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

		RESPONSIBILITY	
	<i>WARNING: An antistatic wrist strap must be worn to prevent electrostatic discharge and possible damage to circuit packs while handling</i>		
	NOTES: 1. CNAC must enter office-dependent data prior to the start of this procedure 2. This procedure must be performed during light traffic periods 3. This procedure contains a soak interval for verifying system operation and stability during growth. During the soak interval, all abnormal conditions (such as interrupts, interjects, and diagnostic failures related to growth) must be investigated and resolved immediately. Growth equipment, being soaked, must be error free for at least 12 hours. No other growth activity can take place until this soak is complete 4. Throughout this procedure, the following term, LNxx yy , is used where: xx = Group Number yy = Member Number		
1	Ensure CNAC Has Populated Office-Dependent Node Data	TELCO	DLP-557
2	Verify System Status	TELCO	DLP-544
3	If Node Growth Required for Shelf Being Installed, Perform Initial Installation Activities	INST	—
4	If This Is First DCHAN Node on Shelf, Perform Cross-Connection Between T1FA and PTAN/DIF at DSX	INST	DLP-563
5	Safe Point To Temporarily Stop This Procedure	INST	—
6	If Procedure Was Stopped (Item 5), Verify System Status	TELCO	DLP-544
7	At MCRT, Enter Following Messages To Inhibit Automatic Diagnostics: <ul style="list-style-type: none"> • INH:DMQ;SRC REX! • INH:DMQ;SRC ADP! 	TELCO	—
8	Perform the Following To Ensure Clean File System Before Starting Growth:		
	1. Copy Incore Equipment Configuration Data Base (ECD) to Disk	TELCO	DLP-519
	2. Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
	3. Update Backup Data Base	TELCO	DLP-521
	(Continued on Page 2)		

CONVERT IRN2 IUN NODE(S) TO DCHAN NODES — SUPPORT TO INSTALLER (INST)

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

	NOTE: Only IUN(s) associated with one shelf unit and adjacent to each other can be converted prior to entering soak interval. If there are other IUN(s) to be converted, this procedure must be repeated		
9	For Each IUN Being Converted:		
	1. At MCRT, Enter Message EXC:ENVIR;UPROC, FN"ducb", ARG("LNxx", "yy"), OPL 999!	TELCO	—
	2. Enter Message RMV:LNxx yy! To Remove IUN Being Converted. Ensure RING RMV LNxx yy COMPLETED Message Is Received	TELCO	—
10	Enter Message CFR:RING, LNxx yy; EXCLUDE! (xx yy = Highest-Numbered IUN To Be Converted) To Isolate IUN(s) Being Converted. Ensure RING CFR RING LNxx yy COMPL Message Is Received	TELCO	—
11	Enter 1106 in Command Mode To Obtain Display Page 1106	TELCO	—
12	Enter 400 in Command Mode To Obtain BISO-EISO Display. Ensure IUN(s) Being Converted Are Isolated	TELCO	—
13	If Ring Node Frame xx Is Not Displayed, Enter 6xx in Command Mode	TELCO	—
14	For Each IUN Being Converted:		
	1. (NT LED Should Be On.) Remove and Replace Circuit Packs, as Required, To Upgrade IUN Nodes to DCHAN Nodes With IRN2 (Seat New Circuit Packs)	INST	—
	2. Recent Change Growth-Associated Link Node to UNEQIP (Do Not Exit Recent Change)	TELCO	DLP-539
	3. Determine Node-Specific Data for Growth Node	TELCO	DLP-561
	4. Recent Change the Node-Specific Variables as Recorded in Item 14.3 (Do Not Exit Recent Change)	TELCO	DLP-559
	5. Recent Change Growth Node From UNEQIP to GROW	TELCO	DLP-560
	6. At MCRT, Enter Message DGN:LNxx yy; RAW!; No Diagnostic Failures Allowed on Phases Run. Wait for DGN LNxx yy ATP MESSAGE COMPLETE or DGN LNxx yy CATP (x'00000000 x'40000000) MSG COMPLETE Message	TELCO/INST	—
	7. Recent Change Growth Node From GROW to OOS	TELCO	DLP-509
	8. At MCRT, Enter Message RST:LNxx yy; UCL!	TELCO	DLP-531
9. Test (Prove-in) Growth-Associated Signaling Link(s)-Internal Link Check	TELCO	DLP-515	

CONVERT IRN2 IUN NODE(S) TO DCHAN NODES — SUPPORT TO INSTALLER (INST)

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

14 (Contd)	NOTE: Item 14.10 is service affecting if performed with active nodes on shelf unit		
	10. If This Is First DCHAN Node on Shelf, Test (Prove-in) Growth-Associated Signaling Link(s)-External Link Check	TELCO	DLP-562
15	At 1B MCC, Enter Poke Command 810 (SDC-SERVICE DEGRADING FAILURE) To Obtain Service-Degrading Report Printout. If There Are Any Units Listed, Make Corrective Action To Clear Service-Degrading Condition of Each Unit Listed Before Continuing	TELCO/INST	-
16	Copy Incore ECD to Disk	TELCO	DLP-519
17	At MCRT, Enter Following Messages To Allow Automatic Diagnostics: • ALW:DMQ;SRC REX! • ALW:DMQ;SRC ADP!	TELCO	-
18	Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
19	Update Backup Data Base	TELCO	DLP-521
20	Soak Converted Node(s) for a Minimum of 12 Hours To Ensure No Problems Exist With System Operation. If Problems Are Identified, Resolve Before Continuing Any Other Activities	TELCO/INST	-
21	Following Completion of All Growth Activities for This Job:		
	1. Write 3B Computer Backup Tapes	TELCO	DLP-522
	2. Verify Backup Tapes	TELCO	DLP-525

CONVERT IRN2 IUN NODE(S) TO DCHAN NODES – SUPPORT TO INSTALLER (INST)

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

		RESPONSIBILITY	
	<i>WARNING: An antistatic wrist strap must be worn to prevent electrostatic discharge and possible damage to circuit packs while handling</i>		
	<p>NOTES:</p> <ol style="list-style-type: none"> 1. CNAC must enter office-dependent data prior to the start of this procedure 2. This procedure must be performed during light traffic periods 3. This procedure contains a soak interval for verifying system operation and stability during growth. During the soak interval, all abnormal conditions (such as interrupts, interjects, and diagnostic failures related to growth) must be investigated and resolved immediately. Growth equipment, being soaked, must be error free for at least 12 hours. No other growth activity can take place until this soak is complete 4. Throughout this procedure, the following term, LNxx yy, is used where: <ul style="list-style-type: none"> xx = Group Number yy = Member Number 		
1	Ensure CNAC Has Populated Office-Dependent Node Data	TELCO	DLP-557
2	Verify System Status	TELCO	DLP-544
3	Perform Preliminary Installation Activities	INST	—
4	Safe Point To Temporarily Stop This Procedure	INST	—
5	If Procedure Was Stopped (Item 5), Verify System Status	TELCO	DLP-544
6	At MCRT, Enter Following Messages To Inhibit Automatic Diagnostics: <ul style="list-style-type: none"> • INH:DMQ;SRC REX! • INH:DMQ;SRC ADP! 	TELCO	—
7	Perform the Following To Ensure Clean File System Before Starting Growth:		
	1. Copy Incore Equipment Configuration Data Base (ECD) to Disk	TELCO	DLP-519
	2. Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
	3. Update Backup Data Base	TELCO	DLP-521
	(Continued on Page 2)		

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

	NOTE: Only IUN(s) associated with one shelf unit and adjacent to each other can be converted prior to entering soak interval. If there are other IUN(s) to be converted, this procedure must be repeated		
8	For Each IUN Being Converted:		
	1. At MCRT, Enter Message EXC:ENVIR;UPROC, FN"ducb", ARG("LNxx", "yy"), OPL 999!	TELCO	—
	2. Enter Message RMV:LNxx yy! To Remove IUN Being Converted. Ensure RING RMV LNxx yy COMPLETED Message Is Received	TELCO	—
9	Enter Message CFR:RING, LNxx yy; EXCLUDE! (xx yy = Highest-Numbered IUN To Be Converted) To Isolate IUN(s) Being Converted. Ensure RING CFR RING LNxx yy COMPL Message Is Received	TELCO	—
10	Enter 1106 in Command Mode To Obtain Display Page 1106	TELCO	—
11	Enter 400 in Command Mode To Obtain BISO-EISO Display. Ensure IUN(s) Being Converted Are Isolated	TELCO	—
12	If Ring Node Frame xx Is Not Displayed, Enter 6xx in Command Mode	TELCO	—
13	For Each IUN Being Converted:		
	1. (NT LED Should Be On.) Add Link Interface Pack, as Required, To Convert IUN to SADC (Seat New Circuit Pack)	INST	—
	2. Recent Change Growth-Associated Link Node to UNEQIP (Do Not Exit Recent Change)	TELCO	DLP-539
	3. Determine Node-Specific Data for Growth Node	TELCO	DLP-561
	4. Recent Change The Node-Specific Variables as Recorded in Step 13.3 (Do Not Exit Recent Change)	TELCO	DLP-559
	5. Recent Change Growth Node From UNEQIP to GROW	TELCO	DLP-560
	6. At MCRT, Enter Message DGN:LNxx yy;RAW!; No Diagnostic Failures Allowed on Phases Run. Wait for DGN LNxx yy ATP MESSAGE COMPLETE or DGN LNxx yy CATP (x'00000000 x'40000000) MSG COMPLETE Message	TELCO/INST	—
	7. Recent Change Growth Node From GROW to OOS	TELCO	DLP-509
	8. At MCRT, Enter Message RST:LNxx yy;UCL!	TELCO	DLP-531
9. Test (Prove-in) Growth Associated Signaling Link(s)-Internal Link Check	TELCO	DLP-515	

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

14	At 1B MCC, Enter Poke Command 810 (SDC-SERVICE DEGRADING FAILURE) To Obtain Service-Degrading Report Printout. If There Are Any Units Listed, Make Corrective Action To Clear Service-Degrading Condition of Each Unit Listed Before Continuing	TELCO/INST	-
15	Copy Incore ECD to Disk	TELCO	DLP-519
16	At MCRT, Enter Following Messages To Allow Automatic Diagnostics: • ALW:DMQ;SRC REX! • ALW:DMQ;SRC ADP!	TELCO	-
17	Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
18	Update Backup Data Base	TELCO	DLP-521
19	Soak Converted Node(s) for a Minimum of 12 Hours To Ensure No Problems Exist With System Operation. If Problems Are Identified, Resolve Before Continuing Any Other Activities	TELCO/INST	-
20	Following Completion of All Growth Activities for This Job:		
	1. Write 3B Computer Backup Tapes	TELCO	DLP-522
	2. Verify Backup Tapes	TELCO	DLP-525

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

		RESPONSIBILITY	
	<i>WARNING: An antistatic wrist strap must be worn to prevent electrostatic discharge and possible damage to circuit packs while handling</i>		
	<p>NOTES: 1. CNAC must enter office-dependent data prior to the start of this procedure</p> <p>2. This procedure must be performed during light traffic periods</p> <p>3. This procedure contains a soak interval for verifying system operation and stability during growth. During the soak interval, all abnormal conditions (such as interrupts, interjects, and diagnostic failures related to growth) must be investigated and resolved immediately. Growth equipment, being soaked, must be error free for at least 12 hours. No other growth activity can take place until this soak is complete</p> <p>4. Throughout this procedure, the following term, LNxx yy, is used where:</p> <p style="padding-left: 40px;">xx = Group Number</p> <p style="padding-left: 40px;">yy = Member Number</p>		
1	Ensure CNAC Has Populated Office-Dependent Node Data	TELCO	DLP-557
2	Verify System Status	TELCO	DLP-544
3	Perform Preliminary Installation Activities	INST	—
4	Using Office Records, Determine IUNs To Be Converted to DCHAN(s) With IRN2	TELCO	—
5	Safe Point To Temporarily Stop This Procedure	TELCO/INST	—
6	If Procedure Was Stopped (Item 5), Verify System Status	TELCO	DLP-544
7	At MCRT, Enter Following Messages To Inhibit Automatic Diagnostics: <ul style="list-style-type: none"> • INH:DMQ;SRC REX! • INH:DMQ;SRC ADP! 	TELCO	—
8	Perform the Following To Ensure Clean File System Before Starting Growth:		
	1. Copy Incore Equipment Configuration Data Base (ECD) to Disk	TELCO	DLP-519
	2. Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
	3. Update Backup Data Base	TELCO	DLP-521
	(Continued on Page 2)		

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

	NOTES: 5. Only IUN(s) associated with one shelf unit and adjacent to each other can be converted prior to entering soak interval. If there are other IUN(s) to be converted, this procedure must be repeated 6. IUN nodes must be removed from highest- to lowest-numbered link node being converted		
9	For Each IUN Being Converted:		
	1. At MCRT, Enter Message EXC:ENVIR;UPROC, FN"ducb", ARG("LNxx", "yy"), OPL 999!	TELCO	-
	2. Enter Message RMV:LNxx yy! To Remove One IUN Node on Shelf Unit Being Upgraded. Ensure RING RMV LNxx yy COMPLETED Message Is Received	TELCO	-
10	Enter Message CFR:RING, LNxx yy; EXCLUDE! (xx yy = Highest-Numbered IUN Node) To Isolated IUN Nodes on Shelf Unit Being Upgraded. Ensure RING CFR RING LN00 a COMPL Message Is Received	TELCO	-
11	Enter 1106 in Command Mode To Obtain Display Page 1106	TELCO	-
12	Enter 400 in Command Mode To Obtain BISO-EISO Display. Ensure IUN Nodes on Shelf Unit Being Upgraded Are Isolated	TELCO	-
13	If Ring Node Frame xx Is Not Displayed, Enter 6xx in Command Mode	TELCO	-
14	For Each IUN Being Converted:		
	1. (NT LED Should Be On.) Remove and Replace Circuit Packs, as Required, To Upgrade IUN Nodes to DCHAN Nodes with IRN2 (Seat New Circuit Packs)	INST	-
	2. Recent Change Growth-Associated Link Node to UNEQIP (Do Not Exit Recent Change)	TELCO	DLP-539
	3. Determine Node-Specific Data for Growth Nodes	TELCO	DLP-561
	4. Recent Change the Node-Specific Variables as Recorded in Step 14.3 (Do Not Exit Recent Change)	TELCO	DLP-559
	5. Recent Change Each Growth Node From UNEQIP to GROW	TELCO	DLP-560
	6. At MCRT, Enter Message DGN:LNxx yy;RAW!; No Diagnostic Failures Allowed on Phases Run. Wait for DGN LNxx yy ATP MESSAGE COMPLETE or DGN LNxx yy CATP (x'00000000 x'40000000) MSG COMPLETE Message	TELCO/INST	-
	7. Recent Change Each Growth Link Node From GROW to OOS	TELCO	DLP-509

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

14 (Contd)	8. At MCRT, Enter Message RST:LN00 a;UCL!	TELCO	DLP-531
	9. Test (Prove-in) Growth-Associated Signaling Link(s)-Internal Link Check	TELCO	DLP-515
15	At 1B MCC, Enter Poke Command 810 (SDC-SERVICE DEGRADING FAILURE) To Obtain Service-Degrading Report Printout. If There Are Any Units Listed, Make Corrective Action To Clear Service-Degrading Condition of Each Unit Listed Before Continuing	TELCO/INST	-
16	Copy Incore ECD to Disk	TELCO	DLP-519
17	At MCRT, Enter Following Messages To Allow Automatic Diagnostics: • ALW:DMQ;SRC REX! • ALW:DMQ;SRC ADP!	TELCO	-
18	Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
19	Update Backup Data Base	TELCO	DLP-521
20	Soak New DCHAN Nodes for a Minimum of 12 Hours To Ensure No Problems Exist With System Operation. If Problems Are Identified, Resolve Before Continuing With Any Other Activities	TELCO/INST	-
21	Following Completion of All Growth Activities for This Job:		
	1. Write 3B Computer Backup Tapes	TELCO	DLP-522
	2. Verify Backup Tapes	TELCO	DLP-525

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

		RESPONSIBILITY	
	<i>WARNING: An antistatic wrist strap must be worn to prevent electrostatic discharge and possible damage to circuit packs while handling</i>		
	<p>NOTES:</p> <ol style="list-style-type: none"> This procedure must be performed during light traffic periods This procedure contains a soak interval for verifying system operation and stability during growth. During the soak interval, all abnormal conditions (such as interrupts, interjects, and diagnostic failures related to growth) must be investigated and resolved immediately. Growth equipment, being soaked, must be error free for at least 12 hours. No other growth activity can take place until this soak is complete Throughout this procedure, the following term, LNxx yy, is used where: xx = Group Number yy = Member Number 		
1	Ensure Room Is Available for Shelf(s) To Be Relocated; One Shelf Position Up in the Ring Node Cabinet (RNC)	INST	—
2	Ensure All Cables, Power Units, and Circuit Packs for Growth Link Node(s) Are Available	INST	—
3	Verify System Status	TELCO	DLP-544
4	Perform Preliminary Installation Activities	INST	—
5	Safe Point To Temporarily Stop This Procedure	INST	—
6	If Procedure Was Stopped (Item 5), Verify System Status	TELCO	DLP-544
7	At MCRT, Enter Following Messages To Inhibit Automatic Diagnostics: <ul style="list-style-type: none"> • INH:DMQ;SRC REX! • INH:DMQ;SRC ADP! 	TELCO	—
8	Perform the Following To Ensure Clean File System Before Starting Growth:		
	1. Copy Incore Equipment Configuration Data Base (ECD) to Disk	TELCO	DLP-519
	2. Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
	3. Update Backup Data Base	TELCO	DLP-521
	(Continued on Page 2)		

RELOCATE SHELF UNIT

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

	NOTE: Only one shelf unit relocation can be completed prior to entering the soak interval. If there are other link nodes to be grown into another shelf unit, this procedure must be repeated		
9	Determine Nodes Associated With Shelf Unit Being Relocated and Remove From Service:		
	A. At MCRT, Enter 1106 in Command Mode To Obtain the 1106 Display Page	TELCO	—
	B. Using the 1106 Page, Determine All Nodes Equipped in the Shelf To Be Relocated	TELCO	—
	C. If Any Link Node Determined In Item 9B Is CCS7, DCHAN, or SADC:		
	1. Notify Users on the Link Node Determined in Item 9B That Their Signaling Links Will Be Temporarily Removed From Service	TELCO	—
	2. Change Active Signaling Link(s) on the Link Node Determined in Item 9B to MOOS [Record Modified Signaling Link(s) for Later Use]	TELCO	DLP-526
	D. If Any Link Node Determined in Item 9B Is SIN:		
	1. Using 1108 Page, Ensure SIN Node Links Are Duplex	TELCO	—
	2. Notify NMAC That One SIN Link (Item 9B) Will Be Temporarily Removed From Service	TELCO	—
	3. Change Signaling Link on the Link Node Determined in Item 9B to MOOS	TELCO	DLP-526
E. At MCRT, Enter Message RMV:LNxx yy! To Remove All Link Nodes in Item 9B	TELCO	—	
10	At MCRT, Enter Message CFR:RING, LNxx yy;EXCLUDE! To Isolate Shelf Being Relocated	TELCO	DLP-538
11	At RNC, Remove All Circuit Packs Except Power Units From Shelf Being Relocated and Record Location	INST	—
12	Remove 495FA/410AA Power Units From Shelf Being Relocated	INST	—
	<i>CAUTION: Use extreme care when removing fuses. A service interruption will occur if the wrong fuse is pulled</i>		
13	Remove Indicator Fuses and Then Load Fuses Associated With Shelf Being Relocated	INST	—
14	Remove Balanced/Unbalanced Cables and Any Interface Cable Connected to Shelf Being Relocated. Ensure Each Cable Removed Is Tagged	INST	—
	(Continued on Page 3)		

RELOCATE SHELF UNIT

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

	<i>CAUTION: Use extreme care when removing and replacing shelf. Other nodes in CNI Ring are still active</i>		
15	Unmount and Remove Shelf Unit From RNC	INST	—
16	Mount New Shelf in Open Position Created by Relocated Shelf Unit	INST	—
17	Remount Removed Shelf Unit at Next Higher Position in RNC	INST	—
18	Connect Balanced Cables to IFB in Relocated Shelf Unit	INST	—
19	Connect Any Interface Cables to Nodes in Relocated Shelf Unit	INST	—
20	Determine Node Position(s) To Be Grown as IUN(s) in New Shelf Unit	TELCO	—
21	Connect New Unbalanced Cable From Highest-Equipped Node Position in New Shelf Unit to Relocated Shelf Unit	INST	—
22	Connect Existing Cables From Lowest-Equipped Node Position in New Shelf Unit to Highest-Equipped Node in Adjacent Lower Shelf Unit	INST	—
23	Install Fuses for Both Relocated Shelf Unit And New Shelf Unit	INST	—
24	Seat 495FA/410AA Power Units in Relocated Shelf Unit. Ensure RNC Alarm Is Activated	INST	—
25	At RNC, Depress ALARM RESET To Clear Power Alarm. At MCRT, Depress ALM RLS (PF4) Key To Silence Audible Alarm	INST	—
26	At RNC, Seat 495FA/410AA Power Units in New Shelf Unit. Ensure RNC Alarm Is Activated	INST	—
27	At RNC, Depress ALARM RESET To Clear Power Alarm. At MCRT, Depress ALM RLS (PF4) Key To Silence Audible Alarm	INST	—
28	Insert Remaining Circuit Packs in Relocated Shelf Unit. Refer To Item 11 To Determine Proper Locations	INST	—
29	Insert Circuit Packs Associated With IUN(s) To Be Grown in New Shelf Unit	INST	—
30	At MCRT, Recent Change IUN Node(s) From UNEQIP to GROW and Update Node-Specific Variable, as Required (Exit Recent Change)	TELCO	DLP-540
31	Enter Message DGN:LNxx yy;RAW! To Diagnose Each Node in Relocated Shelf and IUN(s) in New Shelf Unit. No Diagnostic Failures Are Allowed	TELCO	—
32	Recent Change Each Growth Link Node From GROW to OOS	TELCO	DLP-509

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

33	Enter Message CFR:RING! To Return Ring Configuration to Normal State	TELCO	DLP-530
34	At MCRT, If 1106 Page Is Not Displayed, Enter 1106 in Command Mode	TELCO	—
35	Unconditionally (Previously Diagnosed In Item 34), Restore Each Growth Link Node in Relocated Unit and New Shelf Unit to Service as Follows:		
	A. At MCRT, Enter Message RST:LNxx yy;UCL!	TELCO	—
	B. If Any Link Node Just Restored Was CCS7, DCHAN, or SADC:		
	1. Change Signaling Link(s) Recorded in Item 9C to IS	TELCO	DLP-529
	2. Notify Users on the Link(s) Just Restored to Service To Resume Their Activities	TELCO	—
	C. If Link Node Determined in Item 9B Is SIN, Notify MAMAC To Restore the SIN Link to AVL/STBY State	TELCO	—
36	Copy Incore ECD to Disk	TELCO	DLP-519
37	At MCRT, Enter the Following Messages To Allow Automatic Diagnostics: • ALW:DMQ;SRC REX! • ALW:DMQ;SRC ADP!	TELCO	—
38	Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
39	Update Backup Data Base	TELCO	DLP-521
40	If Link Node(s) Is To Be Grown in the New Shelf Unit at This Time, Perform Items 42 and 43; Otherwise Go to Item 44	TELCO/INST	—
41	Soak New and Relocated Shelf Units for a Minimum of 1 Hour To Ensure That No Problems Exist With System Operation	TELCO/INST	—
42	Grow Link Node(s) per Appropriate Node Growth Procedure. End of Procedure	TELCO/INST	—
43	Soak Growth Ring Hardware for a Minimum of 12 Hours To Ensure No Problems Exist With System Operation	TELCO/INST	—
44	Following Completion of All Growth Activities for This Job:		
	1. Write 3B Computer Backup Tapes	TELCO	DLP-522
	2. Verify Backup Tapes	TELCO	DLP-525

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

		RESPONSIBILITY	
	<i>WARNING: An antistatic wrist strap must be worn to prevent electrostatic discharge and possible damage to circuit packs while handling</i>		
	<p>NOTES:</p> <ol style="list-style-type: none"> 1. AMA data should be transferred (tape and/or teleprocessing) prior to the start of the growth activities of each night 2. This procedure should be performed during light traffic periods 3. Before beginning the upgrade, UCB forms, which include all changes, should be filled out for each affected CCS7 node 4. This procedure contains a soak interval for verifying system operation and stability during growth. During the soak interval, all abnormal conditions (such as interrupts, interjects, and diagnostic failures related to growth) must be investigated and resolved immediately. Growth equipment, being soaked, must be error free for at least 12 hours. No other growth activity can take place until this soak is completed 5. When growing the high speed A-links (HSAL) in the SSI cabinet, it is necessary to remove power from the node being modified to install three 127A cable retainers; and plug-in the ED-3F004-31, G55 cable, and the T1 HSAL cable 6. Throughout this procedure, the following term LNxx yy is used where: <ul style="list-style-type: none"> xx = Group Number yy = Member Number 		
1	Ensure That the 3B Computer Is Running on the 4AP<14> or Later Generic Program	TELCO/INST	—
2	Perform Preliminary Installation Activities	TELCO/INST	—
3	Ensure All Cables and Circuit Packs for SSI Node Growth Are Available	INST	—
4	Determine Node-Specific Data for Growth Node	TELCO	DLP-561
5	Verify System Status	TELCO	DLP-544
6	Safe Point To Temporarily Stop This Procedure	TELCO	—
7	If Procedure Was Stopped in Item 6, Verify System Status	TELCO	DLP-544
	(Continued on Page 2)		

ADD ULN CCS7 HIGH SPEED A-LINK NODE(S) — SUPPORT TO INSTALLER (INST)

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

8	Perform the Following To Ensure Clean File System Before Starting Growth:		
	1. Copy Incore Equipment Configuration Data Base (ECD) to Disk	TELCO	DLP-519
	2. Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
	3. Update Backup Data Base	TELCO	DLP-521
9	At MCRT, Enter Following Messages To Inhibit Automatic Diagnostics: <ul style="list-style-type: none"> • INH:DMQ;SRC REX! • INH:DMQ;SRC ADP! 	TELCO	—
10	Notify Support Organization That Modification of the CCS7 Node Currently Being Changed Is In-Progress and the Link Node Is Being Temporarily Removed From Service	TELCO	—
11	Enter 1108 in Command Mode To Obtain the 1108 Display Page	TELCO	—
	NOTE: If the node has not had a link node grown previously, no link will be shown		
12	Enter 410 in Command Mode To Display CCS7 Link Nodes. If the Page Display Does Not Include the Area of the CNI Ring With Link Node Being Converted, Continue To Enter 410 Until Proper Area Is Reached	TELCO	—
	NOTE: The CCS NCC group is to change the link node to the MOOS state		
13	Enter Message OP:SLK(a,b):DEST 1! To Verify that the Active Signaling Link on the Link Node Being Converted Is MOOS	TELCO	—
14	On MCRT, Enter Message OP:RING;DETD! and Ensure no "i" Is Listed for Any Link Node (i = Isolated). Only One Area on CNI Ring Can Be Isolated at a Time. If Any Link Node Is Isolated, That Link Node Will Have To Be Restored Before Continuing	TELCO	—
15	Enter 1106 in Command Mode To Obtain the 1106 Display Page	TELCO	—
16	If RNC Group Containing CCS7 Node Being Converted Is Not Displayed, Enter 6xx in Command Mode (xx = Group Number of RNC Containing Node Being Converted)	TELCO	—
17	Enter Message RMV:LNxx yy!. Ensure RING RMV LNxx yy COMPLETED Message Is Received	TELCO	—
18	On 1106 Page, Ensure MAJOR STATE is OOS for CCS7 Node Being Converted	TELCO	—
	(Continued on Page 3)		

ADD ULN CCS7 HIGH SPEED A-LINK NODE(S) — SUPPORT TO INSTALLER (INST)

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

19	Enter the Message: CFR:RING,LNxx yy;EXCLUDE!. Ensure RING CFR RING LNxx yy COMPL Message Is Received xx = group number of RNC containing the node being converted yy = member number of CCS7 node being converted	TELCO	-
20	Enter 400 in Command Mode To Obtain BISO-EISO Display. Ensure CCS7 Node Being Converted Is Isolated	TELCO	-
	NOTE: While Item 21 is being performed, TELCO personnel can continue performing Items 22 through 25		
21	Install Hardware and Cables in RNC	INST	-
	NOTE: While recent changing the CCS7 node utility file pathname, record the old values in case backout is required		
22	Modify UCB of Link Node Being Converted		
	1. Recent Change CCS7 Node Being Converted to UNEQUIP (Do Not Exit Recent Change)	TELCO	DLP-539
	2. Recent Chagne Node-Specific Variables (Do Not Exit Recent Change)	TELCO	DLP-559
	3. Recent Change Node Being Converted From UNEQUIP To GROW	TELCO	DLP-560
23	If this is the first HSAL being converted, Populate Critical Events Table for HSAL Using DMS. Otherwise, Perform Item 24	TELCO	DLP-568
	NOTE: The CDID group is performing Step 24 remotely		
24	Using DMS, Modify Link Data To Convert the Link Node to HSAL	TELCO	-
25	Verify That Hardware Replacement and Cabling Changes Have Been Completed, and Power Has Been Restored to Link Node. Do Not Proceed Until Item 21 Is Completed	TELCO/INST	-
26	At MCRT, Enter Message DGN:LNxx yy;RAW!. Wait for DGN LN xx yy ATP MSG COMPLETE To Be Received	TELCO/INST	-
27	Recent Change Node Being Converted From GROW to OOS	TELCO	DLP-528
28	Run Demand Phase 50 on Link Node Being Converted	TELCO/INST	DLP-584
	(Continued on Page 4)		

ADD ULN CCS7 HIGH SPEED A-LINK NODE(S) — SUPPORT TO INSTALLER (INST)

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

29	At MCRT, If 1106 Page Is Not Displayed, Enter 1106 in Command Mode	TELCO	-
30	Enter Message RST:LNxx yy;UCL! To Unconditionally Restore the Converted Link Node	TELCO/INST	DLP-531
31	On MCRT, Enter Message OP:RING;DETD! and Ensure No "i" Is Listed for Any Link Node (i = Isolated). If Any Link Node or Segment Is Isolated, Enter Message CFR:RING!. Ensure NORMAL CONFIGURATION, NO NODES ISOLATED Message Is Received	TELCO	-
32	Test Signaling Link Being Converted		
	1. Enter 1108 in Command Mode To Display 1108 Page	TELCO	-
	2. If Link Node Being Tested Is Not Shown, Enter 410 in Command Mode Until Link Is Displayed	TELCO	-
	3. Verify That the Link Node STATE for the Link Node Being Tested is ACT (Green)	TELCO	-
	4. Verify That Link Node STATE for the Link Node Being Tested Is UNAV/GROW	TELCO	-
	5. Test Signaling Link Node Being Converted	TELCO	DLP-514
33	Do Not Proceed Until Notified by the CCS NCC , Using DMS, Change Signaling Link Node Being Converted To Available	TELCO	DLP-543
34	At MCRT, When Growth of Far-End Link Node at 2STP Has Been Completed, Using 1108 Page, Verify That Link Node Goes IS (In-Service)	TELCO	-
35	At MCRT, Enter the Following Messages To Allow Automatic Diagnostics: <ul style="list-style-type: none"> • ALW:DMQ;SRC REX! • ALW:DMQ;SRC ADP! 	TELCO	-
36	At 1B MCC Terminal, Enter Poke Command 810 (SERVICE DEGRADING FAILURE) To Obtain Service-Degrading Report Printout. If There Are Any Units Listed, Make Corrective Action To Clear Service-Degrading Condition of Each Unit Listed Before Continuing	TELCO	-
37	Copy Incore ECD to Disk	TELCO	DLP-519
38	Soak CCS7 Node Being Converted a Minimum of 1 Hour To Ensure That No Problems Exist With System Operation. If Problems Are Identified, Resolve Before Continuing With Any Other Activities	TELCO	-
	(Continued on Page 5)		

ADD ULN CCS7 HIGH SPEED A-LINK NODE(S) – SUPPORT TO INSTALLER (INST)

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

39	Verify System Status	TELCO	DLP-544
40	Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
41	Safe Point To Temporarily Stop This Procedure	TELCO	-
42	If Procedure Was Stopped in Item 41, Verify System Status	TELCO	DLP-544
43	Soak Growth Ring Hardware for a Minimum of 12 Hours To Ensure That No Problems Exist With System Operation. If Problems Are Identified, Resolve Before Continuing With Any Other Activities	TELCO	-
	NOTE: Perform Item 44 after all nodes are converted or there is a significant delay. Repeat from Item 9 for next link node being converted		
44	Following Completion of All Growth Activities for This Job:		
	1. Update Backup Data Base	TELCO	DLP-521
	2. Write 3B Computer Backup Tapes	TELCO	DLP-522
	3. Verify Backup Tapes	TELCO	DLP-525

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

		RESPONSIBILITY	
	<p>WARNINGS: 1. An antistatic wrist strap must be worn to prevent electrostatic discharge and possible damage to circuit packs while handling</p> <p>2. This procedure must be performed during light traffic periods</p> <p>3. This procedure cannot be used to backout of LN09 after LN41 has been grown. Contact the appropriate support organization for technical assistance</p>		
	<p>NOTES: 1. There will be a maximum of two EIN nodes installed in the CNI Ring. Only one shelf can be degrown in a single nights growth to prevent opening the CNI ring for any non-contiguous node modifications</p> <p>2. The EIN Nodes will be degrown in Ring Node Cabinet RNC 06 or RNC 38 at CNI Frame Group levels 9 and 41, Node position 3, of the five node shelf (J3F011GA)</p> <p>3. If the nodes immediately adjacent to the EIN Node shelf being degrown are D-Channel, CCS7, or SADC, service will be interrupted to the customers assigned to those nodes while degrowing the shelf from the ring and moving the IFB packs. It will be necessary to notify all of the affected customers and negotiate a mutually agreeable time to do the degrowth</p> <p>4. This procedure assumes that the 5 node shelf, (J3F011GA), has been installed at the appropriate frame level (09 and 41), earlier in this growth session and trouble has been encountered making it necessary to remove the EINshelf from the CNI Ring</p> <p>5. Throughout this procedure, the LNxx is the Frame Group number of the IUN being removed (LN09 or LN41), LNbb is the BISO node and LNeE is the EISO node</p>		
1	Ensure That All IFB Circuit Packs and Balanced or Unbalanced Cables Removed In The Earlier EIN Growth Are Available	TELCO	-
2	At 3B MCRT, Enter the Following Messages (If Necessary) to Inhibit Automatic Diagnostics: <ul style="list-style-type: none"> • INH:DMQ;SRC REX! • INH:DMQ;SRC ADP! 	TELCO	-
3	At 3B MCRT, Enter Message OP:RING;DETD! and Ensure No "i" is Listed for Any Link Node (i=isolated). Only One Area on a CNI Ring Can be Isolated at a Time. If Any Link Node Is Isolated, That Link Node Will Have to Be Restored Before Continuing	TELCO	-
4	At 3B MCRT, Enter 1106 In Command Mode To Obtain Display Page 1106	TELCO	-

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

	NOTE: The frame level should not show the unequipped EIN node being grown		
5	At 3B MCRT, Enter 6xx to display the Ring Node Frame Group For the EIN Node Being Grown. (xx = Group Number of Frame Containing the EIN Node Being Grown)	TELCO	-
6	At 3B MCRT, Enter Message RMV:LNxx 03! And On the 1106 Display Page, Ensure That the Removed Node Goes OOS. xx = Frame Group Number of the EIN Shelf Being Degrown	TELCO	-
7	At 3B MCRT, Enter Message RMV:LNxx 04! And On the 1106 Page On the MCRT, Ensure That the Removed Node Goes OOS. xx = Frame Group Number of the EIN Shelf Being Degrown	TELCO	-
	NOTE: The message isolates the area from the last equipped node before the EIN 5 node shelf to the next equipped LN position, (probably LNxx 04 in the LN slot adjacent to the EIN node)		
8	At 3B MCRT, Enter Message CFR:RING, LNxx 03;EXCLUDE! xx = Frame Group Number Of the EIN Shelf Being Degrown	TELCO	-
9	Ensure RING CFR RING LNxx 03 COMPL Message Is Received	TELCO	-
10	At 3B MCRT, Enter 400 In Command Mode On the 1106 Page to Obtain the BISO-EISO Display	TELCO	-
11	On the 1106 Display Page, Verify That the EIN Node (LNxx 03) and the Adjacent IUN Node (LNxx 04) Being Degrown Are Isolated	TELCO	-
12	At 3B MCRT, Enter the Message EXC:ENVIR:UPROC, FN"/database/tools/growtool", ARGs("LNxx.04", "GROW")! xx = Frame Group Number Of the EIN Shelf Being Degrown	TELCO	-
13	At 3B MCRT 1106/400 BISO/EISO Page, Ensure That Node LNxx 04 Is In the GROW Major State	TELCO	-
	<i>Identify IFBs to Grow or Move</i>		
14	At 3B MCRT, Enter 1106 In Command Mode To Display the 1106 Page	TELCO	-
15	At the 3B MCRT, Enter 400 In Command Mode To Display the BISO/EISO and Nodes In Isolation	TELCO	-
16	Verify That Only the Nodes On Shelf LN09 or Shelf LN41 Are OOS and Isolated	TELCO	-
17	If Any Adjacent Nodes Are OOS, At 3B MCRT, Enter Message RST:LNxx yy;UCL! To Restore those Nodes xx = Frame Group Number Of the EIN Shelf Being Degrown yy = Node Member Number Being Restored	TELCO	-

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

	NOTE: Pay special attention to recording the Node data in the proper BISO or EISO section since this identifies the Nodes position in the Ring and impacts "hv" values being determined in later steps		
18	When Only LN09/41-03 and LN09/41-04 Nodes Are OOS/GROW and Isolated, Record the Data for the ACT Nodes Adjacent to the LN09/41 Shelf	TELCO	DLP-622
19	Analyze the Data Recorded in Step 18 To Determine If An IFB Pack Needs To Be Moved, Or If IFB Packs Need To Be Added To Remove the EIN Shelf	TELCO	-
20	If the BISO Node <i>IS NOT</i> In Frame Group LN08 or LN40, Continue With Step 21; Otherwise Go To Step 26	TELCO/INST	-
21	Move the IFBs To Remove a Shelf	TELCO	DLP-618
22	Remove the IFB Pack and Insert the IFB Pack In Node Position Adjacent To the New BISO IFB Control Node Just Modified (BISO IFB Should Be In the Slot To the Right Of The IFB Control Node From Back Of Cabinet)	INST	-
23	On the Backplane Of the CNI Cabinet, Re-install the Balanced Cables To the BISO IFB Position Just Installed. (BISO IFB Balanced Cables Should Be Cabled To the IFB Position On the Left Of the Shelf Below the EIN Shelf Being Removed When Viewing From Back Of Cabinet)	INST	-
24	Diagnose the IFBs Being Moved To Remove a Shelf	TELCO	DLP-620
25	Go To Step 42	TELCO/INST	-
26	If the BISO Node <i>IS</i> In LN08 Or LN40 Continue With Step 27 To Determine If IFBs Need To Be Added	TELCO/INST	-
27	If the EISO Node Is In Frame Group LN10 Or LN42, Continue With Step 28 To Add IFBs; Otherwise Go To Step 37 To Move Existing IFBs	TELCO/INST	-
	NOTE: Removing the EIN shelf will open a gap requiring IFBs to be added at the BISO and EISO locations		
28	Establish IFBs To Bridge a Shelf Gap At the BISO and EISO Locations	TELCO/INST	DLP-619
	(Continued on Page 4)		

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

	NOTE: The necessary balanced cables For IFBs being added should have been removed earlier in this growth session. These cables and IFB packs should be used for the addition		
29	Enter the Message: EXC:ENVIR:UPROC,FN"/database/tools/ifbmv.sh",ARGS("LNee-yy","HV-0x____")! To GROW EISO node Using DLP-619, Step 1 HV value	TELCO	—
30	Remove the IFB Pack and Insert the IFB Pack In Node Position Adjacent To the New EISO IFB Control Node Just Modified (EISO IFB Should Be In the Left Of the IFB Control Node LNvv-ww On Shelf EIN Being Removed)	INST	—
31	On the Backplane Of the CNI Cabinet, Re-install the Balanced Cables To the EISO IFB Position Just Installed. (EISO IFB Balanced Cables Should Be In the IFB Position On the Right Of the Shelf Above the EIN Shelf Being Removed When Viewing From Rear Of Cabinet)	INST	—
32	Enter the Message: EXC:ENVIR:UPROC,FN"/database/tools/ifbmv.sh",ARGS("LNbb-yy","HV-0x____")! To GROW BISO node Using DLP-619, Step 2 HV value	TELCO	—
33	Remove the IFB Pack (From Antistat Bag) and Insert the IFB Pack In Node Position Adjacent To the New BISO IFB Control Node Just Modified Above (BISO IFB Should Be In the Slot To the Right Of the IFB Control Node On the Shelf Below the EIN Shelf When Viewing From Front Of Cabinet)	INST	—
34	On the Backplane Of the CNI Cabinet, Re-install the Balanced Cables To the BISO IFB Position Just Installed. (BISO IFB Balanced Cables Should Be In the IFB Position On the Left Of the Shelf Below the EIN Shelf Being Removed When Viewing From Rear Of Cabinet)	INST	—
35	Diagnose the IFBs Bridging the Shelf Gap	TELCO	DLP-621
36	Go to Step 42	TELCO/INST	—
37	If the EISO Node IS NOT in Frame Group LN10 or LN42, Continue With Step 38 To Move IFB		
38	Move An Existing IFB To the BISO Location	TELCO	DLP-618
39	Remove the IFB Pack From LN09/41-04 and Insert the IFB Pack In Node Position Adjacent To the New EISO IFB Control Node Just Modified [BISO(LNbb-yy) IFB Should Be In the Slot To the Right Of the IFB Control Node When Viewing From Front Of Cabinet]	INST	—
	(Continued on Page 5)		

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

40	On the Backplane Of the CNI Cabinet, Re-install the Balanced Cables To the BISO IFB Position Just Installed. (BISO IFB Balanced Cables Should Be In the IFB Position On the Left Of the Shelf Below the EIN Shelf Being Removed When Viewing From Rear Of Cabinet)	INST	—
41	Diagnose the IFBs Bridging the Shelf Gap	TELCO	DLP-620
	<i>End IFB Grow Or Move</i>		
42	Unseat the Four EIN Node Circuit Packs (IRN2, SCSI Pack, DDSBS Pack, & 3BI) For LN09/41	INST	—
43	Unseat the Leftmost 495FA Power Converter On the Plate With the EIN Node Being Degrown	INST	—
44	At the MCRT, Enter Message: EXC:ENVIR:UPROC, FN"/database/tools/ein.uneqip",args("EINxx")! To Unequip the EIN Node At LNxx 03. xx = Frame Group Number the EIN Node Being Degrown, (09 or 41)	TELCO	DLP-573
45	At MCRT Enter 1106 In Command Mode To Obtain Display Page 1106	TELCO	—
46	Enter 400 In Command Mode To Obtain a Display Of the BISO/EISO Page	TELCO	—
47	Verify That the EIN Node Being Degrown Is Isolated, and the MAJOR STATE Is UNEQUIP For LN09/41	TELCO	—
48	Disconnect the Ethernet Cable Adapter To the Backplane At the Ethernet Interface Pack (TN1460)	INST	—
49	Remove the Dual Serial Channel Cable Connectors From the EIN Node Backplane	INST	—
50	At the StarServer, Unplug the Ethernet Cable of the Ethernet Router	INST	—
51	If CU 0 Or CU 1 Is Forced On Line (FONL), Enter 13 (CLR-FONL) In Command Mode To Clear	TELCO	—
	NOTE: If CU0 is OOS, restore CU before continuing		
52	Perform One Of the Following: <ul style="list-style-type: none"> • If CU 0 Is STBY, Go To Step 53 • If CU 0 Is ACT, Enter SW:CU! Then Soak CU 1 As Active CU For 15 Minutes 	TELCO	—
53	At the Power Switch, Remove Unit From Service and Power Down the Standby CU 0	TELCO	DLP-500
54	At the CU That Is Powered Down, Disconnect the Dual Serial Channel Cable	INST	—
	(Continued on Page 6)		

DEGROW EIN SHELF UNIT — SUPPORT TO INSTALLER (INST)

AT&T PROPRIETARY - Use Pursuant to Company Instructions

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

55	At the MCRT, Enter Message EXC:ENVIR:UPROC, FN "/database/tools/sin.cueq", ARGS ("BKOUTaa","CU0")! aa = 09 or 41	TELCO	—
56	Power Up Unit and Restore CU 0 To Service	TELCO	DLP-501
57	Soak CU 0 As "Standby" CU For 15 Minutes	TELCO	—
58	With CU 0 In STBY; At the MCRT, Enter SW:CU!	TELCO	—
59	Soak CU 0 As "Active" CU For At Least 1 Hour	TELCO	—
60	At the Power Switch, Remove Unit From Service and Power Down the Standby CU	TELCO	DLP-500
61	At the CU That Is Powered Down, Disconnect the Dual Serial Channel Cable	INST	—
62	At the MCRT, Enter Message EXC:ENVIR:UPROC, FN "/database/tools/sin.cueq", ARGS ("BKOUTaa","CU1")! aa = 09 or 41	TELCO	—
63	Power Up Unit and Restore CU 1 To Service	TELCO	DLP-501
64	Soak CU 1 As "Standby" CU For 15 Minutes	TELCO	—
65	With CU 1 In STBY; At the MCRT, Enter SW:CU!	TELCO	—
66	Soak CU 1 As "Active" CU For At Least 1 Hour	TELCO	—
67	When Both CUs Have Been Uncabled and the Equippage Updated, Continue To the Next Step	TELCO	—
68	At the MCRT, Enter Message EXC:ENVIR:UPROC, FN "/database/tools/growtool", ARGS ("LNaa.04","UNEQIP")! LNaa = Frame Group Number Of the IUN Node Being Removed	TELCO	—
69	At the MCRT, 1106/400 BISO/EISO Page, Ensure That Node LNaa 04 Is In the UNEQIP Major State	TELCO	—
70	At MCRT, Enter 1106 In Command Mode To Obtain Display Page 1106	TELCO	—
71	Enter 6xx xx = Group Number Of Frame Containing the Node Being Grown	TELCO	—
72	Enter Message CFR:RING!	TELCO	—
	(Continued on Page 7)		

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

73	Enter Message OP:RING;DETD! And Ensure No "i" Is Listed For Any Link Node (i = Isolated). If Any Link Node Or Segment Is Isolated, Enter Message CFR:RING!. Ensure That NORMAL CONFIGURATION, NO NODES ISOLATED Message Is Received	TELCO	-
74	At MCRT, Enter the Following Messages To Allow Automatic Diagnostics: <ul style="list-style-type: none"> • ALW:DMQ;SRC REX! • ALW:DMQ;SRC ADP! 	TELCO	-
75	At MCC SYSTEM ALARMS Panel, Depress the SERVICE DEGRADING FAILURE Key To Obtain a Service Degrading Report Printout. If There Are Any Units Listed, Take Corrective Action To Clear Service Degrading Condition Of Each Unit Listed Before Continuing	TELCO	-
76	Copy Incore ECD To Disk	TELCO	DLP-519
	NOTES: This is a short term soak to allow the second EIN node to be grown, (if possible), in a single evenings growth session. An additional soak period is specified after the evening's growth activities.)		
77	Soak the CU Modified As ACT, and the EIN Nodes That Was Grown For 1 Hour To Assure That No Problems Exist With System Operation After Growth. All Abnormal Conditions Such As Interrupts, Interjects And Diagnostic Failures Related To Growth Must Be Investigated And Resolved Immediately. Growth Equipment Being Soaked Must Be Error Free For At Least the Time Specified As the Soak Interval Before Other Hardware Growth	TELCO/INST	-
78	Safe Point To Temporarily Stop This Procedure	TELCO	-
79	Verify System Status	TELCO	DLP-544
80	Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
81	Soak the CU That Was Modified and the EIN Node That Was Grown For 12 Hours To Assure That No Problems Exist With System Operation After Growth. All Abnormal Conditions Such As Interrupts, Interjects And Diagnostic Failures Related To Growth Must Be Investigated And Resolved Immediately. Growth Equipment Being Soaked Must Be Error Free For At Least the Time Specified As the Soak Interval Before Other Hardware Growth	TELCO	-
82	Update Backup Data Base	TELCO	DLP-521
	(Continued on Page 8)		

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

83	Write 3B Computer Backup Tapes	TELCO	DLP-522
84	Verify Backup Tapes	TELCO	DLP-525

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

		RESPONSIBILITY	
	<i>WARNING: An antistatic wrist strap must be worn to prevent electrostatic discharge and possible damage to circuit packs while handling</i>		
	<p>NOTES:</p> <ol style="list-style-type: none"> 1. AMA data should be transferred (tape and/or teleprocessing) prior to start of the growth activity of each night 2. This procedure must be performed during light traffic periods 3. This procedure contains soak intervals for verifying system operation and stability during growth. During the soaking interval, all abnormal conditions (such as interrupts, interjects, and diagnostic failures related to growth) must be investigated and resolved immediately. Growth equipment, being soaked, must be error free for at least the time specified 4. Ethernet interface node (EIN) link node will be grown in ring node cabinets 9 and 41, Node 3 5. Verify that local routers, cabling between local routers and Ethernet I/O hardware are installed (CDRP Communication Cabinet); and ensure that they are setup and tested 6. Verify that CDRP current generic is G4R1 or higher, and it can process data from SIN 7. Contact NAMAC to ensure that CDRP technical support is available and is scheduled to assist doing the conversion (602-844-6406) 8. Ensure that site-specific data for EIN conversion is available 9. If backout is required, refer to NTP-028 "Back Out of EIN to Sin" procedure 		
1	Verify System Status	TELCO/INST	DLP-544
2	Perform Preliminary Installation Activities	INST	—
3	Safe Point To Temporarily Stop This Procedure	INST	—
4	If Procedure Was Stopped (Item 5), Verify System Status	TELCO	DLP-544
5	At MCRT, Enter Following Messages To Inhibit Automatic Diagnostics: <ul style="list-style-type: none"> • INH:DMQ;SRC REX! • INH:DMQ;SRC ADP! 	TELCO	—
	(Continued on Page 2)		

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

	NOTE: Items 7 through 9 are being performed to ensure clean file system before starting growth		
6	Copy Incore Equipment Configuration Data Base (ECD) to Disk	TELCO	DLP-519
7	Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
8	Update Backup Data Base	TELCO	DLP-521
	NOTE: EIN link node will be grown in Ring Node Cabinet 09 first		
9	At MCRT, Enter Message OP:RING;DETD! and Ensure No "i" Is Listed for Any Link Node (i = Isolated). Only One Area on CNI Ring Can Be Isolated at a Time. If Any Link Node Is Isolated, That Link Node Will Have To Be Restored Before Continuing	TELCO	-
10	Perform the Following To Ensure Node Being Converted Is in Standby Mode:		
	1. At MCRT, Enter 1108 in Command Mode To Obtain Display Page 1108	TELCO	-
	2. Enter 460 To Display IN Link Page	TELCO	-
	3. Determine If the Link Nodes Match the Following Configuration: LN09-3 STBY LN41-3 ACT	TELCO	-
	4. If Configuration Does Not Match, Enter Message CHG:SLK(09,03);STBY! and Wait for CHG SLK 09 03 CHANGED ACCEPTED, NEW MINOR STATE = STBY Message Is Received; Otherwise, Perform Item 11	TELCO	-
11	Perform the Following To Remove SIN Node and Adjacent IUN Node From Service:		
	1. Enter Message RMV:LN09 04! ; Ensure RING RMV LN09 04 COMPLETED Message Is Received	TELCO	-
	2. Enter Message RMV:LN09 03! ; Ensure RING RMV LN09 03 COMPLETED Message Is Received	TELCO	-
	3. Notify NAMACC To Disable the SIN 0 Link After It Is Removed	TELCO	-
12	Enter Message CFR:RING, LN09 03;EXCLUDE! To Isolate Area on Shelf Unit Where SIN Link Node Is Being Grown. Ensure RING CFR RING LN09 03 COMPL Message Is Received	TELCO	-
13	Depress NORM/DISP (PF2) Key and Enter 1106 in Command Mode To Obtain Display Page 1106	TELCO	-
14	If Ring Node Cabinet Group Containing SIN Link Node Shelf Unit Is Not Displayed, Enter 609 in Command Mode	TELCO	-

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

15	SIN, Being Converted, Must Be Unequipped With the "ein.uneqip" Script by Using the Following Command: EXC:ENVIR:UPROC, FN"/database/tools/ein.uneqip", ARG("EIN09")!	TELCO	DLP-573
16	Enter 400 in Command Mode To Obtain BISO-EISO Display. Ensure SIN Link Node Being Grown Is Isolated and Major State is UNEQ	TELCO	—
17	At SIN Link Node, Being Converted, Unseat UN304 (IRN2 Pack), TN1804 (SCSI Pack), TN69B (Dual Serial Channel Pack), and TN914 (3B Interface Pack) Circuit Packs. At Adjacent IUN Node, Unseat UN303B/UN304 (IRNB/IRN2) Circuit Packs (Do Not Unseat 495FA/410AA Power Units)	INST	—
18	Unseat Both 495FA/410AA Power Units Associated With SIN Link Node Being Grown	INST	—
19	At RNC Power Control Unit, Depress ALARM RESET Key To Release Alarm	TELCO	—
20	At MCRT, Depress ALM REL (PF4) Key To Silence Alarm	TELCO	—
21	Recent Change mv, hv, and Major State for RPCD; and SIN Link Node UCB for SIN Link Node Being Grown. EXC:ENVIR:UPROC, FN"/database/tools/ein.grow", ARG("EIN09")!	TELCO	DLP-570
22	Depress NORM/DISP (PF2) Key and Enter 1106 in Command Mode To Obtain Display Page 1106	TELCO	—
23	Enter 400 in Command Mode To Obtain BISO-EISO Display. Ensure EIN Link Node Being Grown Is Isolated and Major State Is GROW	TELCO	—
24	Remove SCSI Cabling And Complete EIN Changes to Backplane Wiring	INST	—
25	Install 127A Cable Retainer at 102-332 and Ethernet Paddleboard	INST	—
26	Verify Dual Serial Channel Cables to Ring Node Cabinet Backplane at TN69B Circuit Pack Location for EIN Link Node Being Grown	INST	—
27	Seat Both 495FA/410AA Power Units Associated With EIN Link Node Being Grown	INST	—
28	At RNC Power Control Unit, Depress ALARM RESET Key To Release Alarm	TELCO	—
29	At MCRT, Depress ALM REL (PF4) Key To Silence Alarm	TELCO	—
30	Replace TN1804 (SCSI Pack) Circuit Pack With TN4016 (Ethernet Pack) Circuit Pack	INST	—
31	At EIN Link Node Being Grown, Seat UN304 (IRN2 Pack), TN4016 (Ethernet Pack), TN69B (Dual Serial Channel Pack), and TN914 (3B Interface Pack) Circuit Packs. At Adjacent IUN Node, Seat UN303B/UN304 (IRNB/IRN2) Circuit Packs	INST	—
	(Continued on Page 4)		

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

32	Connect Ethernet Cable at EIN Link Node Being Grown to <i>Star Server</i> ® Computer (CDRP)	INST	—
33	At MCRT, Enter 1106 in Command Mode To Obtain Display Page 1106	TELCO	—
34	If Ring Node Cabinet Group Containing EIN Link Node Shelf Unit Is Not Displayed, Enter 609 in Command Mode	TELCO	—
35	At MCRT, Enter the Following Message To Diagnose Each Link Node:		
	1. At MCRT, Enter Message DGN:LN09 04;RAW!; Ensure DGN LN09 04 CATP MSG COMPLETE Message Is Received	TELCO/INST	—
	2. At MCRT, Enter Message DGN:LN09 03;RAW!; Ensure DGN LN09 03 CATP MSG COMPLETE Message Is Received	TELCO/INST	—
36	On MCRT in Message Mode, Enter Message EXC:ENVIR:UPROC, FN "ports",ARGS("104")!. Wait for EXC ENVIR UPROC ports COMPLETED port#104 owned by xxxxx Message (xxxxx = Process ID) and Record Process ID Number	TELCO	—
37	Enter Message EXC:ENVIR:UPROC, FN "kill",ARGS ("-8","xxxxx")!. (Where xxxxx = Process ID). Ensure EXC ENVIR UPROC kill COMPLETED Message Is Received	TELCO	—
38	Set EIN Routing-Address Recent Change Parameters	TELCO	DLP-574
39	Recent Change EIN Link Node Being Grown to OOS. EXC:ENVIR:UPROC, FN"/database/tools/ein.oos",ARGS("EIN09")!	TELCO	DLP-572
40	Ensure EIN Link Node Being Grown Is OOS	TELCO	—
41	At MCRT, Enter the Following To Restore Link Nodes to Service:		
	1. Enter Message RST:LN09 04!; Ensure RING RST LN09 04 COMPLETED Message Is Received	TELCO/INST	—
	2. Enter Message RST:LN09 03!; Ensure RING RST LN09 03 COMPLETED Message Is Received	TELCO/INST	—
	3. Test EIN Link	TELCO/INST	DLP-575
42	Enter Message OP:RING;DETD! and Ensure No "i" Is Listed for Any Link Node (i = Isolated). If Segment Is Isolated, Enter Message CFR:RING!; Ensure NORMAL CONFIGURATION, NO NODES ISOLATED Message Is Received	TELCO/INST	—
43	Notify NAMACC To Populate IP Address, ID And Password Information for EIN 0 and 1 (Test EIN Link and Bring to IS)	TELCO	—
44	Verify 3B APS Recording Mode	TELCO	DLP-585

CONVERT EXISTING SCSI INTERFACE NODE (SIN) TO EIN

LUCENT TECHNOLOGIES PROPRIETARY - Use Pursuant to Company Instructions

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

45	At MCRT, Enter Following Messages To Allow Automatic Diagnostics: <ul style="list-style-type: none"> • ALW:DMQ;SRC REX! • ALW:DMQ;SRC ADP! 	TELCO	-
46	At 1B MCC Terminal, Enter Poke Command 810 (SERVICE DEGRADING FAILURE) Key To Obtain Service-Degrading Report Printout. If There Are Any Units Listed, Make Corrective Action To Clear Service-Degrading Condition of Each Unit Listed Before Continuing	TELCO/INST	-
47	Copy Incore ECD to Disk	TELCO	DLP-519
	NOTE: Item 48 is being performed to verify system operation and stability during growth		
48	Soak New EIN Link Node for 1 Hour To Ensure No Problems Exist With System Operation After Growing. If Problems Occur and Backout Is Required, Refer to NTP-028 "Back Out of EIN to SIN" Procedure. Appropriate Support Organization Must Be Contacted To Assist If Backout Is Required	TELCO/INST	-
49	Verify System Status	TELCO	DLP-544
50	Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
	NOTE: Item 51 is Safe Stop Point		
51	Soak New EIN Link Node for 12 Hours To Ensure No Problems Exist With System Operation After Growing. If Problems Occur and Backout Is Required, Refer to NTP-028 "Back Out of EIN to SIN" Procedure. Appropriate Support Organization Must Be Contacted To Assist If Backout Is Required. EIN is Operating Simpler. If Reverting to SIN, NAMAC Must Manually Switch CDRP Processor	TELCO/INST	-
52	Update Backup Data Base	TELCO	DLP-521
53	Verify System Status	TELCO	DLP-544
54	At MCRT, Enter Following Messages To Inhibit Automatic Diagnostics: <ul style="list-style-type: none"> • INH:DMQ;SRC REX! • INH:DMQ;SRC ADP! 	TELCO	-
	(Continued on Page 6)		

CONVERT EXISTING SCSI INTERFACE NODE (SIN) TO EIN

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

	NOTE: Items 55 through 57 are being performed to ensure clean file system before starting growth		
55	Copy Incore Equipment Configuration Data Base (ECD) to Disk	TELCO	DLP-519
56	Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
57	Update Backup Data Base	TELCO	DLP-521
	NOTE: EIN link node will be grown in Ring Node Cabinet 41		
58	At MCRT, Enter Message OP:RING;DETD! and Ensure No "i" Is Listed for Any Link Node (i = Isolated). Only One Area on CNI Ring Can Be Isolated at a Time. If Any Link Node Is Isolated, That Link Node Will Have To Be Restored Before Continuing	TELCO	—
59	Perform the Following To Ensure Node Being Converted Is in Standby Mode:		
	1. At MCRT, Enter 1108 in Command Mode To Obtain Display Page 1108	TELCO	—
	2. Enter 460 To Display IN Link Page	TELCO	—
	3. Determine If the Link Nodes Match the Following Configuration: LN09-3 ACT LN41-3 STBY or OOS	TELCO	—
	4. If Configuration Does Not Match, Contact NCC for Support	TELCO	—
60	Perform the Following To Remove SIN Node and Adjacent IUN Node From Service:		
	1. Enter Message RMV:LN41 04! ; Ensure RING RMV LN41 04 COMPLETED Message Is Received	TELCO	—
	2. Enter Message RMV:LN41 03! ; Ensure RING RMV LN41 03 COMPLETED Message Is Received	TELCO	—
61	Enter Message CFR:RING, LN41 03;EXCLUDE! To Isolate Area on Shelf Unit Where SIN Link Node Is Being Grown. Ensure RING CFR RING LN41 03 COMPL Message Is Received	TELCO	—
62	Depress NORM/DISP (PF2) Key and Enter 1106 in Command Mode To Obtain Display Page 1106	TELCO	—
63	If Ring Node Cabinet Group Containing SIN Link Node Shelf Unit Is Not Displayed, Enter 641 in Command Mode	TELCO	—
64	SIN, Being Converted, Must Be Unequipped With the "ein.uneqip" Script by Using the Following Command: EXC:ENVIR:UPROC, FN"/database/tools/ein.uneqip", ARG("EIN41")!	TELCO	DLP-573
	(Continued on Page 7)		

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

65	Enter 400 in Command Mode To Obtain BISO-EISO Display. Ensure EIN Link Node Being Grown Is Isolated and Major State Is UNEQ	TELCO	-
66	At SIN Link Node, Being Converted, Unseat UN304 (IRN2 Pack), TN1804 (SCSI Pack), TN69B (Dual Serial Channel Pack), and TN914 (3B Interface Pack), Circuit Packs. At Adjacent IUN Node, Unseat UN303B/UN304 (IRNB/IRN2) Circuit Packs (Do Not Unseat 495FA/410AA Power Units)	INST	-
67	Unseat Both 495FA/410AA Power Units Associated With SIN Link Node Being Grown	INST	-
68	155At RNC Power Control Unit, Depress ALARM RESET Key To Release Alarm	TELCO	-
69	At MCRT, Depress ALM REL (PF4) Key To Silence Alarm	TELCO	-
70	Recent Change mv, hv, and Major State for RPCD; and SIN Link Node UCB for SIN Link Node Being Grown. EXC:ENVIR:UPROC,FN"/database/tools/ein.grow",ARGS("EIN41")!	TELCO	DLP-570
71	Depress NORM/DISP (PF2) Key and Enter 1106 in Command Mode To Obtain Display Page 1106	TELCO	-
72	Enter 400 in Command Mode To Obtain BISO-EISO Display. Ensure EIN Link Node Being Grown Is Isolated and Major State Is GROW	TELCO	-
73	Remove SCSI Cabling And Complete EIN Changes to Backplane Wiring and Cabling to Ring Node Cabinet Backplane	INST	-
74	Install 127A Cable Retainer (102-332) and Ethernet Paddleboard	INST	-
75	Verify Dual Serial Channel Cables to Ring Node Cabinet Backplane at TN69B Circuit Pack Location for EIN Link Node Being Grown	INST	-
76	Seat Both 495FA/410AA Power Units Associated With EIN Link Node Being Grown	INST	-
77	At RNC Power Control Unit, Depress ALARM RESET Key To Release Alarm	TELCO	-
78	At MCRT, Depress ALM REL (PF4) Key To Silence Alarm	TELCO	-
79	Replace TN1804 (SCSI Pack) Circuit Pack With TN4016 (Ethernet Pack) Circuits (Do Not Seat)	INST	-
80	At EIN Link Node Being Grown, Seat UN304 (IRN2 Pack), TN4016 (Ethernet Pack), TN69B (Dual Serial Channel Pack), and TN914 (3B Interface Pack) Circuit Packs. At Adjacent IUN Node, Seat UN303B/UN304 (IRNB/IRN2) Circuit Pack	INST	-
81	Connect Ethernet Cable at EIN Link Node Being Grown to <i>Star Server</i> ® Computer (CDRP)	INST	-
	(Continued on Page 8)		

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

82	At MCRT, Enter 1106 in Command Mode To Obtain Display Page 1106	TELCO	-
83	If Ring Node Cabinet Group Containing EIN Link Node Shelf Unit Is Not Displayed, Enter 641	TELCO	-
84	At MCRT, Enter the Following Message To Diagnose Each Link Node:		
	1. At MCRT, Enter Message DGN:LN41 04;RAW!; Ensure DGN LN41 04 CATP MSG COMPLETE Message Is Received	TELCO/INST	-
	2. At MCRT, Enter Message DGN:LN41 03;RAW!; Ensure DGN LN41 03 CATP MSG COMPLETE Message Is Received	TELCO/INST	-
85	On MCRT in Message Mode, Enter Message EXC:ENVIR:UPROC, FN "ports",ARGS("104")!. Wait for EXC ENVIR UPROC ports COMPLETED port#104 owned by xxxxx Message (xxxxx = Process ID) and Record Process ID Number	TELCO	-
86	Enter Message EXC:ENVIR:UPROC, FN "kill",ARGS ("-8","xxxxx")!. (Where xxxxx = Process ID). Ensure EXC ENVIR UPROC kill COMPLETED Message Is Received	TELCO	-
87	Recent Change EIN Link Node Being Grown to OOS. EXC:ENVIR:UPROC, FN "/database/tools/ein.oos",ARGS("EIN41")!	TELCO	DLP-572
88	Ensure EIN Link Node Being Grown Is OOS	TELCO	-
89	At MCRT, Enter the Following To Restore Link Nodes to Service:		
	1. Enter Message RST:LN41 04!; Ensure RING RST LN41 04 COMPLETED Message Is Received	TELCO/INST	-
	2. Enter Message RST:LN41 03!; Ensure RING RST LN41 03 COMPLETED Message Is Received	TELCO/INST	-
90	Enter Message OP:RING;DETD! and Ensure No "i" Is Listed for Any Link Node (i = Isolated). If Segment Is Isolated, Enter Message CFR:RING!; Ensure NORMAL CONFIGURATION, NO NODES ISOLATED Message Is Received	TELCO/INST	-
91	Notify NAMACC To Verify EIN1 Link Is In STANDBY	TELCO	-
92	Soak STANDBY EIN1 Link For Stability for 15 Minutes	TELCO	-
93	Notify NAMACC To Switch STANDBY EIN1 Link To ACT	TELCO	-
	(Continued on Page 9)		

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

	NOTE: Item 94 is being performed to verify system operation and stability after growth		
94	Soak New EIN Link Node for 1 Hour To Ensure No Problems Exist With System Operation After Growing. If Problems Occur and Backout Is Required, Refer to NTP-028 "Back Out of EIN to SIN" Procedure. Appropriate Support Organization Must Be Contacted To Assist If Backout Is Required	TELCO/INST	-
95	At 1B MCC Terminal, Enter Poke Command 810 (SERVICE DEGRADING FAILURE) Key To Obtain Service-Degrading Report Printout. If There Are Any Units Listed, Make Corrective Action To Clear Service-Degrading Condition of Each Unit Listed Before Continuing	TELCO/INST	-
96	At MCRT, Enter Following Messages To Allow Automatic Diagnostics: <ul style="list-style-type: none"> • ALW:DMQ;SRC REX! • ALW:DMQ;SRC ADP! 	TELCO	-
97	Copy Incore ECD to Disk	TELCO	DLP-519
98	Verify System Status	TELCO	DLP-544
99	Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
100	Soak New EIN Link Node for 12 Hours To Ensure No Problems Exist With System Operation After Growing. If Problems Occur and Backout Is Required, Refer to NTP-028 "Back Out of EIN to SIN" Procedure. Appropriate Support Organization Must Be Contacted To Assist If Backout Is Required	TELCO/INST	-
101	Update Backup Data Base	TELCO	DLP-521
102	Write 3B Computer Backup Tapes	TELCO	DLP-522
103	Verify Backup Tapes	TELCO	DLP-525
104	Install New Circuit Pack Label	TELCO/INST	-

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

		RESPONSIBILITY	
	<i>WARNING: An antistatic wrist strap must be worn to prevent electrostatic discharge and possible damage to circuit packs while handling</i>		
	<p>NOTES:</p> <ol style="list-style-type: none"> 1. At least 24 hours, prior to the start of this procedure, CNAC must be notified by the on-site workforce to enter office-dependent data 2. AMA data should be transferred (tape and/or teleprocessing) prior to start of each night's growth activity 3. This procedure must be performed during light traffic periods 4. This procedure contains soak intervals for verifying system operation and stability during growth. During the soaking interval, all abnormal conditions (such as interrupts, interjects, and diagnostic failures related to growth) must be investigated and resolved immediately. Growth equipment, being soaked, must be error free for at least the time specified 5. During this procedure, "affected node", will be link-node upgraded 6. BWM CFT96-0159 containing software tool scripts must be applied before performing procedure 7. Link nodes 7, 8, and 9 will be upgraded in the RN cabinet 00 first 		
1	Verify System Status	TELCO/INST	DLP-544
2	Perform Preliminary Installation Activities	INST	—
3	Contact CNAC To Remove Assigned Links (If Any Signaling Links Are Assigned to LN00 and LN32 Link Nodes 7, 8, or 9) and Populate Office-Dependent Data for DCHAN Link	TELCO	DLP-557
4	At Ring Node Cabinet (RNC), LN00 and LN32, Perform Cross Connection Between T1FA and PTAN/DIF at DSX	TELCO	DLP-563
5	Safe Point To Temporarily Stop This Procedure	INST	—
6	If Procedure Was Stopped (Item 5), Verify System Status	TELCO	DLP-544
7	At 3B MCRT, Enter Following Messages To Inhibit Automatic Diagnostics: <ul style="list-style-type: none"> • INH:DMQ;SRC REX! • INH:DMQ;SRC ADP! 	TELCO	—
	(Continued on Page 2)		

ADD D-CHANNELS IN RING NODE CABINETS 00 AND 32 TO IRN2-SUPPORT TO INSTALLER (INST)

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

	NOTE: Items 8 through 10 are being performed to ensure clean file system before starting growth		
8	Copy Incore Equipment Configuration Data Base (ECD) to Disk	TELCO	DLP-519
9	Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
10	Update Backup Data Base	TELCO	DLP-521
11	At 3B MCRT, Enter Message <code>EXC:ENVIR:UPROC, FN"ducb", ARG("LN00", "aa"), OPL 999!</code> for Each Link Node Being Upgraded. Retain the printout (It May Be Required in Case a Backout Is Necessary.) aa = Link Node Member Number 7, 8 or 9	TELCO	-
12	Enter Message <code>OP:SLK(00,a):DEST 1!</code> aa = Link Node Member Number 7, 8 or 9	TELCO	-
13	Repeat Items 11 and 12 for Each Node Being Grown (LN00 Link Nodes 7, 8, and 9)	TELCO	-
14	At 3B MCRT, Enter Message <code>OP:RING;DETD!</code> and Ensure No "i" Is Listed for Any Link Node (i = Isolated). Only One Area on CNI Ring Can Be Isolated at a Time. If Any Link Node Is Isolated, That Link Node Will Have To Be Restored Before Continuing	TELCO	-
15	Enter 1106 in Command Mode To Obtain Display Page 1106	TELCO	-
16	If RNC Group 00 Is Not Displayed, Enter 600 in Command Mode	TELCO	-
	NOTE: Items 17 and 18 are being performed to remove LN00 link nodes 7, 8, and 9 (if equipped) on shelf unit. Link nodes must be removed from highest to lowest numbered link node being upgraded		
17	Enter Message <code>RMV:LN00 a!</code> To Remove One Link Node on Shelf Unit Being Upgraded. Ensure <code>RING RMV LN00 a COMPLETED</code> Message Is Received (a = Link Node Member Number 7, 8 and 9)	TELCO	-
18	Repeat Item 17 for Each Link Node on Shelf Unit Being Upgraded	TELCO	-
19	At 3B MCRT, On 1106 Page, Ensure MAJOR STATE Is OOS for Each Link Node on Shelf Unit Being Upgraded (LN00 Link Nodes 7, 8 and 9)	TELCO	-
20	Enter Message <code>CFR:RING, LN00 a; EXCLUDE!</code> To Isolated Link Nodes on Shelf Unit Being Upgraded. Ensure <code>RING CFR RING LN00 a COMPL</code> Message Is Received (a = Highest Numbered Link Node)	TELCO	-
21	Enter 400 in Command Mode To Obtain BISO-EISO (00 6 and 00 10) Display. Ensure Link Nodes on Shelf Unit Being Upgraded Are Isolated	TELCO	-

ADD D-CHANNELS IN RING NODE CABINETS 00 AND 32 TO IRN2-SUPPORT TO INSTALLER (INST)

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

22	Enter OP:RING;DETD! To Ensure Link Nodes on Shelf Unit Being Upgraded Are Isolated	TELCO	—
	NOTE: If backout is being performed, go to Item 39; if not, continue with Item 23		
23	At RNC, Remove All Circuit Packs Except Power Units From Shelf Being Removed and Record Location (Do Not Unseat 495FA Power Units)	INST	—
24	Remove 495FA Power Units on Shelf Being Upgraded And Depress ALARM RESET To Clear Power Alarm. At 3B MCRT, Depress ALM RLS (PF4) Key To Silence Audible Alarm	INST	—
	<i>CAUTION: Use extreme care when removing fuses. A service interruption will occur if the wrong fuse is pulled</i>		
25	Remove Pilot Indicator Fuses First and Then Remove Load Fuses Associated With Shelf Unit Being Removed	TELCO/INST	—
26	Remove Power Cable, Power Alarm Cable, Balanced/Unbalanced Cables, Ground Straps, and Any Interface Cable Connected to Shelf Unit Being Removed. Ensure Each Cable Removed Is Tagged	INST	—
	<i>CAUTION: Use extreme care when removing and replacing shelf. Other nodes in CNI Ring are still active</i>		
27	Unmount and Remove Shelf Unit From RNC	INST	—
28	Mount New Shelf Unit in Open Position Created by Removed Shelf Unit	INST	—
29	Connect Power Cables, Power Alarm Cable, Balanced/Unbalanced Cable, Ground Straps, and Any Interface Cable Connected to New Shelf Unit	INST	—
30	Install Fuses for New Shelf Unit	TELCO/INST	—
31	Install Designation Strip To Determine Proper Location of Circuit Packs	INST	—
32	Seat 410AA Power Unit. Ensure RNC Alarm Is Activated	INST	—
33	Depress ALARM RESET To Clear Power Alarm. At 3B MCRT, Depress ALM RLS (PF4) Key To Silence Audible Alarm	INST	—
34	Seat T1FA Circuit Pack for Node Position 9	INST	—
35	Seat IRN2 Circuit Pack for Node Positions 7, 8, and 9	INST	—
	NOTE: A maximum of two LI4D circuit packs can be installed per node position		
36	Seat LI4D(s) for Node Positions 7, 8, and 9, as Required	INST	—
37	Install Blank Faceplates in Empty Circuit Pack Locations	INST	—

ADD D-CHANNELS IN RING NODE CABINETS 00 AND 32 TO IRN2-SUPPORT TO INSTALLER (INST)

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

38	At T1FA Circuit Pack Associated With Link Nodes Being Upgraded, Depress RESET Pushbutton (Ensure Green LED Lights Within 30 Seconds)	INST	—
	NOTE: Item 39 uses script file to recent change link node to GROW ; when entering link node member number, be sure proper member number is entered for link node being recent changed (using the <i>irn2.grow</i> script)		
39	Recent Change Link Node on Shelf Unit Being Upgraded to GROW ; Starting with the Highest Numbered Link Node and Working to the Lowest (Using the <i>inr2.grow</i> Script)	TELCO	DLP-576
40	Repeat Item 39 for Each Link Node on Shelf Unit Being Upgraded	TELCO	—
41	At 3B MCRT, If 1106 Page Is Not Displayed, Enter 1106 in Command Mode	TELCO	—
42	Enter 400 in Command Mode To Obtain BISO-EISO Display. Ensure Link Nodes on Shelf Unit Being Upgraded Are Isolated	TELCO	—
43	Enter 600 in Comand Mode To Obtain RNC 00 Group Display. Ensure Link Nodes on Shelf Unit Being Upgraded Are In GROW State	TELCO	—
	NOTE: Link nodes being upgraded will be diagnosed from highest to lowest numbered link node		
44	At 3B MCRT, Enter Message DGN:LN00 a;RAW! (a = Link Node Member Number); No Diagnostic Failures Allowed on Phase Run. Wait for DGN LN00 a ATP MESSAGE COMPLETE or DGN LN00 a CATP (x'00000000 x'40000000) MSG COMPLETE Message	TELCO/INST	—
45	Repeat Item 44 for Each Link Node on Shelf Unit Being Upgraded	TELCO/INST	—
46	Recent Change Each Link Node on Shelf Unit Being Upgraded to OOS ; Starting With the Highest Numbered Link Node and Working to the Lowest (Using the <i>inr2.oos</i> Script)	TELCO	DLP-577
47	At 3B MCRT, Enter 1106 in Command Mode To Obtain Display Page 1106	TELCO	—
48	If RNC 00 Is Not Displayed, Enter 600 in Command Mode	TELCO	—
49	At 3B MCRT, Enter Message RST:LN00 a;UCL! (a = Link Node Member Number) To Restore One Link Node to Service Unconditionally; Ensure RING RST LN00 a COMPLETED Message Is Received	TELCO/INST	DLP-531
50	On 1106 Page, Ensure Link Node Is In ACT State	TELCO/INST	—
51	Repeat Items 49 and 50 for Each Link Node on Shelf Unit Being Upgraded	TELCO/INST	—
	(Continued on Page 5)		

ADD D-CHANNELS IN RING NODE CABINETS 00 AND 32 TO IRN2-SUPPORT TO INSTALLER (INST)

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

52	Enter Message OP:RING;DETD! and Ensure No "i" Is Listed for Any Link Node (i = Isolated). If Segment Is Isolated, Enter Message CFR:RING! Ensure NORMAL CONFIGURATION, NO NODES ISOLATED Message Is Received	TELCO/INST	-
53	At 3B MCRT, Enter Following Messages To Allow Automatic Diagnostics: • ALW:DMQ;SRC REX! • ALW:DMQ;SRC ADP!	TELCO	-
54	At 1B MCC Terminal, Enter Poke Command 810 (SERVICE DEGRADING FAILURE) Key To Obtain Service-Degrading Report Printout. If There Are Any Units Listed, Make Corrective Action To Clear Service-Degrading Condition of Each Unit Listed Before Continuing	TELCO/INST	-
55	Test (Prove-in) Growth Associated Signaling Link(s) - Internal Link Check	TELCO/INST	DLP-515
56	Test (Prove-in) Growth Associated Signaling Link(s) - External Link Check	TELCO/INST	DLP-562
57	Copy Incore ECD to Disk	TELCO	DLP-519
58	Soak New Upgraded Link Nodes for 1 Hour To Ensure No Problems Exist With System Operation After Upgrading. If Problems Occur and Backout Is Desired, This Procedure Can Be Used Starting at Item 7 To Back Out DCHANs To IUNs. Contact Appropriate Support Organization for Technical Assistance	TELCO/INST	-
59	Verify System Status	TELCO	DLP-544
60	Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
61	Update Backup Data Base	TELCO	DLP-521
62	Soak New Upgraded Link Nodes for 12 Hours To Ensure No Problems Exist With System Operation After Upgrading. If Problems Occur and Backout Is Desired, This Procedure Can Be Used Starting at Item 7 To Back Out. Contact Appropriate Support Organization for Technical Assistance	TELCO/INST	-
63	Safe Point To Temporarily Stop This Procedure	TELCO/INST	-
	NOTE: Link nodes will be upgraded in RNC 32		
64	If Procedure Was Stopped (Item 63), Verify System Status	TELCO	DLP-544
65	At 3B MCRT, Enter Following Messages To Inhibit Automatic Diagnostics: • INH:DMQ;SRC REX! • INH:DMQ;SRC ADP!	TELCO	-
	(Continued on Page 6)		

ADD D-CHANNELS IN RING NODE CABINETS 00 AND 32 TO IRN2-SUPPORT TO INSTALLER (INST)

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

	NOTE: Items 66 through 68 are being performed to ensure clean file system before starting growth		
66	Copy Incore ECD to Disk	TELCO	DLP-519
67	Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
68	Update Backup Data Base	TELCO	DLP-521
69	At 3B MCRT, Enter Message <code>EXC:ENVIR:UPROC, FN"ducb", ARG("LN32", "aa"), OPL 999!</code> for Each Link Node Being Upgraded. Retain the printout (It may be required in case a backout is necessary.) aa = Link Node Member Number 7, 8 or 9	TELCO	-
70	At 3B MCRT, Enter Message <code>OP:SLK(32,a):DEST 1!</code> a = Link Node Member Number 7, 8 or 9	TELCO	-
71	Repeat Items 69 and 70 for Each Node Being Grown (LN32 Link Nodes 7, 8 and 9)	TELCO	-
72	At 3B MCRT, Enter Message <code>OP:RING;DETD!</code> and Ensure No "i" Is Listed for Any Link Node (i = Isolated). Only One Area on CNI Ring Can Be Isolated at a Time. If Any Link Node Is Isolated, That Link Node Will Have To Be Restored Before Continuing	TELCO	-
73	Enter 1106 in Command Mode To Obtain Display Page 1106	TELCO	-
74	If RNC Group 32 Is Not Displayed, Enter 632 in Command Mode	TELCO	-
	NOTE: Items 75 and 76 are being performed to remove LN32 link nodes 7, 8, and 9 (if equipped) on shelf unit. Link nodes must be removed from highest to lowest numbered link node being upgraded		
75	Enter Message <code>RMV:LN32 a!</code> To Remove One Link Node on Shelf Unit Being Upgraded. Ensure RING <code>RMV LN32 a COMPLETED</code> Message Is Received (a = Link Node Member Numbers 7, 8 and 9)	TELCO	-
76	Repeat Item 75 for Each Link Node on Shelf Unit Being Upgraded	TELCO	-
77	At 3B MCRT, On 1106 Page, Ensure MAJOR STATE Is OOS for Each Link Node on Shelf Unit Being Upgraded (LN32 Link Nodes 7, 8 and 9)	TELCO	-
78	Enter Message <code>CFR:RING, LN32 a; EXCLUDE!</code> To Isolated Link Nodes on Shelf Unit Being Upgraded. Ensure RING <code>CFR RING LN32 a COMPL</code> Message Is Received (a = Highest Numbered Link Node)	TELCO	-
	(Continued on Page 7)		

ADD D-CHANNELS IN RING NODE CABINETS 00 AND 32 TO IRN2-SUPPORT TO INSTALLER (INST)

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

79	Enter 400 in Command Mode To Obtain BISO-EISO (32 6 and 32 10) Display. Ensure Link Nodes on Shelf Unit Being Upgraded Are Isolated	TELCO	—
80	Enter OP:RING;DETD! To Ensure Link Nodes on Shelf Unit Being Upgraded Are Isolated	TELCO	—
	NOTE: If backout is being performed, go to Item 97; if not, continue with Item 81.		
81	At RNC, Remove All Circuit Packs Except Power Units from Shelf Being Removed and Record Location (Do Not Unseat 495FA Power Units)	INST	—
82	Remove 495FA Power Units on Shelf Being Upgraded And Depress ALARM RESET To Clear Power Alarm. At 3B MCRT, Depress ALM RLS (PF4) Key To Silence Audible Alarm	INST	—
	<i>CAUTION: Use extreme care when removing fuses. A service interruption will occur if the wrong fuse is pulled</i>		
83	Remove Pilot Indicator Fuses First and Then Remove Load Fuses Associated With Shelf Unit Being Removed	TELCO/INST	—
84	Remove Power Cable, Power Alarm Cable, Balanced/Unbalanced Cables, Ground Straps, and Any Interface Cable Connected to Shelf Unit Being Removed. Ensure Each Cable Removed Is Tagged	INST	—
	<i>CAUTION: Use extreme care when removing and replacing shelf. Other nodes in CNI Ring are still active</i>		
85	Unmount and Remove Shelf Unit From RNC	INST	—
86	Mount New Shelf Unit in Open Position Created by Removed Shelf Unit	INST	—
87	Connect Power Cables, Power Alarm Cable, Balanced/Unbalanced Cable, Ground Straps, and Any Interface Cable Connected to New Shelf Unit	INST	—
88	Install Fuses for New Shelf Unit	TELCO/INST	—
89	Install Designation Strip To Determine Proper Location of Circuit Packs	INST	—
90	Seat 410AA Power Unit, Ensure RNC Alarm Is Activated	INST	—
91	Depress ALARM RESET To Clear Power Alarm. At 3B MCRT, Depress ALM RLS (PF4) Key To Silence Audible Alarm	INST	—
92	Seat T1FA Circuit Pack for Node Position 9	INST	—
93	Seat IRN2 Circuit Pack for Node Positions 7, 8, and 9	INST	—

ADD D-CHANNELS IN RING NODE CABINETS 00 AND 32 TO IRN2-SUPPORT TO INSTALLER (INST)

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

	NOTE: A maximum of two LI4D circuit packs can be installed per node position		
94	Seat LI4D(s) for Node Positions 7, 8, and 9, as Required	INST	—
95	Install Blank Faceplates in Empty Circuit Pack Locations	INST	—
96	At tlfa Circuit Pack Associated With Link Nodes Being Upgraded, Depress RESET Pushbutton (Ensure Green LED Lights Within 30 Seconds)	INST	—
	NOTE: Item 97 uses script file to recent change link node to GROW ; when entering link node member number, be sure proper member number is entered for link node being recent changed (using the <i>irn2.grow</i> script)		
97	Recent Change Link Node on Shelf Unit Being Upgraded to GROW ; Starting with the Highest Numbered Link Node and Working to the Lowest (Using the <i>irn2.grow</i> Script)	TELCO	DLP-576
98	Repeat Item 97 for Each Link Node on Shelf Unit Being Upgraded	TELCO	—
99	At 3B MCRT, If 1106 Page Is Not Displayed, Enter 1106 in Command Mode	TELCO	—
100	Enter 400 in Command Mode To Obtain BISO-EISO Display. Ensure Link Nodes on Shelf Unit Being Upgraded Are Isolated	TELCO	—
101	Enter 632 in Command Mode To Obtain RNC 32 Group Display. Ensure Link Nodes on Shelf Unit Being Upgraded Are in GROW State	TELCO	—
	NOTE: Link nodes being upgraded will be diagnosed from highest to lowest numbered link node		
102	At 3B MCRT, Enter Message DGN:LN32 a;RAW! (a = Link Node Member Number); No Diagnostic Failures Allowed on Phase Run. Wait for DGN LN32 a ATP MESSAGE COMPLETE or DGN LN32 a CATP (x'00000000 x'40000000) MSG COMPLETE Message	TELCO/INST	—
103	Repeat Item 101 for Each Link Node on Shelf Unit Being Upgraded	TELCO/INST	—
104	Recent Change Each Link Node on Shelf Unit Being Upgraded to OOS ; Starting With the Highest Numbered Link Node and Working to the Lowest (Using the <i>irn2.oos</i> Script)	TELCO	DLP-577
105	At 3B MCRT, Enter 1106 in Command Mode To Obtain Display Page 1106	TELCO	—
106	If RNC 32 Is Not Displayed, Enter 632 in Command Mode	TELCO	—
107	At 3B MCRT, Enter Message RST:LN32 a;UCL! (a = Link Node Member Number) To Restore One Link Node to Service Unconditionally; Ensure RING RST LN32 a COMPLETED Message is Received	TELCO/INST	DLP-531
108	On 1106 Page, Ensure Link Node Is in ACT State	TELCO/INST	—

ADD D-CHANNELS IN RING NODE CABINETS 00 AND 32 TO IRN2-SUPPORT TO INSTALLER (INST)

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

109	Repeat Items 107 and 108 for Each Link Node on Shelf Unit Being Upgraded	TELCO/INST	—
110	Enter Message OP:RING;DETD! and Ensure No "i" Is Listed for Any Link node (i = Isolated). If Segment is Isolated, Enter Message CFR:RING! Ensure NORMAL CONFIGURATION, NO NODES ISOLATED Message Is Received	TELCO/INST	—
111	At 1B MCC Terminal, Enter Poke Command 810 (SERVICE DEGRADING FAILURE) Key To Obtain Service-Degrading Report Printout. If There Are Any Units Listed, Make Corrective Action To Clear Service-Degrading Condition of Each Unit Listed Before Continuing	TELCO/INST	—
112	Test (Prove-in) Growth Associated Signaling Link(s) - Internal Link Check	TELCO/INST	DLP-515
113	Test (Prove-in) Growth-Associated Signaling Link(s) - External Link Check	TELCO/INST	DLP-562
114	Copy Incore ECD to Disk	TELCO	DLP-519
115	Soak New Upgraded Link Nodes for 1 Hour To Ensure No Problems Exist With System Operation After Upgrading. If Problems Occur and Backout Is Desired, This Procedure Can Be Used Starting at Item 65 To Back Out DCHANS To IUNs. Contact Appropriate Support Organization for Technical Assistance	TELCO/INST	—
116	At 3B MCRT, Enter Following Messages To Allow Automatic Diagnostics: • ALW:DMQ;SRC REX! • ALW;DMQ;SRC ADP!	TELCO	—
117	Soak New Upgraded Link Nodes for 12 Hours To Ensure No Problems Exist With System Operation After Upgrading. If Problems Occur and Backout Is Desired, This Procedure Can Be Used Starting at Item 65 To Back Out. Contact Appropriate Support Organization for Technical Assistance	TELCO/INST	—
118	Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
119	Update Backup Data Base	TELCO	DLP-521
120	Write 3B Computer Backup Tapes	TELCO	DLP-522
121	Verify Backup Tapes	TELCO	DLP-525

ADD D-CHANNELS IN RING NODE CABINETS 00 AND 32 TO IRN2-SUPPORT TO INSTALLER (INST)

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

		RESPONSIBILITY	
	<i>WARNING: An antistatic wrist strap must be worn to prevent electrostatic discharge and possible damage to circuit packs while handling</i>		
	NOTES: 1. Contact NCC or next higher level of support before beginning procedure 2. AMA data should be transferred (tape and/or teleprocessing) prior to start of each night's growth activity 3. This procedure must be performed during light traffic periods 4. This procedure contains soak intervals for verifying system operation and stability during growth. During the soak interval, all abnormal conditions (such as interrupts, interjects, and diagnostic failures related to growth) must be investigated and resolved immediately. Growth equipment, being soaked, must be error free for at least the time specified 5. There are two DLNs to be converted per RNC 00 and 32; however, there is only one DLN to convert per nightly growth activity		
1	Verify System Status	TELCO/INST	DLP-544
	NOTE: Items 2 through 4 are being performed to ensure clean file system before starting growth		
2	Copy Incore Equipment Configuration Data Base (ECD) To Disk	TELCO	DLP-519
3	Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
4	Update Backup Data Base	TELCO	DLP-521
5	At 3B MCRT, Enter Following Messages To Inhibit Automatic Diagnostics: <ul style="list-style-type: none"> • INH:DMQ;SRC REX! • INH:DMQ;SRC ADP! 	TELCO	—
6	Depress CMD MSG (PF3) Key and Enter 1107 in Command Mode To Obtain Display Page 1107	TELCO	—
	NOTES: 1. Node processor (Position 058) circuit packs will be replaced by IRN2 circuit pack 2. The lowest numbered DLN is converted first		
	(Continued on Page 2)		

CONVERT DIRECT LINK NODE (DLN) TO DLN WITH IRN2

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

7	If APPL STATE for DLN Being Converted Is ACT on 1107 Page, Enter Message SW:DLN, LN00 a, LNbb c! a = DLN Number Being Converted bb/c = Group Number/Member Number of a STBY DLN	TELCO	-
8	Enter Message OP:RING;DETD! and Ensure No " i " Is Listed for Any Link Node (i = Isolated). Only One Area on CNI Ring Can Be Isolated at a Time. If Any Link Node Is Isolated, That Link Node Will Have To Be Restored Before Continuing	TELCO	-
9	Enter Message RMV:LN00 a! (a = Member Number of DLN Being Converted in Standby Mode) To Remove DLN. Ensure RING RMV LN00 a COMPLETED Message Is Received	TELCO	-
10	Enter Message DGN:LN00 a;RAW! (a = Member Number of DLN Being Converted). Ensure DGN LN00 a ATP MSG COMPLETE Message Is Received	TELCO	-
11	Ensure 1107 Page Displays HWDR STATE as OOS for Removed DLN	TELCO	-
12	Enter Message CFR:RING, LN00 a;EXCLUDE! (a = Member Number of DLN Being Converted) To Isolate DLN. Ensure RING CFR LN00 a COMPL Message Is Received	TELCO	DLP-538
13	Enter 1106 in Command Mode To Obtain Display Page 1106	TELCO	-
14	Enter 400 in Command Mode To Obtain BISO-EISO Screen	TELCO	-
15	Ensure DLN Being Converted Is Isolated	TELCO	-
	NOTE: DLN requires both LN and RPCD ucb entries and must be changed in that order		
16	Recent Change DLN Being Converted and Associated RPCD to UNEQIP	TELCO	DLP-578
17	Enter 1107 in Command Mode To Obtain Display Page 1107	TELCO	-
18	Ensure HWDR STATE for DLN Being Converted Is UNEQIP	TELCO	-
19	At DLN Being Converted, Remove UN303B Circuit Pack and Replace With UN304 (MC3F024A1C) Circuit Pack, as Required	TELCO	-
	NOTE: RPCD data must be recent changed before DLN data. While recent changing RPCD and DLN, hv and mv values and packcode should be recorded in case backout is required		
20	Recent Change hv and mv Values and packcode for RPCD and DLN Being Converted. Change Major Status to GROW (If Backout is Required, use DLP-581)	TELCO	DLP-579
	(Continued on Page 3)		

CONVERT DIRECT LINK NODE (DLN) TO DLN WITH IRN2

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DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

21	On 1107 Page, Ensure HDWR STATE for DLN Being Converted Is GROW	TELCO	-
22	Enter Message DGN:LN00 a;RAW! (a = Member Number of DLN Being Converted); No Diagnostic Failures Allowed on Phases Run. Wait for DGN LN00 a ATP MSG COMPLETE Message	TELCO	-
23	Enter Message SW:CU! To Switch CUs	TELCO	-
24	Enter Message DGN:LN00 a;RAW! (a= Member Number of DLN Being Converted); No Diagnostic Failures Allowed on Phases Run. Wait for DGN LN00 a ATP MSG COMPLETE Message	TELCO	-
	NOTE: RPCD does not require being recent changed OOS		
25	Recent Change DLN Being Converted to OOS	TELCO	DLP-580
26	Enter 1107 in Command Mode To Obtain Display Page 1107	TELCO	-
27	Ensure HWDR STATE for DLN Being Converted Is OOS	TELCO	-
28	Redip Equipment Configuration Data Base (ECD) and Pump Converted DLN	TELCO	DLP-582
29	Enter Message RST:LN00 a;UCL! (a = Member Number of DLN Being Converted) To Restore DLN. Ensure RING RST LN00 a COMPLETED Message Is Received	TELCO	DLP-583
30	Enter 1107 in Command Mode To Obtain Display Page 1107	TELCO	-
31	Ensure HWDR STATE for DLN Being Converted Is ACT	TELCO	-
32	Enter Message OP:RING;DETD! Ensure No "i" is Listed for Any Link Node (i = isolated). If Segment Is Isolated, Enter Message CFR:RING! Ensure NORMAL CONFIGURATION, NO NODES ISOLATED Message Is Received	TELCO/INST	-
33	Enter Message AUD:DLN 1,INS "LN00-a" ! (a - Member Number of DLN Being Converted) To Run DLN 1 Audit. Ensure Number of Errors Found and Number of Errors Corrected Are Same	TELCO/INST	-
34	Enter Message AUD:DLN 2,INS "LN00-a" ! (a - Member Number of DLN Being Converted) To Run DLN 2 Audit. Ensure Number of Errors Found and Number of Errors Corrected Are Same	TELCO/INST	-
35	Enter Message AUD:DLN 3,INS "LN00-a" ! (a - Member Number of DLN Being Converted) To Run DLN 3 Audit. Ensure Number of Errors Found and Number of Errors Corrected Are Same	TELCO/INST	-
36	Soak DLN Being Converted As Standby DLN for 1 Hour	TELCO	-
37	Enter 1107 in Command Mode To Obtain Display Page 1107 and Ensure Converted DLN is in STBY mode	TELCO	-

CONVERT DIRECT LINK NODE (DLN) TO DLN WITH IRN2

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

	NOTE: Items 38 through 44 are done to test the DLN just converted in the 1WAY IN and 1WAY OUT mode. The actual configuration of the other nodes (ACT/STBY - SCANIN/SCANOUT) will vary and needs to be determined before the actual switch of the node (two nodes will be in STBY)		
38	Using 1107 Page, Determine and Record Which DLN Has the Following Configuration: HDWR STATE = ACT APPL STATE = ACT MODE = 1WAY IN STREAM = SCANIN	TELCO	—
39	Enter Message SW:DLN,LNaa b,LN00 c! To Make DLN Converted Active aa = Group Number of DLN Determined in Item 38 b = Member Number of DLN Determined in Item 38 c = Member Number of DLN Being Converted	TELCO	—
40	Soak DLN Converted in ACT 1WAY IN State for 1 Hour	TELCO/INST	—
41	Enter Message SW:DLN,LNaa b,LN00 c! To Make DLN Converted Standby aa = Group Number of DLN Determined in Item 38 b = Member Number of DLN Determined in Item 38 c = Member Number of DLN Being Converted	TELCO	—
42	Using 1107 Page, Determine and Record Which DLN Has the Following Configuration: HDWR STATE = ACT APPL STATE = ACT MODE = 1WAY OUT STREAM = SCANOUT	TELCO	—
43	Enter Message SW:DLN,LNaa b,LN00 c! To Make DLN Converted Active aa = Group Number of DLN Determined in Item 42 b = Member Number of DLN Determined in Item 42 c = Member Number of DLN Being Converted	TELCO	—
44	Soak DLN Converted in ACT 1WAY OUT State for 1 Hour	TELCO/INST	—
45	At 3B MCRT, Enter Following Messages To Allow Automatic Diagnostics: • ALW:DMQ;SRC REX! • ALW:DMQ;SRC ADP!	TELCO	—
	(Continued on Page 5)		

CONVERT DIRECT LINK NODE (DLN) TO DLN WITH IRN2

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

46	Copy Incore ECD to Disk	TELCO	DLP-519
	NOTE: Soak new DLN until next night's shift to ensure no problem exists with system operation after growing		
47	Safe Point To Temporarily Stop This Procedure. If for Any Reason Backout Is Necessary, hv and mv Values, and Packcode Must Be Changed to Their Old Values. Old Circuit Packs Must Replace IRNB Circuit Pack Removed. This Procedure Can Be Used (Starting at Item 5 for Backout). Contact Appropriate Support Organization for Technical Assistance	TELCO/INST	-
48	Verify System Status	TELCO/INST	DLP-544
49	Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
50	Repeat Items 5 Through 49 for Next DLN on RNC 00 (There Are Two DLNs)	TELCO/INST	-
51	At 3B MCRT, Enter Following Messages To Inhibit Automatic Diagnostics: <ul style="list-style-type: none"> • INH:DMQ;SRC REX! • INH:DMQ;SRC ADP! 	TELCO	-
	NOTES: 1. Node processor (Position 058) circuit packs will be replaced by IRN2 circuit pack 2. DLN(s) will be converted in RNC 32 next		
52	Depress CMD MSG (PF3) Key and Enter 1107 in Command Mode To Obtain Display Page 1107	TELCO	-
53	If APPL STATE for DLN Being Converted Is ACT on 1107 Page, Enter Message SW:DLN,LN32 a,LNbb c! a = DLN Number Being Converted bb/c = Group Number/Member Number of a STBY DLN	TELCO	-
54	Enter Message OP:RING;DETD and Ensure No "i" Is Listed for Any Link Node (i = Isolated). Only One Area on CNI Ring Can Be Isolated at a Time. If Any Link Node Is Isolated, That Link Node Will Have To Be Restored Before Continuing	TELCO	-
55	Enter Message RMV:LN32 a! (a = Member Number of DLN Being Converted in Standby Mode) To Remove DLN. Ensure RING RMV LN32 a COMPLETED Message Is Received	TELCO	-
56	Enter Message DGN:LN32 a;RAW! (a = Member Number of DLN Being Converted). Ensure DGN LN32 a ATP MSG COMPLETE Message Is Received	TELCO	-
57	Ensure 1107 Page Displays HDWR STATE as OOS for Removed DLN	TELCO	-

CONVERT DIRECT LINK NODE (DLN) TO DLN WITH IRN2

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

58	Enter Message CFR:RING,LN32 a; EXCLUDE! (a = Member Number of DLN Being Converted) To Isolate DLN. Ensure RING CFR LN32 a COMPL Message Is Received	TELCO	DLP-538
59	Enter 1106 in Command Mode To Obtain Display Page 1106	TELCO	-
60	Enter 400 in Command Mode To Obtain BISO-EISO Screen	TELCO	-
61	Ensure DLN Being Converted Is Isolated	TELCO	-
	NOTE: DLN requires both LN and RPCD ucb entries and must be changed in that order		
62	Recent Change DLN Being Converted and Associated RPCD to UNEQUIP	TELCO	DLP-578
63	At 3B MCRT, Enter 1107 in Command Mode To Obtain Display Page 1107	TELCO	-
64	Ensure HDWR STATE for DLN Being Converted Is UNEQUIP	TELCO	-
65	At DLN Being Converted, Remove UN303B Circuit Pack and Replace With UN304 (MC3F024A1C) Circuit Pack, as Required	TELCO	-
	NOTE: RPCD data must be recent changed before DLN data. While recent changing RPCD and DLN, hv and mv values and packcode should be recorded in case backout is required		
66	Recent Change hv and mv Values, and Packcode for RPCD and DLN Being Converted. Change Major Status to GROW . (If Backout Is Required, Use DLP-581)	TELCO	DLP-579
67	On 1107 Page, Ensure HDWR STATE for DLN Being Converted Is GROW	TELCO	-
68	Enter Message DGN:LN32 a;RAW! (a = Member Number of DLN Being Converted); No Diagnostic Failures Allowed on Phases Run. Wait for DGN LN32 a ATP MSG COMPLETE Message	TELCO	-
69	Enter Message SW:CU! To Switch CUs	TELCO	-
70	Enter Message DGN:LN32 a;RAW! (a = Member Number of DLN Being Converted); No Diagnostic Failures Allowed on Phases Run. Wait for DGN LN32 a ATP MSG COMPLETE Message	TELCO	-
	NOTE: RPCD does not require being recent changed OOS		
71	Recent Change DLN Being Converted to OOS	TELCO	DLP-580
72	At 3B MCRT, Enter 1107 in Command Mode To Obtain Display Page 1107	TELCO	-
73	Ensure HDWR STATE for DLN Being Converted Is OOS	TELCO	-
74	Redip Equipment Configuration Data Base (ECD) and Pump Converted DLN	TELCO	DLP-582

CONVERT DIRECT LINK NODE (DLN) TO DLN WITH IRN2

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

75	Enter Message RST:LN32 a; UCL! (a = Member Number of DLN Being Converted) To Restore DLN. Ensure RING RST LN32 a COMPLETED Message Is Received	TELCO	DLP-583
76	Enter 1107 in Command Mode To Obtain Display Page 1107	TELCO	-
77	Ensure HDWR STATE for DLN Being Converted Is ACT	TELCO	-
78	Enter Message OP:RING;DETD! Ensure No "i" is Listed for Any Link Node (i = Isolated). If Segment Is Isolated, Enter Message CFR:RING! Ensure NORMAL CONFIGURATION, NO NODES ISOLATED Message Is Received	TELCO/INST	-
79	Enter Message AUD:DLN 1, INS "LN32-a"! (a = Member Number of DLN Being Converted) To Run DLN 1 Audit. Ensure Number of Errors Found and Number of Errors Corrected Are Same	TELCO/INST	-
80	Enter Message AUD:DLN 2, INS "LN32-a"! (a = Member Number of DLN Being Converted) To Run DLN 2 Audit. Ensure Number of Errors Found and Number of Errors Corrected Are Same	TELCO/INST	-
81	Enter Message AUD:DLN 3, INS "LN32-a"! (a = Member Number of DLN Being Converted) To Run DLN 3 Audit. Ensure Number of Errors Found and Number of Errors Corrected Are Same	TELCO/INST	-
82	Soak DLN Being Converted As Standby DLN for 1 Hour	TELCO	-
83	At 3B MCRT, Enter 1107 in Command Mode To Obtain Display Page 1107 and Ensure Converted DLN is in STBY mode	TELCO	-
	NOTE: Items 84 through 90 are done to test the DLN just converted in the 1WAY IN and 1WAY OUT mode. The actual configuration of the other nodes (ACT/STBY - SCANIN/SCANOUT) will vary and needs to be determined before the actual switch of the node (two nodes will be in STBY)		
84	Using 1107 Page, Determine and Record Which DLN Has the Following Configuration: HDWR STATE = ACT APPL STATE = ACT MODE = 1WAY IN STREAM = SCANIN	TELCO	-
85	Enter Message SW:DLN, LNaa b, LN32 c! To Make DLN Being Converted Active aa = Group Number of DLN Determined in Item 84 b = Member Number of DLN Determined in Item 84 c = Member Number of DLN Being Converted	TELCO	-
86	Soak DLN Converted in ACT 1WAY IN State for 1 Hour	TELCO/INST	-

CONVERT DIRECT LINK NODE (DLN) TO DLN WITH IRN2

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

87	Enter Message SW:DLN,LNaa b,LN32 c! To Make DLN Being Converted Standby aa = Group Number of DLN Determined in Item 84 b = Member Number of DLN Determined in Item 84 c = Member Number of DLN Being Converted	TELCO	-
88	Using 1107 Page, Determine and Record which DLN Has the Following Configuration: HDWR STATE = ACT APPL STATE = ACT MODE = 1WAY OUT STREAM = SCANOUT	TELCO	-
89	Enter Message SW:DLN,LNaa b,LN32 c! To Make DLN Converted Active aa = Group Number of DLN Determined in Item 88 b = Member Number of DLN Determined in Item 88 c = Member Number of DLN Being Converted	TELCO	-
90	Soak DLN Converted in ACT 1WAY OUT State for 1 Hour	TELCO/INST	-
91	At 3B MCRT, Enter Following Messages To Allow Automatic Diagnostics: • ALW:DMQ;SRC REX! • ALW:DMQ;SRC ADP!	TELCO	-
92	Copy Incore ECD to Disk	TELCO	DLP-519
93	Safe Point To Temporarily Stop This Procedure. If for Any Reason Backout Is Necessary, hv and mv Values, and Packcode Must Be Changed to Their Old Values. Old Circuit Packs Must Replace IRNB Circuit Packs Removed. This Procedure Can Be used (Starting at Item 51 for Backout). Contact Appropriate Support Organization for Technical Assistance	TELCO/INST	-
94	Verify System Status	TELCO/INST	DLP-544
95	Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
96	Repeat Items 51 Through 95 for Next DLN on RNC 32 (There Are Two DLNs)	TELCO/INST	-
97	Update Backup Data Base	TELCO	DLP-521
98	Write 3B Computer Backup Tapes	TELCO	DLP-522
99	Verify Backup Tapes	TELCO	DLP-525
	NOTE: Soak new DLN until next night's shift to ensure no problem exists with system operation after growing		

CONVERT DIRECT LINK NODE (DLN) TO DLN WITH IRN2

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

		RESPONSIBILITY	
	<i>WARNING: An antistatic wrist strap must be worn to prevent electrostatic discharge and possible damage to circuit packs while handling</i>		
	<p>NOTES:</p> <ol style="list-style-type: none"> This procedure should be performed during light traffic periods This procedure contains a soak interval for verifying system operation and stability during growth. During the soak interval, all abnormal conditions (such as interrupts, interjects and diagnostic failures related to growth) must be investigated and resolved immediately. Growth equipment, being soaked, must be error free for at least 12 hours. No other growth activity can take place until this soak is complete Throughout this procedure, the following term, LNxx yy, is used where: xx = Group Number yy = Member Number 		
1	Ensure Room Is Available for Growth Link Node(s) in the Ring Node Cabinet (RNC)	INST	—
2	Ensure All Cables and Circuit Packs for Growth Link Node(s) Are Available	INST	—
3	Verify System Status	TELCO	DLP-544
4	Perform Preliminary Installation Activities	INST	—
5	Safe Point To Temporarily Stop This Procedure	TELCO	—
6	If Procedure Was Stopped in Item 6, Verify System Status	TELCO	DLP-544
7	At MCRT, Enter Following Messages To Inhibit Automatic Diagnostics: <ul style="list-style-type: none"> • INH:DMQ;SRC REX! • INH:DMQ;SRC ADP! 	TELCO	—
8	Perform the Following To Ensure Clean File System Before Starting Growth:		
	1. Copy Incore Equipment Configuration Data Base (ECD) to Disk	TELCO	DLP-519
	2. Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
	3. Update Backup Data Base	TELCO	DLP-521
	(Continued on Page 2)		

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

	NOTE: Only link nodes associated with one shelf unit can be grown prior to entering the soak interval. If there are other link nodes to be grown into another shelf unit, this procedure must be repeated		
9	If Growth Link Node(s) Will Be the First Node(s) To Be Equipped on the Shelf Unit, the Interframe Buffer (IFB) Will Have To Be Moved From the Adjacent Lower Shelf:		
	1. Enter 1106 in Command Mode To Obtain the 1106 Display Page	TELCO	—
	2. Using the 1106 Page, Determine the Number of the Next Node Lower Than the Growth Node(s)	TELCO	—
	3. If the Link Node Determined in Item 9.2 Is CCS7, DCHAN, or SADC:		
	A. Notify Users on the Link Node Determined in Item 9.2 That Their Signaling Links Will Be Temporarily Removed From Service	TELCO	—
	B. Change Active Signaling Link(s) on the Link Node Determined in Item 9.2 to MOOS [Record Modified Signaling Link(s) for Later Use]	TELCO	DLP-526
	4. At MCRT, Enter Message RMV:LNxx yy! To Remove Link Nodes in Item 9.2	TELCO	—
10	Enter Message CFR:RING,LNxx yy;EXCLUDE! To Isolate the Growth Link Node(s)	TELCO	DLP-538
11	If the IFB Needs To Be Moved, as Determined in Item 9, Perform the Following:		
	1. IFB Pack Is Required To Be Moved From the Node in Item 9.2 to the Highest Growth Link Node in the Cabinet	INST	—
	2. Recent Change the Link Node That the IFB Was Moved From, to UNEQIP (Do Not Exit Recent Change)	TELCO	DLP-539
	3. Recent Change the hv Value for the Link Node in Item 9.2 and Change the MAJOR State to Grow (Do Not Exit Recent Change)	TELCO	DLP-527
	4. Recent Change the Link Node in Item 9.2 to OOS (Do Not Exit Recent Change)	TELCO	DLP-528
12	Determine Node-Specific Data for All Growth Nodes	TELCO	—
13	Recent Change the Node-Specific Variables as Described in DLP-565 (Do Not Exit Recent Change)	TELCO	DLP-559
14	Recent Change Each Growth Node From UNEQIP to GROW	TELCO	DLP-560
	(Continued on Page 3)		

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

15	Connect Unbalanced (Intraframe) Bus Cables and Balanced (Interframe) Bus Cables as Required for Growth Link Node(s)	INST	—
16	Seat Circuit Boards:		
	1. SSI RNC:		
	• Seat NP, RI1, and RIO	INST/TELCO	—
	2. HD RNC:		
	• Seat IRN2 or IRNB	INST/TELCO	—
17	If a Link Node Was Removed in Item 9.4, Perform the Following for That Node:		
	1. At the MCRT, Enter Message RST:LNxx yy!	TELCO	—
	2. If the Link Node Just Restored Was CCS7, DCHAN, or SADC:		
	A. Change Signaling Link(s) Recorded in Item 9.3 to IS	TELCO	DLP-529
	B. Notify Users on the Link(s) Just Restored to Service To Resume Their Activities	TELCO	—
18	Enter Message DGN:LNxx yy;RAW! To Diagnose Each Growth Link Node. No Diagnostic Failures Are Allowed	TELCO	—
19	Recent Change Each Growth Link Node From GROW to OOS	TELCO	DLP-509
20	Enter Message CFR:RING! To Return Ring Configuration to Normal State	TELCO	DLP-530
21	At MCRT, If 1106 Page Is Not Displayed, Enter 1106 in Command Mode	TELCO	—
22	Enter Message RST:LNxx yy;UCL! To Unconditionally Restore Each Growth Link Node	TELCO/INST	DLP-531
23	Copy Incore ECD to Disk	TELCO	DLP-519
24	At MCRT, Enter Following Messages To Allow Automatic Diagnostics:		
	• ALW:DMQ;SRC REX!	TELCO	—
	• ALW:DMQ;SRC ADP!		
25	Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
26	Update Backup Data Base	TELCO	DLP-521
	(Continued on Page 4)		

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

27	Soak Growth Ring Hardware for a Minimum of 12 Hours To Ensure That No Problems Exist With System Operation. If Problems Are Identified, Resolve Before Continuing Any Other Activities	TELCO	-
28	Following Completion of All Growth Activities for This Job:		
	1. Write 3B Computer Backup Tapes	TELCO	DLP-522
	2. Verify Backup Tapes	TELCO	DLP-525

ADD IMS USER NODE (IUN) GROWTH

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

		RESPONSIBILITY	
	<i>WARNING: An antistatic wrist strap must be worn to prevent electrostatic discharge and possible damage to circuit packs while handling</i>		
	NOTES: 1. AMA data should be transferred (tape and/or teleprocessing) prior to start of the growth activity of each night 2. This procedure must be performed during light traffic periods 3. This procedure contains soak intervals for verifying system operation and stability during growth. During the soaking interval, all abnormal conditions (such as interrupts, interjects, and diagnostic failures related to growth) must be investigated and resolved immediately. Growth equipment, being soaked, must be error free for at least the time specified 4. Ethernet interface node (EIN) link node will be grown in ring node cabinets 9 and 41, Node 3 and Node 4 5. When adding the EIN shelf, Intraframe or Interframe buffers will have to be moved or removed. Identify which link nodes will require UCB changes and determine if customers need to be notified before making those changes.		
1	Ensure Shelf Unit for Ethernet Interface Node Is Installed in HDRC	TELCO/INST	—
2	Verify System Status	TELCO/INST	DLP-544
3	Perform Preliminary Installation Activities	INST	—
4	Safe Point To Temporarily Stop This Procedure	INST	—
	NOTE: Software tool BWM for growing Ethernet interface node must be applied before performing this procedure		
5	If Procedure Was Stopped (Item 4), Verify System Status	TELCO	DLP-544
6	At MCRT, Enter Following Messages To Inhibit Automatic Diagnostics: • INH:DMQ;SRC REX! • INH:DMQ;SRC ADP!	TELCO	—
	NOTE: Items 7 through 9 are being performed to ensure clean file system before starting growth		
7	Copy Incore Equipment Configuration Data Base (ECD) to Disk	TELCO	DLP-519
8	Run File System Audits To Ensure No File System Errors	TELCO	DLP-520

ADD ETHERNET INTERFACE NODE (EIN) FOR CDRP — SUPPORT TO INSTALLER (INST)

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

9	Update Backup Data Base	TELCO	DLP-521
	NOTE: EIN link node will be grown in Ring Node Cabinet 09 first		
10	At MCRT, Enter Message OP:RING;DETD! and Ensure No "i" Is Listed for Any Link Node (i = Isolated). Only One Area on CNI Ring Can Be Isolated at a Time. If Any Link Node Is Isolated, That Link Node Will Have To Be Restored Before Continuing	TELCO	-
	NOTE: Only link nodes associated with one shelf unit can be grown prior to entering the soak interval. If there are other link nodes to be grown into another shelf unit, this procedure must be repeated		
11	Perform the following To Determine If the Intraframe Buffers or Interframe Buffers are Moved or Removed:		
	1. At MCRT, Enter 1105 in Command Mode To Obtain the 1105 Display Page	-	-
	2. Using the 1105 Page, Determine the Next HIGHER Node From the Growth Shelf and Record the Node Number (LNxx yy) and the Node Type (ie; DCHAN, SADC, CCS7)	TELCO	-
	3. If the LN09 Shelf Is the Highest Shelf in the Cabinet (RNC 06), Perform Item 11.6; Otherwise Go To Item 11.4	TELCO	-
	4. If There Is a Gap Between LN09 Shelf and the Next Highest Shelf in RNC 06, Perform Item 11.6; Otherwise Go to Item 11.5	TELCO	-
	5. Determine if Users Need To Be Removed From Service:		
	A. If the Next Higher Node Determined in Item 11.2 Is DCHAN, SADC, or CCS7, Notify Users on the Link Node That Their Signaling Links Will Be Temporarily Removed From Service	TELCO	-
	B. Change Active Signaling Links on the Link Node Determined in Item 11.2 to MOOS (Record Modified Signaling Link(s) for Later Use)	TELCO	DLP-526
	C. At MCRT, Enter Message RMV:LNxx yy! To Remove Link Node Determined in Item 11.2	TELCO	-
(Continued on Page 3)			

ADD ETHERNET INTERFACE NODE (EIN) FOR CDRP — SUPPORT TO INSTALLER (INST)

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

11 (Contd)	6. Using the 1105 Page, Determine the Next LOWER Node From the Growth Shelf and Record the Node Number (LNxx yy) and the Node Type (ie; DCHAN, SADC, CCS7)	TELCO	-
	A. If the Next Lower Node Determined in Item 11.6 Is DCHAN, SADC, or CCS7, Notify Users on the Link Node That Their Signaling Links Will Be Temporarily Removed From Service	TELCO	-
	B. Change Active Signaling Links on the Link Node Determined in Item 11.6 to MOOS (Record Modified Signaling Link(s) for Later Use)	TELCO	DLP-526
	C. At MCRT, Enter Message RMV:LNxx yy! To Remove Link Node Determined in Item 11.6	TELCO	-
12	Enter Message CFR:RING, LNxx yy; EXCLUDE! To Isolate the Growth Link Node(s)	TELCO	DLP-538
13	Perform the following To Move or Remove the Intraframe Buffers or Interframe Buffers:	TELCO	-
	1. If the LN09 Shelf Is the Highest Shelf in the Cabinet (RNC 06), Perform Item 13.6; Otherwise Go To Item 13.2	TELCO	-
	2. If there Is a Gap Between LN09 and the Next Highest Shelf in RNC 06, Perform Item 13.6; Otherwise Go to Item 13.3	TELCO	-
	NOTE: The following items are used to recent change the hv value on the next higher node to 0xc000		
	3. Using the 1105 Page, Determine the Next HIGHER Shelf (Probably LN10, Node 2) and Record the Node Number	TELCO	-
	A. Recent Change the Link Node Recorded in Item 13.3 to UNEQIP (Do Not Exit Recent Change)	TELCO	DLP-539
	B. Recent Change the hv Value for the Link Node in Item 13.3 and Change the MAJOR State to Grow (Do Not Exit Recent Change)	TELCO	DLP-527
	C. Recent Change the Link Node in Item 13.3 to OOS (Exit Recent Change)	TELCO	DLP-528
	D. Unseat the IFB Pack and Disconnect Cable In Item 13.3	INST	-
	NOTE: The following items are used to recent change the hv value on the next lower node to 0x_ _00		
(Continued on Page 4)			

ADD ETHERNET INTERFACE NODE (EIN) FOR CDRP – SUPPORT TO INSTALLER (INST)

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

13 (Contd)	4. Using the 1105 Page, Determine the LOWER Shelf (Probably LN08, Node 7) and Record the Node Number	TELCO	-
	A. Recent Change the Link Node Recorded in Item 13.4 to UNEQIP (Do Not Exit Recent Change)	TELCO	DLP-539
	B. Recent Change the hv Value for the Link Node in Item 13.4 and Change the MAJOR State to Grow (Do Not Exit Recent Change)	TELCO	DLP-527
	C. Recent Change the Link Node in Item 13.4 to OOS (Exit Recent Change)	TELCO	DLP-528
	D. Unseat the IFB Pack and Disconnect Cable In Item 13.4	INST	-
	5. Perform the following To Grow the IUN (at LN09-4) and Record Node Number:	TELCO	-
	A. Determine Node-Specific Data for the Growth Node At LN09-4	TELCO	DLP-561
	B. Recent Change the Node-Specific Variables as Recorded in Item 13.5.A (Do Not Exit Recent Change)	TELCO	DLP-559
	C. Recent Change the Link Node (at LN09-4) From UNEQIP to GROW (Do Not Exit Recent Change)	TELCO	DLP-560
	D. Recent Change the Link Node (at LN09-4) to OOS (Exit Recent Change)	TELCO	DLP-528
	E. Continue To Item 14	TELCO	-
	(Continued on Page 5)		

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

13 (Contd)	6. Perform the following To Move the IFB From a Lower Shelf to LN09 Shelf:	TELCO	—
	A. Using the 1105 Page, Determine the Next LOWER Node From the Growth Shelf and Record the Node Number (LNxx yy) and the Node Type (ie; DCHAN, SADC, CCS7)	TELCO	—
	B. Recent Change the Link Node Recorded in Item 13.6.A to UNEQIP (Do Not Exit Recent Change)	TELCO	DLP-539
	C. Recent Change the hv Value for the Link Node in Item 13.6.A and Change the MAJOR State to Grow (Do Not Exit Recent Change)	TELCO	DLP-527
	D. Recent Change the Link Node in Item 13.6.A to OOS (Exit Recent Change)	TELCO	DLP-528
	E. Move the IFB From Lower Shelf to 13.6.A	INST	—
	F. Determine Node-Specific Data for the Growth Node for LN09-04	TELCO	DLP-561
	G. Recent Change the Node-Specific Variables as Recorded in Item 13.6.F (Do Not Exit Recent Change)	TELCO	DLP-559
	H. Recent Change the Link Node in Item 13.6.F From UNEQIP to GROW (Do Not Exit Recent Change)	TELCO	DLP-560
	I. Recent Change the Link Node in Item 13.6.F to OOS (Exit Recent Change)	TELCO	DLP-528
14	Connect Unbalanced (Intraframe) Bus Cables and Balanced (Interframe) Bus Cables as Required for Growth Link Node(s)	INST	—
15	Depress NORM/DISP (PF2) Key and Enter 1106 in Command Mode To Obtain Display Page 1106	TELCO	—
16	If Ring Node Cabinet Group Containing EIN Link Node Shelf Unit (LN09 3) Is Not Displayed, Enter 609 in Command Mode	TELCO	—
17	Ensure EIN Link Node Being Grown Is Not Displayed (UNEQIP). If the Node Is Already Grown as an IUN, It Must Be Unequipped With the "ein.uneqip" Script Using the Following Command: EXC:ENVIR:UPROC,FN"/database/tools/ein.uneqip",ARGS("EIN09")!	TELCO	DLP-573

**ADD ETHERNET INTERFACE NODE (EIN) FOR CDRP — SUPPORT TO
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DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

18	At MCRT, Enter Message INH:AUD:ALL! To Inhibit Audits	TELCO	-
19	Initiate Process To Define New mdct and RPCD UCB Records	TELCO	DLP-569
20	At MCRT, Enter Message ALW:AUD:ALL! To Allow Audits	TELCO	-
21	Using 1106 Page, Enter 400 in Command Mode To Obtain BISO-EISO Display. Ensure EIN Link Node Being Grown Is Isolated	TELCO	-
22	If the Installed Shelf Has the Circuit Packs Seated, Perform Items 23 Through 26; Otherwise Go to Item 27	TELCO/INST	-
23	At EIN Link Node Being Grown, Unseat UN304 (IRN2 Pack), TN1460 (Ethernet Pack), TN69B (Dual Serial Channel Pack) and TN914 (3B Interface Pack) Circuit Packs. At Adjacent IUN Node, Unseat UN303B/UN304 (IRNB/IRN2) Circuit Packs	INST	-
24	Unseat Both 495FA/410AA Power Units Associated With EIN Link Node Being Grown	INST	-
25	At RNC Power Control Unit, Depress ALARM RESET Key To Release Alarm	TELCO	-
26	At MCRT, Depress ALM REL (PF4) Key To Silence Alarm	TELCO	-
27	Recent Change mv, hv, and Major State for RPCD and EIN Link Node UCB for EIN Link Node Being Grown. EXC:ENVIR:UPROC,FN"/database/tools/ein.grow",ARGS("EIN09")!	TELCO	DLP-570
28	Depress NORM/DISP (PF2) Key and Enter 1106 in Command Mode To Obtain Display Page 1106	TELCO	-
29	Enter 400 in Command Mode To Obtain BISO-EISO Display. Ensure EIN Link Node Being Grown Is Isolated and MAJOR STATE Is GROW	TELCO	-
30	Complete EIN Wiring and Cabling to Ring Node Cabinet Backplane	INST	-
31	Connect Dual Serial Channel Cables to Ring Node Cabinet Backplane at TN69B Circuit Pack Location for EIN Link Node Being Grown	INST	-
32	Seat Both 495FA/410AA Power Units Associated With EIN Link Node Being Grown	INST	-
33	At RNC Power Control Unit, Depress ALARM RESET Key To Release Alarm	TELCO	-
34	At MCRT, Depress ALM RLS (PF4) Key to Silence Alarm	TELCO	-
	(Continued on Page 7)		

ADD ETHERNET INTERFACE NODE (EIN) FOR CDRP – SUPPORT TO INSTALLER (INST)

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

35	At EIN Link Node Being Grown, Seat UN304 (IRN2 Pack), TN1460 (Ethernet Pack), TN69B (Dual Serial Channel Pack) and TN914 (3B Interface Pack) Circuit Packs. At Adjacent IUN Node, Seat UN303B/UN304 (IRNB/IRN2) Circuit Packs	INST	—
36	Connect Ethernet Cables Associated With EIN Link Node Being Grown	INST	—
37	If a Link Node(s) Was Removed in Item 11, Perform the Following for That Node:		
	1. At the MCRT, Enter Message RST:LNxx yy!	TELCO	—
	2. If the Link Node Just Restored Was CCS7, DCHAN, or SADC:		
	A. Change Signaling Link(s) Recorded in Item 11 to IS	TELCO	DLP-529
	B. Notify Users on the Link(s) Just Restored to Service To Resume Their Activities	TELCO	—
38	At MCRT, if Screen Does Not Display EMERGENCY ACTION PAGE, Depress EA DISP (PF1) Key	TELCO	—
39	On EMERGENCY ACTION PAGE, if CU 0 or CU 1 Is Forced On-Line (FONL), Enter 13 in Command Mode To Clear Force	TELCO	—
40	At MCRT, If CU 0 Is ACT RUN, Enter Message SW:CU! To Make CU 0 Standby	TELCO	—
41	On EMERGENCY ACTION PAGE, Enter 12 in Command Mode To Force CU 1 On-Line (FONL)	TELCO	—
42	Using Power Switch, Remove From Service and Power Down CU 0	TELCO	DLP-500
43	If Office Is Equipped With a Model 1 3B Computer, at CU 0, Determine if UN37 (DMA Pack) Circuit Pack Associated With EIN Link Node Is Installed	INST	—
44	If Office Is Equipped With a Model 1 3B Computer and Does Not Have UN37 (DMA Pack) Circuit Pack (Item 43), Perform Item 45; Otherwise, Go to Item 46	INST	—
45	At CU 0, Insert UN37 Circuit Pack Associated With EIN Link Node Being Grown	INST	—
46	Connect Dual Serial Channel Cable to CU Backplane at UN9/UN9B (3B20) or KBN15 (3B21) Circuit Pack Location	INST	—
	NOTE: Be careful in using the sin.cueq script; it is the actual script to be used to update CU equipage values. Enter exactly as shown in Item 47. Also, the output message will display SIN information while updating the CU equipage for DSCH		
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ADD ETHERNET INTERFACE NODE (EIN) FOR CDRP — SUPPORT TO INSTALLER (INST)

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DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

47	At MCRT, Recent Change Equipage Value for CU 0 CH 12 (3B20) or CH17/19 (3B21) for EIN Link Node Selected in Item 27 as Follows: EXC:ENVIR:UPROC,FN"/database/tools/sin.cueq",ARGS("SIN09","CU0")!	TELCO	DLP-554
48	At MCRT, if Screen Does Not Display EMERGENCY ACTION PAGE, Depress EA DISP (PF1) Key	TELCO	—
49	Enter 13 in Command Mode To Remove Force on CU 1	TELCO	—
50	Using Power Switch, Power Up and Restore to Service CU 0	TELCO	DLP-501
51	Soak CU 0 as Standby CU for 15 Minutes	TELCO/INST	—
52	At MCRT, Enter Message SW:CU! To Make CU 0 Active	TELCO	—
53	Soak CU 0 as Active CU for 30 Minutes	TELCO/INST	—
	NOTE: Items 54 through 68 are being performed to connect dual serial channel cable to CU 1		
54	At MCRT, if Screen Does Not Display EMERGENCY ACTION PAGE, Depress EA DISP (PF1) Key	TELCO	—
55	On EMERGENCY ACTION PAGE, if CU 0 or CU 1 Is Forced On-Line (FONL), Enter 13 in Command Mode To Clear Force	TELCO	—
56	If CU 1 Is ACT RUN, Enter Message SW:CU! To Make CU 1 Standby	TELCO	—
57	Enter 12 in Command Mode To Force CU 0 On-Line (FONL)	TELCO	—
58	Using Power Switch, Remove From Service and Power Down CU 1	TELCO	DLP-500
59	If Office Is Equipped With a Model 1 3B Computer, at CU 1, Determine if UN37 (DMA Pack) Circuit Pack Associated With EIN Link Node Is Installed	INST	—
60	If Office Is Equipped With a Model 1 3B Computer and Does Not Have UN37 (DMA Pack) Circuit Pack (Item 59), Perform Item 61; Otherwise, Go to Item 62	INST	—
61	At CU 1, Insert UN37 Circuit Pack Associated With EIN Link Node Being Grown	INST	—
62	Connect Dual Serial Channel Cable to CU Backplane at UN9/UN9B (3B20) or KBN15 (3B21) Circuit Pack Location	INST	—
	NOTE: Be careful in using the sin.cueq script; it is the actual script to be used to update CU equipage values. Enter exactly as shown in Item 63. Also, the output message will display SIN information while updating the CU equipage for DSCH		

ADD ETHERNET INTERFACE NODE (EIN) FOR CDRP — SUPPORT TO INSTALLER (INST)

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

63	At MCRT, Recent Change Equipage Value for CU 1 CH 12 (3B20) or CH17/19 (3B21) for EIN Link Node Selected in Item 27 as Follows: EXC:ENVIR:UPROC, FN"/database/tools/sin.cueq", ARG("SIN09", "CU1")!	TELCO	DLP-554
64	At MCRT, if Screen Does Not Display EMERGENCY ACTION PAGE, Depress EA DISP (PF1) Key	TELCO	—
65	Enter 13 in Command Mode To Remove Force on CU 0	TELCO	—
66	Using Power Switch, Power Up and Restore To Service CU 1	TELCO	DLP-501
67	Soak CU 1 as Standby CU for 15 Minutes	TELCO/INST	—
68	At MCRT, Enter Message SW:CU! To Make CU 1 Active	TELCO	—
69	Soak CU 1 as Active CU for 30 Minutes	TELCO/INST	—
70	At MCRT, Depress NORM/DISP (PF2) Key and Enter 1106 in Command Mode To Obtain Display Page 1106	TELCO	—
71	If Ring Node Cabinet Group Containing EIN Link Node Shelf Unit Is Not Displayed, Enter 609 in Command Mode	TELCO	—
72	At MCRT, Enter the Following Message To Diagnose Each Link Node:		
	A. At MCRT, Enter Message DGN:LN09 04;RAW! ; Ensure DGN LN09 04 CATP MSG COMPLETE Message Is Received	TELCO/INST	—
	B. At MCRT, Enter Message DGN:LN09 03;RAW! ; Ensure DGN LN09 03 CATP MSG COMPLETE Message Is Received	TELCO/INST	—
	C. At MCRT, Enter Message SW:CU! To Make CU 0 Active	TELCO	—
	D. At MCRT, Enter Message DGN:LN09 03: PH 30-35! ; Ensure DGN LN09 03 CATP MSG COMPLETE	TELCO	—
73	On MCRT in Message Mode, Enter Message EXC:ENVIR:UPROC, FN "ports", ARG("104")! . Wait for EXC ENVIR UPROC ports COMPLETED port#104 owned by xxxxx Message (xxxxx = Process ID) and Record Process ID Number	TELCO	—
74	Enter Message EXC:ENVIR:UPROC, FN "kill", ARG ("-8", "xxxxx")! . (Where xxxx = Process ID). Ensure EXC ENVIR UPROC kill COMPLETED Message Is Received	TELCO	—
75	Set EIN Routing-Address Recent Change Parameters	TELCO	DLP-574
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ADD ETHERNET INTERFACE NODE (EIN) FOR CDRP — SUPPORT TO INSTALLER (INST)

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

76	Recent Change EIN Link Node Being Grown to OOS. EXC:ENVIR:UPROC, FN"/database/tools/ein.oos", ARG("EIN09")!	TELCO	DLP-572
77	Ensure EIN Link Node Being Grown Is OOS	TELCO	
78	At MCRT, Enter the Following To Restore Link Nodes to Service:		
	A. Enter Message RST:LN09 04!; Ensure RING RST LN09 04 COMPLETED Message Is Received	TELCO/INST	-
	B. Enter Message RST:LN09 03!; Ensure RING RST LN09 03 COMPLETED Message Is Received	TELCO/INST	-
	NOTE: If problems occur and backout is required, appropriate support organization must be contacted to assist in Backout procedure		
79	Enter Message OP:RING;DETD! and Ensure No "i" Is Listed for Any Link Node (i = Isolated). If Segment Is Isolated, Enter Message CFR:RING!; Ensure NORMAL CONFIGURATION, NO NODES ISOLATED Message Is Received	TELCO/INST	-
80	Notify NAMACC To Populate IP Address, ID And Password Information for EIN 0 and 1 (Test EIN Link And Ping Test). EINO Link Status Is STANDBY	TELCO	-
81	At MCRT, Enter Following Messages To Allow Automatic Diagnostics: • ALW:DMQ;SRC REX! • ALW:DMQ;SRC ADP!	TELCO	-
82	At 1B MCC Terminal, Enter Poke Command 810 (SERVICE DEGRADING FAILURE) Key To Obtain Service-Degrading Report Printout. If There Are Any Units Listed, Make Corrective Action To Clear Service-Degrading Condition of Each Unit Listed Before Continuing	TELCO/INST	-
83	Copy Incore ECD to Disk	TELCO	DLP-519
	NOTE: Item 84 is being performed to verify system operation and stability during growth		
84	Soak New EIN Link Node for 30 Minutes To Ensure No Problems Exist With System Operation After Growing	TELCO/INST	-
85	Verify System Status	TELCO	DLP-544
86	Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
	NOTE: Item 87 is Safe Stop Point		
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ADD ETHERNET INTERFACE NODE (EIN) FOR CDRP – SUPPORT TO INSTALLER (INST)

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

87	Soak New EIN Link Node for 12 Hours To Ensure No Problems Exist With System Operation After Growing. If Problems Occur and Backout Is Required, Appropriate Support Organization Must Be Contacted To Assist in Backout Procedure	TELCO/INST	-
88	Ensure Shelf Unit for Ethernet Interface Node Is Installed in HDRC	TELCO/INST	-
89	Verify System Status	TELCO	DLP-544
90	At MCRT, Enter Following Messages To Inhibit Automatic Diagnostics: <ul style="list-style-type: none"> • INH:DMQ;SRC REX! • INH:DMQ;SRC ADP! 	TELCO	-
	NOTE: Items 91 through 93 are being performed to ensure clean file system before starting growth		
91	Copy Incore Equipment Configuration Data Base (ECD) to Disk	TELCO	DLP-519
92	Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
93	Update Backup Data Base	TELCO	DLP-521
	NOTE: EIN link node will be grown in Ring Node Cabinet 41		
94	At MCRT, Enter Message OP:RING;DETD! and Ensure No "i" Is Listed for Any Link Node (i = Isolated). Only One Area on CNI Ring Can Be Isolated at a Time. If Any Link Node Is Isolated, That Link Node Will Have To Be Restored Before Continuing	TELCO	-
	NOTE: Only link nodes associated with one shelf unit can be grown prior to entering the soak interval. If there are other link nodes to be grown into another shelf unit, this procedure must be repeated		
95	Perform the following To Determine if the Intraframe Buffers or Interframe Buffers are Moved or Removed:	TELCO	-
	1. At MCRT, Enter 1105 in Command Mode To Obtain the 1105 Display Page	TELCO	-
	2. Using the 1105 Page, Determine the Next HIGHER Node From the Growth Shelf and Record the Node Number (LNxx yy) and the Node Type (ie; DCHAN, SADC, CCS7)	TELCO	-
	3. If the LN41 Shelf Is the Highest Shelf in the Cabinet (RNC 38), Perform Item 95.6; Otherwise Go To Item 95.4	TELCO	-

ADD ETHERNET INTERFACE NODE (EIN) FOR CDRP – SUPPORT TO INSTALLER (INST)

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

95 (Contd)	4. If There Is a Gap Between LN41 Shelf and the Next Highest Shelf in RNC 38, Perform Item 95.6; Otherwise, Go to Item 95.5	TELCO	-
	5. Determine if Users Need To Be Removed From Service:		
	A. If the Next Higher Node Determined in Item 11.2 Is DCHAN, SADC, or CCS7, Notify Users on the Link Node That Their Signaling Links Will Be Temporarily Removed From Service	TELCO	-
	B. Change Active Signaling Links on the Link Node Determined in Item 11.2 to MOOS (Record Modified Signaling Link(s) for Later Use)	TELCO	DLP-526
	C. At MCRT, Enter Message RMV:LNxx yy! To Remove Link Node Determined in Item 95.2	TELCO	-
	6. Using the 1105 Page, Determine the Next LOWER Node From the Growth Shelf and Record the Node Number (LNxx yy) and the Node Type (ie; DCHAN, SADC, CCS7)	TELCO	-
	A. If the Next Lower Node Determined in Item 95.2 Is DCHAN, SADC, or CCS7, Notify Users on the Link Node That Their Signaling Links Will Be Temporarily Removed From Service	TELCO	-
	B. Change Active Signaling Links on the Link Node Determined in Item 95.2 to MOOS (Record Modified Signaling Link(s) for Later Use)	TELCO	DLP-526
	C. At MCRT, Enter Message RMV:LNxx yy! To Remove Link Node Determined in Item 95.2	TELCO	-
96	Enter Message CFR:RING, LNxx yy; EXCLUDE! To Isolate the Growth Link Node(s)	TELCO	DLP-538
97	Perform the following To Move or Remove the Intraframe Buffers or Interframe Buffers:	TELCO	-
	1. If the LN41 Shelf Is the Highest Shelf in the Cabinet (RNC 06), Perform Item 97.6; Otherwise Go To Item 97.2	TELCO	-
	2. If there Is a Gap Between LN41 and the Next Highest Shelf in RNC 38, Perform Item 97.6; Otherwise Go to Item 97.3	TELCO	-
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DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

97 (Contd)	NOTE: The following items are used to recent change the hv value on the next higher node to 0xc000		
	3. Using the 1105 Page, Determine the Next HIGHER Shelf (Probably LN10, Node 2) and Record the Node Number	TELCO	—
	A. Recent Change the Link Node Recorded in Item 13.3 to UNEQIP (Do Not Exit Recent Change)	TELCO	DLP-539
	B. Recent Change the hv Value for the Link Node in Item 13.3 and Change the MAJOR State to Grow (Do Not Exit Recent Change)	TELCO	DLP-527
	C. Recent Change the Link Node in Item 13.3 to OOS (Exit Recent Change)	TELCO	DLP-528
	D. Unseat the IFB Pack and Disconnect Cable In Item 97.3	INST	—
	NOTE: The following items are used to recent change the hv value on the next lower node to 0x_ _00		
	4. Using the 1105 Page, Determine the LOWER Shelf (Probably LN40, Node 7) and Record the Node Number	TELCO	—
	A. Recent Change the Link Node Recorded in Item 97.4 to UNEQIP (Do Not Exit Recent Change)	TELCO	DLP-539
	B. Recent Change the hv Value for the Link Node in Item 97.4 and Change the MAJOR State to Grow (Do Not Exit Recent Change)	TELCO	DLP-527
	C. Recent Change the Link Node in Item 97.4 to OOS (Exit Recent Change)	TELCO	DLP-528
	D. Unseat the IFB Pack and Disconnect Cable In Item 97.4	INST	—
	5. Perform the following To Grow the IUN (at LN41-4) and Record Node Number:	TELCO	—
	A. Determine Node-Specific Data for the Growth Node at LN41-4	TELCO	DLP-561
	B. Recent Change the Node-Specific Variables as Recorded in Item 97.5.A (Do Not Exit Recent Change)	TELCO	DLP-559
	C. Recent Change the Link Node (at LN41-4) From UNEQIP to GROW (Do Not Exit Recent Change)	TELCO	DLP-560
	D. Recent Change the Link Node (at LN41-4) to OOS (Exit Recent Change)	TELCO	DLP-528
	E. Continue To Item 98	TELCO	—

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DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

97 (Contd)	6. Perform the following to Move the IFB From a Lower Shelf to LN41 Shelf:	TELCO	-
	A. Using the 1105 Page, Determine the Next LOWER Node From the Growth Shelf and Record the Node Number (LNxx yy) and the Node Type (ie; DCHAN, SADC, CCS7)	TELCO	-
	B. Recent Change the Link Node Recorded in Item 97.6.A to UNEQIP (Do Not Exit Recent Change)	TELCO	DLP-539
	C. Recent Change the hv Value for the Link Node in Item 97.6.A and Change the MAJOR State to Grow (Do Not Exit Recent Change)	TELCO	DLP-527
	D. Recent Change the Link Node in Item 97.6.A to OOS (Exit Recent Change)	TELCO	DLP-528
	E. Move the IFB From Lower Shelf to 97.6.A	INST	-
	F. Determine Node-Specific Data for the Growth Node for LN41-4	TELCO	DLP-561
	G. Recent Change the Node-Specific Variables as Recorded in Item 97.6.F (Do Not Exit Recent Change)	TELCO	DLP-559
	H. Recent Change the Link Node in Item 97.6.F From UNEQIP to GROW (Do Not Exit Recent Change)	TELCO	DLP-560
	I. Recent Change the Link Node in Item 97.6.F to OOS (Exit Recent Change)	TELCO	DLP-528
98	Connect Unbalanced (Intraframe) Bus Cables and Balanced (Interframe) Bus Cables as Required for Growth Link Node(s)	INST	-
99	Depress NORM/DISP (PF2) Key and Enter 1106 in Command Mode To Obtain Display Page 1106	TELCO	-
100	If Ring Node Cabinet Group Containing EIN Link Node Shelf Unit (LN41 3) Is Not Displayed, Enter 641 in Command Mode	TELCO	-
101	Ensure EIN Link Node Being Grown Is Not Displayed (UNEQIP). If the Node Is Already Grown as an IUN, It Must Be Unequipped With the "ein.uneqip" Script Using the Following Command: EXC:ENVIR:UPROC,FN"/database/tools/ein.uneqip",ARGS("EIN41")!	TELCO	DLP-573

ADD ETHERNET INTERFACE NODE (EIN) FOR CDRP — SUPPORT TO INSTALLER (INST)

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

102	At MCRT, Enter Message INH:AUD:ALL! To Inhibit Audits	TELCO	-
103	Initiate Process To Define New mdct and RPCD UCB Records	TELCO	DLP-569
104	At MCRT, Enter Message ALW:AUD:ALL! To Allow Audits	TELCO	-
105	Using 1106 Page, Enter 400 in Command Mode To Obtain BISO-EISO Display. Ensure EIN Link Node Being Grown Is Isolated	TELCO	-
106	If the Installed Shelf Has the Circuit Packs Seated, Perform Items 107 through 110; Otherwise Go to Item 111	TELCO/INST	-
107	At EIN Link Node Being Grown, Unseat UN304 (IRN2 Pack), TN1460 (Ethernet Pack), TN69B (Dual Serial Channel Pack) and TN914 (3B Interface Pack) Circuit Packs. At Adjacent IUN Node, Unseat UN303B/UN304 (IRNB/IRN2) Circuit Packs	INST	-
108	Unseat Both 495FA/410AA Power Units Associated With EIN Link Node Being Grown	INST	-
109	At RNC Power Control Unit, Depress ALARM RESET Key To Release Alarm	TELCO	-
110	At MCRT, Depress ALM REL (PF4) Key To Silence Alarm	TELCO	-
111	Recent Change mv, hv, and Major State for RPCD and EIN Link Node UCB for EIN Link Node Being Grown. EXC:ENVIR:UPROC,FN"/database/tools/ein.grow",ARGS("EIN41")!	TELCO	DLP-570
112	Depress NORM/DISP (PF2) Key and Enter 1106 in Command Mode To Obtain Display Page 1106	TELCO	-
113	Enter 400 in Command Mode To Obtain BISO-EISO Display. Ensure EIN Link Node Being Grown Is Isolated and MAJOR STATE Is GROW	TELCO	-
114	Complete EIN Wiring and Cabling to Ring Node Cabinet Backplane	INST	-
115	Connect Dual Serial Channel Cables to Ring Node Cabinet Backplane at TN69B Circuit Pack Location for EIN Link Node Being Grown	INST	-
116	Seat Both 495FA/410AA Power Units Associated With EIN Link Node Being Grown	INST	-
117	At RNC Power Control Unit, Depress ALARM RESET Key To Release Alarm	TELCO	-
118	At MCRT, Depress ALM RLS (PF4) Key to Silence Alarm	TELCO	-
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ADD ETHERNET INTERFACE NODE (EIN) FOR CDRP – SUPPORT TO INSTALLER (INST)

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

119	At EIN Link Node Being Grown, Seat UN304 (IRN2 Pack), TN1460 (Ethernet Pack), TN69B (Dual Serial Channel Pack) and TN914 (3B Interface Pack) Circuit Packs. At Adjacent IUN Node, Seat UN303B/UN304 (IRNB/IRN2) Circuit Packs	INST	—
120	Connect Ethernet Cables Associated With EIN Link Node Being Grown	INST	—
121	If a Link Node(s) Was Removed in Item 95, Perform the Following for That Node:		
	1. At the MCRT, Enter Message RST:LNxx yy!	TELCO	—
	2. If the Link Node Just Restored Was CCS7, DCHAN, or SADC:		
	A. Change Signaling Link(s) Recorded in Item 95 to IS	TELCO	DLP-529
	B. Notify Users on the Link(s) Just Restored to Service To Resume Their Activities	TELCO	—
122	At MCRT, if Screen Does Not Display EMERGENCY ACTION PAGE, Depress EA DISP (PF1) Key	TELCO	—
123	On EMERGENCY ACTION PAGE, if CU 0 or CU 1 Is Forced On-Line (FONL), Enter 13 in Command Mode To Clear Force	TELCO	—
124	At MCRT, If CU 0 Is ACT RUN, Enter Message SW:CU! To Make CU 0 Standby	TELCO	—
125	On EMERGENCY ACTION PAGE, Enter 12 in Command Mode To Force CU 1 On-Line (FONL)	TELCO	—
126	Using Power Switch, Remove From Service and Power Down CU 0	TELCO	DLP-500
127	Connect Dual Serial Channel Cable to CU Backplane at UN9/UN9B (3B20) or KBN15 (3B21) Circuit Pack Location	INST	—
	NOTE: Be careful in using the sin.cueq script; it is the actual script to be used to update CU equipage values. Enter exactly as shown in Item 128. Also, the output message will display SIN information while updating the CU equipage for DSCH		
128	At MCRT, Recent Change Equipage Value for CU 0 CH 12 (3B20) or CH 17/19 (3B21) for EIN Link Node Selected in Item 111 as Follows: EXC:ENVIR:UPROC, FN"/database/tools/sin.cueq", ARGs("SIN41", "CU0")!	TELCO	DLP-554
129	At MCRT, if Screen Does Not Display EMERGENCY ACTION PAGE, Depress EA DISP (PF1) Key	TELCO	—
130	Enter 13 in Command Mode To Remove Force on CU 1	TELCO	—
131	Using Power Switch, Power Up and Restore to Service CU 0	TELCO	DLP-501
132	Soak CU 0 as Standby CU for 15 Minutes	TELCO/INST	—

ADD ETHERNET INTERFACE NODE (EIN) FOR CDRP — SUPPORT TO INSTALLER (INST)

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

133	At MCRT, Enter Message SW:CU! To Make CU 0 Active	TELCO	—
134	Soak CU 0 as Active CU for 30 Minutes	TELCO/INST	—
	NOTE: Items 135 through 147 are being performed to connect dual serial channel cable to CU 1		
135	At MCRT, if Screen Does Not Display EMERGENCY ACTION PAGE, Depress EA DISP (PF1) Key	TELCO	—
136	On EMERGENCY ACTION PAGE, if CU 0 or CU 1 Is Forced On-Line (FONL), Enter 13 in Command Mode To Clear Force	TELCO	—
137	If CU 1 Is ACT RUN, Enter Message SW:CU! To Make CU 1 Standby	TELCO	—
138	Enter 12 in Command Mode To Force CU 0 On-Line (FONL)	TELCO	—
139	Using Power Switch, Remove From Service and Power Down CU 1	TELCO	DLP-500
140	Connect Dual Serial Channel Cable to CU Backplane at UN9/UN9B (3B20) or KBN15 (3B21) Circuit Pack Location	INST	—
	NOTE: Be careful in using the sin.cueq script; it is the actual script to be used to update CU equipage values. Enter exactly as shown in Item 141. Also, the output message will display SIN information while updating the CU equipage for DSCH		
141	At MCRT, Recent Change Equipage Value for CU 1 CH 12 (3B20) or CH 17/19 (3B21) for EIN Link Node Selected in Item 111. EXC:ENVIR:UPROC,FN"/database/tools/sin.cueq",ARGS("SIN41","CU1")!	TELCO	DLP-554
142	At MCRT, if Screen Does Not Display EMERGENCY ACTION PAGE, Depress EA DISP (PF1) Key	TELCO	—
143	Enter 13 in Command Mode To Remove Force on CU 0	TELCO	—
144	Using Power Switch, Power Up and Restore to Service CU 1	TELCO	DLP-501
145	Soak CU 1 as Standby CU for 15 Minutes	TELCO/INST	—
146	At MCRT, Enter Message SW:CU! To Make CU 1 Active	TELCO	—
147	Soak CU 1 as Active CU for 30 Minutes	TELCO/INST	—
148	At MCRT, Depress NORM/DISP (PF2) Key and Enter 1106 in Command Mode To Obtain Display Page 1106	TELCO	—
149	If Ring Node Cabinet Group Containing EIN Link Node Shelf Unit Is Not Displayed, Enter 641	TELCO	—

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

150	At MCRT, Enter the Following Message To Diagnose Each Link Node:		
	A. At MCRT, Enter Message DGN:LN41 04;RAW!; Ensure DGN LN41 04 CATP MSG COMPLETE Message Is Received	TELCO/INST	-
	B. At MCRT, Enter Message DGN:LN41 03;RAW!; Ensure DGN LN41 03 CATP MSG COMPLETE Message Is Received	TELCO/INST	-
	C. At MCRT, Enter Message SW:CU! To Make CU 0 Active	TELCO	-
	D. At MCRT, Enter Message DGN:LN41 03: PH 30-35!; Ensure DGN LN41 03 CATP MSG COMPLETE	TELCO	-
151	On MCRT in Message Mode, Enter Message EXC:ENVIR:UPROC, FN "ports",ARGS("104")!. Wait for EXC ENVIR UPROC ports COMPLETED port#104 owned by xxxxx Message (xxxxx = Process ID) and Record Process ID Number	TELCO	-
152	Enter Message EXC:ENVIR:UPROC, FN "kill",ARGS ("-8","xxxxx")!. (Where xxxx = Process ID). Ensure EXC ENVIR UPROC kill COMPLETED Message Is Received	TELCO	-
153	Recent Change EIN Link Node Being Grown to OOS. EXC:ENVIR:UPROC, FN"/database/tools/ein.oos",ARGS("EIN41")!	TELCO	DLP-572
154	Ensure EIN Link Node Being Grown Is OOS	TELCO	-
155	At MCRT, Enter the Following To Restore Link Nodes to Service:		
	A. Enter Message RST:LN41 04!; Ensure RING RST LN41 04 COMPLETED Message Is Received	TELCO/INST	-
	B. Enter Message RST:LN41 03!; Ensure RING RST LN41 03 COMPLETED Message Is Received	TELCO/INST	-
	NOTE: If problem occurs and backout is required, appropriate support organization must be contacted to assist in Backout procedure		
156	Enter Message OP:RING;DETD! and Ensure No "i" Is Listed for Any Link Node (i = Isolated). If Segment Is Isolated, Enter Message CFR:RING!; Ensure NORMAL CONFIGURATION, NO NODES ISOLATED Message Is Received	TELCO/INST	-
	NOTE: Both EINO and EIN1 will be in standby status. NCC and NAMACC will change status to CDRP mode at a later date		
157	Notify NAMACC To Verify EIN1 Link Is in STANDBY	TELCO	-
158	Soak STANDBY EIN1 Link for Stability for 15 Minutes	TELCO	-

ADD ETHERNET INTERFACE NODE (EIN) FOR CDRP – SUPPORT TO INSTALLER (INST)

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

159	At MCRT, Enter Following Messages To Allow Automatic Diagnostics: • ALW:DMQ;SRC REX! • ALW:DMQ;SRC ADP!	TELCO	—
160	At 1B MCC Terminal, Enter Poke Command 810 (SERVICE DEGRADING FAILURE) Key To Obtain Service-Degrading Report Printout. If There Are Any Units Listed, Make Corrective Action To Clear Service-Degrading Condition of Each Unit Listed Before Continuing	TELCO/INST	—
161	Copy Incore ECD to Disk	TELCO	DLP-519
162	Soak New EIN Link Node 30 Minutes To Ensure No Problems Exist With System Operation After Growing	TELCO/INST	—
163	Verify System Status	TELCO	DLP-544
164	Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
165	Soak New EIN Link Node for 12 Hours To Ensure No Problems Exist With System Operation After Growing. If Problem Occurs And Backout Is Required, Appropriate Support Organization Must Be Contacted To Assist in Backout Procedure	TELCO/INST	—
166	Update Backup Data Base	TELCO	DLP-521
167	Write 3B Computer Backup Tapes	TELCO	DLP-522
168	Verify Backup Tapes	TELCO	DLP-525
169	Install New Designation Strip	TELCO/INST	—

ADD ETHERNET INTERFACE NODE (EIN) FOR CDRP — SUPPORT TO INSTALLER (INST)

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

		RESPONSIBILITY	
	<i>WARNING: An antistatic wrist strap must be worn to prevent electrostatic discharge and possible damage to circuit packs while handling</i>		
	<p>NOTES: 1. AMA data should be transferred (tape and/or teleprocessing) prior to start of each night's degrowth activity</p> <p>2. Link nodes must be degrown from lowest number to highest number in shelf unit</p> <p>3. If link node to be degrown contains an interframe buffer (IFB), then IFB must be transferred to next lower numbered equipped link node. If IFB is to be transferred and next lower numbered link node is DLN or DCHAN or if degrowth associated shelf unit will not be completely emptied, degrowth cannot be performed</p> <p>4. This procedure must be performed during light traffic periods</p> <p>5. This procedure contains soak intervals for verifying system operation and stability during degrowth. During the soak interval, all abnormal conditions (such as interrupts, interjects, and diagnostic failures related to degrowth) must be investigated and resolved immediately. Degrowth equipment, being soaked, must be error free for at least the time specified</p>		
1	Determine Next Lower Equipped Link Node Number From Degrowth Link Node(s)	TELCO	—
	NOTE: If last link node in highest shelf unit is being degrown, next higher link node number to degrowth link node will be lowest numbered link node in electrically adjacent RN cabinet		
2	Determine Next Higher Equipped Link Node Number to Degrowth Link Node(s)	TELCO	—
3	If Degrowth Will Cause Shelf Unit To Be Completely Empty, Perform Item 4; Otherwise, Go to Item 5	TELCO	—
4	If Link Nodes Determined in Items 1 and 2 Meet Any of the Following Criteria, Record Affected Link Node Member Number(s) and Make Arrangements With User(s) for Temporary Stoppage When Their Link Node Is Removed:	TELCO	—
	A. Last Link Node in Highest Shelf Unit Is Being Degrown and Next Lower Numbered Link Node Is SSN Type	TELCO	—
	(Continued on Page 2)		

DEGROW SHELF UNIT AND/OR LINK NODE(S) — SUPPORT TO INSTALLER (INST)

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DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

4 (Contd)	B. Last Link Node in Shelf Unit Between Two Equipped Shelf Units Is Being Degrown:		
	1. Next Lower Numbered Link Node to Degrowth Link Node Is CCITT7, CCS7, SSN, DCHAN, or SADC Type	TELCO	—
	2. Next Higher Numbered Link Node to Degrowth Link Node Is CCITT7, CCS7, SSN, DCHAN, or SADC Type	TELCO	—
5	Verify System Status	TELCO	DLP-554
6	At MCRT, Enter Following Messages To Inhibit Automatic Diagnostics: • INH:DMQ;SRC REX! • INH:DMQ;SRC ADP!	TELCO	—
	NOTE: Items 7 through 9 are being performed to ensure clean file system before starting growth		
7	Copy Incore Equipment Configuration Data Base (ECD) to Disk	TELCO	DLP-519
8	Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
9	Update Backup Data Base	TELCO	DLP-521
	NOTE: Only link nodes associated with one shelf unit can be degrown at a time. If there are other link nodes to be degrown from another shelf unit, this procedure must be repeated		
10	At MCRT, Enter Message OP:RING;DETD! and Ensure No "i" Is Listed for Any Link Node (i = Isolated). Only One Area on CNI Ring Can Be Isolated at a Time. If Any Link Node Is Isolated, That Link Node Will Have To Be Restored Before Continuing	TELCO	—
11	Change All Signaling Links Associated With One Degrowth Link Node to MOOS (Do Not Record Signaling Links That Were Changed)	TELCO	DLP-526
12	At MCRT, Enter Message RMV:LNxx y! for Degrowth Link Node (Item 11). Ensure RING RMV LNxx y COMPLETED Message Is Received xx = Group Number of Degrowth Link Node y = Member Number of Degrowth Link Node	TELCO	—
13	If More Link Nodes Are To Be Degrown on Shelf Unit, Repeat Items 11 and 12 for Each Link Node	TELCO	—

**DEGROW SHELF UNIT AND/OR LINK NODE(S) — SUPPORT TO INSTALLER
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DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

14	Change All Signaling Links in Each Degrowth Link Node to Unavailable Using Data Base Management System (DMS)	TELCO	DLP-586
15	Change All Signaling Links in Each Degrowth Link Node to Unequipped Using DMS	TELCO	DLP-587
	NOTE: If more than one link node is being degrown from shelf unit, it is only necessary to cause isolation on one degrowth link node to isolate entire group		
16	At MCRT, Enter Message CFR:RING, LNxx y; EXCLUDE! To Isolate Degrowth Link Node(s) xx = Group Number of Degrowth Link Node y = Member Number of Degrowth Link Node	TELCO	-
17	Ensure RING CFR RING LNxx y COMPL Message Is Received	TELCO	-
18	Recent Change Each Degrowth Link Node to UNEQIP (Exit Recent Change)	TELCO	DLP-588
19	At MCRT, Depress NORM/DISP (PF2) Key and Enter 1106 in Command Mode To Obtain Display Page 1106	TELCO	-
20	If RN Cabinet Associated With Degrowth Link Node(s) Is Not Displayed on 1106 Page, Enter 6xx (xx = Group Number) in Command To Obtain Proper Display	TELCO	-
21	Ensure 1106 Page Displays Each Degrowth Link Node in UNEQIP State	TELCO	-
22	If Degrowth Will Not Cause Shelf Unit To Be Completely Empty, Go to Item 65	TELCO	-
23	If Degrowth Will Cause Highest Shelf Unit in Cabinet To Be Completely Empty, Go to Item 28	TELCO	-
24	If Link Node Determined in Item 2 Meets the Criteria in Item 4.B.2, Perform Items 25 and 26; Otherwise, Go to Item 27	TELCO	-
25	Notify User(s) on Link Node Determined In Item 2 That Their Signaling Link Will Be Temporarily Down	TELCO	-
26	Change Active Signaling Link(s) in Link Node Determined in Item 2 to MOOS (Record Signaling Link(s) That Was Changed for Later Use)	TELCO	DLP-526
27	At MCRT, Enter Message RMV:LNxx y! for Link Node (Item 2). Ensure RING RMV LNxx y COMPLETED Message Is Received xx = Group Number of Link Node Determined in Item 2 y = Member Number of Link Node Determined in Item 2	TELCO	-
	(Continued on Page 4)		

**DEGROW SHELF UNIT AND/OR LINK NODE(S) - SUPPORT TO INSTALLER
(INST)**

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

28	If Link Node Determined in Item 1 Meets the Criteria in Item 4.A or 4.B.1, Perform Items 29 and 30; Otherwise, Go to Item 31	TELCO	-
29	Notify User(s) on Link Node Determined In Item 1 That Their Signaling Links Will Be Temporarily Down	TELCO	-
30	Change Active Signaling Link(s) in Link Node Determined in Item 1 to MOOS (Record Signaling Link(s) That Was Changed for Later Use)	TELCO	DLP-526
31	At MCRT, Enter Message RMV:LNxx y! for Link Node (Item 1). Ensure RING RMV LNxx y COMPLETED Message Is Received xx = Group Number of Link Node Determined in Item 1 y = Member Number of Link Node Determined in Item 1	TELCO	-
32	If Degrowth Will Cause Highest Equipped Shelf Unit in Cabinet To Be Completely Empty, Go to Item 50	TELCO/INST	-
33	Install IFB Packs Into Link Nodes Determined in Items 1 and 2	INST	-
34	Disconnect Cables Between Degrowth Link Node(s) and Link Nodes Determined in Items 1 and 2	INST	-
35	Install Balanced Cables Between Link Nodes Determined in Items 1 and 2 per J3F011E (for RN Cabinet 00 or 32) or J3F011G (for HDB Cabinet)	INST	-
	NOTE: If DLN is to be recent changed (Items 36 and 37), RPCD must also be recent changed. The DLPs must be followed to determine proper sequence		
36	Recent Change Link Nodes Determined in Items 1 and 2 to UNEQIP (Do Not Exit Recent Change)	TELCO	DLP-588
37	Recent Change hv Value to a Value Associated With IFBs Installed (Item 33) and Ring Interface (RI) Type in Link Nodes Determined in Items 1 and 2 and Change Major Status to GROW (Exit Recent Change)	TELCO	DLP-527
38	At MCRT, Enter Message DGN:LNxx y;RAW! To Diagnose Link Node Determined in Item 1; No Diagnostic Failures Allowed on Phases Run. Wait for DGN LNxx y CATP (X'00000000 X'40000000) MSG COMPLETE Message xx = Group Number of Link Node Determined in Item 1 y = Member Number of Link Node Determined in Item 1	TELCO/INST	-
	(Continued on Page 5)		

DEGROW SHELF UNIT AND/OR LINK NODE(S) – SUPPORT TO INSTALLER (INST)

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

39	Enter Message DGN:LNxx y;RAW! To Diagnose Link Node Determined in Item 2; No Diagnostic Failures Allowed on Phases Run. Wait for DGN LNxx y CATP (X'00000000 X'40000000) MSG COMPLETE Message xx = Group Number of Link Node Determined in Item 2 y = Member Number of Link Node Determined in Item 2	TELCO/INST	-
40	Recent Change Link Nodes Determined in Items 1 and 2 to OOS (Exit Recent Change)	TELCO	DLP-528
41	At MCRT, Enter 1106 in Command Mode To Obtain Display Page 1106	TELCO	-
42	If Link Nodes Determined in Items 1 and 2 Are Not Displayed, Enter 6xx (xx = Group Number) in Command To Obtain Proper Display	TELCO	-
43	Ensure 1106 Page Displays Both Link Nodes in OOS State	TELCO	-
44	Enter Message RST:LNxx y;UCL! To Restore Link Node Determined in Item 1. Ensure RING RST LNxx y COMPLETED Message Is Received xx = Group Number of Link Node Determined in Item 1 y = Member Number of Link Node Determined in Item 1	TELCO/INST	DLP-531
45	Enter Message RST:LNxx y;UCL! To Restore Link Node Determined in Item 2. Ensure RING RST LNxx y COMPLETED Message Is Received xx = Group Number of Link Node Determined in Item 2 y = Member Number of Link Node Determined in Item 2	TELCO/INST	DLP-531
46	If Link Node(s) That Was Restored (Items 44 and/or 45) Is CCITT7, CCS7, SSN, DCHAN, or SADC, Perform Items 47 and 48; Otherwise, Go to Item 67	TELCO	-
47	Change All Signaling Links (Recorded in Item 26 and/or 30) to IS	TELCO	DLP-529
48	Notify User(s) on Link Node(s) Determined in Items 1 and 2 To Resume Their Activities	TELCO	-
49	GO TO ITEM 67 (Do Not Perform Items 50 Through 66)	TELCO	-
50	Move Padded IFB From Degrowth Link Node to Link Node Determined in Item 1	INST	-
51	Disconnect Cables Between Degrowth Link Node and Link Node Determined in Item 1	INST	-
52	Move Balanced (Interframe) Cables From Degrowth Link Node to Link Node Determined In Item 1	INST	-
	NOTE: If DLN is to be recent changed (Items 53 and 54), RPCD must also be recent changed. The DLPs must be followed to determine proper sequence		
	(Continued on Page 6)		

**DEGROW SHELF UNIT AND/OR LINK NODE(S) – SUPPORT TO INSTALLER
(INST)**

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

53	Recent Change Link Node Determined in Item 1 to UNEQIP (Do Not Exit Recent Change)	TELCO	DLP-588
54	Recent Change hv Value to a Value Associated With Moved Padded IFB (Item 50) and Ring Interface (RI) Type in Link Node Determined in Item 1 and Change Major Status to GROW (Exit Recent Change)	TELCO	DLP-527
55	At MCRT, Enter Message DGN:LNxx y;RAW! To Diagnose Link Node Determined in Item 1; No Diagnostic Failures Allowed on Phases Run. Wait For DGN LNxx y CATP (X'00000000 X'40000000) MSG COMPLETE Message xx = Group Number of Link Node Determined in Item 1 y = Member Number of Link Node Determined in Item 1	TELCO/INST	—
56	Recent Change Link Node Determined in Item 1 to OOS (Exit Recent Change)	TELCO	DLP-528
57	At MCRT, Enter 1106 in Command Mode To Obtain Display Page 1106	TELCO	—
58	If Link Node Determined in Item 1 Is Not Displayed, Enter 6xx (xx = Group Number) in Command Mode To Obtain Proper Display	TELCO	—
59	Ensure 1106 Page Displays Link Node (Item 56) in OOS State	TELCO	—
60	Enter Message RST:LNxx y;UCL! To Restore Link Node Determined in Item 1. Ensure RING RST LNxx y COMPLETED Message Is Received xx = Group Number of Link Node Determined in Item 1 y = Member Number of Link Node Determined in Item 1	TELCO/INST	DLP-531
61	If Link Node That Was Restored (Item 60) Is CCITT7, CCS7, SSN, DCHAN, or SADC, Perform Items 62 Through 64; Otherwise, Go to Item 67	TELCO	—
62	Change All Signaling Links (Recorded in Item 30) to IS	TELCO	DLP-529
63	Notify User(s) on Link Node Determined in Item 1 To Resume Their Activities	TELCO	—
64	GO TO ITEM 67 (Do Not Perform Items 65 and 66)	TELCO	—
	NOTE: Items 65 and 66 are to be performed when degrowth will not cause shelf unit to be completely empty		
65	Disconnect Cables Between Degrowth Link Node(s) and Adjacent Link Nodes, if Connected	INST	—
	(Continued on Page 7)		

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

66	Move Cables To Bypass Degrowth Link Node(s) per J3F011E (for RN Cabinet 00 to 32) or J3F011G (for HDB Cabinet)	INST	—
	<i>CAUTION: If degrowth did not cause shelf unit to be completely empty and an IFB is associated with degrowth link node, the IFB MUST NOT BE REMOVED</i>		
67	Remove Degrowth Link Node(s) Circuit Packs [Do Not Remove 495FA Power Unit(s)]	INST	—
	NOTE: Two 495FA power units supply power to each shelf unit. One power unit supplies power to one-half of the shelf unit, and other power unit supplies power to other half. In J3F011AA shelf unit, left 495FA power unit supplies power to left link node, and right 495FA power unit supplies power to right link node		
68	If Link Nodes Associated With at Least One 495FA Power Unit on Degrowth Shelf Unit Are Not Equipped, Remove Associated Fuses and 495FA Power Unit(s)	INST	—
69	If CCS7 or SSN Link Node(s) Was Degrown, Disconnect Cables Between Link Node(s) and Associated Data Set(s)	INST	—
70	If Shelf Unit Is To Be Removed, Perform Items 71 Through 74; Otherwise, Go to Item 75	INST	—
71	If Shelf Unit Being Removed Is J3F011DB, J3F011DC, or J3F011GB With a T1FA, Disconnect T1 Line Between Shelf Unit and Digital Crossconnect (DSX-1) Frame	INST	—
72	Disconnect Remaining Cables Connected to Degrowth Shelf Unit	INST	—
73	Remove Shelf Unit	INST	—
74	Install Plenum Assembly in Removed Shelf Unit Position	INST	—
75	Install Blanks in Degrowth Link Node(s) Position	INST	—
76	At MCRT, Enter Following Messages To Allow Automatic Diagnostics: <ul style="list-style-type: none"> • ALW:DMQ;SRC REX! • ALW:DMQ;SRC ADP! 	TELCO	—
77	Enter Message OP:RING;DETD! and Ensure No "i" Is Listed for Any Link Node (i = Isolated). If Segment Is Isolated, Enter Message CFR:RING!. Ensure NORMAL CONFIGURATION, NO NODES ISOLATED Message Is Received	TELCO	—
	(Continued on Page 8)		

**DEGROW SHELF UNIT AND/OR LINK NODE(S) — SUPPORT TO INSTALLER
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DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

78	At MCC 1B MCC Terminal, Enter Poke Command 810 (SDC - SERVICE DEGRADING FAILURE) Key To Obtain Service Degrading Report Printout. If There Are Any Units Listed, Make Corrective Action To Clear Service Degrading Condition of Each Unit Listed Before Continuing	TELCO	-
79	Verify API-DLN Stream Status (OP:DLNCM;STREAM!)	TELCO	DLP-513
80	Copy Incore Equipment Configuration Data Base (ECD) to Disk	TELCO	DLP-519
81	Soak Ring for 12 Hours To Ensure No Problems Exist With System Operation After Degrowth. If Problems Occur and Backout Is Desired, Ensure Degrowth Area Is Isolated. If Degrowth Area Is Not Isolated, at MCRT, Enter Message CFR:RING, LNxx y;EXCLUDE! for Degrowth Link Node. Contact Appropriate Support Organization for Technical Assistance	TELCO/INST	-
82	Safe Point To Temporarily Stop This Procedure	TELCO	-
83	At MCC 1B MCC Terminal, Enter Poke Command 810 (SDC - SERVICE DEGRADING FAILURE) Key To Obtain Service Degrading Report Printout. If There Are Any Units Listed, Make Corrective Action To Clear Service Degrading Condition of Each Unit Listed Before Continuing	TELCO	-
84	At MCRT, Enter Message OP:RING;DETD! and Ensure No "i" Is Listed for Any Link Node (i = Isolated)	TELCO	-
85	Verify API-DLN Stream Status (OP:DLNCM;STREAM!)	TELCO	DLP-513
86	Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
87	Update Backup Data Base	TELCO	DLP-521
88	Write 3B Computer Backup Tapes	TELCO	DLP-522
89	Verify Backup Tapes	TELCO	DLP-525

DEGROW SHELF UNIT AND/OR LINK NODE(S) - SUPPORT TO INSTALLER (INST)

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DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

		RESPONSIBILITY	
	<i>WARNING: An antistatic wrist strap must be worn to prevent electrostatic discharge and possible damage to circuit packs while handling</i>		
	NOTES: 1. This procedure must be performed during light traffic periods 2. This procedure contains soak intervals for verifying system operation and stability during growth. During the soaking interval, all abnormal conditions (such as interrupts, interjects, and diagnostic failures related to growth) must be investigated and resolved immediately. Growth equipment, being soaked, must be error free for at least the time specified 3. Ethernet interface node (EIN) link node will back out in ring node cabinets 9 and 41, Node 3 4. Verify that CDRP current generic is G4R1 or higher, and it can process data from SIN 5. Contact NAMAC to ensure that CDRP technical support is available and is scheduled to assist doing the backout (602-844-6406) 6. Throughout this procedure the following term, LNaa is used where aa is 09 or 41 depending on the link node being backed out		
1	Verify System Status	TELCO/INST	DLP-544
2	At MCRT, Enter Following Messages To Inhibit Automatic Diagnostics: • INH:DMQ;SRC REX! • INH:DMQ;SRC ADP!	TELCO	-
	NOTE: Items 3 through 6 are being performed to ensure clean file system before starting growth		
3	Copy Incore Equipment Configuration Data Base (ECD) to Disk	TELCO	DLP-519
4	Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
5	Update Backup Data Base	TELCO	DLP-521
6	At MCRT, Enter Message OP:RING;DETD! and Ensure No "i" Is Listed for Any Link Node (i = Isolated). Only One Area on CNI Ring Can Be Isolated at a Time. If Any Link Node Is Isolated, That Link Node Will Have To Be Restored Before Continuing	TELCO	-
	(Continued on Page 2)		

BACK OUT OF EIN TO SIN

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

15	Unseat Both 495FA/410AA Power Units Associated With EIN Link Node Being Backed Out	INST	—
16	At RNC Power Control Unit, Depress ALARM RESET Key To Release Alarm	TELCO	—
17	At MCRT, Depress ALM REL (PF4) Key To Silence Alarm	TELCO	—
18	Recent Change mv, hv, and Major State for RPCD; and EIN Link Node UCB for EIN Link Node Being Backed Out. EXC:ENVIR:UPROC,FN"/database/tools/sin.grow",ARGS("SINaa")!	TELCO	DLP-553
19	Depress NORM/DISP (PF2) Key and Enter 1106 in Command Mode To Obtain Display Page 1106	TELCO	—
20	Enter 400 in Command Mode To Obtain BISO-EISO Display. Ensure EIN Link Node Being Backed Out Is Isolated and Major State Is GROW	TELCO	—
21	Remove Ethernet Cabling And Complete SIN Changes to Backplane Wiring	INST	—
22	Install 127A Cable Retainer at 102-332 and SCSI Paddleboard	INST	—
23	Verify Dual Serial Channel Cables to Ring Node Cabinet Backplane at TN69B Circuit Pack Location for SIN Link Node Being Backed Out	INST	—
24	Seat Both 495FA/410AA Power Units Associated With EIN Link Node Being Backed Out	INST	—
25	At RNC Power Control Unit, Depress ALARM RESET Key To Release Alarm	TELCO	—
26	At MCRT, Depress ALM REL (PF4) Key To Silence Alarm	TELCO	—
27	Replace TN4016 (ELI Pack) Circuit Pack With TN1804 (SCSI Pack) Circuit Pack	INST	—
28	At SIN Link Node Being Backed Out, Seat UN304 (IRN2 Pack), TN1804 (SCSI Pack), TN69B (Dual Serial Channel Pack), and TN914 (3B Interface Pack) Circuit Packs. At Adjacent IUN Node, Seat UN303B/UN304 (IRNB/IRN2) Circuit Packs	INST	—
29	Connect Ethernet Cable at SIN Link Node Being Backed Out to <i>Star Server</i> ® Computer (CDRP)	INST	—
30	At MCRT, Enter 1106 in Command Mode To Obtain Display Page 1106	TELCO	—
31	If Ring Node Cabinet Group Containing SIN Link Node Shelf Unit Is Not Displayed, Enter 6aa in Command Mode	TELCO	—
	(Continued on Page 4)		

BACK OUT OF EIN TO SIN

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

32	At MCRT, Enter the Following Message To Diagnose Each Link Node:		
	1. At MCRT, Enter Message DGN:LNaa 04;RAW!; Ensure DGN LNaa 04 CATP MSG COMPLETE Message Is Received	TELCO/INST	—
	2. At MCRT, Enter Message DGN:LNaa 03;RAW!; Ensure DGN LNaa 03 CATP MSG COMPLETE Message Is Received	TELCO/INST	—
33	On MCRT in Message Mode, Enter Message EXC:ENVIR:UPROC, FN "ports",ARGS("104")!. Wait for EXC ENVIR UPROC ports COMPLETED port#104 owned by xxxxx Message (xxxxx = Process ID) and Record Process ID Number	TELCO	—
34	Enter Message EXC:ENVIR:UPROC, FN "kill",ARGS ("-8","xxxxx")!. (Where xxxxx = Process ID). Ensure EXC ENVIR UPROC kill COMPLETED Message Is Received	TELCO	—
35	Recent Change EIN Link Node Being Grown to 00S. EXC:ENVIR:UPROC, FN"/database/tools/sin.oos",ARGS("SINaa")!	TELCO	DLP-555
36	Ensure SIN Link Node Being Backed Out Is 00S	TELCO	—
37	At MCRT, Enter the Following To Restore Link Nodes to Service:		
	1. Enter Message RST:LNaa 04!; Ensure RING RST LNaa 04 COMPLETED Message Is Received	TELCO/INST	—
	2. Enter Message RST:LNaa 03!; Ensure RING RST LNaa 03 COMPLETED Message Is Received	TELCO/INST	—
38	Enter Message OP:RING;DETD! and Ensure No "i" Is Listed for Any Link Node (i = Isolated). If Segment Is Isolated, Enter Message CFR:RING!; Ensure NORMAL CONFIGURATION, NO NODES ISOLATED Message Is Received	TELCO/INST	—
39	Notify NAMAC To Test SIN Link and Bring to IS	TELCO	—
40	Verify 3B APS Recording Mode	TELCO	DLP-585
41	At MCRT, Enter Following Messages To Allow Automatic Diagnostics: • ALW:DMQ;SRC REX! • ALW:DMQ;SRC ADP!	TELCO	—
	(Continued on Page 5)		

BACK OUT OF EIN TO SIN

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

42	At 1B MCC Terminal, Enter Poke Command 810 (SERVICE DEGRADING FAILURE) Key To Obtain Service-Degrading Report Printout. If There Are Any Units Listed, Make Corrective Action To Clear Service-Degrading Condition of Each Unit Listed Before Continuing	TELCO/INST	-
43	Copy Incore ECD to Disk	TELCO	DLP-519
	NOTE: Item 44 is being performed to verify system operation and stability during growth		
44	Soak New SIN Link Node for 1 Hour To Ensure No Problems Exist With System Operation After Being Backed Out	TELCO/INST	-
45	Verify System Status	TELCO	DLP-544
46	Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
47	Soak New SIN Link Node for 12 Hours To Ensure No Problems Exist With System Operation After Being Backed Out	TELCO/INST	-
48	Update Backup Data Base	TELCO	DLP-521
49	Write 3B Computer Backup Tapes	TELCO	DLP-522
50	Verify Backup Tapes	TELCO	DLP-525

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

		RESPONSIBILITY	
	<i>WARNING: An antistatic wrist strap must be worn to prevent electrostatic discharge and possible damage to circuit packs while handling</i>		
	<p>NOTES:</p> <ol style="list-style-type: none"> 1. At least 24 hours, prior to the start of this procedure, CNAC must be notified by the on-site workforce to enter office-dependent data for cabinet being grown. 2. The D-channel cabinet growth is designed to allowed the user to grow Cabinets 12, 14, 44 and 46. Cabinets 12 and 44 are grown first. The optional centered node may be grown during the same evening growth session. 3. The D-channel cabinets and growth procedures have been arranged to allow addition of all D-channels in a cabinet without removing any D-channel customers from service. This is only possible if the higher Intraframe buffer control node is not used for D-Channel service. The Link packs remain equipped to allow complete diagnostics on the node, but no D-Channel assignments should be made until a lower shelf is grown. The hv of the node has been changed to "0xc000", and the IFB pack moved to the lower shelf. 4. AMA data should be transferred (tape and/or teleprocessing) prior to the start of each night's growth activities. 5. This procedure must be performed during light traffic periods. 6. Growing the new CNI cabinets may require that D-Channel, CCS7 or SADC nodes in the CNI cabinet immediately lower than the CNI cabinet being added may have to be temporarily removed from service to change UCB values for relocation. This removal from service must be negotiated with the customers several weeks in advance of the frame growth being performed. The node and signaling links will be OOS for approximately 1/2 hour while the changes are being made. 7. This procedure contains a soak interval for verifying system operation and stability during growth. During the soak interval, all abnormal conditions (such as interrupts, interjects, and diagnostic failures related to growth) must be investigated and resolved immediately. Growth equipment, being soaked, must be error free for at least 12 hours. No other growth activity can take place until this soak is complete. 		
1	Ensure that the 4ESS™ Switch Is Running on the 4E23 or Later Generic; 3B Computer Is Running on the 4AP<16> or later Generic, and that the 4ESS Switch Has Been Converted to the 3B21D APS	TELCO/INST	-

ADD D-CHANNEL CABINETS 12, 14, 44 AND 46 – SUPPORT TO INSTALLER (INST)

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

2	Ensure CNAC Has Populated Office-Dependent Node Data for D-Channel Cabinet Being Grown	TELCO	DLP-557
3	Perform Preliminary Installation Activities	TELCO/INST	—
4	Ensure That All CNI Cabinets, Circuit Packs, and Cables for D-Channel Growth Are Available	TELCO/INST	—
5	Verify System Status	TELCO/INST	DLP-544
6	Perform Cross Connections Between T1FA and PTAN/DIF at DSX	TELCO/INST	DLP-563
7	Safe Point To Temporarily Stop This Procedure	TELCO	—
8	If Procedure Was Stopped in Item 7, Verify System Status	TELCO	DLP-544
	NOTE: Items 9 through 11 are being performed to ensure clean file system before starting growth		
9	Copy Incore Equipment Configuration Data Base (ECD) to Disk	TELCO	DLP-519
10	Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
11	Update Backup Data Base	TELCO	DLP-521
12	Remove DLP-615 From the Document For Use During the Growth Activity	TELCO	—
13	Enter Message EXC:ENVIR:UPROC, FN"/tools/bootaud"! To Verify Boot Audit Status and Ensure REPT BOOTAUD COMPLETE - TOTAL OF 0 ERRORS DETECTED Message Is Received on ROP	TELCO	—
14	Connect the Cable(s) That Interconnect the New CNI Cabinet to the Adjacent CNI Cabinets	INST	—
15	Connect the SCAN/SD Cables From the Interconnect the New CNI Cabinet to the Adjacent CNI Cabinets	INST	—
16	Ensure the Shelves Installed Have the Proper Node ID Strapped In Place	INST	—
17	Ensure Fuses at the Top of the New CNI Cabinet Being Added Are All Removed	TELCO/INST	—
18	Unseat All Circuit Packs in the New CNI Cabinet. Do Not Remove Them From the Cabinet. Ensure the Shelves Installed Have All Circuit Packs Equipped and Installed in Their Proper Locations	TELCO/INST	—
19	At Power Distribution Frame (PDF), Verify that the Fuses for the A and B Bus Power Feeders to the CNI Cabinet Being Added Are Removed	INST	—

**ADD D-CHANNEL CABINETS 12, 14, 44 AND 46 – SUPPORT TO
INSTALLER (INST)**

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

20	At New CNI Cabinet Being Added, Connect the A and B Bus Power Feeders to the CNI Cabinet Power Connectors	INST	—
	NOTE: The precharging probe is required to charge the 48V Power Feeder.		
21	At Power Distribution Frame (PDF), Precharge each 48V Power Feeder to the CNI Cabinet Being Added and Insert the Fuse	INST	—
22	Replace All Fuses at the Top of the Cabinet	INST	—
23	At 3B MCRT, Enter Following Messages To Inhibit Automatic Diagnostics: • INH:DMQ;SRC REX! • INH:DMQ;SRC ADP!	TELCO	—
24	At 3B21D APS MCRT, Depress NORM/DISP (PF2) Key and Enter 102 in command mode to obtain the Common Processor Display Page.	TELCO	—
25	At 3B21D APS MCRT, Depress ALM RLS Key to Clear Any Alarms at the MCRT.	TELCO	—
26	At Fan Unit in CNI Ring Cabinet Being Grown, Depress OFF pushbutton.	TELCO	—
	Note: It will take a short time for FAN A and FAN B LEDs to light.		
27	Wait for FAN A and FAN B LEDs on Fan Unit to Light.	TELCO/INST	—
28	When FAN A and FAN B LEDs on the Fan Unit Light, Ensure the Following: • FAN A and FAN B LEDs go on • Audible Major and Minor Alarms are Received • At Top of Cabinet, ALARM RESET Lamp Goes On • Grid MJ and MN go on • End Guard Major and Minor Lamps Go On • At 3B21D APS MCRT, MAJOR and MINOR colored red • At 3B21D APS MCRT ROP: REPT RING FRAME xx POWER ALARM REPT RING FRAME xx FAN ALARM	TELCO/INST	—
29	At Fan Unit, in CNI Cabinet Being Grown, Depress ON/RESET Pushbutton.	TELCO	—
30	At Top of CNI Cabinet Being Grown, Depress ALARM/RESET pushbutton.	TELCO	—
	(Continued on Page 4)		

ADD D-CHANNEL CABINETS 12, 14, 44 AND 46 – SUPPORT TO INSTALLER (INST)

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

31	Ensure the Following: <ul style="list-style-type: none"> • FAN A and FAN B LEDs go off • Audible Minor Alarm Retires • At Top of Cabinet, ALARM RESET Lamp Goes Off • Grid MN Goes Off • End Guard Major and Minor Lamps Go Off • At 3B21D APS MCRT, MAJOR and MINOR remain red 	TELCO/INST	—
32	At Top of CNI Cabinet Being Grown, Depress ALARM CUT OFF Pushbutton.	TELCO	—
33	Ensure the Following: <ul style="list-style-type: none"> • Audible Major Alarm Retires • Grid MJ goes off • At 3B21D APS MCRT, MAJOR and MINOR clears • At 3B21D APS MCRT ROP: REPT RING FRAME xx POWER ALARM CLEARED CLEARED REPT RING FRAME xx FAN ALARM CLEARED 		
34	If Three Hours Remain in Maintenance Window, Continue with Item 36. If Three Hours Does NOT Remain in Maintenance Window, Stop This Procedure and Resume This procedure with the Next Item.	TELCO/INST	—
35	If Procedure was Stopped in Previous Item, Verify System Status. Continue with Next Item	TELCO/INST	—
36	Enter Message OP:RING;DETD and Ensure No "i" Is Listed for Any Link Node (i = Isolated). Only One Area on CNI Ring Can Be Isolated at a Time. If Any Link Node Is Isolated, That Link Node Will Have To Be Restored Before Continuing	TELCO	—
37	If Any Link Node Is Isolated, Enter Message CFR:RING! To Clear CNI Ring of Isolation	TELCO	—
38	Enter Message CFR:RING,LNaa 01;EXCLUDE! for Cabinet Being Grown. Ensure RING CFR RING LNaa 01 COMPL Message Is Received [Where aa = Cabinet Being Grown (12, 14, 44 or 46)]	TELCO	—
39	Enter 1106 in Command Mode To Obtain Display Page 1106	TELCO	—
40	Enter 400 in Command Mode To Obtain BISO-EISO Screen	TELCO	—
	NOTE 1: The display should show two nodes: One define the beginning of isolation (BISO), and the other define the end of isolation (EISO). These nodes will also be the IFB control nodes for the balanced cable connections (actual IFB circuit packs are installed adjacent to these nodes).		

ADD D-CHANNEL CABINETS 12, 14, 44 AND 46 – SUPPORT TO INSTALLER (INST)

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

	NOTE 2: If more than two nodes are shown, it probably indicates that an OOS node has been included in the isolation. Determine cause and restore any OOS node before continuing.		
41	On the CNI Cabinet Adjacent to the Cabinet Being Installed with the Lower CNI Cabinet Number, Determine Node-Specified Data For Cabinet Being Grown	TELCO	DLP-602
42	Recent Change the Entire Basic Cabinet to GROW (Using the <i>dchgro.sh</i> Script)	TELCO	DLP-589
43	Enter 1106 in Command Mode To Obtain Display Page 1106	TELCO	—
44	If the Nodes Associated With the Grown Cabinet Are Not Displayed, Enter 400 in Command Mode To Obtain BISO-EISO Screen	TELCO	—
	NOTE: The optional centered nodes LNaa 03 and LNbb 13 will Not be grown using this procedure		
45	On 1106 Page, Ensure the New Cabinet and Associated Nodes Are In GROW State	TELCO	—
	NOTES: 1. Item 46 through 50 are to remove users links from service. 2. The node and signaling links will be OOS for approximately 1/2 hour while changes are being made.		
46	At 3B MCRT, Enter 1108 in Command Mode To Obtain Display Page 1108	TELCO	—
47	If the Links on the Lower Node Determined in Item 41 Are Not Displayed, Enter 430 in Command Mode	TELCO	—
48	On the Node Being Changed, Inspect the MATE Field to Identify Any Mated Signaling Links; and Record the Node, Link Number, and and Link State of Each Mated Link (AVL/IS or AVL/STBY)	TELCO	—
	NOTE: Links that are AVL/STBY require no action.		
49	At MCRT, Enter Message CHG:SLK(aa,bb,cc,dd);STBY for Each Mated D-Channel Link on the Node That Is AVL/IS	TELCO	—
50	Ensure RING CHG SLK aa bb cc dd COMPL and SLK aa bb cc dd CHANGE ACCEPTED. NEW MINOR STATE = STBY Message Is Received	TELCO	—
51	Repeat From Item 46 for Each Mated D-Channel Link on the Node That Is AVL/IS	TELCO	—

**ADD D-CHANNEL CABINETS 12, 14, 44 AND 46 – SUPPORT TO
INSTALLER (INST)**

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

52	Enter Message <code>OP:SLK(aa,bb):DEST 1!</code> To Print the Status of the Signaling Links on the Node Being Changed	TELCO	-
	NOTE: Retain Printout for Use in Item 54 and for Later Use in Restoring the Links.		
53	Using the Printout, Determine Each of the D-Channel Links That shows AVL/IS as Its LINK STATE field	TELCO	-
54	At MCRT, Enter Message <code>CHG:SLK(aa,bb,cc,dd);MOOS;UCL</code> for Each Equipped Link on the Node Identified	TELCO	-
55	Ensure RING <code>CHG SLK aa bb cc dd COMPL</code> and <code>SLK aa bb cc dd CHANGE ACCEPTED. NEW MINOR STATE = MOOS</code> Message Is Received	TELCO	-
56	Repeat From Item 52 For Each Equipped Link On the Node Identified	TELCO	-
57	Enter Message <code>RMV:LNaa bb!</code> To Remove Active (BISO) Link Node. Ensure RING <code>RMV LNaa bb COMPLETED</code> Message Is Received	TELCO	-
58	Enter 1106 in Command Mode To Obtain Display Page 1106	TELCO	-
59	Enter 400 in Command Mode To Obtain BISO-EISO Screen	TELCO	-
60	Recent Change hv Value for Link Node on Cabinet Being Added (Using the <i>ifbmv.sh</i> Script)	TELCO	DLP-590
	NOTE: 1. The circuit packs in Item 61 and 62 must be placed in an approved antistatic bag to protect it until it is installed in the frame. 2. Refer to D-Channel Cabinet Link Node Configuration (DLP-615) for clarification of the IFB being installed in Item 61 through 65		
61	At the IFB Location Adjacent to the IFB Control Node Just Changed, Remove the IFB Pack (TN-1803)	INST	-
62	At CNI Cabinet Being Grown, Remove the IFB Pack (TN-1508)	INST	-
63	At CNI Cabinet Being Grown, Install the IFB Pack Removed From the Existing Cabinet (TN-1803)	INST	-
64	At IFB Location Adjacent to the IFB Control Node on the Existing CNI Cabinet, Install the TN-1508 IFB Pack	INST	-
65	Connect Balanced Cables to CNI Cabinet Being Added and to the IFB Position Just Modified in the Adjacent Lower Cabinet. Also, Remove the Balanced Cable of the IFB Control Node in the Lower CNI Cabinet	INST	-

ADD D-CHANNEL CABINETS 12, 14, 44 AND 46 – SUPPORT TO INSTALLER (INST)

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

66	At CNI Cabinet Added, Connect Balanced Cables to CNI Cabinet and to the IFB Position at the Next Higher CNI Cabinet Depending Upon Office Equipage	INST	—
67	Connect Balanced Cables at the IFB Positions Between Adjacent CNI Cabinet and New CNI Cabinet	INST	—
68	Connect the T1 Cables to the Appropriate Packs on Each Shelf Grown	INST	—
69	Seat the Power Converters	INST	—
70	Depress ALARM RESET Key To Clear Power Alarm	TELCO	—
71	At 3B MCRT, Depress ALM RLS (PF4) Key To Clear Power Alarm To Silence Audible Alarm	TELCO	—
72	Seat the Remaining Circuit Packs	INST	—
	NOTE: Failure to reset the T1FA after power cycling may cause failure of Phase 29 during diagnostics.	TELCO	—
73	On Shelf Being Added, After Power Has Been Restored to the D-Channel Nodes, Press the RESET Button on the T1FA Circuit Packs	INST	—
74	Determine if the IFB Moved to the Highest Node in the Cabinet Being Added Will Require IFB Control Node Changes to the hv	TELCO	DLP-617
75	Diagnose the IFB Control Node in the Existing CNI Cabinet That Was Just Modified for the TN-1508 IFB By Performing One of the Following:		
	A. If CNI 12 Is Being Grown, Enter DGN:LN11 07;RAW!	TELCO/INST	—
	B. If CNI 14 Is Being Grown, Enter DGN:LN13 14;RAW!	TELCO/INST	—
	C. If CNI 44 Is Being Grown, Enter DGN:LN43 07;RAW!	TELCO/INST	—
	D. If CNI 46 Is Being Grown, Enter DGN:LN45 14;RAW!	TELCO/INST	—
	NOTES: 1. If a failure occurs, refer to DLP-616 for failure breakdown 2. If no output is received, refer trouble to installer to resolve and repeat Item 74. The CATP with hex value indicates more than 1 node is included in the isolation when diagnostic is performed; this is expected.		
	(Continued on Page 8)		

ADD D-CHANNEL CABINETS 12, 14, 44 AND 46 – SUPPORT TO INSTALLER (INST)

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

76	Ensure DGN LNaa bb CATP (x'00000000 x'40000000) MSG COMPLETE Message Is Received	TELCO/INST	—
77	Recent Change Link Node Diagnosed in Item 75 to oos (Using the <i>ifbmv.sh</i> Script)	TELCO	DLP-593
78	Restore IFB Control Node in the CNI Cabinet By Performing One of the Following:		
	A. If CNI 12 Is Being Grown, Enter RST:LN11 07;UCL!	TELCO/INST	—
	B. If CNI 14 Is Being Grown, Enter RST:LN13 14;UCL!	TELCO/INST	—
	C. If CNI 44 Is Being Grown, Enter RST:LN43 07;UCL!	TELCO/INST	—
	D. If CNI 46 Is Being Grown, Enter RST:LN45 14;UCL!	TELCO/INST	—
79	Ensure RING RST LNaa bb COMPLETED Message Is Received	TELCO	—
	NOTE: Use the list of links on the node just changed that were set to MOOS in Item 54		
80	Enter CHG:SLK(aa,bb,cc,dd);ARST Message for Restoring Link To Service	TELCO	—
81	Ensure RING CHG SLK aa bb cc dd COMPL SLK aa bb cc dd CHANGE ACCEPTED. NEW MINOR STATE = OOS Message Is Received for Link To Be Restored	TELCO	—
82	Repeat From Item 80 For Each Link Identified As OOS	TELCO	—
	NOTE: In some customer equipment cases, customer intervention may be necessary before the link goes IS		
83	At the 3B21D MCRT 1108/430 Page, Verify that the Link Returns to AVL/IS	TELCO	—
84	Notify the Customers of the Links Node Just Restored That Their Service Has Been Restored	TELCO	—
85	Diagnose the D-Channel Cabinet Being Grown	TELCO	DLP-594
86	Recent Change Cabinet Being Added to OOS (Using the <i>dchgro.sh</i> Script)	TELCO	DLP-592
87	Restore Link Nodes to Service On D-Channel Being Grown Unconditionally	TELCO	DLP-603
88	Enter Message OP:RING;DETD and Ensure No "i" Is Listed or Any Link Node (i = Isolated). Only One Area on CNI Ring Can Be Isolated at a Time	TELCO	—
89	If Any Link Node Is Isolated, Enter Message CFR:RING! To Restored Link Node	TELCO	—
90	Test (Prove-in) Growth Associated Signaling Links - Internal Link Check	TELCO	DLP-515

ADD D-CHANNEL CABINETS 12, 14, 44 AND 46 – SUPPORT TO INSTALLER (INST)

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

91	Test (Prove-in) Growth Associated Signaling Links - External Link Check	TELCO	DLP-562
92	Enter Message EXC:ENVIR:UPROC, FN"/tools/bootaud"! To Verify Boot Audit Status and Ensure REPT BOOTAUD COMPLETE - TOTAL OF 0 ERRORS DETECTED Message Is Received	TELCO	-
93	If Optional Center Nodes are Being Added as Part of This D-Chan Cabinet Growth, and Time Is Available in This Session To complete the Work, Go To NTP-031, Otherwise, Continue With Step 96	TELCO	-
94	At MCRT, Enter Following Messages To Allow Automatic Diagnostics: • ALW:DMQ;SRC REX! • ALW:DMQ;SRC ADP!	TELCO	-
95	Soak New D-Channel Cabinet and Nodes for 1 Hour To Ensure No Problems Exist With System Operation After Upgrading. If for Any Reason Backout Is Necessary, the Backout Procedure Should Be Used to Unequip the Cabinet and Return IFB Configuration Between the Existing CNI Cabinets. Contact the Appropriate Support Organization for Technical Assistance.	TELCO/INST	-
96	Copy Incore ECD to Disk	TELCO	DLP-519
97	Verify System Status	TELCO/INST	DLP-544
98	Soak New D-Channel Cabinet and Nodes for 12 Hours To Ensure No Problems Exist With System Operation After Upgrading. If for Any Reason Backout Is Necessary, the Backout Procedure Should Be Used to Unequip the Cabinet and Return IFB Configuration Between the Existing CNI Cabinets. Contact the Appropriate Support Organization for Technical Assistance.	TELCO/INST	-
99	Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
100	Update Backup Data Base	TELCO	DLP-521
101	Write 3B Computer Backup Tapes	TELCO	DLP-522
102	Verify Backup Tapes	TELCO	DLP-525

**ADD D-CHANNEL CABINETS 12, 14, 44 AND 46 – SUPPORT TO
INSTALLER (INST)**

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

		RESPONSIBILITY	
	<p><i>WARNING: An antistatic wrist strap must be worn to prevent electrostatic discharge and possible damage to circuit packs while handling</i></p>		
	<p>NOTES:</p> <ol style="list-style-type: none"> 1. At least 24 hours, prior to the start of this procedure, CNAC must be notified by the on-site workforce to verify that office-dependent data for shelf being grown is populated. 2. The D-channel cabinet growth is designed to allow the user to grow the Cabinets 12, 14, 44 and 46. Cabinets 12 and 44 are grown first. 3. The D-channel cabinets and growth procedures have been arranged to allow addition of all D-channels in a cabinet without removing any D-channel customers. This is only possible if the higher Intraframe buffer control node is not used for D-Channel service. The Link packs remain equipped to allow complete diagnostics on the node, but no D-Channel assignments should be made until a lower shelf is grown. The hv of the node has been changed to "0xc000", and the IFB pack moved to the lower shelf. 4. Shelves will be added from the top of the cabinet down. The initial cabinets installation configures an Intraframe buffer pair and balanced cable between the highest node on shelf 0 and the lowest node on shelf 5 to bridge the gap in the cabinet. 5. No removal of D-channel customers should be necessary to accomplish the node growth. If the D-channel node serving as the IFB control node does not have any assigned D-channel customers. If D-channel customers have been assigned to the existing (pre-growth) D-channel node, arrangements for the removal from service of D-channel must be negotiated several weeks in advance of the cabinet growth being performed. 6. The Intraframe IFB control node on Shelf 5 (LN13 12, for example) will be grown as a D-channel node; but no customers will be assigned to the node until a shelf is grown below shelf 5 and the IFB Control Node is moved to that shelf. The New IFB control Node will then become the "No Customer" node until a shelf is grown below it, and the IFB control moved. This is done to eliminate the need of taking all customers (potentially 8) on a D-channel control node out-of-service to make the "hv" value changes on the UCB in the ECD when moving IFB packs. 		

**ADD D-CHANNEL SHELF FOR CABINETS 12, 14, 44 AND 46 -
SUPPORT TO INSTALLER (INST)**

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

	<p>7. The "No Customer" D-channel node will continue to move down as new shelves are installed in the cabinet. When the last growth shelf is installed at shelf 1, the IFB will move to that shelf; and since no further service interruptions for growth will be possible, the "No Customer" node can be released for normal D-channel assignment.</p> <p>8. AMA data should be transferred (tape and/or teleprocessing) prior to the start of each night's growth activities.</p> <p>9. This procedure must be performed during light traffic periods.</p> <p>10. This procedure contains a soak interval for verifying system operation and stability during growth. During the soak interval, all abnormal conditions (such as interrupts, interjects, and diagnostic failures related to growth) must be investigated and resolved immediately. Growth equipment, being soaked, must be error free for at least 12 hours. No other growth activity can take place until this soak is complete.</p> <p>11. Remove DLP-615 and use as a reference throughout this procedure.</p>		
1	Ensure that the 4ESS™ Switch Is Running on the 4E23 or Later Generic; 3B Computer Is Running on the 4AP<16> or later Generic, and that the 4ESS Switch Has Been Converted to the 3B21D APS	TELCO/INST	—
2	Ensure CNAC Has Populated Office-Dependent Node Data for D-Channel Shelf Being Grown	TELCO	DLP-557
3	Perform Preliminary Installation Activities	TELCO/INST	—
4	Ensure That All CNI Cabinets, Circuit Packs, and Cables for D-Channel Shelf Growth Are Available	INST	—
5	Verify System Status	TELCO/INST	DLP-544
6	Perform Cross Connection Between T1FA and PTAN/DIF at DSX	TELCO/INST	DLP-563
7	Safe Point To Temporarily Stop This Procedure	TELCO	—
8	If Procedure Was Stopped in Item 7, Verify System Status	TELCO	DLP-544
	NOTE: Items 9 through 11 are being performed to ensure clean file system before starting growth		
9	Copy Incore Equipment Configuration Data Base (ECD) to Disk	TELCO	DLP-519
10	Run File System Audits To Ensure No File System Errors	TELCO	DLP-520

**ADD D-CHANNEL SHELF FOR CABINETS 12, 14, 44 AND 46 -
SUPPORT TO INSTALLER (INST)**

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

11	Update Backup Data Base	TELCO	DLP-521
12	Enter Message EXC:ENVIR:UPROC, FN"/tools/bootaud"! To Verify Boot Audit Status and Ensure REPT BOOTAUD COMPLETE - TOTAL OF 0 ERRORS DETECTED Message Is Received	TELCO	-
13	Ensure the Shelves Installed Have the Proper Node ID Strapped In Place	INST	-
	NOTE: Before performing Item 14 through 20, verify at the CNI D-channel cabinet backplane that the shelf is not connected into the CNI ring. If the shelf has been grown into the ring, isolation of the CNI ring will result when packs are removed.		
14	Ensure Fuses at the Top of the CNI D-channel Cabinet for the Shelf Being Added Are Removed	TELCO/INST	-
15	If the Shelf Has Not Already Been Mounted in the Cabinet, Mount the Shelf Unit at the Proper Level in the CNI D-channel Cabinet; Otherwise go to Item 21	INST	-
16	Unseat All Circuit Packs in the New CNI Shelf, Do Not Remove Them From the Cabinet. Ensure the Shelves Installed Have All Circuit Packs Equipped and Installed In Their Proper Locations	TELCO/INST	-
17	Verify or Connect the D-channel Power Leads and Alarm Leads to the Shelf Being Grown	INST	-
18	At New D-Channel Shelf Being Added, Install All Fuses at the Top of the Cabinet	INST	-
19	Seat 410AA Power Converters. Ensure RNC Alarm Is Activated	INST	-
20	Depress ALARM RESET Key To Clear Power Alarm	TELCO	-
21	At 3B MCRT, Depress ALM RLS (PF4) Key To Clear Power Alarm To Silence Audible Alarm	TELCO	-
	NOTE: Ensure that when the UN304 circuit pack is seated, that the NT and RQ LEDs light. This condition indicates that the shelf has power provided.		
22	Insert Remaining Circuit Packs in New Shelf Unit. Verfiy Their Proper Locations	INST	-
23	At 3B MCRT, Enter Following Messages To Inhibit Automatic Diagnostics: • INH:DMQ;SRC REX! • INH:DMQ;SRC ADP!	TELCO	-
24	Enter Message OP:RING;DETD and Ensure No "i" Is Listed for Any Link Node (i = Isolated). Only One Area on CNI Ring Can Be Isolated at a Time. If Any Link Node Is Isolated, That Link Node Will Hav To Be Restored Before Continuing	TELCO	-
25	If Any Link Node Is Isolated, Enter Message CFR:RING! To Clear CNI Ring Of Isolation	TELCO	-

**ADD D-CHANNEL SHELF FOR CABINETS 12, 14, 44 AND 46 -
SUPPORT TO INSTALLER (INST)**

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

26	Enter Message CFR:RING,LNaa bb;EXCLUDE! To Isolate the Growth Link Node(s)	TELCO	DLP-595
27	Enter 1106 in Command Mode To Obtain Display Page 1106	TELCO	—
28	Enter 400 in Command Mode To Obtain BISO-EISO Screen	TELCO	—
	<p>NOTES:</p> <ol style="list-style-type: none"> 1. The display should show two nodes: one defines the beginning of isolation (BISO), the other defines the end of isolation (EISO). These nodes will also be the IFB control nodes for the balanced cable connections (actual IFB circuit packs are installed adjacent to these nodes). 2. The highest node number in the isolation, the EISO node, is the IFB control node for the D-channel shelf being grown. This IFB is moved down to the lowest shelf being grown. Record the LN number of the EISO node and mark it "Old IFB Control Node". 3. If more than two nodes are shown, it probably indicates that an OOS node has been included in the isolation. Determine cause and restore any OOS node before continuing. 4. Arrangements for the removal from service must be negotiated several weeks in advance of the cabinet growth being performed. The node and signaling links will be OOS for approximately 1/2 hour while the changes are being made. 		
29	On the 1106 Page, Ensure That the Display Should Show Two Nodes	TELCO	—
30	Recent Change the New D-Channel Shelf To GROW (Using the <i>dchgro.sh</i> Script)	TELCO	DLP-596
31	At 3B MCRT, Enter 1106 in Command Mode To Obtain Display Page 1106	TELCO	—
32	If the Links Associated With the Node Determined in Item 28 Are Not Displayed. Enter 400 in Command Mode. Ensure That Two Nodes on the Shelf Being Added Are in the GROW State	—	—
33	Identify the Old IFB Control Node By Recording the EISO Node. At the CNI Cabinet Being Grown:	TELCO	—
	A. Identify and Verify That the Node Processor Type is UN304 (IRN2) and Two TN-1315 Packs (LI4D) Are Installed Adjacent to the IRN2 in the Node Slot	TELCO	—
	B. In the Node Position Immediately to the Left of the Old IFB Control Node, Identify and Verify That the IFB Pack Type Installed Is a TN-1508	TELCO	—
	(Continued on Page 5)		

**ADD D-CHANNEL SHELF FOR CABINETS 12, 14, 44 AND 46 -
SUPPORT TO INSTALLER (INST)**

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

34	Enter Message OP:SLK(aa,bb):DEST 1! To Print the Status of the Signaling Links on the Node Being Changed (aa, bb = Group And Member Number of the Old IFB Control Node Identified in Item 33. DO NOT Include "LN" Prefix)	TELCO	-
35	Ensure RING OP SLK aa bb IN PROG and SLK aa bb DCHN 00 00 THRU 01 03 UNEQUIPPED and RING OP SLK aa bb COMPL messages Are Received	TELCO	-
	NOTE: If any links are ACT, customers may have been assigned to the links and growth of the shelf will have to be suspended until permission can be obtained to remove the link(s) from service during the shelf growth.		
36	Using the Printout of the SLK Status, Verify That All Links Are UNEQIP or UNA GROW	TELCO	-
37	Enter Message RMV:LNaa bb! To Remove Active (EISO) Link Node. Ensure RING RMV LNaa bb COMPLETED Message Is Received	TELCO	-
38	Enter 1106 in Command Mode To Obtain Display Page 1106	TELCO	-
39	Enter 400 in Command Mode To Obtain BISO-EISO Screen	TELCO	-
40	Ensure That the Link Node(s) Removed Are OOS and Included in the Ring Isolation	TELCO	-
41	Recent Change Shelf For IFB Control Node Being Moved (Using the <i>ifbmv.sh</i> Script)	TELCO	DLP-597
42	Using the ROP Printout, Verify That the Output Message Gives the UCB Values of the Two Nodes Changed:	-	-
	A. That the First Node Changed Is the Old IFB Control Node Position, And the "hv" of That Node Was Set to "0xc000"	TELCO	-
	B. That the Second Node Changed (the New IFB Position) Was the Left-Most D-channel Node on the Lowest Shelf Being Grown, Excluding (above) Shelf 0; and the "hv" of That Node Was Changed to "0xc005"	TELCO	-
	C. That Both Nodes Changed Are Now in the GROW State On The 1106/400 Page	TELCO	-
	NOTES: 1. This node slot should be located immediately to the left of the newly established IFB Control Node position. 2. Item 43 through 46 requires the wearing of a grounded wrist strap to prevent ESD damage.		
43	On the Lowest D-Channel Shelf Being Installed, Remove the Plastic Insert at the Left-Most Node Slot To Allow IFB Pack Installation	INST	-

**ADD D-CHANNEL SHELF FOR CABINETS 12, 14, 44 AND 46 -
SUPPORT TO INSTALLER (INST)**

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

44	At the Node Slot Adjacent to and Left of the Old IFB Control Node, Locate the IFB Pack (TN-1508) and Remove IFB Control Node	INST	—
45	Adjacent to the New IFB Control Node Location on the Lowest Shelf Being Grown, Install the IFB Pack Removed	INST	—
46	At the Backplane of the CNI D-Channel Cabinet, Move the Balanced Cable From the Old Intraframe IFB Location to the New IFB Location (LNcc dd)	INST	—
47	Connect the T1 Cables to the Appropriate Pack(s) on Each Grown Shelf	INST	—
48	On the CNI D-Channel Cabinet Backplane at the Old IFB Location, Locate the Balanced Cables Between That Location and the Highest Node Position (LNaa 05) on Shelf 0 of the Same CNI D-Channel Cabinet	INST	—
49	Move the Balanced Cable to the New IFB Pack Location at the Lowest D-Channel Shelf Grown	INST	—
	NOTE: If more than one contiguous shelf is added in this growth session, repeat this step for each shelf until you reach the New IFB pack location		
50	Connect Unbalanced Cables Between the Old D-Channel Control Node (or the Lowest Numbered D-Channel Node on the Next Higher Shelf), and the Highest Numbered D-Channel on the Shelf Immediately Below That Shelf	INST	—
	Note: Failure to reset the T1FA after power cycling may cause failure of Phase 29 during diagnostics		
51	Press the Recessed RESET Button on the T1FA Circuit Packs (UN291) on the Shelf or Shelves Being Installed	INST	—
52	Diagnose the Nodes on the Highest New Shelf Added	TELCO	DLP-598
53	Diagnose Old IFB Control Node That Was Moved	TELCO	DLP-604
54	Recent Change D-Channel Cabinet Shelf Unit Being Added to OOS (Using the <i>dchgro.sh</i> Script)	TELCO	DLP-599
55	Recent Change D-Channel Cabinet Old IFB Control Node That Was Moved to OOS (Using the <i>ifbmv.sh</i> Script)	TELCO	DLP-605
56	Enter 1106 in Command Mode To Obtain Display Page 1106	TELCO	—
57	Enter 400 in Command Mode To Obtain BISO-EISO Screen	TELCO	—

**ADD D-CHANNEL SHELF FOR CABINETS 12, 14, 44 AND 46 –
SUPPORT TO INSTALLER (INST)**

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

58	Verify That All Nodes Grown Appear in the Isolation, and That All Nodes Grown Are OOS	TELCO	-
59	On 1106 Page, Identify and Record the Cabinet Group and Member Number of Each OOS Node Included in the Isolation Beginning Immediately Above the EISO Node	TELCO	-
	NOTE: The first restore message clears the CNI ring isolation. The lowest common node within the individual CNI cabinets is being used to determine the restore message.		
60	Enter RST:LNaa bb;UCL Message Using the LN and Member Number of the Node Recorded In Item 59	TELCO	-
61	Repeat From Item 60 For Each Link Node Identified As OOS In Item 59	TELCO	-
62	Enter Message OP:RING;DETD and Ensure No "i" Is Listed for Any Link Node (i = Isolated). Only One Area on CNI Ring Can Be Isolated at a Time	TELCO	-
63	If Any Link Node Is Isolated, Enter Message CFR:RING! To Restore Link Node	TELCO	-
64	Enter Message EXC:ENVIR:UPROC, FN"/tools/bootaud"! To Verify Boot Audit Status and Ensure REPT BOOTAUD COMPLETE - TOTAL OF 0 ERRORS DETECTED Message Is Received	TELCO	-
65	Test (Prove-in) Growth Associated Signaling Links - Internal Link Check	TELCO	DLP-515
66	Test (Prove-in) Growth Associated Signaling Links - External Link Check	TELCO	DLP-562
67	At MCRT, Enter Following Messages To Allow Automatic Diagnostics: • ALW:DMQ;SRC REX! • ALW:DMQ;SRC ADP!	TELCO	-
	NOTE: This is a short term soak to allow additional IRN2 D-Channel nodes to be grown in a single evening growth session, and an additional soak period is specified after the evening growth activities		
68	Soak New D-Channel Cabinet and Nodes for 1/2 Hour To Ensure No Problems Exist With System Operation After Upgrading. If for Any Reason Backout Is Necessary, the Backout Procedure Should Be Used to Unequip the Cabinet and Return IFB Configuration Between the Existing CNI Cabinets. Contact the Appropriate Support Organization for Technical Assistance.	TELCO/INST	-

**ADD D-CHANNEL SHELF FOR CABINETS 12, 14, 44 AND 46 -
SUPPORT TO INSTALLER (INST)**

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

69	Copy Incore ECD to Disk	TELCO	DLP-519
70	Verify System Status	TELCO/INST	DLP-544
71	Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
72	Update Backup Data Base	TELCO	DLP-521
73	Write 3B Computer Backup Tapes	TELCO	DLP-522
74	Verify Backup Tapes	TELCO	DLP-525
75	Soak New D-Channel Cabinet and Nodes for 12 Hours To Ensure No Problems Exist With System Operation After Upgrading. If for Any Reason Backout Is Necessary, the Backout Procedure Should Be Used to Unequip the Cabinet and Return IFB Configuration Between the Existing CNI Cabinets. Contact the Appropriate Support Organization for Technical Assistance.	TELCO/INST	-
76	Safe Point To Temporarily Stop This Procedure	TELCO	-

**ADD D-CHANNEL SHELF FOR CABINETS 12, 14, 44 AND 46 -
SUPPORT TO INSTALLER (INST)**

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

		RESPONSIBILITY	
	<p><i>WARNING: An antistatic wrist strap must be worn to prevent electrostatic discharge and possible damage to circuit packs while handling</i></p>		
	<p>NOTES:</p> <ol style="list-style-type: none"> 1. At least 24 hours, prior to the start of this procedure, CNAC must be notified by the on-site workforce to verify that office-dependent data for cabinet being grown is populated. 2. The CNI D-channel cabinet(s) and shelves where nodes are being added must already be grown and tested; and the new IFB positions for Interframe and Intraframe IFBs must be established and tested. All cabling for the growth will be frame cabling with the exception of the T1 cable(s) which will be routed and tied off at the side of the applicable CNI frame(s) at the shelf level where connection will be performed. All equipment needed for the growth will be inventoried and inspected for damage and any shortages or damaged equipment will be replaced before growth begins 3. No removal of D-channel customers should be necessary to accomplish the following node growth if the D-channel node serving as the IFB control node does not have any assigned D-channel customers. When the IFB control node has been moved to the lowest node on the shelf being grown, and the HV of the previous control node has been zeroed, that node can be used for bringing up customers. The active IFB control node should not be used for customer service to prevent having to take customers out of service when shelves are added. 4. The D-channel cabinets and growth procedures have been arranged to allow addition of all D-channels in a cabinet without removing any D-channel customers from service. This is only possible if the higher Intraframe buffer control node is not used for D-Channel service. The Link packs remain equipped to allow complete diagnostics on the node, but no D-Channel assignments should be made until a lower shelf is grown. The hv of the node has been changed to "0xc000", and the IFB pack moved to the lower shelf. 5. AMA data should be transferred (tape and/or teleprocessing) prior to the start of each night's growth activities. 6. This procedure must be performed during light traffic periods. 		

ADD OPTIONAL D-CHANNEL NODES 3, 8, or 13 TO CABINETS 12, 14, 44 AND 46 – SUPPORT TO INSTALLER (INST)

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DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

	<p>NOTES 7. This procedure contains a soak interval for verifying system operation and stability during growth. During the soak interval, all abnormal conditions (such as interrupts, interjects, and diagnostic failures related to growth) must be investigated and resolved immediately. Growth equipment, being soaked, must be error free for at least 12 hours. No other growth activity can take place until this soak is complete.</p> <p>8. Remove DLP-615 and use as a reference throughout this procedure</p>		
1	If Nodes Are Being Added as Part of the Growth of New D-Channel Cabinet or Shelf Growth in the Same Evening Growth Session Go To Item 13; Otherwise Continue With Item 2	TELCO	—
2	Ensure that the 4ESS™ Switch Is Running on the 4E23 or Later; Generic, 3B Computer Is Running on the 4AP<16> or later Generic; and That the 4ESS Switch Has Been Converted to the 3B21D APS	TELCO/INST	—
3	Ensure CNAC Has Populated Office-Dependent Node Data for D-Channel Shelf Being Grown	TELCO	DLP-557
4	Perform Preliminary Installation Activities	TELCO/INST	—
5	Ensure That All Circuit Packs and Cables for D-Channel Node Growth Are Available	INST	—
6	Verify System Status	TELCO/INST	DLP-544
7	Safe Point To Temporarily Stop This Procedure	TELCO	—
8	If Procedure Was Stopped in Item 7, Verify System Status	TELCO	DLP-544
	NOTE: Items 9 through 11 are being performed to ensure clean file system before starting growth		
9	Copy Incore Equipment Configuration Data Base (ECD) to Disk	TELCO	DLP-519
10	Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
11	Update Backup Data Base	TELCO	DLP-521
12	Enter Message EXC:ENVIR:UPROC, FN"/tools/bootaud"! To Verify Boot Audit Status and Ensure REPT BOOTAUD COMPLETE - TOTAL OF 0 ERRORS DETECTED Message Is Received	TELCO	—
13	At the CNI Cabinet, Identify the Shelf or Shelves Where the D-Channel Node(s) Will Be Installed and Ensure That the Node Slot(s) Being Grown Has the Proper Node ID Strapped in Place	TELCO/INST	—

ADD OPTIONAL D-CHANNEL NODES 3, 8, or 13 TO CABINETS 12, 14, 44 AND 46 — SUPPORT TO INSTALLER (INST)

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

14	At 3B MCRT, Enter Following Messages To Inhibit Automatic Diagnostics: • INH:DMQ;SRC REX! • INH:DMQ;SRC ADP!	TELCO	—
15	Enter Message OP:RING;DETD and Ensure No "i" Is Listed for Any Link Node (i = Isolated). Only One Area on CNI Ring Can Be Isolated at a Time. If Any Link Node Is Isolated, That Link Node Will Have To Be Restored Before Continuing	TELCO	—
16	If Any Link Node Is Isolated, Enter Message CFR:RING! To Clear CNI Ring Of Isolation	TELCO	—
17	Enter Message CFR:RING, LNxx yy;EXCLUDE! To Isolate the Growth Link Node(s)	TELCO	DLP-538
18	Enter 1106 in Command Mode To Obtain Display Page 1106	TELCO	—
19	Enter 400 in Command Mode To Obtain BISO-EISO Screen	TELCO	—
	<p>NOTES:</p> <ol style="list-style-type: none"> 1. The display should show two nodes: one defines the beginning of isolation (BISO), the other defines the end of isolation (EISO). These nodes will also be the IFB control nodes for the balanced cable connections (actual IFB circuit packs are installed adjacent to these nodes). 2. The highest node number in the isolation, the EISO node is the IFB control node for the D-channel shelf being grown. This IFB is moved down to the lowest shelf being grown. Record the LN number of the EISO node and mark it "Old IFB Control Node". 3. If more than two nodes are shown, it probably indicates that an OOS node has been included in the isolation. Determine cause and restore any OOS node before continuing. 		
20	On the 1106 Page, Ensure That the Display Should Show Two Nodes	TELCO	—
21	Verify That the Node Position Removed In Item 17 Is the Place Where the New Node Will Be Grown (LNaa bb) and Is Now Included in the Ring Isolation	TELCO	—
	<p>NOTE: If more than one node is being grown in this growth session, remove only the unbalanced cables for the node currently being grown</p>		
22	At the D-Channel Cabinet Node Being Added, Remove the Unbalanced Node Jumpers from the Backplane	INST	—
23	Insert and Seat All Circuit Packs on the Node Being Installed,	TELCO	—

ADD OPTIONAL D-CHANNEL NODES 3, 8, or 13 TO CABINETS 12, 14, 44 AND 46 — SUPPORT TO INSTALLER (INST)

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DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

24	At the CNI D-Channel Cabinet, Identify the Shelf Where the D-Channel Node Is Being Installed and Ensure That the Nodes Being Grown Has RQ and NT LEDs illuminated; This Indicates the Growth Node Is In Isolation	TELCO/INST	—
25	Recent Change the New D-Channel Node To GROW (Using the <i>dchgro.sh</i> Script)		DLP-600
26	At 3B MCRT, Enter 1106 in Command Mode To Obtain Display Page 1106	TELCO	—
27	If the Links Associated With the Node Determined in Item 25 Are Not Displayed, Enter 400 in command Mode. Ensure That the New D-Channel Node Grown Is Now In the GROW State	TELCO	—
28	Enter Message DGN:LNaa bb;RAW To Diagnose the New D-Channel Node	TELCO	—
29	Ensure the DGN LNaa bb ATP Message Is Received For Unit Being Diagnosed	TELCO	—
30	Recent Change D-Channel Cabinet Node Unit Being Added to OOS	TELCO	DLP-601
31	Enter Message RST:LNaa bb;UCL! To Restore Cabinet Being Grown	TELCO	—
32	Ensure RING RST LNaa bb COMPLETED! Message Is Received	TELCO	—
33	Enter Message OP:RING;DETD and Ensure No "i" Is Listed for Any Link Node (i = Isolated). Only One Area on CNI Ring Can Be Isolated at a Time	TELCO	—
34	If Any Link Node Is Isolated, Enter Message CFR:RING! To Restore Link Node	TELCO	—
35	Soak New D-Channel Cabinet and Nodes for 1/2 Hour To Ensure No Problems Exist With System Operation After Upgrading. If for Any Reason Backout Is Necessary, the Backout Procedure Should Be Used to Unequip the Cabinet and Return IFB Configuration Between the Existing CNI Cabinets. Contact the Appropriate Support Organization for Technical Assistance.	TELCO/INST	—
36	Repeat From Item 15 for the Next Optional Centered Node In Cabinet Being Grown	TELCO/INST	—
37	Enter Message EXC:ENVIR:UPROC,FN"/tools/bootaud" ! To Verify Boot Audit Status and Ensure REPT BOOTAUD COMPLETE - TOTAL OF 0 ERRORS DETECTED Message Is Received	TELCO	—
38	At MCRT, Enter Following Messages To Allow Automatic Diagnostics: • ALW:DMQ;SRC REX! • ALW:DMQ;SRC ADP!	TELCO	—
39	Copy Incore ECD to Disk	TELCO	DLP-519
40	Verify System Status	TELCO/INST	DLP-544

ADD OPTIONAL D-CHANNEL NODES 3, 8, or 13 TO CABINETS 12, 14, 44 AND 46 — SUPPORT TO INSTALLER (INST)

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DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

41	Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
42	Update Backup Data Base	TELCO	DLP-521
43	Write 3B Computer Backup Tapes	TELCO	DLP-522
44	Verify Backup Tapes	TELCO	DLP-525
45	Soak New D-Channel Cabinet and Nodes for 12 Hours To Ensure No Problems Exist With System Operation After Upgrading. If for Any Reason Backout Is Necessary, the Backout Procedure Should Be Used to Unequip the Cabinet and Return IFB Configuration Between the Existing CNI Cabinets. Contact the Appropriate Support Organization for Technical Assistance.	TELCO/INST	-
46	Safe Point To Temporarily Stop This Procedure	TELCO	-

ADD OPTIONAL D-CHANNEL NODES 3, 8, or 13 TO CABINETS 12, 14, 44 AND 46 - SUPPORT TO INSTALLER (INST)

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

		RESPONSIBILITY	
	<i>WARNING: An antistatic wrist strap must be worn to prevent electrostatic discharge and possible damage to circuit packs while handling</i>		
	NOTES: 1. If node(s) and/or shelves have been added to the cabinet, the degrowth procedure requires that they be removed first 2. Remove DLP-615 and use as a reference throughout this procedure		
1	At MCRT, If Not Already Inhibited Enter the Following Messages to Inhibit Automatic Diagnostics: • INH:DMQ;SRC REX! • INH:DMQ;SRC ADP!	TELCO	—
2	If a Optional Centered Node Is Being Degrown Continue With Item 3; Otherwise Go To Item 22	TELCO/INST	—
3	Enter 1106 in Command Mode To Obtain Display Page 1106	TELCO	—
4	Enter 6nn in Command Mode To Display Cabinet Being Degrown	TELCO	—
5	Enter Message RMV:LNaa bb! To Remove Link Node Being Degrown. Ensure RING RMV LNaa bb COMPLETED Message Is Received	TELCO	—
6	Enter Message CFR:RING, LNaa bb;EXCLUDE! To Isolate the Degrowth Link Node(s)	TELCO	—
7	Enter 1106 in Command Mode To Obtain Display Page 1106	TELCO	—
8	Enter 400 in Command Mode To Obtain BISO-EISO Screen	TELCO	—
	NOTE: The display should show BISO/EISO plus new growth: one defines the beginning of isolation (BISO), and the other defines the end of isolation (EISO). These nodes will also be the IFB control nodes for the balanced cable connections (actual IFB circuit packs are installed adjacent to these nodes).		
9	On the 1106 Page, Ensure that the Display Should Show Three Nodes (BISO, DEGROW, EISO)		—
10	Verify That the Node Position Removed In Item 5 Is Node Being Degrown (LNaa bb) and Is Now Included in the Ring Isolation	TELCO	—
	(Continued on Page 2)		

**DEGROW OF D-CHANNEL GROWTH FOR CABINETS 12, 14, 44
AND 46 – SUPPORT TO INSTALLER (INST)**

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DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

11	At the CNI D-Channel Cabinet, Identify the D-Channel Node Being Removed and Ensure That the Node Being Removed Has RQ and NT LEDs illuminated; This Indicates the Degrowth Node Is in Isolation	TELCO/INST	-
12	Unseat All Circuit Packs on the Node Being Removed And Store in Antistatic Bags	INST	-
13	At the D-Channel Cabinet Node Being Removed, Add the Unbalanced Node Jumpers to the Backplane	INST	-
14	Recent Change the D-Channel Node Being Degrown To UNEQIP (Using the dchgro.sh Script)	TELCO	DLP-606
15	At 3B MCRT, Enter 1106 in Command Mode To Obtain Display Page 1106	TELCO	-
16	If the Node Removed in Item 14 Is Not displayed, Enter 400 in Command Mode. Ensure That the D-Channel Node Removed Is Now In the UNEQUIP State	TELCO	
17	Enter Message CFR:RING! To Clear CNI Ring Of Isolation. Ensure RING CFR RING LNaa 01 COMPL Message Is Received	TELCO	-
18	Enter Message EXC:ENVIR:UPROC, FN"/tools/bootaud" ! To Verify Boot Audit Status and REPT BOOTAUD COMPLETE - TOTAL OF 0 ERRORS DETECTED Message Is Received	TELCO	-
19	If Additional Optional Centered Nodes Are Being Degrown Repeat From Item 5; Otherwise Go To Item 20	TELCO	-
20	At MCRT, If Shelf Is Not Being Degrown Enter Following Messages To Allow Automatic Diagnostics: • ALW:DMQ;SRC REX! • ALW:DMQ;SRC ADP!	TELCO	-
21	Soak D-Channel Configuration for 15 Minutes To Ensure No Problems Exist With System Operation After Degrown	TELCO/INST	-
22	If Shelf 1, 2, 3, or 4 Is Being Degrown Continue With Item 23; Otherwise Go To Item 72	TELCO/INST	-
	(Continued on Page 3)		

**DEGROW OF D-CHANNEL GROWTH FOR CABINETS 12, 14, 44
AND 46 – SUPPORT TO INSTALLER (INST)**

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

	NOTE: For shelf 1, 2, 3, or 4 degrowth, the optional centered node must be removed first (Item 2)		
23	At MCRT, If Not Already Inhibited Enter the Following Messages to Inhibit Automatic Diagnostics: • INH:DMQ;SRC REX! • INH:DMQ;SRC ADP!	TELCO	—
24	Enter Message OP:RING;DETD and Ensure No "i" Is Listed for Any Link Node (i = Isolated). Only One Area on CNI Ring Can Be Isolated at a Time. If Any Link Node Is Isolated, That Link Node Will Have To Be Restored Before Continuing	TELCO	—
25	If Any Link Node Is Isolated, Enter Message CFR:RING! To Clear CNI Ring Of Isolation	TELCO	—
26	Enter Message RMV:LNaa bb! To Remove All Link Node On the Shelf Being Degrown. Ensure RING RMV LNaa bb COMPLETED Message Is Received	TELCO	—
27	If More Link Nodes Are To Be Degrown on Shelf Unit, Repeat Item 26 for Each Link Node	TELCO	—
28	Enter Message CFR:RING,LNxx yy;EXCLUDE! To Isolate the Degrowth Link Node(s)	TELCO	DLP-595
29	Enter 1106 in Command Mode To Obtain Display Page 1106	TELCO	—
30	Enter 400 in Command Mode To Obtain BISO-EISO Screen	TELCO	—
31	On the 1106 Page, Ensure That the Display Shows Two Nodes Isolated Plus BISO/EISO Nodes	TELCO	—
32	Recent Change the New D-Channel Shelf To UNEQIP (Using the dchgro.sh Script)	TELCO	DLP-607
33	At 3B MCRT, Enter 1106 in Command Mode To Obtain Display Page 1106	TELCO	—
34	If the Node Determined in Item 31 Are Not displayed. Enter 400 in Command Mode. Ensure That Two Nodes on the Shelf Being Degrown Are in the UNEQIP State	TELCO	—
35	At the CNI Cabinet Where the Shelf Is Being Degrown, Identify the Old and New Intra-Frame Control Nodes	TELCO	DLP-610
36	Enter Message OP:SLK(aa,bb):DEST 1! To Print the Status of the Signaling Links on the Node Being Changed (EISO Node)	TELCO	—
37	Ensure RING OP SLK aa bb IN PROG and SLK aa bb DCHN 00 00 THRU 01 03 UNEQUIPPED and RING OP SLK aa bb COMPL Messages Are Received	TELCO	—

**DEGROW OF D-CHANNEL GROWTH FOR CABINETS 12, 14, 44
AND 46 – SUPPORT TO INSTALLER (INST)**

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DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

	NOTE: If any links are ACT, customers may have been assigned to the links and growth of the shelf will have to be suspended until permission can be obtained to remove the link(s) from service during the shelf growth		
38	Using the Printout of the SLK Status, Verify That All Links Are UNEQUIPPED or UNA GROW	TELCO	—
39	Enter Message RMV:LNaa bb! To Remove New IFB Control Node Determined in Item 35. Ensure RING RMV LNaa bb COMPLETED Message Is Received	TELCO	—
40	Enter 1106 in Command Mode To Obtain Display Page 1106	TELCO	—
41	Enter 400 in Command Mode To Obtain BISO-EISO Screen	TELCO	—
42	Ensure That the Link Node Removed Is 00S and Included in the Ring Isolation	TELCO	—
43	Recent Change Shelf For IFB Control Node Being Moved (Using the <i>ifbmv.sh</i> Script)	TELCO	DLP-611
44	Using the ROP Printout, Verify That the Output Message Gives the UCB Values of the Two Nodes Changed:		
	A. That the First Node Changed Is the Old IFB Control Node Position On Shelf Being Removed, And the "hv" of That Node Was Set to "0xc000"	TELCO	—
	B. That the Second Node Changed (the New IFB Position) Was the Left-Most D-Channel Node on the Lowest Shelf Remaining, Excluding (above) Shelf 0: and That the "hv" of That Node Was Changed to "0xc005".	TELCO	—
	C. That Both Nodes Changed Are Now in the GROW State On The 1106/400 Page	TELCO	—
	NOTES: 1. This node slot should be located immediately to the left of the newly established IFB Control Node position. 2. Item 45 through 47 requires the wearing of a grounded wrist strap to prevent ESD damage.		
45	On the Lowest Remaining D-Channel Shelf Being Installed, Remove the Plastic Insert at the Left-Most Node Slot To Allow IFB Pack Installation	TELCO	—
	(Continued on Page 5)		

**DEGROW OF D-CHANNEL GROWTH FOR CABINETS 12, 14, 44
AND 46 — SUPPORT TO INSTALLER (INST)**

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

46	At the Node Slot Adjacent to and Left of the Old IFB Control Node On the Lowest Shelf Being Degrown, Locate the IFB Pack (TN-1508) and Remove	INST	-
47	Adjacent to the New IFB Control Node Location on the Lowest Remaining Shelf, Install But Do Not Seat the IFB Pack Removed (Immediately to the Left of New Control Node)	INST	-
48	At the Backplane of the CNI D-Channel Cabinet, Remove the Unbalanced Cable Between the Lowest Shelf Being Removed And the Next Higher Shelf	INST	-
49	Repeat Item 48 for Each Shelf Unit Being Degrown	INST	-
50	On the CNI D-Channel Cabinet Backplane at the Old IFB Location, Locate the Balanced Cables Between That Location and the Highest Node Position (LNaa 05) on Shelf 0 of the Same CNI D-Channel Cabinet	INST	-
51	Move the Balanced Cable From the Vacated IFB Position on the Lowest Shelf Being Removed the New IFB Pack Location at the Lowest Remaining D-Channel Shelf	INST	-
52	Seat IFB Pack Not Seated In Item 47	INST	-
53	Recent Change D-Channel Node on Unit Being Degrown to UNEQIP (Using the <i>dchgro.sh</i> Script)	TELCO	DLP-606
54	Diagnose the IFB Control Node Just Modified (Grow) on the Highest Equipped Shelf	TELCO	DLP-612
55	Recent Change IFB Control Node That Was Just Modified (Grow) to OOS (Using the <i>to OOS</i> (Using the <i>ifbm.v.sh</i> Script)	TELCO	DLP-613
56	Enter 1106 in Command Mode To Obtain Display Page 1106	TELCO	-
57	Enter 400 in Command Mode To Obtain BISO-EISO Screen	TELCO	-
58	Verify That All Nodes Degrown Appear in the Isolation As UNEQIP, and That The IFB Control Nodes Just Established Is OOS	TELCO	-
59	Identify and Record the Cabinet Group and Member Number of the OOS Node Included in the Isolation That Is Shown Immediately Above the EISO Node	TELCO	-
	NOTE: This restore message clears the CNI ring isolation. The node remaining in isolation is the new IFB control node on the highest remaining shelf		
60	Enter RST:LNaa bb;UCL Message Using the LN and Member Number of the Node Recorded	TELCO	-

**DEGROW OF D-CHANNEL GROWTH FOR CABINETS 12, 14, 44
AND 46 – SUPPORT TO INSTALLER (INST)**

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

61	Ensure RING RST LNaa bb COMPLETED Message Is Received	TELCO	-
62	Enter CHG:SLK(aa,bb,cc,dd);ARST Message for Restoring Link Node To Service	TELCO	-
63	Ensure RING CHG SLK aa bb cc dd COMPL SLK aa bb cc dd CHANGE ACCPETED. NEW MINOR STATE = OOS Message is Received for Link Node To Be Restored	TELCO	-
64	Repeat From Item 60 For Each Link Node Identified As OOS	TELCO	-
	NOTE: In some customer equipment cases, customer intervention may be necessary before the link goes IS.		
65	At the 3B21D MCRT 1108/430 Page, Verify that the Link Node Returns to AVL/IS	TELCO	-
66	Notify the Customers of the Links Node Just Restored That Their Service Has Been Restored	TELCO	-
67	Enter Message OP:RING;DETD and Ensure No "i" Is Listed for Any Link Node (i = Isolated). Only One Area on CNI Ring Can Be Isolated at a Time	TELCO	-
68	If Any Link Node Is Isolated, Enter Message CFR:RING! To Restore Link Node	TELCO	-
69	Enter Message EXC:ENVIR:UPROC,FN"/tools/bootaud"! To Verify Boot Audit Status and Ensure REPT BOOTAUD COMPLETE - TOTAL OF 0 ERRORS DETECTED Message Is Received	TELCO	-
70	At MCRT, If Cabinet Is Not Being Degrown Enter Following Messages To Allow Automatic Diagnostics: • ALW:DMQ;SRC REX! • ALW:DMQ;SRC ADP!	TELCO	-
71	Soak D-Channel Configuration for 30 Minutes To Ensure No Problems Exist With System Operation After Degrown	TELCO/INST	-
72	If the Cabinet Is Being Degrown Continue With Item 73; Otherwise Go To Item 133	TELCO/INST	-
	NOTE: When degrowing entire cabinet, remove cabinet group as follows: • For Cabinet 12 the Group numbers are 12 and 13 • For Cabinet 14 the Group numbers are 14 and 15 • For Cabinet 44 the Group numbers are 44 and 45 • For Cabinet 46 the Group numbers are 46 and 47.		
	(Continued on Page 7)		

DEGROW OF D-CHANNEL GROWTH FOR CABINETS 12, 14, 44 AND 46 – SUPPORT TO INSTALLER (INST)

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

73	Enter Message RMV:LNaa bb! To Remove All Link Node Being Degrown. Ensure RING RMV LNaa bb COMPLETED Message Is Received	TELCO	–
74	If More Link Nodes Are To Be Degrown on Shelf Unit, Repeat Item 73 for Each Link Node	TELCO	–
75	Enter Message CFR:RING,LNaa 01;EXCLUDE! for Cabinet Being Degrown. Ensure RING CFR RING LNaa 01 COMPL Message Is Received [Where aa = Cabinet Being Degrown (12, 14, 44 or 46)]	TELCO	–
76	Enter 1106 in Command Mode To Obtain Display Page 1106	TELCO	–
77	Enter 400 in Command Mode To Obtain BISO-EISO Screen	TELCO	–
	NOTE: The display should show BISO/EISO plus new growth: one defines the beginning of isolation (BISO), and the other defines the end of isolation (EISO). These nodes will also be the IFB control nodes for the balanced cable connections (actual IFB circuit packs are installed adjacent to these nodes).		
78	On the 1106 Page, Ensure that the Display Shows All Nodes Being Degrown Plus BISO/EISO	TELCO	–
79	On the CNI Cabinet Adjacent to the Cabinet Being Degrown with the Lower CNI Cabinet Number, Determine Node-Specified Data	TELCO	DLP-602
80	Recent Change the Entire Basic Cabinet to UNEQIP (Using the dchgro.sh Script)	TELCO	DLP-608
81	If Nodes Remained OOS in the BISO/EISO Continue With Item 82; Otherwise Go To Item 93	TELCO	–
82	Enter 1106 in Command Mode To Obtain Display Page 1106	TELCO	–
83	Enter 400 in Command Mode To Obtain BISO-EISO Screen	TELCO	–
84	On the 1106 Page, Determine Which Node Is the Highest Remaining OOS Node In the BISO/EISO	TELCO	–
85	Verify That the Highest Node Position Is To Be Removed Is Node Being Degrown (LNaa bb) and Is Now Included in the Ring Isolation	TELCO	–
86	At the CNI D-Channel Cabinet, Identify the D-Channel Node Being Removed and Ensure That the Node Being Removed Has RQ and NT LEDs illuminated; This Indicates the Degrowth Node Is in Isolation	TELCO/INST	–
	(Continued on Page 8)		

**DEGROW OF D-CHANNEL GROWTH FOR CABINETS 12, 14, 44
AND 46 – SUPPORT TO INSTALLER (INST)**

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

87	Unseat All Circuit Packs on the Node Being Removed And Store in Antistatic Bags	TELCO	-
88	At the D-Channel Cabinet Node Being Removed, Add the Unbalanced Node Jumpers to the Backplane	TELCO	-
89	Recent Change the D-Channel Node Being Degrown To UNEQIP (Using the <i>dchgro.sh</i> Script)	TELCO	DLP-606
90	At 3B MCRT, Enter 1106 in Command Mode To Obtain Display Page 1106	TELCO	-
91	If the Node Removed in Item 89 Is Not displayed, Enter 400 in Command Mode. Ensure That the D-Channel Node Removed Is Now in the UNEQIP State	TELCO	-
92	If More Link Nodes Are To Be Degrown on Shelf Unit, Repeat From Item 84 for Each Link Node; Otherwise Go To Item 93	TELCO	-
93	Enter 1106 in Command Mode To Obtain Display Page 1106	TELCO	-
94	If the Nodes Associated With the Degrown Cabinet Are Not Displayed, Enter 400 in Command Mode To Obtain BISO-EISO Screen	TELCO	-
95	On 1106 Page, Ensure the New Cabinet and Associated Nodes Are In UNEQIP State	TELCO	-
	NOTES: 1. Item 96 through 106 are to remove users links on BISO node from service. 2. The node and signaling links will be OOS for approximately 1/2 hour while changes are being made.		
96	At 3B MCRT, Enter 1108 in Command Mode To Obtain Display Page 1108	TELCO	-
97	If the Links Associated With the Node Determined in Item 96 Are Not Displayed, Enter 430 in Command Mode	TELCO	-
98	On the Node Being Changed, Inspect the MATE Field to Identify Any Mated Signaling Links; and Record the Node, Link Number, and Link State of Each Mated Link (AVL\IS or AVL\STBY)	TELCO	-
	NOTE: Links that are AVL/STBY require no action.		
99	At MCRT, Enter Message CHG:SLK(aa,bb,cc,dd);STBY for Each Mated D-Channel Link on the Node That Is AVL/IS	TELCO	-
	(Continued on Page 9)		

**DEGROW OF D-CHANNEL GROWTH FOR CABINETS 12, 14, 44
AND 46 – SUPPORT TO INSTALLER (INST)**

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

100	Ensure RING CHG SLK aa bb cc dd COMPL and SLK aa bb cc dd CHANGE ACCEPTED. NEW MINOR STATE = STBY Message Is Received	TELCO	-
101	Repeat From Item 96 for Each Mated D-Channel Link on the Node That Is AVL/IS	TELCO	-
102	Enter Message OP:SLK(aa,bb):DEST 1! To Print the Status of the Signaling Links on the Node Being Changed	TELCO	DLP-591
	NOTE: Retain Printout for Use in Item 103 and for Later Use in Restoring the Links		
103	Using the Printout, Determine Each of the D-Channel Links That shows AVL/IS as Its LINK STATE field	TELCO	-
104	At MCRT, Enter Message CHG:SLK(aa,bb,cc,dd);MOOS;UCL for Each Equipped Link on the Node Identified	TELCO	-
105	Ensure RING CHG SLK aa bb cc dd COMPL and SLK aa bb cc CHANGE ACCEPTED. NEW MINOR STATE = MOOS Message Is Received	TELCO	-
106	Repeat From Item 104 For Each Equipped Link On the Node Identified	TELCO	-
107	Enter Message RMV:LNaa bb! To Remove BISO Link Node. Ensure RING RMV LNaa bb COMPLETED Message Is Received	TELCO	-
108	Enter 1106 in Command Mode To Obtain Display Page 1106	TELCO	-
109	Enter 400 in Command Mode To Obtain BISO-EISO Screen	TELCO	-
110	Recent Change hv Value for BISO Link Node {Using the <i>ifbmv.sh</i> Script}	TELCO	DLP-614
	NOTE: The circuit packs in Item 111 and 114 must be placed in an approved antistatic bag to protect it until it is installed in the frame.	TELCO	-
111	At the IFB Location Adjacent to the IFB Control Node Just Changed, Remove the IFB Pack (TN-1508)	TELCO	-
112	At CNI Cabinet Being Degrown, Remove the Highest IFB Pack (TN-1803)	TELCO	-
	(Continued on Page 10)		

**DEGROW OF D-CHANNEL GROWTH FOR CABINETS 12, 14, 44
AND 46 – SUPPORT TO INSTALLER (INST)**

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

113	At CNI Cabinet Being Degrown, Install the IFB Pack Removed From the Existing Cabinet (TN-1508)	INST	-
114	At IFB Location Adjacent to the IFB Control Node on the Existing CNI Cabinet, Install the TN-1803 IFB Pack	INST	-
115	Remove Balanced Cables Between CNI Cabinet Being Degrown (LNaa-01) and the IFB Position Just Modified in the Adjacent Lower Cabinet. Also, Remove the Balanced Cable to the IFB Control Node in the Cabinet being Degrown {LN(aa+1)-15} and the Next Highest Cabinet Depending Upon Office Equipage	INST	-
116	At the IFB Position in the Cabinet Below the One Being Degrown, Connect Balanced Cables to CNI Cabinet and to the IFB Position at the Next Higher CNI Cabinet Depending Upon Office Equipage	INST	-
	NOTE: Failure to reset the T1FA after power cycling may cause failure of Phase 29 during diagnostics.		
117	Diagnose the IFB Control Node in the Existing CNI Cabinet That Was Just Modified for the TN-1803 IFB By Performing One of the Following:		
	A. If CNI 12 Is Being Degrown, Enter DGN:LN11 07;RAW!	TELCO/INST	-
	B. If CNI 14 Is Being Degrown, Enter DGN:LN13 14;RAW!	TELCO/INST	-
	C. If CNI 44 Is Being Degrown, Enter DGN:LN43 07;RAW!	TELCO/INST	-
	D. If CNI 46 Is Being Degrown, Enter DGN:LN45 14;RAW!	TELCO/INST	-
	NOTE: If no output is received, refer trouble to installer to resolve and repeat Item 117. The CATP with hex value indicates more than 1 node is included in the isolation when diagnostic is performed; this is expected		
118	Ensure DGN LNaa bb ATP MESSAGE COMPLETE Message Is Received	TELCO/INST	-
	(Continued on Page 11)		

**DEGROW OF D-CHANNEL GROWTH FOR CABINETS 12, 14, 44
AND 46 – SUPPORT TO INSTALLER (INST)**

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

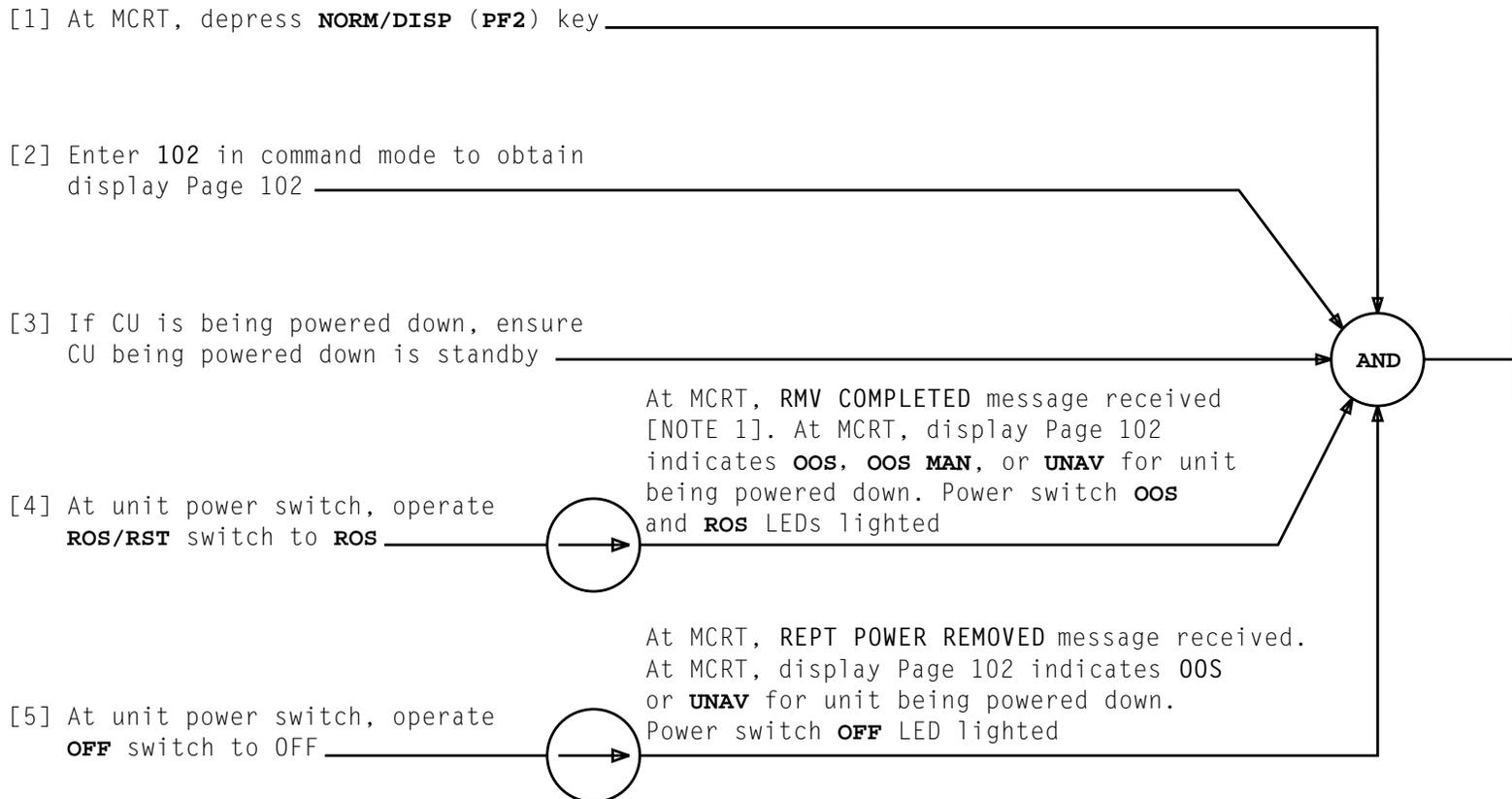
119	Recent Change Link Node Diagnosed in Item 117 to OOS (Using the <i>ifbm.sh</i> Script)	TELCO	DLP-593
120	Restore IFB Control Node in the CNI Cabinet By Performing One of the Following:	TELCO	—
	A. If CNI 12 Is Being Degrown, Enter RST:LN11 07;UCL!	TELCO/INST	—
	B. If CNI 14 Is Being Degrown, Enter RST:LN13 14;UCL!	TELCO/INST	—
	C. If CNI 44 Is Being Degrown, Enter RST:LN43 07;UCL!	TELCO/INST	—
	D. If CNI 46 Is Being Degrown, Enter RST:LN45 14;UCL!	TELCO/INST	—
121	Ensure RING RST LNaa bb COMPLETED Message Is Received	TELCO	—
122	Enter Message OP:RING;DETD and Ensure No "i" Is Listed for Any Link Node (i = isolated). Only One Area on CNI Ring Can Be Isolated at a Time	TELCO	—
123	If Any Link Node Is Isolated, Enter Message CFR:RING! To Restore Link Node	TELCO	—
	NOTE: Use the list of links on the node just changed that were set to MOOS in Item 104	TELCO	—
124	Enter CHG:SLK(aa,bb,cc,dd);ARST Message for Restoring Link Node To Service	TELCO	—
125	Ensure RING CHG SLK aa bb cc dd COMPL SLK aa bb cc dd CHANGE ACCEPTED. NEW MINOR STATE = OOS Message Is Received for Link Node To Be Restored	TELCO	—
126	Repeat From Item 124 For Each Link Node Identified As OOS	TELCO	—
	NOTE: In some customer equipment cases, customer intervention may be necessary before the link goes IS.		
127	At the 3B21D MCRT 1108/430 Page, Verify that the Link Node Returns to AVL/IS	TELCO	—
128	Notify the Customers of the Links Node Just Restored That Their Service Has Been Restored	TELCO	—
129	Enter Message OP:RING;DETD and Ensure No "i" Is Listed for Any Link Node (i = Isolated). Only One Area on CNI Ring Can Be isolated at a Time	TELCO	—
130	If Any Link Node Is Isolated, Enter Message CFR:RING! To Restored Link Node	TELCO	—
131	Enter Message EXC:ENVIR:UPROC,FN"/tools/bootaud"! To Verify Boot Audit Status and Enusre REPT BOOTAUD COMPLETE - TOTAL OF 0 ERRORS DETECTED Message Is Received	TELCO	—
	(Continued on Page 12)		

**DEGROW OF D-CHANNEL GROWTH FOR CABINETS 12, 14, 44
AND 46 – SUPPORT TO INSTALLER (INST)**

DO THE ITEMS BELOW IN THE ORDER LISTED FOR DETAILS, GO TO

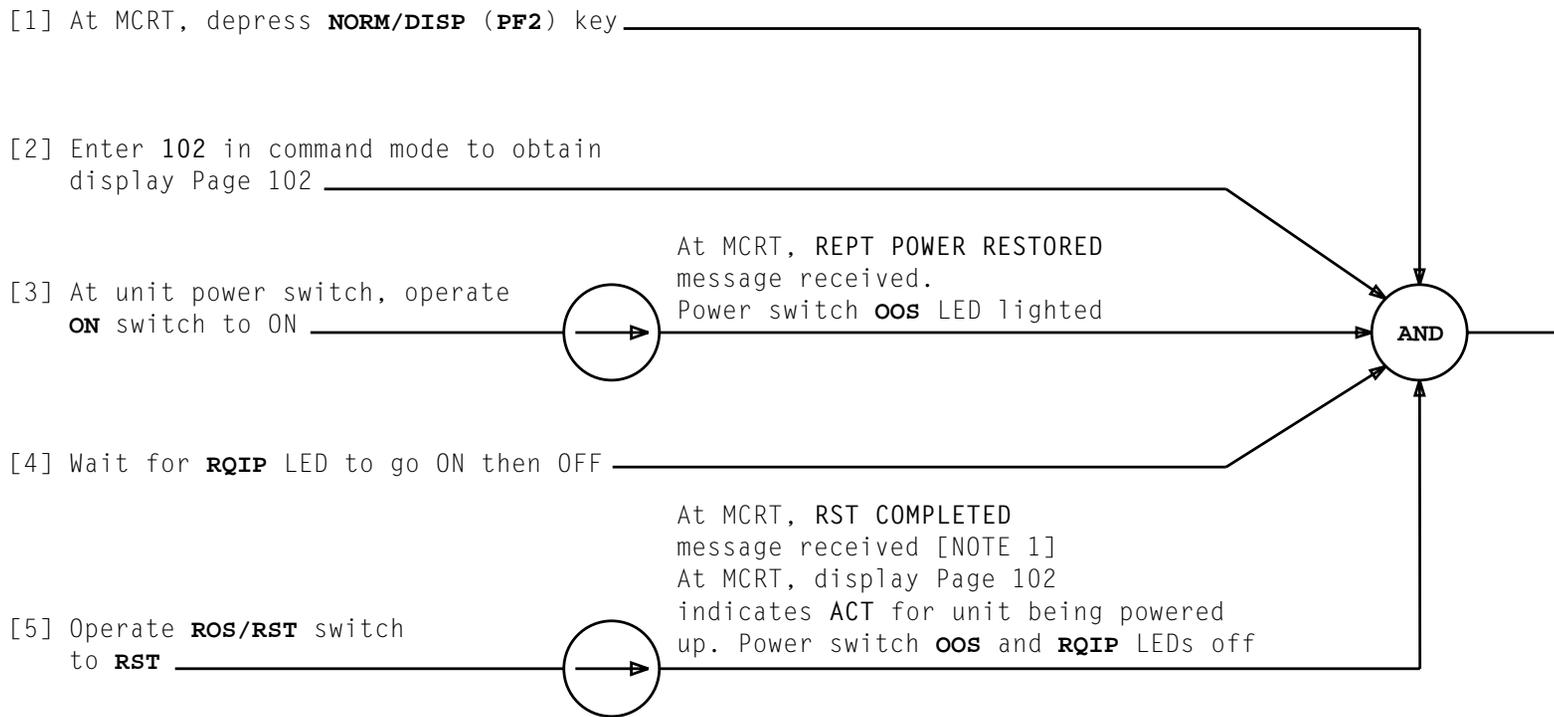
132	At MCRT, Enter Following Messages To Allow Automatic Diagnostics: • ALW:DMQ;SRC REX! • ALW:DMQ;SRC ADP!	TELCO	-
133	Soak D-Channel Configuration for 1 Hour To Ensure No Problems Exist With System Operation After Degrown	TELCO/INST	-
134	Copy Incore ECD to Disk	TELCO	DLP-519
135	Verify System Status	TELCO/INST	DLP-544
136	Soak D-Channel Configuration for 12 Hour To Ensure No Problems Exists With System Operation After Degrown	TELCO/INST	-
137	Run File System Audits To Ensure No File System Errors	TELCO	DLP-520
138	Update Backup Data Base	TELCO	DLP-521
139	Write 3B Computer Backup Tapes	TELCO	DLP-522
140	Verify Backup Tapes	TELCO	DLP-525

**DEGROW OF D-CHANNEL GROWTH FOR CABINETS 12, 14, 44
AND 46 – SUPPORT TO INSTALLER (INST)**



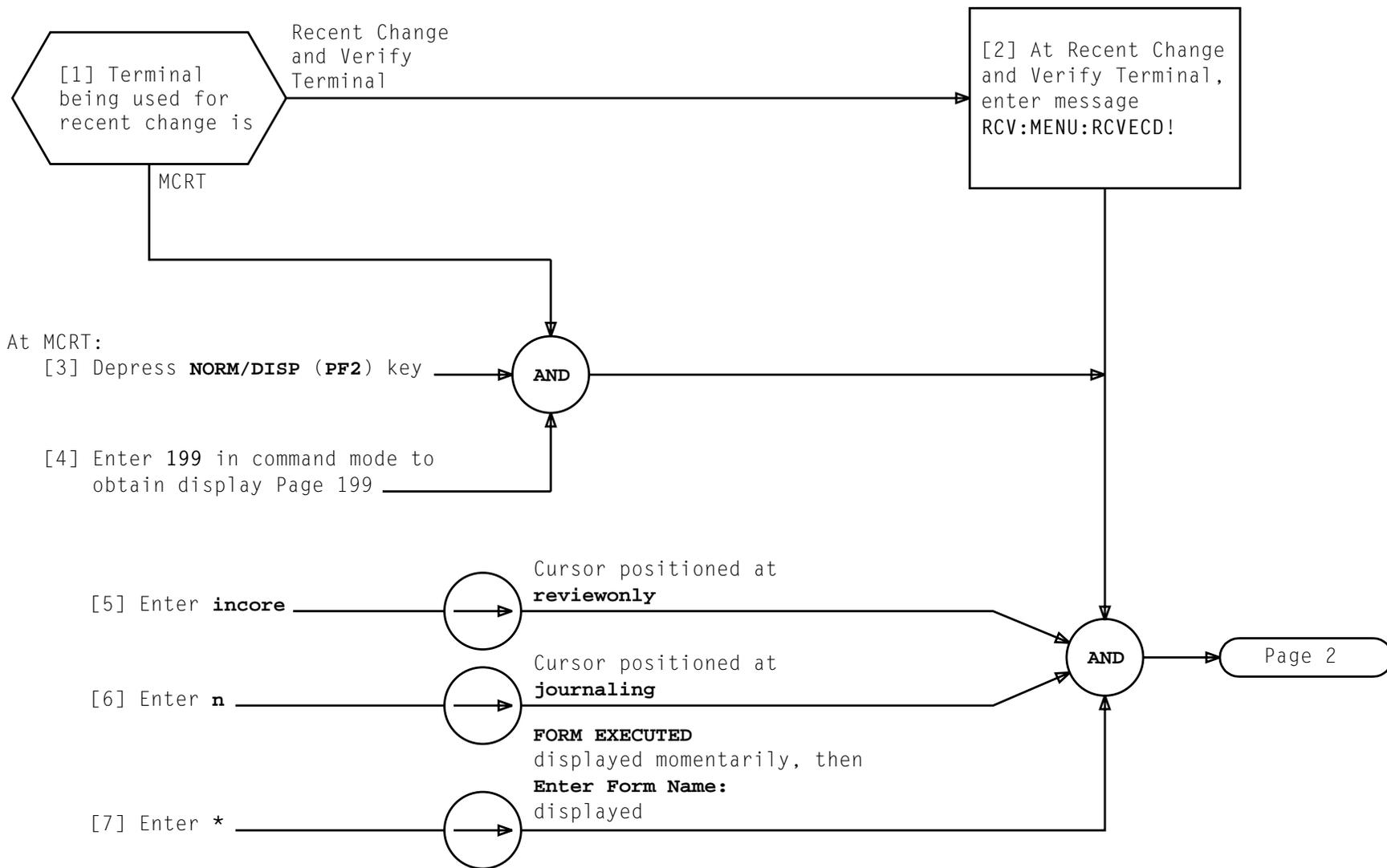
NOTE 1 Any subunits will be removed from service	
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REMOVE UNIT FROM SERVICE AND POWER DOWN

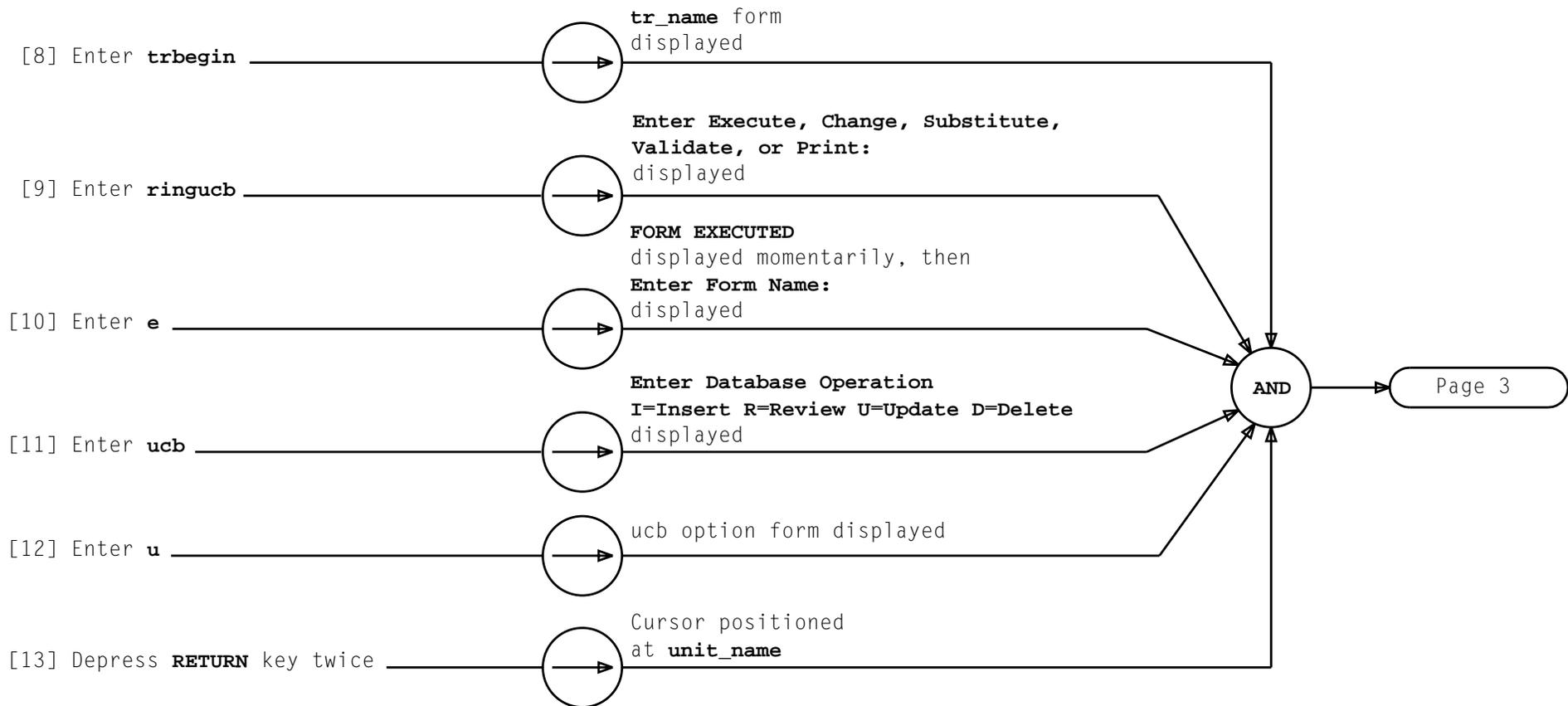


NOTE 1	
Any subunits will be restored to service after RST COMPLETED message received	
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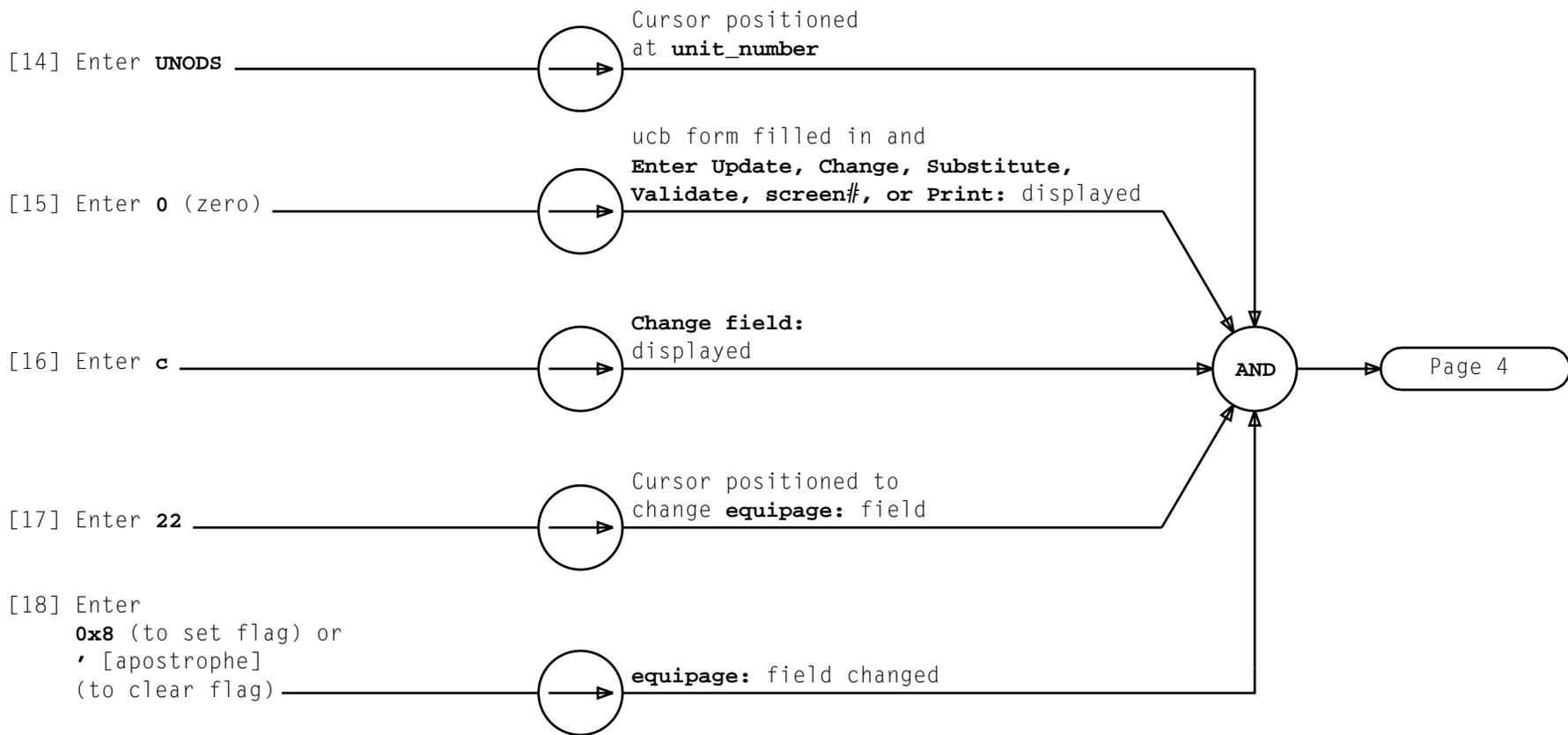
POWER UP UNIT AND RESTORE TO SERVICE



**SET OR CLEAR INTERPROCESSOR MESSAGE SWITCH (IMS)
MANUAL RING FLAG**

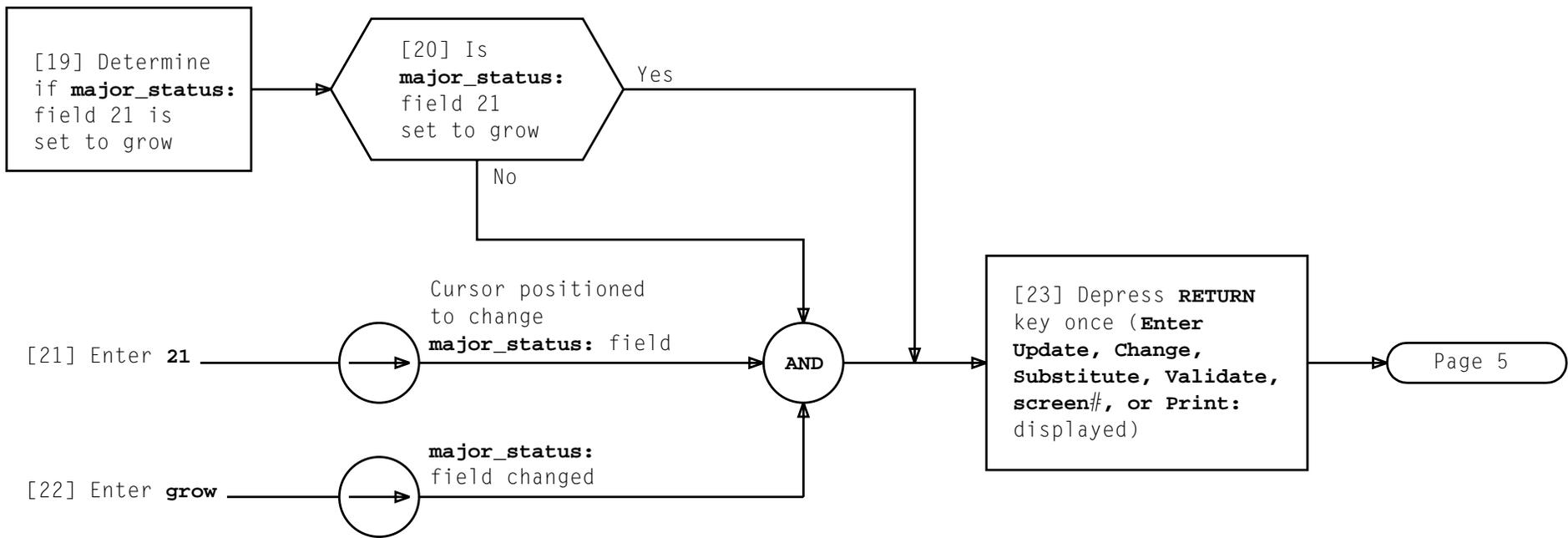


**SET OR CLEAR INTERPROCESSOR MESSAGE SWITCH (IMS)
MANUAL RING FLAG**

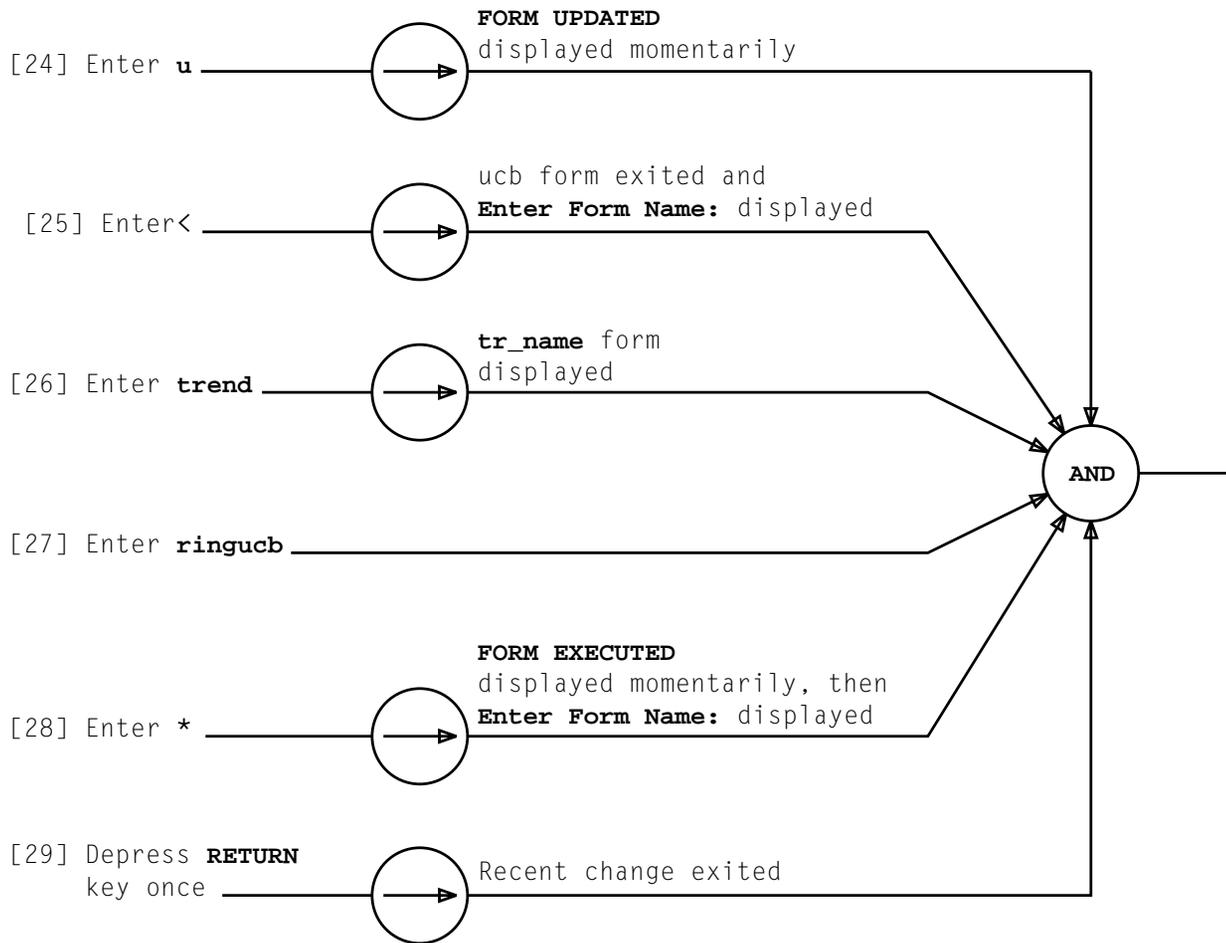


**SET OR CLEAR INTERPROCESSOR MESSAGE SWITCH (IMS)
MANUAL RING FLAG**

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**SET OR CLEAR INTERPROCESSOR MESSAGE SWITCH (IMS)
MANUAL RING FLAG**



**SET OR CLEAR INTERPROCESSOR MESSAGE SWITCH (IMS)
MANUAL RING FLAG**

[1] At MCRT, enter message
 EXC:ENVIR:UPROC, FN"/etc/newring", ARG\$ ("cnidb")!

[2] Wait for response:
 EXC ENV UPROC COMPLETED
 REPT newring cnidb COMPLETED

[3] Enter message
 OP:STATUS:LISTDIR, FN"/database/cni/odata"!

[4] Using printout, verify that all files in
 TABLE A are listed

AND

[5] Were all
 files in TABLE A
 listed in
 printout

Yes

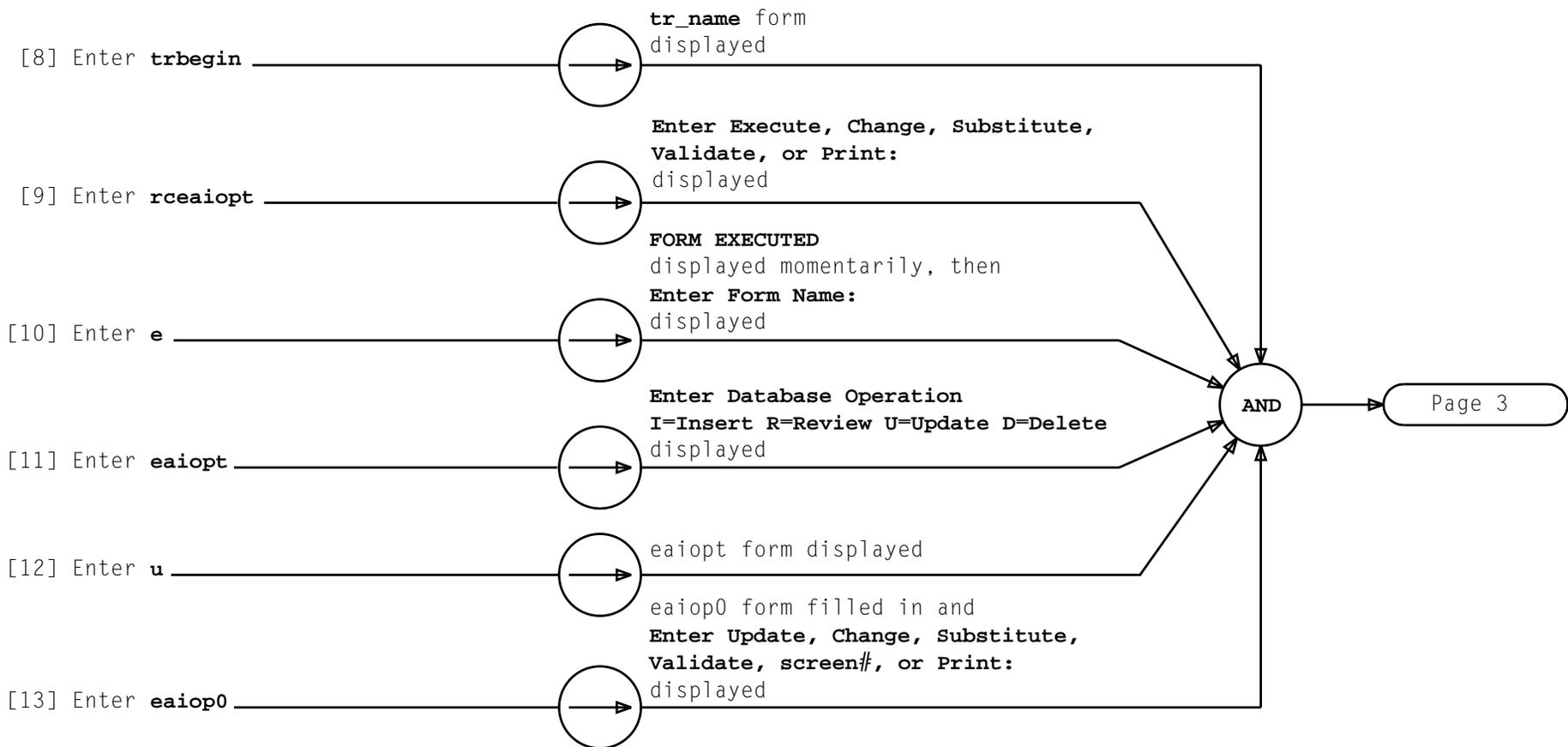
No

[6] Contact
 appropriate support
 organization for
 resolution. After
 resolving, repeat
 from Step 1

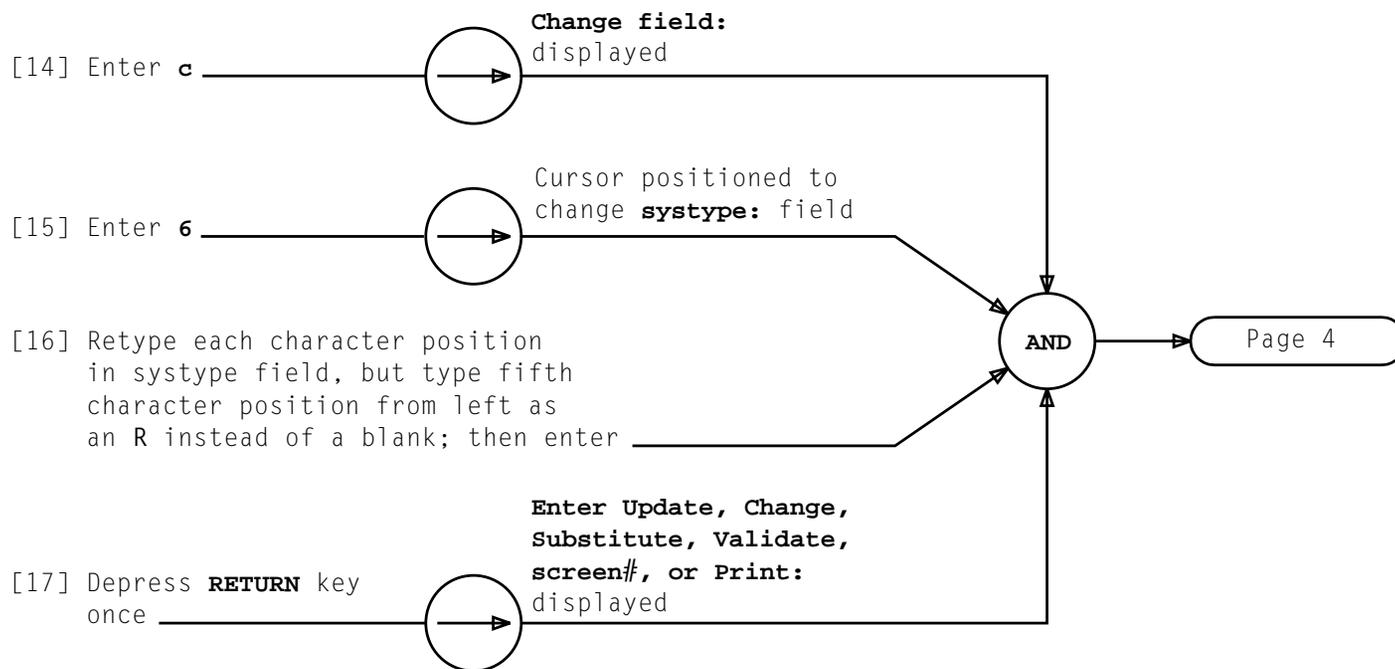
TABLE A

c_office	member
cet	meminfo
clkdata	network
cluster	permrel
excp	pxl_tab
hfdt	schd
ln7slots	ssdist
locssn	uvdt
lxp_tab	v1_tab

CREATE COMMON NETWORK INTERFACE OFFICE DATA FILES

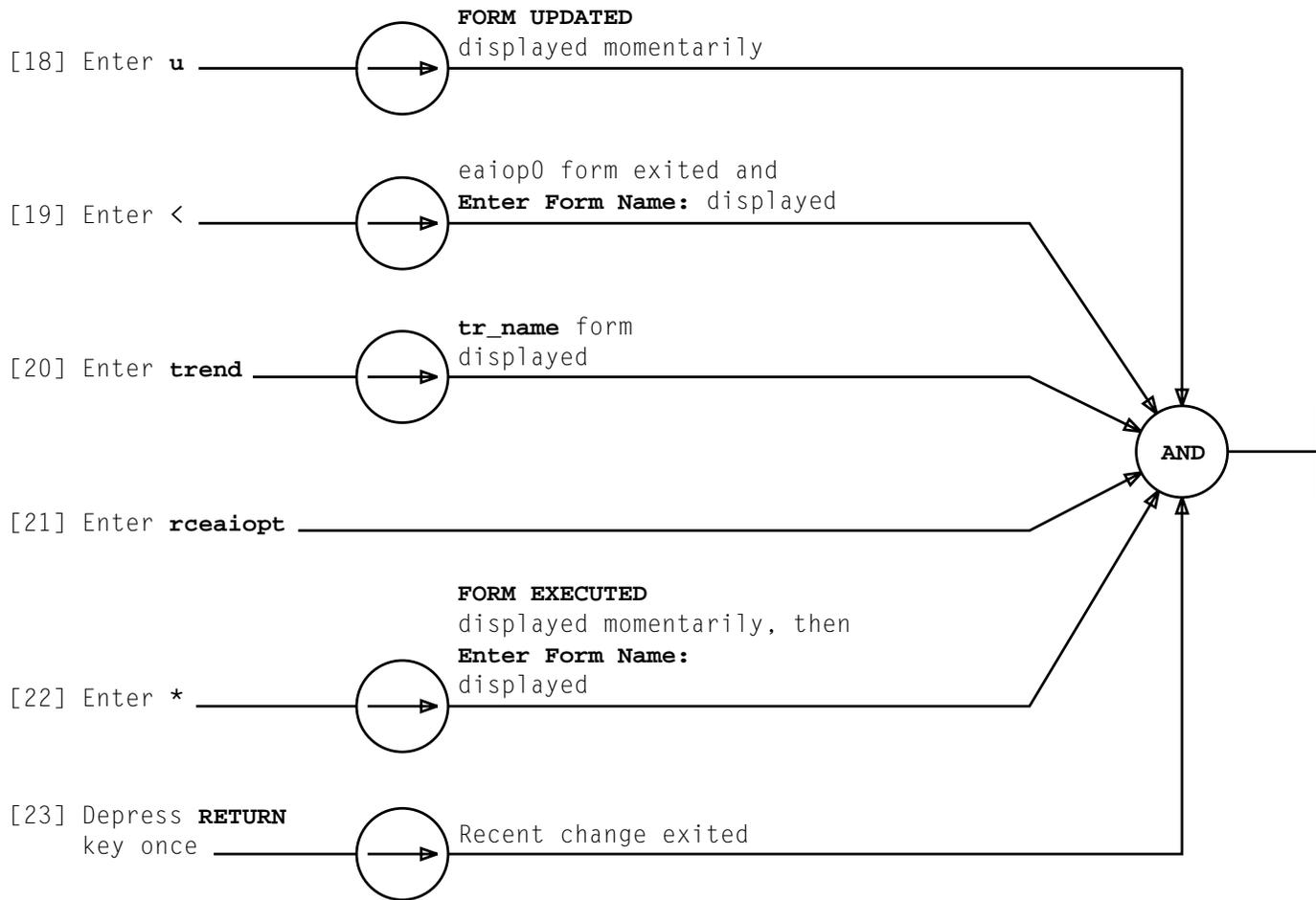


SET COMMON NETWORK INTERFACE (CNI) RING FEATURE FLAG TO ENABLED STATE

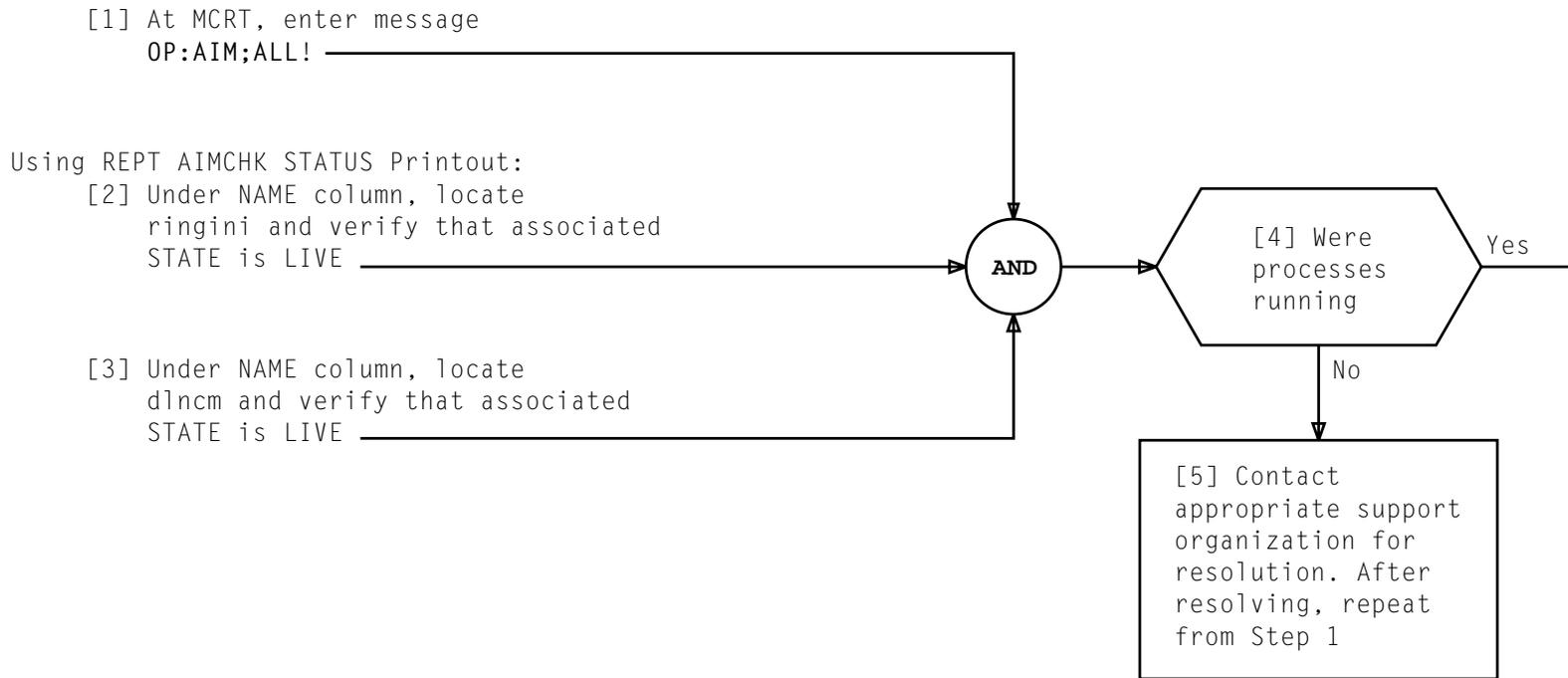


SET COMMON NETWORK INTERFACE (CNI) RING FEATURE FLAG TO ENABLED STATE

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**SET COMMON NETWORK INTERFACE (CNI) RING FEATURE FLAG
TO ENABLED STATE**



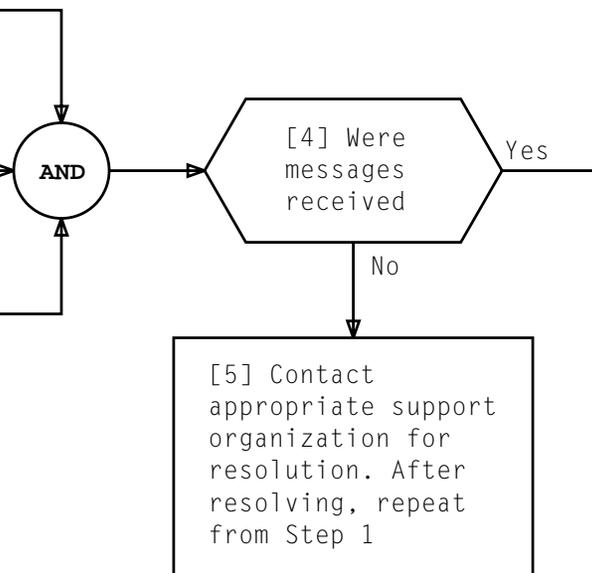
VERIFY RING PROCESSES ARE STARTED UP

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[1] See NOTE 1. At MCRT, enter message
INIT:RING 4!

[2] Observe printout and verify
that messages in TABLE A,
Page 2, are received

[3] At MCRT, depress
ALM RLS (PF4) key



NOTE 1

Expect ring init fault message due to ring peripheral controllers being unequipped:
RING REPT RING INIT FLT
RING INITIALIZATION FAILED
NO STANDBY RPC NODES AVAILABLE

PERFORM LEVEL 4 RING INIT BOOT

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TABLE A	
OUTPUT MESSAGE*	OUTPUT MESSAGE*
RING REPT IMSDRV INIT STARTED ABORT SEQUENCE RING REPT CNIINIT CNI GENERIC n.n REPT RINGINIT INIT LEVEL 4 REQUESTED REPT RINGINIT INIT LEVEL 4 STARTED REPT RINGINIT CLEANING UP OLD CNI/IMS REPT RINGINIT X'nnnn RING REPT IMSDRV INIT STARTED BOOT INITIALIZATION PROLOGUE RING REPT IMSDRV INIT STARTED LEVEL 4 BOOT INITIALIZATION RING REPT SLMSHR CNI GENERIC RELEASE n.n.n.n RING REPT RING INIT FLT RING INITIALIZATION FAILED NO STANDBY RPC NODES AVAILABLE RING REPT IMSDRV INIT COMPLETED LEVEL 4 BOOT INITIALIZATION REPT RINGINIT CNI/IMS PART DONE	RING REPT SLM DUMP MSG MISMATCHED/RETURNED MESSAGE** RING REPT LOG CDBA REMACS.C REMACS PUMP OF DLN NODE nnn STARTED** RING REPT REMACS RTN MSG** RING REPT LOG CDBA REMACS.C REMACS RETRY:** RING REPT REMACS RETRY EXCESSIVE RETRIES NODE nnn RING REPT LOG CDBA REMACS.C REMACS NODE nnn RMVD. RING REPT LOG CDBA REMACS.C REMACS PUMP OF NODE nnn ABORTED REPT DLNCM PROC (Dinevent): NO ACTIVE OR STANDBY DLM REPT DLNCM PROC (Startdin): NO ACTIVE OR STANDBY DLM REPT DLNCM PROC (Trafstrt): UNABLE TO START STREAM REPT RINGINIT INIT LEVEL 4 COMPLETED IN nn SECONDS
* Messages may come out in different order because of queuing ** Messages are received several times	

PERFORM LEVEL 4 RING INIT BOOT

At MCRT:

[1] Depress **NORM/DISP (PF2)** key

[2] See NOTE 1. Enter one display page number in command mode to obtain that display page [TABLE A]

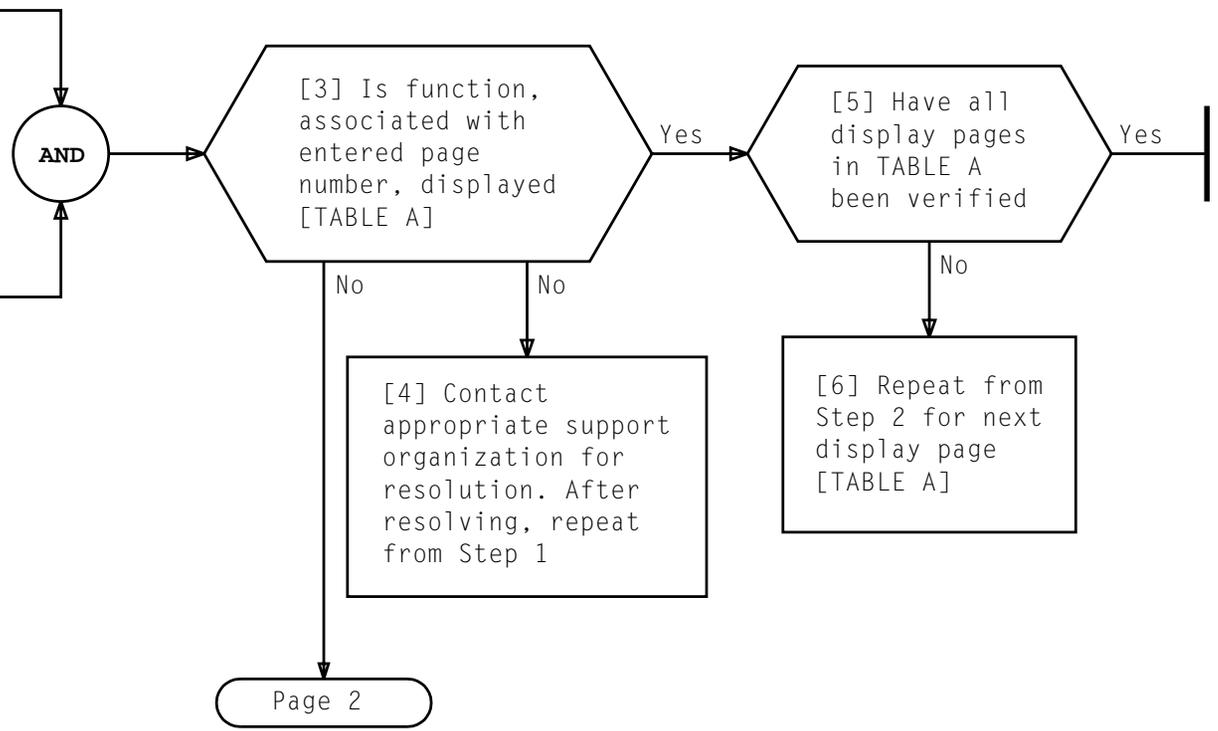
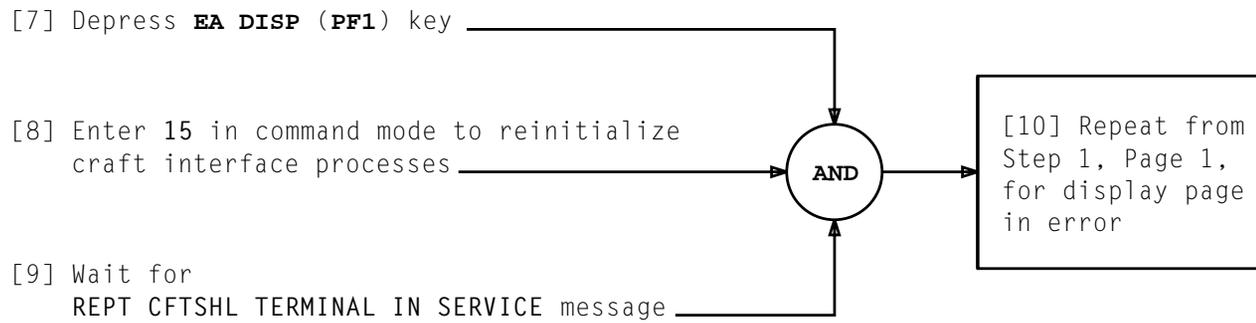


TABLE A	
DISPLAY PAGE	FUNCTION
1105	Ring Status Summary
1106	Ring Group Status
1107	DLN/API Stream Status
1108	Signaling Link Summary

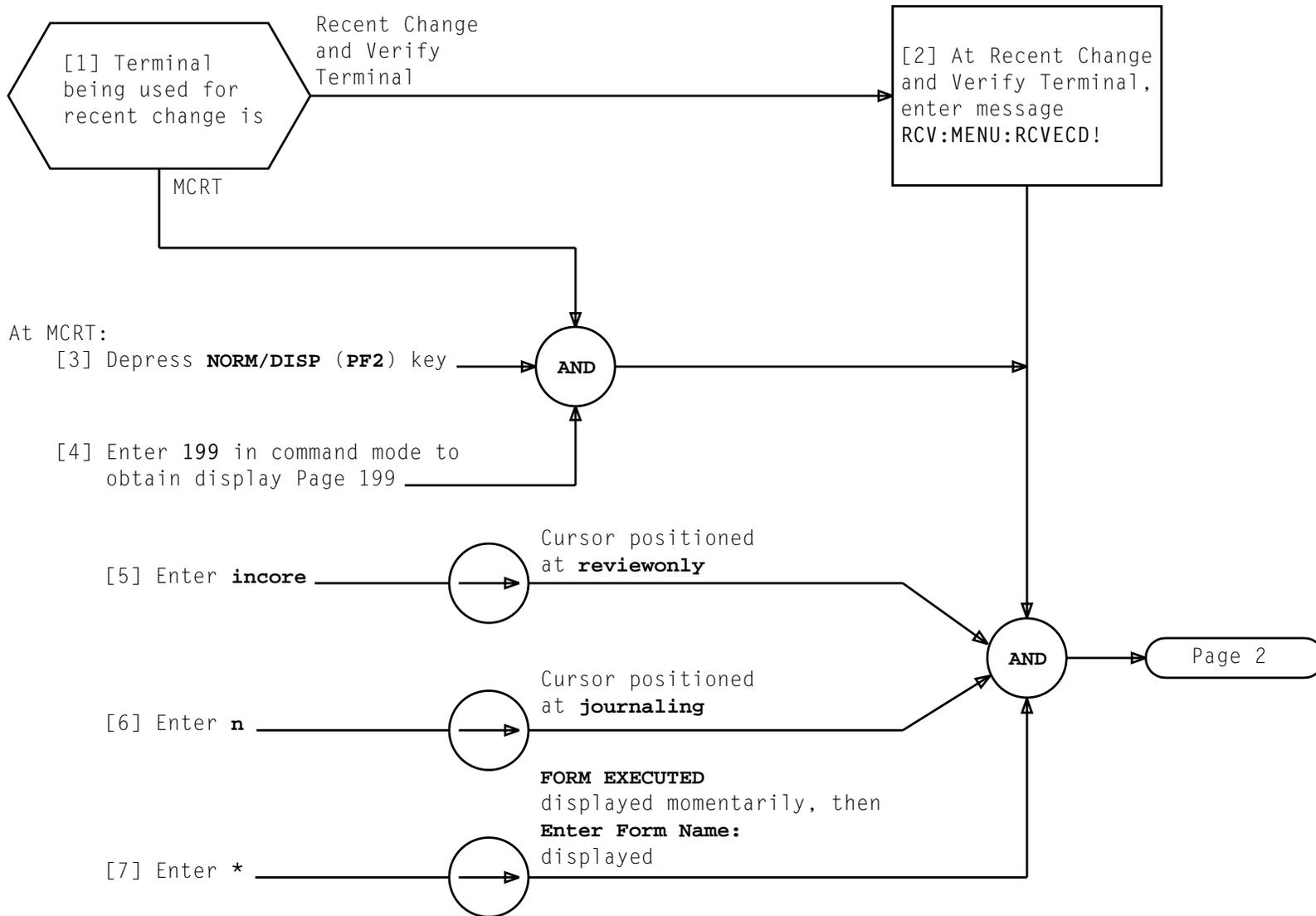
NOTE 1	
This procedure is only being performed to ensure that CNI display pages can be accessed	
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VERIFY RING DISPLAY PAGES



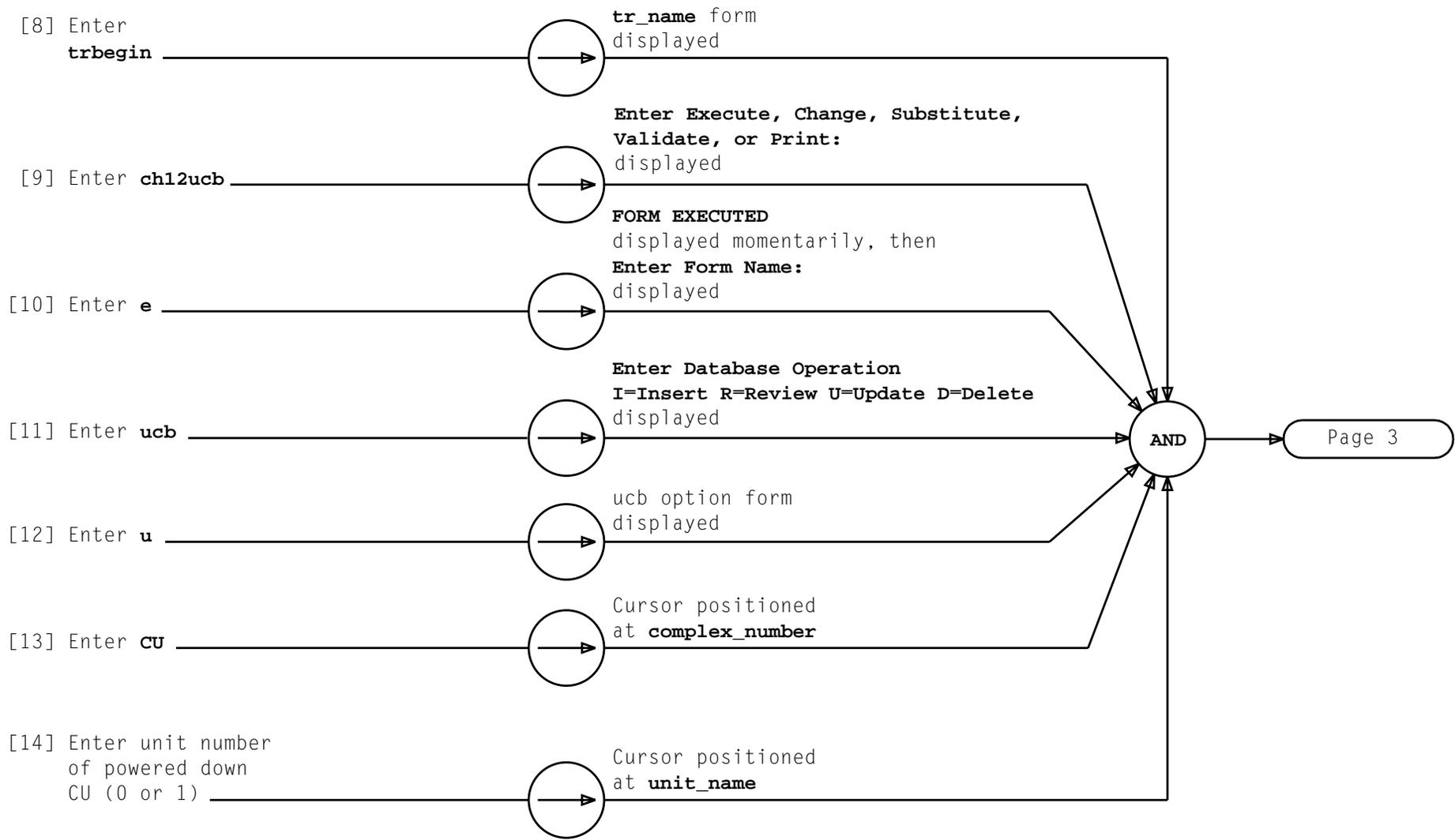
VERIFY RING DISPLAY PAGES

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RECENT CHANGE DSCH 12 TO EQUIP RPCN AND DLN PORTS

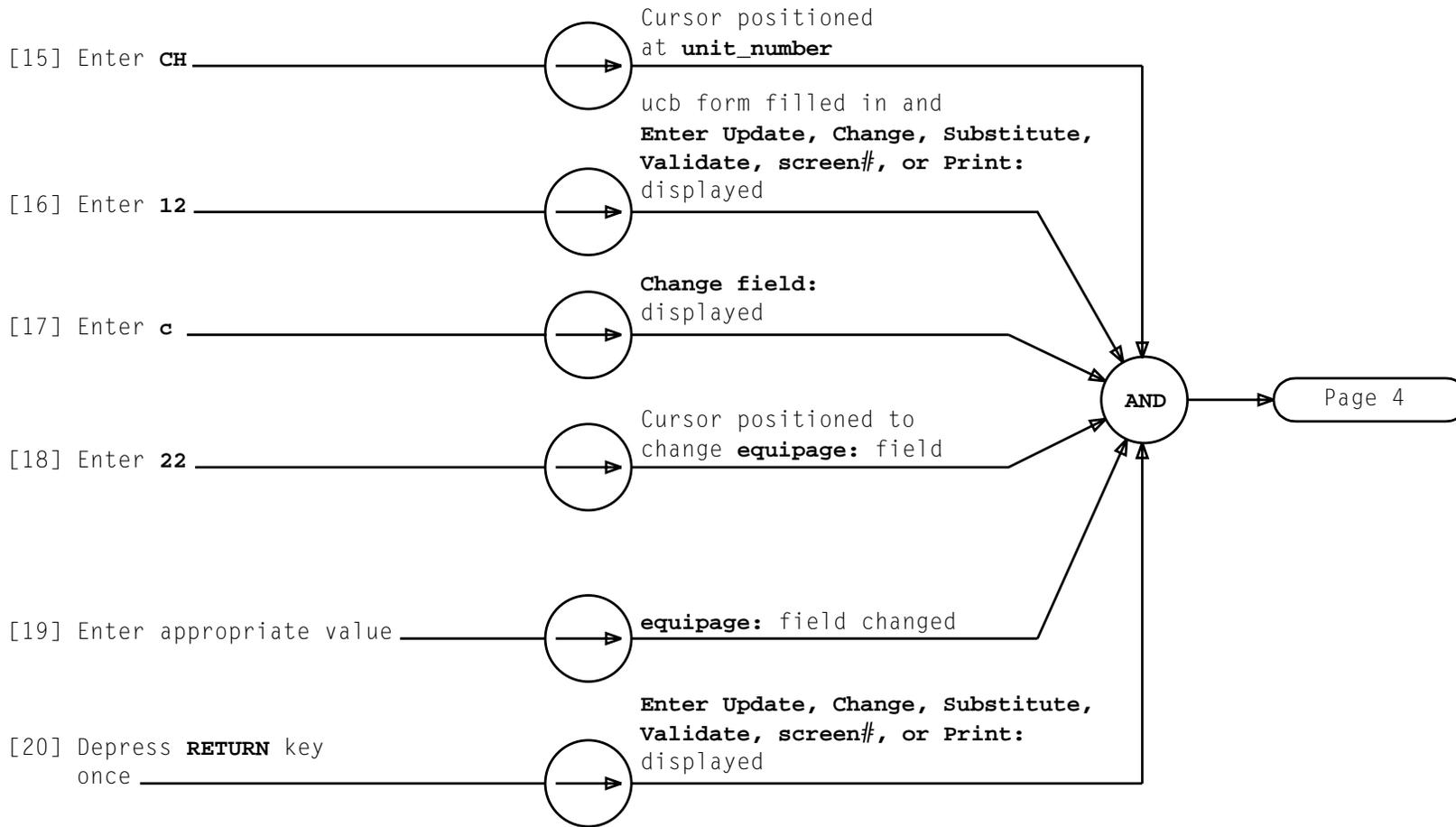
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RECENT CHANGE DSCH 12 TO EQUIP RPCN AND DLN PORTS

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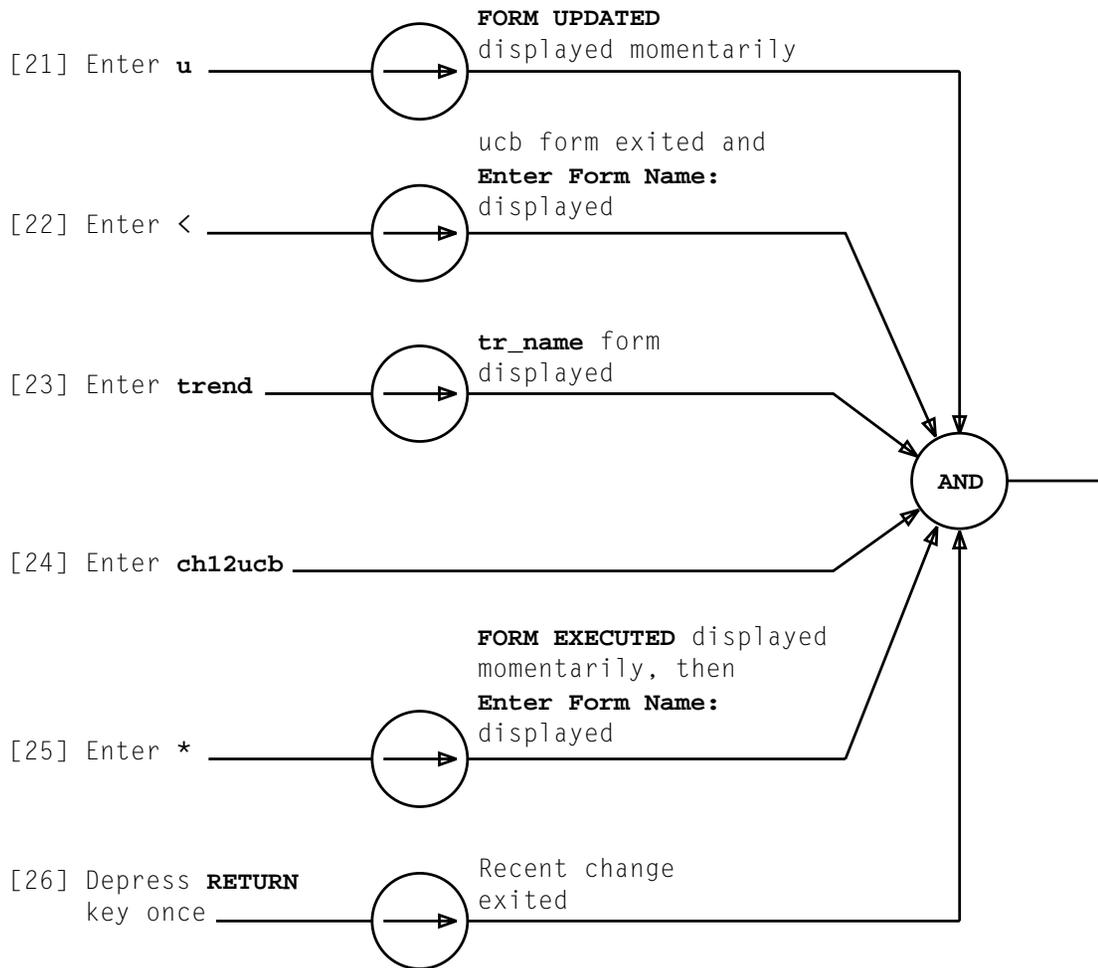
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RECENT CHANGE DSCH 12 TO EQUIP RPCN AND DLN PORTS

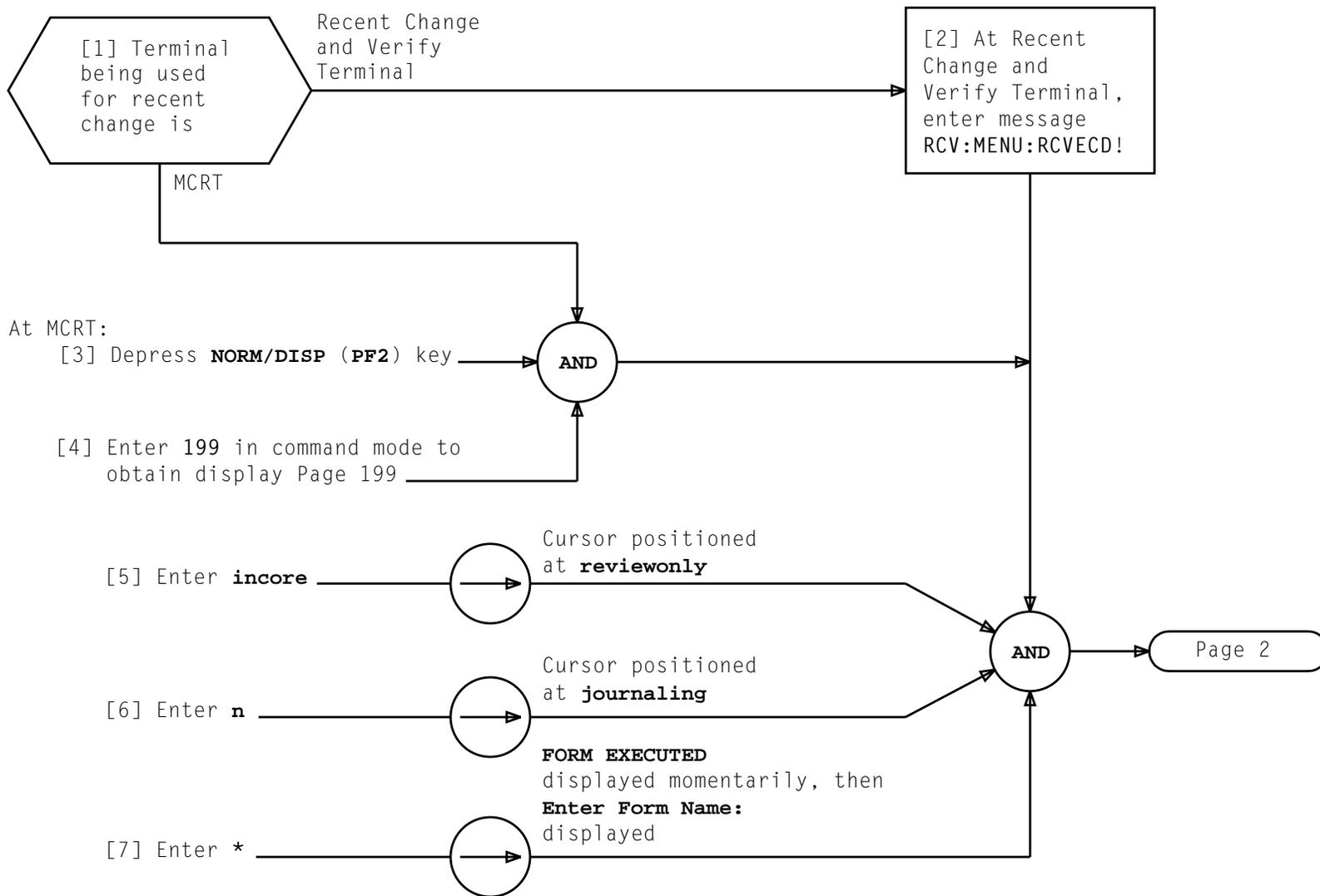
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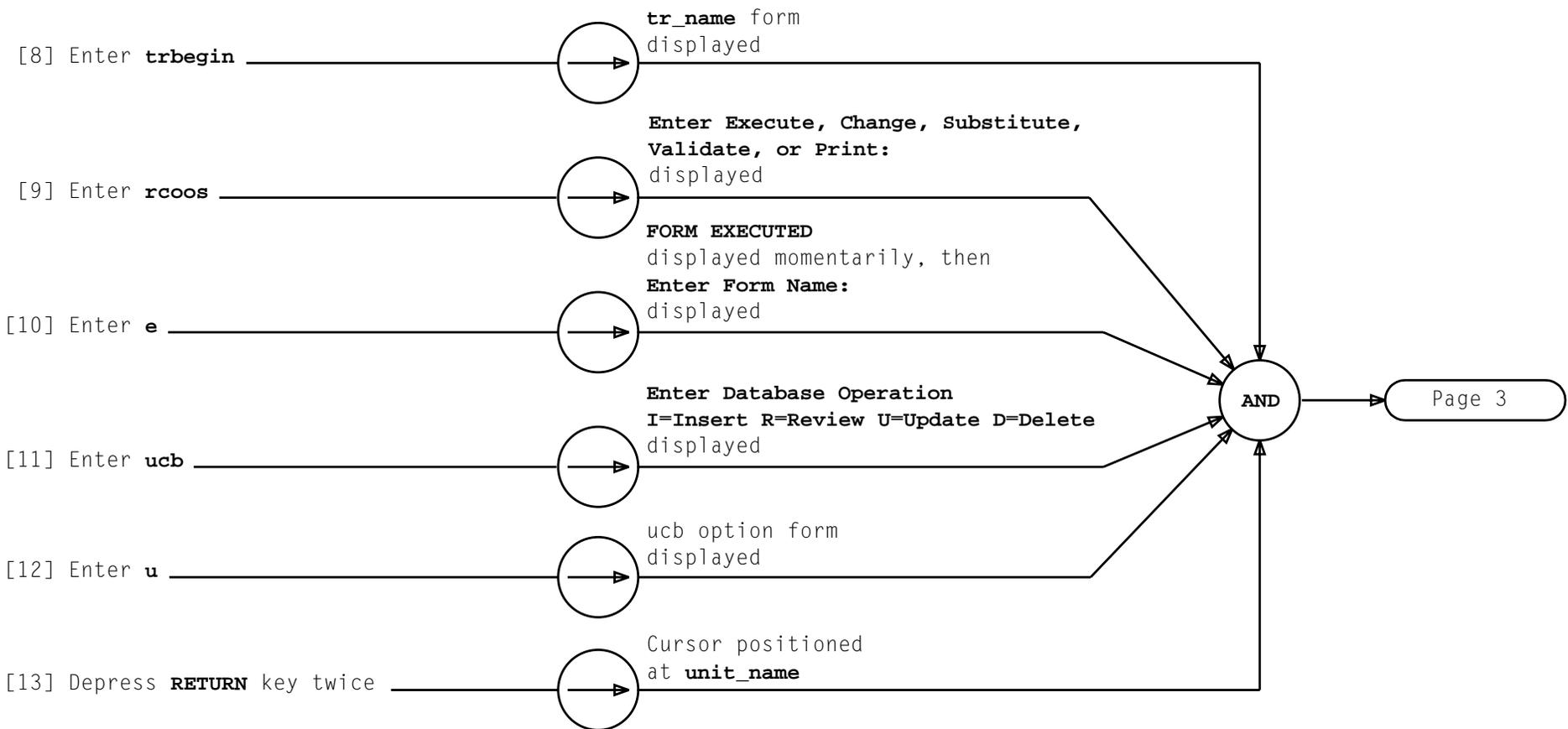
RECENT CHANGE DSCH 12 TO EQUIP RPCN AND DLN PORTS

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RECENT CHANGE GROWTH UNITS FROM GROW TO OOS

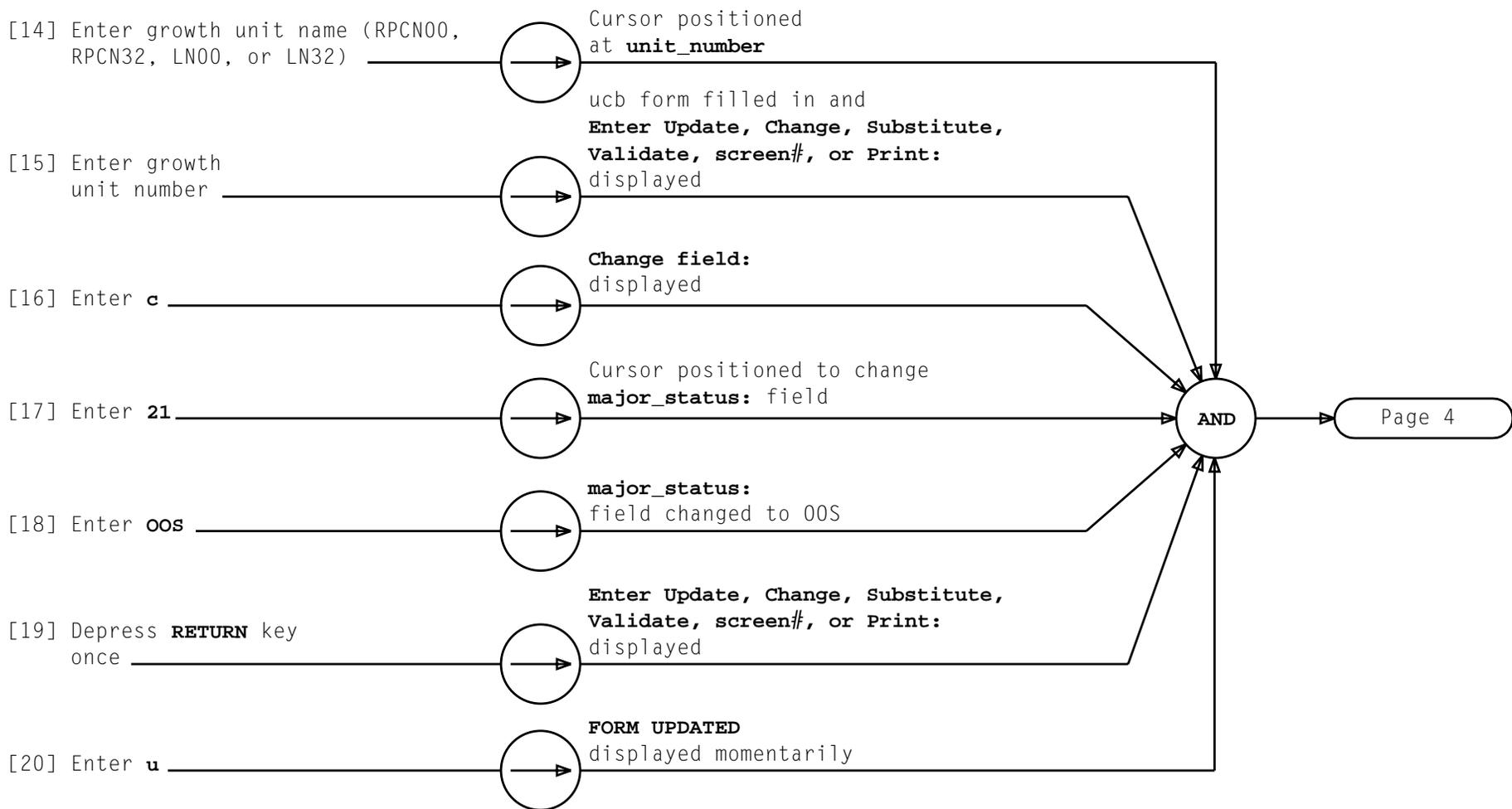
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RECENT CHANGE GROWTH UNITS FROM GROW TO OOS

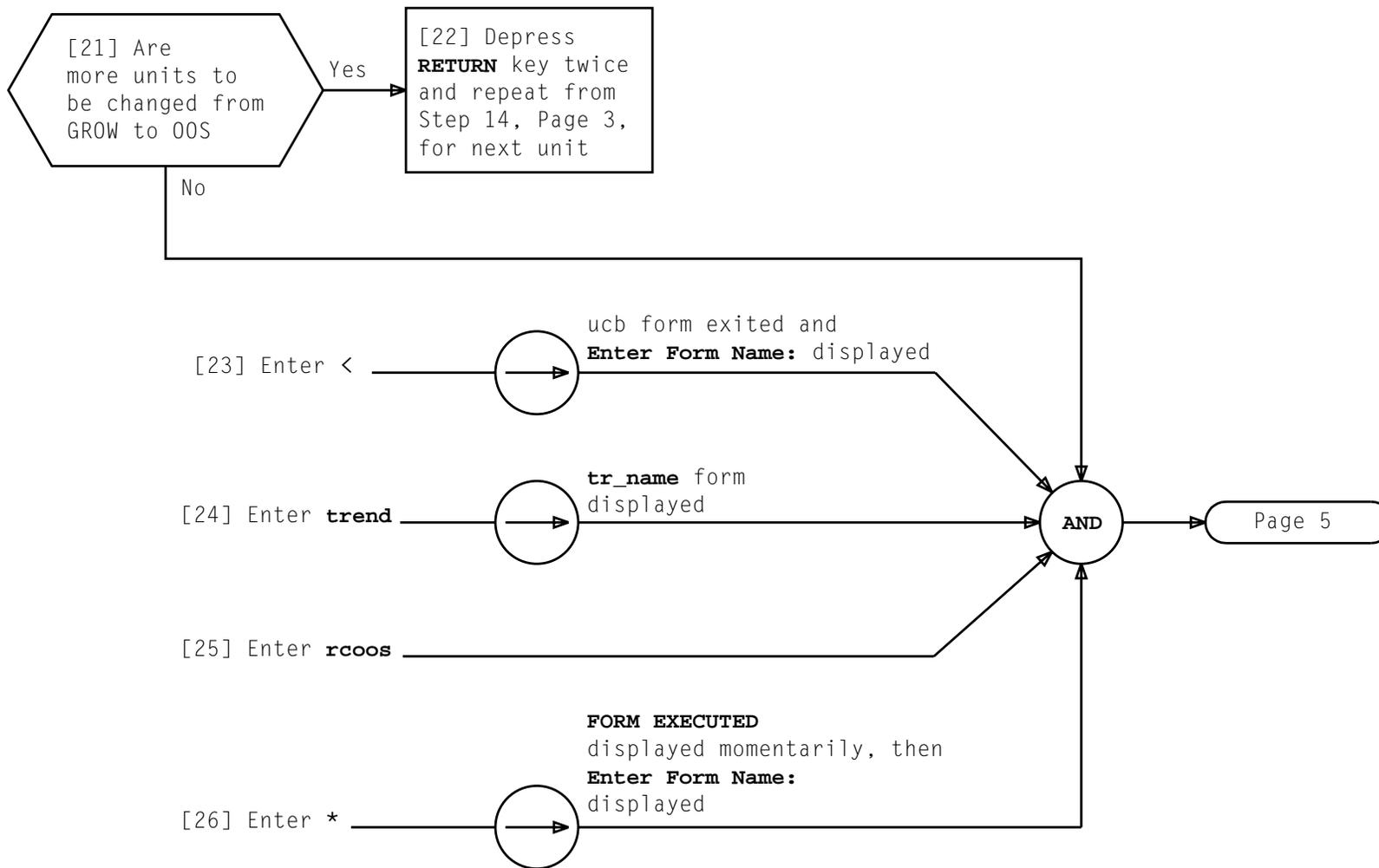
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RECENT CHANGE GROWTH UNITS FROM GROW TO OOS

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RECENT CHANGE GROWTH UNITS FROM GROW TO OOS

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[27] Wait for REPT a b IS OUT OF SERVICE message
 for each unit recent changed
 a = growth unit name
 b = growth unit number

[28] Depress **RETURN**
 key once

Recent change
 exited

AND

[29] Enter 1106 in
 command mode

1106 page
 displayed

[30] Is growth
 associated ring
 node frame group
 displayed on
 1106 page

Yes

Page 6,
 Step 32

No

Page 6

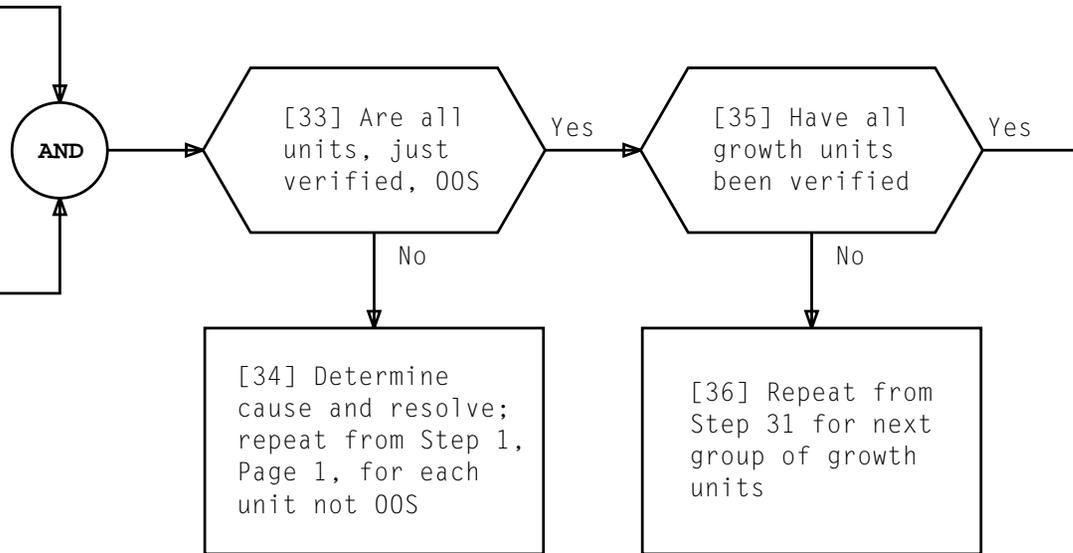
RECENT CHANGE GROWTH UNITS FROM GROW TO OOS

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[31] Enter appropriate command to obtain 1106 page that contains growth units

[32] Verify that each recent changed unit status on this page is changed to 00S



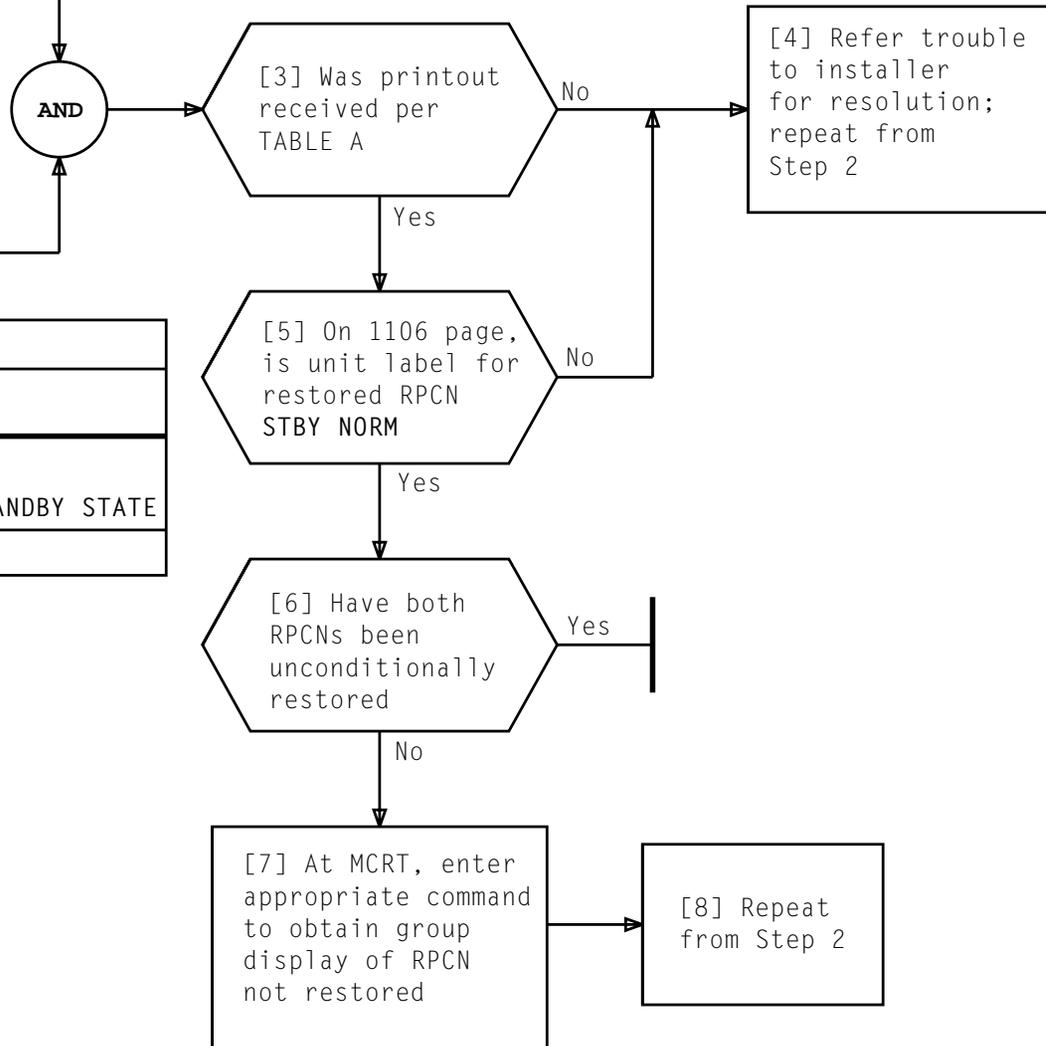
RECENT CHANGE GROWTH UNITS FROM GROW TO OOS

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[1] At MCRT, if 1106 page is not displayed,
enter 1106 in command mode

[2] Enter message
RST:RPCNaa 0;UCL!
aa = RN cabinet number -
00 or 32

TABLE A	
MESSAGE NUMBER	OUTPUT MESSAGE
1	RST RPCNaa 0 TASK x MSG STARTED RING REPT RPCNaa 0 IS IN THE STANDBY STATE
aa = RN cabinet number - 00 or 32	

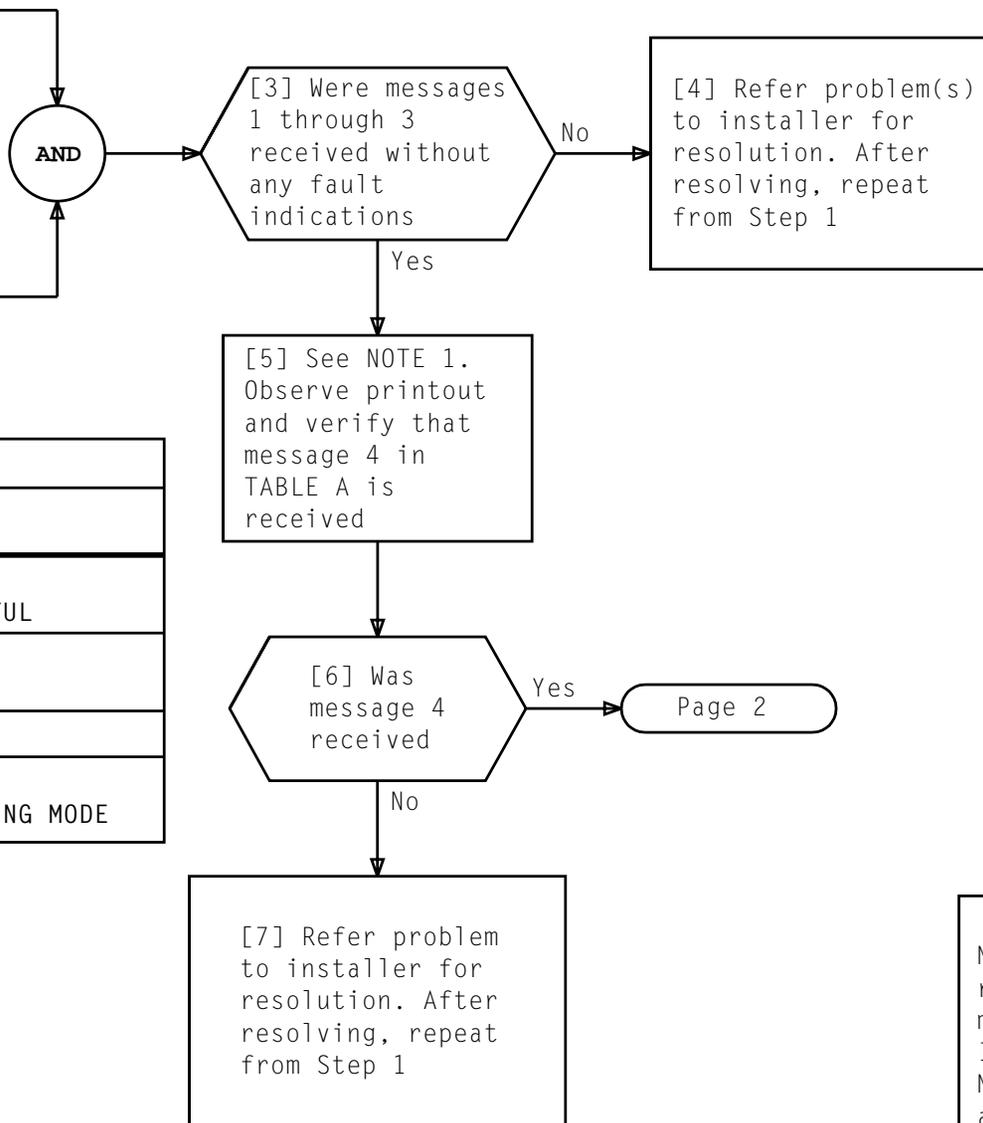


RESTORE RPCN00 AND RPCN32 UNCONDITIONALLY

[1] At MCRT, enter message
CFR:RING!

[2] Observe printout and verify
that messages 1 through 3
in TABLE A are received
without any fault
indications

TABLE A	
MESSAGE NUMBER	OUTPUT MESSAGE
1	RING REPT RING INIT RING INITIALIZATION WAS SUCCESSFUL
2	RING RST RPCN00 0 COMPLETED RING RST RPCN32 0 COMPLETED
3	RING CFR RING COMPL
4	RING REPT MANUAL RING MODE WARNING: ECD SPECIFIES MANUAL RING MODE



NOTE 1 Message 4 will be received every 30 minutes until Interprocessor Message Switch (IMS) automatic recovery is allowed	
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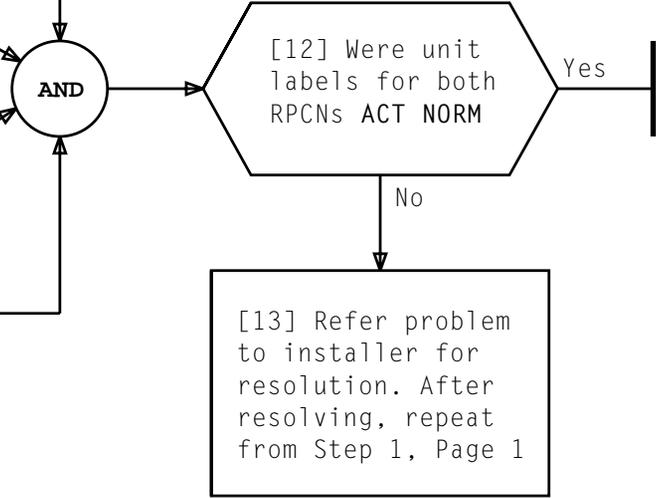
ESTABLISH RING CONFIGURATION

[8] At MCRT, if 1106 page is not displayed, enter 1106 in command mode

[9] Verify that unit label for RPCNaa 0 is ACT NORM

[10] Enter appropriate command to obtain group display of RPCN not verified

[11] Verify that unit label for RPCNaa 0 is ACT NORM



ESTABLISH RING CONFIGURATION

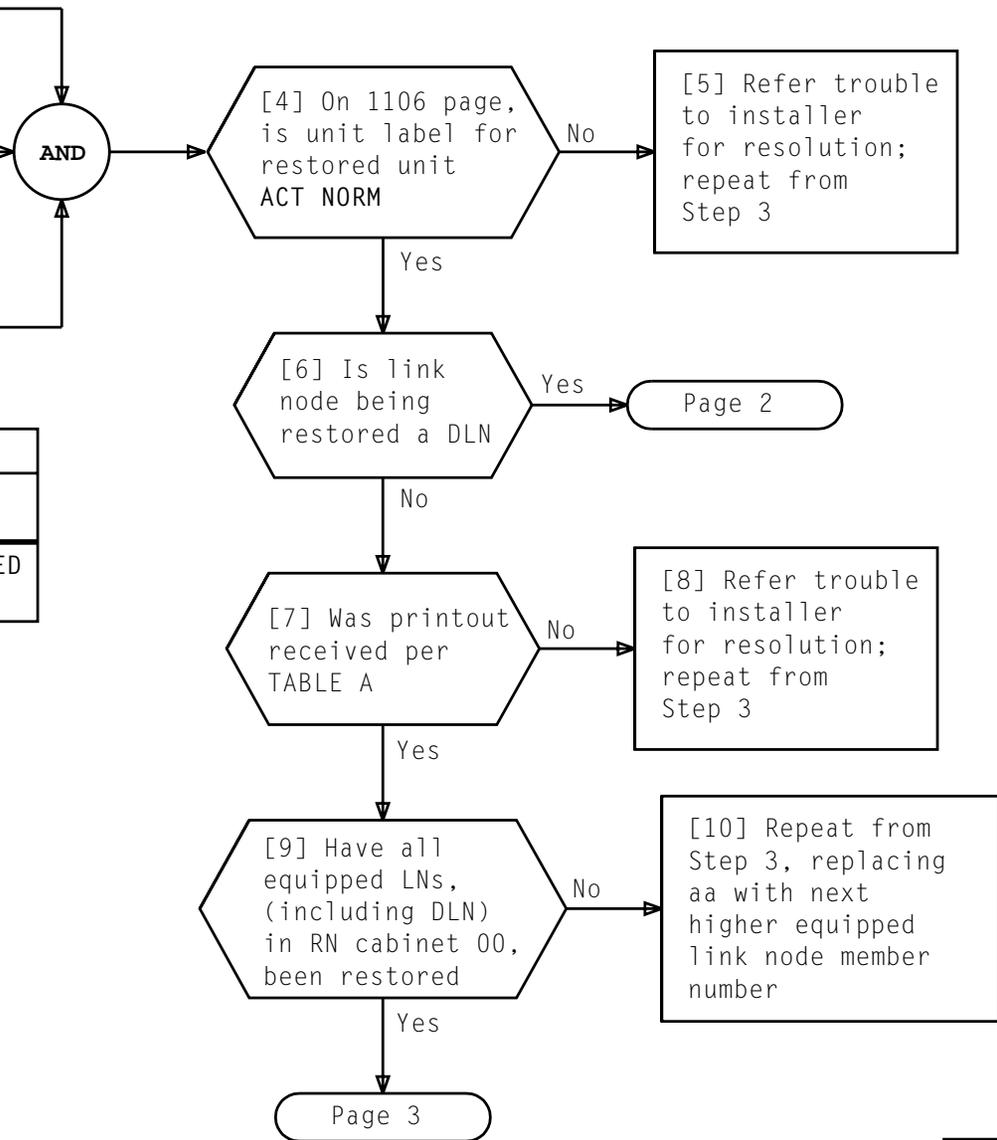
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[1] At MCRT, if 1106 page is not displayed, enter 1106 in command mode

[2] If 1106 page does not display ring group 00, enter appropriate command to obtain ring group 00

[3] Enter message RST:LN00 aa;UCL!
(aa = lowest equipped link node member number)

TABLE A	
MESSAGE NUMBER	OUTPUT MESSAGE
1	RST LN00 aa TASK n MSG STARTED RING RST LN00 aa COMPLETED



RESTORE EQUIPPED LINK NODES UNCONDITIONALLY

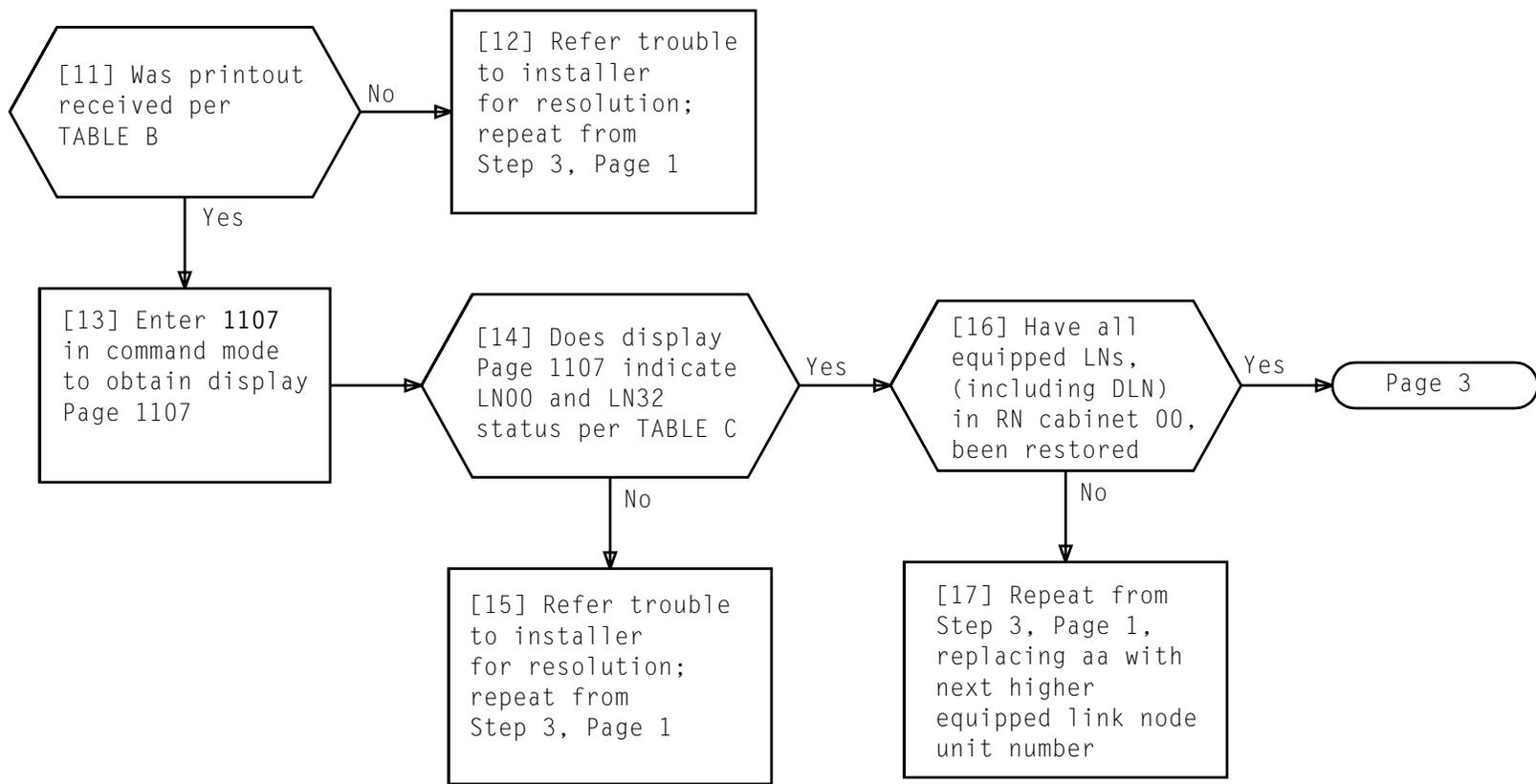


TABLE B	
MESSAGE NUMBER	OUTPUT MESSAGE
1	RST LN00 aa TASK n MSG STARTED RING RST LN00 aa COMPLETED REPT DLNCM PROC (Pump): LN00 aa PUMP STARTED REPT DLNCM PROC (Pump): LN00 aa COMPLETED IN nn MSEC

TABLE C		
DLN	FIELD	STATUS
LN00 (2 or 5)	HDWR STATE	ACT
	APPL STATE	ACT
	MODE	TWOWAY
	STREAM	BOTH
LN32 (2 or 5)	HDWR STATE	OOS

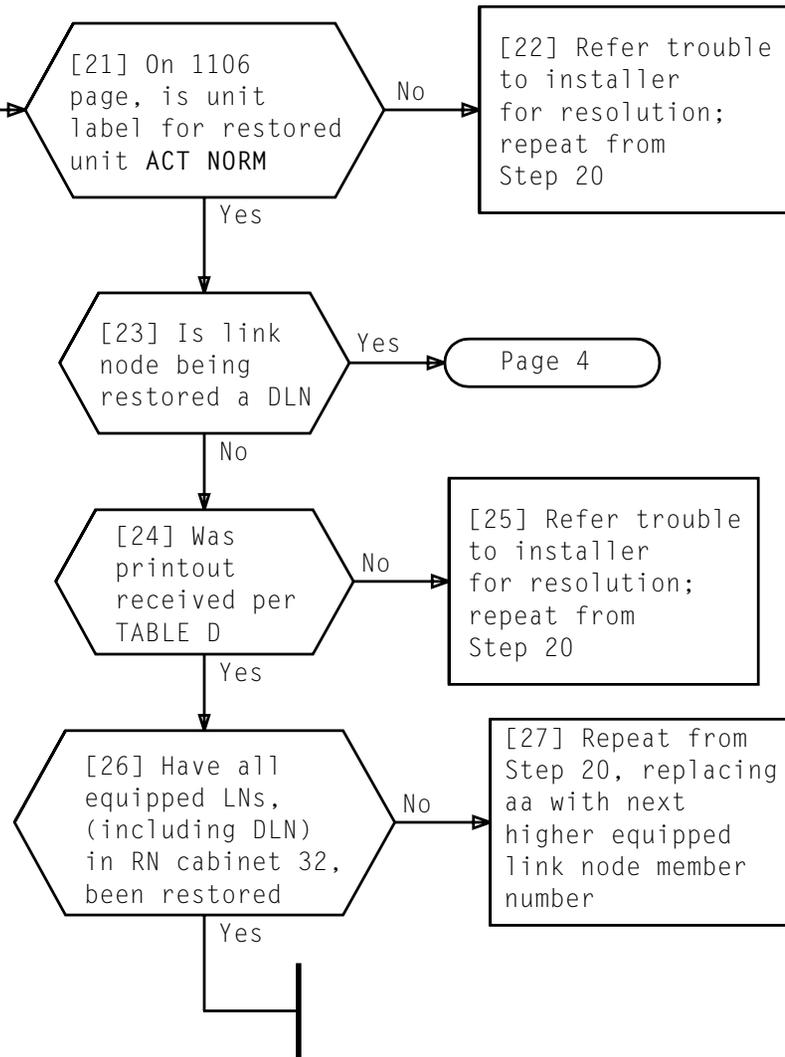
RESTORE EQUIPPED LINK NODES UNCONDITIONALLY

[18] At MCRT, if 1106 page is not displayed, enter 1106 in command mode

[19] If 1106 page does not display ring group 32, enter appropriate command to obtain ring group 32

[20] Enter message RST:LN32 aa;UCL!
(aa = lowest equipped link node member number)

TABLE D	
MESSAGE NUMBER	OUTPUT MESSAGE
1	RST LN32 aa TASK n MSG STARTED RING RST LN32 aa COMPLETED



RESTORE EQUIPPED LINK NODES UNCONDITIONALLY

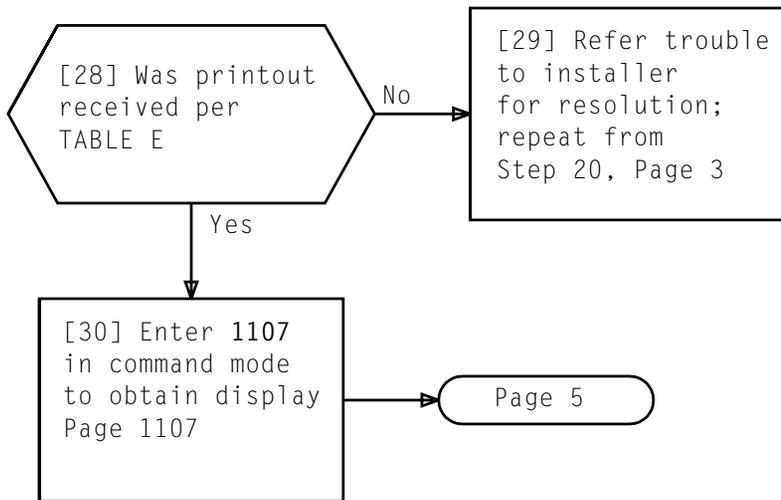


TABLE E	
MESSAGE NUMBER	OUTPUT MESSAGE
1	RST LN32 aa TASK n MSG STARTED RING RST LN32 aa COMPLETED REPT DLNCM PROC (Pump): LN32 aa PUMP STARTED REPT DLNCM PROC (Pump): LN32 aa COMPLETED IN nn MSEC

RESTORE EQUIPPED LINK NODES UNCONDITIONALLY

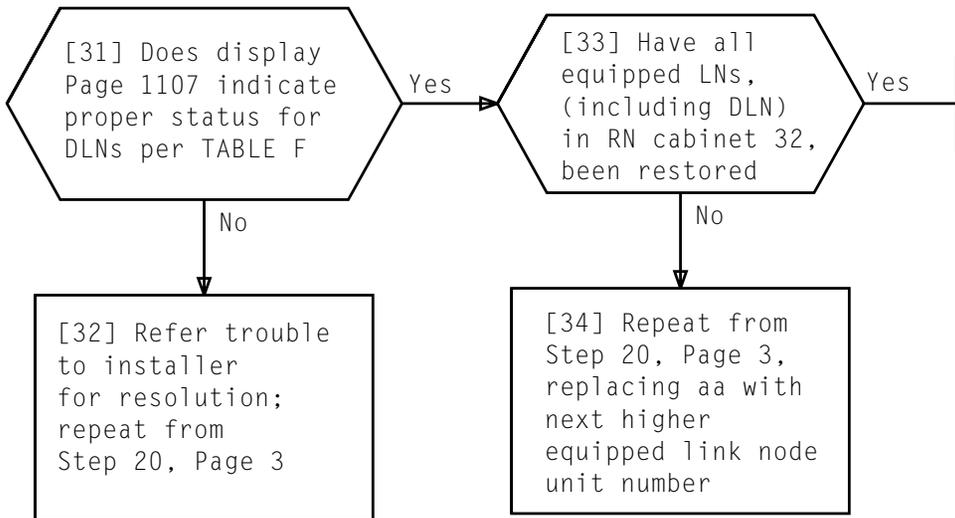
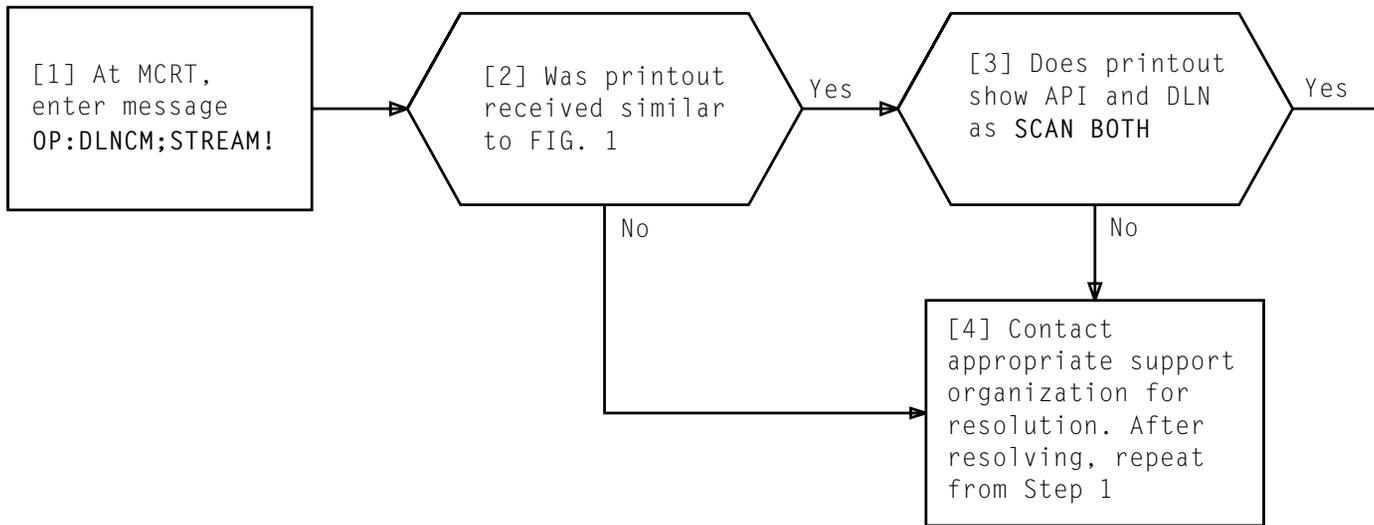


TABLE F		
DLN	FIELD	STATUS
LNaa b	HWDR STATE APPL STATE MODE STREAM	ACT ACT 1WAY IN SCANIN
LNaa b	HWDR STATE APPL STATE MODE STREAM	ACT ACT 1WAY OUT SCANOUT

aa = RN cabinet number (00 or 32)
b = DLN member number

RESTORE EQUIPPED LINK NODES UNCONDITIONALLY



OP DLNCM STREAM COMPLETED

API-DLN STREAM STATUS

API: SCAN BOTH

DLN: SCAN BOTH

INCOMING BUFFER

START X'-----
 END X'-----
 LOAD POINTER X'-----
 UNLOAD POINTER X'-----
 END POINTER X'-----

OUTGOING BUFFER

START X'-----
 END X'-----
 LOAD POINTER X'-----
 UNLOAD POINTER X'-----
 END POINTER X'-----

----- = VARIABLE HEX DATA

FIG. 1 - Sample OP:DLNCM Printout

VERIFY API-DLN STREAM STATUS

[1] At MCRT, if 1108 page is not displayed, enter 1108 in command mode

[2] If growth link node is not displayed on 1108 page, enter 406 (for next page) or 407 (for previous page) until link node is displayed

[3] Ensure that LINK STATE for equipped signaling link(s) in growth link node(s) is UNAV/GROW

[4] Enter message to turn monitor on for first signaling link listed in growth link node
MON:SLK(a,b);ON!
 a = associated link node frame number
 b = link node member number

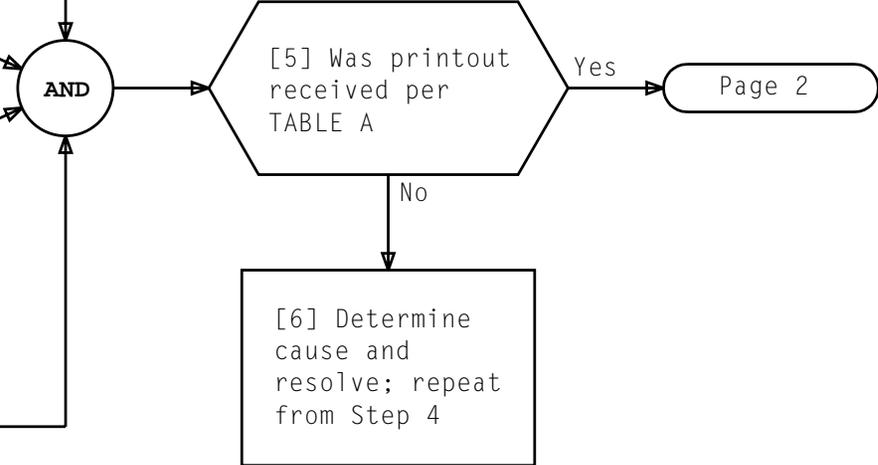
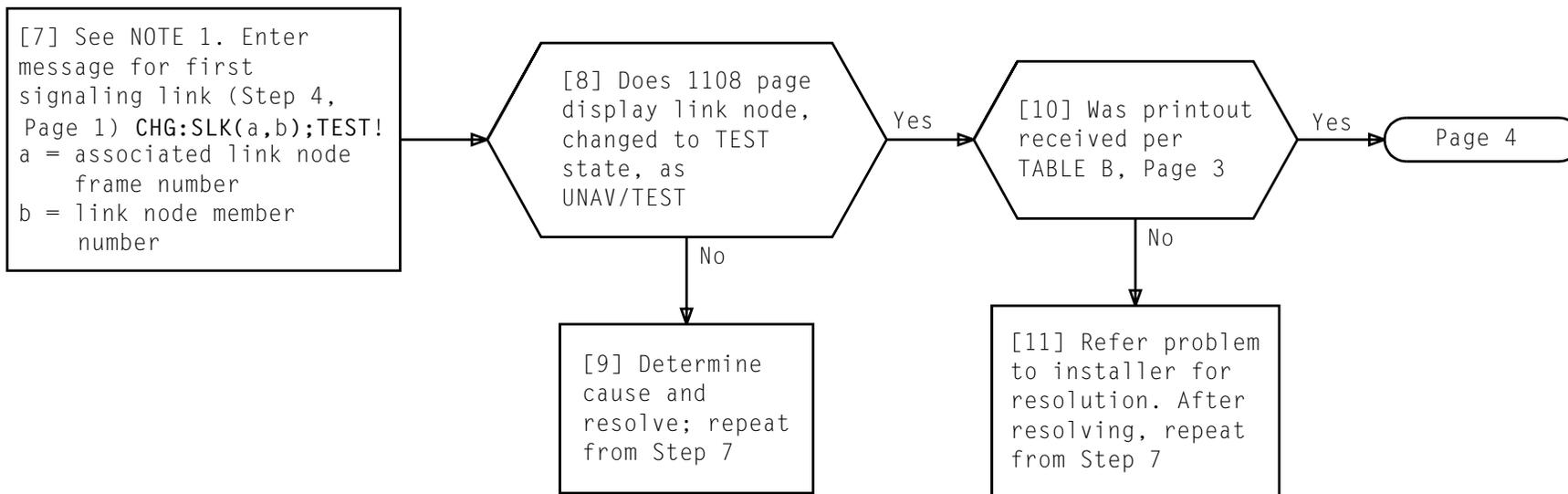


TABLE A	
MESSAGE NUMBER	OUTPUT MESSAGE
1	RING MON SLK a b COMPL LINK a b c MONITOR ON, EVENTS d
a = associated link node frame number b = link node member number c = far-end CLLI* code d = CDE7F * COMMON LANGUAGE is a registered trademark and CLEI, CLLI, CLCI, and CLFI are trademarks of Bell Communications Research, Inc.	

TEST EQUIPPED SIGNALING LINK(S) IN GROWTH LINK NODE(S)



NOTE 1	
It may take several minutes for prove-in to complete	
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TEST EQUIPPED SIGNALING LINK(S) IN GROWTH LINK NODE(S)

TABLE B	
MESSAGE NUMBER	OUTPUT MESSAGE
1	<p>RING REPT MON:SLK SLK a b c UNA GROW</p> <p style="text-align: right;">MINOR CHANGE REQUESTED, nnnnnnnnnn</p> <p>RING CHG SLK a b COMPL SLK CHANGE ACCEPTED, NEW MINOR STATE = TEST</p> <p>RING REPT MON:SLK SLK a b c UNA TEST</p> <p style="text-align: right;">LEVEL 2 DEMAND RESTART, nnnnnnnnnn</p> <p>RING REPT MON:SLK SLK a b c UNA TEST</p> <p style="text-align: right;">LEVEL 2 DEMAND RESTART, nnnnnnnnnn</p> <p>RING REPT MON:SLK SLK a b c UNA TEST</p> <p style="text-align: right;">LEVEL 2 DEMAND RESTART, nnnnnnnnnn</p>
<p>a = associated link node frame number c = far-end CLLI code b = link node member number n = variable numbers</p>	

TEST EQUIPPED SIGNALING LINK(S) IN GROWTH LINK NODE(S)

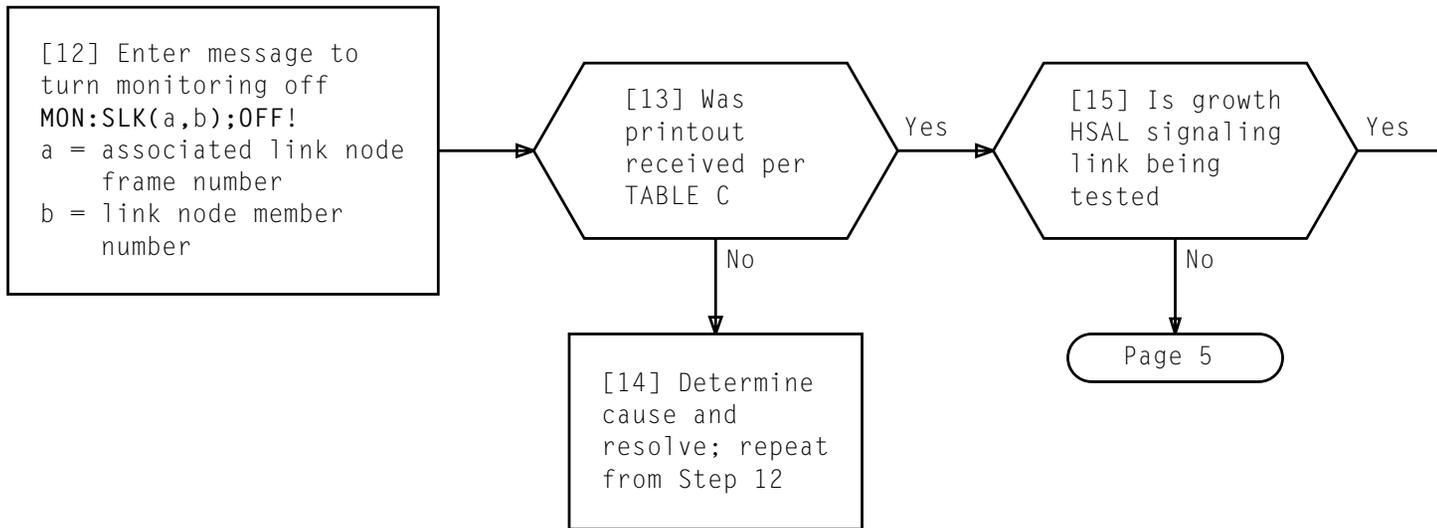
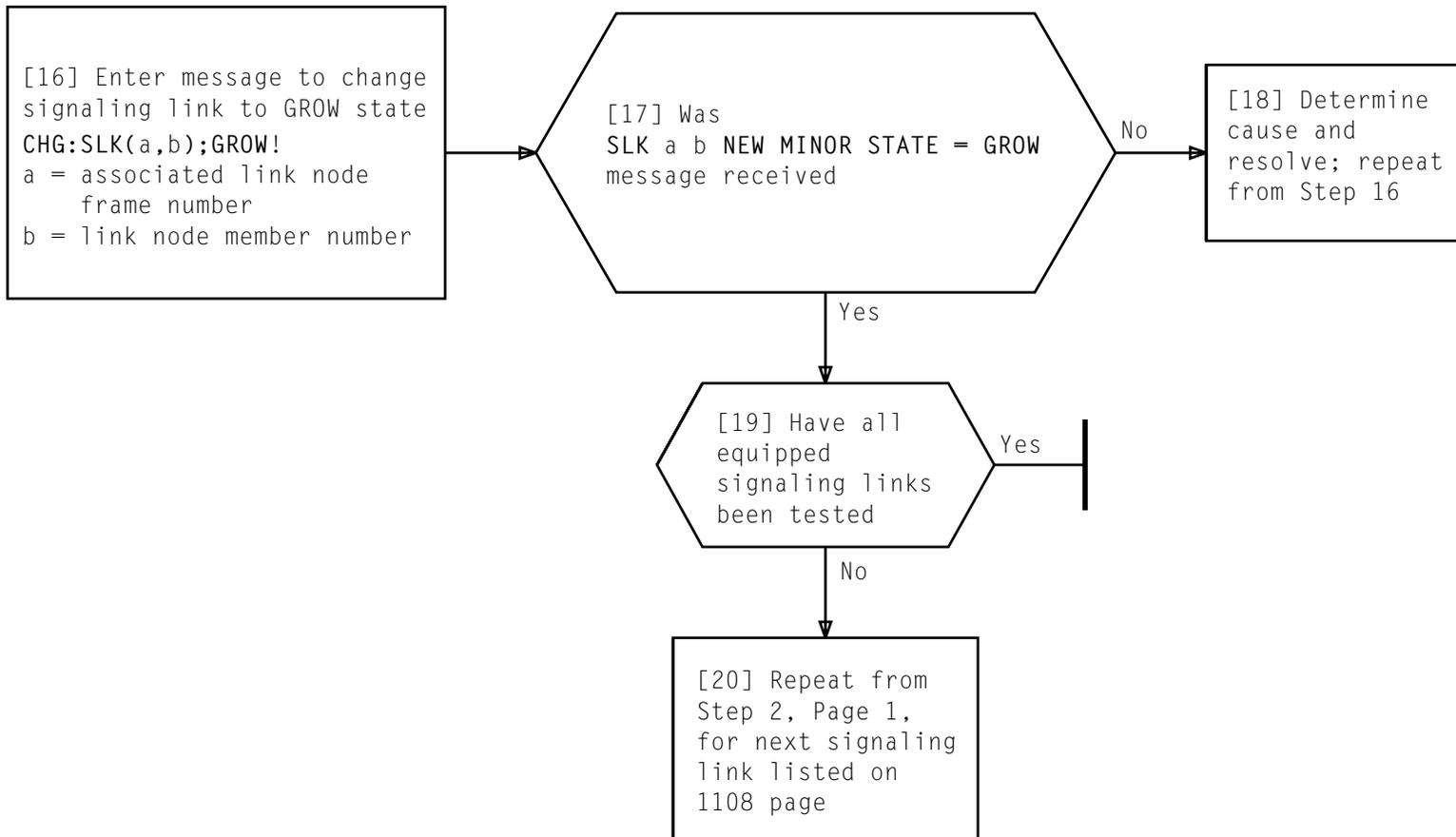


TABLE C	
MESSAGE NUMBER	OUTPUT MESSAGE
1	RING MON SLK a b COMPL LINK a b c MONITOR OFF, EVENTS 0
a = associated link node frame number b = link node member number c = far-end CLLI code	

TEST EQUIPPED SIGNALING LINK(S) IN GROWTH LINK NODE(S)



TEST EQUIPPED SIGNALING LINK(S) IN GROWTH LINK NODE(S)

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[1] At MCRT, if 1108 page is not displayed, enter 1108 in command mode

[2] If growth signaling link is not displayed on 1108 page, enter 406 (for next page) or 407 (for previous page) until growth signaling link is displayed

[3] Ensure that LINK STATE for growth signaling link is UNAV/GROW

[4] Enter message for all growth signaling links
CHG:SLK(a,b,c,d);TEST!
a = group number (0-63)
b = member number (1-15)
c = link interface pack number (0 or 1)
d = port number (0-3)

AND

[5] Does 1108 page display growth signaling link as UNAV/TEST

Yes

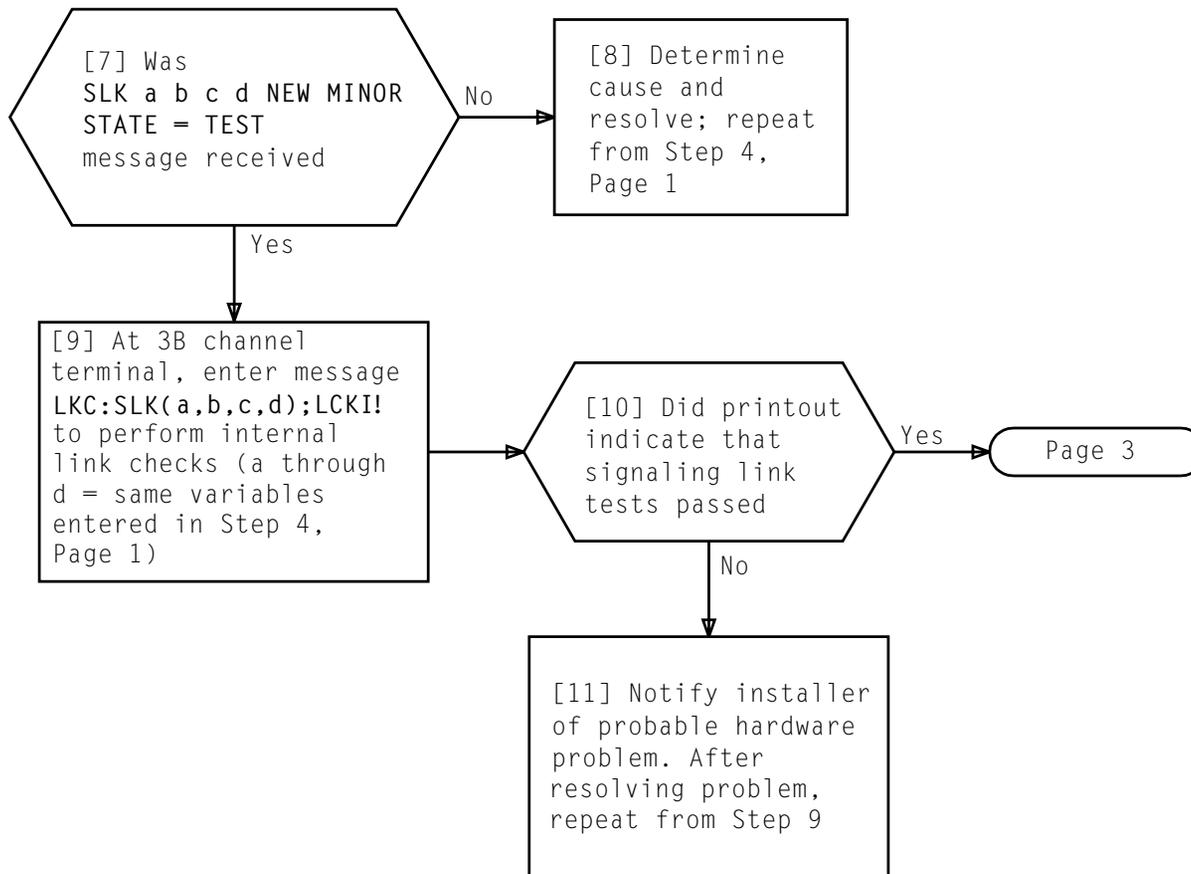
Page 2

No

[6] Determine cause and resolve; repeat from Step 4

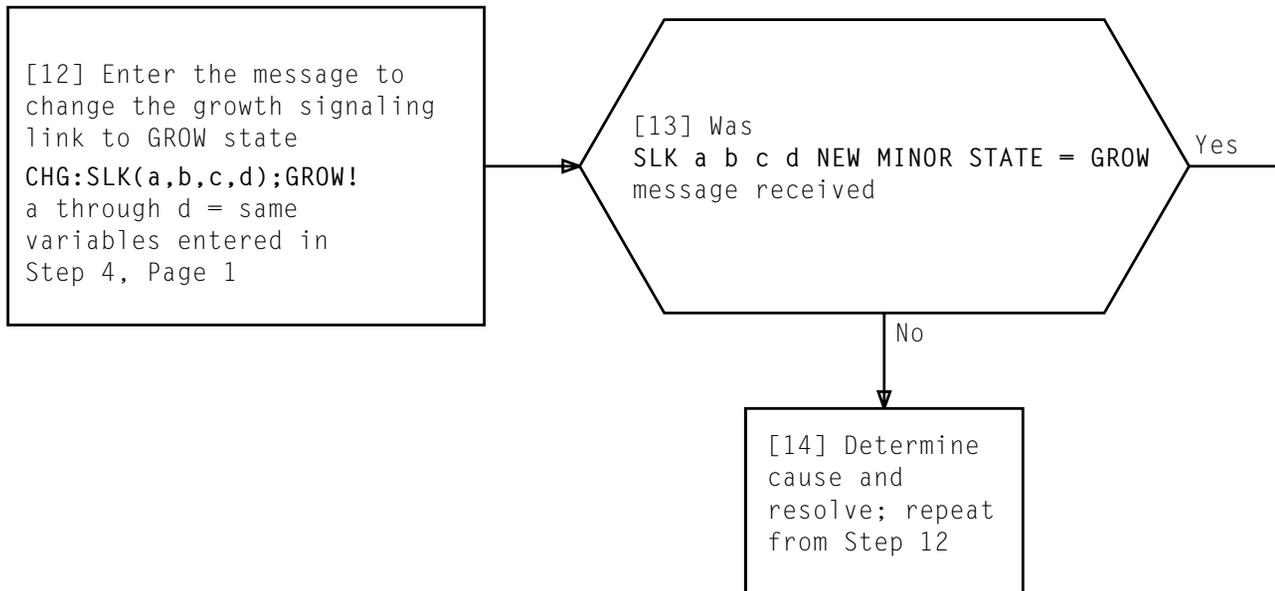
TEST GROWTH SIGNALING LINK(S) - INTERNAL LINK CHECK

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TEST GROWTH SIGNALING LINK(S) – INTERNAL LINK CHECK

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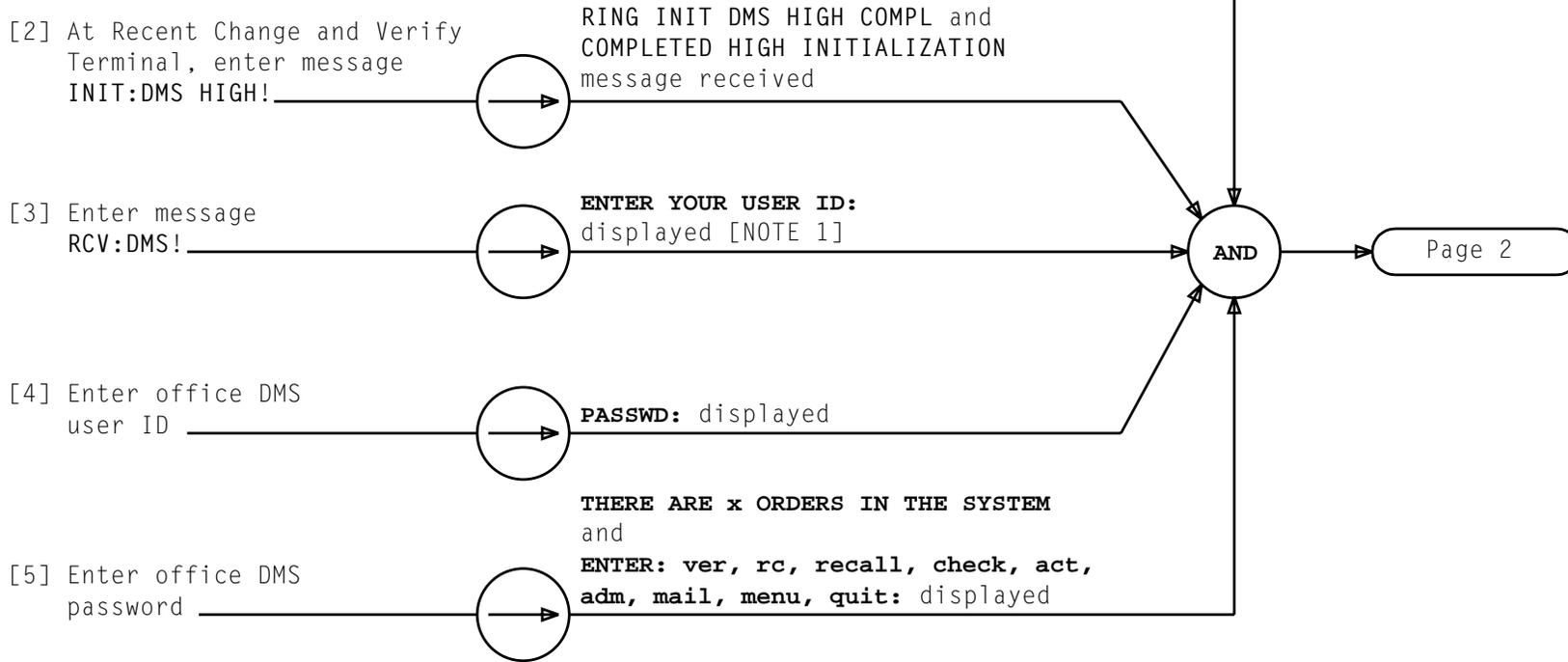


TEST GROWTH SIGNALING LINK(S) – INTERNAL LINK CHECK

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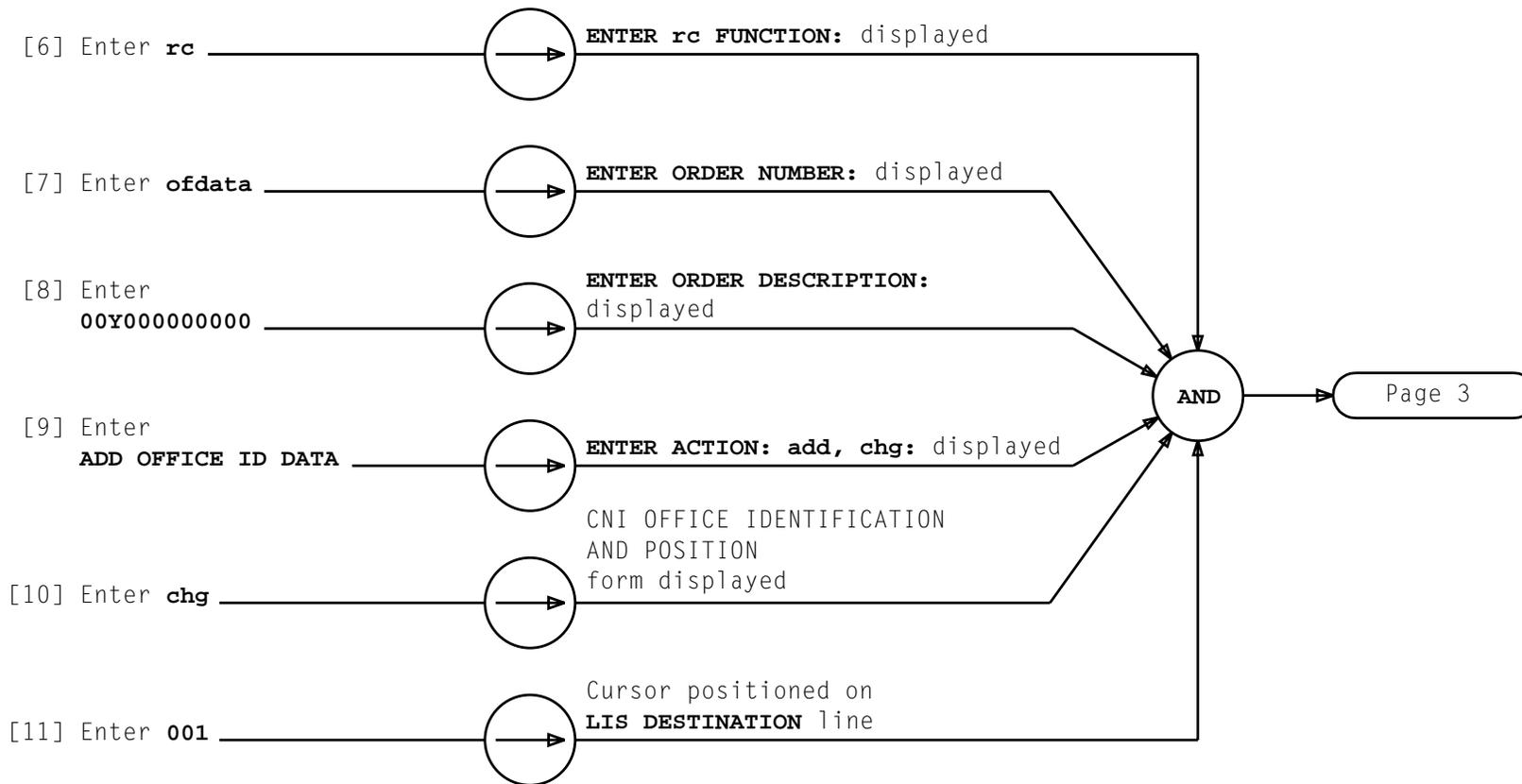
[1] Contact CNI data base administrator to determine office identification data in TABLE A

TABLE A
LIS Destination Local Point Code



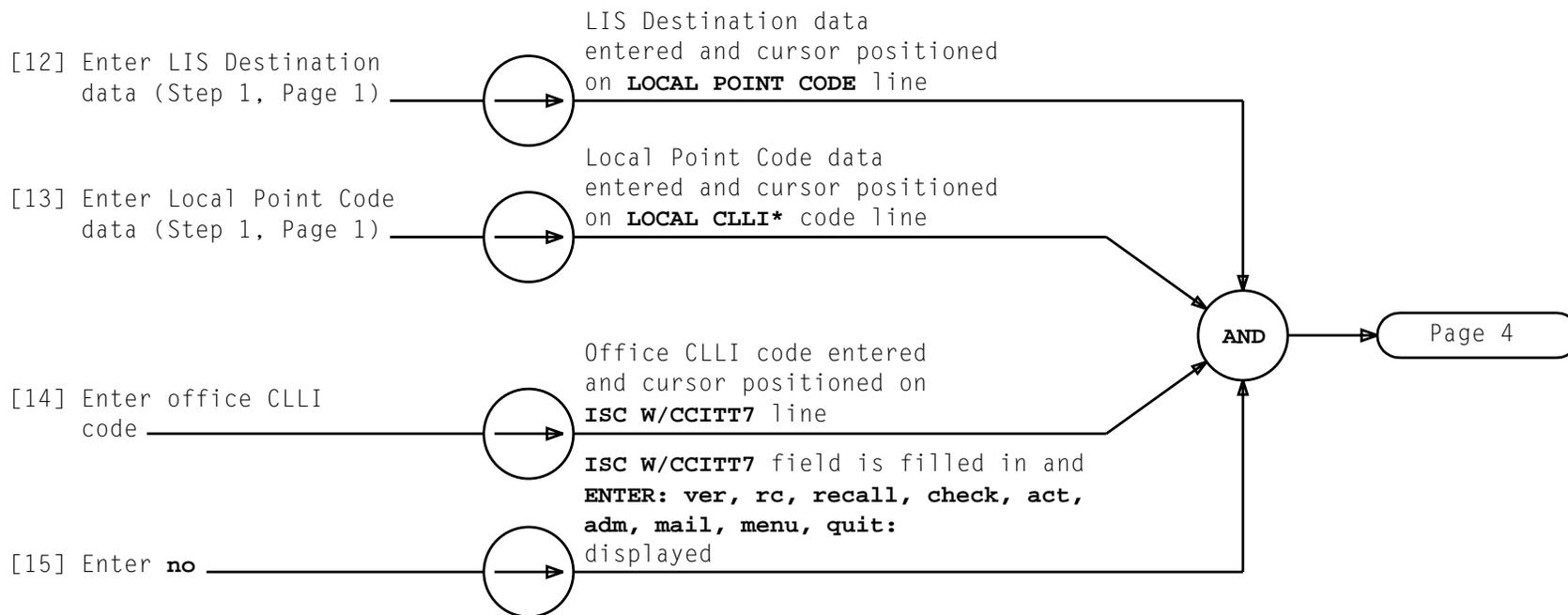
NOTE 1	
If ENTER YOUR USER ID: is not received, BREAK key will have to be depressed	
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ADD OFFICE IDENTIFICATION DATA TO DATA BASE



ADD OFFICE IDENTIFICATION DATA TO DATA BASE

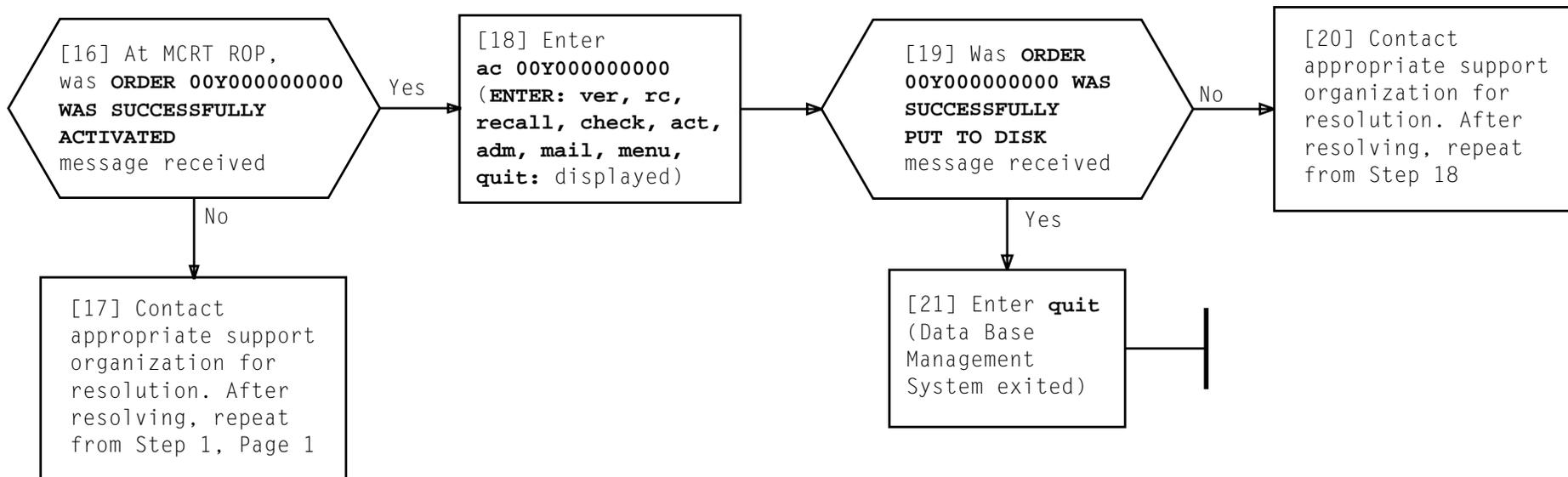
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ADD OFFICE IDENTIFICATION DATA TO DATA BASE

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ADD OFFICE IDENTIFICATION DATA TO DATA BASE

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1. General

A Data Base Management System (DMS) order number is a 12-digit value to be used for each entry into DMS. See FIG. 1. First two leftmost digits are for office region. Next position is always a Y. Last part of order number is a 9-digit number. The 9-digit number is made up of month, day, year, and a 3-digit value from 000 to 499. This 9-digit number can only be used once. After order number has been determined, it should be entered into a log with reason for DMS entry. A new Log Sheet should be used for each day with sequence numbers starting with 000.

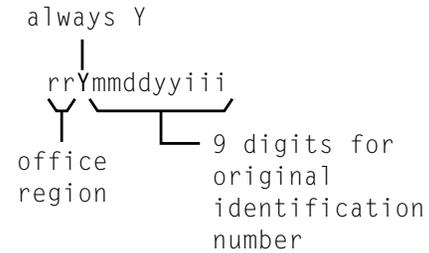


FIG. 1 - DMS Order Number Format

2. Determine Order Number

- 2.1 Obtain DMS Log Book.
- 2.2 If new Log Sheet is required because of a new day or all lines are filled, make copy of FIG. 2, Page 2.
- 2.3 Determine 2-digit region number for office and record on Log Sheet.
- 2.4 Third leftmost character is a Y.
- 2.5 Determine today's date in format of month, day, and year and record on Log Sheet.
- 2.6 On Log Sheet under column heading **SEQUENCE NUMBER 000-499**, determine next available sequence number in range of 000-499.
- 2.7 Record 3-digit sequence number on Log Sheet.
- 2.8 Record explanation for this order number on Log Sheet.

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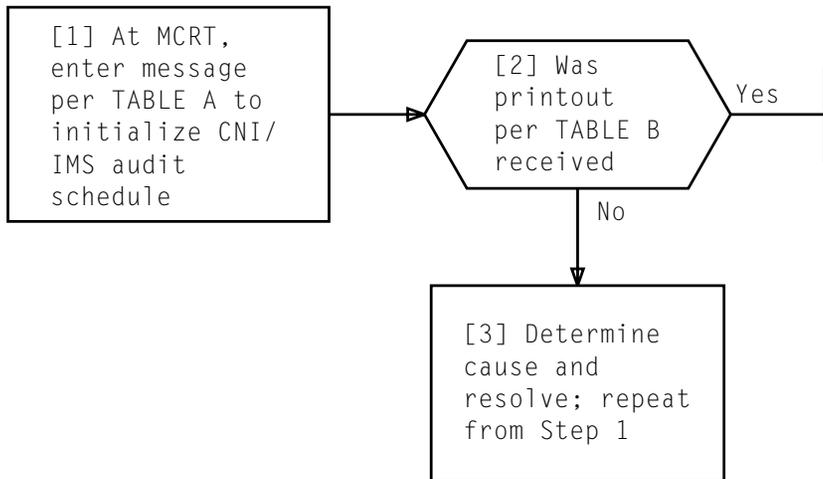
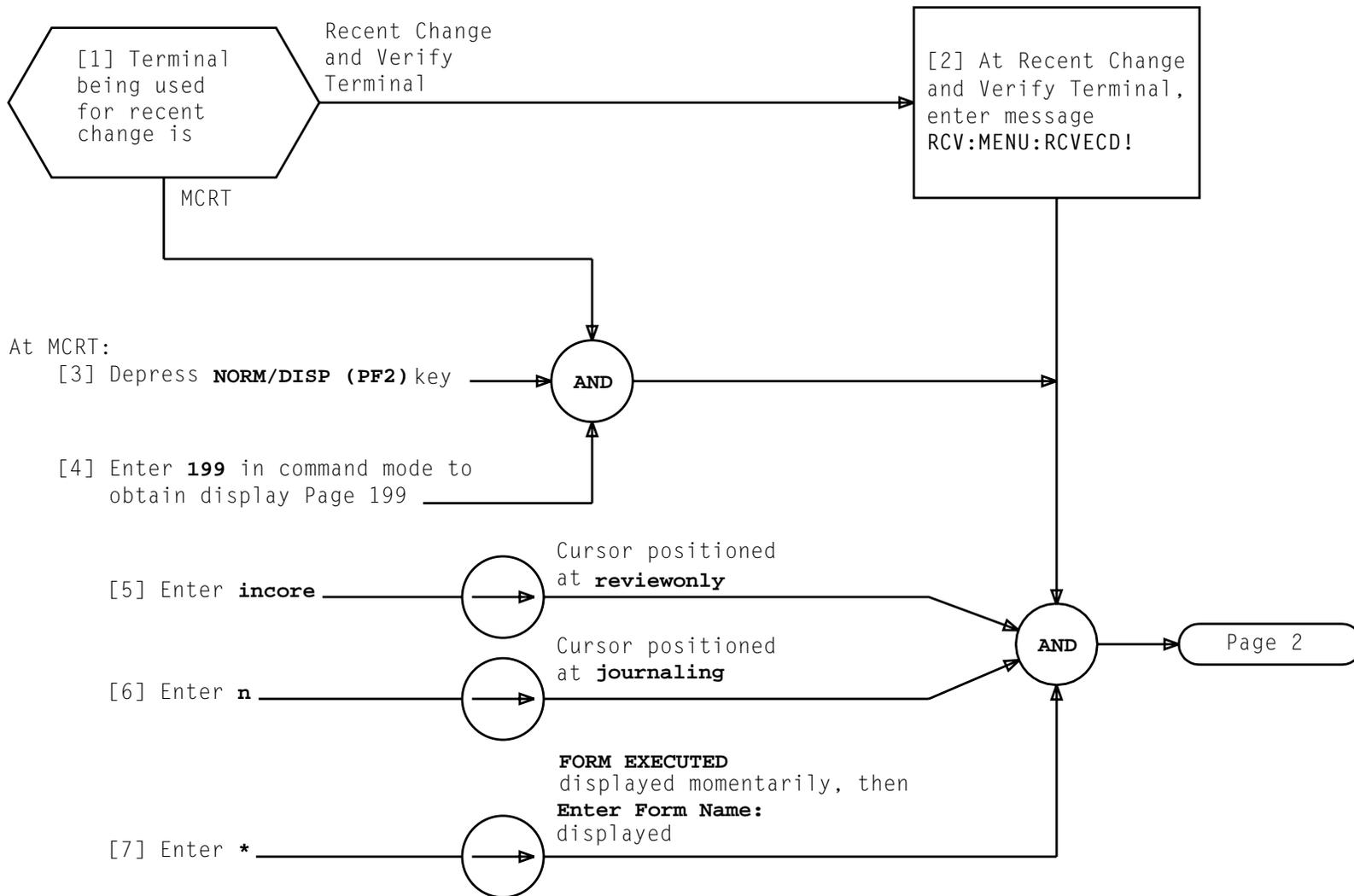


TABLE A	
MESSAGE NUMBER	INPUT MESSAGE
1	EXC:ENVIR:UPROC, FN"/etc/newring", ARG("audon")!

TABLE B	
MESSAGE NUMBER	OUTPUT MESSAGE
1	INH AUD COMPLETED ALW AUD COMPLETED EXC ENV UPROC COMPLETED REPT newring audon COMPLETE

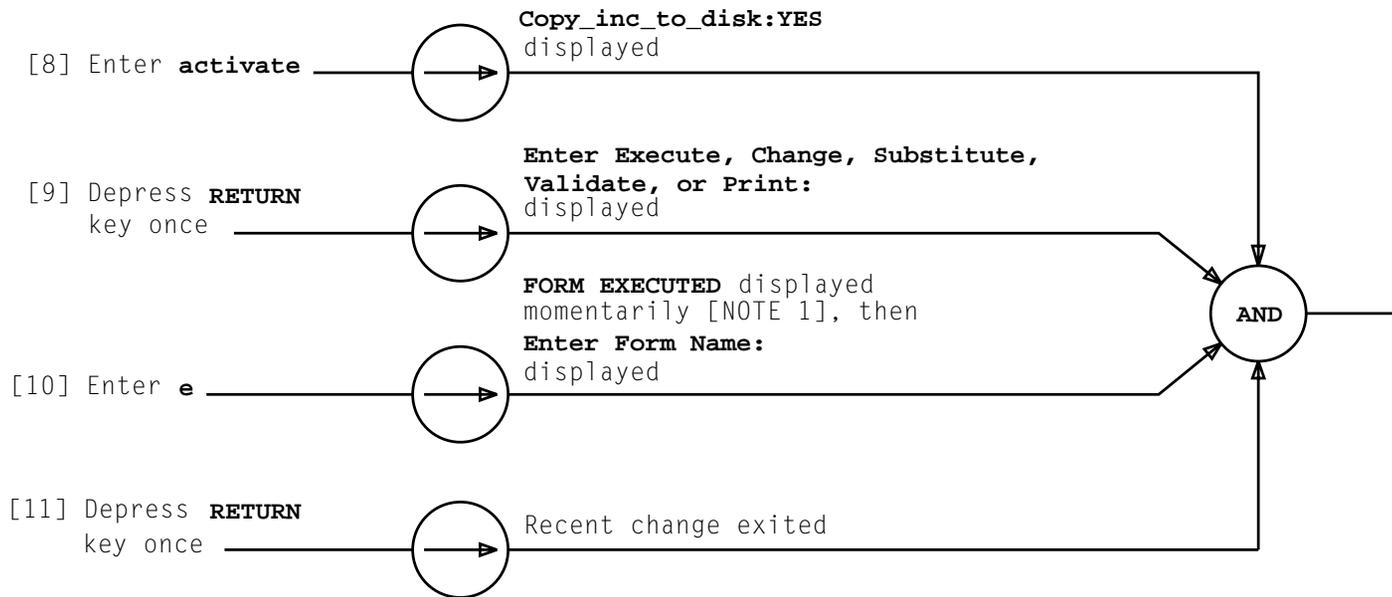
INITIALIZE CNI/IMS AUDIT SCHEDULE



COPY INCORE EQUIPMENT CONFIGURATION DATA BASE (ECD) TO DISK

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NOTE 1	
It may take several minutes before FORM EXECUTED is displayed	
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COPY INCORE EQUIPMENT CONFIGURATION DATA BASE (ECD) TO DISK

[1] At MCRT, enter message
 OP:STATUS:FILESYS!

[2] Using ROP printout, determine
 if /dev/root (system running
 on root) or /dev/broot (system
 running on broot) listed and
 record

[3] At MCRT, enter message, replacing
 /x/x with one file in TABLE A
 associated with running file
 system (Step 2)
 AUD:FSBLK 1,INS"/x/x"!

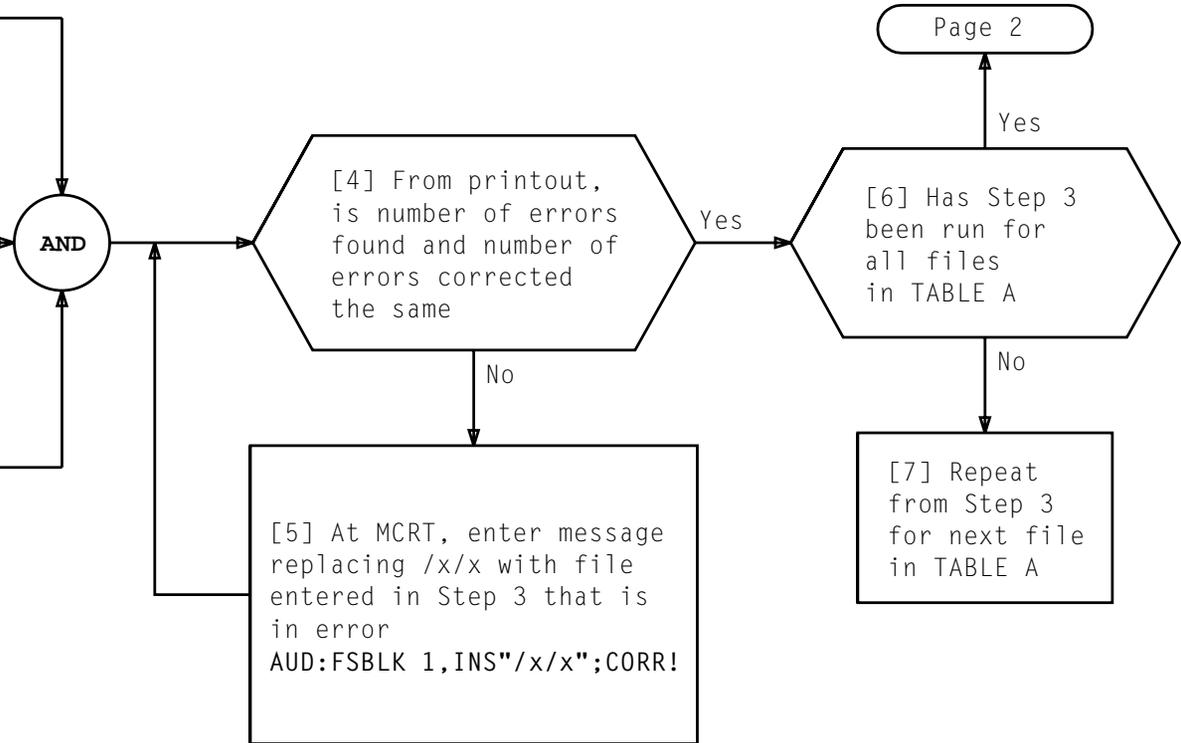


TABLE A	
SYSTEM RUNNING ON	
ROOT	BROOT
/dev/root	/dev/broot
/dev/db	/dev/bdb
/dev/etc	/dev/betc
/dev/log	/dev/blog

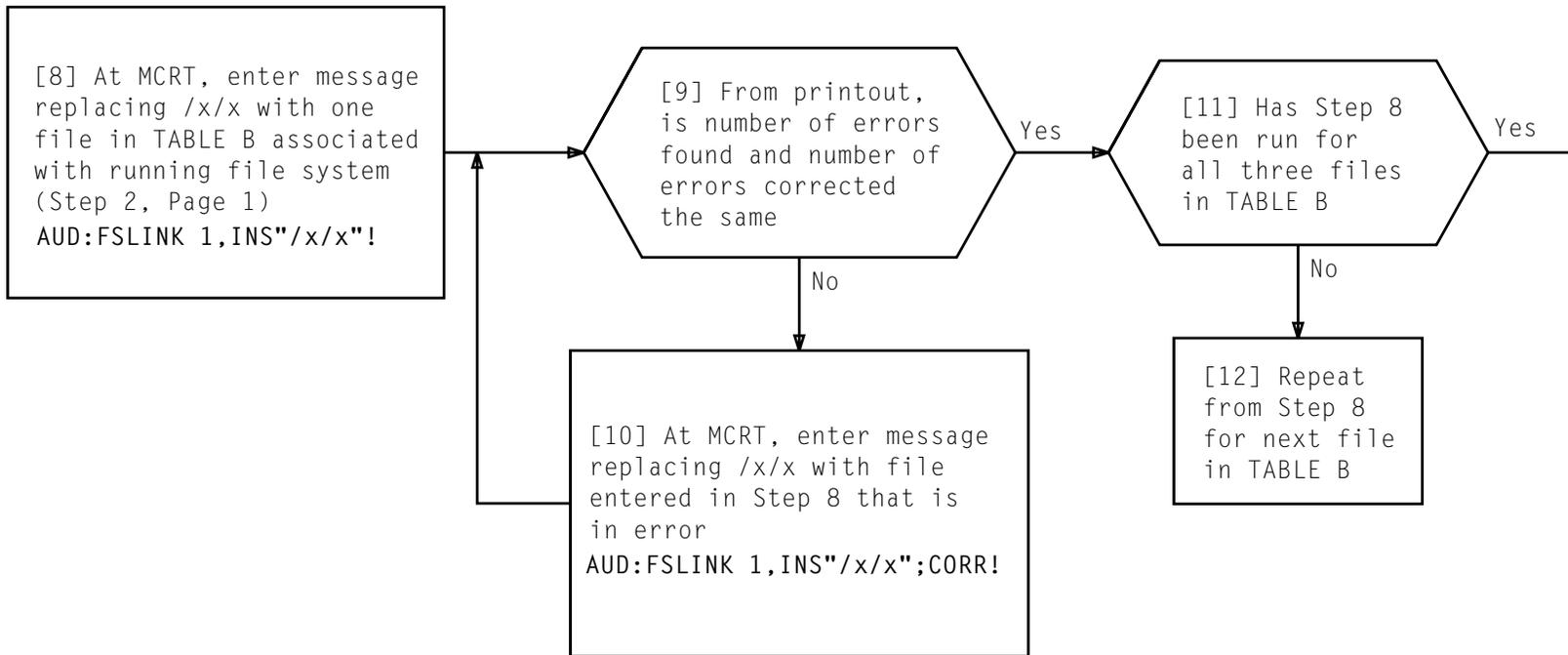


TABLE B	
SYSTEM RUNNING ON	
ROOT	BROOT
/dev/root	/dev/broot
/dev/db	/dev/bdb
/dev/etc	/dev/betc
/dev/log	/dev/blog

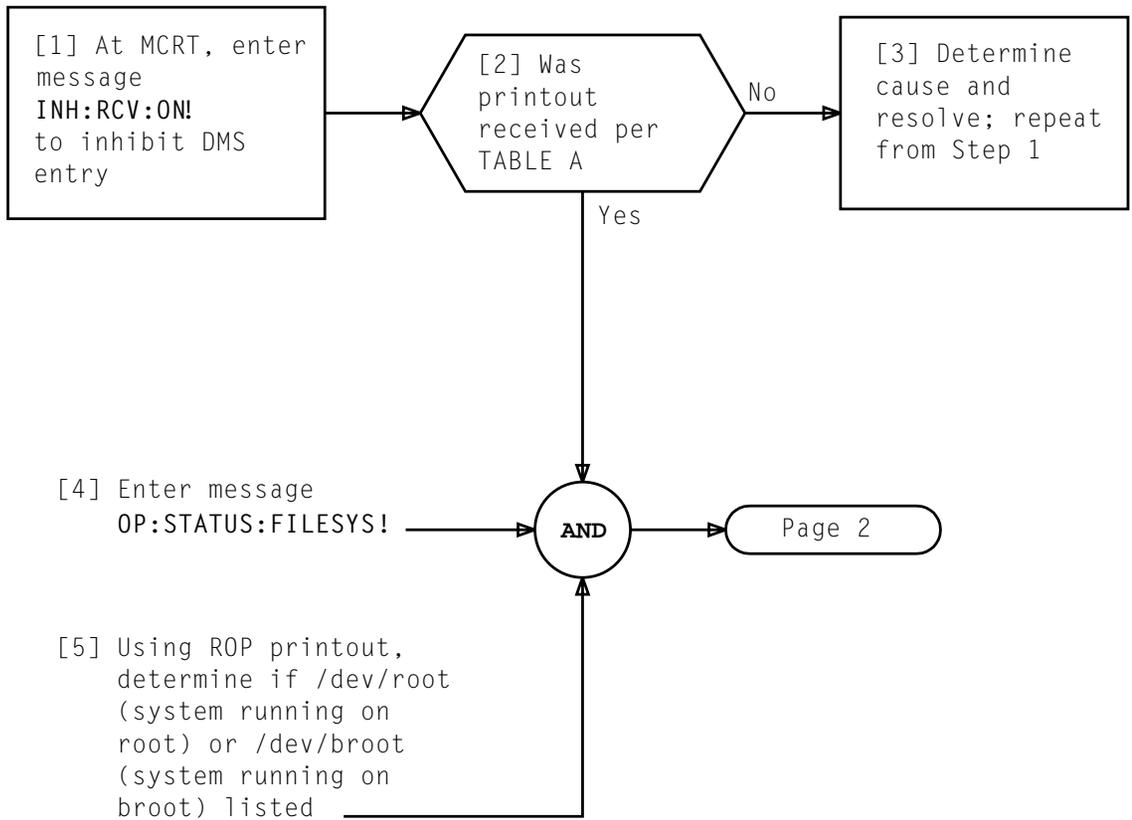


TABLE A	
MESSAGE NUMBER	OUTPUT MESSAGE
1	INH RCV COMPLETED 4ESS INH RCV COMPL RECENT CHANGE INHIBIT ON

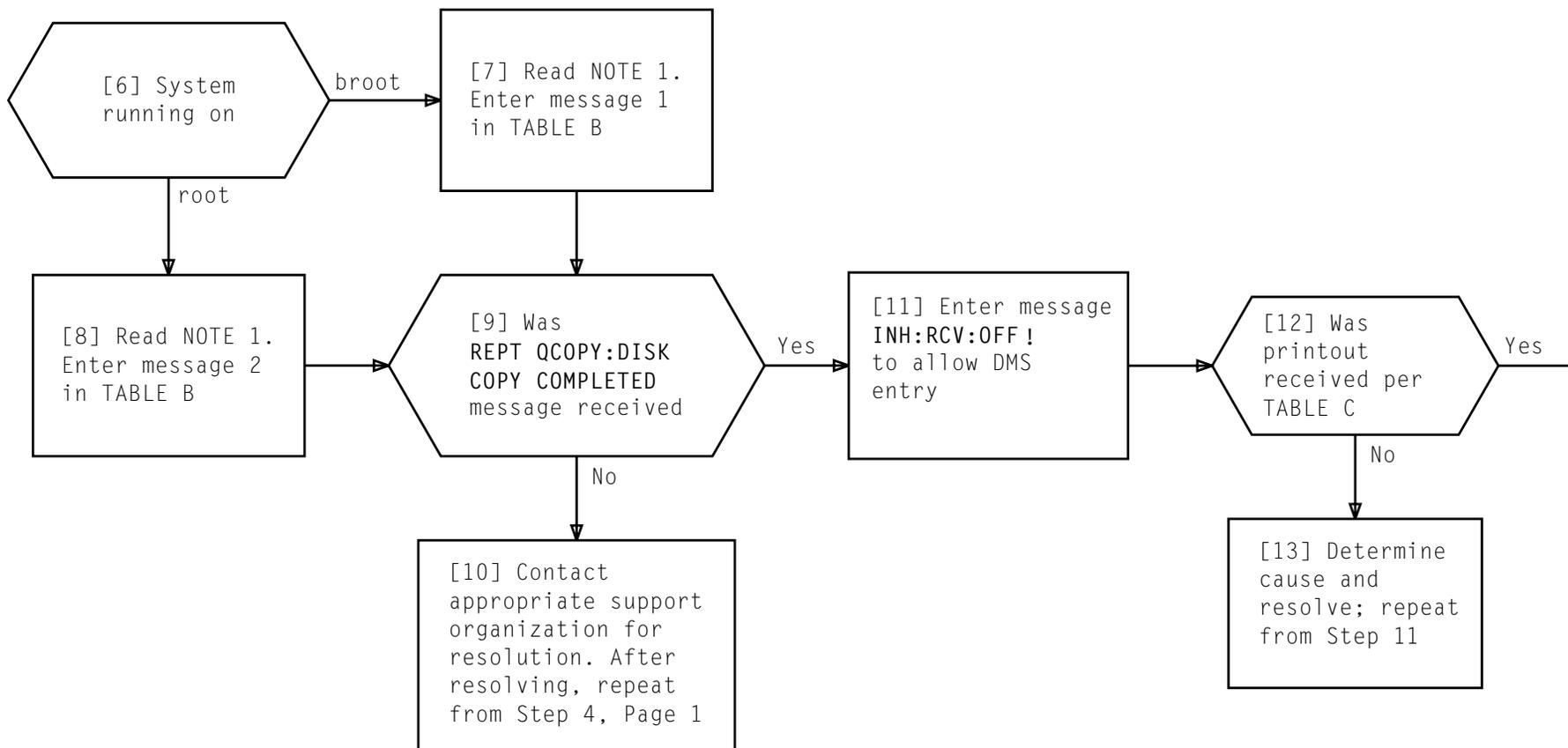


TABLE B	
MESSAGE NUMBER	INPUT MESSAGE
1	EXC:QCOPY:TOROOT!
2	EXC:QCOPY:TOBROOT!

TABLE C	
MESSAGE NUMBER	OUTPUT MESSAGE
1	INH RCV COMPLETED 4ESS INH RCV COMPL RECENT CHANGE INHIBIT OFF

NOTE 1 This command requires several minutes to complete	
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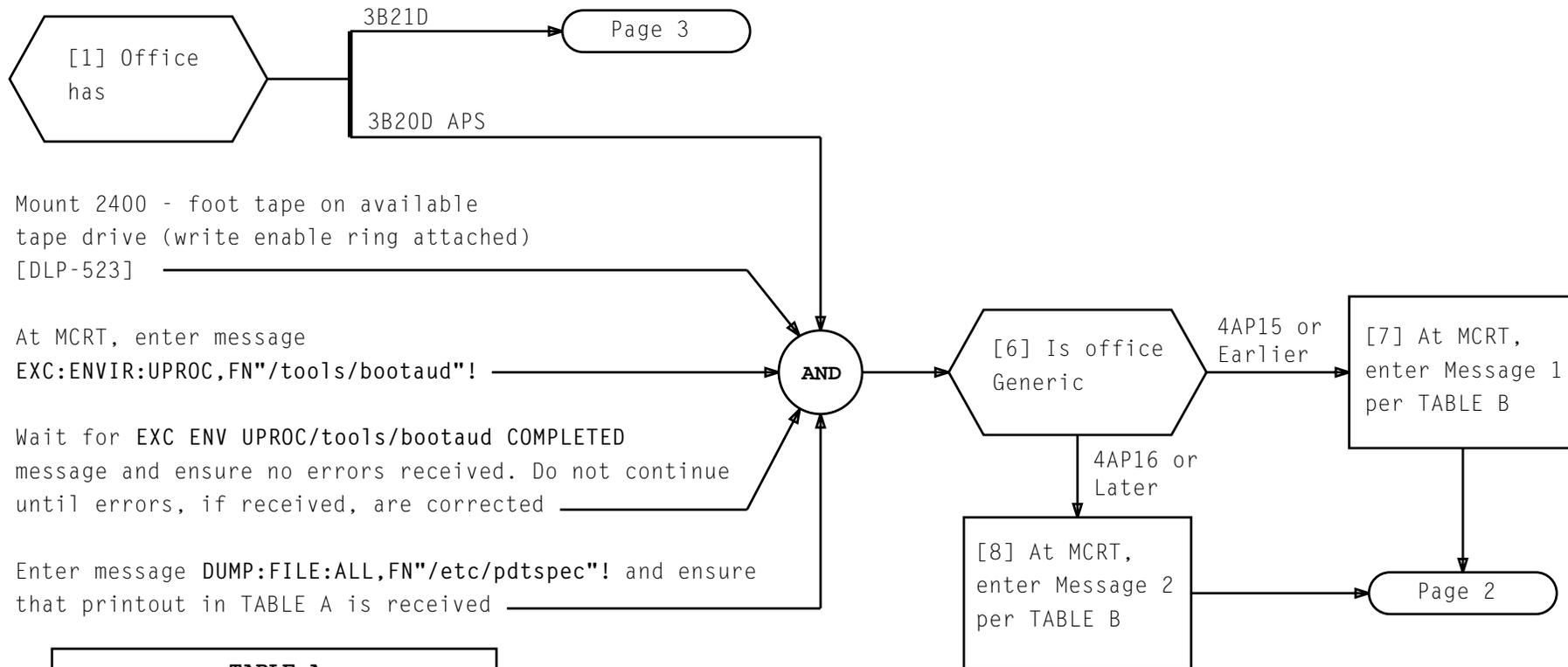


TABLE A	
MESSAGE NUMBER	OUTPUT MESSAGE
1	DUMP FILE ALL COMPLETED /dev/lboot21 /dev/lboot /dev/vtoc /dev/boot /dev/bboot /dev/root /dev/etc /dev/db /dev/amabfiles /dev/amabfiles

TABLE B	
MESSAGE NUMBER	INPUT MESSAGES
1	COPY:BKDISK;START:SRC"/dev/vtoc",TD"/dev/mtX8",TPSIZE 2200!
2	COPY:BKDISK;START:SRC"/dev/vtoc",TD"/dev/mtX8",TPSIZE 2200,COM!
X = tape drive number used in Step 2	

WRITE BACKUP TAPES

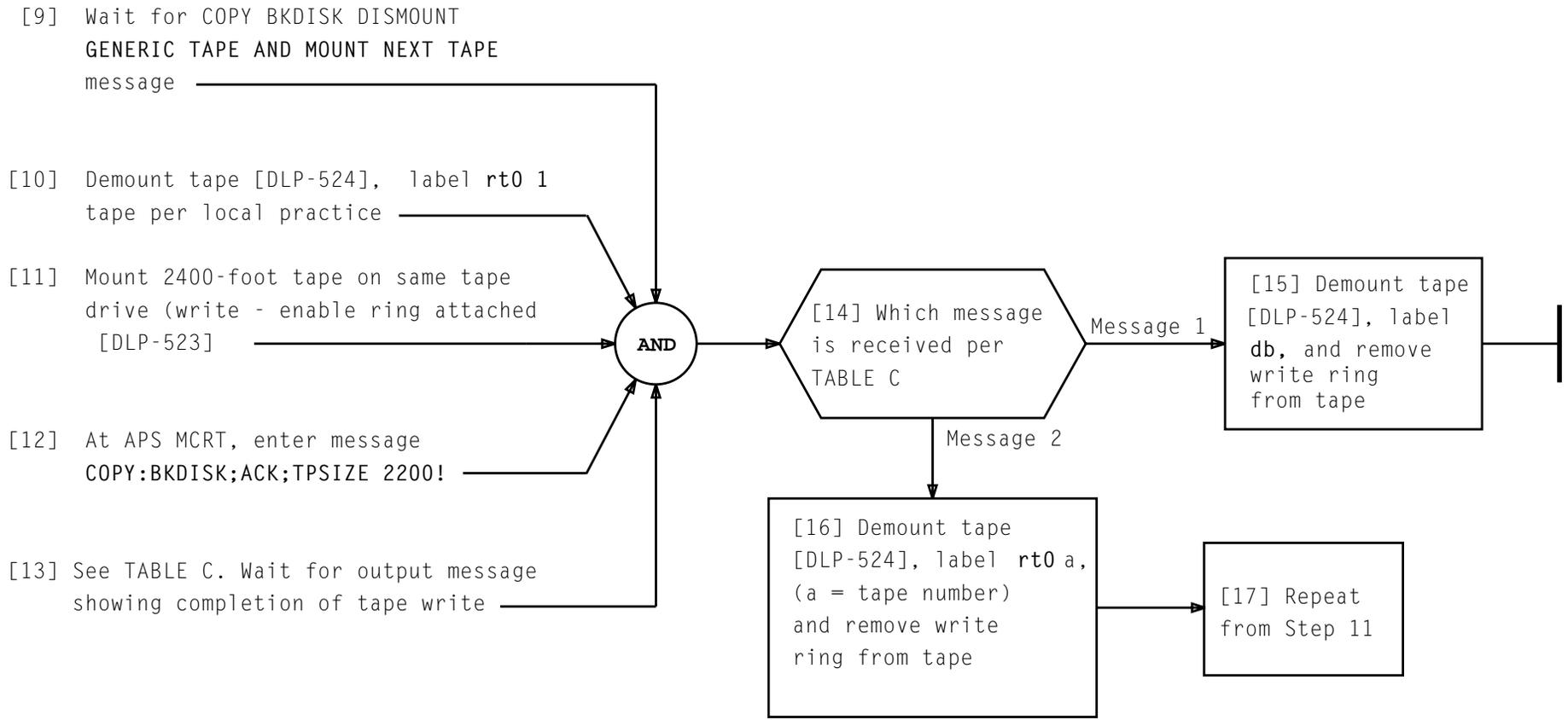


TABLE C	
MESSAGE NUMBER	OUTPUT MESSAGE
1	COPY BKDISK COMPLETED DISMOUNT DATABASE TAPE AND LABEL
2	COPY DISMOUNT GENERIC TAPE LABEL AND MOUNT NEXT TAPE

- [18] Insert blank or erasable 4-mm tape with write-protect tab is up (unlocked) position into available 3B21 APS DAT unit [DLP-523]
- [19] At 3B21 APS MCRT, enter message `DUMP:FILE:ALL, FN"/etc/pdtspec"` to dump the `/etc/pdtspec` file
- [20] Wait for `DUMP FILE ALL COMPLETED` message and ensure that printout in TABLE D is received
- [21] At 3B21 APS MCRT, enter message `COPY:DKDISK;START;START;SRC"/dev/vtoc",TD"/dev/mtX0",TPSIZE 90,COM!` [Where X = DAT unit number with backup tape inserted (0 or 1)]
- [22] Wait for `COPY DKDISK DISMOUNT GENERIC TAPE LABEL AND MOUNT NEXT TAPE` message
- [23] Remove tape from DAT unit [DLP-524], label the tape `rt0 1`, and put write-protect tab in down (locked) position

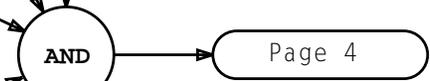
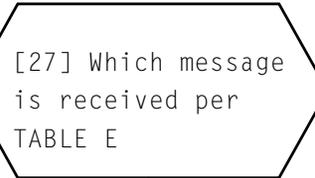
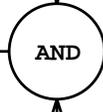


TABLE D	
MESSAGE NUMBER	OUTPUT MESSAGE
1	DUMP FILE ALL COMPLETED /dev/lboot /dev/lboot21 /dev/vtoc /dev/boot /dev/bboot /dev/root /dev/etc /dev/db /dev/amafiles /dev/amabfiles /dev/update (4AP18 and later) /dev/appdb0 (4AP18 and later)

[24] Insert blank or erasable 4-mm tape with write-protect tab in up (unlocked) position into same available 3B21 APS DAT unit [DLP-523]

[25] At APS MCRT, enter message COPY:BKDISK;ACK:TPSIZE 90,COM!

[26] See TABLE E. Wait for output message showing completion of tape write



Message 1

[28] Demount tape [DLP-524], label db, and put write-protect tab in the down (locked) position

Message 2

[29] Demount tape [DLP-524], label rt0 a, (a = tape number) and put write-protect tab in the down (locked) position

[30] Repeat from Step 24

TABLE E	
MESSAGE NUMBER	OUTPUT MESSAGE
1	COPY BKDISK COMPLETED DISMOUNT DATABASE TAPE AND LABEL
2	COPY DISMOUNT GENERIC TAPE LABEL AND MOUNT NEXT TAPE

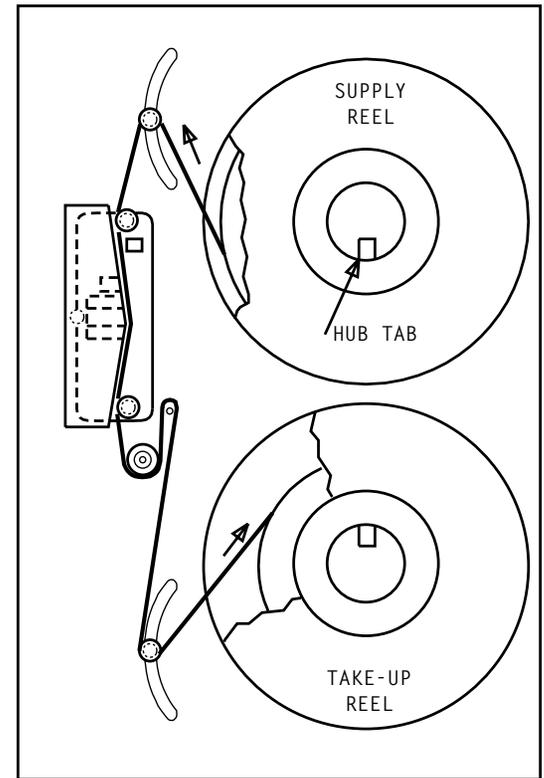
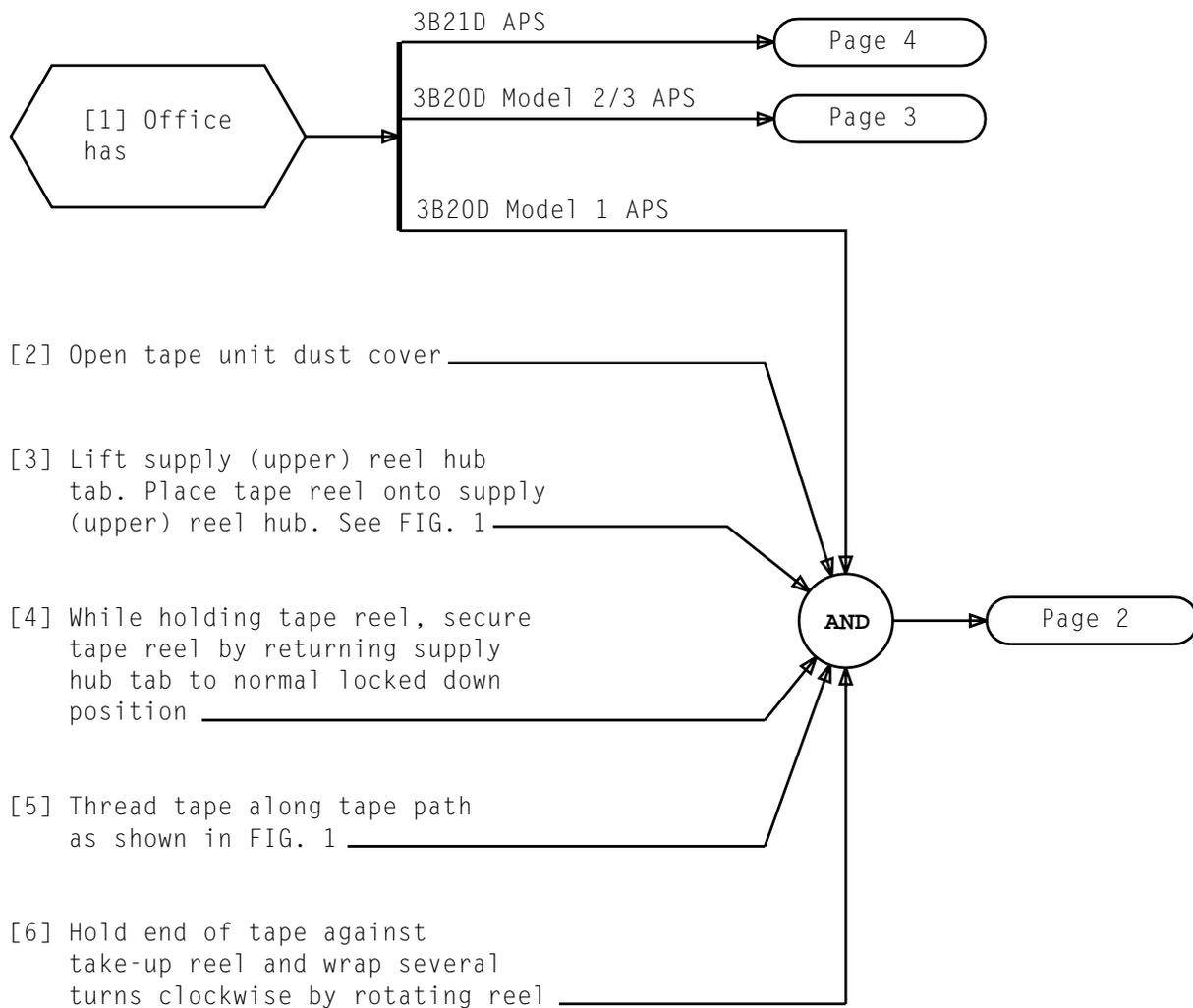
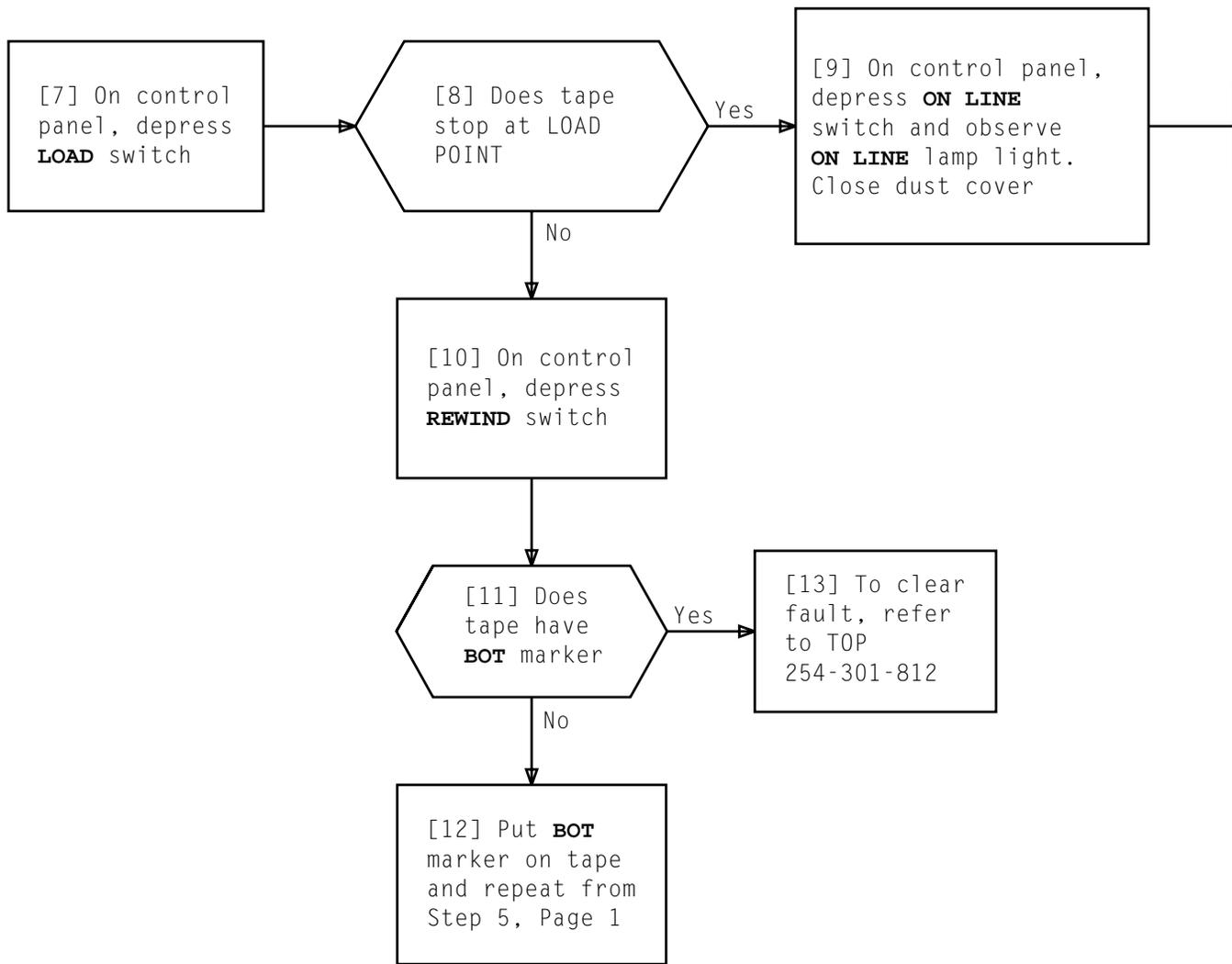


FIG. 1

MOUNT TAPE ON 3B TAPE UNIT OR DIGITAL AUDIO TAPE (DAT) UNIT

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MOUNT TAPE ON 3B TAPE UNIT OR DIGITAL AUDIO TAPE (DAT) UNIT

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[14] If tape is to be written, attach write-enable ring on supply reel

[15] If **LOGIC OFF** LED lighted, touch **LOGIC ON** switch

[16] Open dust cover and verify circuit breaker at side 1

[17] See FIG. 2. Place supply reel on hub and depress hub latch

[18] Thread tape from bottom of supply reel along path as shown in FIG. 2

[19] Hold end of tape against take-up reel and wrap several turns clockwise by rotating reel; then close dust cover

[20] At control panel, touch **LOAD/REWIND** switch

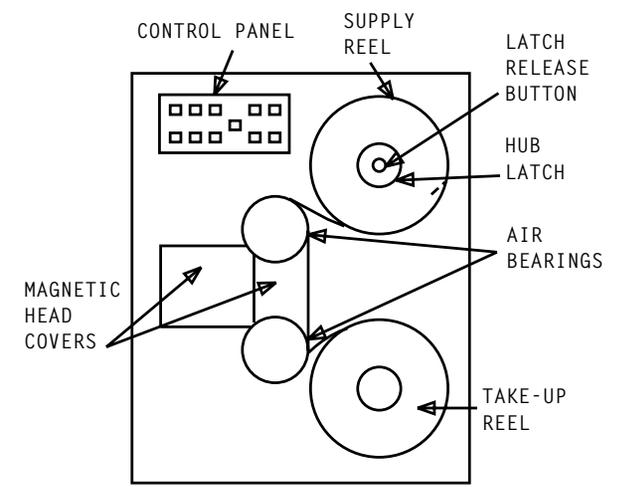
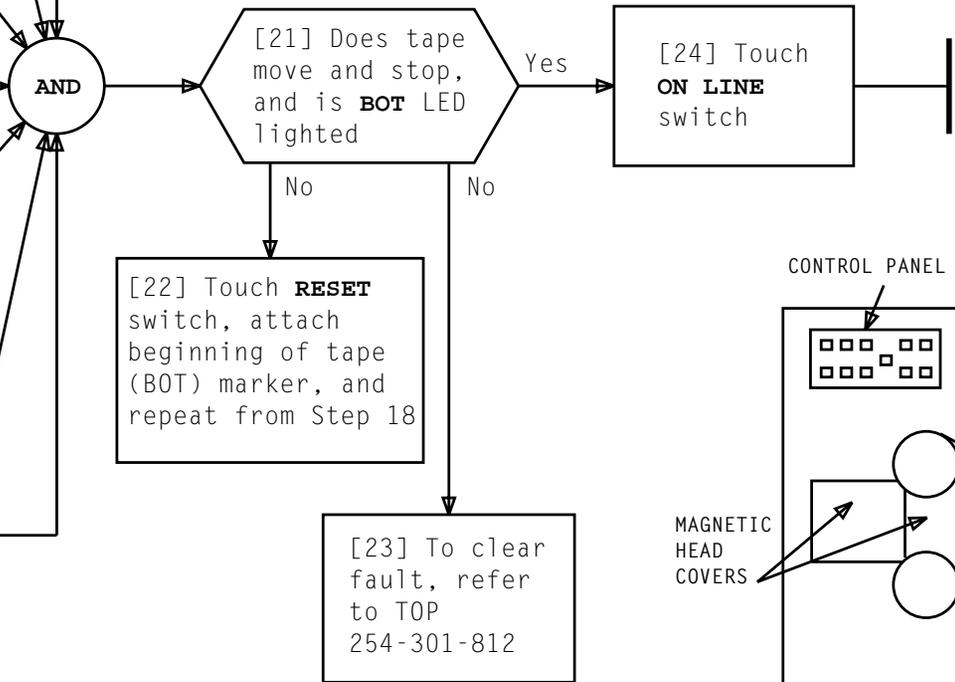


FIG. 2

MOUNT TAPE ON 3B TAPE UNIT OR DIGITAL AUDIO TAPE (DAT) UNIT

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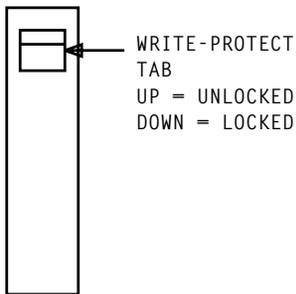
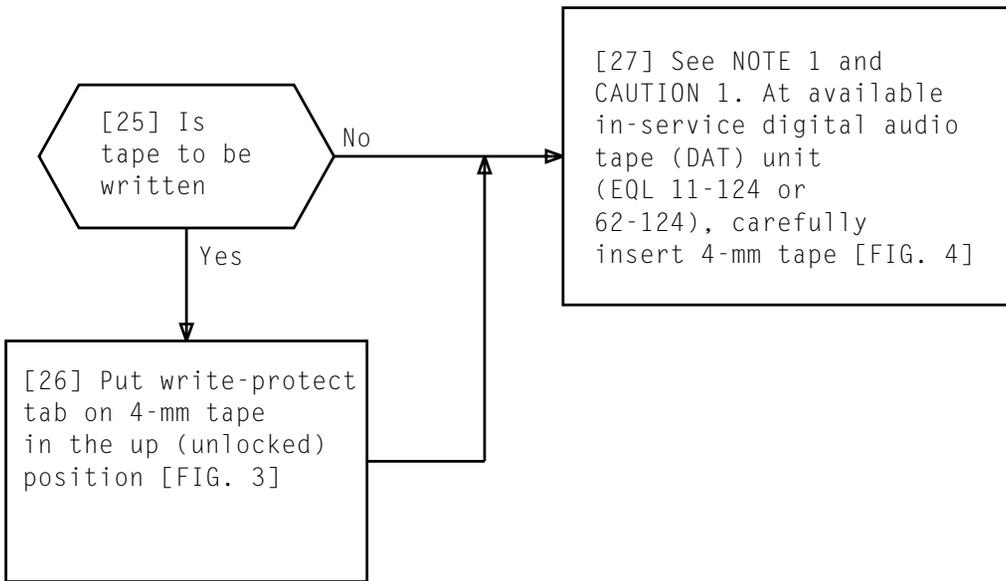


FIG. 3 - 4-mm Tape

[27] See NOTE 1 and CAUTION 1. At available in-service digital audio tape (DAT) unit (EQL 11-124 or 62-124), carefully insert 4-mm tape [FIG. 4]

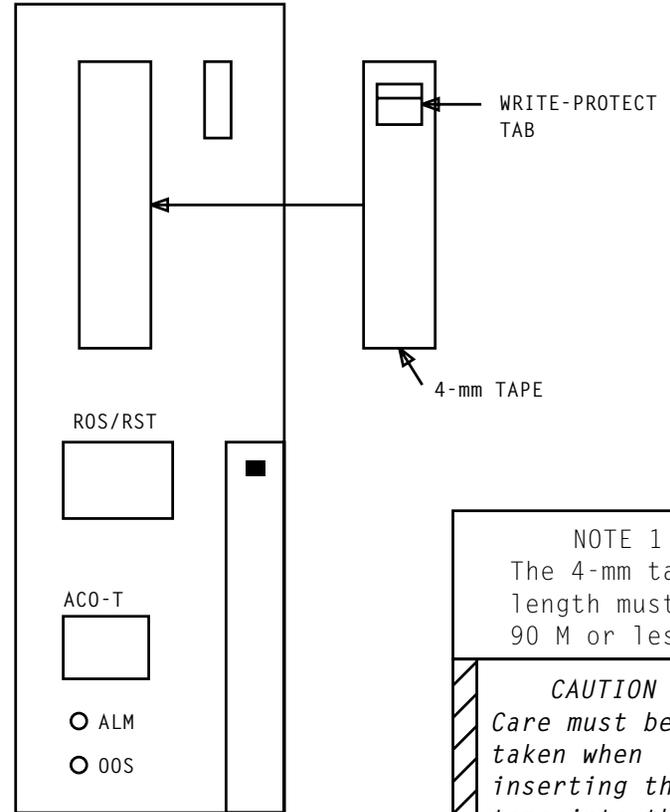


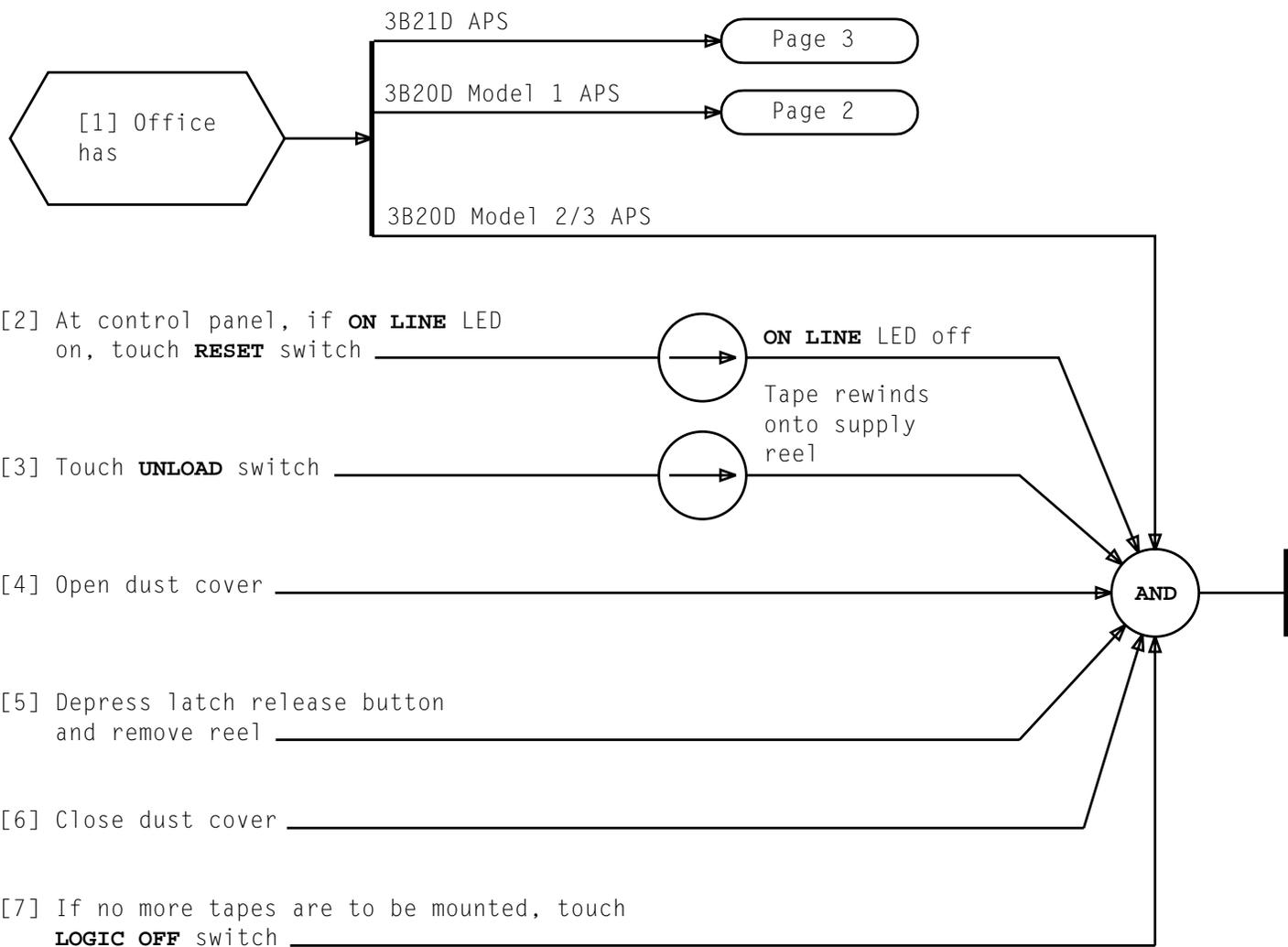
FIG. 4 - DAT Unit

NOTE 1
The 4-mm tape length must be 90 M or less

CAUTION 1
Care must be taken when inserting the tape into the DAT unit. Tape must not be forced

MOUNT TAPE ON 3B TAPE UNIT OR DIGITAL AUDIO TAPE (DAT) UNIT

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REMOVE TAPE FROM 3B TAPE UNIT OR DIGITAL AUDIO TAPE (DAT) UNIT

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[8] At control panel, if **ON LINE** lamp is on, depress **ON LINE** switch

[9] If tape is not at BOT, depress **REWIND** switch

LOAD POINT LED lights

[10] Depress **REWIND** switch

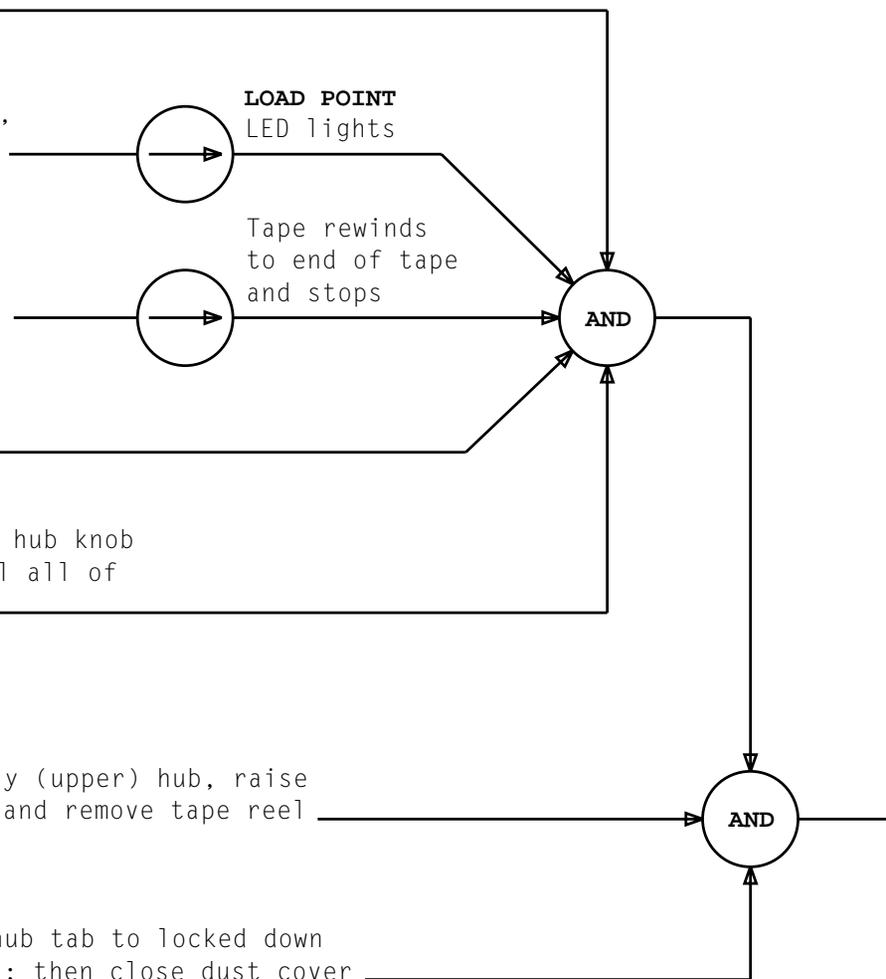
Tape rewinds to end of tape and stops

[11] On tape unit, open dust cover

[12] Rotate supply (upper) hub knob counterclockwise until all of tape is rewound

[13] On supply (upper) hub, raise hub tab and remove tape reel

[14] Return hub tab to locked down position; then close dust cover



REMOVE TAPE FROM 3B TAPE UNIT OR DIGITAL AUDIO TAPE (DAT) UNIT

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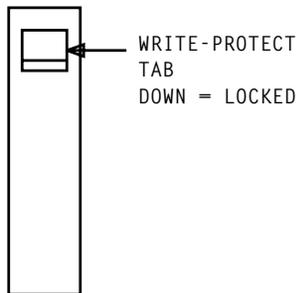
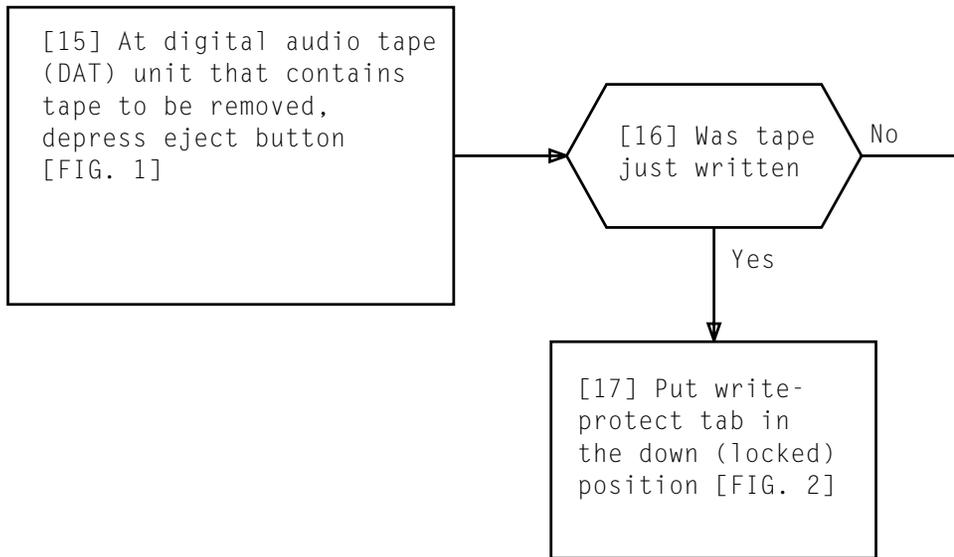


FIG. 2 - 4-mm Tape

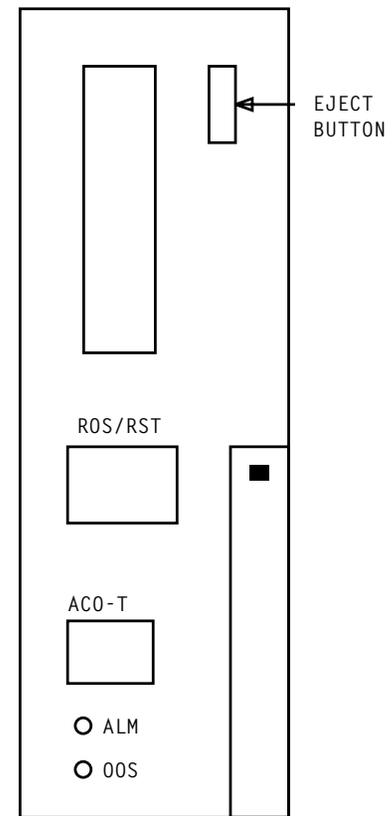


FIG. 1 - DAT Unit

REMOVE TAPE FROM 3B TAPE UNIT OR DIGITAL AUDIO TAPE (DAT) UNIT

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[1] See NOTE 1. Mount one backup tape on available tape drive [DLP-523]

[2] At APS MCRT, enter message
 VFY:TAPE,TD"/dev/mtX8",RETRY 3!
 X = tape drive number (Step 1)

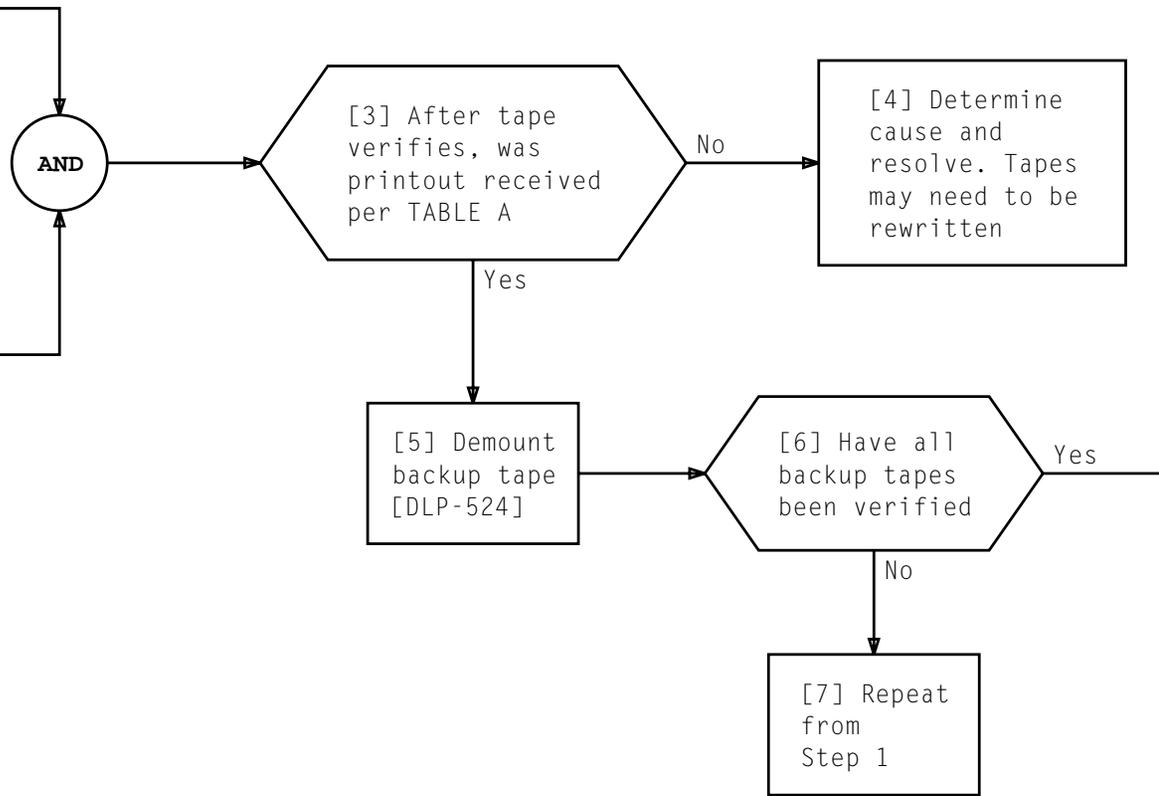


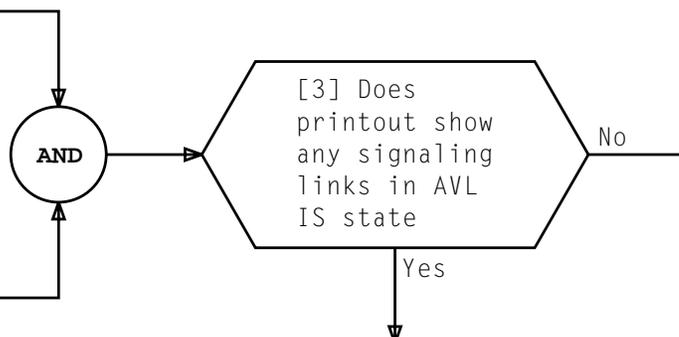
TABLE A	
MESSAGE NUMBER	OUTPUT MESSAGE
1	VFY TAPE STARTED VFY TAPE COMPLETED RETRIES 0 HEADER MISMATCHES 0 DATA MISMATCHES 0

NOTE 1
 Verify backup generic tapes from lowest to highest rt0 number; then backup db tape

VERIFY BACKUP TAPES

[1] At MCRT, enter message
 OP:SLK(a,b):DEST 1!
 a = associated link node
 frame number
 b = link node member
 number

[2] Using printout and Fig. 1,
 determine if any signaling
 links are listed in AVL IS
 state

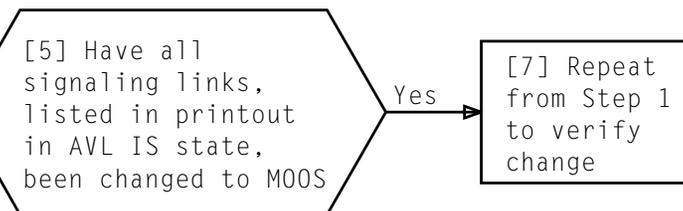


```

RING OP SLK 0 9 IN PROG
SLK 00 09 SADC 00 00 AVL IS
SLK 00 09 SADC 00 01 AVL IS
SLK 00 09 SADC 00 02 THRU 01 03 UNEQUIPPED
RING OP SLK 0 9 COMPL
  
```

FIG. 1 - Sample OP:SLK Printout

[4] See NOTE 1. At MCRT, enter message per TABLE A to change one signaling link listed in printout in AVL IS state to MOOS. Record signaling link being changed



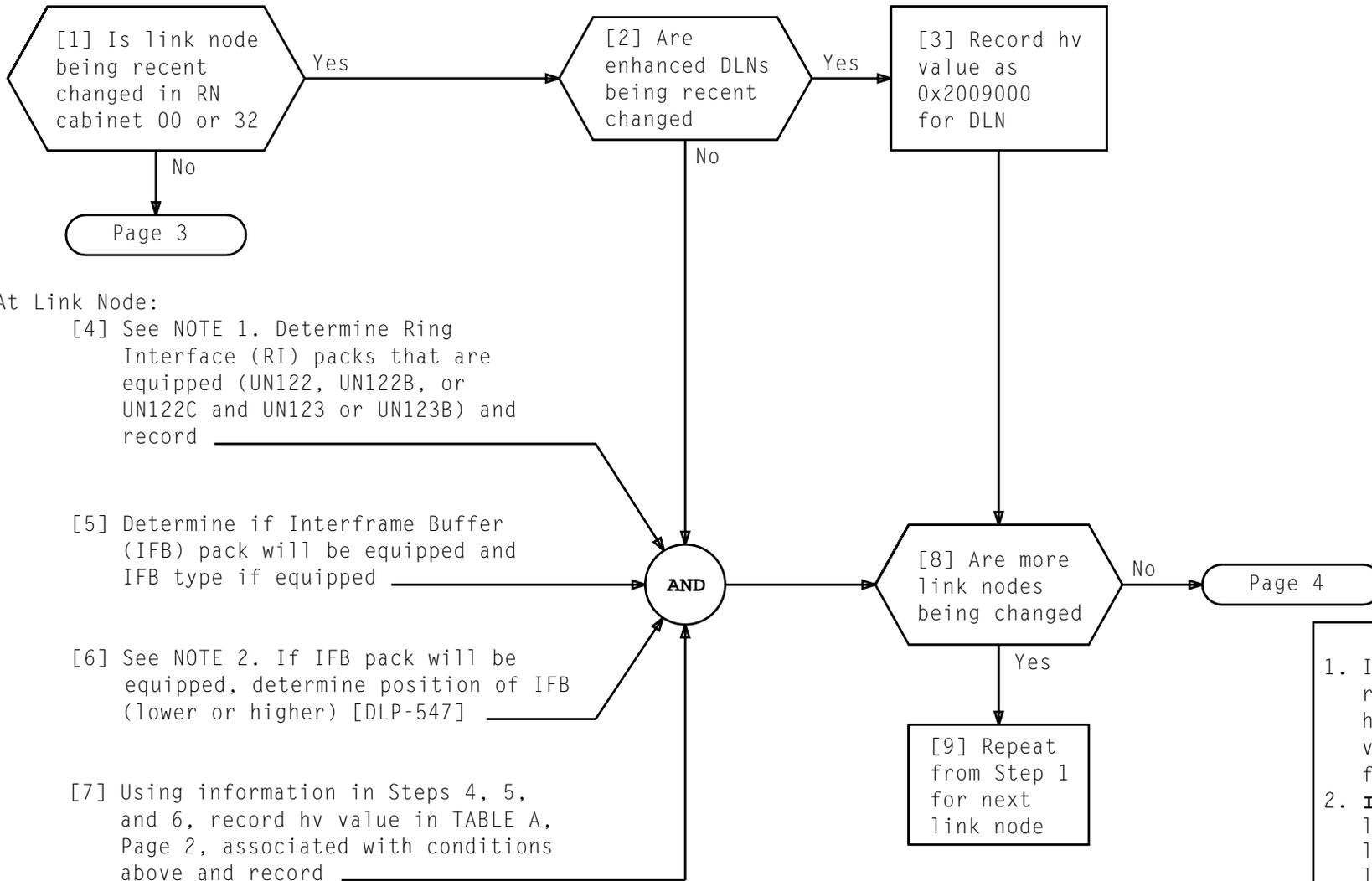
[6] Repeat from Step 4 for next signaling link listed in printout in AVL IS state,

[7] Repeat from Step 1 to verify change

TABLE A	
MESSAGE NUMBER	INPUT MESSAGE
1	CHG:SLK(a,b[,c,d]);MOOS,UCL!
a = associated link node frame number b = link node member number c = link interface pack number (0 or 1) d = signaling link number	

NOTE 1
 If changing CCS7 link: ,c and ,d in input message are not required

CHANGE ACTIVE SIGNALING LINK(S) TO MOOS



At Link Node:

[4] See NOTE 1. Determine Ring Interface (RI) packs that are equipped (UN122, UN122B, or UN122C and UN123 or UN123B) and record _____

[5] Determine if Interframe Buffer (IFB) pack will be equipped and IFB type if equipped _____

[6] See NOTE 2. If IFB pack will be equipped, determine position of IFB (lower or higher) [DLP-547] _____

[7] Using information in Steps 4, 5, and 6, record hv value in TABLE A, Page 2, associated with conditions above and record _____

NOTES	
1.	If RPCD is being recent changed, hv value is same value as hv value for DLN
2.	IFB is considered lower if IFB is located in lowest link node in cabinet. IFB is considered higher if IFB is located in highest link node in cabinet
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RECENT CHANGE LINK NODE HV VALUE

TABLE A							
Ring Interface Pack(s)	IFB Type	IFB Position	HV Value	Ring Interface Pack(s)	IFB Type	IFB Position	HV Value
UN122/UN123	None	N/A	0x0100	UN303	None	N/A	0x8000
UN122/UN123	TN918	Higher	0x0110	UN303	TN918	Higher	0x8010
UN122/UN123	TN1508	Higher	0x0150	UN303	TN1508	Higher	0x8050
UN122/UN123	TN1803	Higher	0x0160	UN303	TN1803	Higher	0x8060
UN122/UN123	TN918	Lower	0x0101	UN303	TN918	Lower	0x8001
UN122/UN123	TN1508	Lower	0x0105	UN303	TN1508	Lower	0x8005
UN122/UN123	TN1803	Lower	0x0106	UN303	TN1803	Lower	0x8006
UN122B/UN123B	None	N/A	0x0900	UN303B	None	N/A	0x9000
UN122B/UN123B	TN918	Higher	0x0910	UN303B	TN918	Higher	0x9010
UN122B/UN123B	TN1508	Higher	0x0950	UN303B	TN1508	Higher	0x9050
UN122B/UN123B	TN1803	Higher	0x0960	UN303B	TN1803	Higher	0x9060
UN122B/UN123B	TN918	Lower	0x0901	UN303B	TN918	Lower	0x9001
UN122B/UN123B	TN1508	Lower	0x0905	UN303B	TN1508	Lower	0x9005
UN122B/UN123B	TN1803	Lower	0x0906	UN303B	TN1803	Lower	0x9006
UN122C/UN123B	None	N/A	0x1900	UN304	None	N/A	0xc000
UN122C/UN123B	TN918	Higher	0x1910	UN304	TN918	Higher	0xc010
UN122C/UN123B	TN1508	Higher	0x1950	UN304	TN1508	Higher	0xc050
UN122C/UN123B	TN1803	Higher	0x1960	UN304	TN1803	Higher	0xc060
UN122C/UN123B	TN918	Lower	0x1901	UN304	TN918	Lower	0xc001
UN122C/UN123B	TN1508	Lower	0x1905	UN304	TN1508	Lower	0xc005
UN122C/UN123B	TN1803	Lower	0x1906	UN304	TN1803	Lower	0xc006

RECENT CHANGE LINK NODE HV VALUE

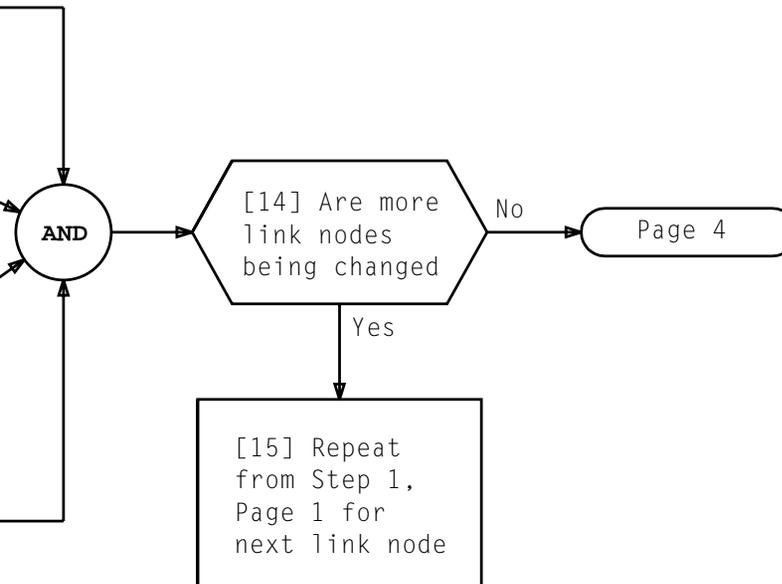
At Link Node:

[10] Determine Integrated Ring Node (IRN) pack that is equipped (UN303 or UN303B) and record _____

[11] Determine if Interframe Buffer (IFB) pack will be equipped and IFB type if equipped _____

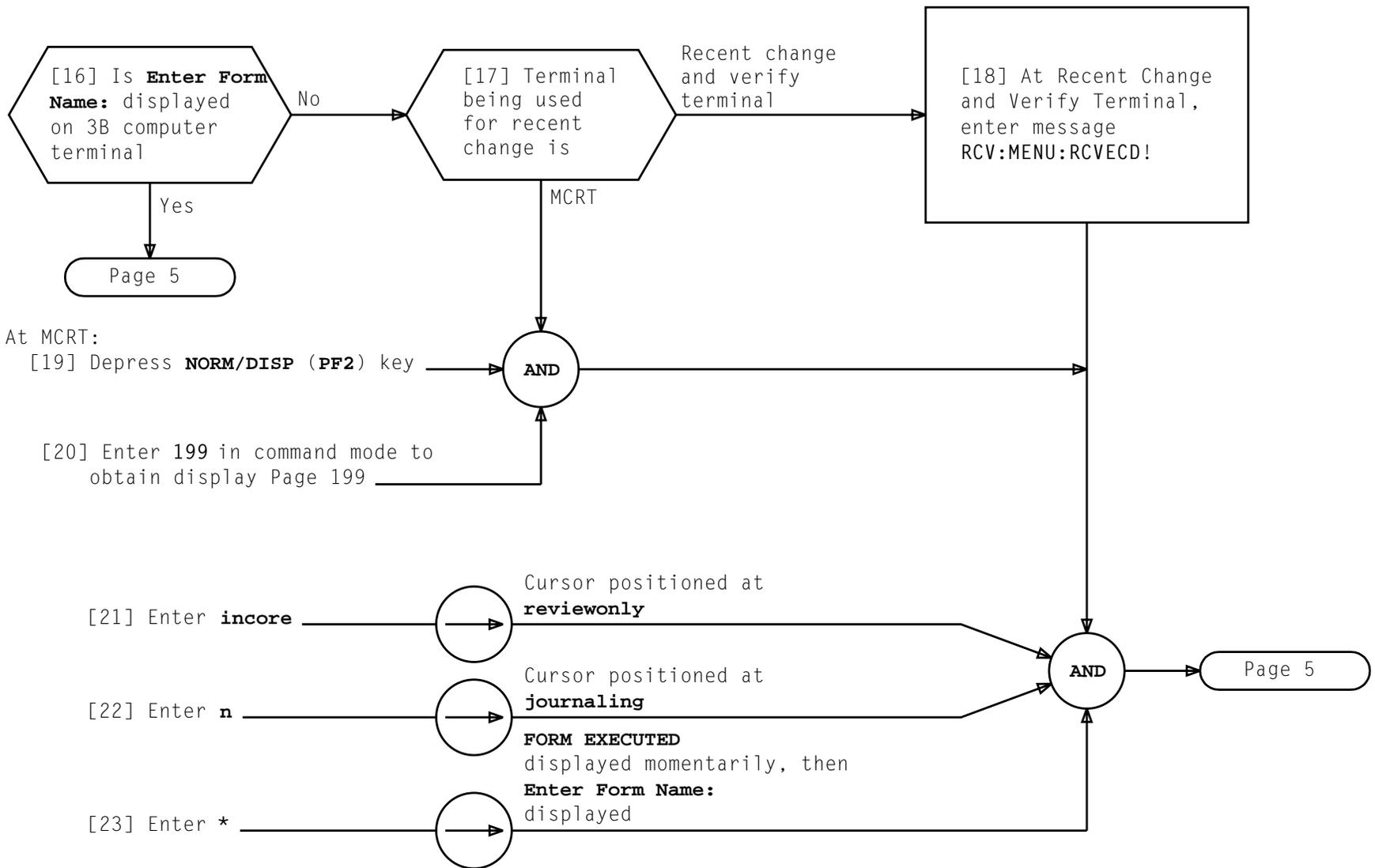
[12] If IFB pack will be equipped, determine position of IFB (lower or higher) [DLP-547] _____

[13] Using information in Steps 10, 11, and 12, record hv value in TABLE A, Page 2 associated with conditions above and record _____



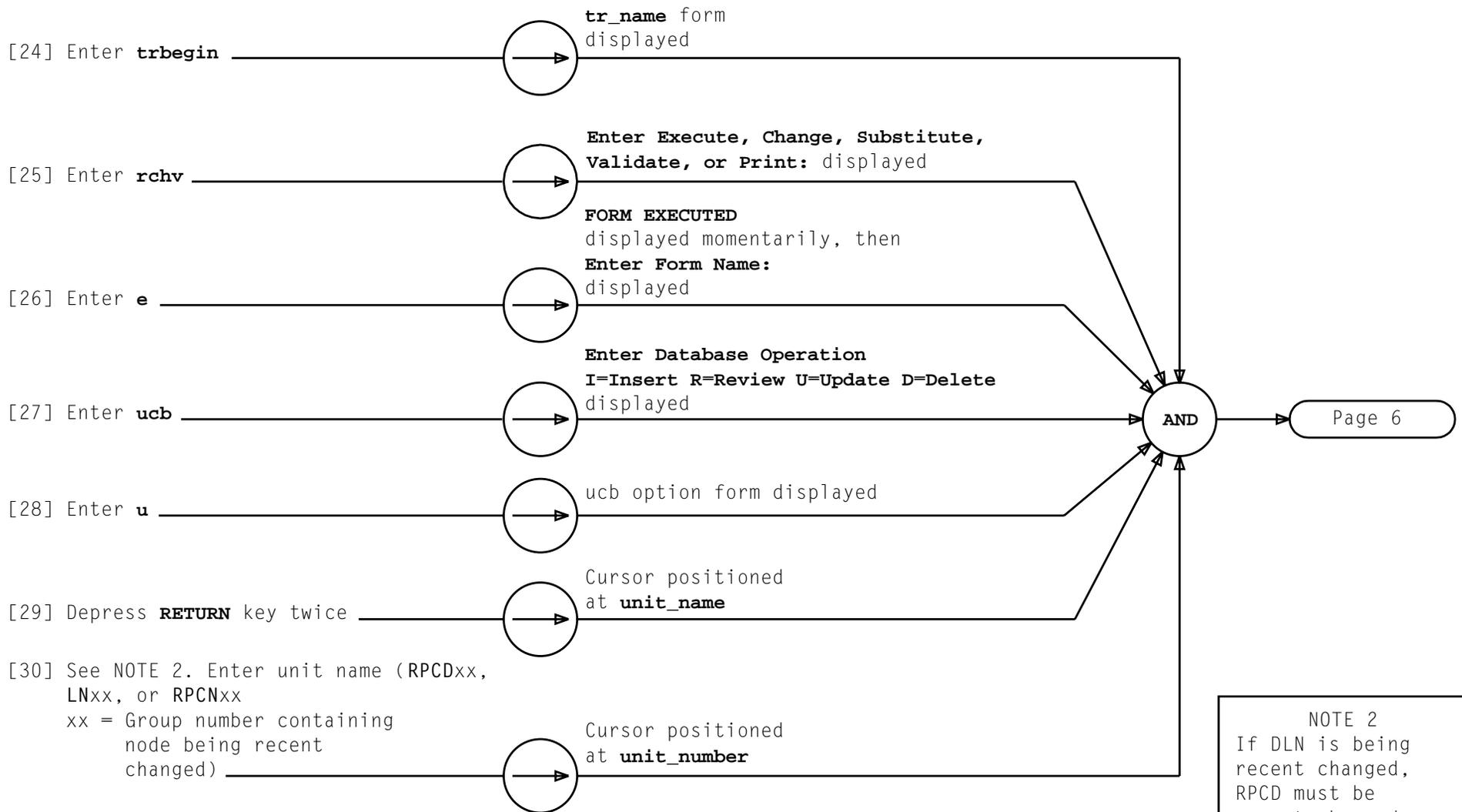
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RECENT CHANGE LINK NODE HV VALUE

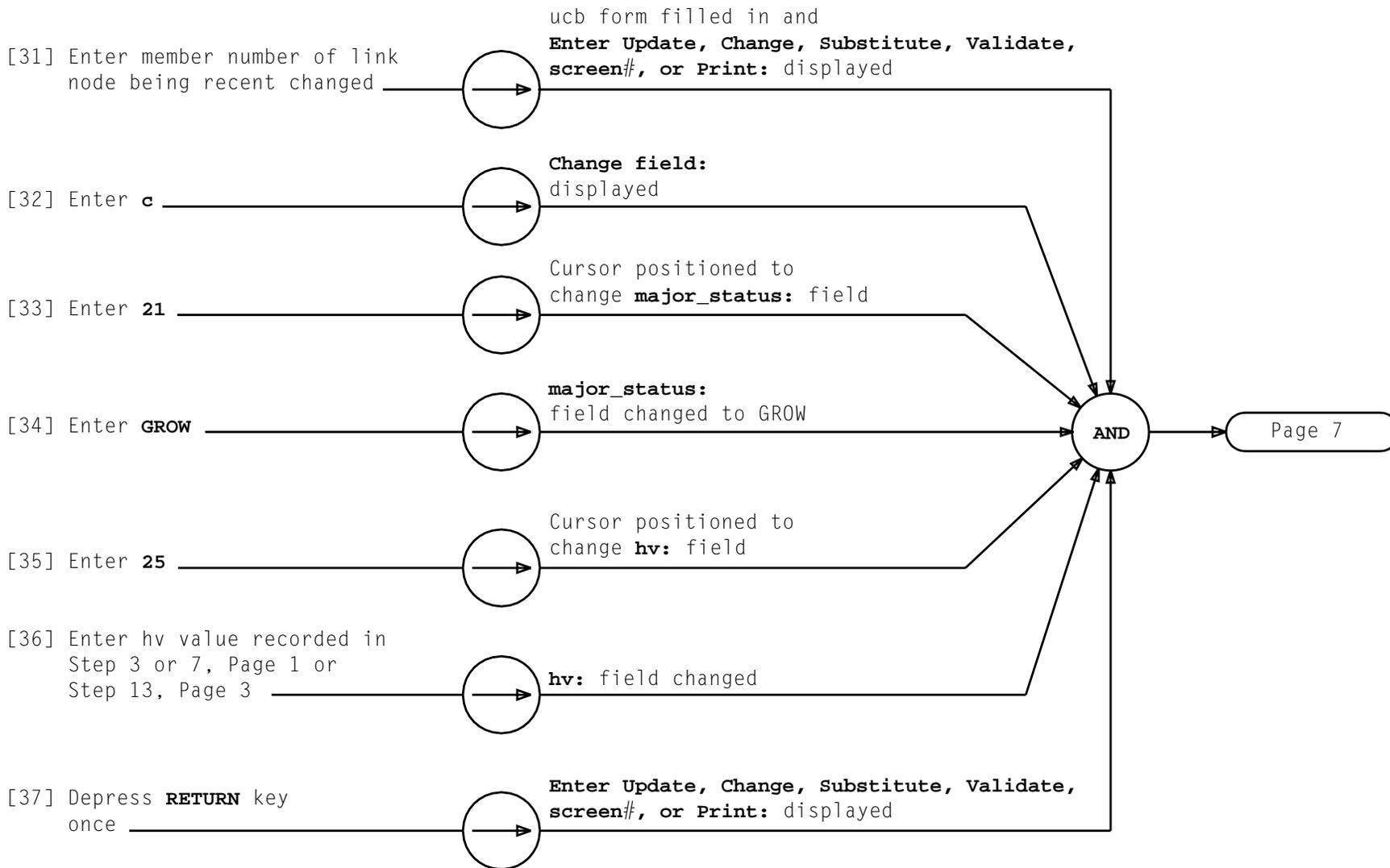
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NOTE 2
If DLN is being recent changed, RPCD must be recent changed before DLN. **trend** is required between recent changes

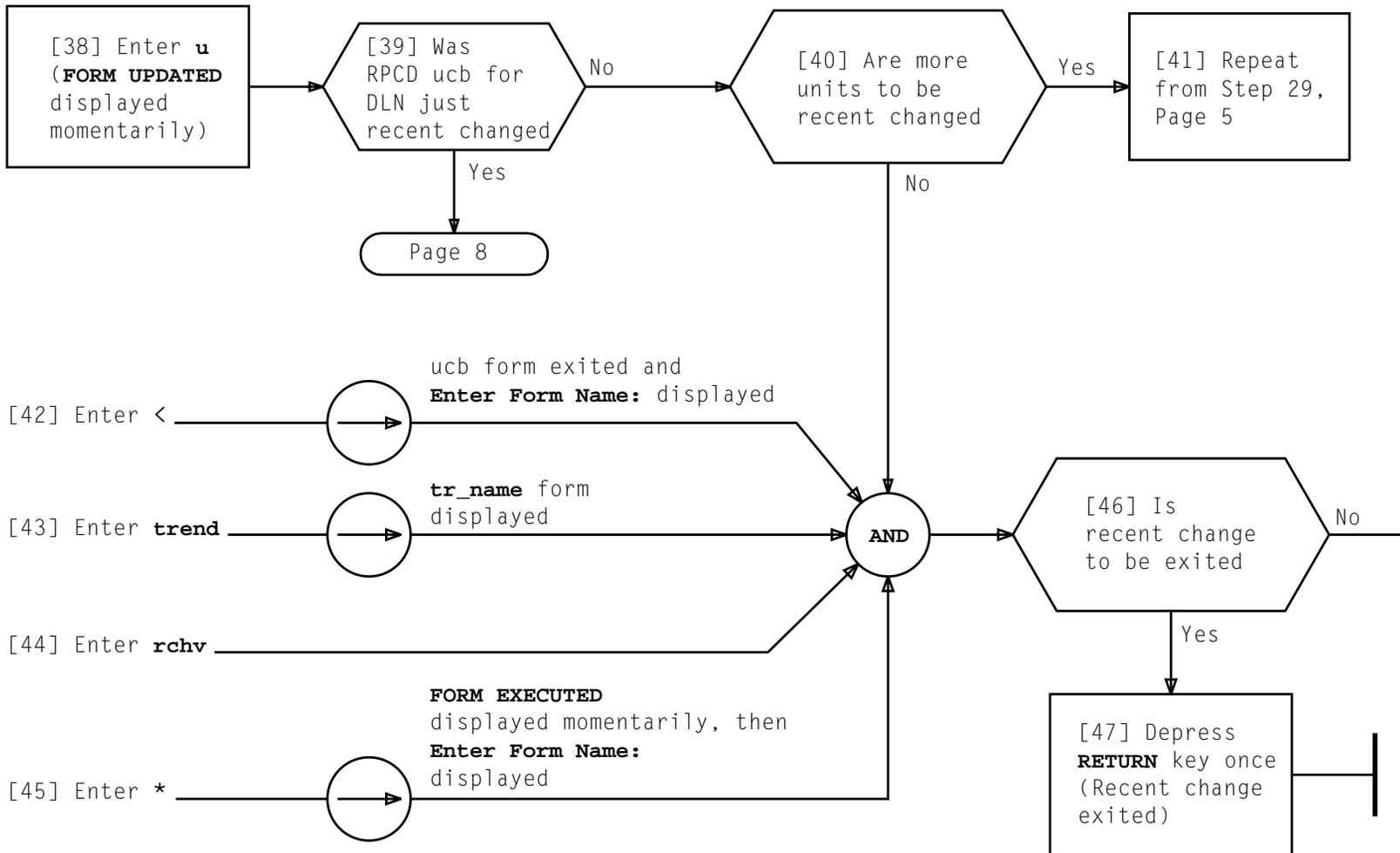
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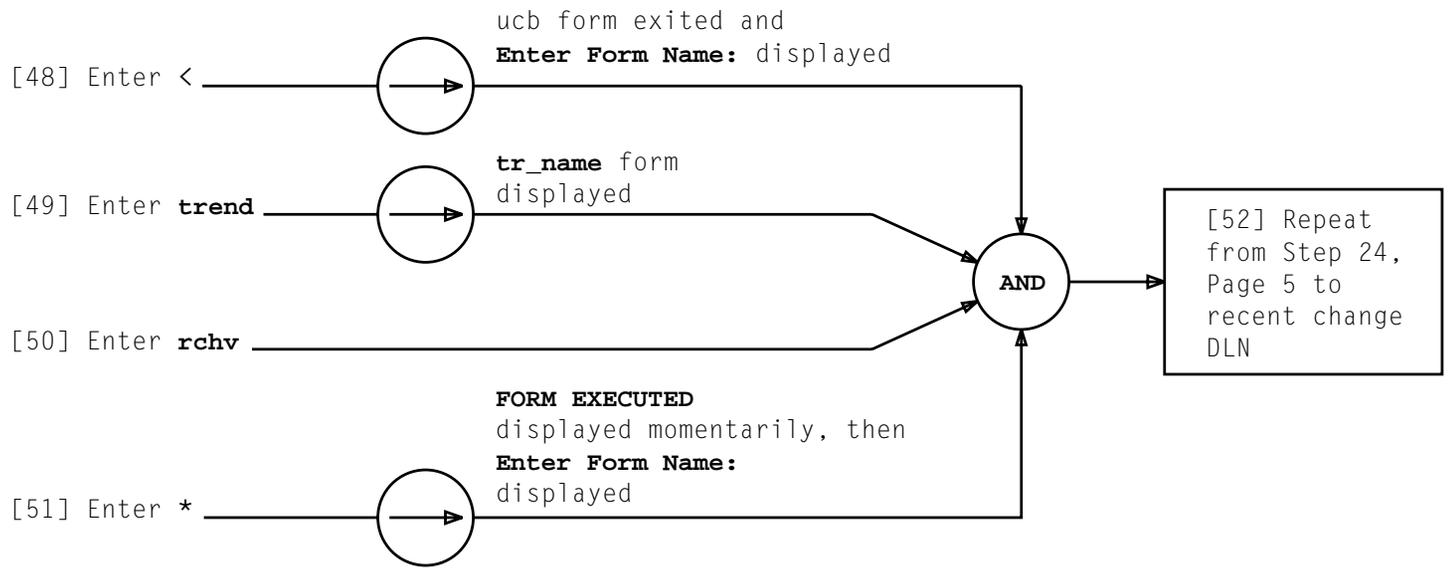
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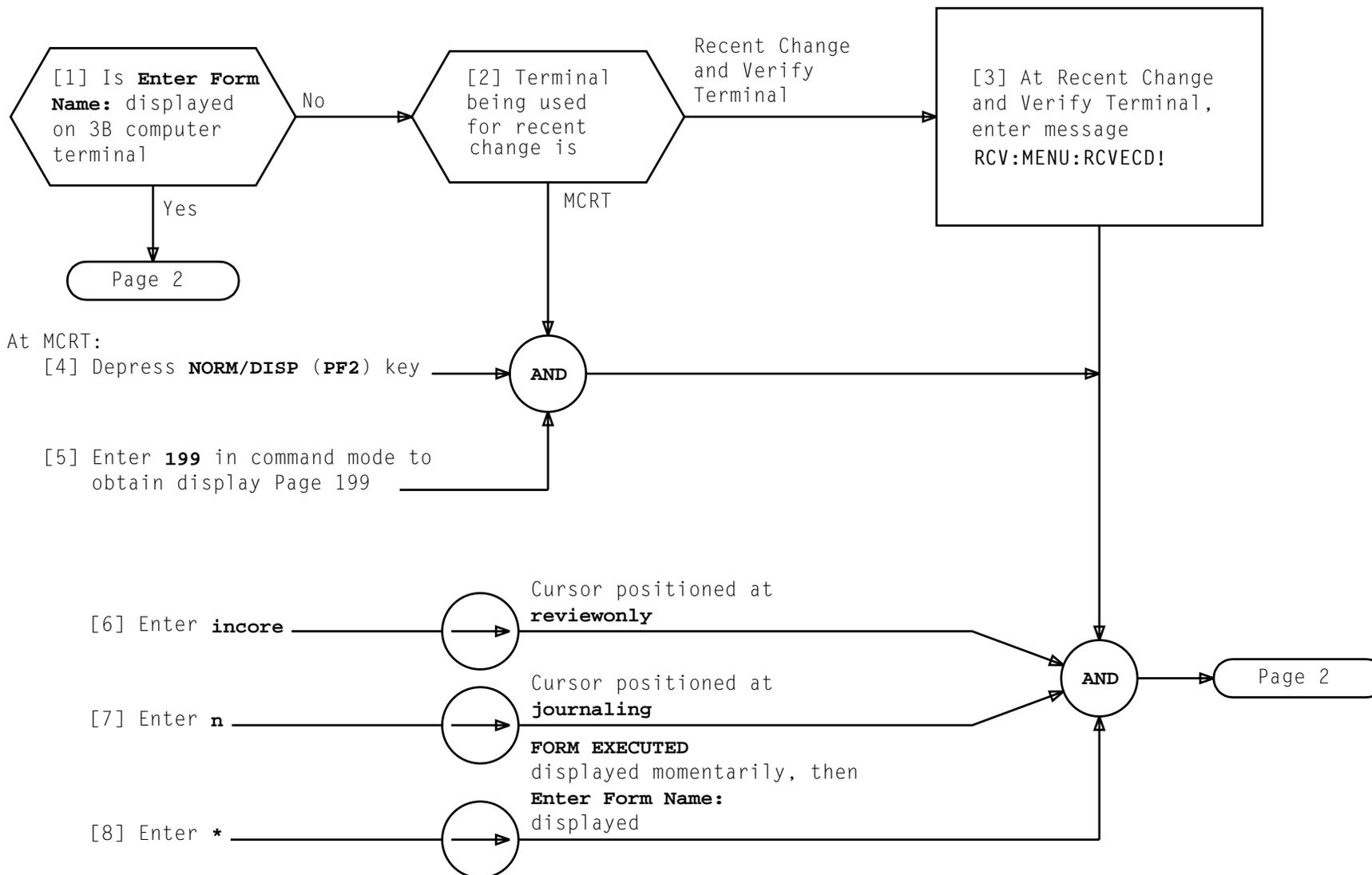
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RECENT CHANGE LINK NODE HV VALUE

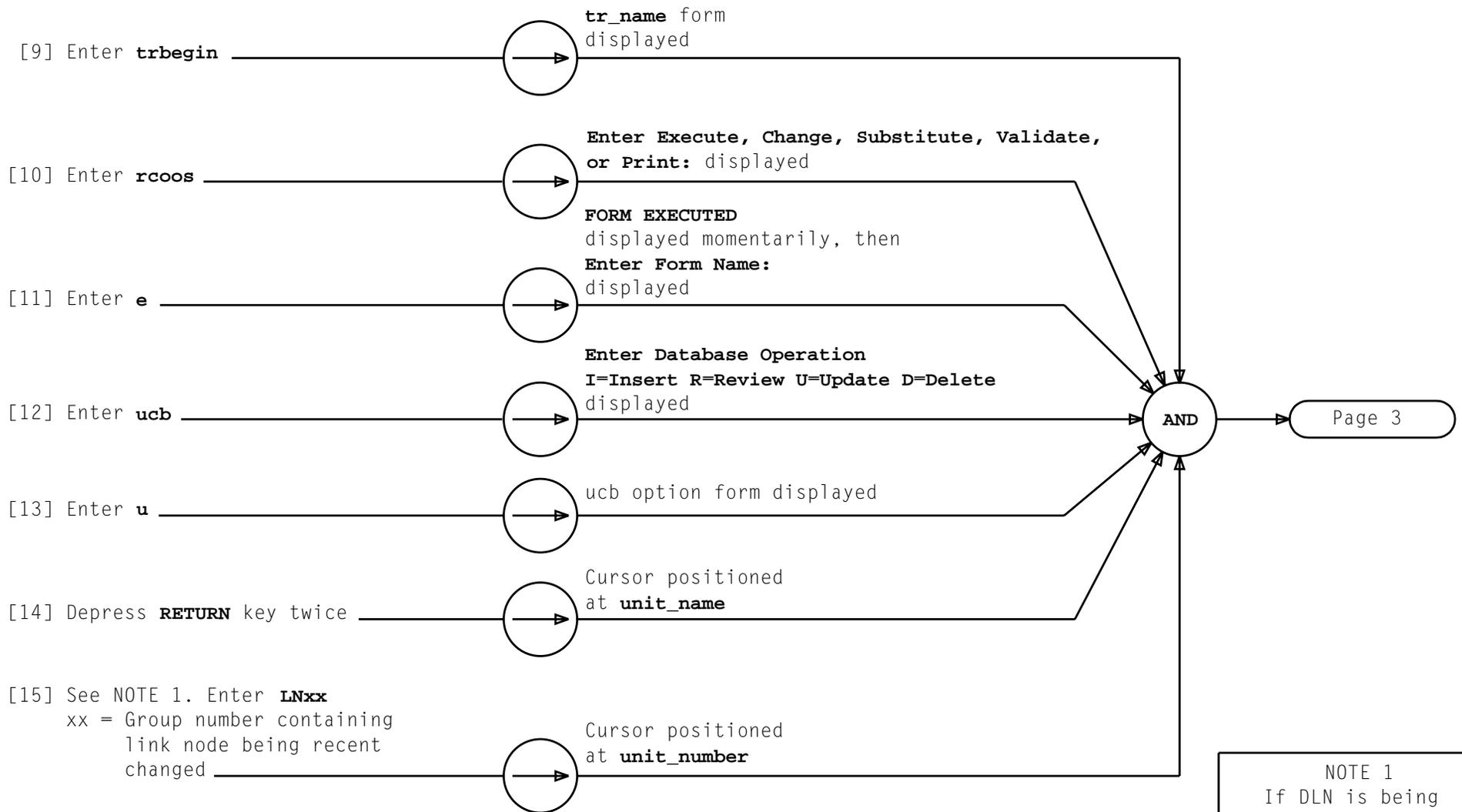
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RECENT CHANGE GROWTH ASSOCIATED LINK NODE TO OOS

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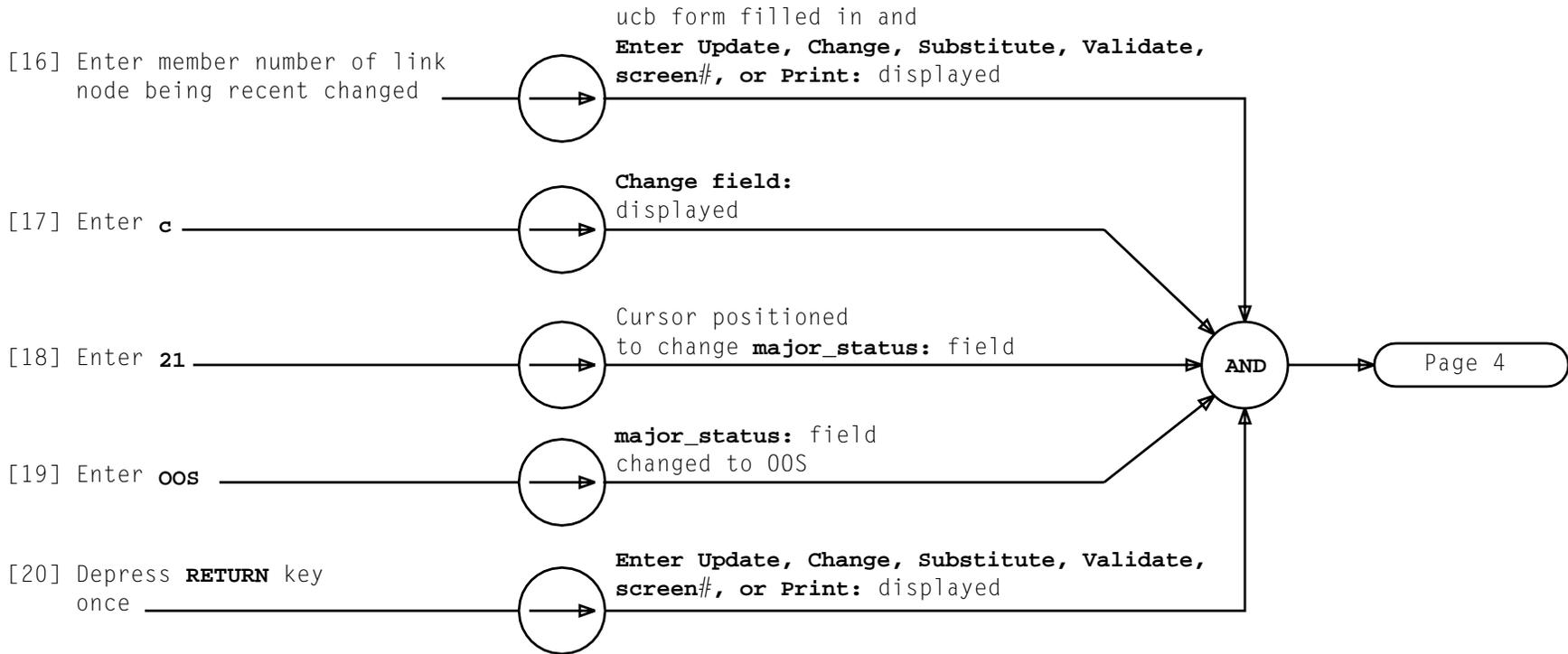
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NOTE 1
If DLN is being recent changed, RPCD is not required to be recent changed to OOS

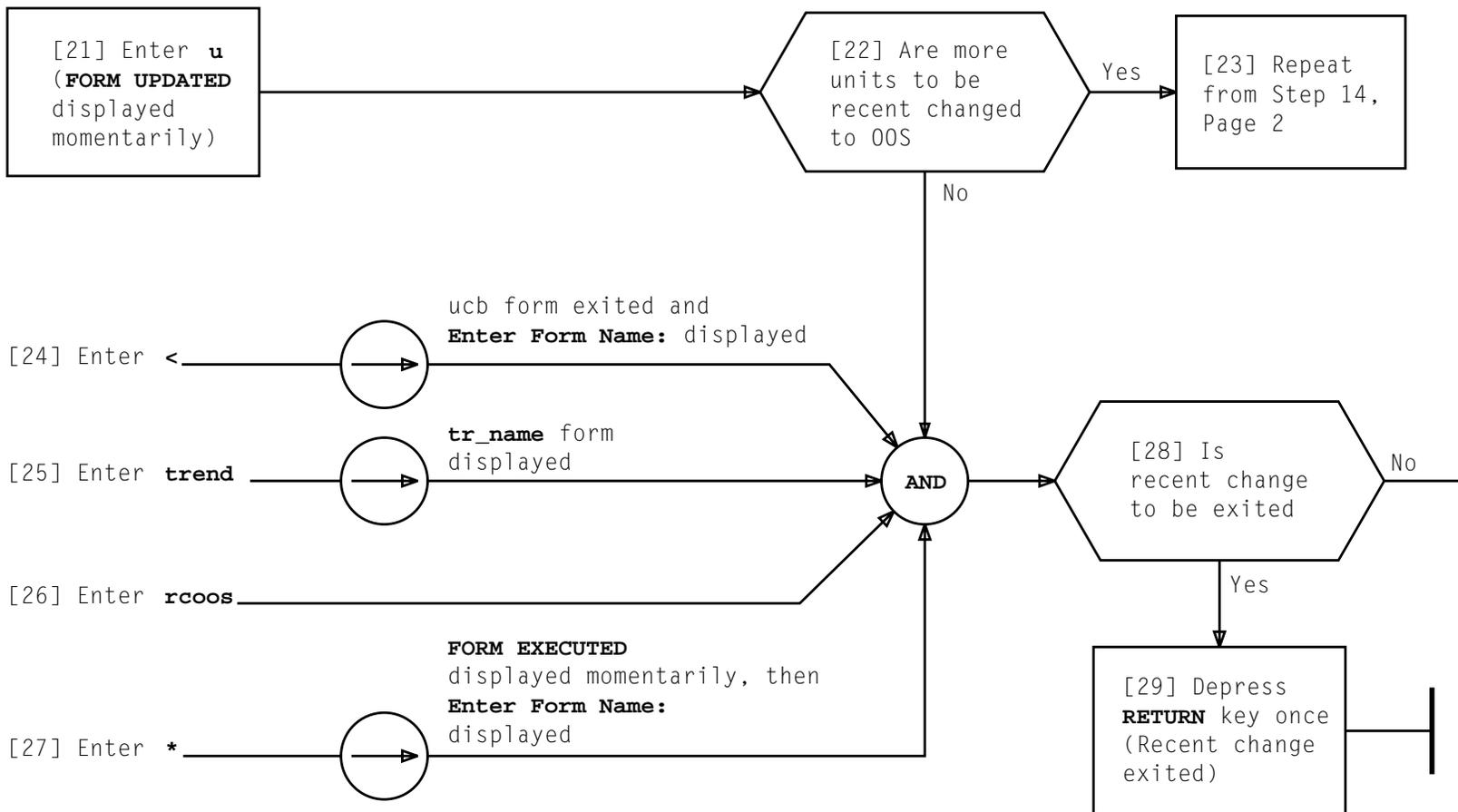
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RECENT CHANGE GROWTH ASSOCIATED LINK NODE TO OOS



RECENT CHANGE GROWTH ASSOCIATED LINK NODE TO OOS

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RECENT CHANGE GROWTH ASSOCIATED LINK NODE TO OOS

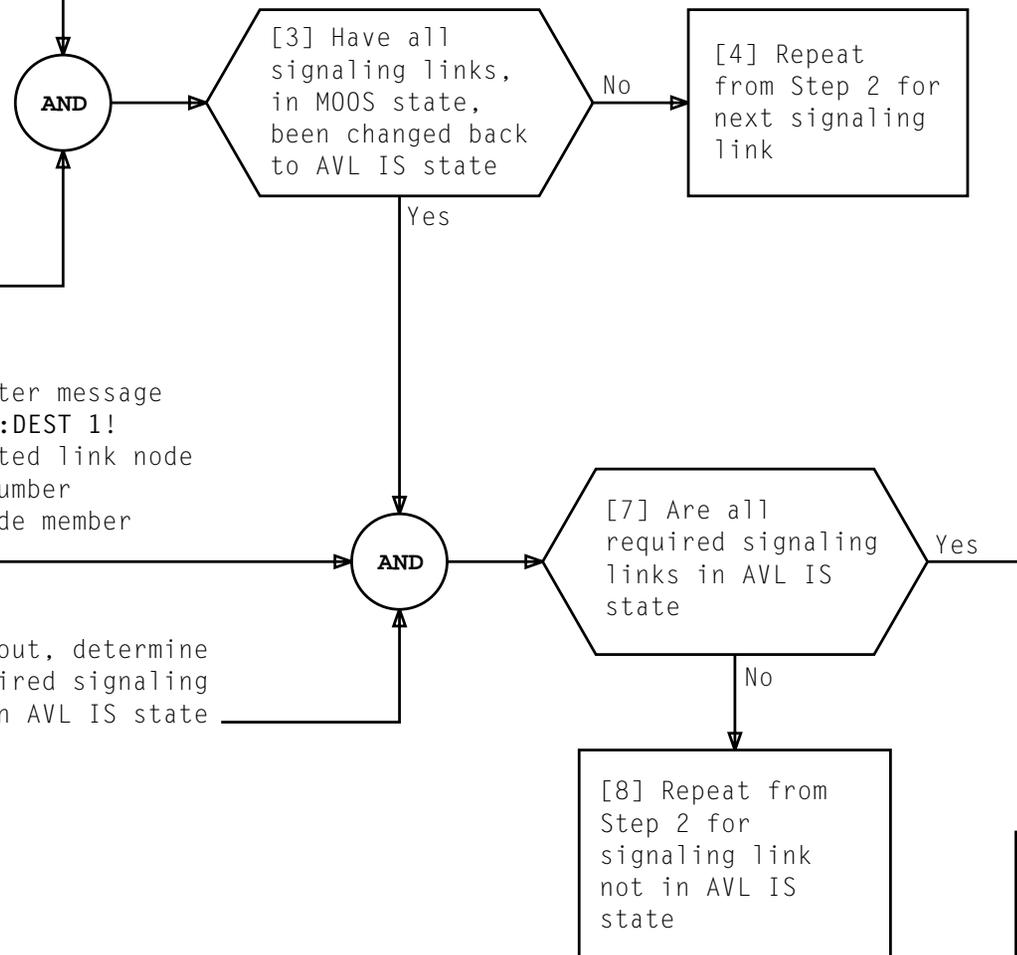
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[1] Obtain list of signaling links in associated link node(s) that were changed to MOOS

[2] See NOTE 1. At MCRT, enter message
 CHG:SLK(a,b[,c,d]);IS!
 a = associated link node frame number
 b = link node member number
 c = link interface pack number (0 or 1)
 d = signaling link number

[5] At MCRT, enter message
 OP:SLK(a,b):DEST 1!
 a = associated link node frame number
 b = link node member number

[6] Using printout, determine if all required signaling links are in AVL IS state



NOTE 1
 If changing CCS7 link: ,c and ,d in input message are not required

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CHANGE SIGNALING LINK(S) TO AVAILABLE IN SERVICE

[1] At MCRT, enter message
CFR:RING!

[2] Observe printout and verify
that messages 1 and 2 in
TABLE A are received

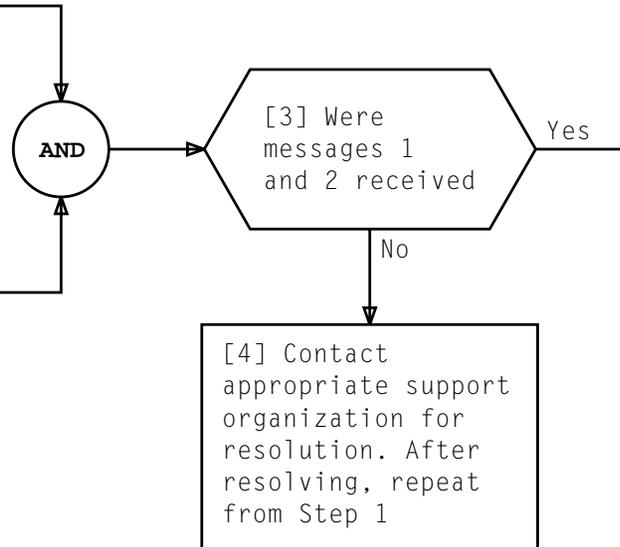


TABLE A	
MESSAGE NUMBER	OUTPUT MESSAGE
1	RING REPT RING CFR RING CONFIGURATION ESTABLISHED (nnn ms) NORMAL CONFIGURATION, NO NODES ISOLATED
2	RING CFR RING COMPL

ESTABLISH RING CONFIGURATION

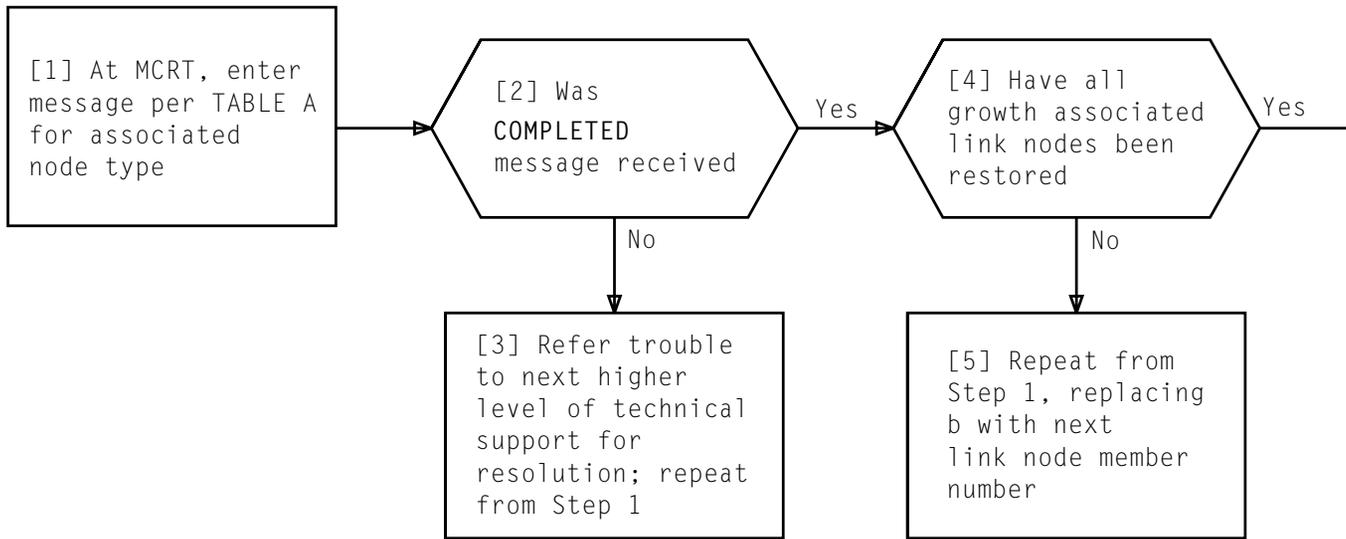


TABLE A	
NODE TYPE	INPUT MESSAGE
LN	RST:LNaa b;UCL!
RPCN	RST:RPCNaa b;UCL!
aa = Cabinet number b = Node member number	

RESTORE LINK NODE(S) UNCONDITIONALLY

[1] Determine equipped link nodes that are same type as growth signaling link(s)

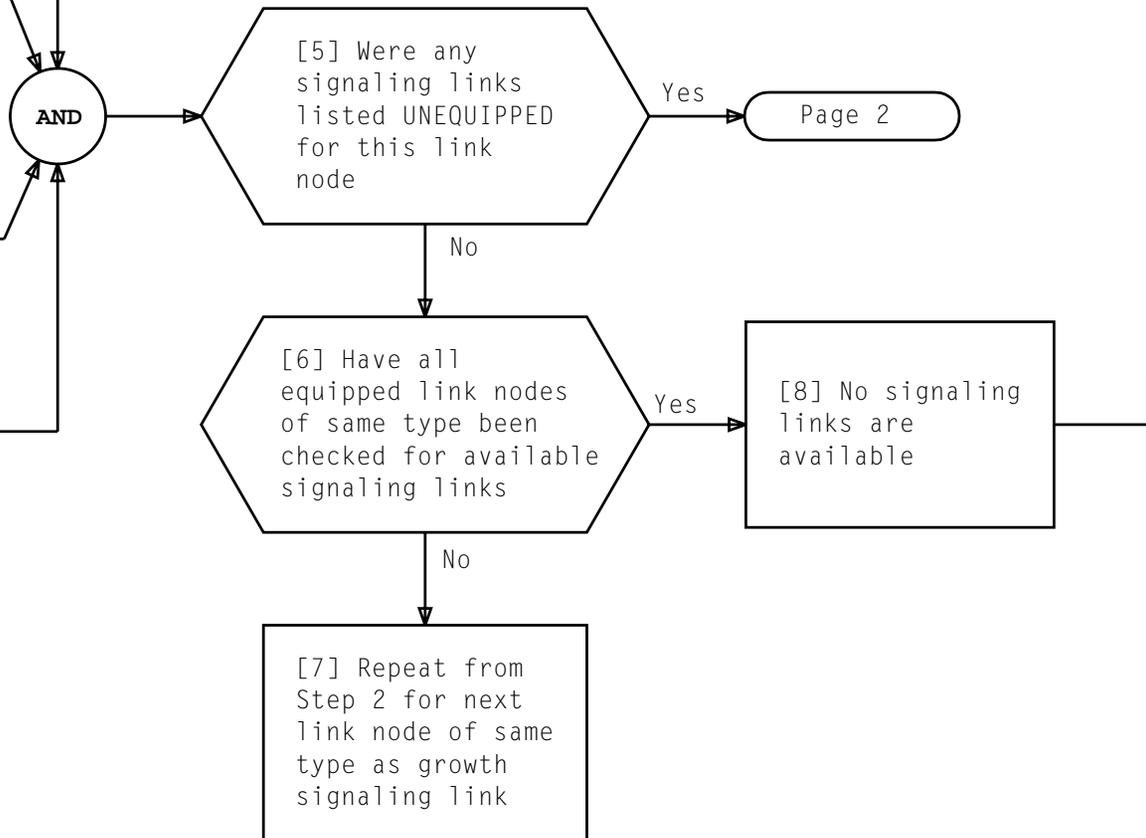
[2] At one link node determined in Step 1, determine equipped link interface pack(s)

[3] At MCRT, enter message
OP:SLK(a,b):DEST 1!
 a = associated link node frame number
 b = link node member number _____

[4] Using printout and FIG. 1, determine if any signaling links are listed as UNEQUIPPED _____

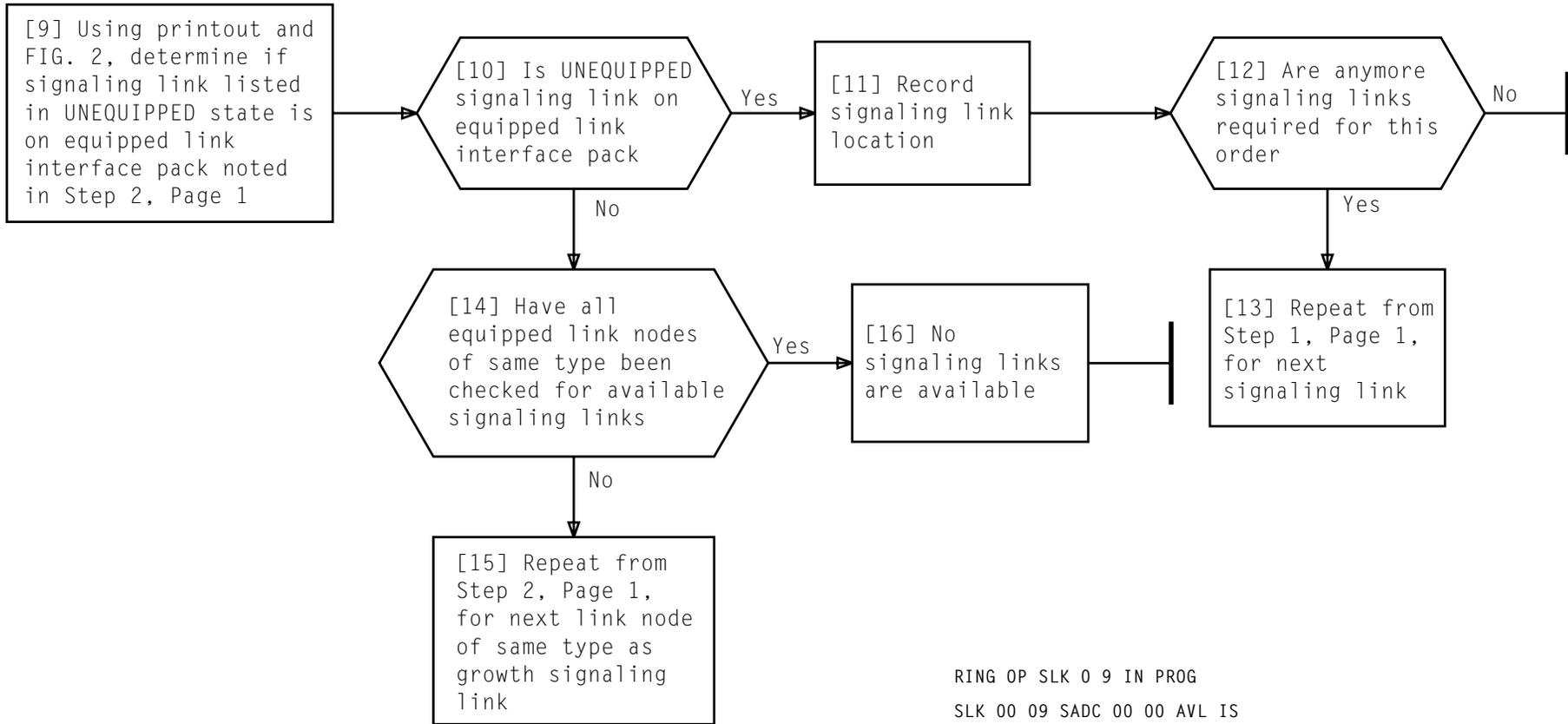
```
RING OP SLK 0 9 IN PROG
SLK 00 09 SADC 00 00 AVL IS
SLK 00 09 SADC 00 01 AVL IS
SLK 00 09 SADC 00 02 THRU 01 03 UNEQUIPPED
RING OP SLK 0 9 COMPL
```

FIG. 1 - Sample OP:SLK Printout



DETERMINE AVAILABLE SIGNALING LINK(S)

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```

RING OP SLK 0 9 IN PROG
SLK 00 09 SADC 00 00 AVL IS
SLK 00 09 SADC 00 01 AVL IS
SLK 00 09 SADC 00 02 THRU 01 03 UNEQUIPPED
  
```

Link Interface Pack Numbers

```

RING OP SLK 0 9 COMPL
  
```

FIG. 2 - Sample OP:SLK Printout

DETERMINE AVAILABLE SIGNALING LINK(S)

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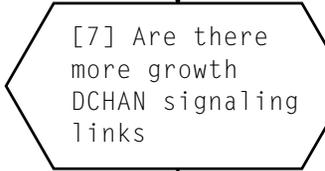
[1] At MCRT, if 1108 page is not displayed, depress **NORM/DISP (PF2)** key and enter **1108** in command mode

[2] If growth signaling link is not displayed on 1108, enter **406** (for next page) or **407** (for previous page) until growth signaling link is displayed

[3] Verify that far-end **CLLI*** code is listed for growth signaling link



[5] Contact appropriate support organization for resolution. After resolving, repeat from Step 1



[8] Repeat from Step 2 for next growth DCHAN signaling link

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VERIFY THAT FAR-END CLLI IS ASSIGNED TO SIGNALING LINK(S)

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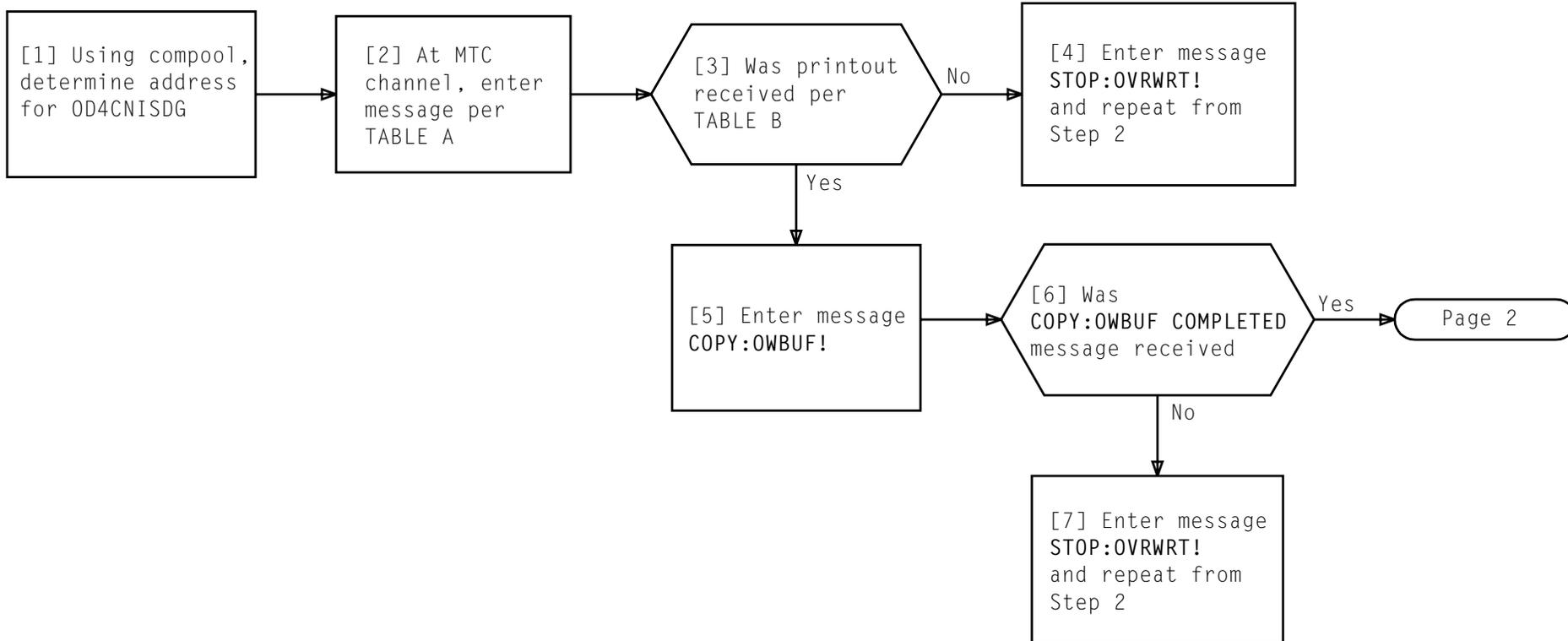


TABLE A	
MESSAGE NUMBER	INPUT MESSAGE
1	IN:OWBUF:ADR a,DATA 1,OLDDATA 0!
a = Address determined in Step 1	

TABLE B			
MESSAGE NUMBER	OUTPUT MESSAGE		
1	IN:OWBUF		
	CORE ADR	OLD DATA	NEW DATA
	a	00000000	00000001

TURN ON SERVICE-DEGRADING REPORT FOR CNI RING

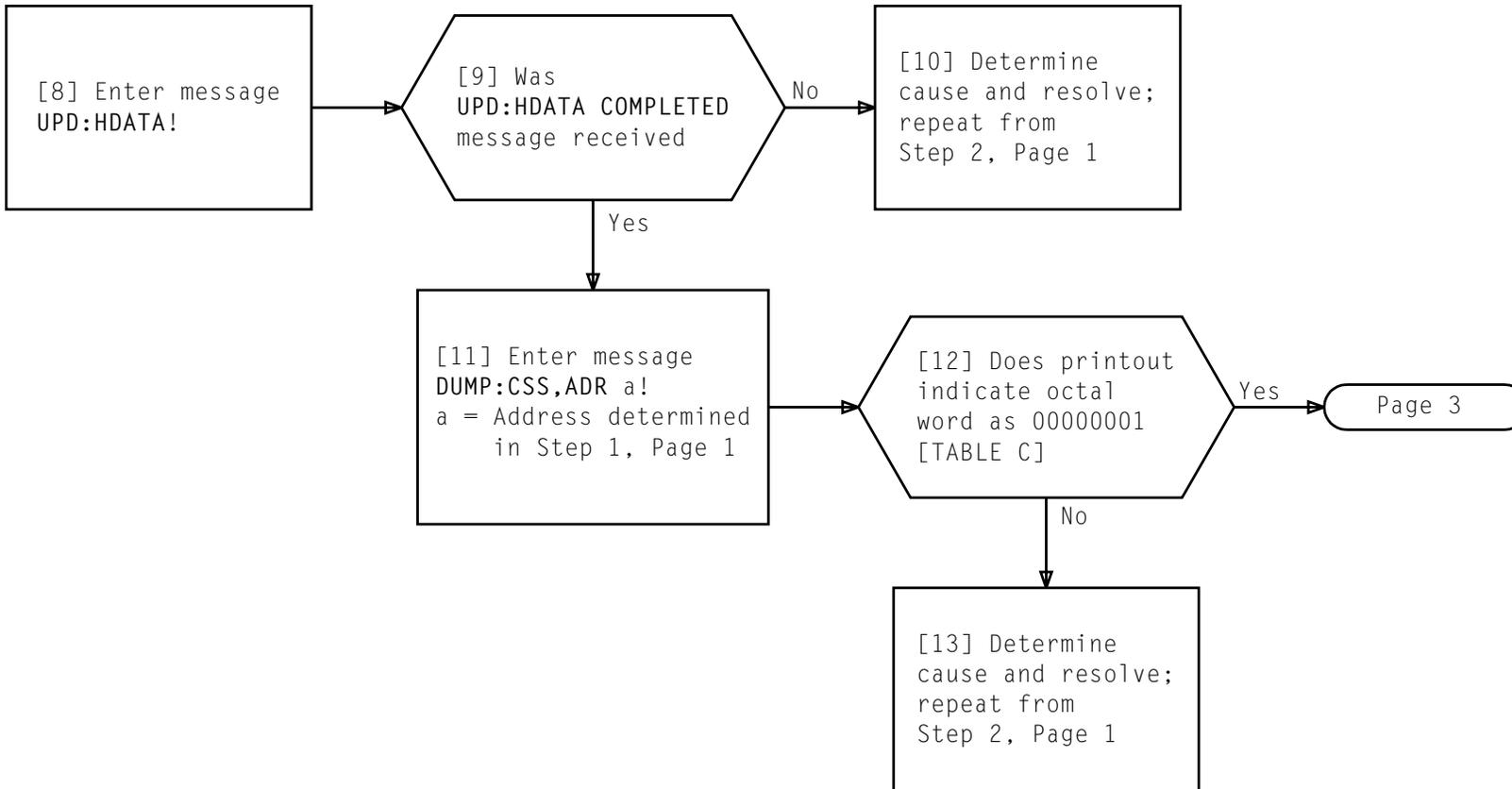


TABLE C	
MESSAGE NUMBER	OUTPUT MESSAGE
1	DUMP:CSS,INDIR 0,ADR a,INC +0 COMPLETED a 00000001

[14] At MCC **SYSTEM ALARMS** panel,
depress **SERVICE DEGRADING
FAILURE** pushbutton

[15] Observe printout and verify
that CNI STREAM STATUS and
CNI RING NODE STATUS
messages were received
[TABLE D]

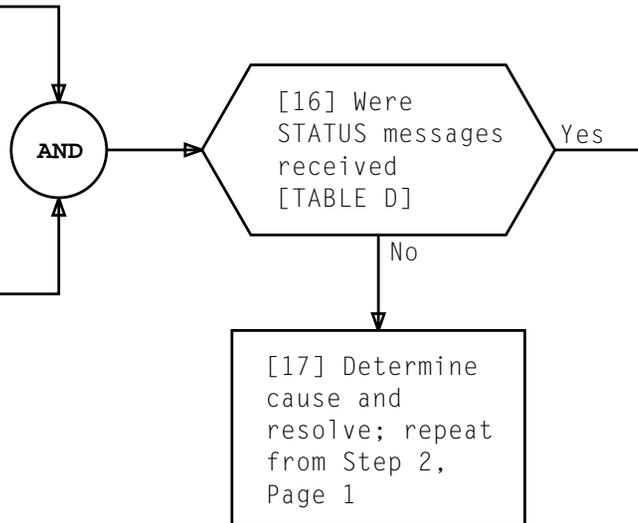


TABLE D	
MESSAGE NUMBER	OUTPUT MESSAGE
1	OP:SDC (APS SERVICE DEGRADING CONDITION) ***** CNI STREAM STATUS ***** . . . ***** CNI RING NODE STATUS ***** . . .

TURN ON SERVICE-DEGRADING REPORT FOR CNI RING

[1] See NOTE 1. At MCRT,
 enter message
DGN:LNaa b;PH 56!
 aa = growth associated
 Ring Node cabinet
 number
 b = SADC member number

[2] Was printout
 received per
 TABLE A

[3] Refer problem
 to installer for
 resolution. After
 resolving, repeat
 from Step 1

[4] Have all
 growth SADC
 link nodes
 been tested

[5] Repeat from
 Step 1 for next
 growth link node

TABLE A	
MESSAGE NUMBER	OUTPUT MESSAGE
1	DGN LNaa b TASK c MSG STARTED RING RMV LNaa b STOPPED 9 DGN LNaa b PH 56 ATP MESSAGE IN PROGRESS DGN LNaa b COMPLETED ATP MESSAGE IN PROGRESS DGN LNaa b ATP MESSAGE COMPLETE
aa = growth associated Ring Node cabinet number b = SADC member number c = Task number	

NOTE 1
 Data set(s),
 associated with
 growth SADC signaling
 link(s), must not be
 in local loopback

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TEST GROWTH SADC SIGNALING LINK(S)

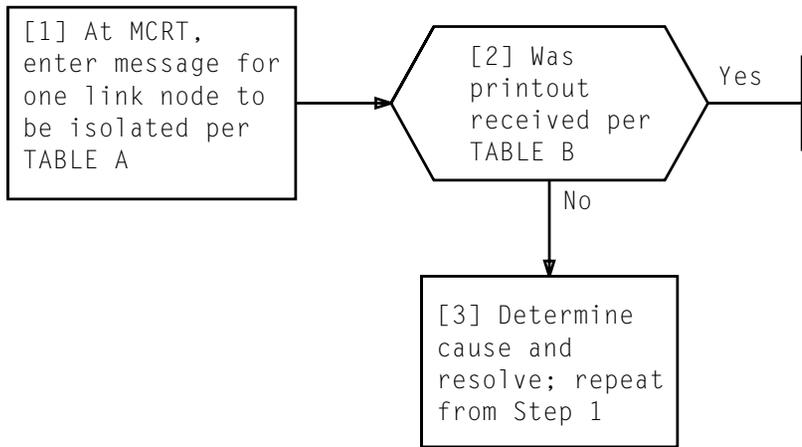
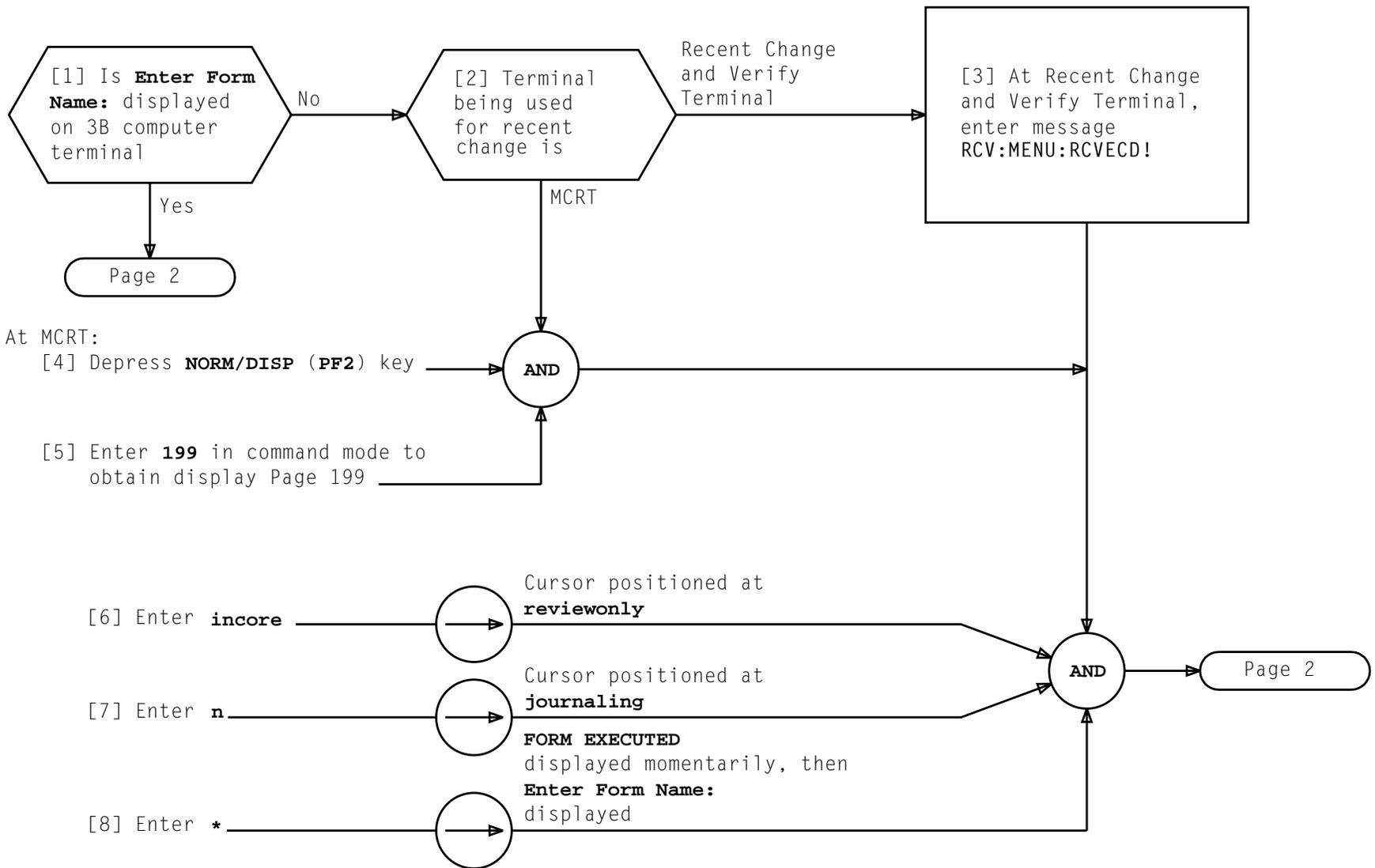
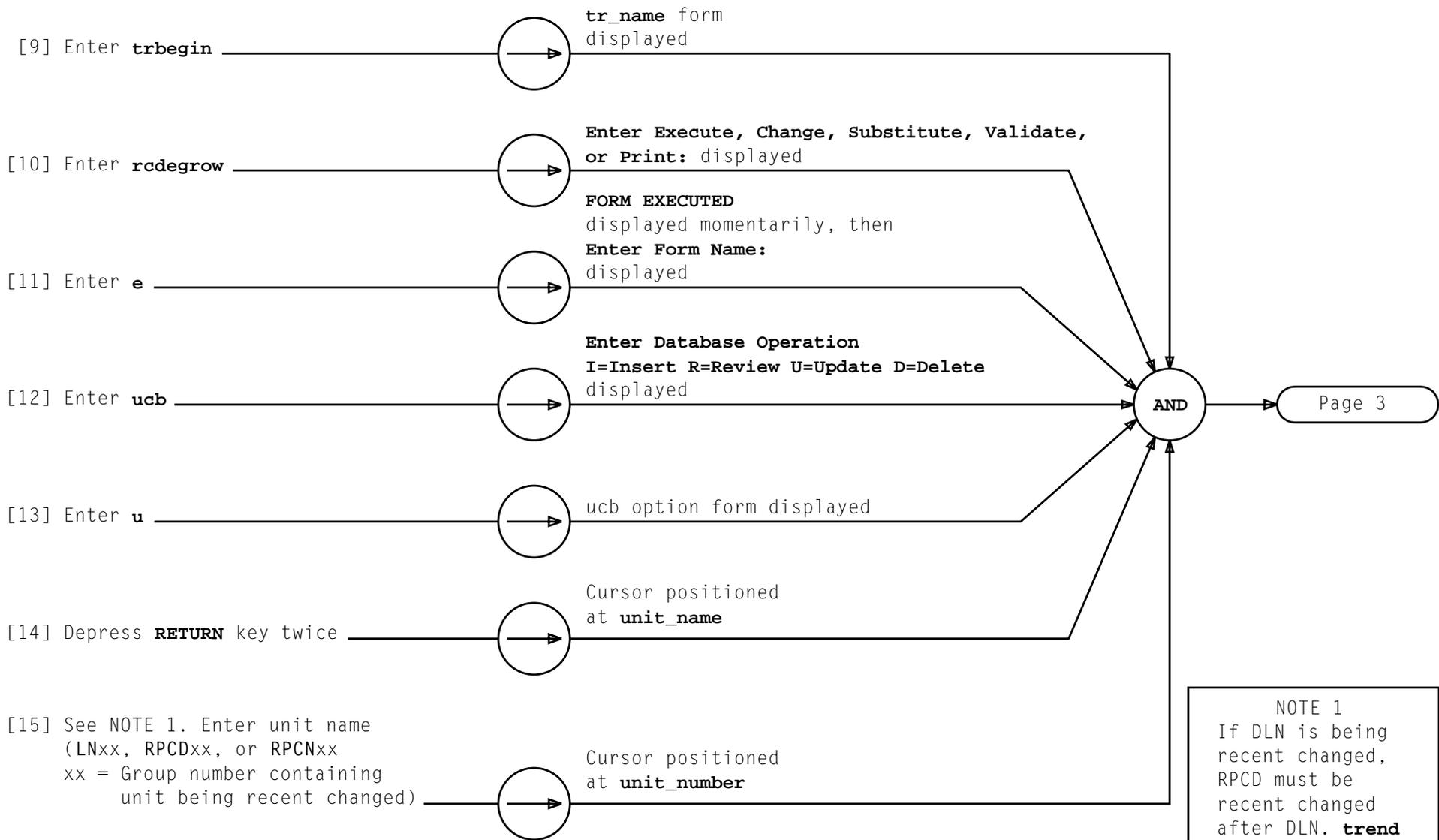


TABLE A	
MESSAGE NUMBER	INPUT MESSAGE
1	CFR:RING,a;EXCLUDE!
a = RPCNxx 0 (for Ring Peripheral Controller Node) or LNxx y (for All Other Link Nodes) xx = Group Number y = Member Number	

TABLE B	
MESSAGE NUMBER	OUTPUT MESSAGES
1	RING REPT RING CFR RING CONFIGURATION ESTABLISHED (nnn ms) BISO NODE = a, EISO NODE = LNaa b RING CFR RING LNaa b COMPL

ISOLATE REMOVED LINK NODE(S)

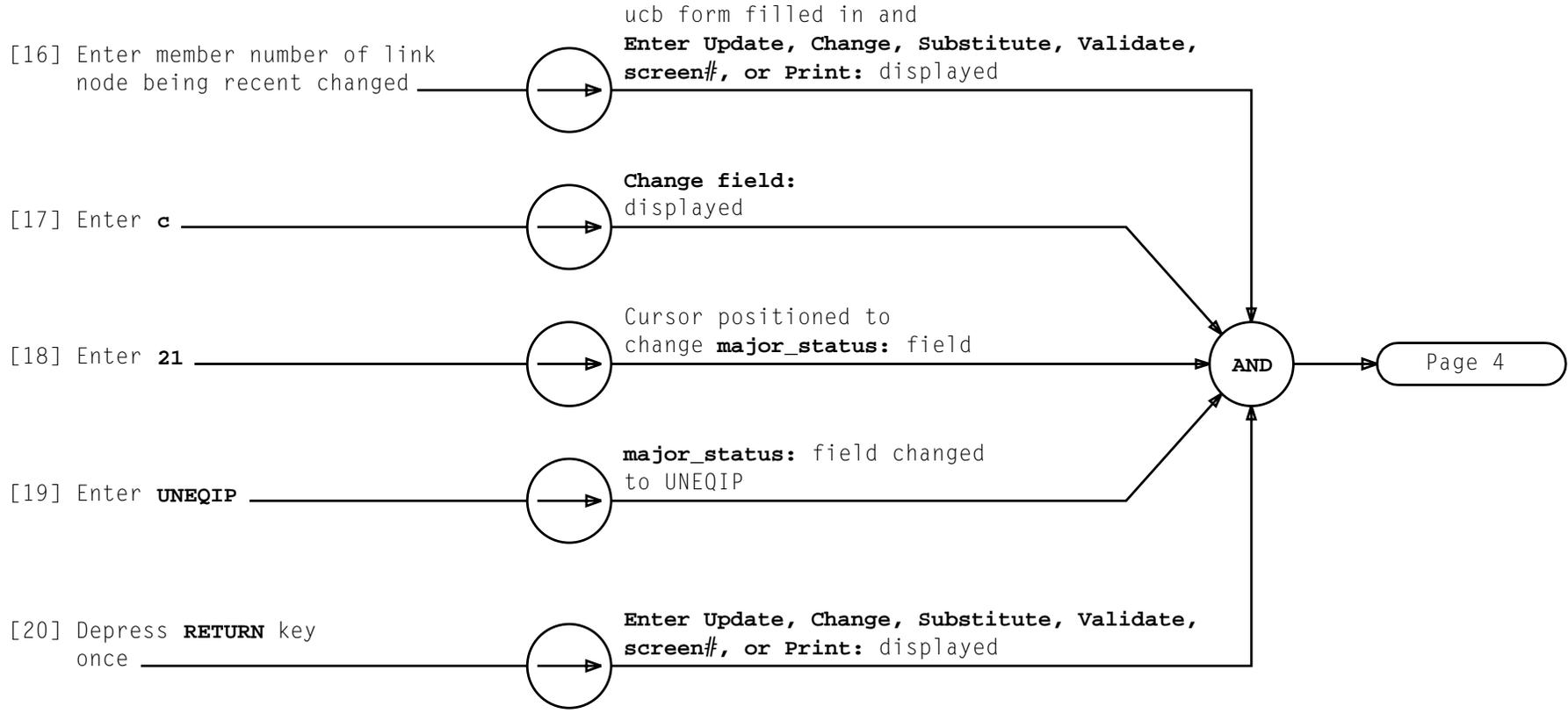


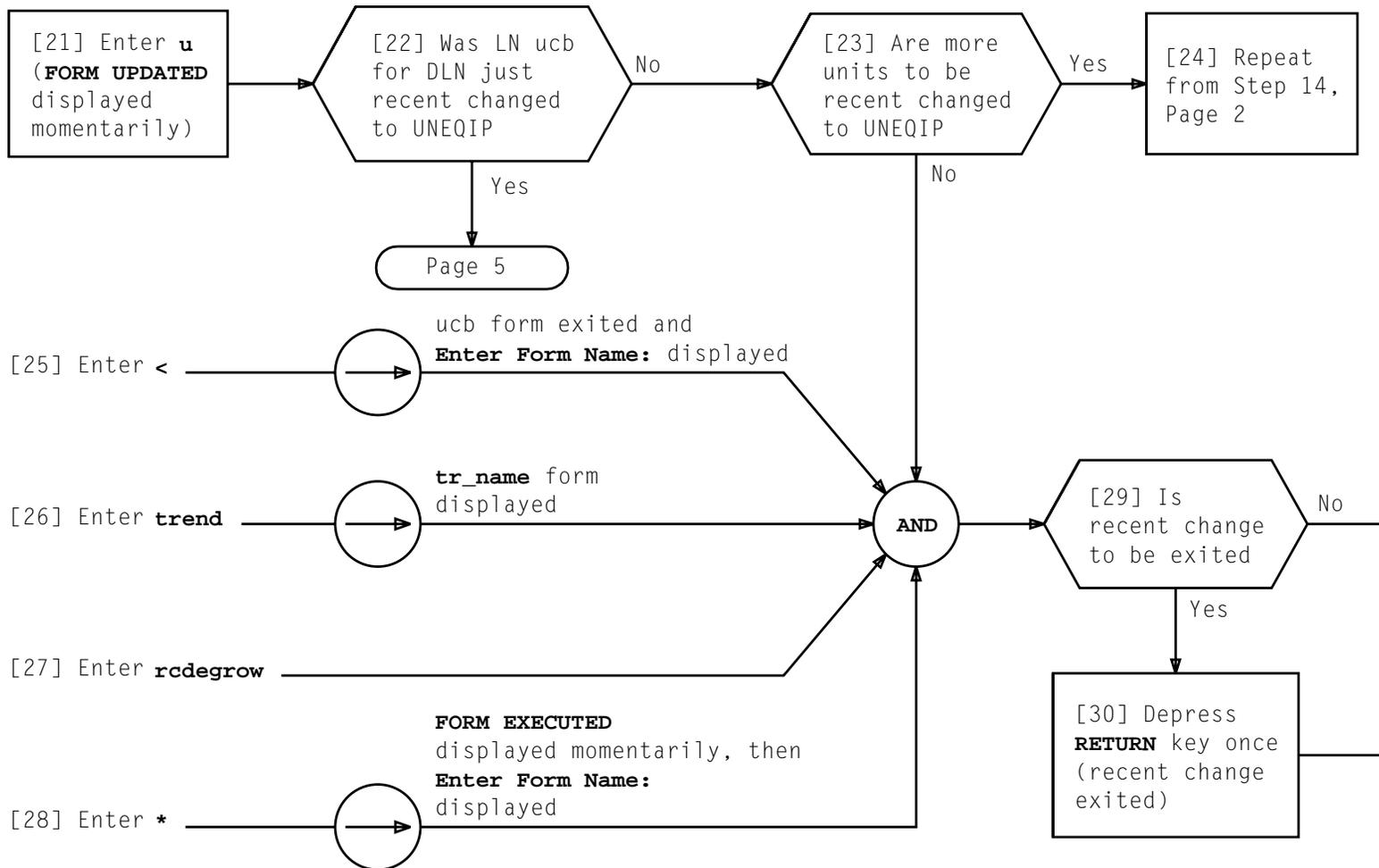


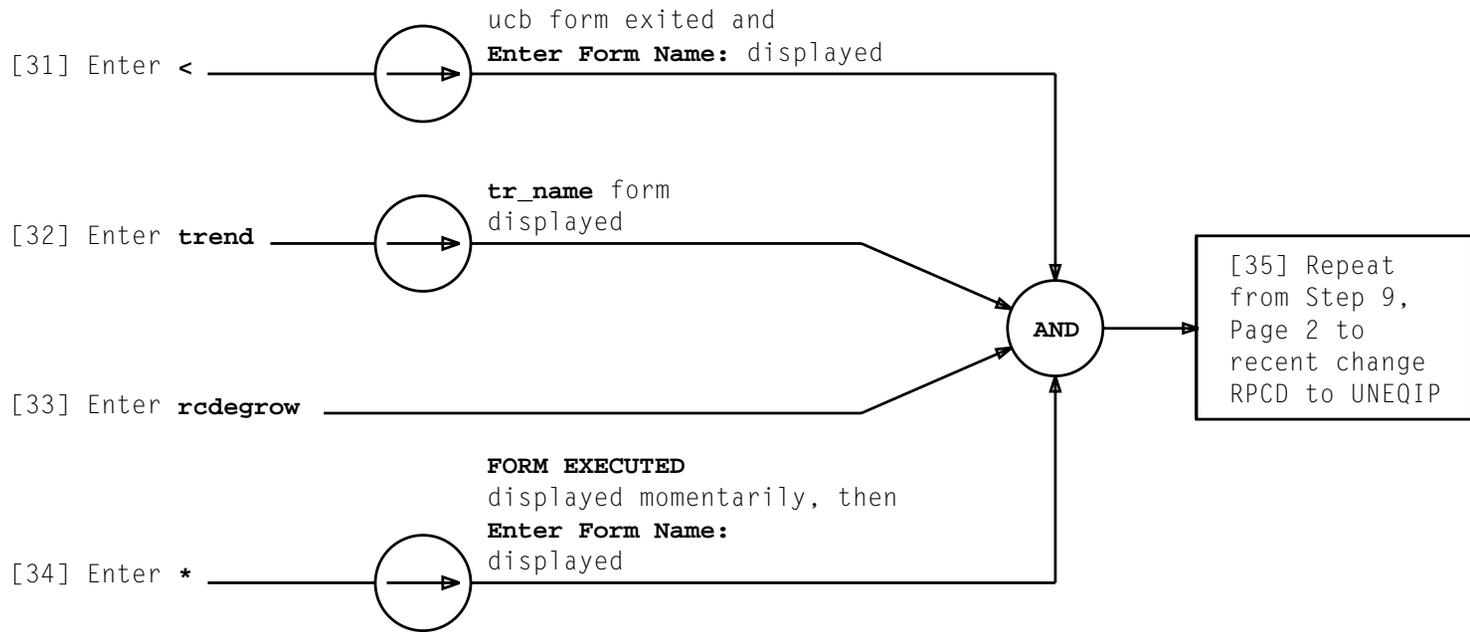
NOTE 1
 If DLN is being recent changed, RPCD must be recent changed after DLN. **trend** is required between recent changes

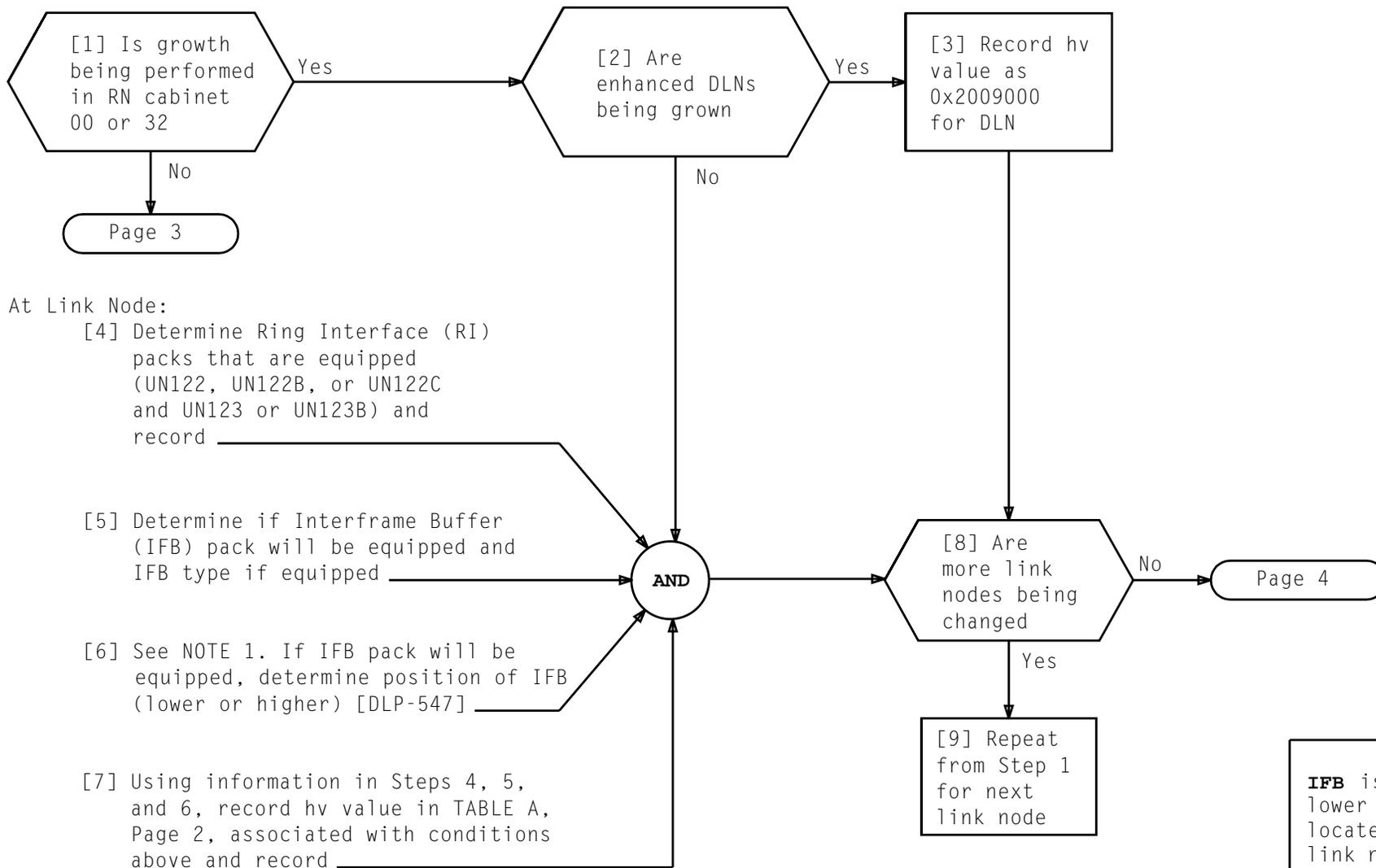
DEGROW GROWTH ASSOCIATED LINK NODE TO UNEQIP

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NOTE 1
IFB is considered lower if **IFB** is located in lowest link node in cabinet. **IFB** is considered higher if **IFB** is located in highest link node in cabinet

RECENT CHANGE GROWTH UNITS FROM UNEQIP TO GROW AND HV, MV, AND PACKCODE VALUES, AS REQUIRED

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TABLE A							
Ring Interface Pack(s)	IFB Type	IFB Position	HV Value	Ring Interface Pack(s)	IFB Type	IFB Position	HV Value
UN122/UN123	None	N/A	0x0100	UN303	None	N/A	0x8000
UN122/UN123	TN918	Higher	0x0110	UN303	TN918	Higher	0x8010
UN122/UN123	TN1508	Higher	0x0150	UN303	TN1508	Higher	0x8050
UN122/UN123	TN1803	Higher	0x0160	UN303	TN1803	Higher	0x8060
UN122/UN123	TN918	Lower	0x0101	UN303	TN918	Lower	0x8001
UN122/UN123	TN1508	Lower	0x0105	UN303	TN1508	Lower	0x8005
UN122/UN123	TN1803	Lower	0x0106	UN303	TN1803	Lower	0x8006
UN122B/UN123B	None	N/A	0x0900	UN303B*	None	N/A	0x9000
UN122B/UN123B	TN918	Higher	0x0910	UN303B*	TN918	Higher	0x9010
UN122B/UN123B	TN1508	Higher	0x0950	UN303B*	TN1508	Higher	0x9050
UN122B/UN123B	TN1803	Higher	0x0960	UN303B*	TN1803	Higher	0x9060
UN122B/UN123B	TN918	Lower	0x0901	UN303B*	TN918	Lower	0x9001
UN122B/UN123B	TN1508	Lower	0x0905	UN303B*	TN1508	Lower	0x9005
UN122B/UN123B	TN1803	Lower	0x0906	UN303B*	TN1803	Lower	0x9006
UN122C/UN123B	None	N/A	0x1900	UN304*	None	N/A	0xc000
UN122C/UN123B	TN918	Higher	0x1910	UN304*	TN918	Higher	0xc010
UN122C/UN123B	TN1508	Higher	0x1950	UN304*	TN1508	Higher	0xc050
UN122C/UN123B	TN1803	Higher	0x1960	UN304*	TN1803	Higher	0xc060
UN122C/UN123B	TN918	Lower	0x1901	UN304*	TN918	Lower	0xc001
UN122C/UN123B	TN1508	Lower	0x1905	UN304*	TN1508	Lower	0xc005
UN122C/UN123B	TN1803	Lower	0x1906	UN304*	TN1803	Lower	0xc006
				UN397	None	N/A	0x4000
				UN397	TN918	Higher	0x4010
				UN397	TN1508	Higher	0x4050
				UN397	TN1803	Higher	0x4060
				UN397	TN918	Lower	0x4001
				UN397	TN1508	Lower	0x4005
				UN397	TN1803	Lower	0x4006

TABLE A (Contd)			
Ring Interface Pack(s)†	IFB Type	IFB Position	HV Value‡
UN303B	None	N/A	0x200 9000
UN303B	TN918	Higher	0x200 9010
UN303B	TN1508	Higher	0x200 9050
UN303B	TN1803	Higher	0x200 9060
UN303B	TN918	Lower	0x200 9001
UN303B	TN1508	Lower	0x200 9005
UN303B	TN1803	Lower	0x200 9006
UN304	None	N/A	0x200 c000
UN304	TN918	Higher	0x200 c010
UN304	TN1508	Higher	0x200 c050
UN304	TN1803	Higher	0x200 c060
UN304	TN918	Lower	0x200 c001
UN304	TN1508	Lower	0x200 c005
UN304	TN1803	Lower	0x200 c006

* If, Node is Non-DLN, use this pack
† If, Node is DLN, use these packs
‡ HV Value for DLN's is used on both LN and RPCD UCB forms

RECENT CHANGE GROWTH UNITS FROM UNEQIP TO GROW AND HV, MV, AND PACKCODE VALUES, AS REQUIRED

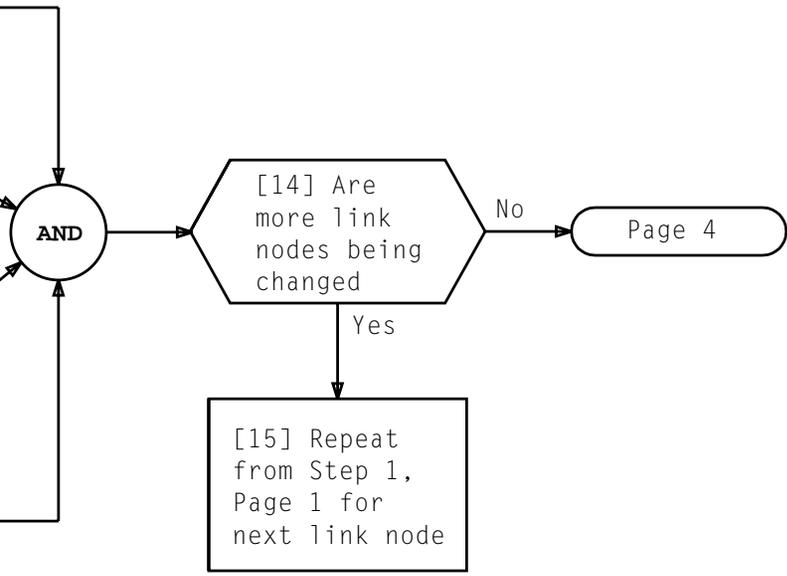
At Link Node:

[10] Determine Integrated Ring Node (IRN) pack that is equipped (UN303 or UN303B) and record _____

[11] Determine if Interframe Buffer (IFB) pack will be equipped and IFB type if equipped _____

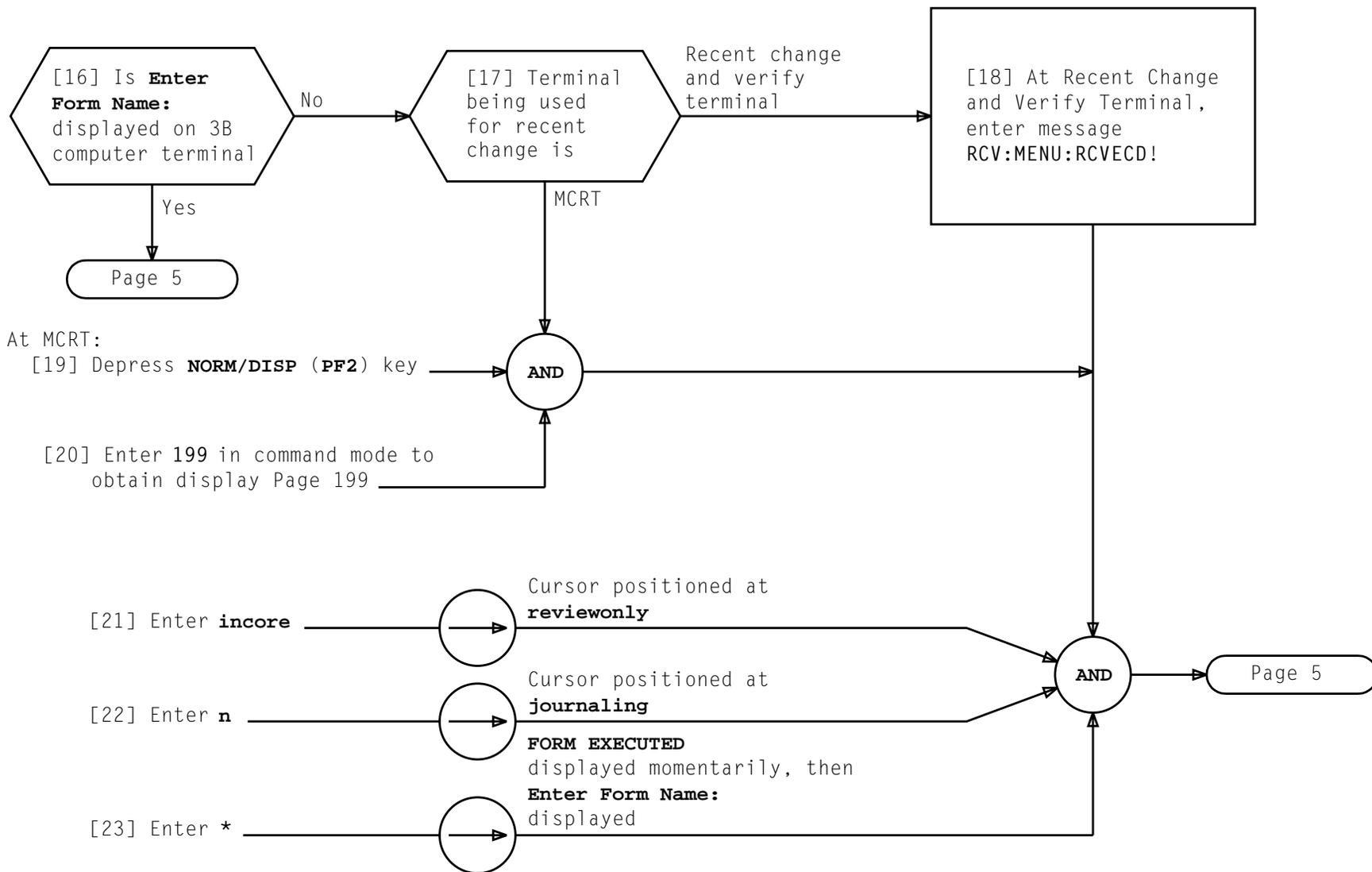
[12] If IFB pack will be equipped, determine position of IFB (lower or higher) [DLP-547] _____

[13] Using information in Steps 10, 11, and 12, record hv value in TABLE A, Page 2, associated with conditions above and record _____



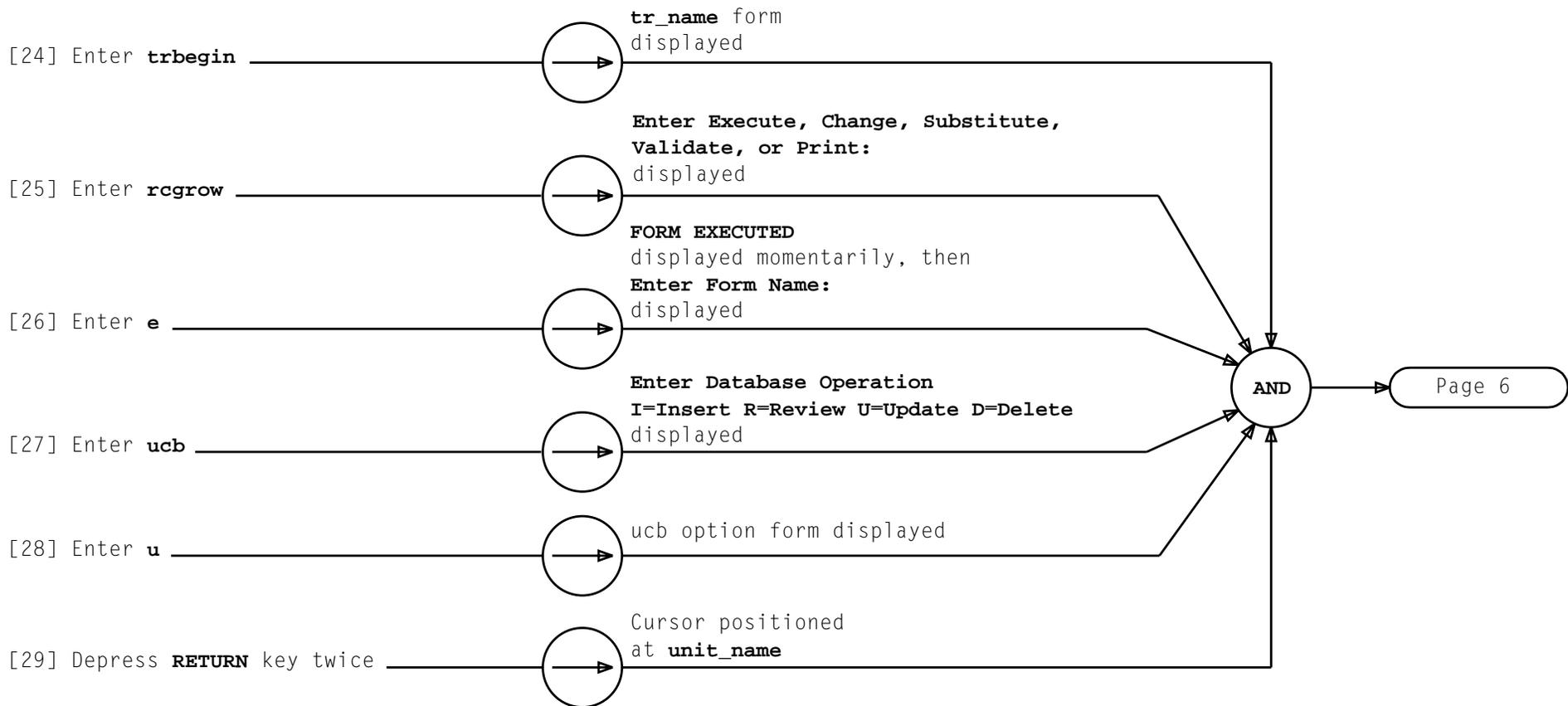
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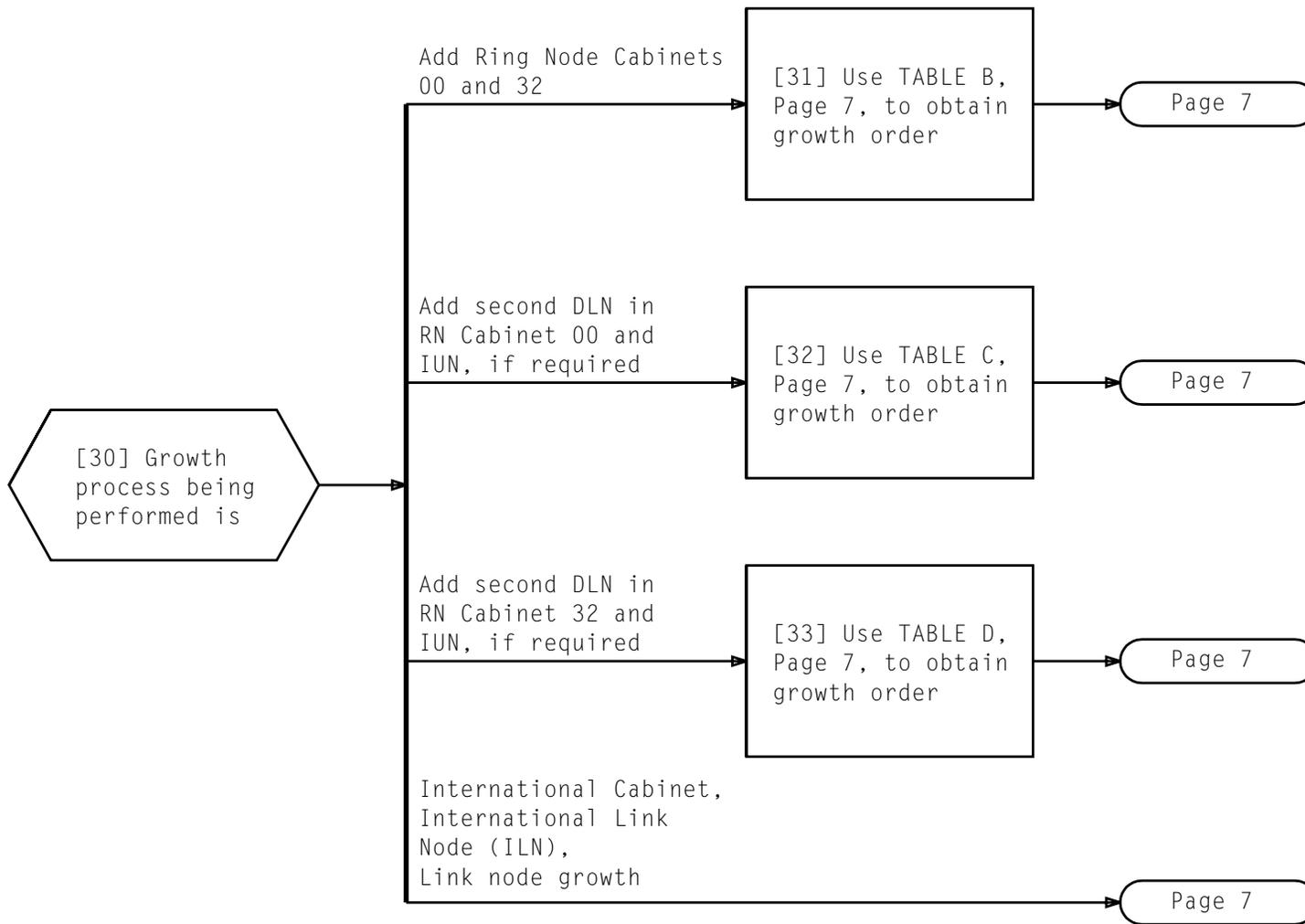
RECENT CHANGE GROWTH UNITS FROM UNEQIP TO GROW AND HV, MV, AND PACKCODE VALUES, AS REQUIRED

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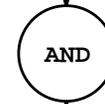
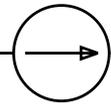


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[34] Enter growth unit name
(RPCNaa, RPCDaa, or LNaa
aa = cabinet/group
number)

Cursor positioned
at **unit_number**



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[35] Enter growth
member number

ucb form filled in and
**Enter Update, Change, Substitute, Validate,
screen#, or Print:** displayed

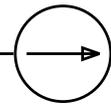
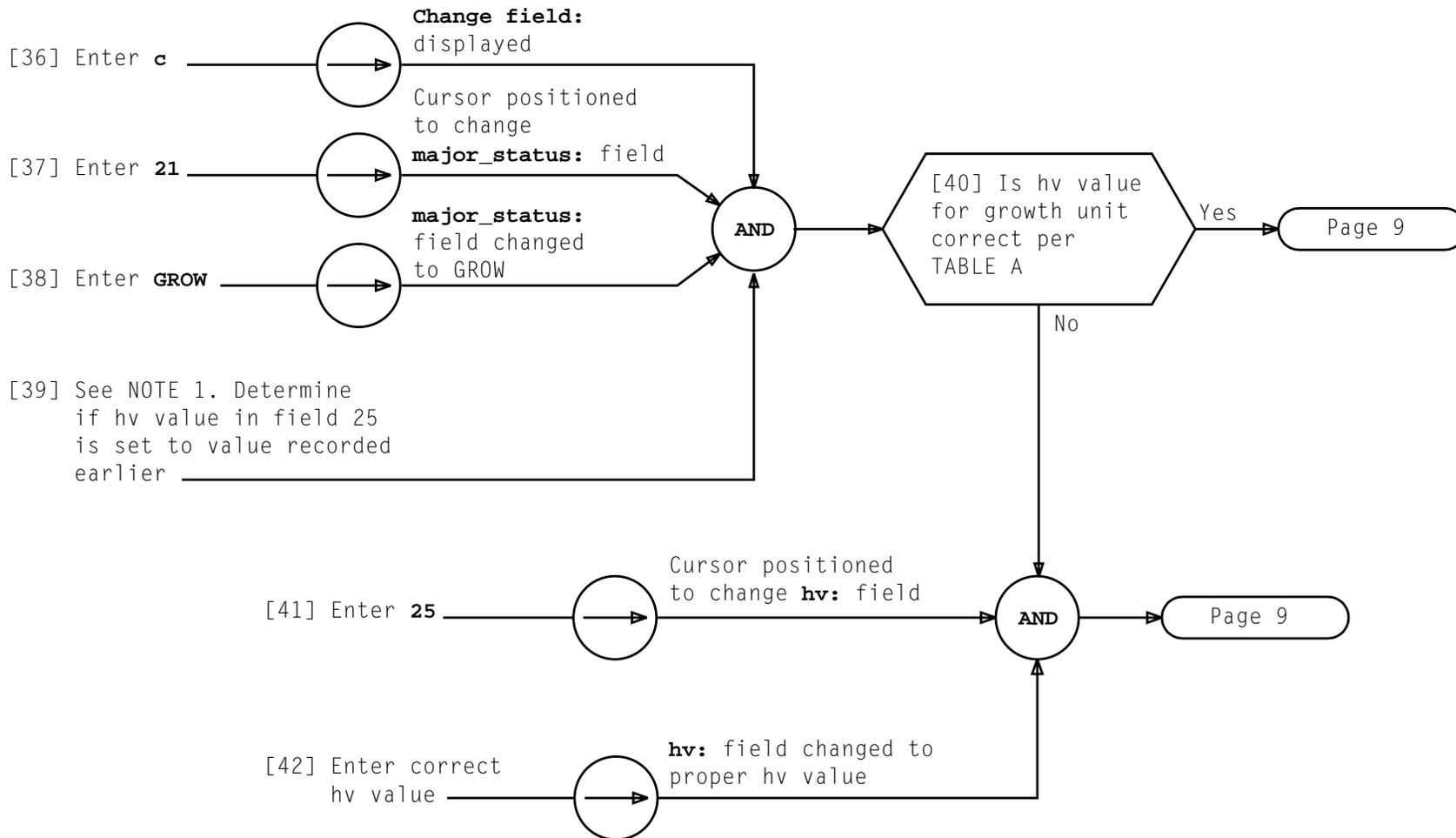


TABLE B	
UNIT NAME*	UNIT NUMBER*
RPCN00	0
RPCN32	0
RPCD00	5
LN00	5
RPCD32	5
LN32	5
* Units must be recent changed in order listed	

TABLE C	
UNIT NAME*	UNIT NUMBER*
RPCD00	a
LN00	a
LN00	b
* Units must be recent changed in order listed	
a = Growth DLN member number	
b = Link node member number if being grown	

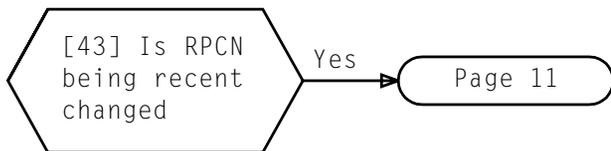
TABLE D	
UNIT NAME*	UNIT NUMBER*
RPCD32	a
LN32	a
LN32	b
* Units must be recent changed in order listed	
a = Growth DLN member number	
b = Link node member number if being grown	

RECENT CHANGE GROWTH UNITS FROM UNEQIP TO GROW AND HV, MV, AND PACKCODE VALUES, AS REQUIRED

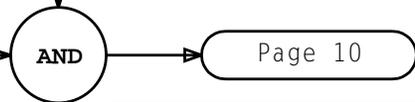


NOTE 1	
If RPCD is being recent changed, hv value is same value as hv value for DLN	
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RECENT CHANGE GROWTH UNITS FROM UNEQIP TO GROW AND HV, MV, AND PACKCODE VALUES, AS REQUIRED



[44] Determine node type and which LI pack(s) is equipped for link node being recent changed

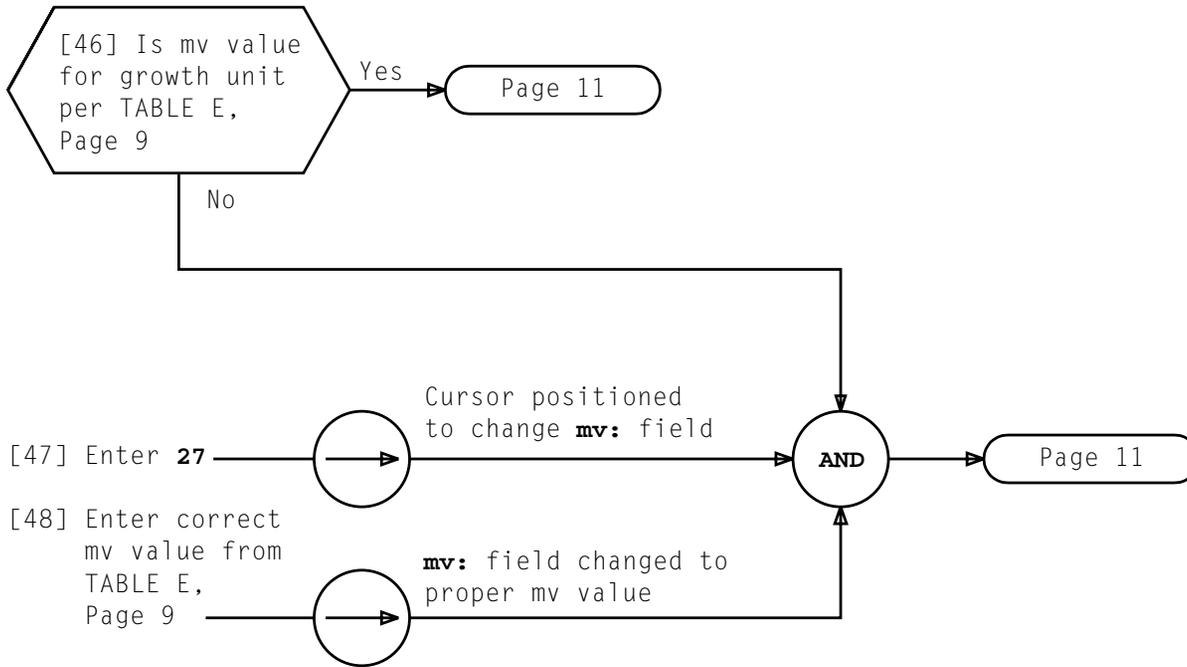


[45] Compare mv value in field 27 with mv value in TABLE E that is associated with node type determined in Step 44

TABLE E				
Node Type	MV Value LI Equipage			
	LI 0 Only	LI 1 Only	Both LIs	No LIs
ATP				0x3
CCITT7 (without TIFA)	0x3a			
CCITT7 (with TIFA)	0x40			
CCS7 (without IRNs)	Blank*			
CCS7 (with IRNs)	0x43			
CCS7 (HSAL with ULN)	0x05			
DCHAN (without T1FA)†	0x3a	0x3b	0x3c	
DCHAN (with T1FA)†	0x40	0x41	0x42	
DLN30 16 mbytes				0x23
IUN (without IRNs)				0x1
IUN (with IRNs, IRN-B or IRN2)				0x3
DLNE (RPCD)				0x23
RPCN				Blank*
SADC (without IRN)	0x33	0x34	0x35	
SADC (with IRN or IRN-B)†	0x3d	0x3e	0x3f	
SIN (LN)				0x1a
SIN (RPCD)				0x23
EIN (LN and RPCD)				0x20

* Blank field is obtained by entering an apostrophe.
 † HDRNC can only be equipped with LI 0.

RECENT CHANGE GROWTH UNITS FROM UNEQIP TO GROW AND HV, MV, AND PACKCODE VALUES, AS REQUIRED



RECENT CHANGE GROWTH UNITS FROM UNEQIP TO GROW AND HV, MV, AND PACKCODE VALUES, AS REQUIRED

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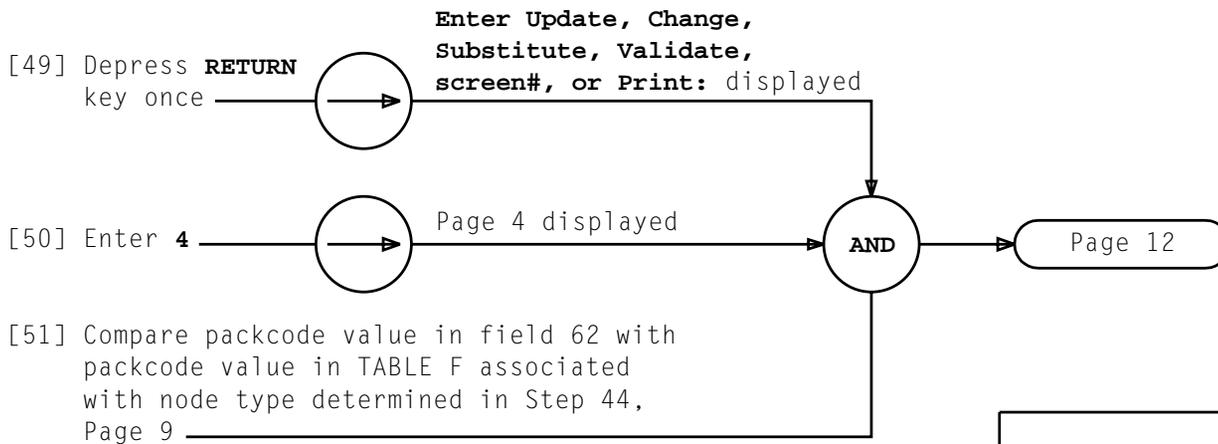
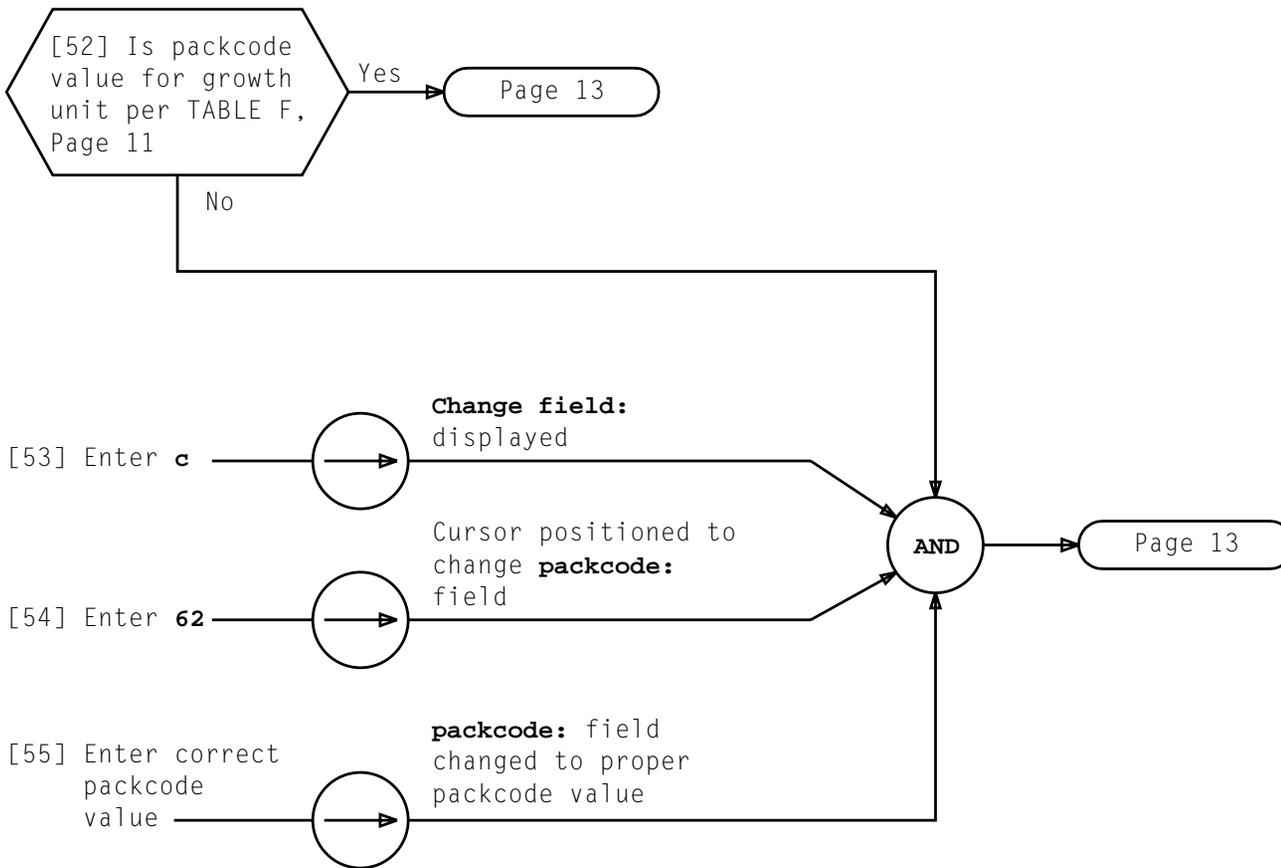


TABLE F	
Node Type	Pack Code (Note)
ATP	ATP
CCITT7 (without TIFA)	IIDP
CCITT7 (with TIFA)	IITP
CCS7 (without IRNs)	CNI7
CCS7 (HSAL with ULN)	HSA7
CCS7 (with IRNs)	C7I
DCHAN (without TIFA)	PBXD
DCHAN (with TIFA)	PBXT
DLN30 16 mbytes	DLNE
IUN (without IRNs)	IUN
IUN (with IRNs or IRN-B)	IRN
IUN (with IRN2)	IRN2
DLNE (RPCD)	Blank *
RPCN	RPC
SADC	PBXS
SIN	SIN
EIN	EIN

Note: Pack codes must be entered in capital letters.
 * Blank field is obtained by entering an apostrophe.

RECENT CHANGE GROWTH UNITS FROM UNEQIP TO GROW AND HV, MV, AND PACKCODE VALUES, AS REQUIRED



RECENT CHANGE GROWTH UNITS FROM UNEQIP TO GROW AND HV, MV, AND PACKCODE VALUES, AS REQUIRED

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[56] Using TABLE G, determine issue number for node type

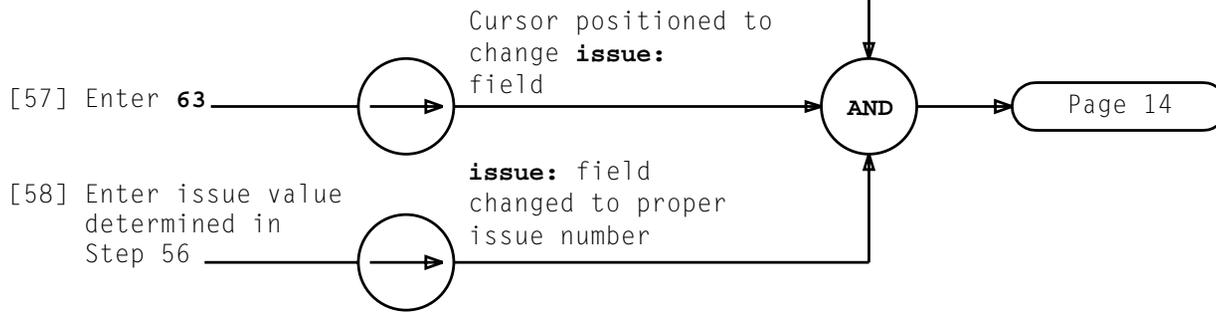
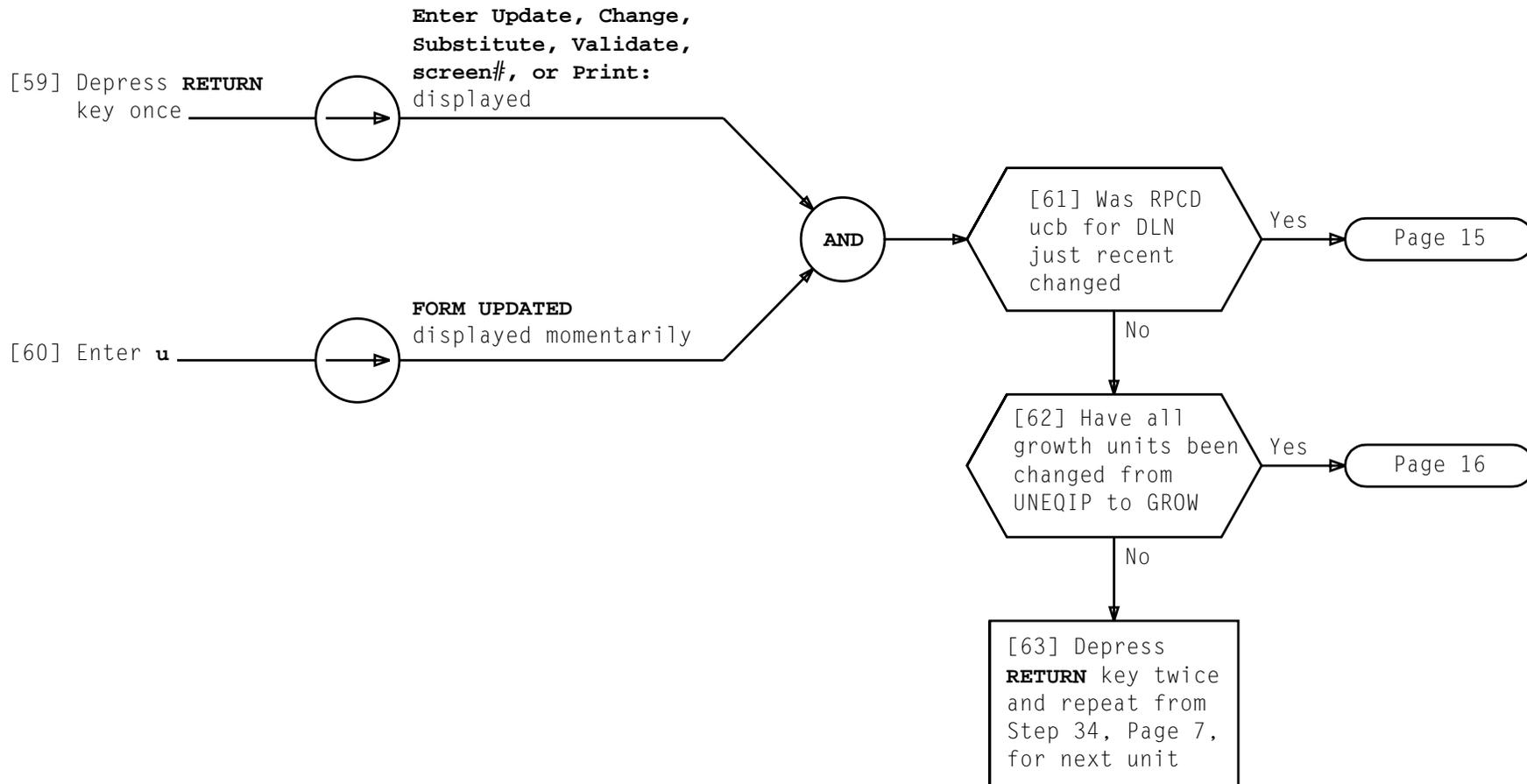


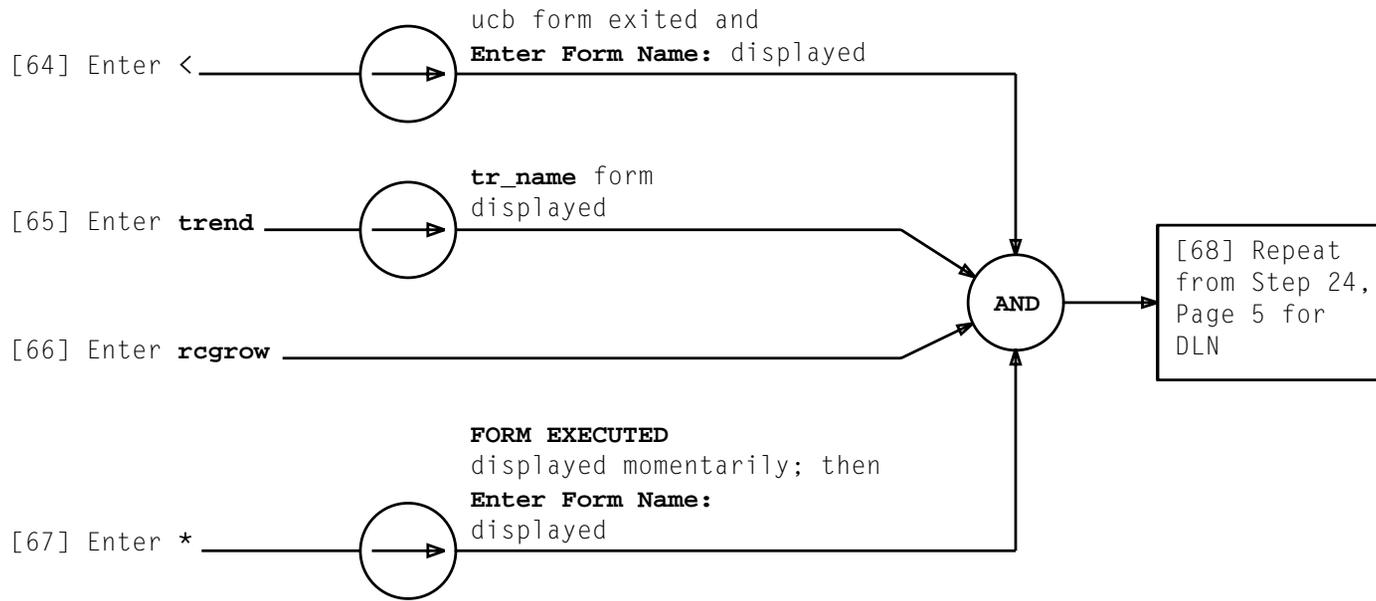
TABLE G	
Node Type	Issue
ATP	2
CCS7	1
DLN30 (16 mbytes)	1
DLNE (RPCD)	1
SIN	1
EIN	1
DCHAN (with IRN2)	3
SADC	1
RPCN	1
IUN (UN303, UN303B, UN304)	1
All Other Nodes	1

* Blank field is obtained by entering an apostrophe.

RECENT CHANGE GROWTH UNITS FROM UNEQIP TO GROW AND HV, MV, AND PACKCODE VALUES, AS REQUIRED

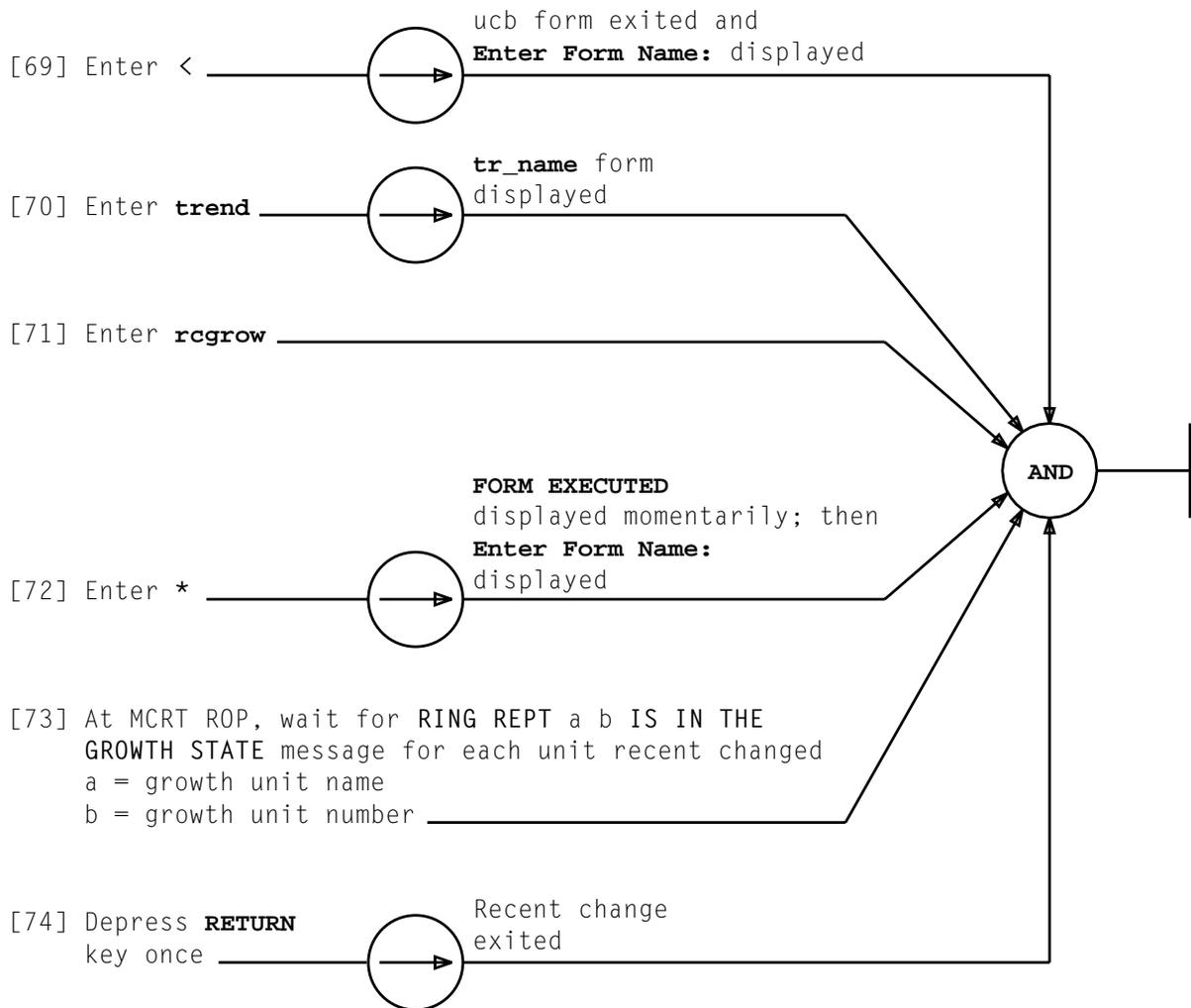


RECENT CHANGE GROWTH UNITS FROM UNEQIP TO GROW AND HV, MV, AND PACKCODE VALUES, AS REQUIRED



**RECENT CHANGE GROWTH UNITS FROM UNEQIP TO GROW AND HV, MV, AND
PACKCODE VALUES, AS REQUIRED**

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**RECENT CHANGE GROWTH UNITS FROM UNEQIP TO GROW AND HV, MV, AND
PACKCODE VALUES, AS REQUIRED**

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[1] Determine number of growth link nodes, link node type, and number of signaling links to be added to each growth link node

[2] Determine order number for each growth link node [DLP-517]

[3] Contact CNI data base administrator to determine values for DMS fields in TABLE A for each growth link node

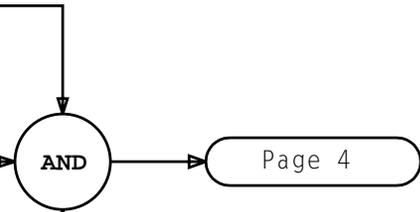


TABLE A				
SSN	SADC	DCHAN	CCS7	CCITT7
FAR END CLLI* FAR END POINT CODE	LACID	CONTROL NODE LACID LINK TYPE MATE NODE MATE LINK	FAR END FUNCTION FAR END CLLI code LINK SET SIGNALING LINK CODE LINK TYPE MATE GROUP – MEMBER COMBINED LINK SET FAR END POINT CODE	ERROR CORRECTION MODE FAR END CLLI code LINK SET SIGNALING LINK CODE LINK TYPE FACILITY ACCESS TYPE TRANSMISSION MEDIUM CONTROL NODE COMBINED LINK SET FAR END POINT CODE
See FIG. 5, Page 3	See FIG. 1, Page 2	See FIG. 2, Page 2	See FIG. 3, Page 2	See FIG. 4, Page 2
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**POPULATE OFFICE-DEPENDENT LINK DATA FILES USING
DATA BASE MANAGEMENT SYSTEM**

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ITEM: ____
 GROUP - MEMBER: ____ - ____
 LINK TYPE ID: ____

LI4 EQUIPAGE _____
 FACILITY ACCESS TYPE _____

_____ li40 _____ li41 _____
 _____ 0 1 2 3 0 1 2 3

LACID
 LINK SPEED
 MAJOR STATE

FIG. 1 - Sample of SADC Form

ITEM: ____
 GROUP - MEMBER: ____ - ____
 LINK TYPE ID: ____

LI4 EQUIPAGE _____ CONTROL NODE ____ - ____
 FACILITY ACCESS TYPE _____

_____ li40 _____ li41 _____
 _____ 0 1 2 3 0 1 2 3

LACID
 LINK SPEED
 LINK TYPE
 MATE NODE
 MATE LINK
 MAJOR STATE

FIG. 2 - Sample of DCHAN Form

ITEM: ____
 GROUP - MEMBER: ____ - ____
 LINK TYPE ID: ____

LINK SPEED _____
 ENCRYPTED _____ MATE GROUP - MEMBER ____ - ____
 FAR END FUNCTION _____ COMBINED LINK SET _____
 FAR END CLLI _____
 LINK SET _____
 SIGNALING LINK CODE _____ FAR END POINT CODE _____
 LINK TYPE _____ MAJOR STATE _____

FIG. 3 - Sample of CCS7 Form

ITEM: ____
 GROUP - MEMBER: ____ - ____
 LINK TYPE ID: ____

LINK SPEED _____ FACILITY ACCESS TYPE ____
 ERROR CORRECTION MODE _____ TRANSMISSION MEDIUM _____
 FAR END CLLI _____ CONTROL NODE ____ - ____
 LINK SET _____ COMBINED LINK SET _____
 SIGNALING LINK CODE _____ FAR END POINT CODE _____
 LINK TYPE _____ MAJOR STATE _____

FIG. 4 - Sample of CCITT7 Form

**POPULATE OFFICE-DEPENDENT LINK DATA FILES USING
 DATA BASE MANAGEMENT SYSTEM**

ITEM: ____
GROUP - MEMBER: ____ - ____
LINK TYPE ID: ____

FAR END CLLI _____
FAR END POINT CODE _____
MAJOR STATE _____

FIG. 5 - Sample of SSN Form

**POPULATE OFFICE-DEPENDENT LINK DATA FILES USING
DATA BASE MANAGEMENT SYSTEM**

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[4] At MCRT, enter message
INH:AUD:NIDATA!

At Recent Change and
Verify Terminal:

[5] Enter message
RCV:DMS!

ENTER YOUR USER ID:
displayed [NOTE 1]

[6] Enter office DMS user ID

PASSWD: displayed

[7] Enter office DMS password

THERE ARE x ORDERS IN
THE SYSTEM and
Enter: ver, rc, recall, check,
adm, act, mail, menu, quit:
displayed

[8] Enter rc

ENTER rc FUNCTION:
displayed

[9] Enter lkdata

ENTER ORDER NUMBER:
displayed

[10] Enter DMS order number
determined in Step 2,
Page 1, for this growth
link node

ENTER ORDER DESCRIPTION:
displayed

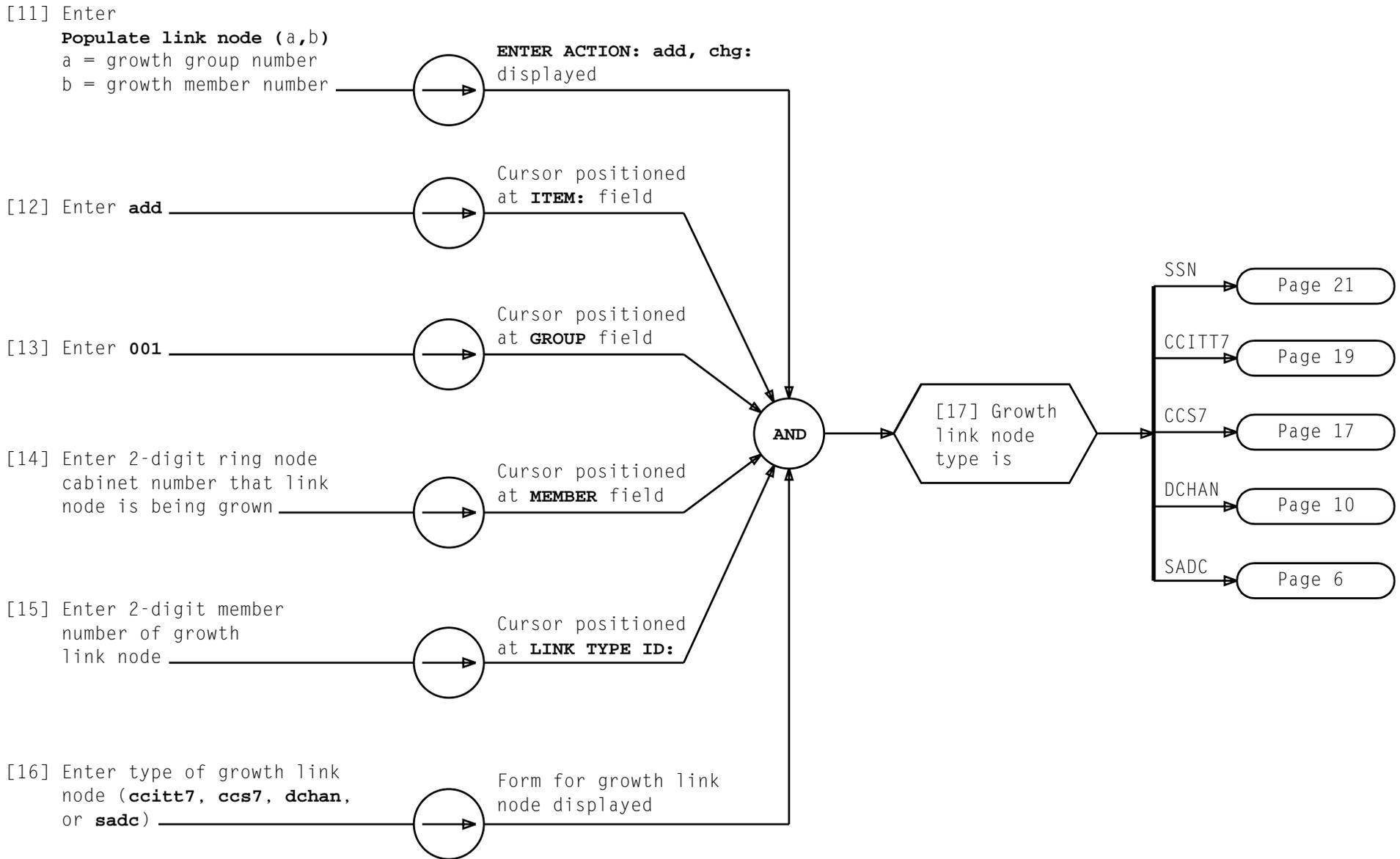
AND

Page 5

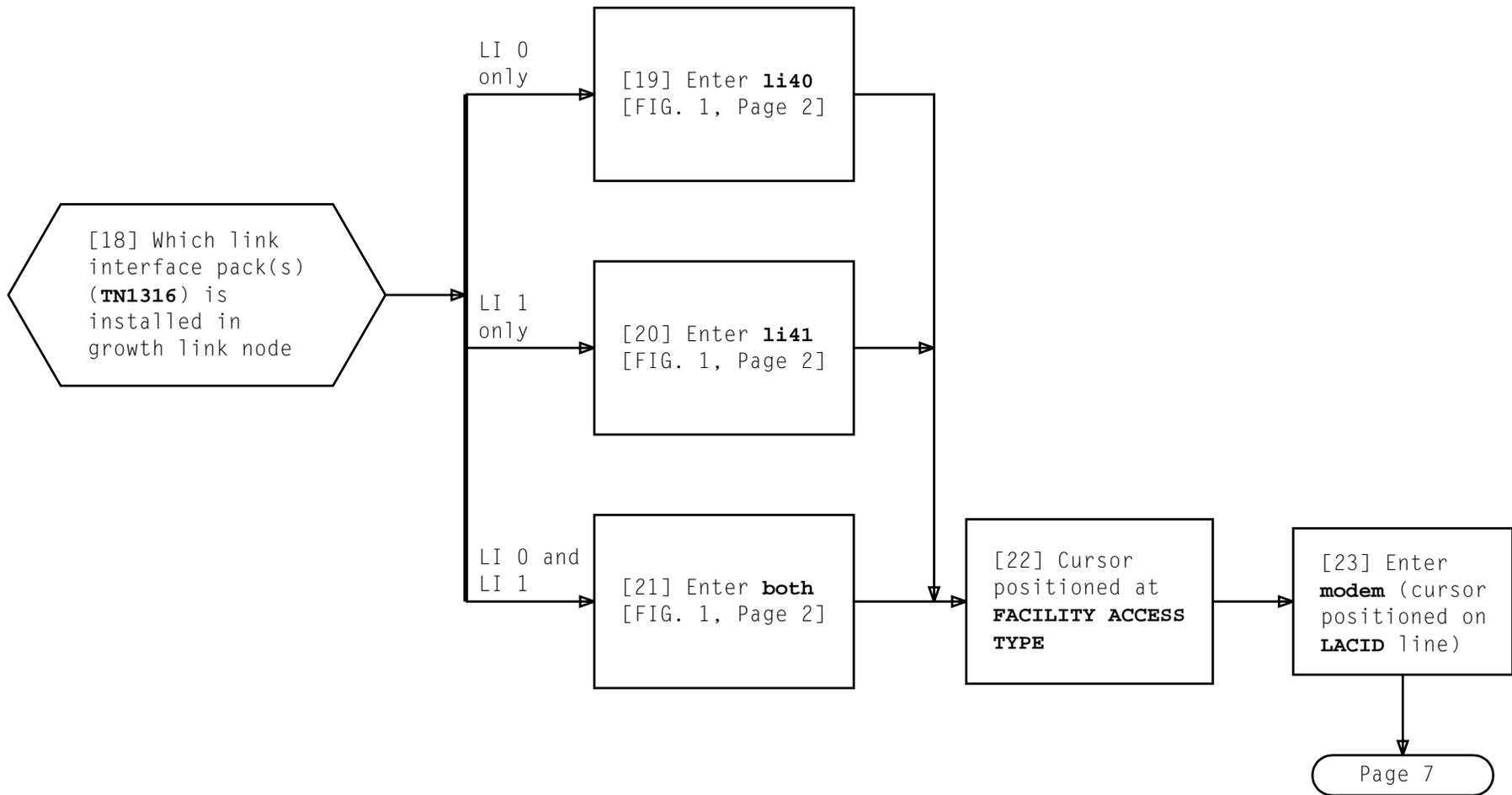
NOTE 1

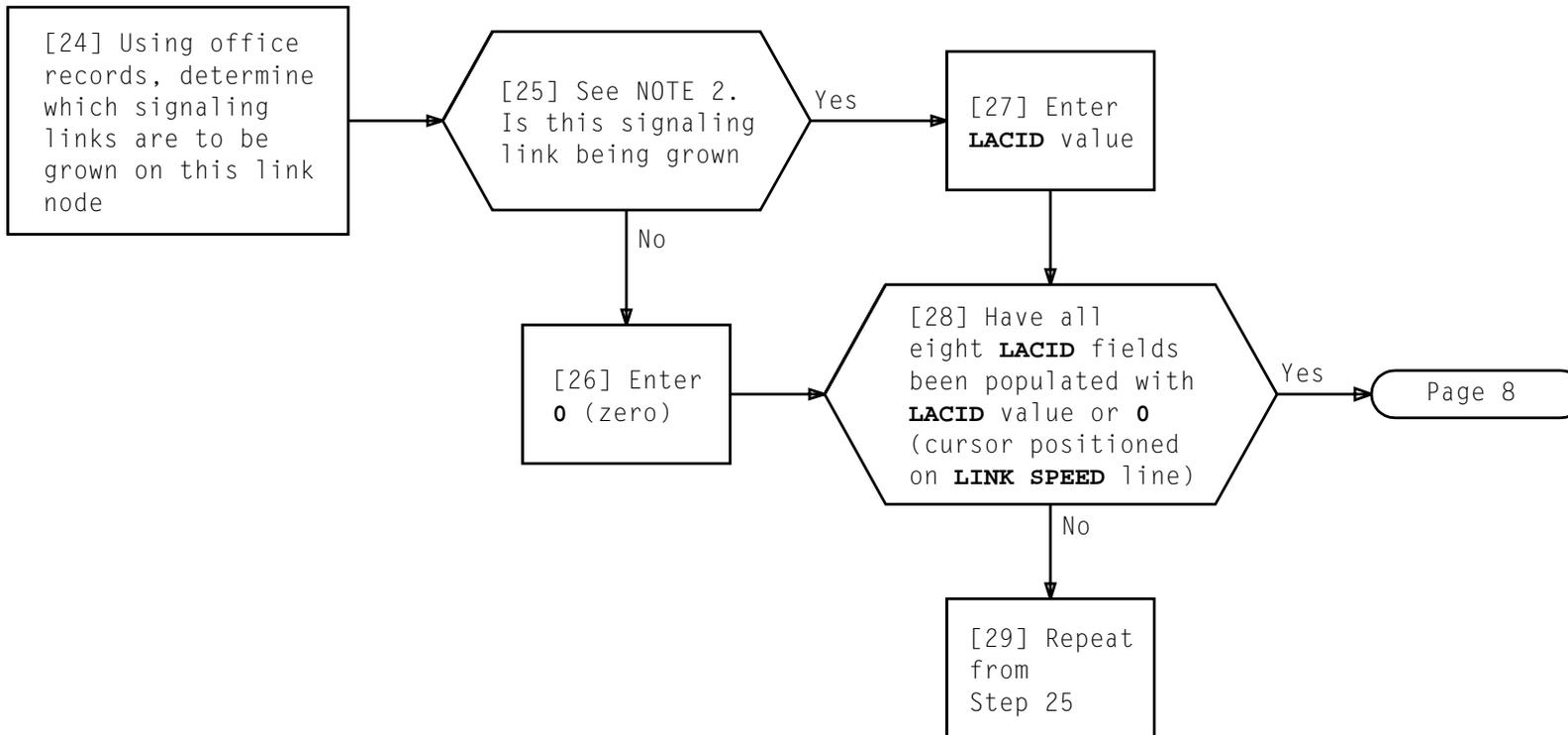
If **ENTER YOUR
USER ID:** is not
received, **BREAK**
key will have
to be depressed

**POPULATE OFFICE-DEPENDENT LINK DATA FILES USING
DATA BASE MANAGEMENT SYSTEM**



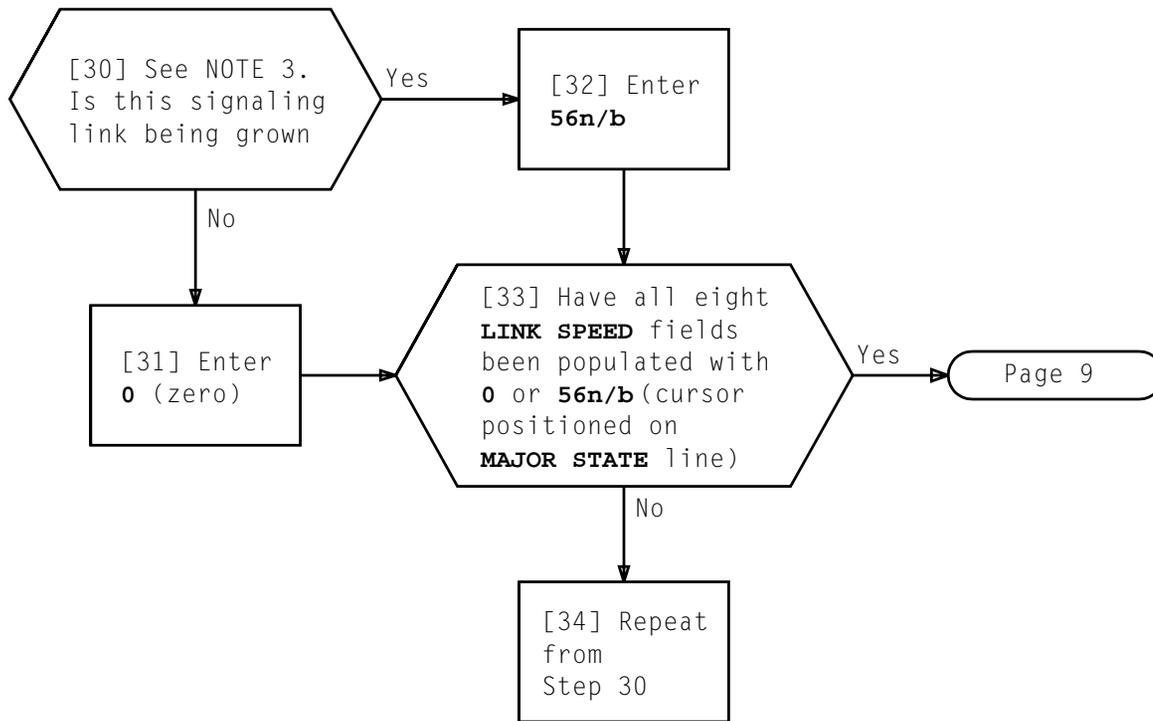
**POPULATE OFFICE-DEPENDENT LINK DATA FILES USING
 DATA BASE MANAGEMENT SYSTEM**





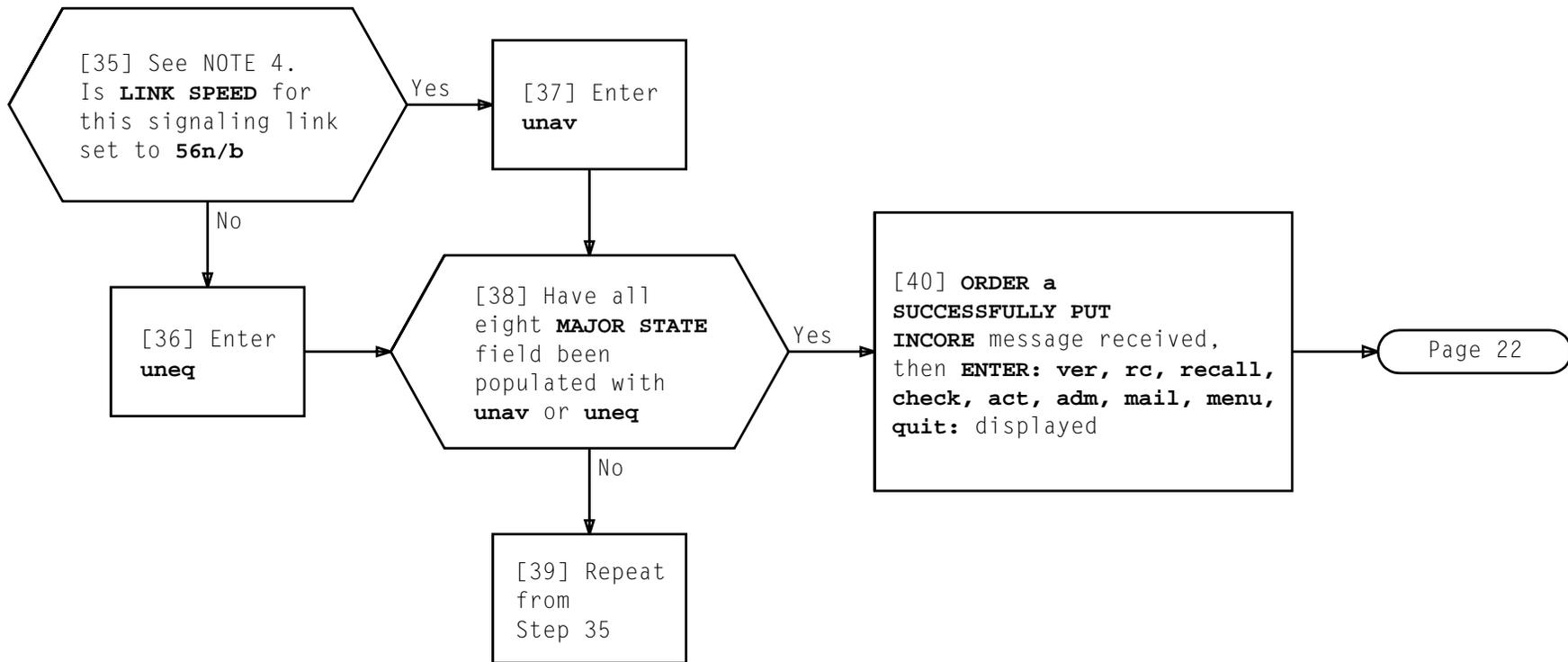
NOTE 2	
li40 is for signaling links 0 through 3 on link interface pack 0, and li41 is for signaling links 0 through 3 on link interface pack 1	
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POPULATE OFFICE-DEPENDENT LINK DATA FILES USING DATA BASE MANAGEMENT SYSTEM



NOTE 3	
li40 is for signaling links 0 through 3 on link interface pack 0, and li41 is for signaling links 0 through 3 on link interface pack 1	
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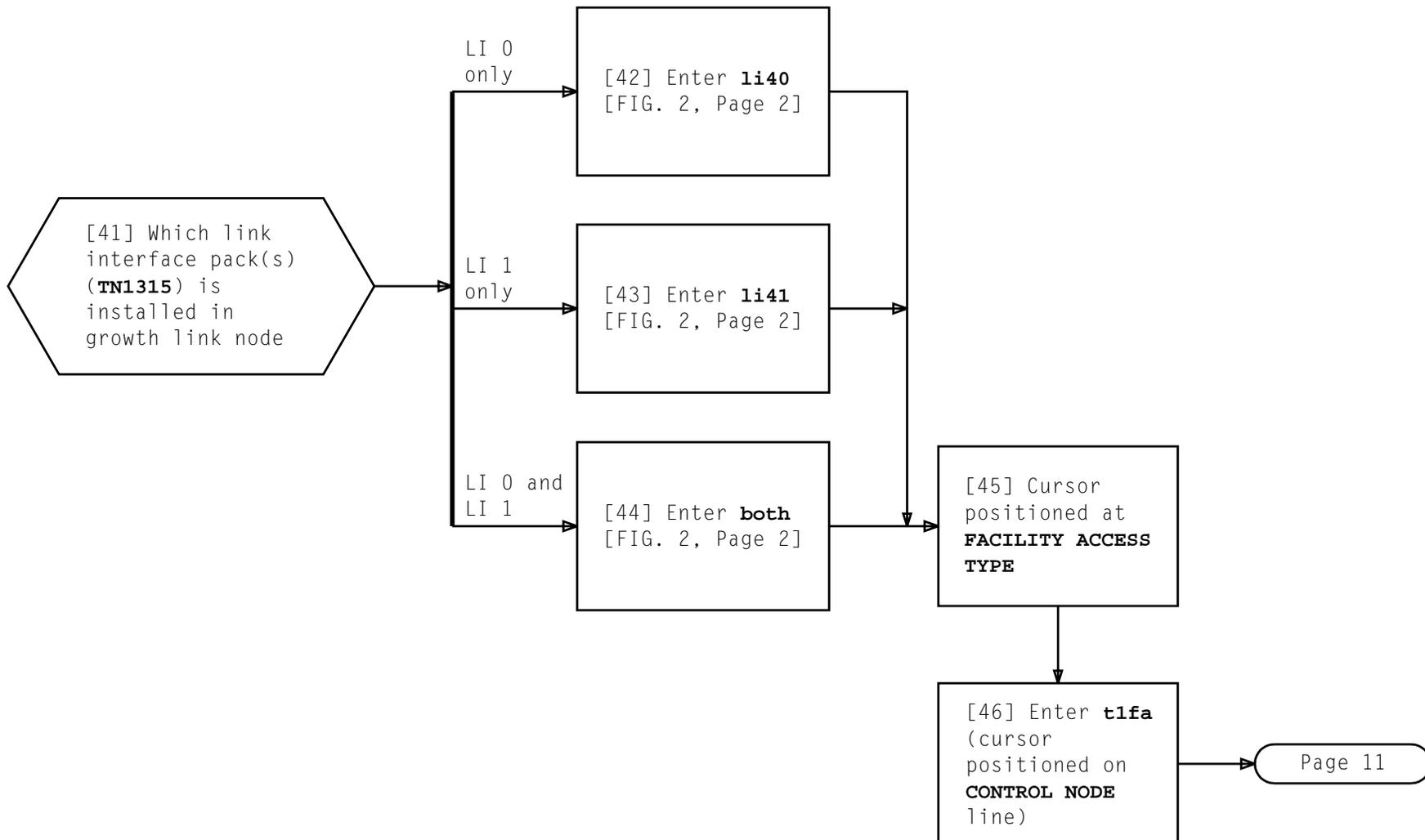
**POPULATE OFFICE-DEPENDENT LINK DATA FILES USING
DATA BASE MANAGEMENT SYSTEM**



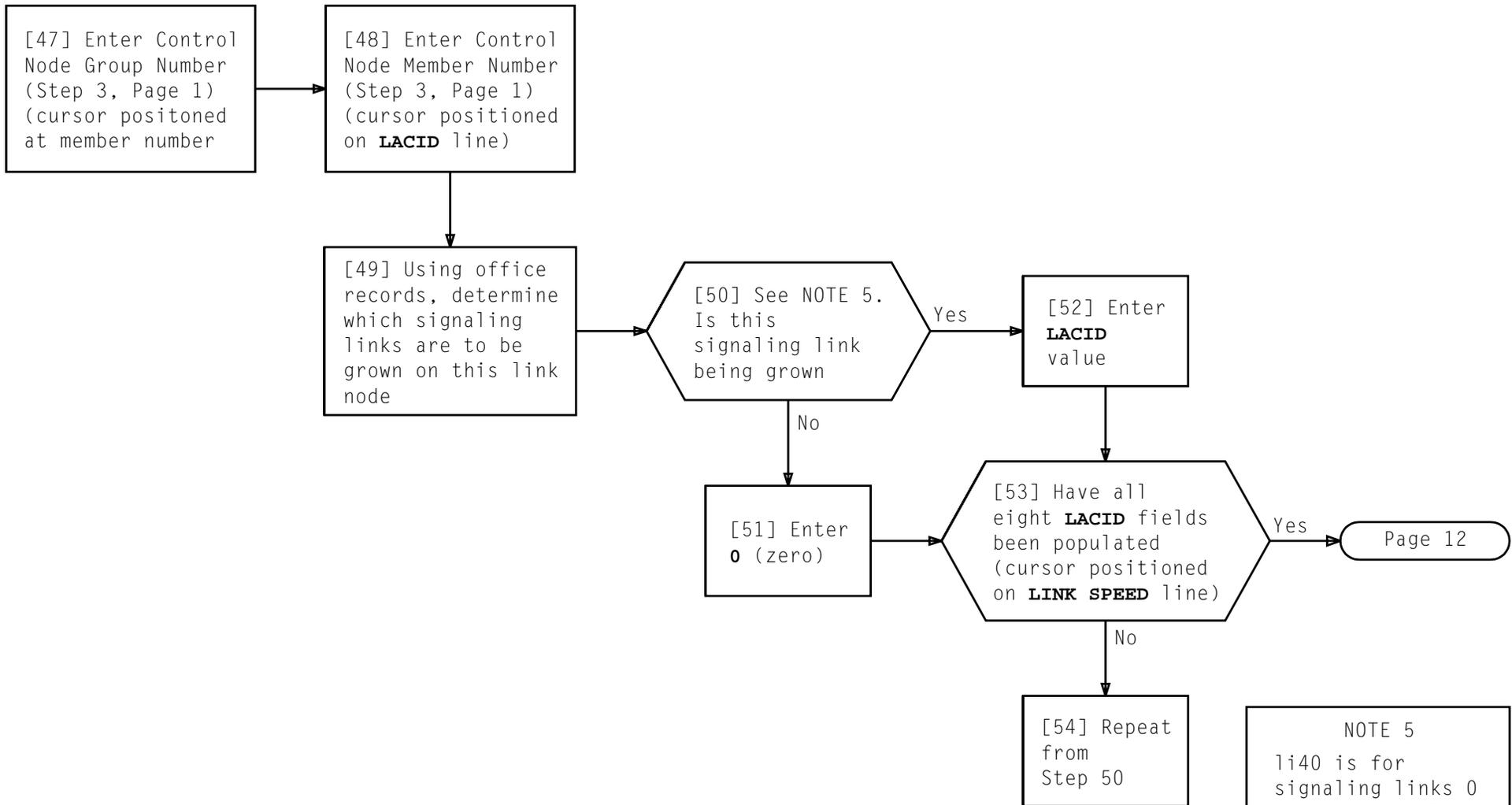
NOTE 4

li40 is for signaling links 0 through 3 on link interface pack 0, and li41 is for signaling links 0 through 3 on link interface pack 1

**POPULATE OFFICE-DEPENDENT LINK DATA FILES USING
DATA BASE MANAGEMENT SYSTEM**

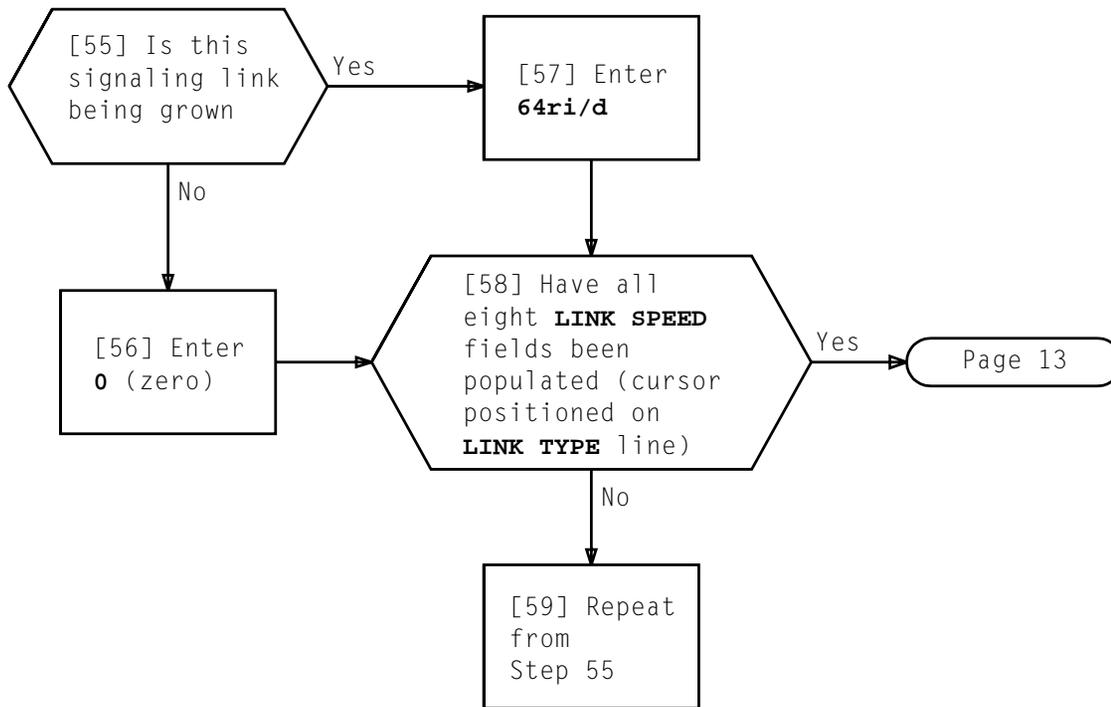


**POPULATE OFFICE-DEPENDENT LINK DATA FILES USING
DATA BASE MANAGEMENT SYSTEM**

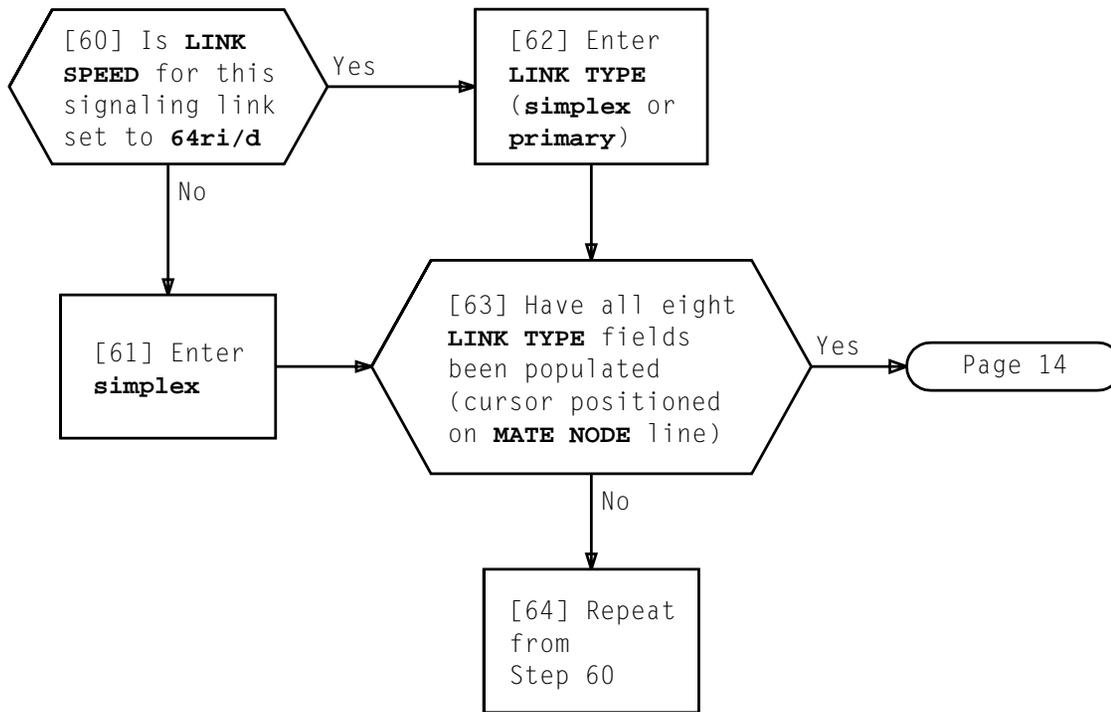


NOTE 5
li40 is for signaling links 0 through 3 on link interface pack 0, and li41 is for signaling links 0 through 3 on link interface pack 1

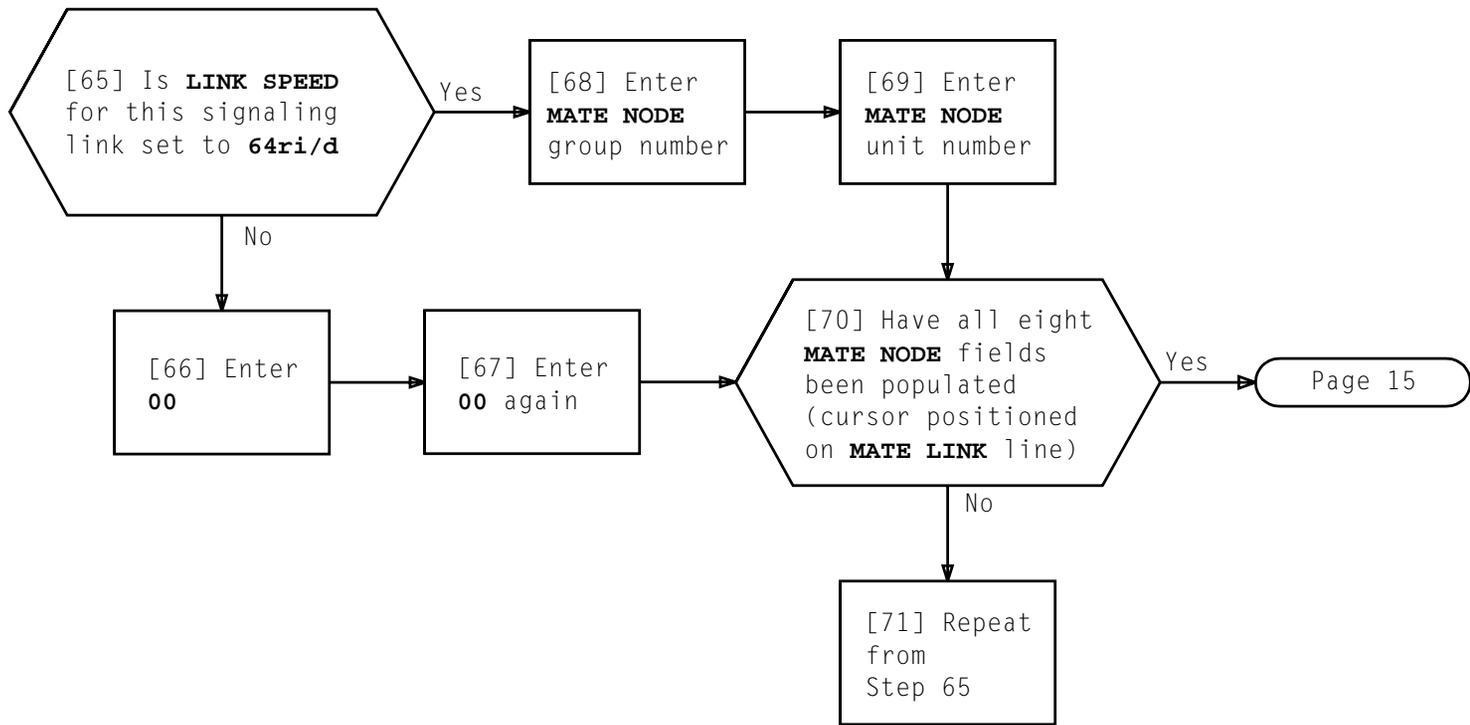
**POPULATE OFFICE-DEPENDENT LINK DATA FILES USING
DATA BASE MANAGEMENT SYSTEM**



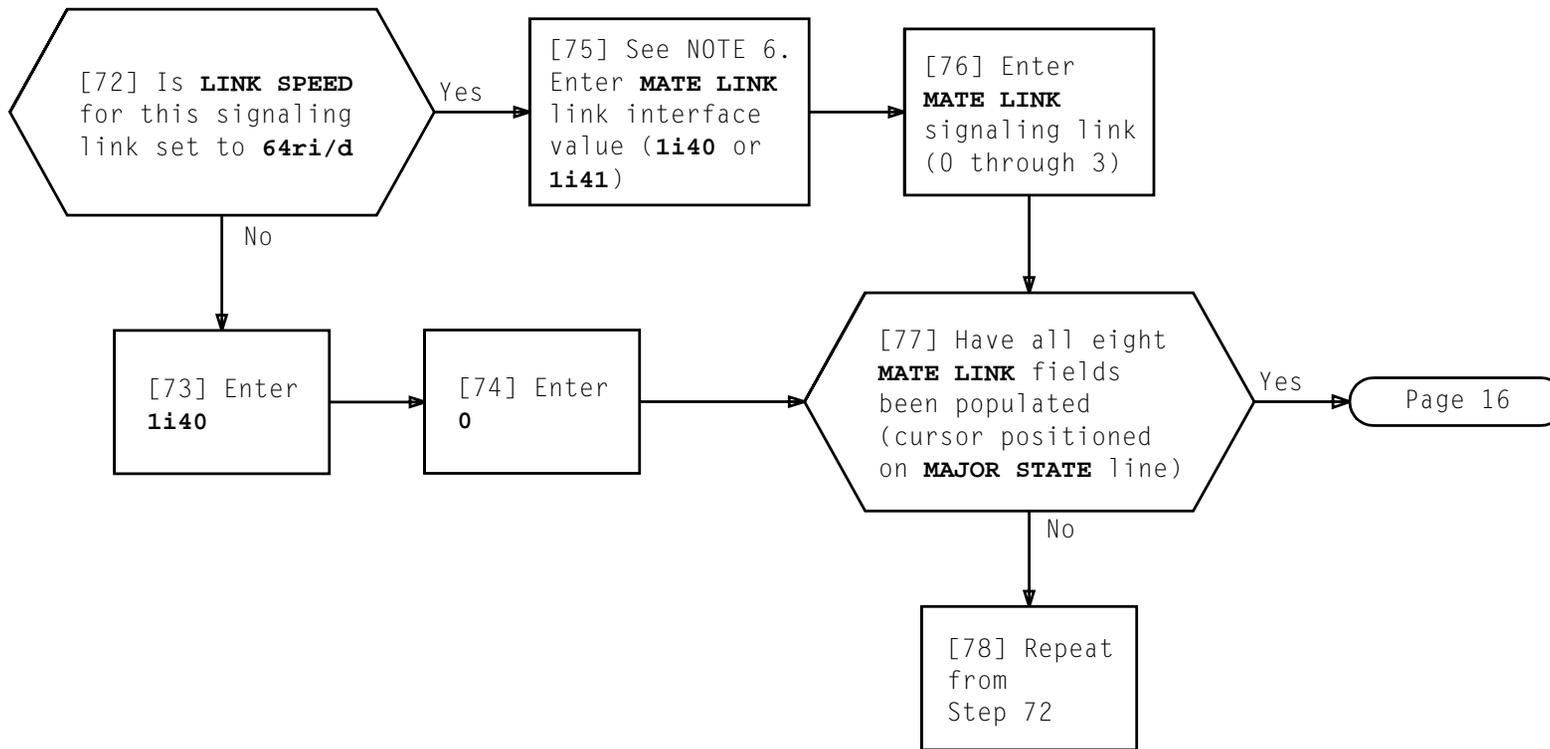
**POPULATE OFFICE-DEPENDENT LINK DATA FILES USING
DATA BASE MANAGEMENT SYSTEM**



**POPULATE OFFICE-DEPENDENT LINK DATA FILES USING
DATA BASE MANAGEMENT SYSTEM**

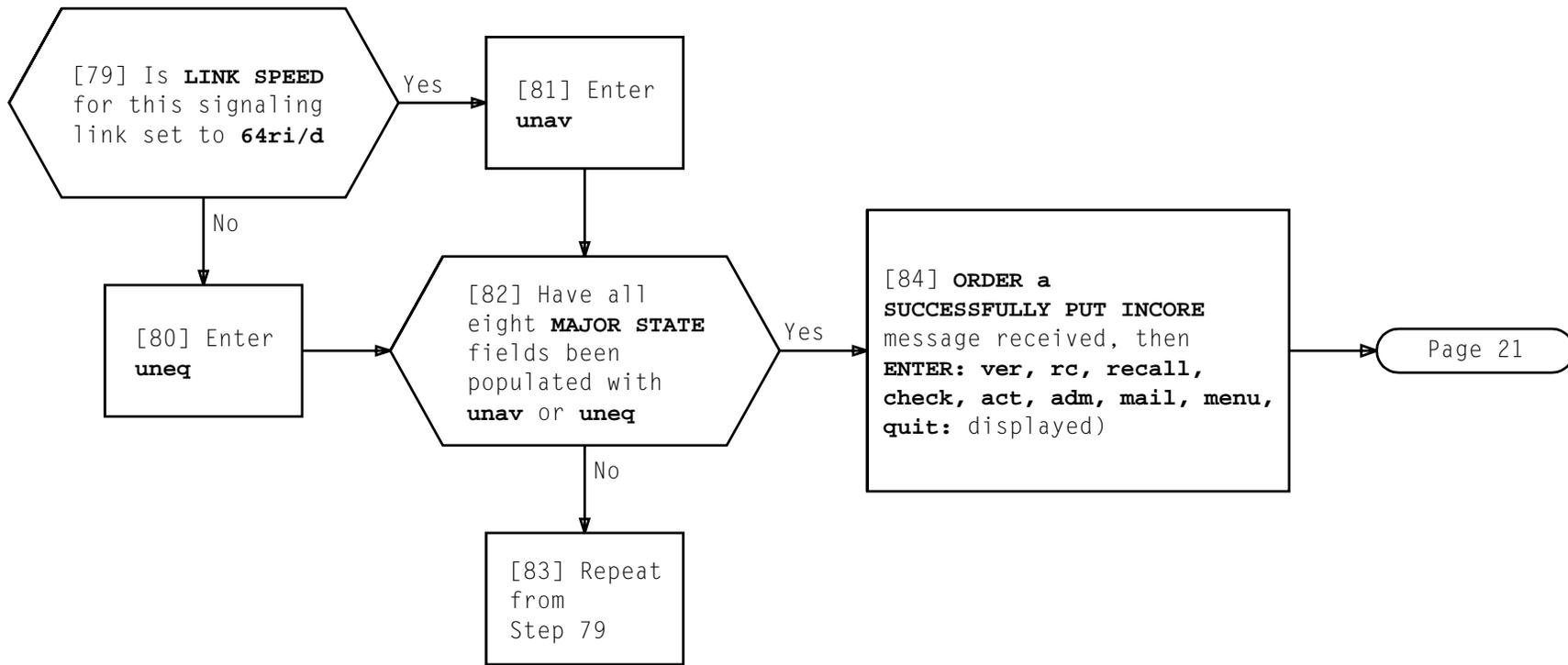


**POPULATE OFFICE-DEPENDENT LINK DATA FILES USING
DATA BASE MANAGEMENT SYSTEM**

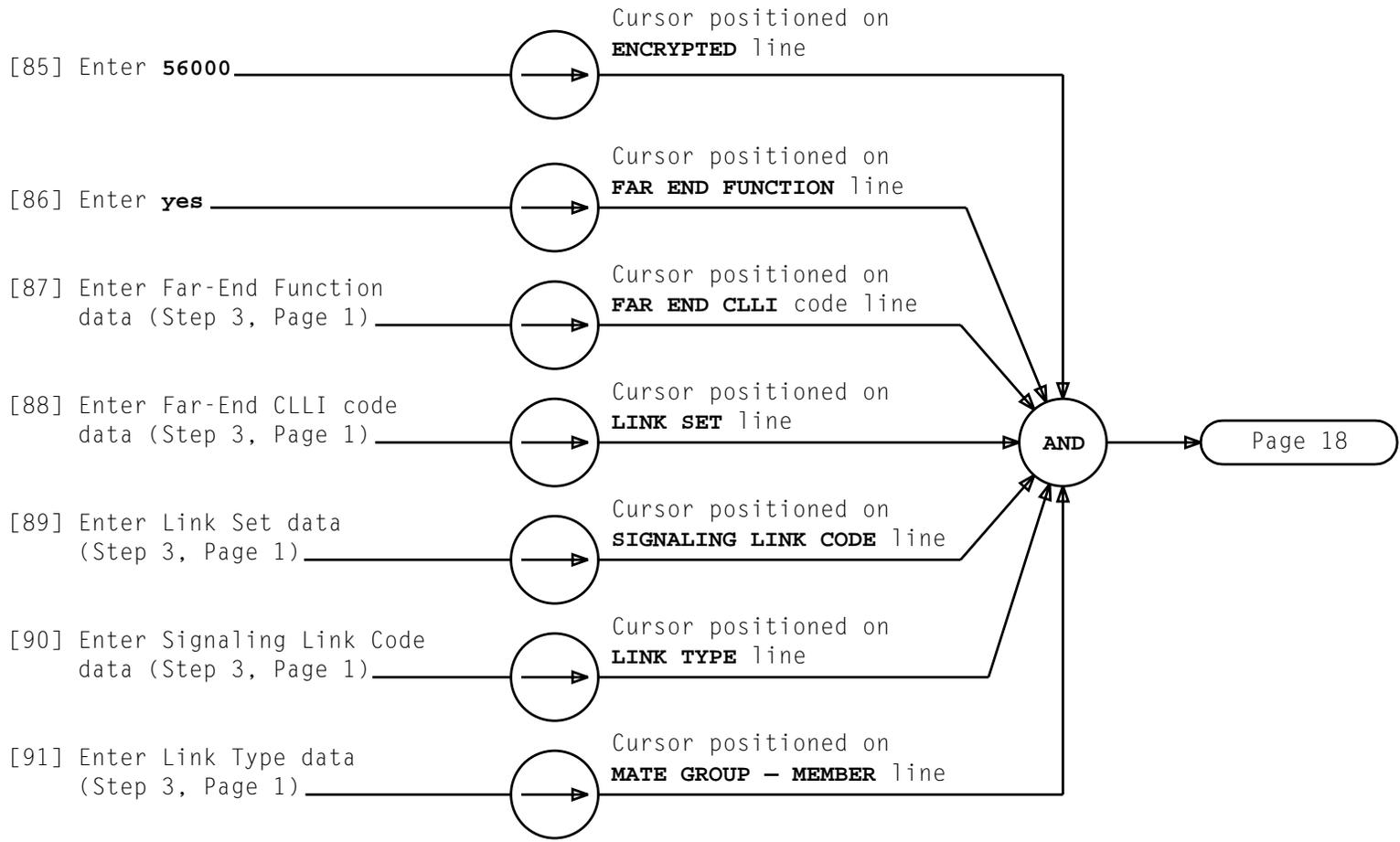


NOTE 6	
1i40 is for signaling links 0 through 3 on link interface pack 0, and 1i41 is for signaling links 0 through 3 on link interface pack 1	
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**POPULATE OFFICE-DEPENDENT LINK DATA FILES USING
DATA BASE MANAGEMENT SYSTEM**

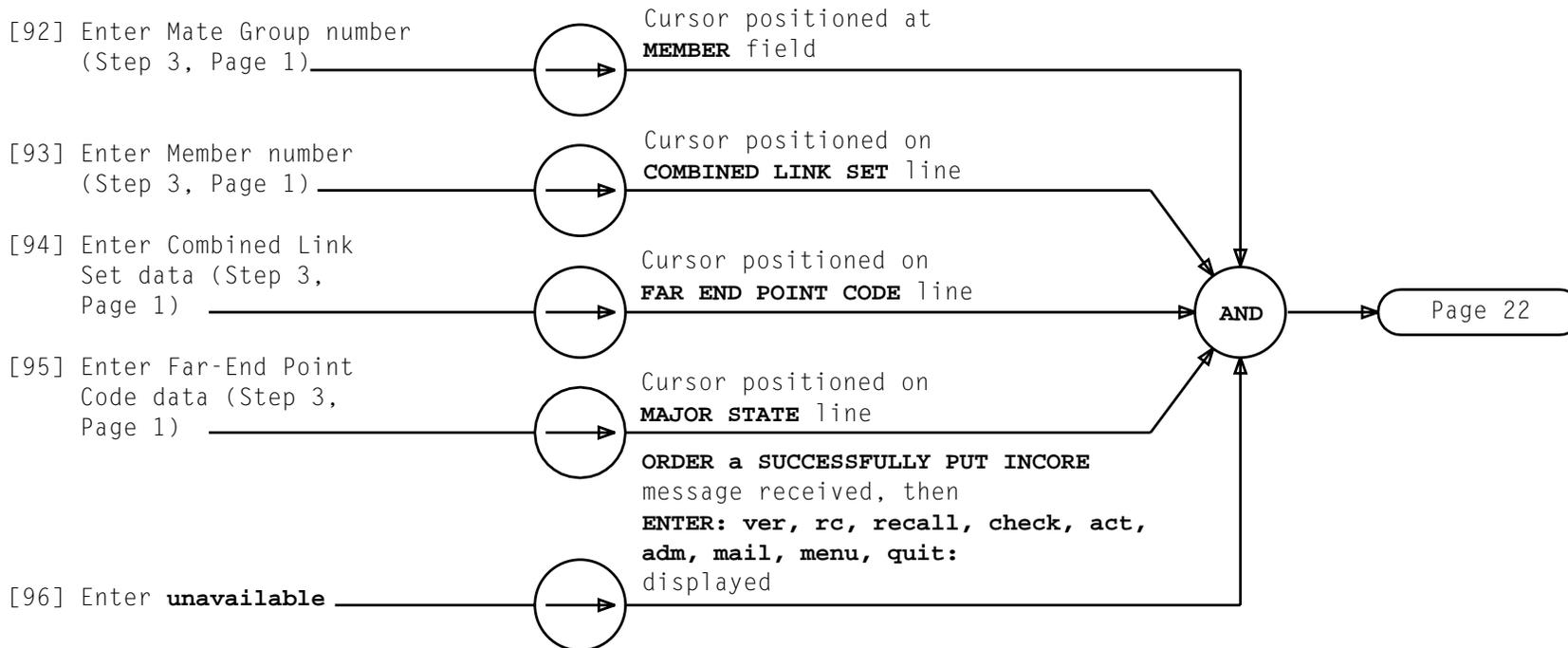


**POPULATE OFFICE-DEPENDENT LINK DATA FILES USING
DATA BASE MANAGEMENT SYSTEM**

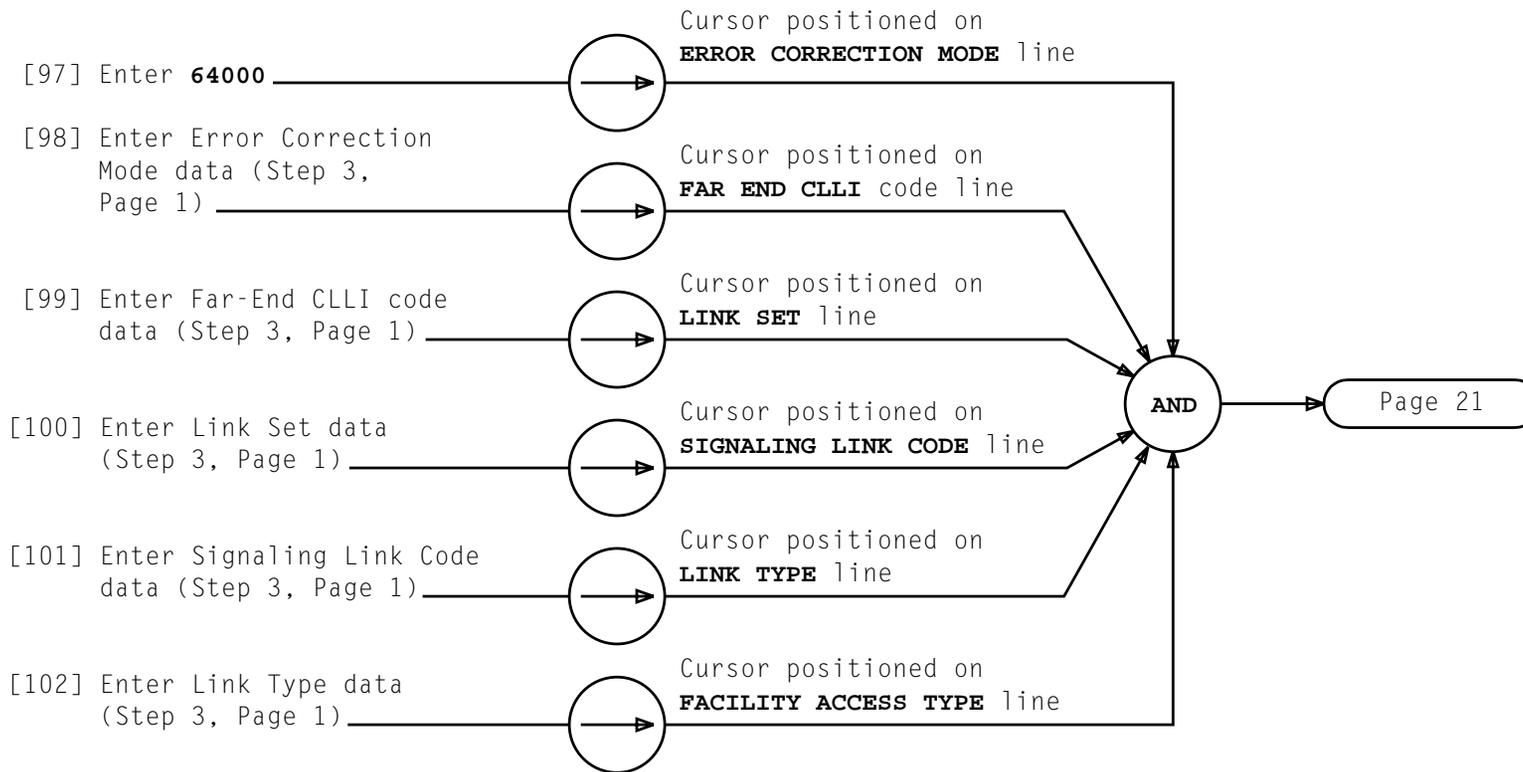


**POPULATE OFFICE-DEPENDENT LINK DATA FILES USING
DATA BASE MANAGEMENT SYSTEM**

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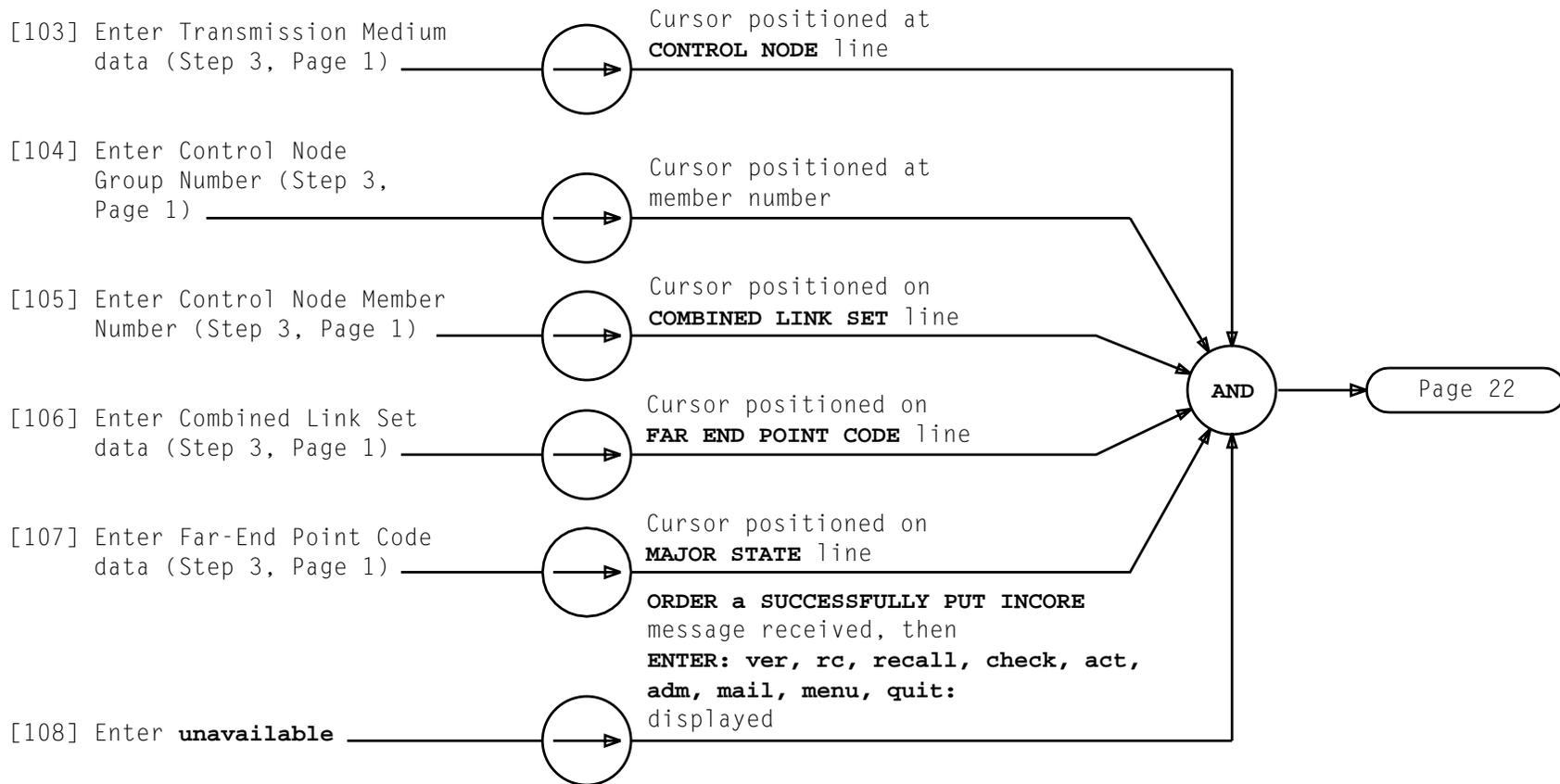


**POPULATE OFFICE-DEPENDENT LINK DATA FILES USING
DATA BASE MANAGEMENT SYSTEM**

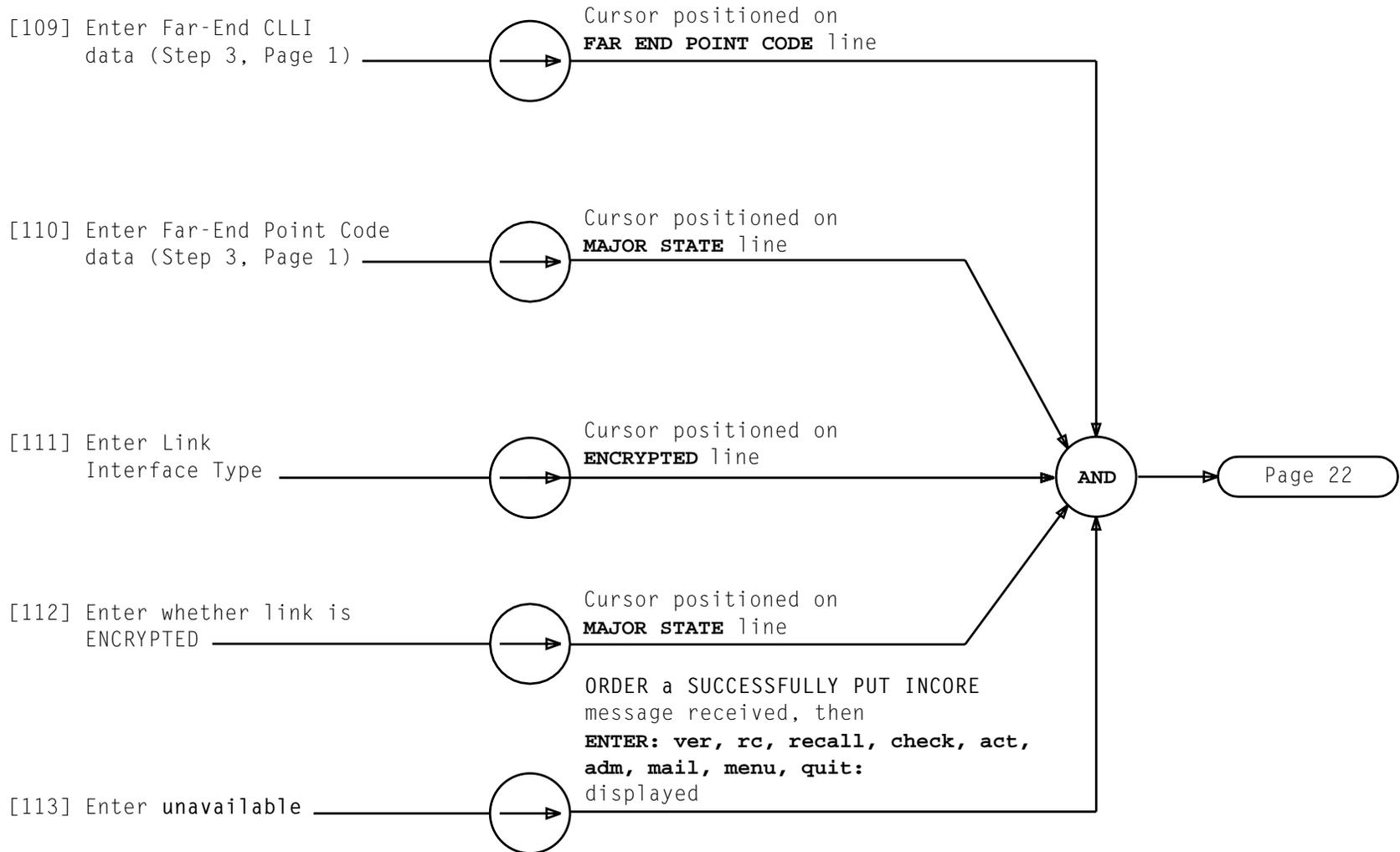


**POPULATE OFFICE-DEPENDENT LINK DATA FILES USING
DATA BASE MANAGEMENT SYSTEM**

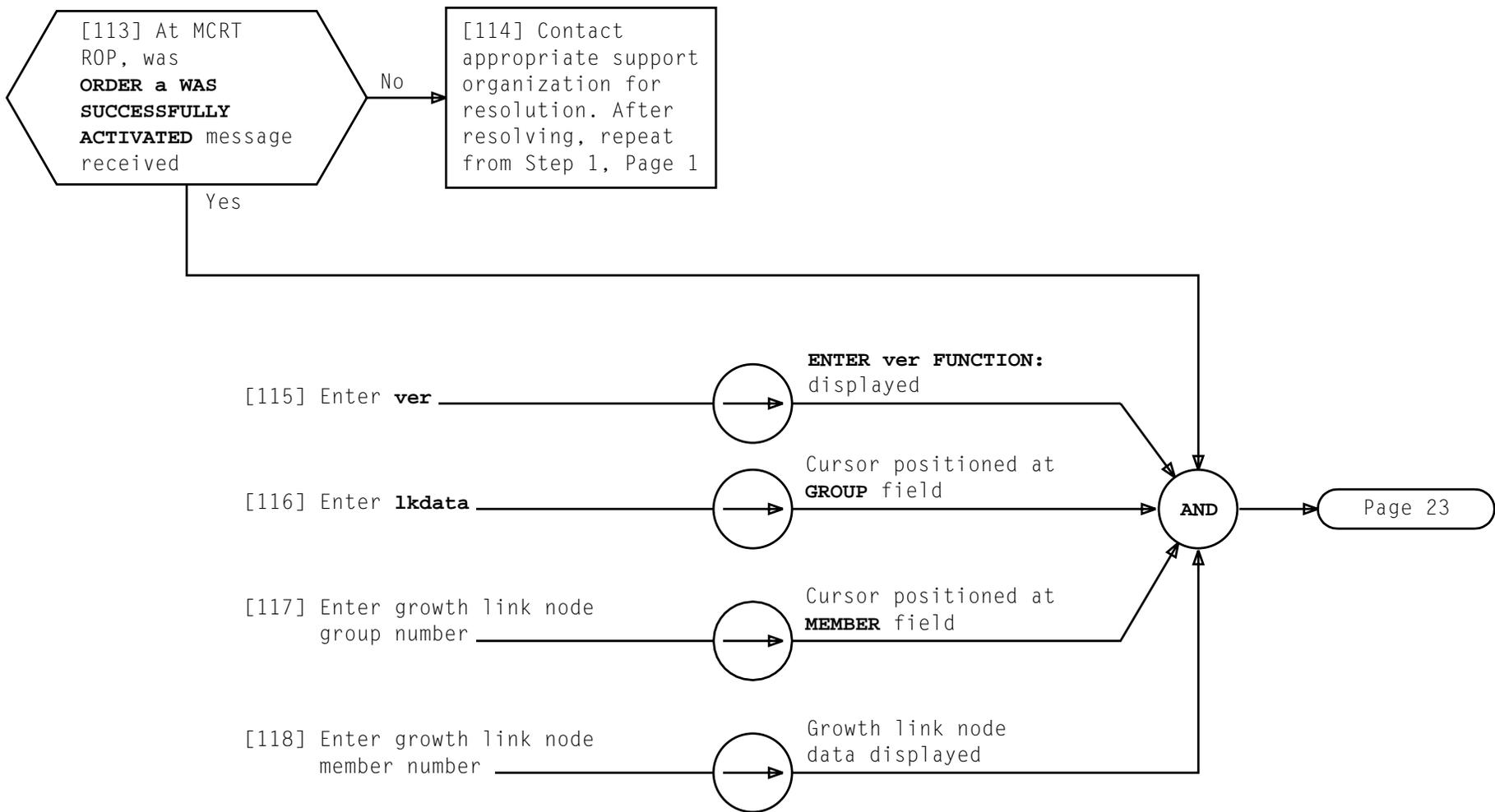
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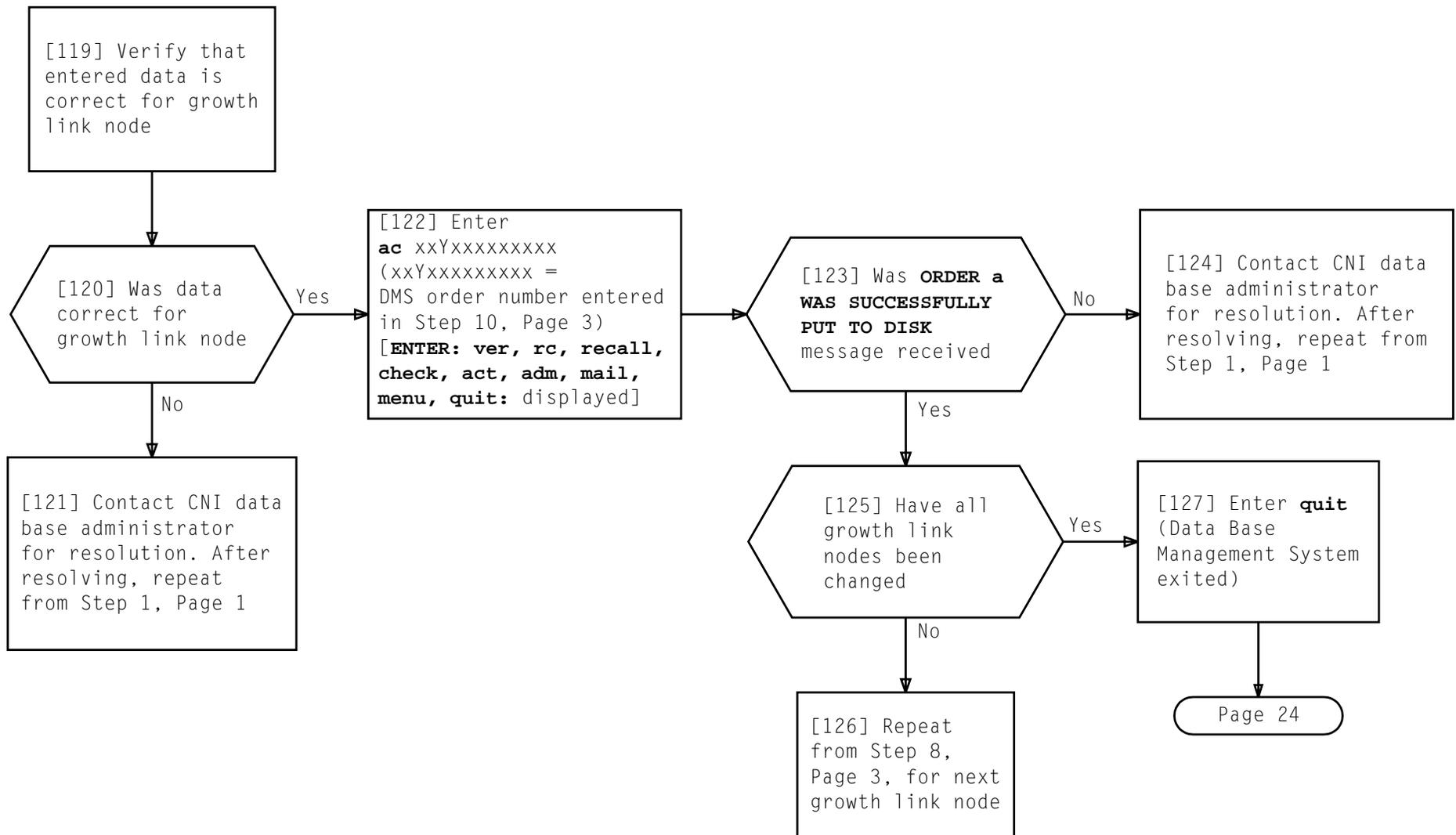
**POPULATE OFFICE-DEPENDENT LINK DATA FILES USING
DATA BASE MANAGEMENT SYSTEM**



**POPULATE OFFICE-DEPENDENT LINK DATA FILES USING
DATA BASE MANAGEMENT SYSTEM**



**POPULATE OFFICE-DEPENDENT LINK DATA FILES USING
DATA BASE MANAGEMENT SYSTEM**



**POPULATE OFFICE-DEPENDENT LINK DATA FILES USING
DATA BASE MANAGEMENT SYSTEM**

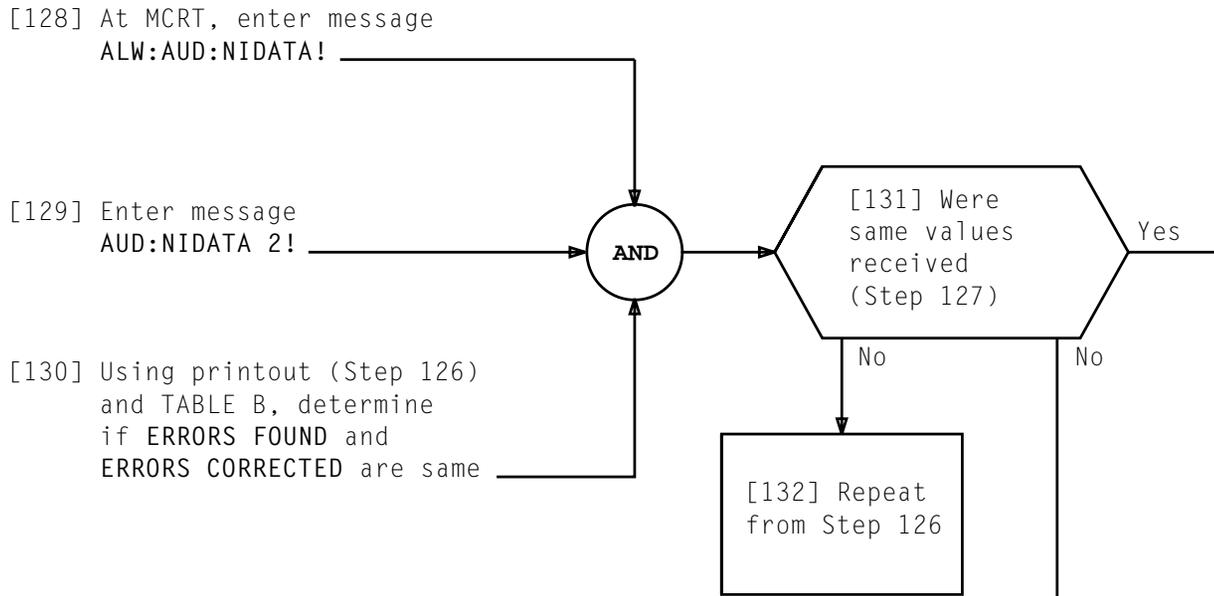


TABLE B	
MESSAGE NUMBER	OUTPUT MESSAGE
1	AUD NIDATA 2 COMPLETED a ERRORS FOUND b ERRORS CORRECTED
a = Total number of errors found b = Total number of errors corrected	

[1] Determine order number
for each link node to be changed
[DLP-517]

[2] At MCRT, enter message
INH:AUD:NIDATA!

At Recent Change and Verify Terminal:

[3] Enter message
RCV:DMS!

ENTER YOUR USER ID:
displayed [NOTE 1]

[4] Enter office DMS
user ID

PASSWD: displayed

[5] Enter office DMS
password

THERE ARE x ORDERS IN
THE SYSTEM and
ENTER: ver, rc, recall, check,
adm, act, mail, menu, quit:
displayed

[6] Enter rc

ENTER rc FUNCTION:
displayed

[7] Enter lkdata

ENTER ORDER NUMBER:
displayed

AND

Page 2

NOTE 1

If **ENTER YOUR
USER ID:** is not
received, **BREAK**
key will have
to be depressed

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CHANGE SIGNALING LINK(S) TO AVAILABLE

[8] Enter DMS order number determined in Step 1, Page 1 for this recent change

ENTER ORDER DESCRIPTION:
displayed

[9] Enter **Change SLKs in LN**
a,b to available
a = associated link node frame
b = link node member number

ENTER ACTION: add, chg:
displayed

[10] Enter **chg**

Cursor positioned at **ITEM:** field

[11] Enter **001**

Cursor positioned at **GROUP** field

[12] Enter 2-digit ring node cabinet number of link node being changed

Cursor positioned at **MEMBER** field

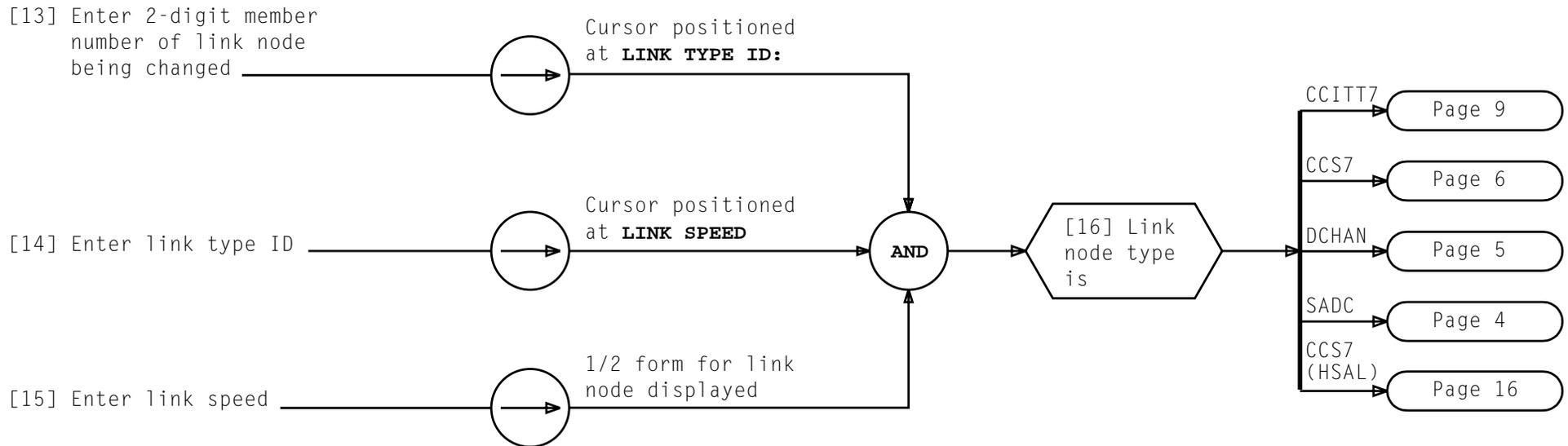
AND

Page 3

CHANGE SIGNALING LINK(S) TO AVAILABLE

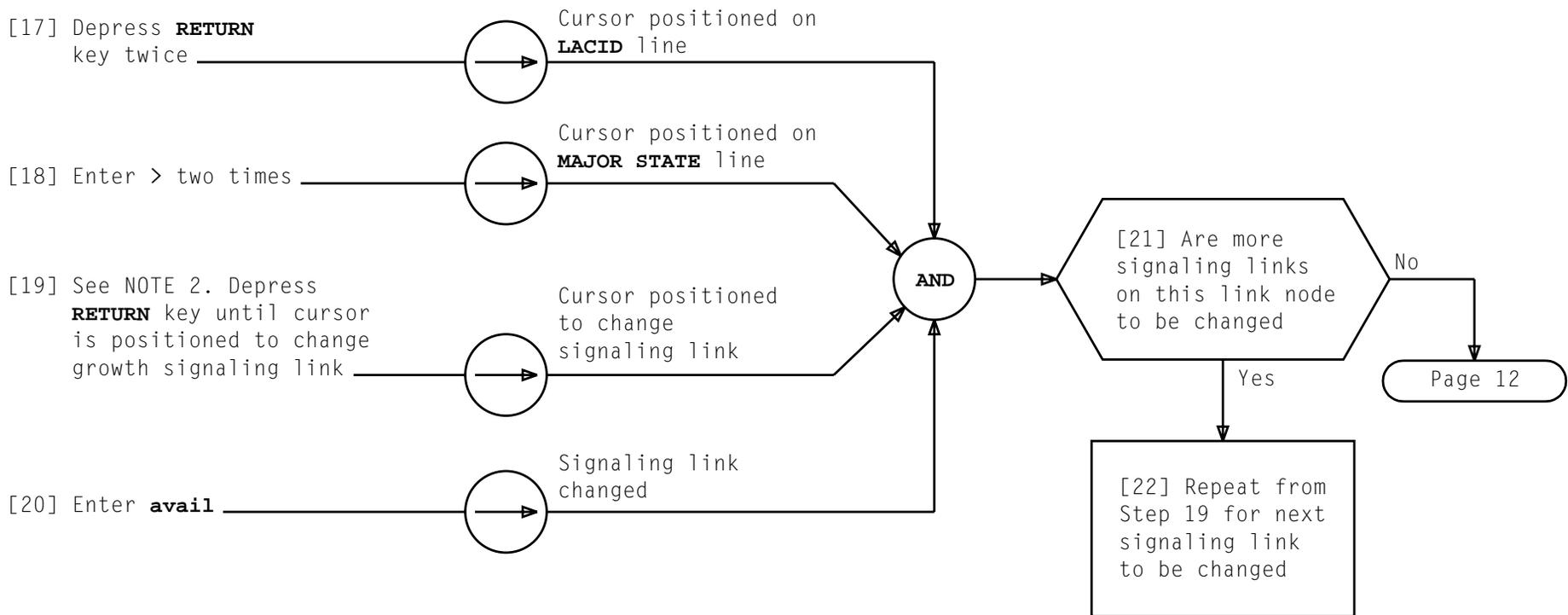
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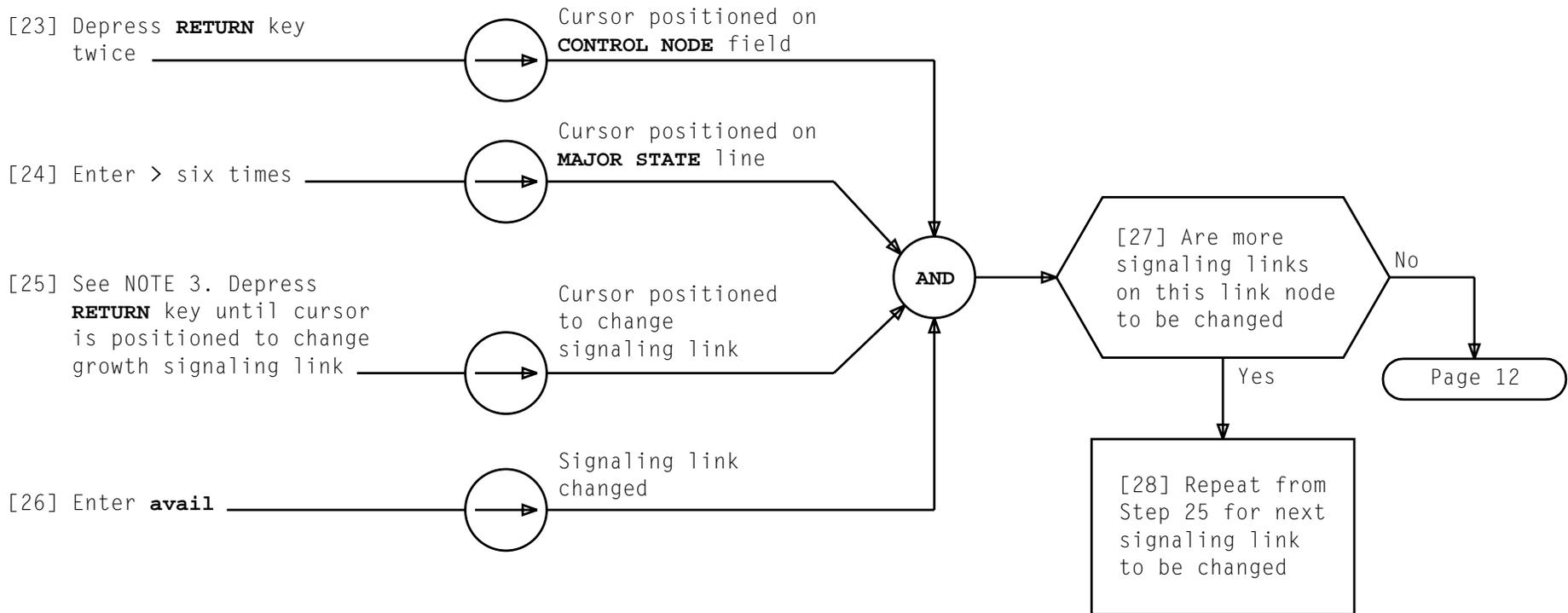
CHANGE SIGNALING LINK(S) TO AVAILABLE

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NOTE 2	
li40 is for signaling links 0 through 3 on link interface pack 0, and li41 is for signaling links 0 through 3 on link interface pack 1	
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CHANGE SIGNALING LINK(S) TO AVAILABLE



NOTE 3	
li40 is for signaling links 0 through 3 on link interface pack 0, and li41 is for signaling links 0 through 3 on link interface pack 1	
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CHANGE SIGNALING LINK(S) TO AVAILABLE

[29] Observe CCS7 form and determine if **FAR END FUNCTION** field is all zeros

[30] Is **FAR END FUNCTION** field set to zeros

No → Page 8

Yes

[31] Contact CNI data base administrator to determine values for DMS fields in TABLE A for growth CCS7 link node

[32] Depress **RETURN** key twice

Cursor positioned on **FAR END FUNCTION** line

[33] Enter Far-End Function data (Step 31)

Cursor positioned on **FAR END CLLI*** code line

[34] Enter Far-End CLLI code data (Step 31)

Cursor positioned on **LINK SET** line

AND

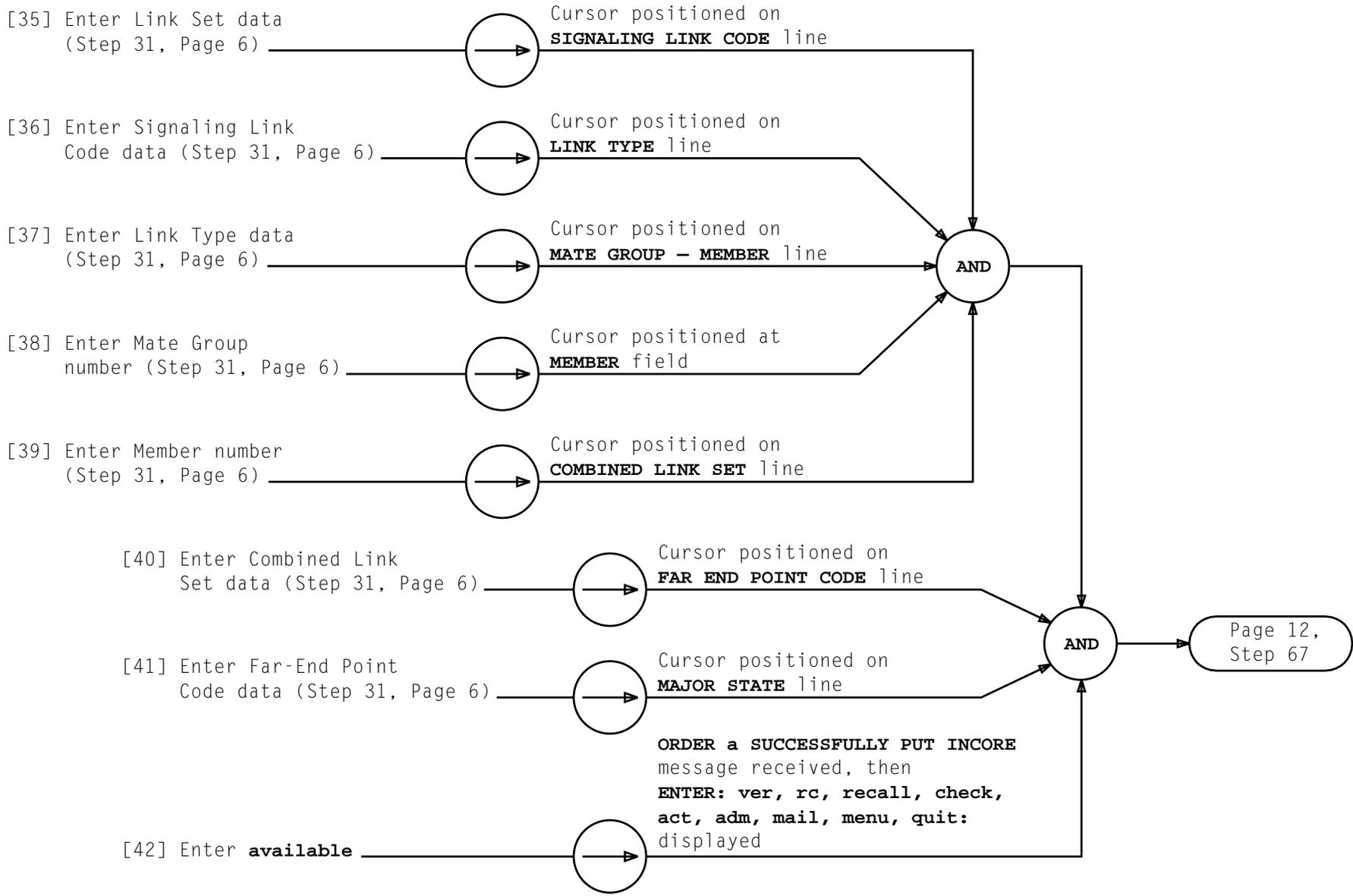
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TABLE A
FAR END FUNCTION
FAR END CLLI code
LINK SET
SIGNALING LINK CODE
LINK TYPE
MATE GROUP – MEMBER
COMBINED LINK SET
FAR END POINT CODE

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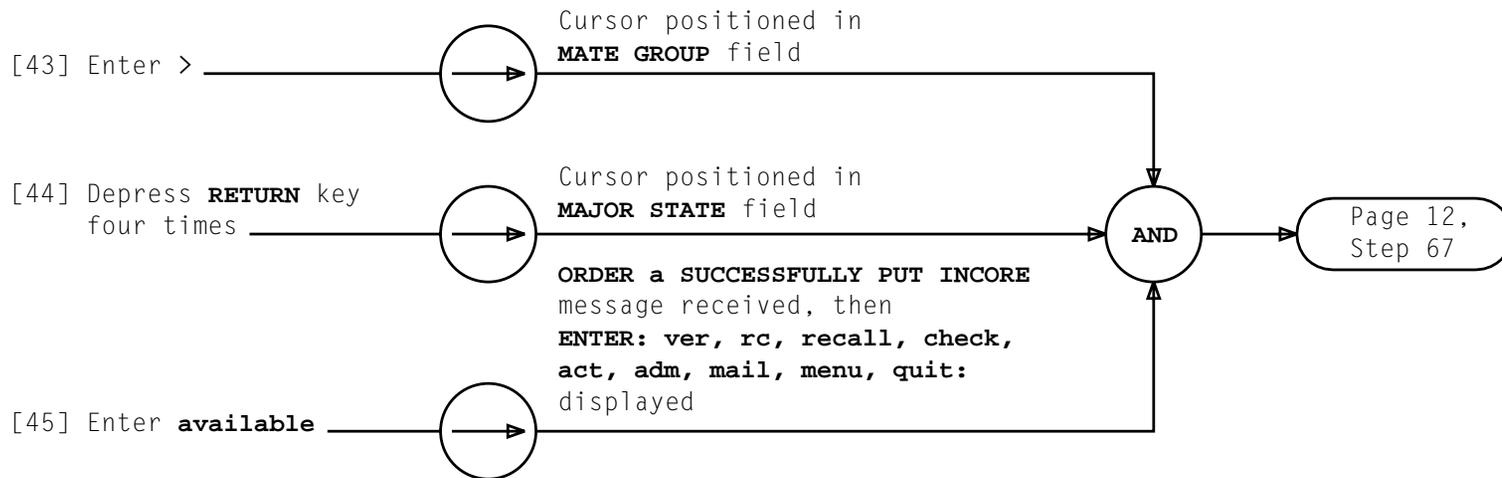
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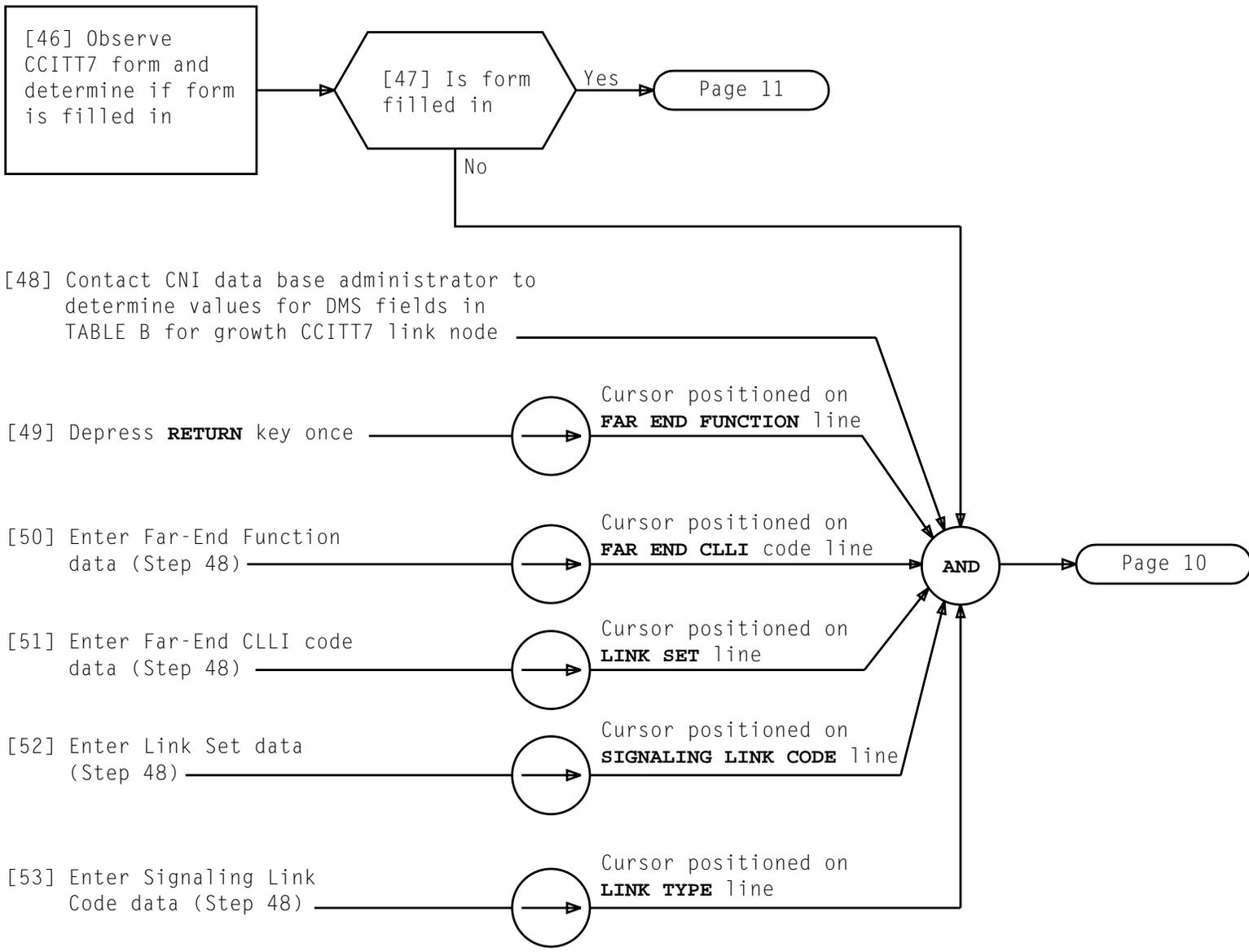
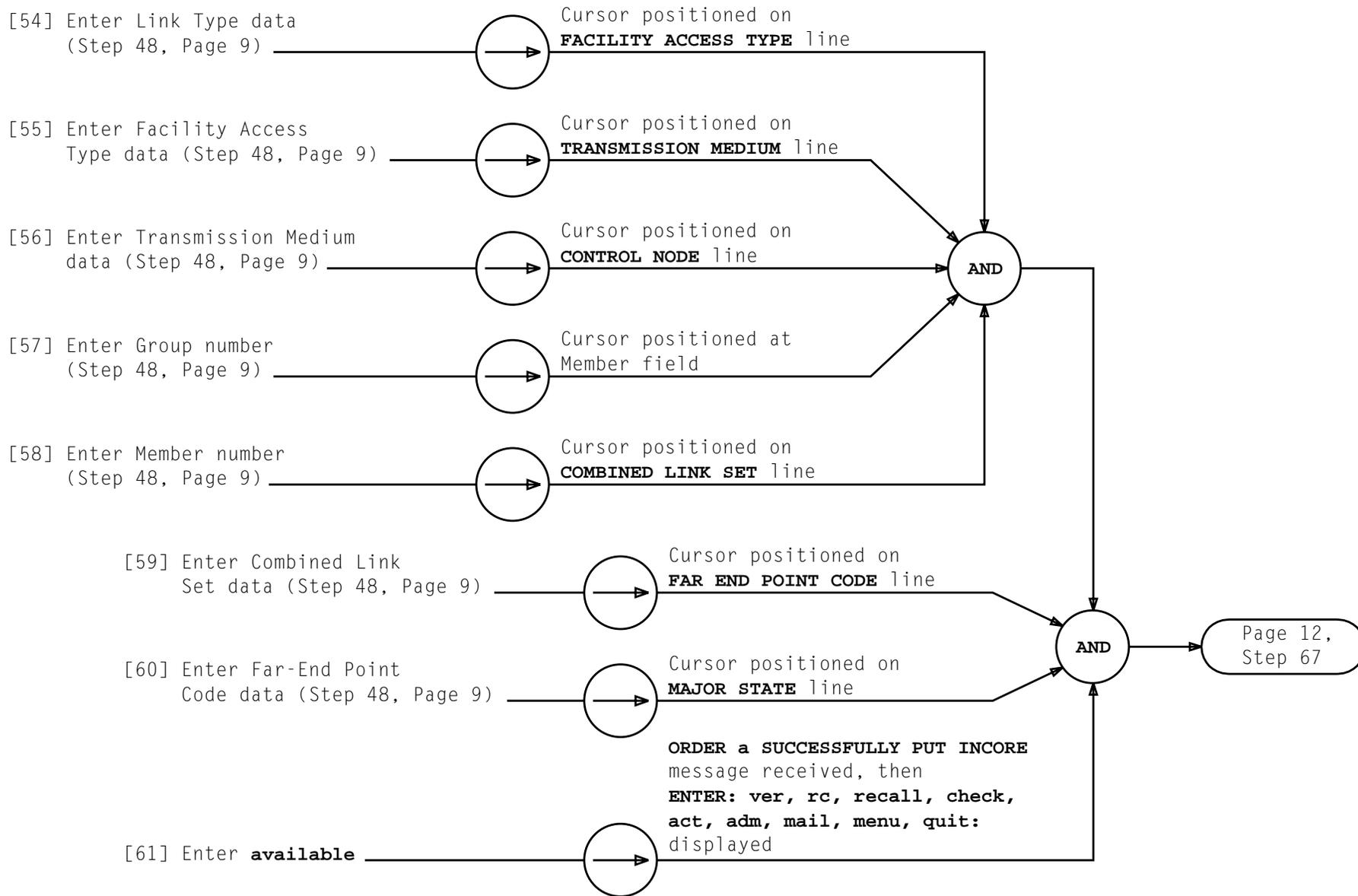


TABLE B
FAR END FUNCTION
FAR END CLLI code
LINK SET
SIGNALING LINK CODE
LINK TYPE
FACILITY ACCESS TYPE
TRANSMISSION MEDIUM
CONTROL NODE
COMBINED LINK SET
FAR END POINT CODE

CHANGE SIGNALING LINK(S) TO AVAILABLE

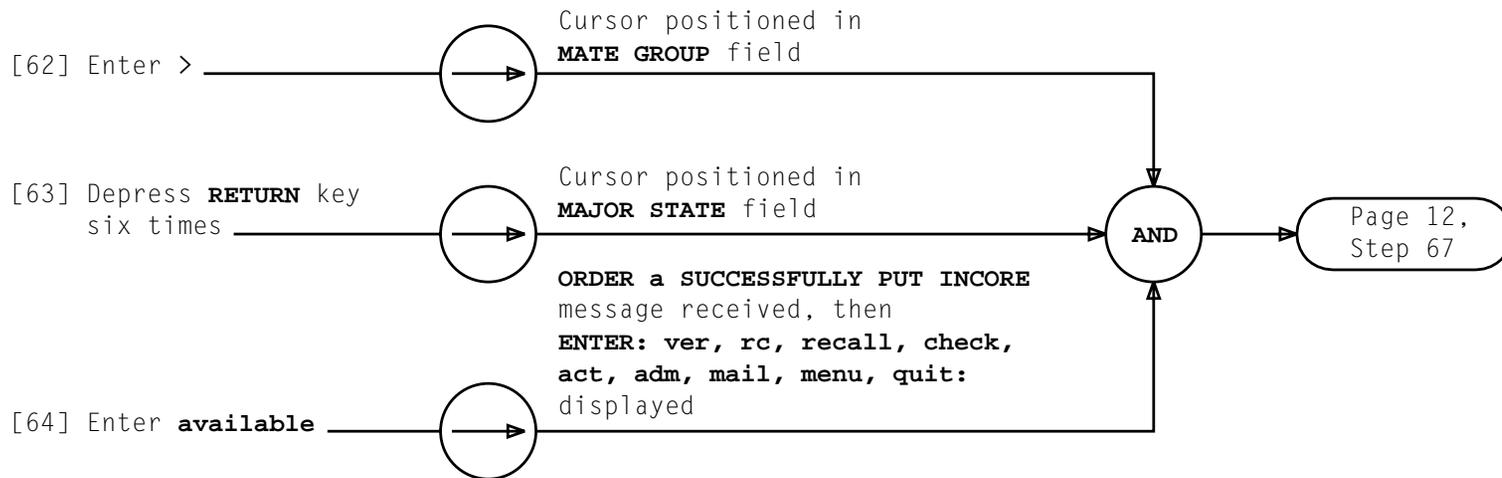
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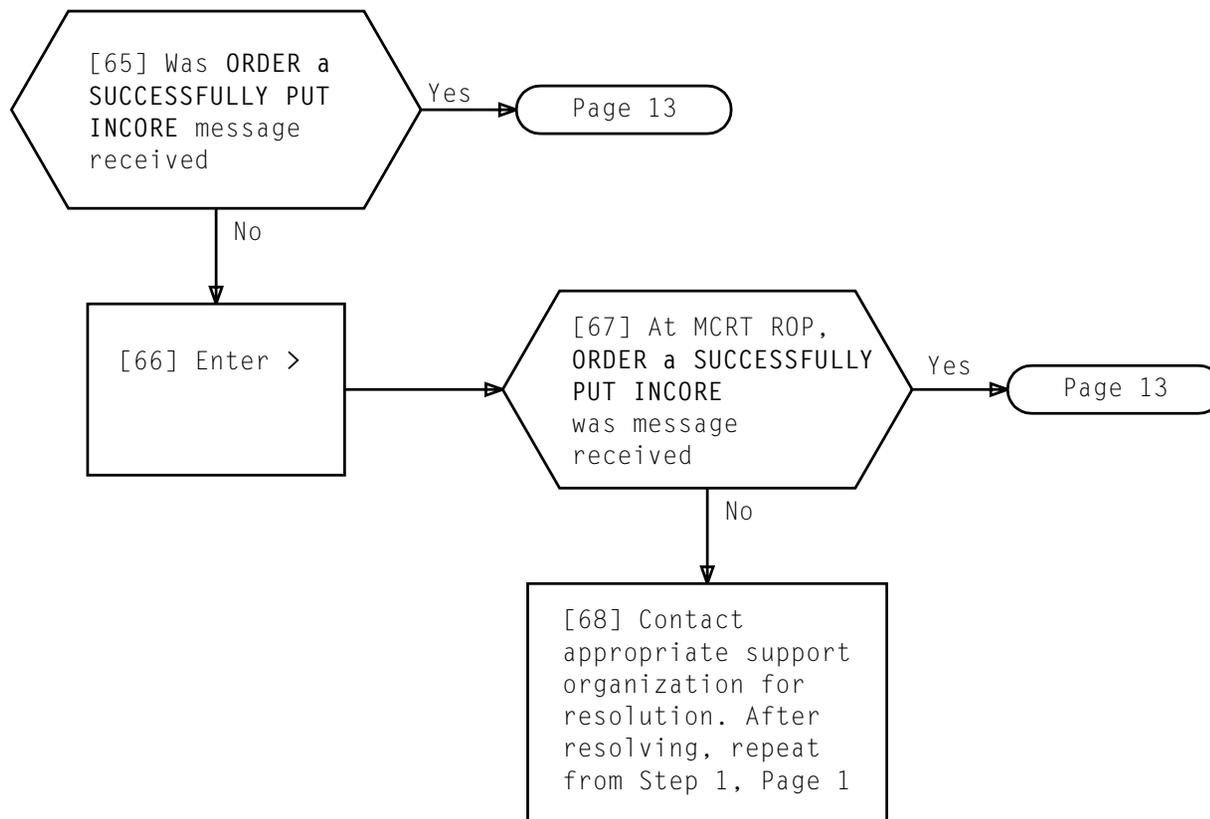
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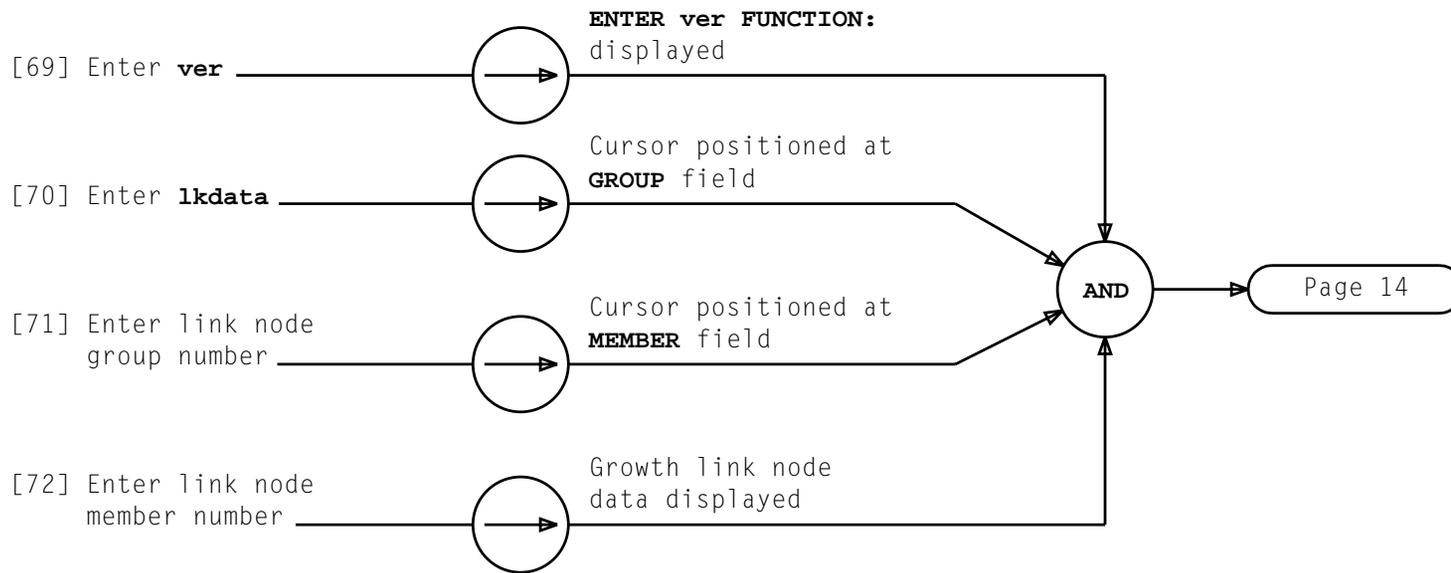
CHANGE SIGNALING LINK(S) TO AVAILABLE

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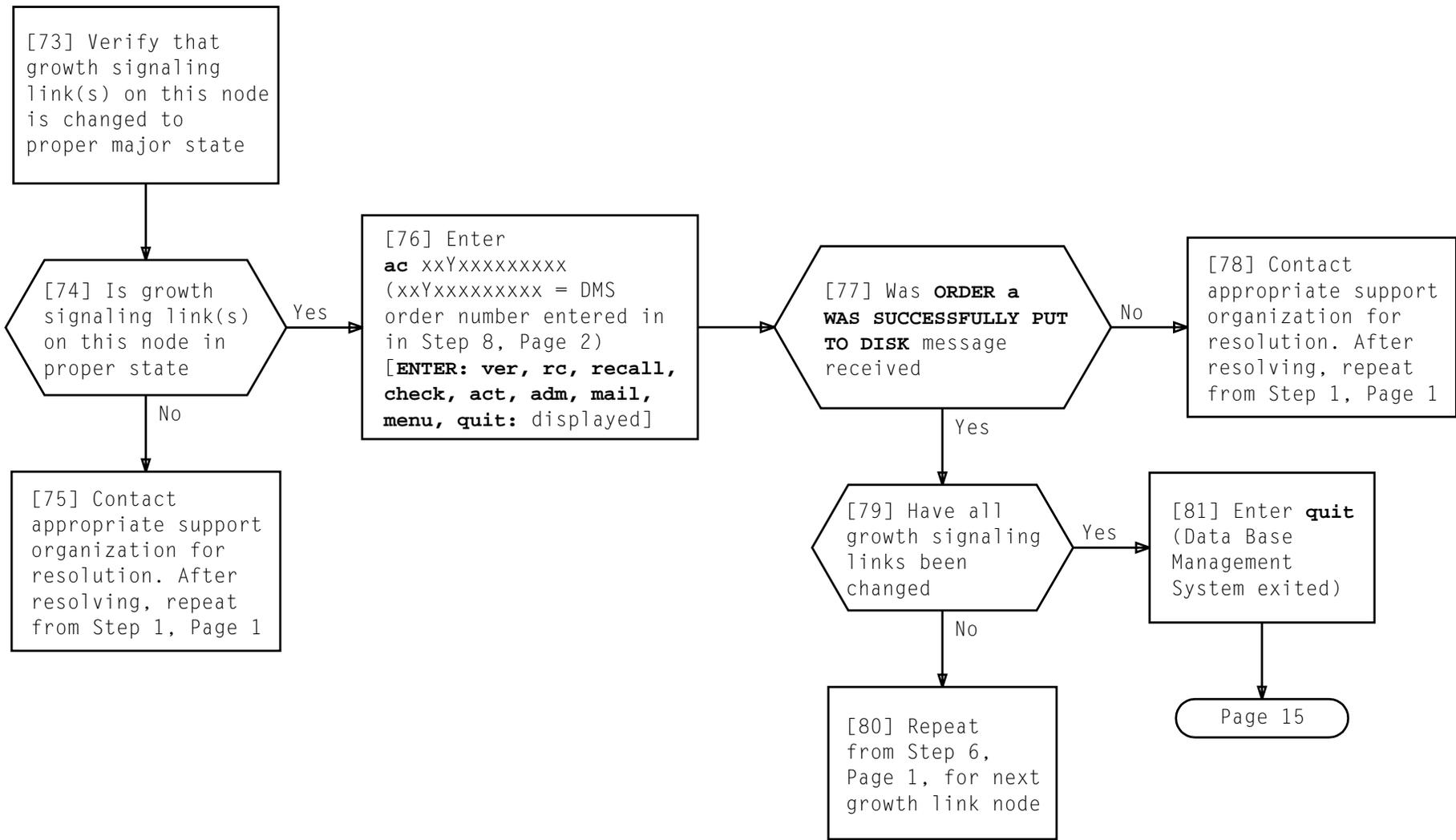
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CHANGE SIGNALING LINK(S) TO AVAILABLE

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CHANGE SIGNALING LINK(S) TO AVAILABLE

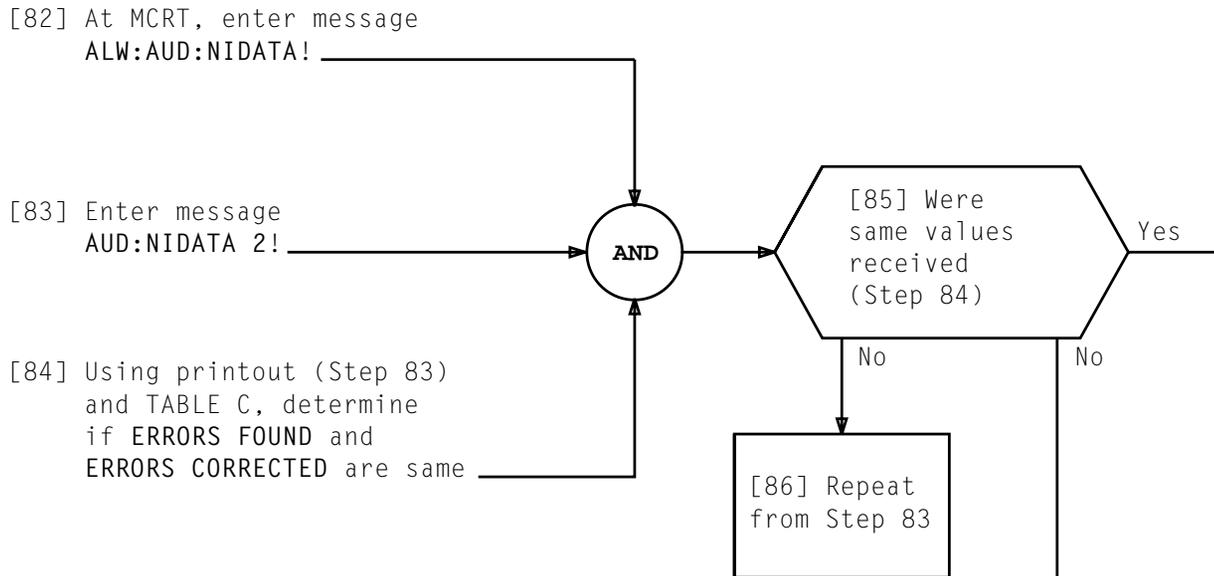


TABLE C	
MESSAGE NUMBER	OUTPUT MESSAGE
1	AUD NIDATA 2 COMPLETED a ERRORS FOUND b ERRORS CORRECTED
a = Total number of errors found b = Total number of errors corrected	

CHANGE SIGNALING LINK(S) TO AVAILABLE

[88] Contact CNI data base administrator to determine values for DMS fields in TABLE D for growth CCS7 link node

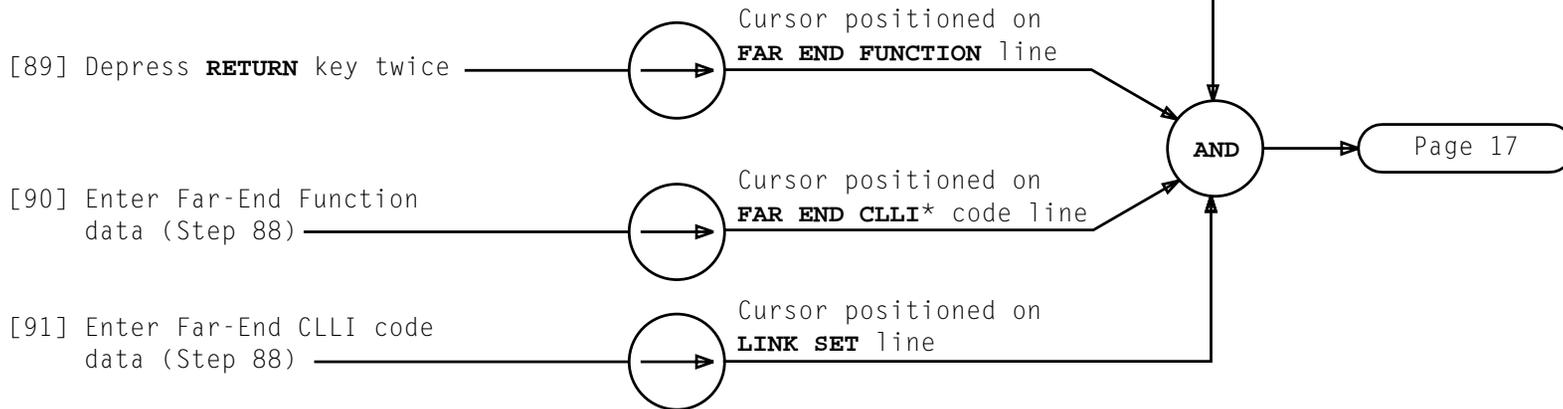
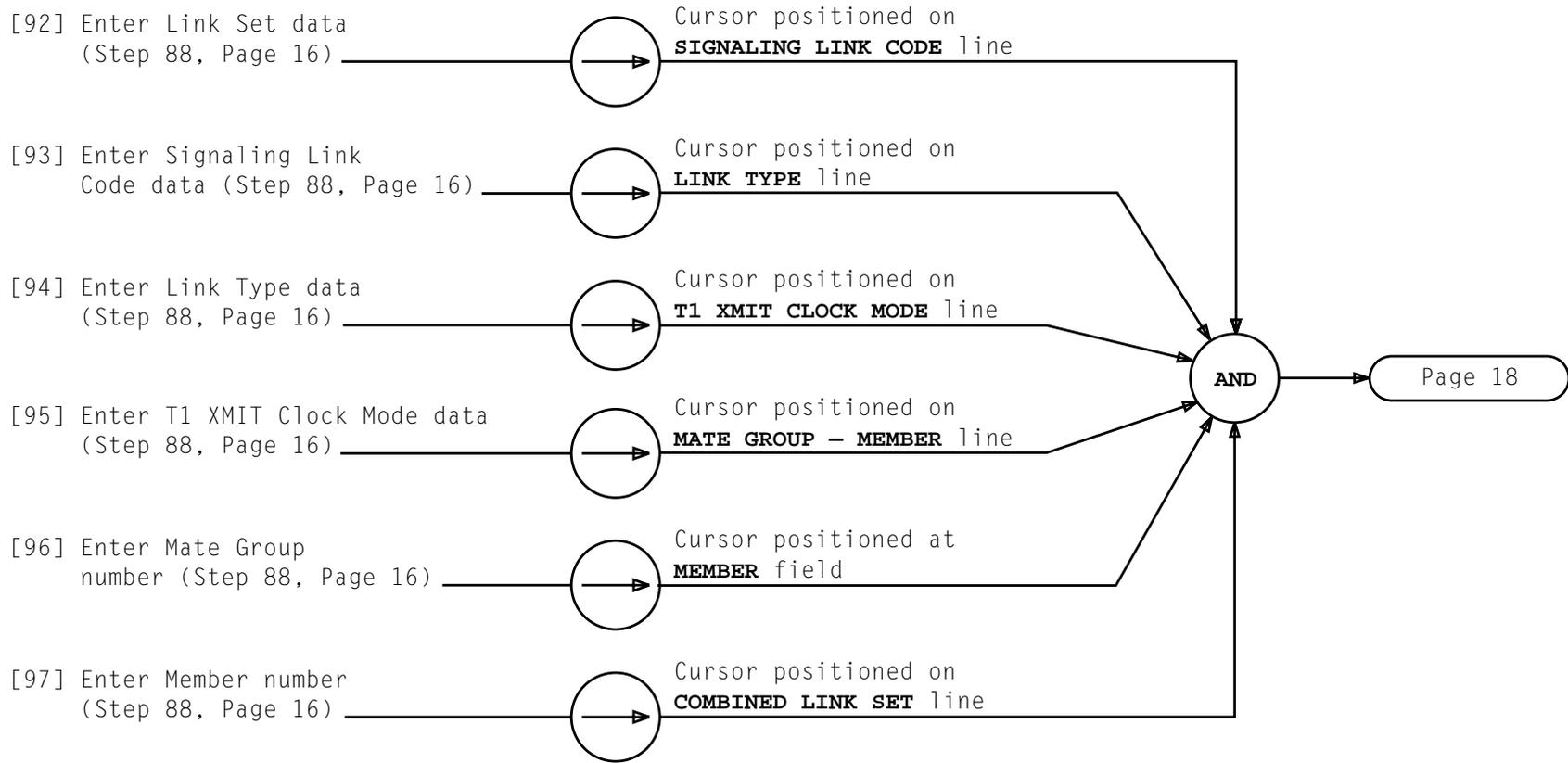


TABLE D	
FAR END FUNCTION	
FAR END CLLI code	
LINK SET	
SIGNALING LINK CODE	
LINK TYPE	
T1 XMIT CLOCK MODE	
MATE GROUP - MEMBER	
COMBINED LINK SET	
LINK SET ASSOCIATED	
PC	
FAR END POINT CODE	

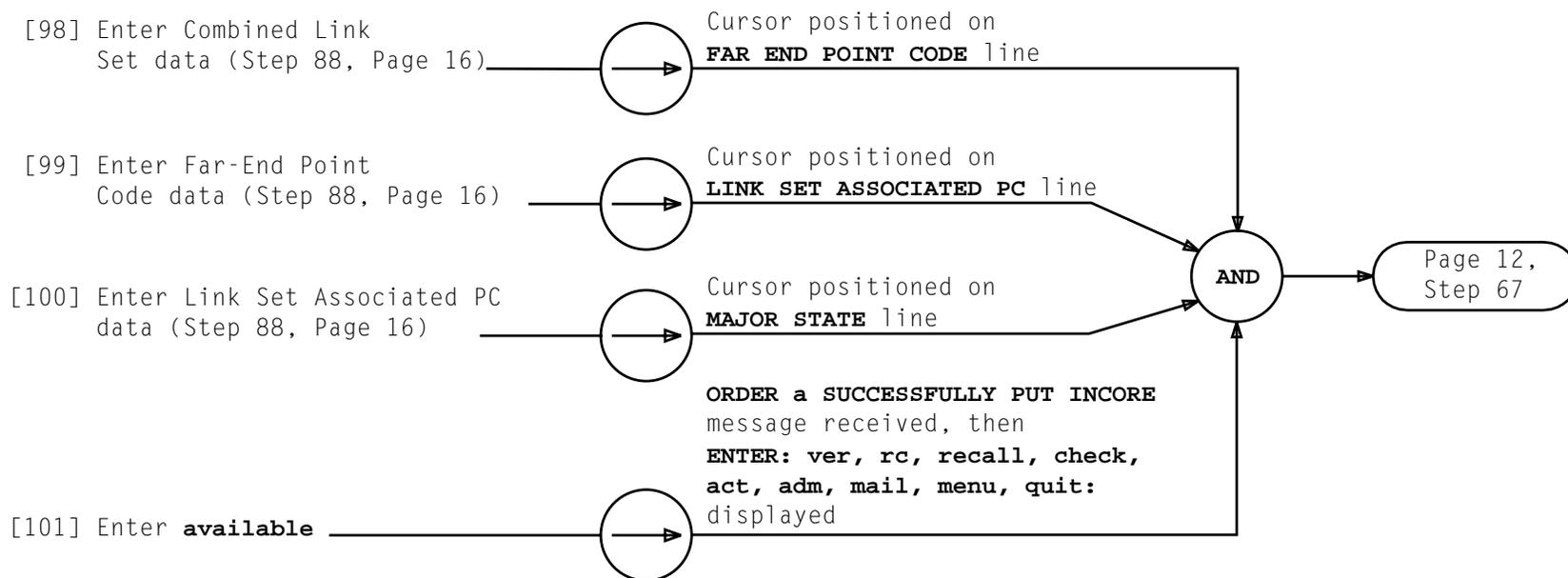
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CHANGE SIGNALING LINK(S) TO AVAILABLE



CHANGE SIGNALING LINK(S) TO AVAILABLE

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CHANGE SIGNALING LINK(S) TO AVAILABLE

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1. Ensure 3B computer has not experienced terminal suspends, bootstraps, diagnostic failures, or overloads within past 24 hours.
2. Ensure both CUs have been diagnosed ATP within past 24 hours.
3. Ensure all system problems have been cleared.
4. Ensure disks and IOPs are duplex and CUs are in ACTIVE-STANDBY mode.
5. At 1B MCC, enter poke command **810 (SDC – SERVICE DEGRADING FAILURE)** to obtain service-degrading report printout. If there are any listed, make corrective action to clear service-degrading condition of each unit listed before continuing.
6. Ensure that APIs are in ACTIVE-STANDBY mode.
7. At 3B MCRT ROP, locate audit status printout and record any audits that are inhibited; they will have to be allowed before performing growth.
8. Ensure all link nodes in common network interface (CNI) ring are in Active-Usable (ACT-USBL) state and have not experienced any problems within past 24 hours.
9. Ensure CNI ring problems have been cleared.
10. Ensure any signaling link problems have been cleared.
11. At 3B MCRT, enter **OP:RING;DETD!** and ensure that no "i" is listed for any link node ("i" = isolated).
12. Verify API-DLN stream status (**OP:DLNCM;STREAM!**) [DLP-513].
13. At 3B MCRT, depress **NORM/DISP (PF2)** key and enter **1107** in command mode to obtain display Page 1107.
14. Ensure 1107 page display **ACT** for HDWR STATE and APPL STATE for two DLNs. Ensure **MODE** is **1WAY IN** and **STREAM** is **SCANIN** for one DLN; and **MODE** is **1WAY OUT** and **STREAM** is **SCANOUT** for other DLN.
15. At 3B MCRT, enter **OP:DLNCM,DLNMAP!**. Ensure DLN states in printout are same as indicated in 1107 page (Step 14).

VERIFY SYSTEM STATUS

[1] Contact CNI data base administrator to determine International Point Code for this office _____

[2] Determine order number for this change [DLP-517] _____

[3] At MCRT, enter message INH:AUD:NIDATA! _____

[4] Enter message RCV:DMS! _____

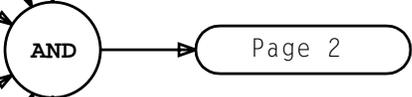
ENTER YOUR USER ID:
displayed [NOTE 1]

[5] Enter office DMS user ID _____

PASSWD: displayed

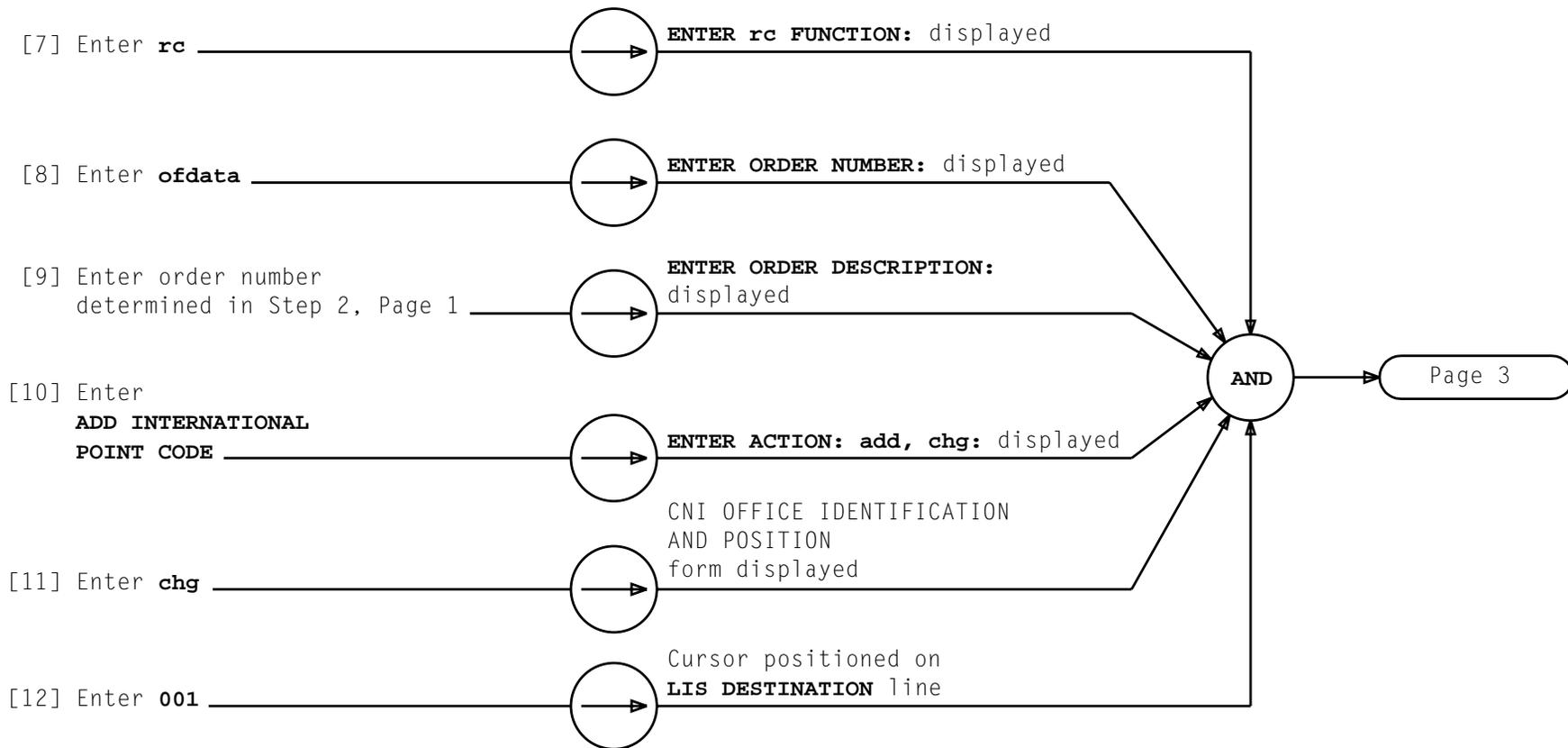
[6] Enter office DMS password _____

THERE ARE x ORDERS IN THE SYSTEM
and
ENTER: ver, rc, recall, check, act,
adm, mail, menu, quit: displayed



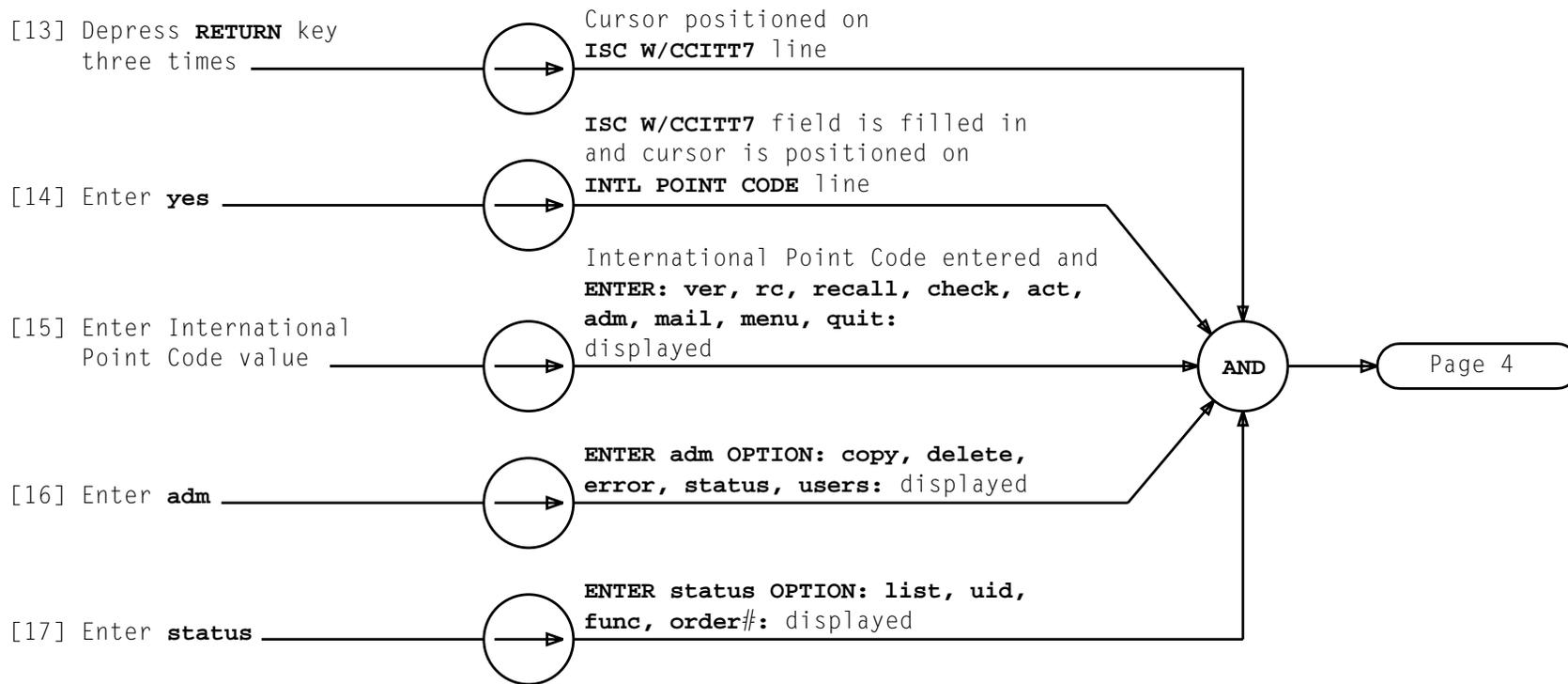
NOTE 1	
If ENTER YOUR USER ID: is not received, BREAK key will have to be depressed	
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ADD INTERNATIONAL POINT CODE TO DATA BASE



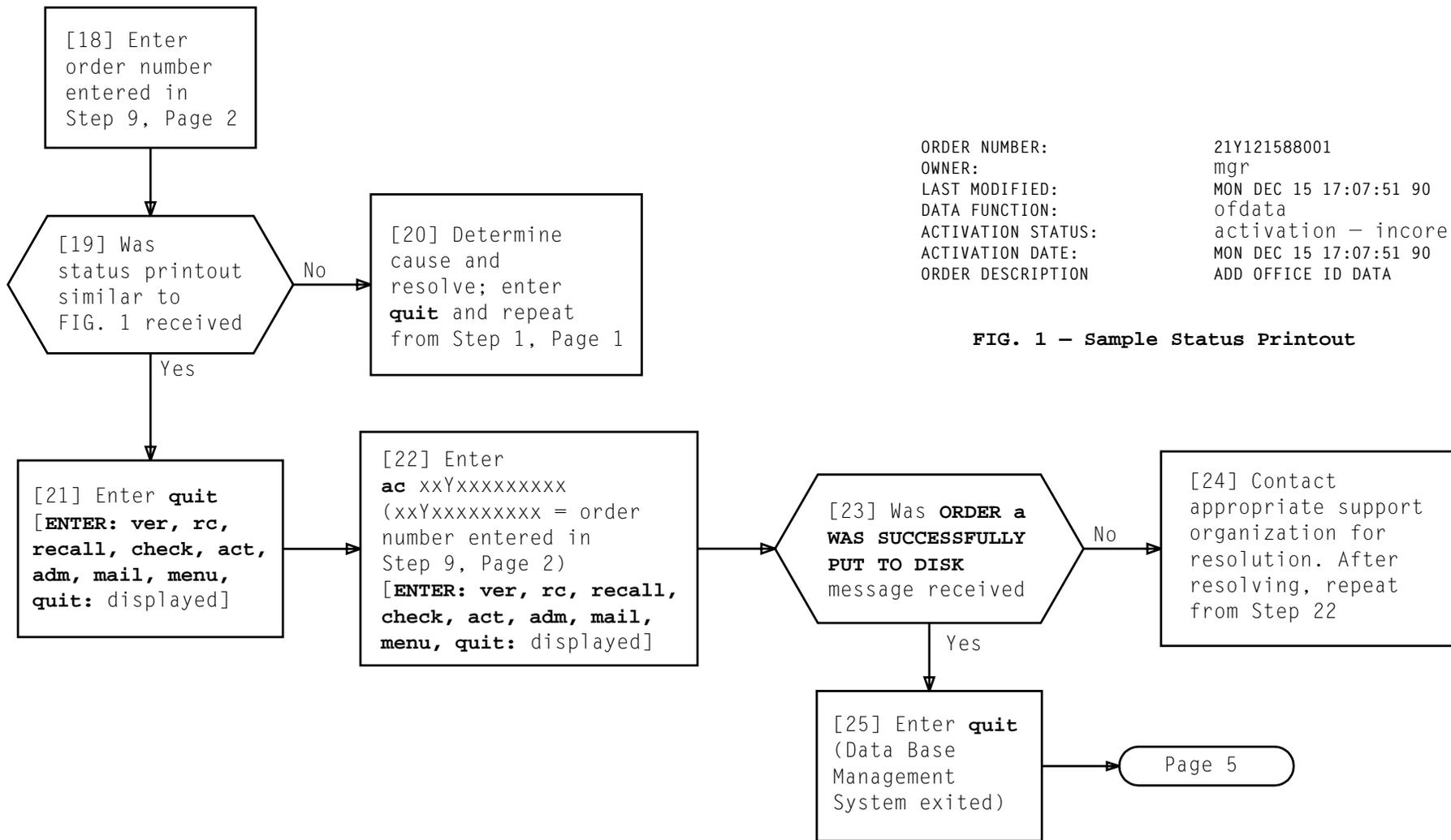
ADD INTERNATIONAL POINT CODE TO DATA BASE

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ADD INTERNATIONAL POINT CODE TO DATA BASE

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```

ORDER NUMBER:      21Y121588001
OWNER:             mgr
LAST MODIFIED:    MON DEC 15 17:07:51 90
DATA FUNCTION:    ofdata
ACTIVATION STATUS: activation - incre
ACTIVATION DATE:  MON DEC 15 17:07:51 90
ORDER DESCRIPTION: ADD OFFICE ID DATA
  
```

FIG. 1 - Sample Status Printout

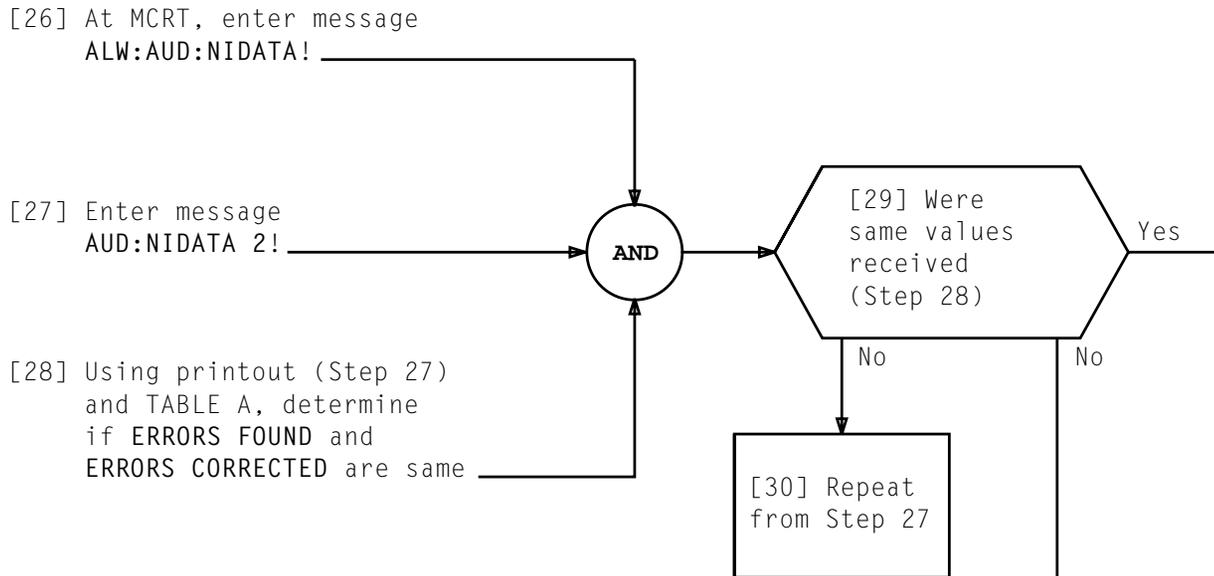
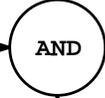


TABLE A	
MESSAGE NUMBER	OUTPUT MESSAGE
1	AUD NIDATA 2 COMPLETED a ERRORS FOUND b ERRORS CORRECTED
a = Total number of errors found b = Total number of errors corrected	

[1] Determine group number and member number of link node containing signaling link(s) being activated

[2] Using the formula $(16 \times a) + b$
 a = group number
 b = member number
 determine ring node address (RNA) for link node in Step 1 and record

[3] Determine signaling link number(s) being activated (0 through 7) on link node (Step 1)



[4] Is RNA value recorded in Step 2, between 000 and 127

Yes

No

[5] Using the formula $(RNA \times 8) + c$
 RNA = value recorded in Step 2
 c = signaling link number (Step 3)
 determine LACID value for each signaling link being activated and record

[6] Using the formula $([RNA - 384] \times 8) + c$
 RNA = value recorded in Step 2
 c = signaling link number (Step 3)
 determine LACID value for each signaling link being activated and record

Page 2

CHANGE GROWTH SIGNALING LINK(S) TO UNAVAILABLE

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[7] Determine order number
for each link node to be changed
[DLP-517]

[8] At MCRT, enter message
INH:AUD:NIDATA!

At Recent Change and Verify Terminal:

[9] Enter message
RCV:DMS!

ENTER YOUR USER ID:
displayed [NOTE 1]

[10] Enter office DMS
user ID

PASSWD: displayed

[11] Enter office DMS
password

THERE ARE x ORDERS IN
THE SYSTEM and
ENTER: ver, rc, recall, check,
adm, act, mail, menu, quit:
displayed

[12] Enter rc

ENTER rc FUNCTION:
displayed

[13] Enter lkdata

ENTER ORDER NUMBER:
displayed

AND

Page 3

NOTE 1

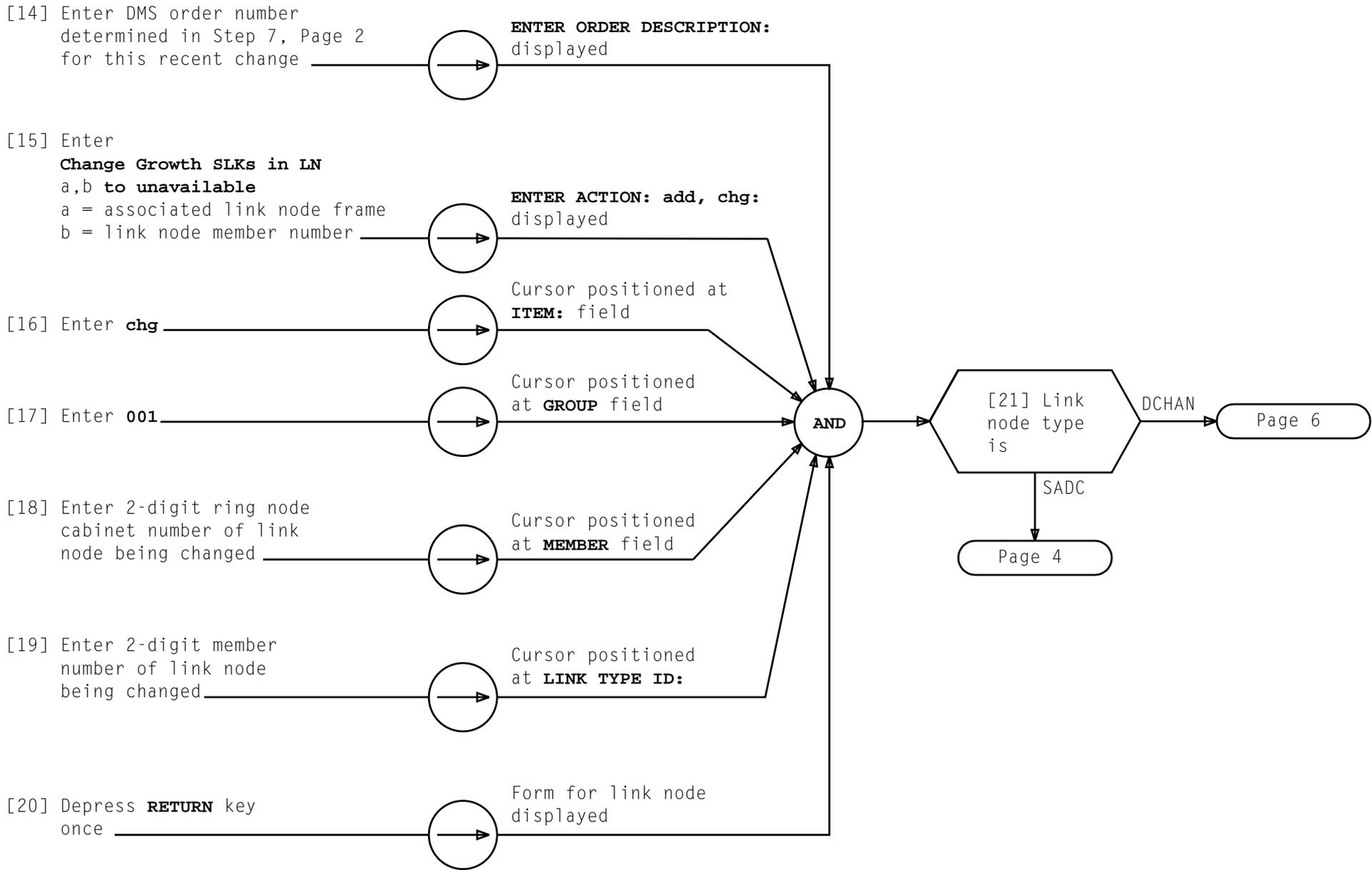
If **ENTER YOUR
USER ID:** is not
received, **BREAK**
key will have
to be depressed

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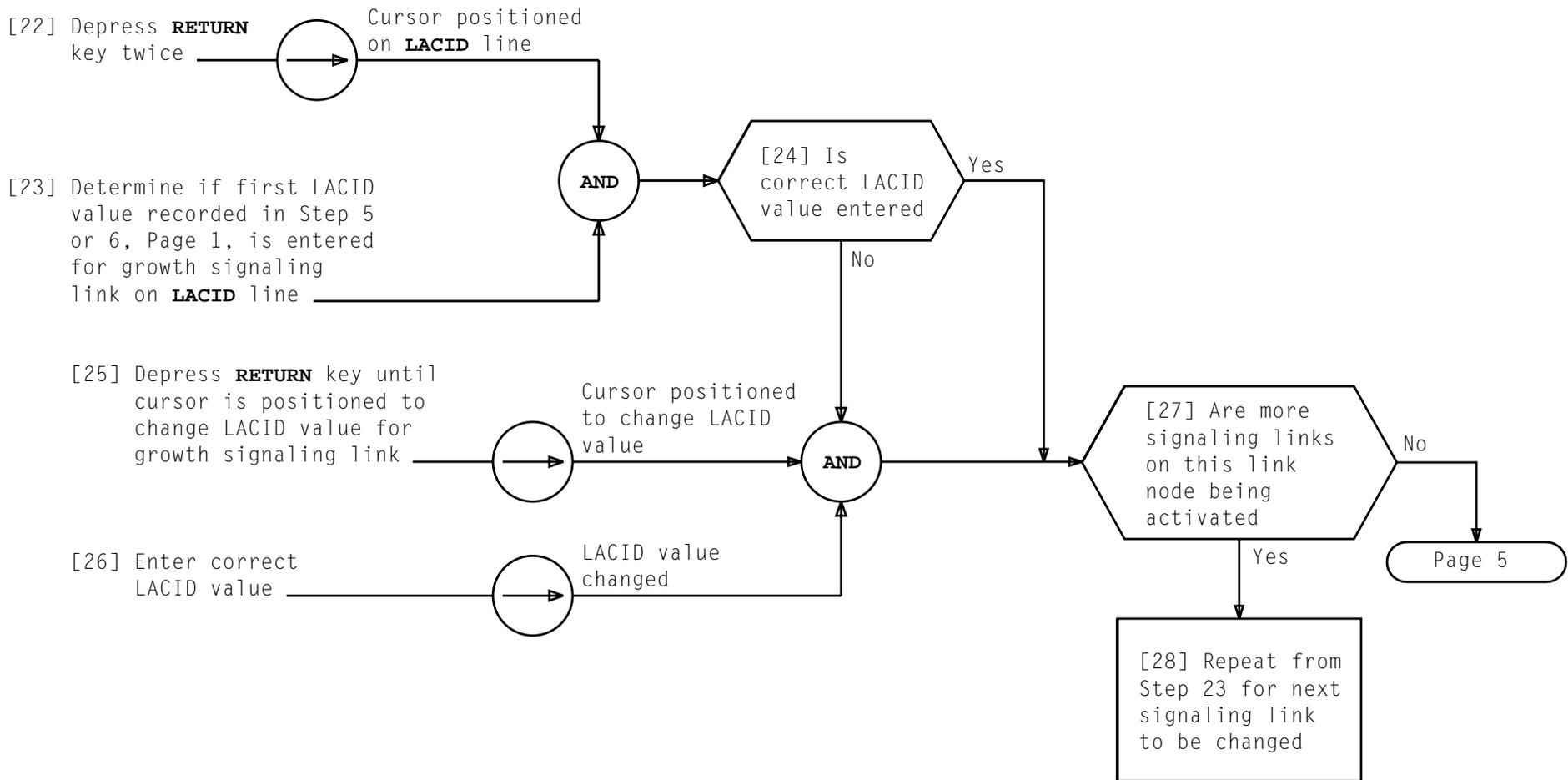
CHANGE GROWTH SIGNALING LINK(S) TO UNAVAILABLE



CHANGE GROWTH SIGNALING LINK(S) TO UNAVAILABLE

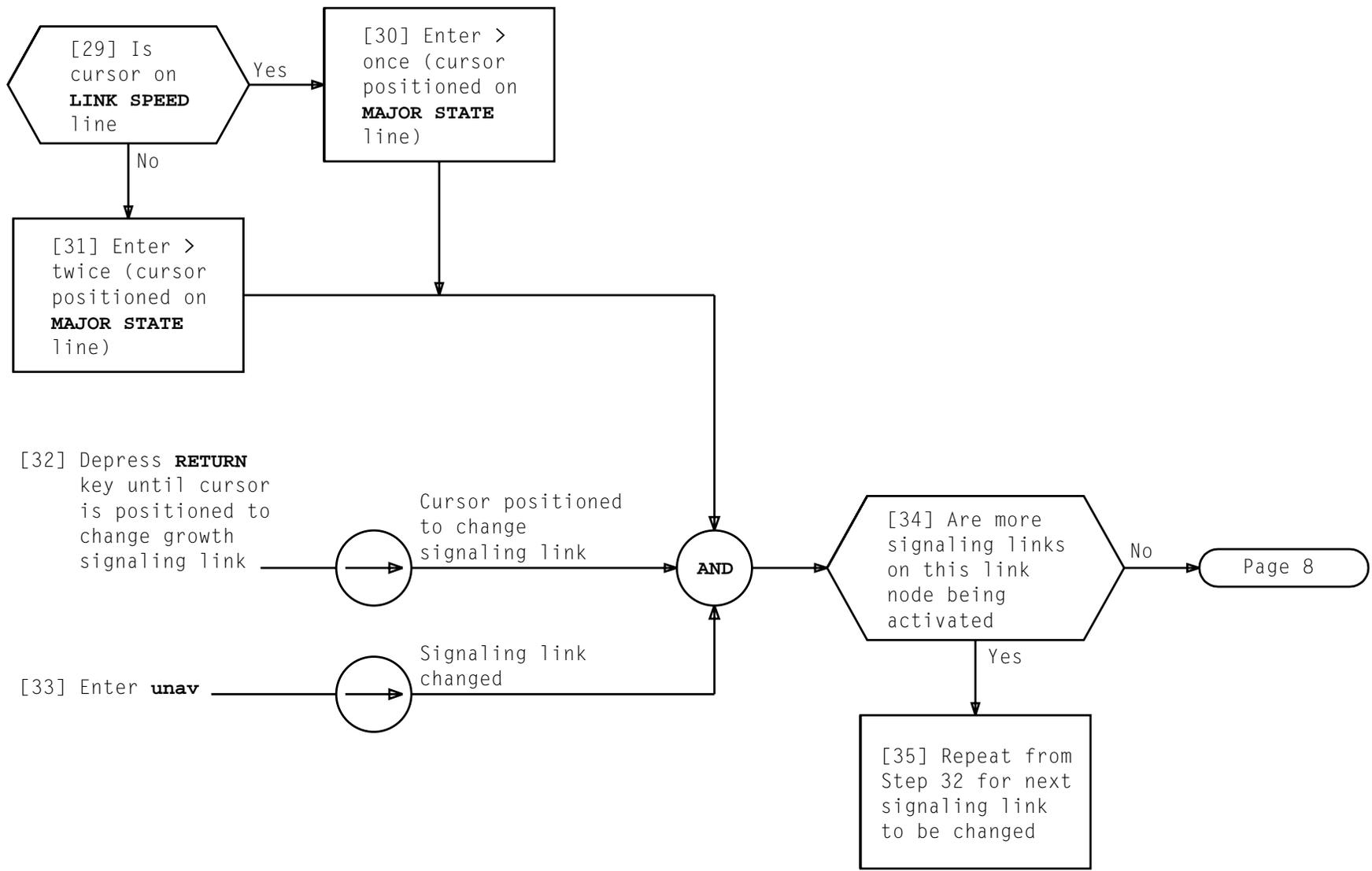
LUCENT TECHNOLOGIES PROPRIETARY - Use Pursuant to Company Instructions

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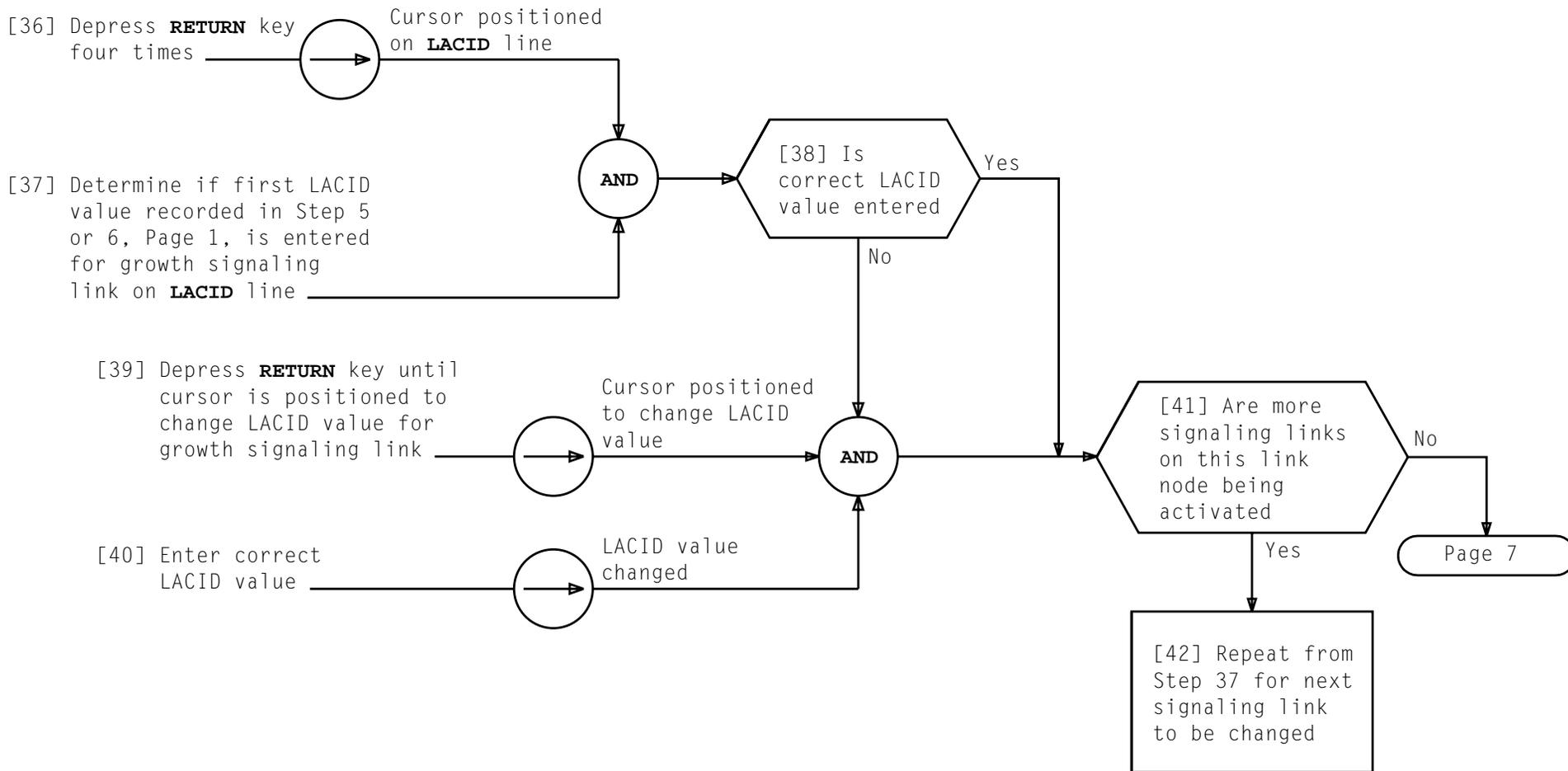
CHANGE GROWTH SIGNALING LINK(S) TO UNAVAILABLE

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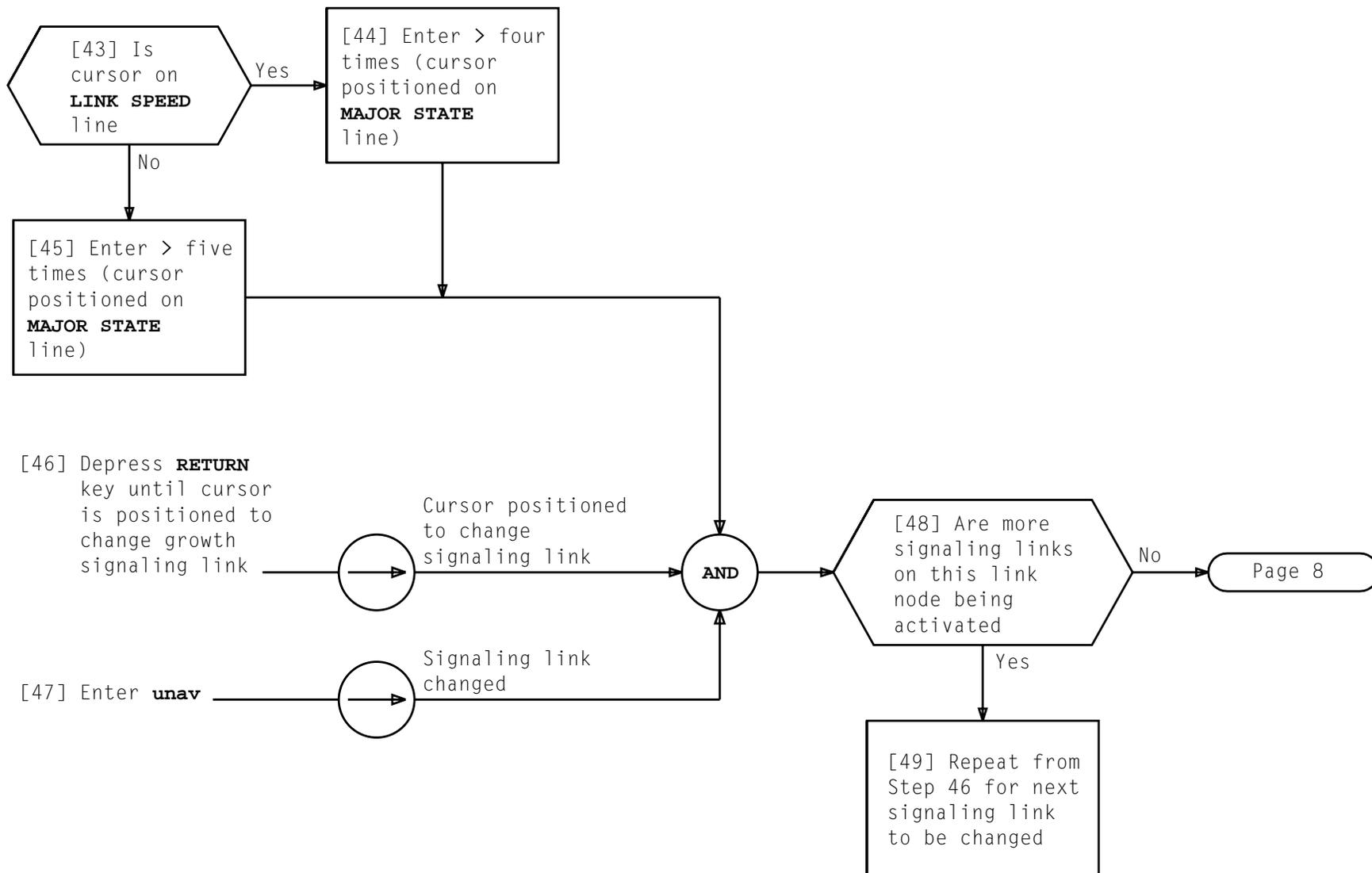
CHANGE GROWTH SIGNALING LINK(S) TO UNAVAILABLE

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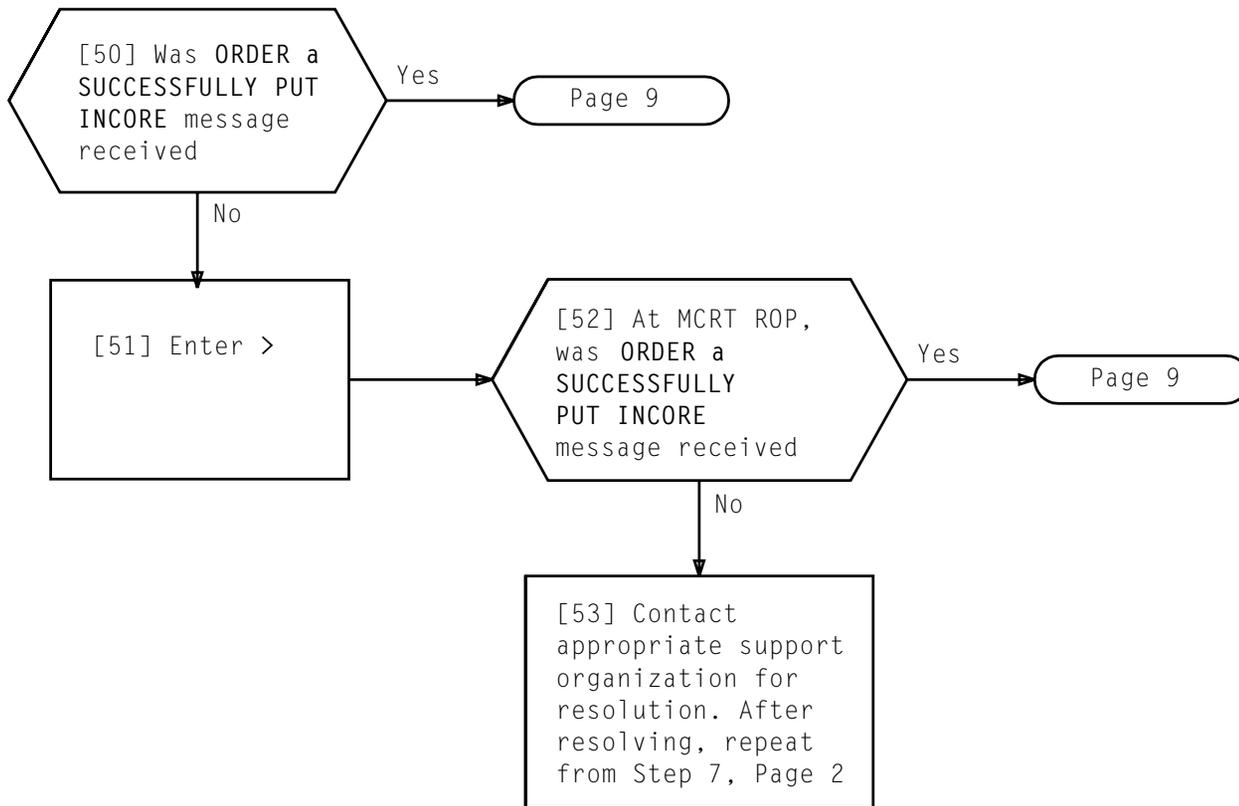
CHANGE GROWTH SIGNALING LINK(S) TO UNAVAILABLE

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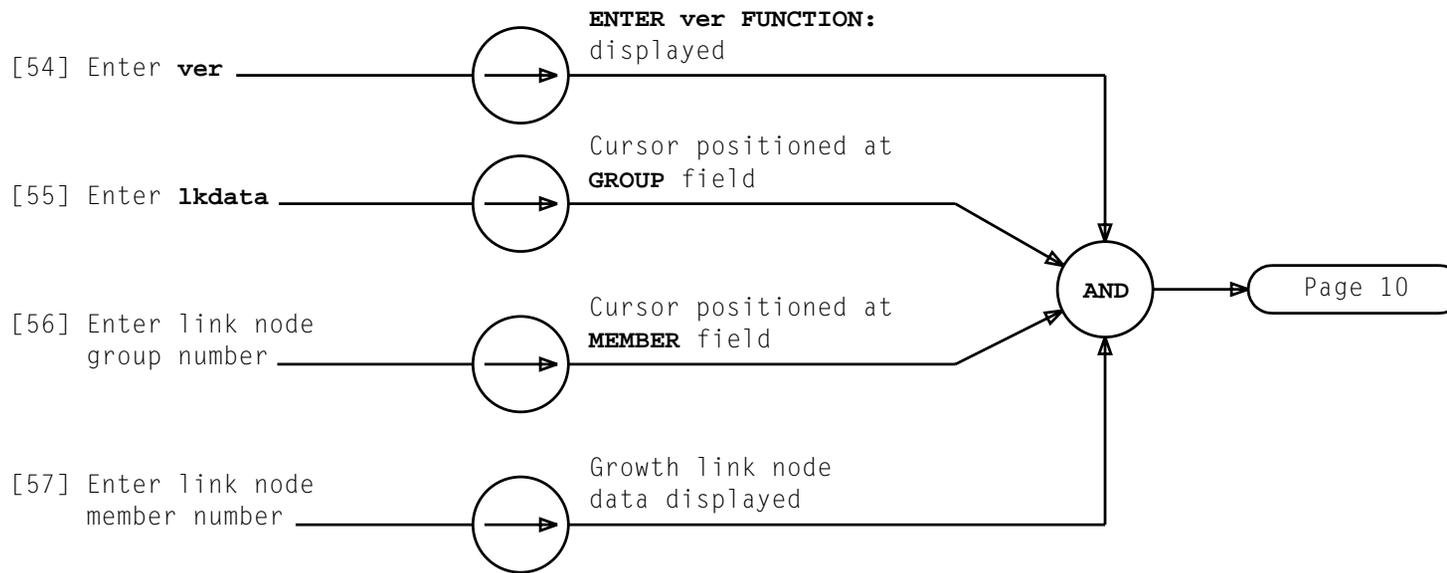
CHANGE GROWTH SIGNALING LINK(S) TO UNAVAILABLE

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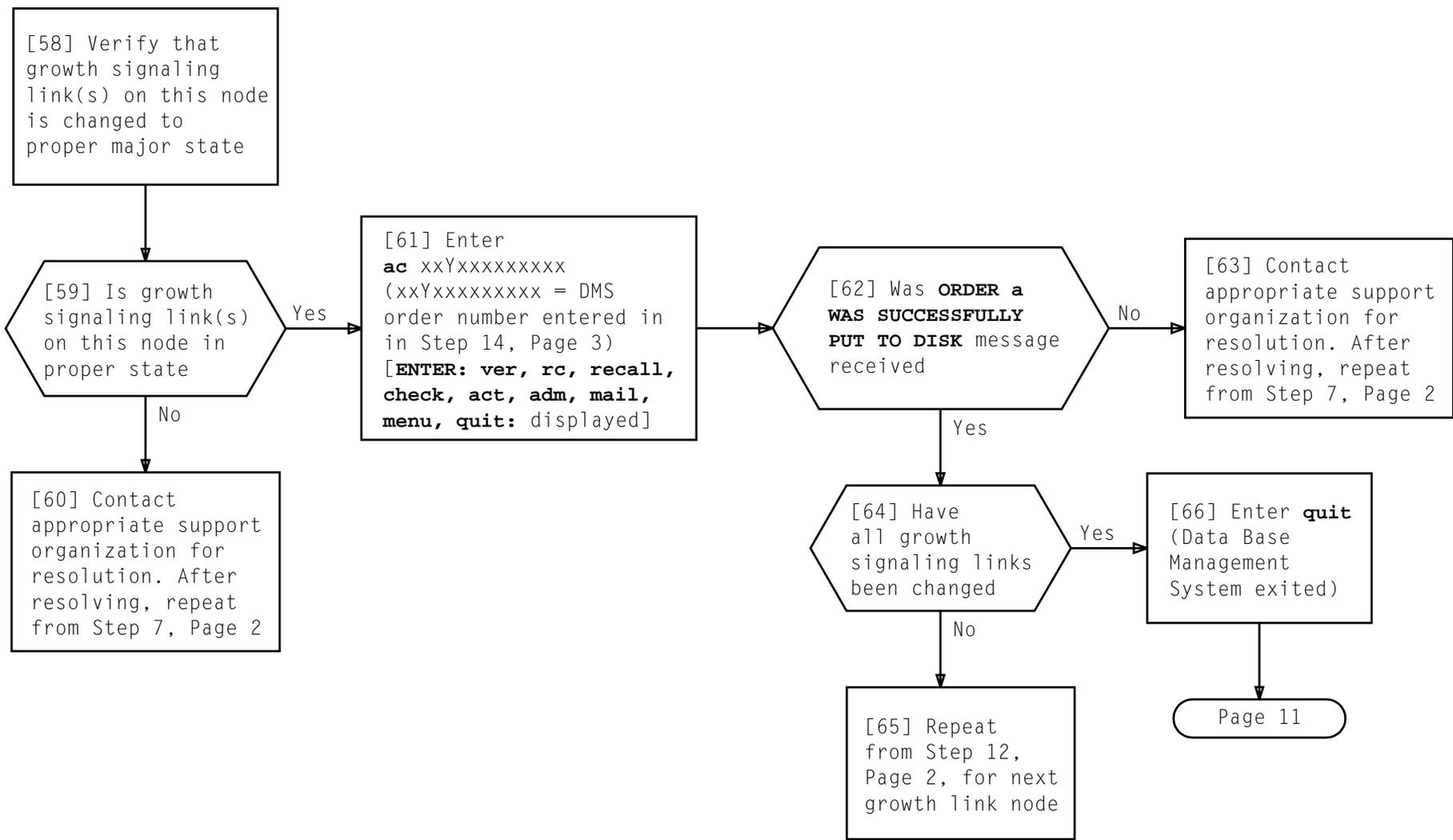
CHANGE GROWTH SIGNALING LINK(S) TO UNAVAILABLE

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CHANGE GROWTH SIGNALING LINK(S) TO UNAVAILABLE

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CHANGE GROWTH SIGNALING LINK(S) TO UNAVAILABLE

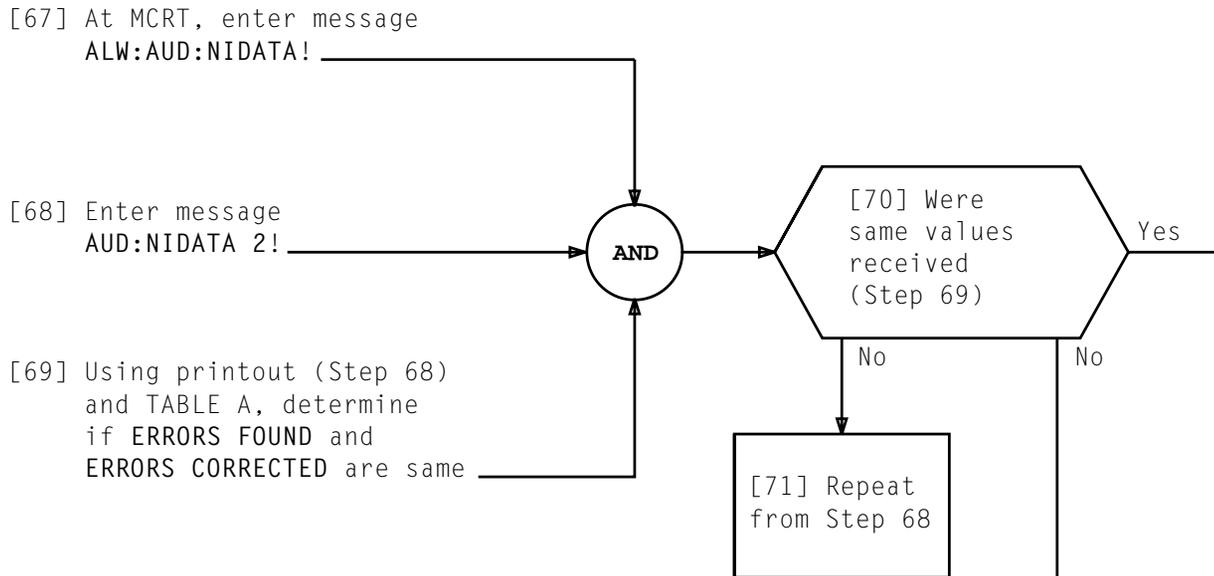
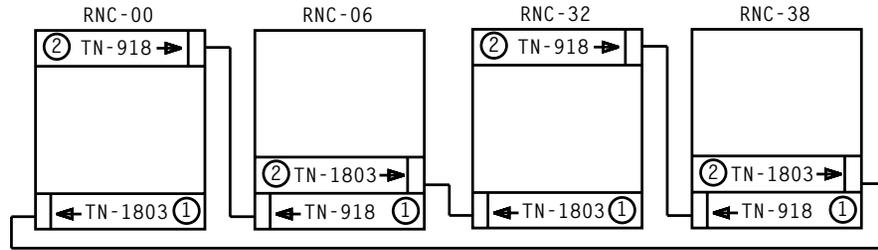


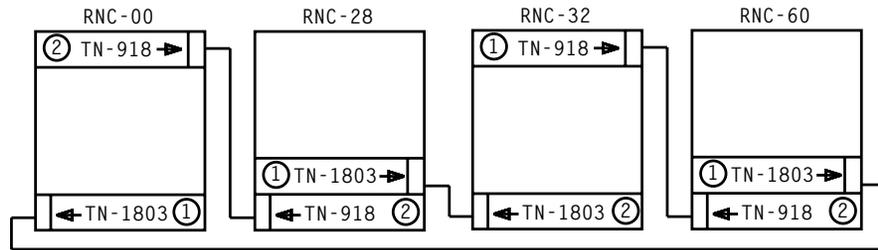
TABLE A	
MESSAGE NUMBER	OUTPUT MESSAGE
1	AUD NIDATA 2 COMPLETED a ERRORS FOUND b ERRORS CORRECTED
a = Total number of errors found b = Total number of errors corrected	

CHANGE GROWTH SIGNALING LINK(S) TO UNAVAILABLE

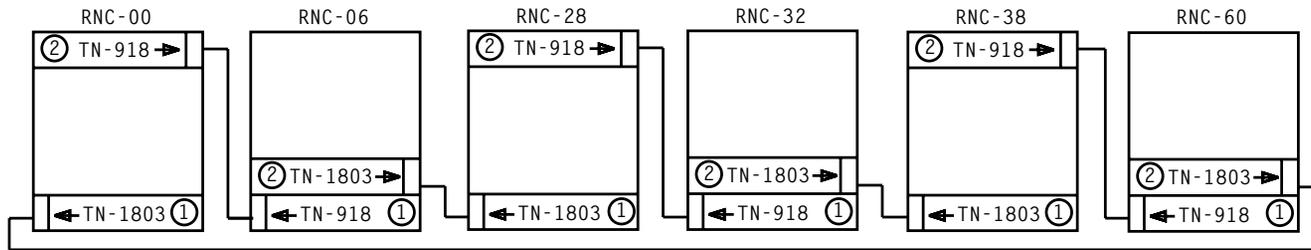
HDRNC IFB Installation
Diagram-Domestic
Office



Existing IFB Installation
Diagram-Gateway
Office



① Lower IFB
② Higher IFB



Existing IFB Installation
Diagram-Gateway
Office

FIG. 1 - Ring Cabinets Configurations

RING CABINETS CONFIGURATIONS

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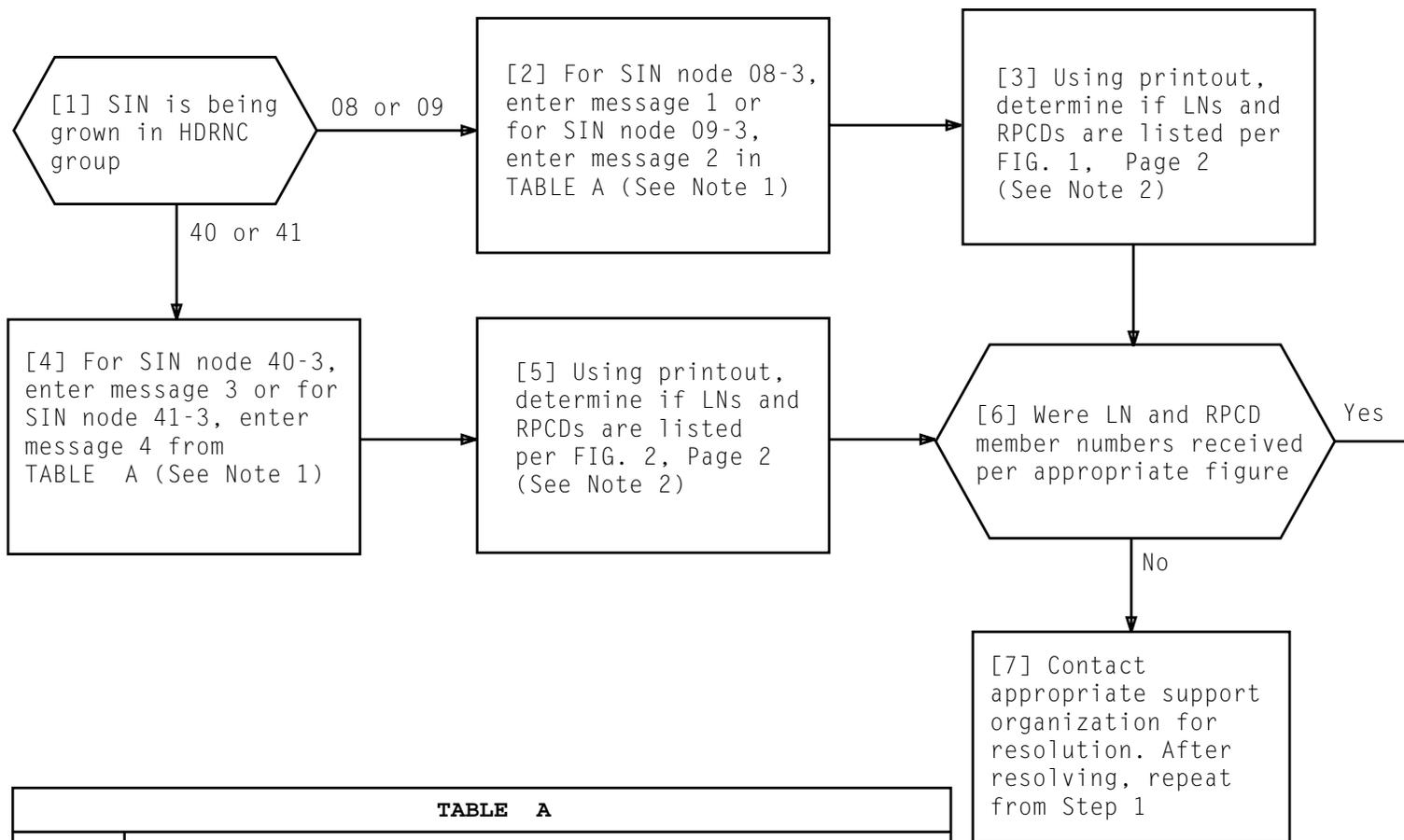


TABLE A	
Message Number	MCRT Input Message
1	EXC:ENVIR:UPROC, FN"/etc/dlnpos", ARGs("-5LN09-3 -d -p")
2	EXC:ENVIR:UPROC, FN"/etc/dlnpos", ARGs("-6LN41-3 -d -p")
3	EXC:ENVIR:UPROC, FN"/etc/dlnpos", ARGs("-p")

NOTES	
1. After you enter message(s) in TABLE A, you will receive rollout of AMA error messages.	
2. If forms already exist, then EXC ENVIR UPROC /etc/dlnpos STOPPED dlnpos; RPCD09 3 exits on channel 12. Enter message 3 in TABLE A to display desired printout	
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INITIATE PROCESSES TO DEFINE NEW mdct and RPCD UCB RECORDS

```

REPT SPOOLIT JOB (1) COMPLETED
REPT DLNPOS LNaa-3 ADDED TO SCRIPT FILE
/tmp/dlnpos.scr

REPT DLNPOS RCVECD CALLED ON INCORE ECD

REPT DLNPOS RCVECD COMPLETE

REPT DLNCM PROC (Redip) STARTED 4 DLNS
  LN00-5  LN32-5  LN00-10  LN32-10

REPT DLNCM PROC (Redip) STARTED 2 SINS/EINS
  LNaa-3  LN41-3

REPT DLNCM PROC (Redip): COMPL CODED 0 4 DLNS

REPT DLNCM PROC (Redip) COMPL 2 SINS/EINS
  LNaa-3  LN41-3

REPT DLNPOS PROCESS DLNCM TOLD TO READ ECD

REPT DLNPOS COMPLETE

EXC ENVIR UPROC /etc/dlnpos STOPPED
dlnpos: dma channel 12 configuration
  API          0          ACT/STBY
  API          1          ACT/STBY
  RPCN00       0          ACT
  RPCN32       0          ACT
  RPCD00       5          GROW      dln1
  RPCD32       5          GROW      dln2
  RPCD00       10         GROW      dln3
  RPCD32       10         GROW      dln4
  RPCDaa       3          UNEQUIP   dln5
  RPCN41       3          UNEQUIP   dln6

```

aa=SIN node being grown (Group 08 or 09)
RPCD41 3 will be grown in a later Step

**FIG. 1-Printout for Lower SIN Node Growth
(LN08-3 or LN09-3)**

```

REPT SPOOLIT JOB (1) COMPLETED
REPT DLNPOS LNbb-3 ADDED TO SCRIPT FILE
/tmp/dlnpos.scr

REPT DLNPOS RCVECD CALLED ON INCORE ECD

REPT DLNPOS RCVECD COMPLETE

REPT DLNCM PROC (Redip) STARTED 4 DLNS
  LN00-5  LN32-5  LN00-10  LN32-10

REPT DLNCM PROC (Redip) STARTED 2 SINS/EINS
  LNaa-3  LNbb-3

REPT DLNCM PROC (Redip): COMPL CODED 0 4 DLNS

REPT DLNCM PROC (Redip) COMPL 2 SINS/EINS
  LNaa-3  LNbb-3

REPT DLNPOS PROCESS DLNCM TOLD TO READ ECD

REPT DLNPOS COMPLETE

EXC ENVIR UPROC /etc/dlnpos STOPPED
dlnpos: dma channel 12 configuration
  API          0          ACT/STBY
  API          1          ACTSTBY
  RPCN00       0          ACT
  RPCN32       0          ACT
  RPCD00       5          GROW      dln1
  RPCD32       5          GROW      dln2
  RPCD00       10         GROW      dln3
  RPCD32       10         GROW      dln4
  RPCDaa       3          GROW      dln5
  RPCNbb       3          UNEQUIP   dln6

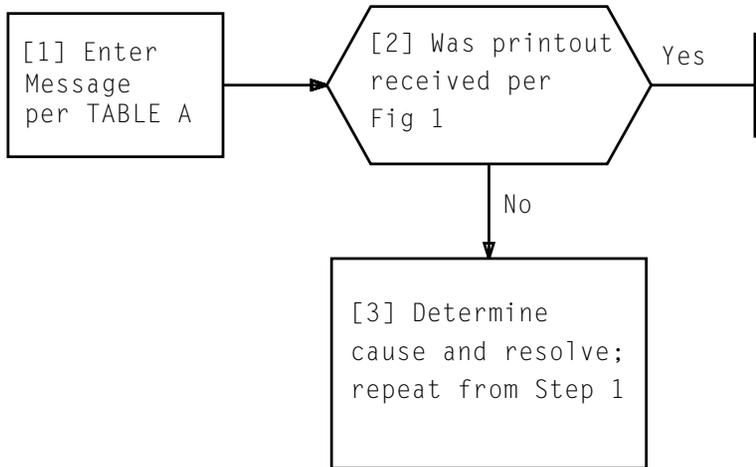
```

aa=SIN node already grown (Group 08 or 09)
bb=SIN node being grown (Group 40 or 41)

**FIG. 2-Printout for Higher SIN Node Growth
(LN40-3 or LN41-3)**

INITIATE PROCESSES TO DEFINE NEW mdct and RPCD UCB RECORDS

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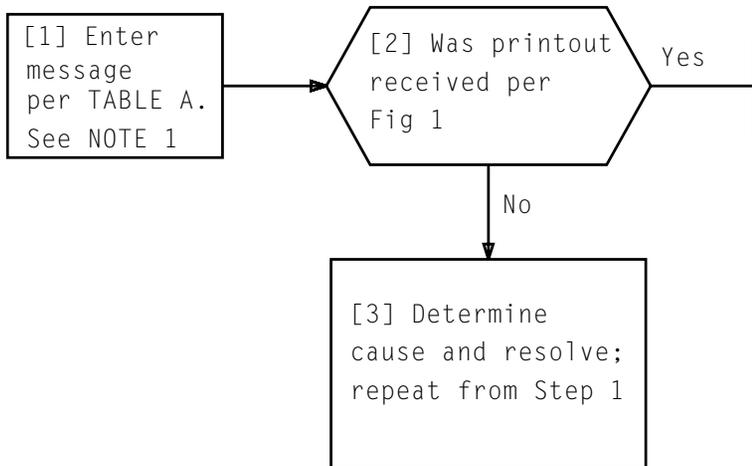
```

EXC:ENVIR:UPROC, FN"/database/tools/sin.grow", ARG(SINaa")
/database/tools/sin.grow:STARTING
BEGINNING GROWTH OF RPCDaa 03 (SIN NODE) USING THE
/database/tools/sin.grow SCRIPT
RPCDaa 03 COMPLETED FOR IRN2 SIN NODE GROWTH USING THE
/database/tools/sin.grow SCRIPT
/database/tools/sin.grow RCVECD PASSED - EXIT CODE = 0
GROWTH OF RPCDaa 03 BY SCRIPT /database/tools/sin.grow COMPLETED
RPCDaa 03 INCORE CHANGES -hv = 0xc000, mv = 0x23, path =pu/SINI_NA,
packcode =SIN, issue =1,internal device = b, device num = c
RPCDaa 03 IS IN GROW - CHANGES MADE TO INCORE DATABASE ONLY
GROWTH OF LNaa 03 BEGINNING
/database/tools/sin.grow RCVECD PASSED - EXIT CODE = 0
GROWTH OF SIN NODE LNaa 03 BY SCRIPT /database/tools/sin.grow COMPLETED
LNaa 03 INCORE CHANGES - hv = 0xc000, mv = 0x1a, path =pu/irn2, packcode = SIN,
issue=1, internal device = 0, device num = NULL
LNaa 03 IS IN GROW - CHANGES MADE TO INCORE DATABASE ONLY
EXC ENVIR UPROC COMPLETED
  
```

Where aa = Group number of the SIN link node being grown.
 b = 6 or 7
 c = 8 or 9

FIG. 1 - Printout for the sin.grow Script

TABLE A	
Message Number	INPUT MESSAGE
1	EXC:ENVIR:UPROC, FN"/database/tools/sin.grow", ARG("SINaa")! aa = group number of ring node cabinet



```

EXC:ENVIR:UPROC, FN"/database/tools/sin.cueq", ARG(SINaa", "Cub")
/database/tools/sin.cueq:STARTING
BEGINNING THE EQUIPPAGE CHANGE OF CUB CHANNEL cc UCB FOR
SIN NODE GROWTH USING THE /database/tools/sin.cueq SCRIPT
/database/tools/sin.CUEQ RCVECD PASSED - EXIT CODE = 0
MODIFICATION OF CU b EQUIPPAGE FOR GROWTH OF SIN NODE
SINaa 03 COMPLETED BY SCRIPT /database /tools/sin.cueq
SINaa 03 INCORE CHANGES - CU b, CH cc EQUIPPAGE MODIFIED TO 0x_ff
Cub MODIFIED - CHANGES MADE TO INCORE DATABASE ONLY
Cub CAN NOW BE POWERED UP AND RESTORED AFTER CABLING
TO SIN NODE IS COMPLETE
EXC ENVIR UPROC COMPLETED
  
```

Where aa = Group number of the SIN/EIN link node being grown
 b = CU being updated
 cc = Channel being updated

Note: The equippage value displayed will be:

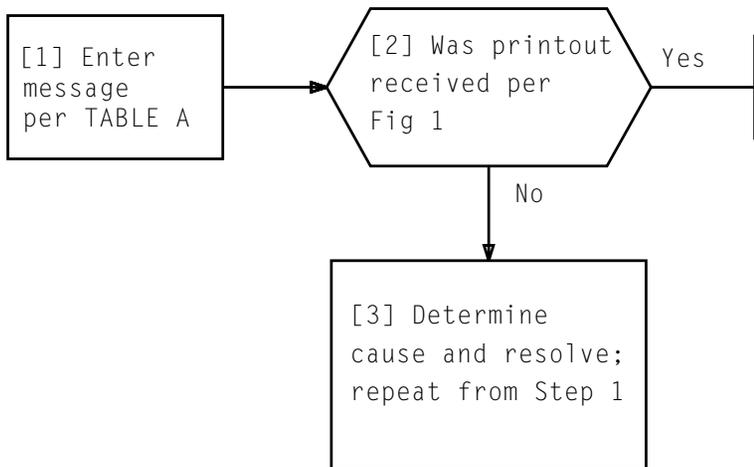
			VALUE	
			INITIAL	MODIFIED
3B20	9	CU0, CU1	0x0ff	0x1ff CH12
	41	CU0, CU1	0x1ff	0x3ff CH12
3B21	9	CU0, CU1	0x3	0xb CH17
	41	CU0, CU1	0x3	0xb CH19

FIG. 1 - Printout for the sin.cueq Script

TABLE A	
Message Number	INPUT MESSAGE
1	EXC:ENVIR:UPROC, FN"/database/tools/sin.cueq", ARG(SINaa", "Cub")!
	aa = group number of ring node cabinet b = CU 0 or 1

NOTE 1	
The sin.cueq script is the actual script used CU equipage values. Enter exactly as shown. The output messages displays SIN information while updating the CU equipage for DSCH	
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RECENT CHANGE EQUIPAGE VALUE FOR CU CHANNEL FOR SIN/EIN LINK NODE



```

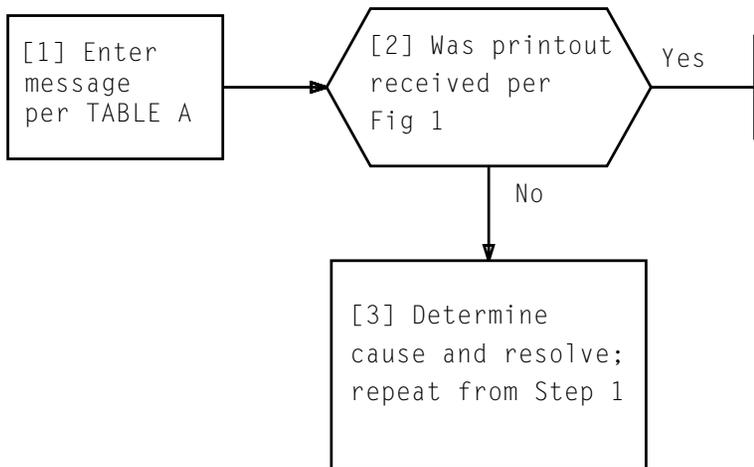
EXC:ENVIR:UPROC, FN"/database/tools/sin.oos", ARG(SINaa")
/database/tools/sin.oos:STARTED
TAKING LNaa 03 (SIN NODE) TO OOS USING THE /database/tools/sin.oos SCRIPT
LNaa 03 SET TO OOS USING THE /database/tools/sin.unequip SCRIPT
/database/tools/sin.oos RCVECD PASSED - EXIT CODE = 0
MOVING LNaa 03 TO OOS BY SCRIPT /database/tools/sin.oos COMPLETED
LNaa 03 IS OOS - CHANGES MADE TO INCORE DATABASE ONLY
EXC ENVIR UPROC COMPLETED
  
```

Where aa = Group number of SIN link node being grown.

FIG. 1 - Printout for the sin.oos Script

TABLE A	
Message Number	INPUT MESSAGE
1	EXC:ENVIR:UPROC, FN"/database/tools/sin.oos", ARG("SINaa")!
	aa = group number of ring node cabinet

RECENT CHANGE SIN LINK NODE BEING GROWN TO OOS



```

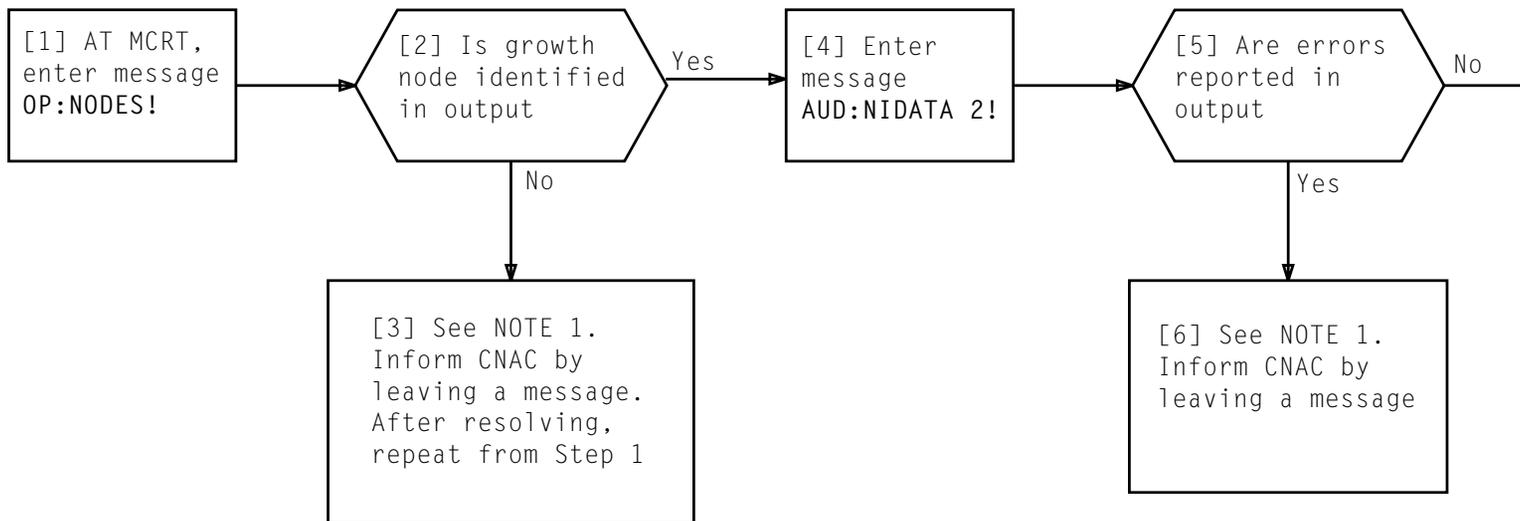
EXC:ENVIR:UPROC, FN"/database/tools/sin.unequip", ARG(SINaa")
/database/tools/sin.unequip:STARTED
BEGINNING GROWTH OF LNaa 03 (SIN NODE) USING THE
/database/tools/sin.unequip SCRIPT
LNaa 03 SET TO UNEQIP USING THE /database/tools/sin.unequip SCRIPT
/database/tools/sin.unequip RCVECD PASSED - EXIT CODE = 0
DEGROWTH OF LNaa 03 BY SCRIPT /database/tools/sin.unequip COMPLETED
LNaa 03 IS IN UNEQIP - CHANGES MADE TO INCORE DATABASE ONLY
BEGINNING DEGROWTH OF RPCD aa 03 (SIN NODE) Using THE
/database/tools/sin.unequip SCRIPT
/database/tools/sin.unequip RCVECD PASSED - EXIT CODE = 0
DEGROWTH OF RPCDaa NODE RPCDaa 03 BY SCRIPT
/database/tools/sin.unequip COMPLETED
RPCDaa 03 IS IN UNEQIP - CHANGES MADE TO INCORE DATABASE ONLY
EXC ENVIR UPROC COMPLETED
  
```

Where aa = Group number of the SIN link node being grown.

FIG. 1 - Printout for the sin.unequip Script

TABLE A	
Message Number	INPUT MESSAGE
1	EXC:ENVIR:UPROC, FN"/database/tools/sin.unequip", ARG("SINaa")!
	aa = group number of ring node cabinet

RECENT CHANGE SIN LINK NODE BEING GROWN TO UNEQIP



NOTE 1

Office CLLI beginning with:
 A to C Call 513-629-8286
 D to L Call 513-629-7827
 M to P Call 513-629-5485
 Q to Z Call 513-629-6338

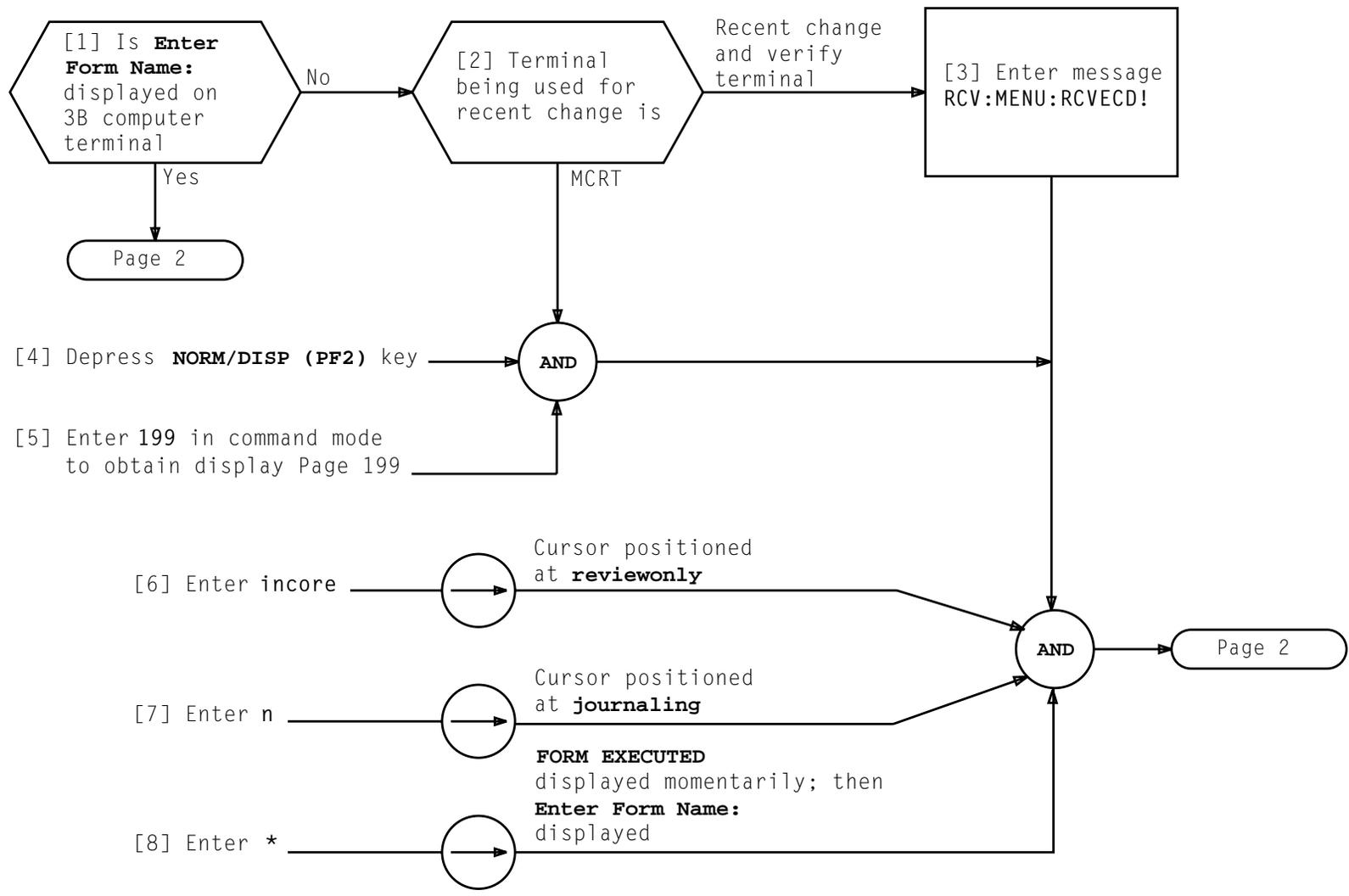
ENSURE CNAC HAS POPULATED OFFICE-DEPENDENT NODE DATA

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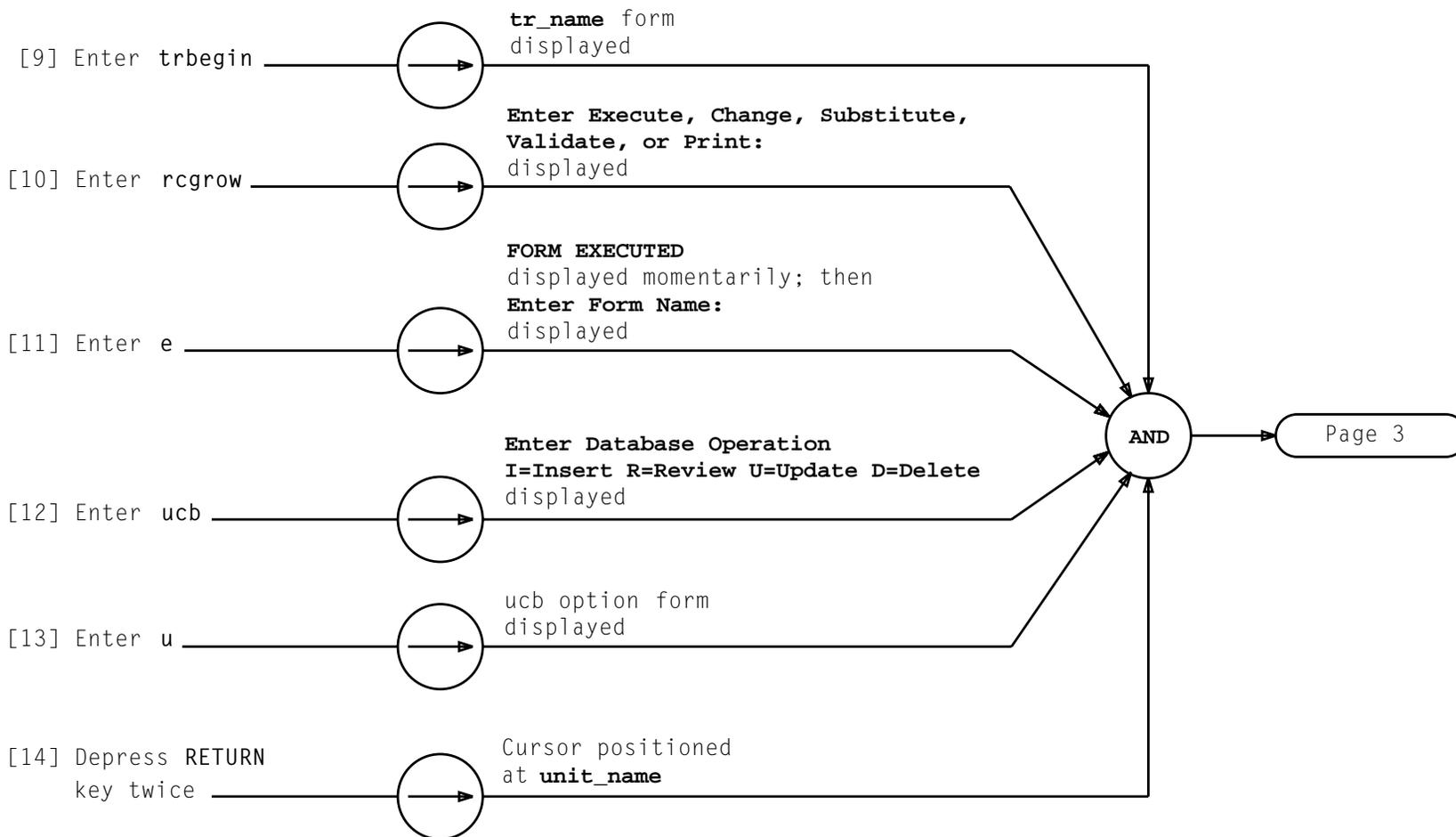
1. Ensure 3B Computer has not experienced terminal suspends, bootstraps, diagnostic failures, or overloads within past 24 hours.
2. Ensure both CUs have been diagnosed ATP within past 24 hours.
3. Ensure all system problems have been cleared.
4. Ensure disks and IOPs are duplex and CUs are in ACTIVE-STANDBY mode.
5. All forces on disks must be cleared (EAI page).
6. AT 3B MCRT, enter SW:PORTSW!.
7. All forces on disks must be cleared (EAI page).
8. At 1B MCC, enter poke command 810 (**SDC – SERVICE DEGRADING FAILURE**) to obtain service-degrading report printout. If there are any units listed, make corrective action to clear service-degrading condition of each unit listed before continuing.
9. Ensure that APIs are in ACTIVE-STANDBY mode.
10. AT 3B MCRT ROP, locate audit status printout and record any audits that are inhibited. If audits are inhibited, they will have to be allowed before performing growth.

VERIFY SYSTEM STATUS – NEW START

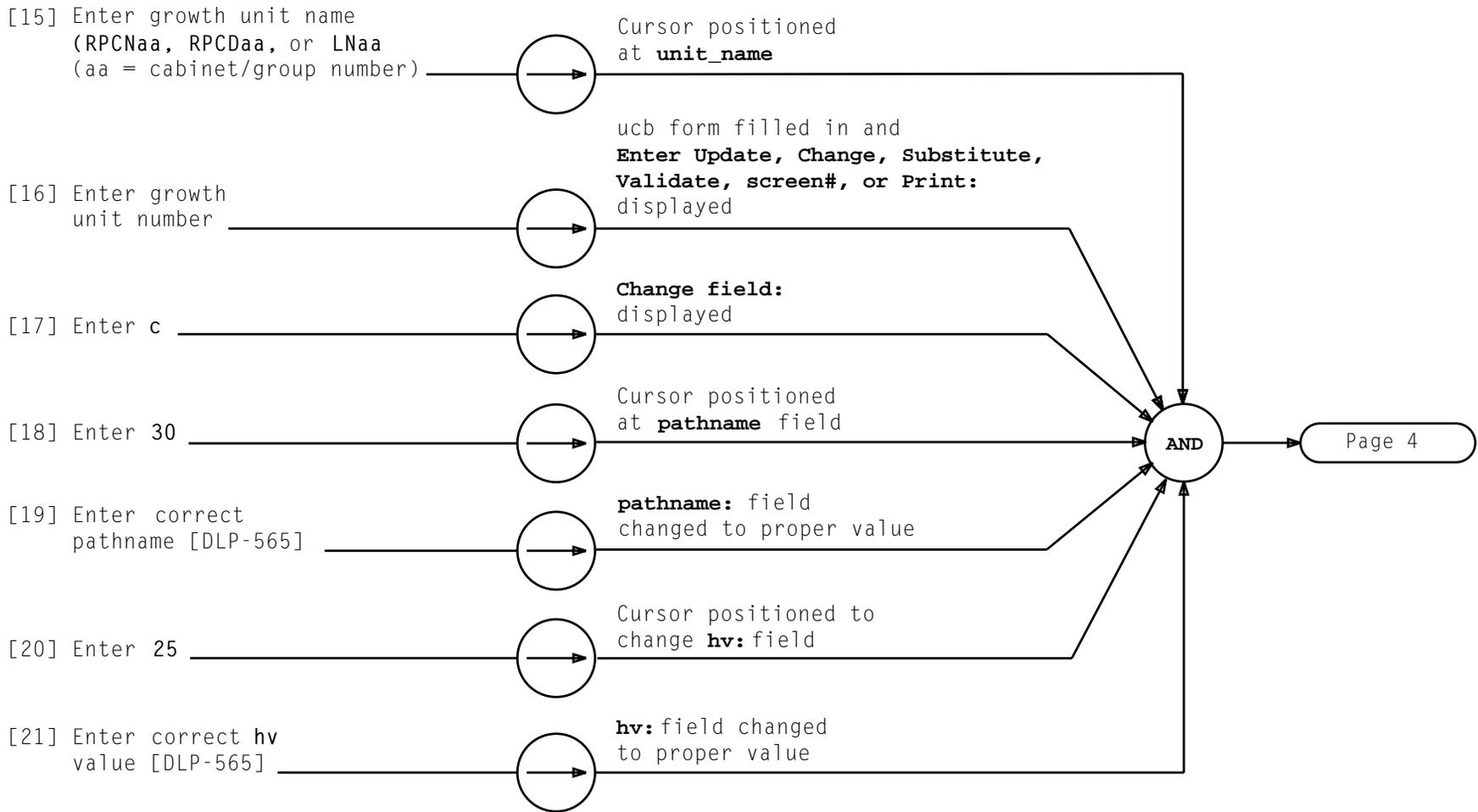
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**RECENT CHANGE NODE-SPECIFIC DATA FOR GROWTH UNITS,
AS REQUIRED**

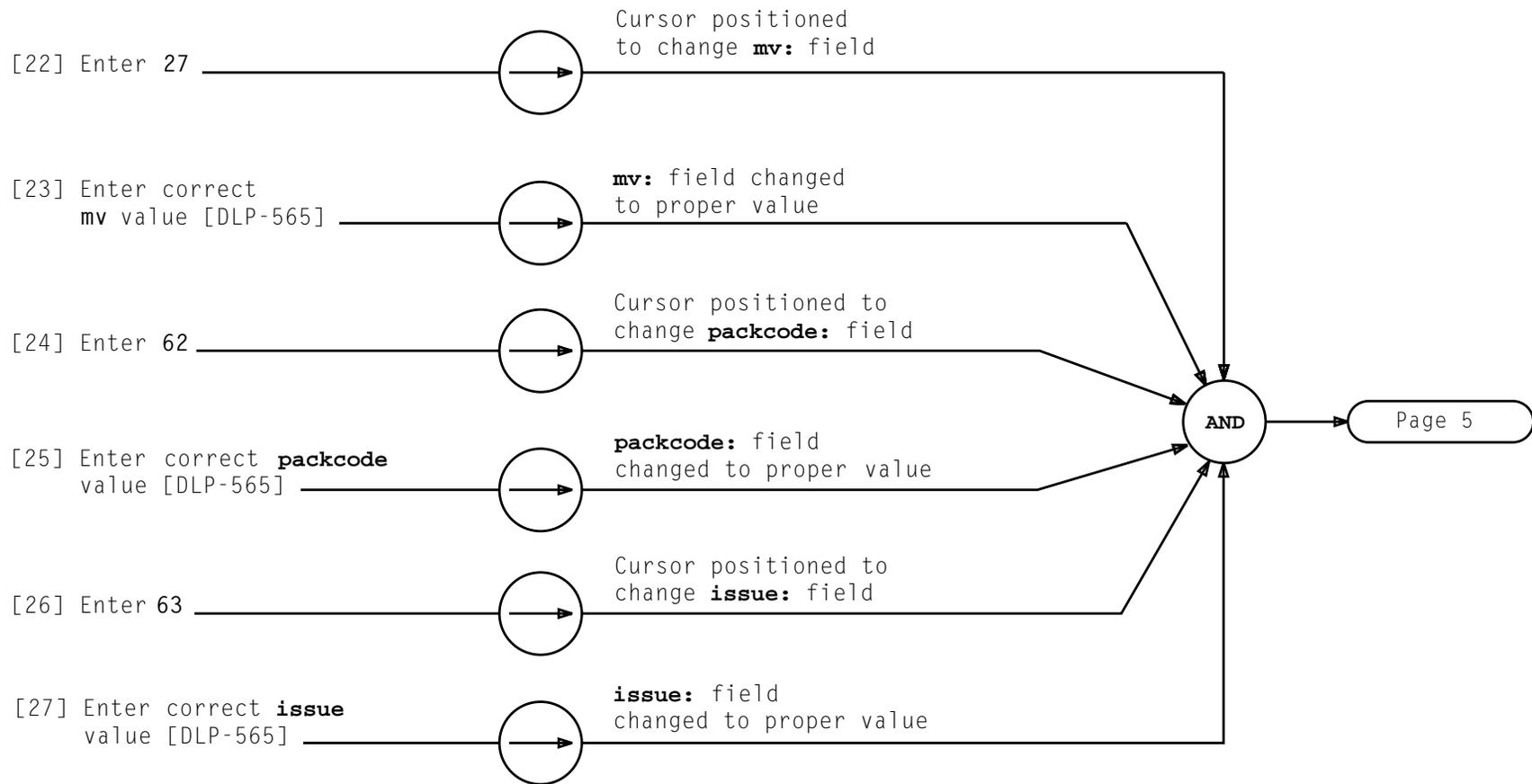


**RECENT CHANGE NODE-SPECIFIC DATA FOR GROWTH UNITS,
AS REQUIRED**



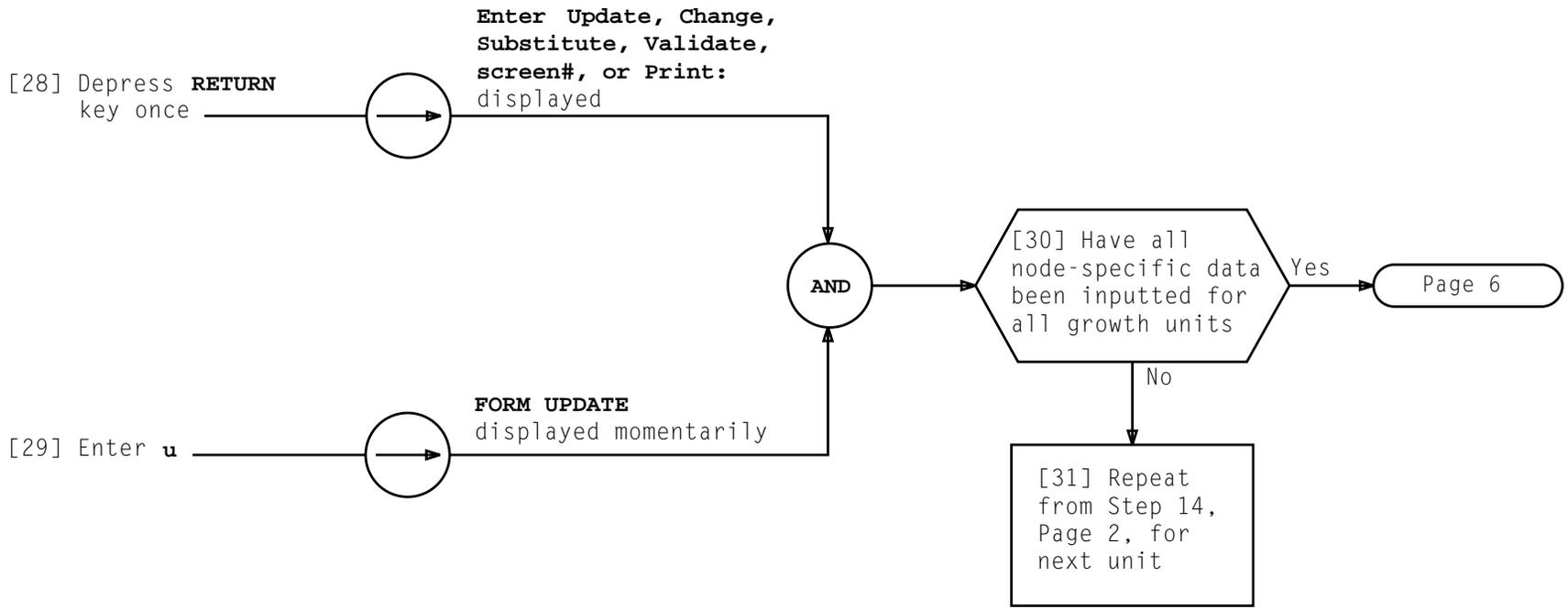
**RECENT CHANGE NODE-SPECIFIC DATA FOR GROWTH UNITS,
AS REQUIRED**

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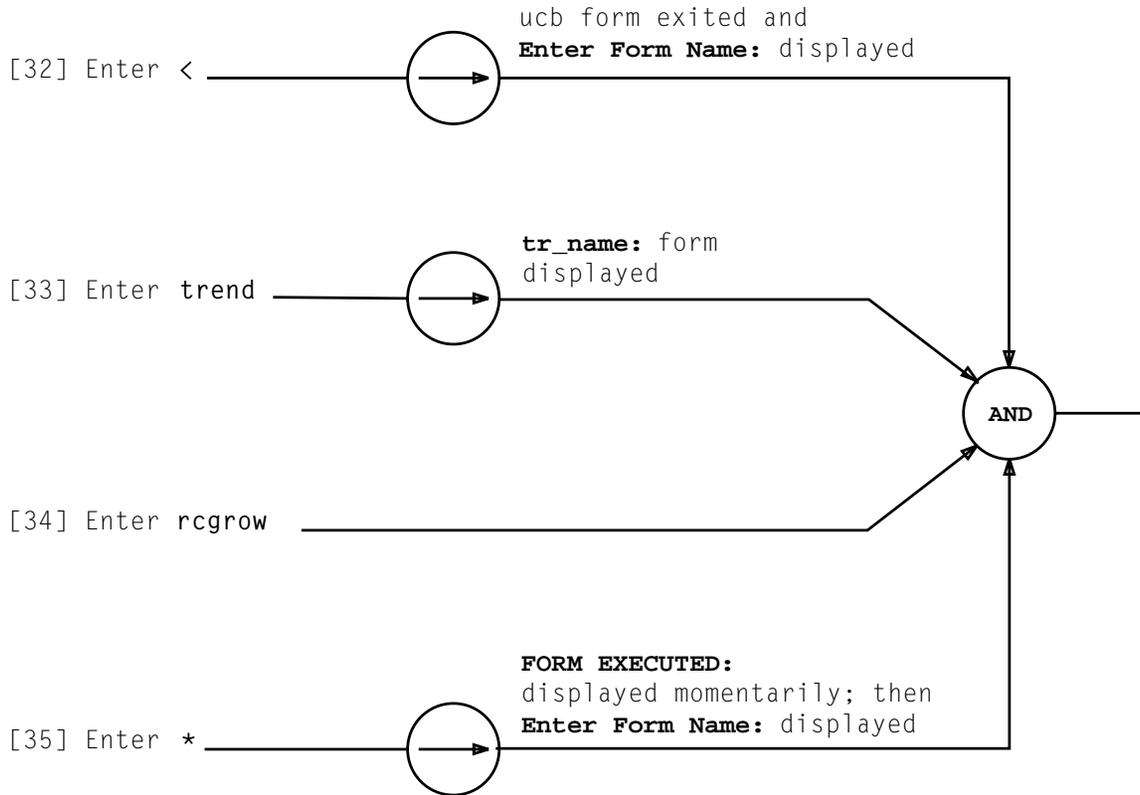


**RECENT CHANGE NODE-SPECIFIC DATA FOR GROWTH UNITS,
AS REQUIRED**

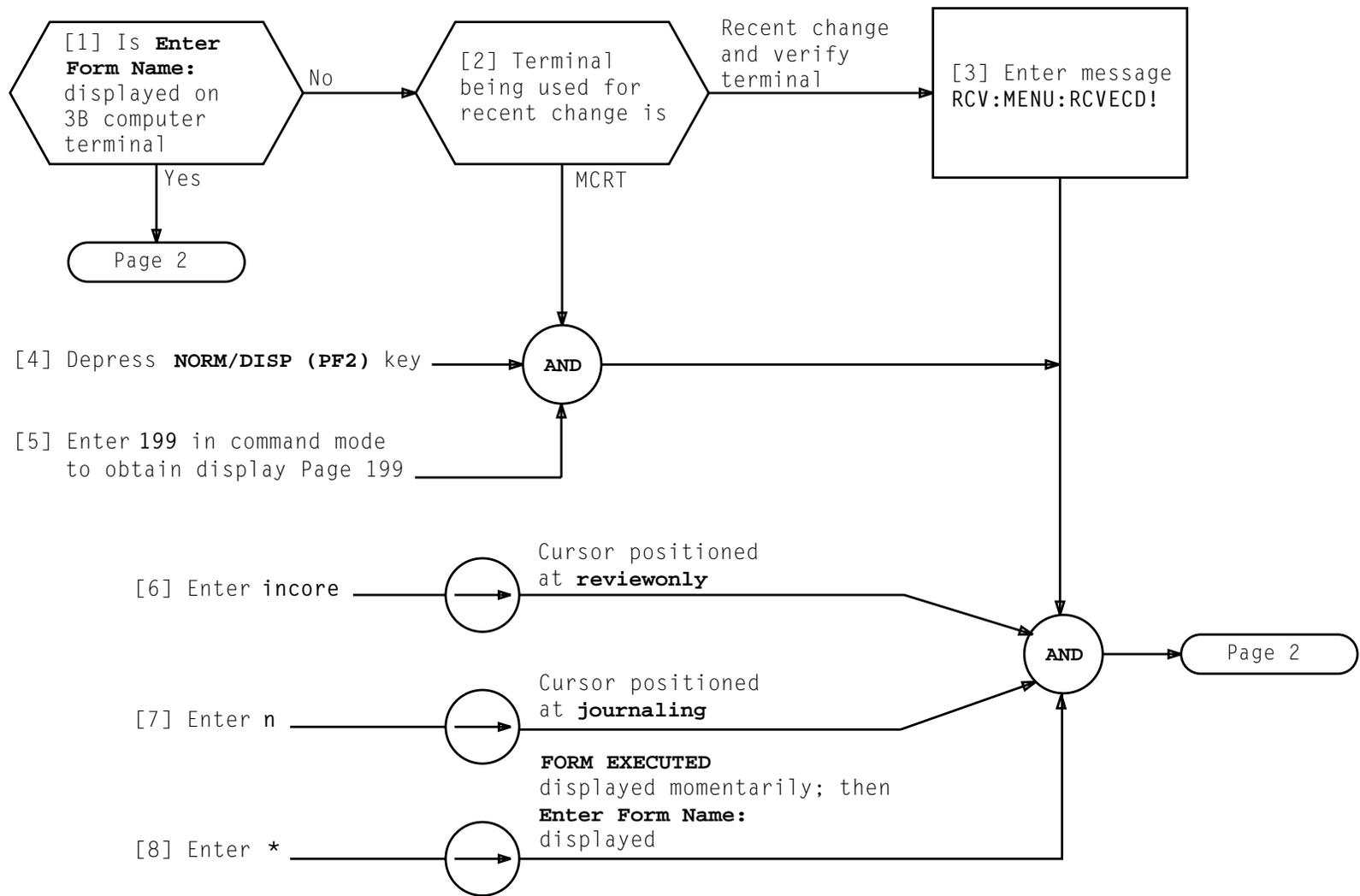
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**RECENT CHANGE NODE-SPECIFIC DATA FOR GROWTH UNITS,
AS REQUIRED**

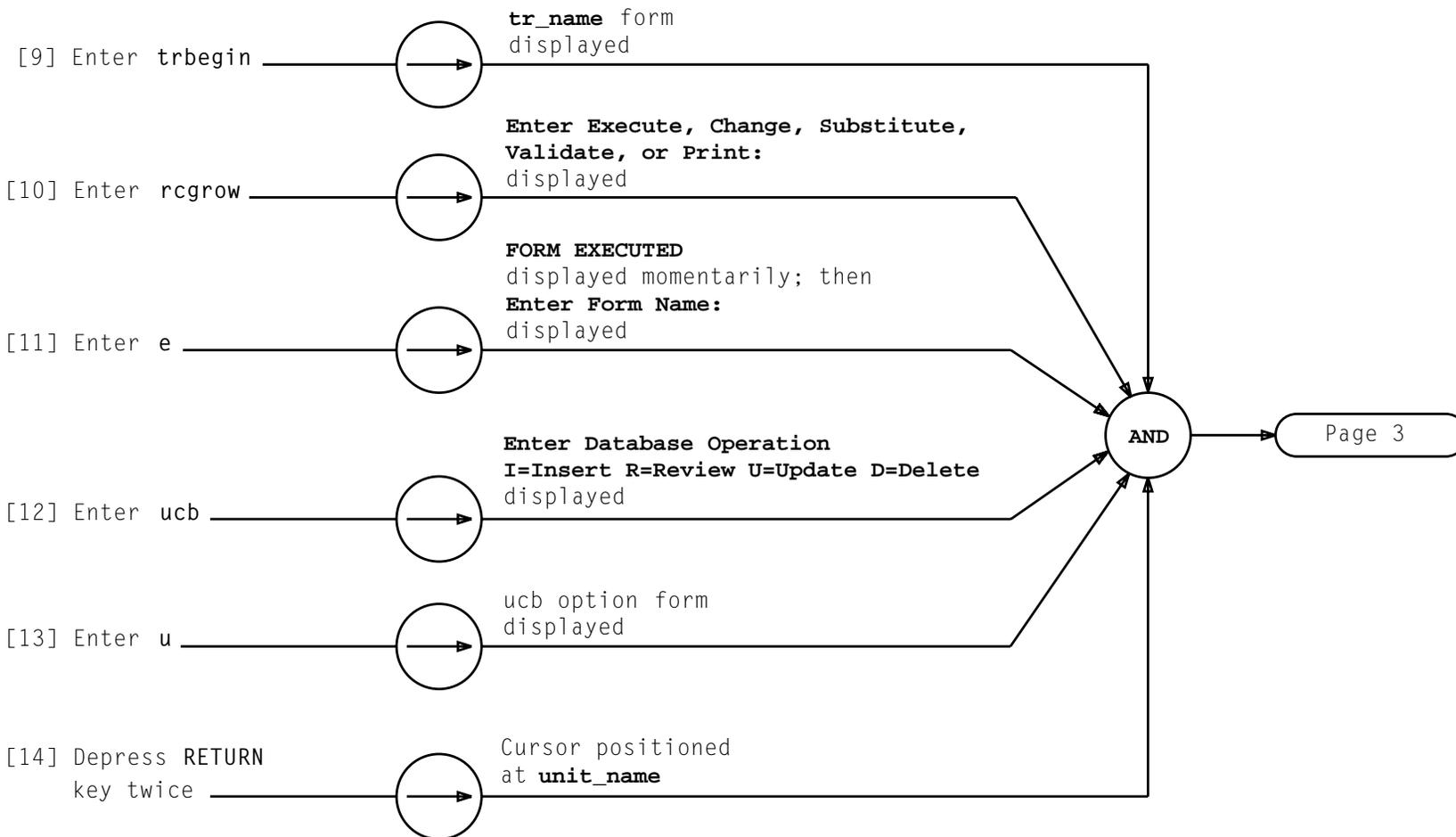


**RECENT CHANGE NODE-SPECIFIC DATA FOR GROWTH UNITS,
AS REQUIRED**



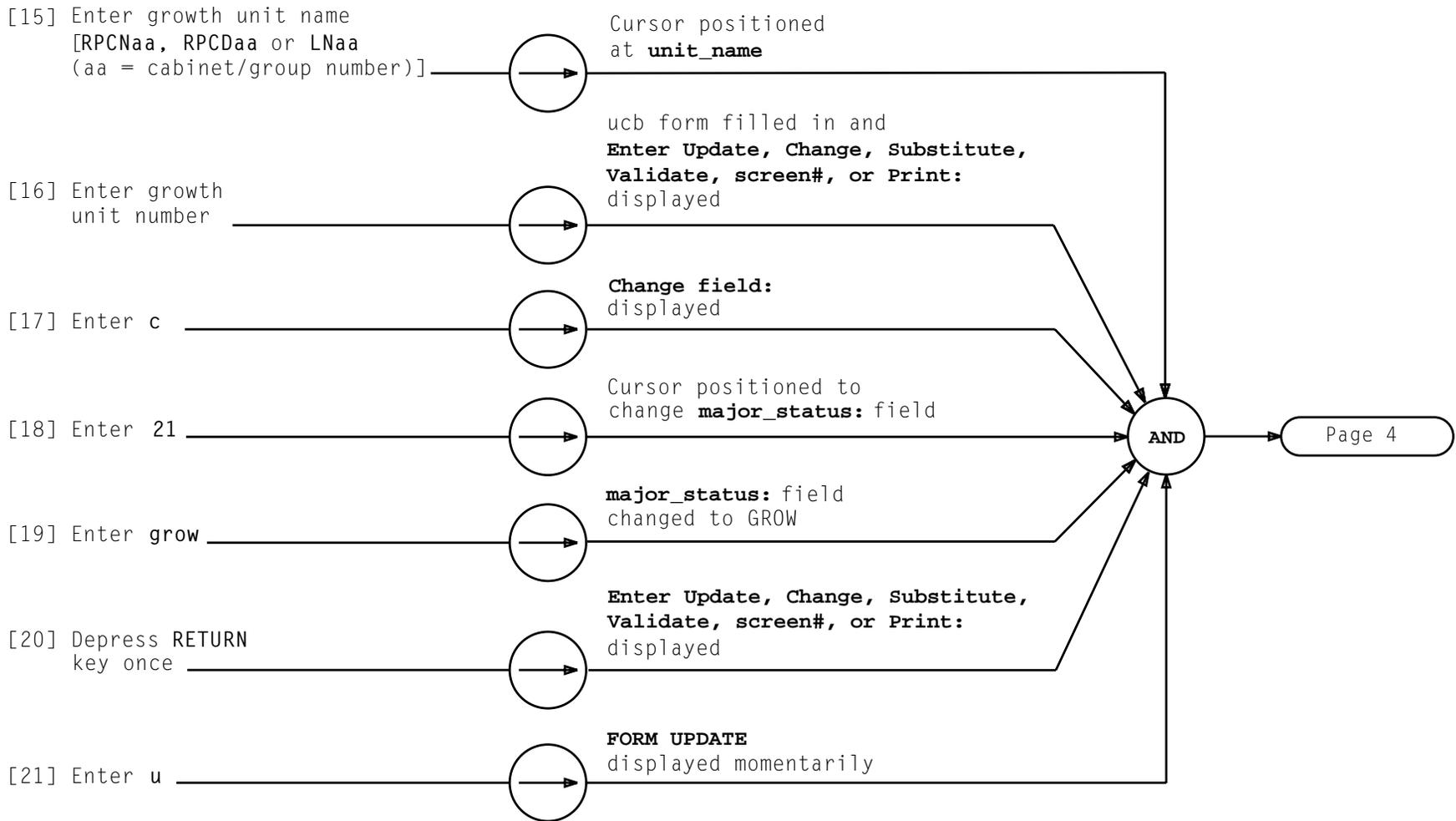
RECENT CHANGE GROWTH UNITS FROM UNEQUIP TO GROW

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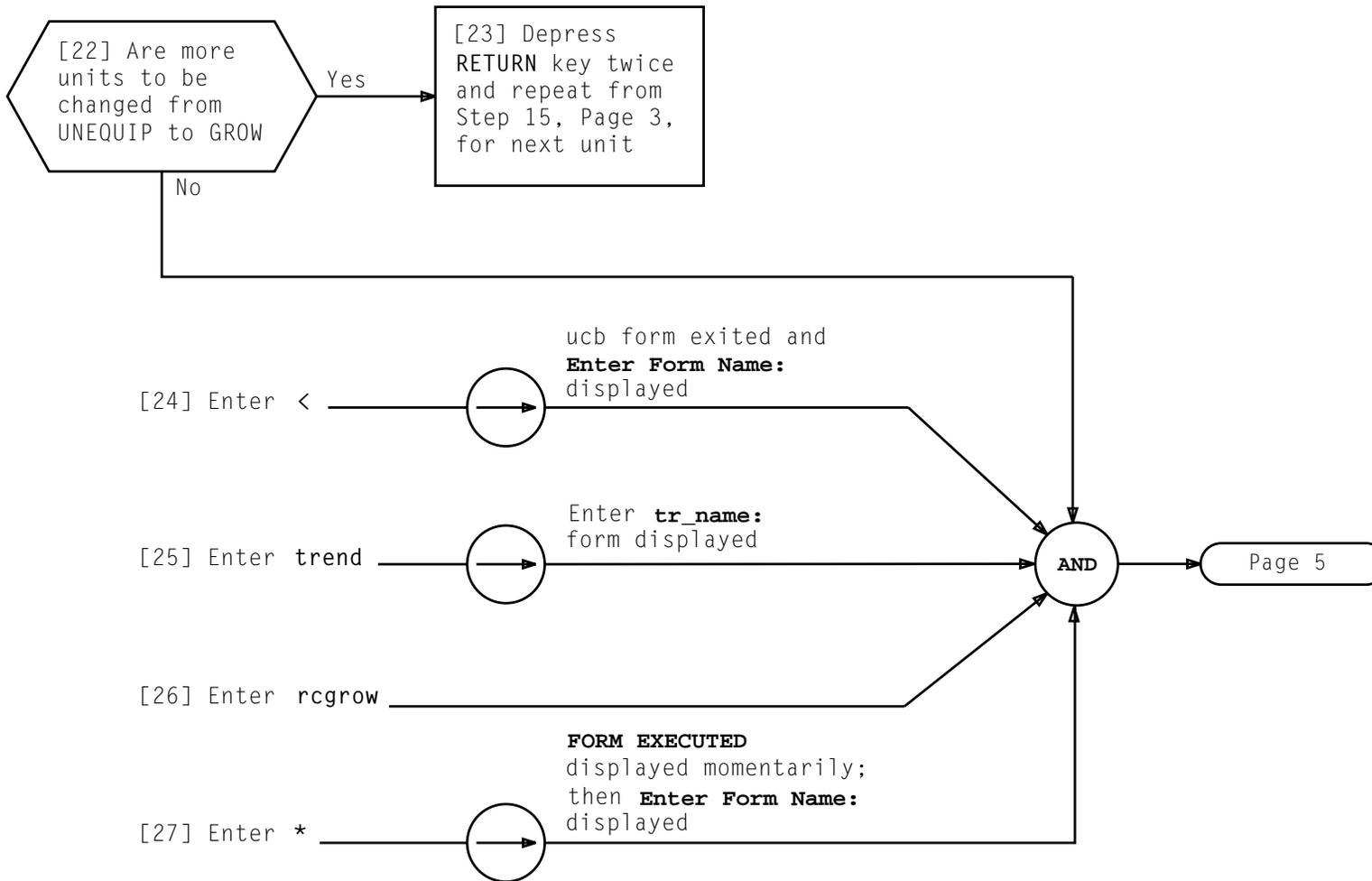
RECENT CHANGE GROWTH UNITS FROM UNEQUIP TO GROW

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RECENT CHANGE GROWTH UNITS FROM UNEQUIP TO GROW

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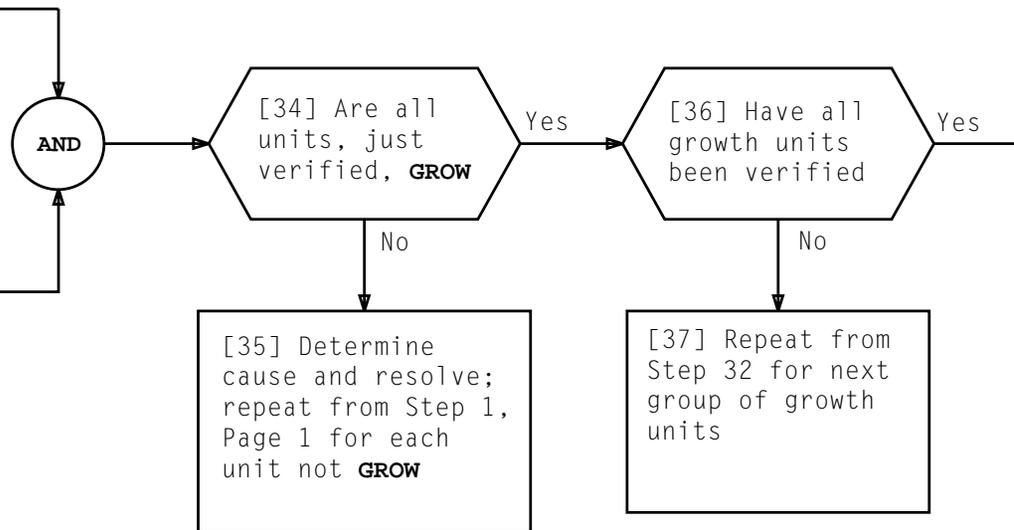


RECENT CHANGE GROWTH UNITS FROM UNEQUIP TO GROW

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[32] Enter appropriate command to obtain 1106 page that contains growth units

[33] Verify that each recent change unit status on this page is changed to **GROW**



RECENT CHANGE GROWTH UNITS FROM UNEQUIP TO GROW

[1] Determine location of interface buffer (IFB) packs within frames 00 and 32

[2] Determine status (higher or lower) of IFB packs within CNI ring (following local procedure)

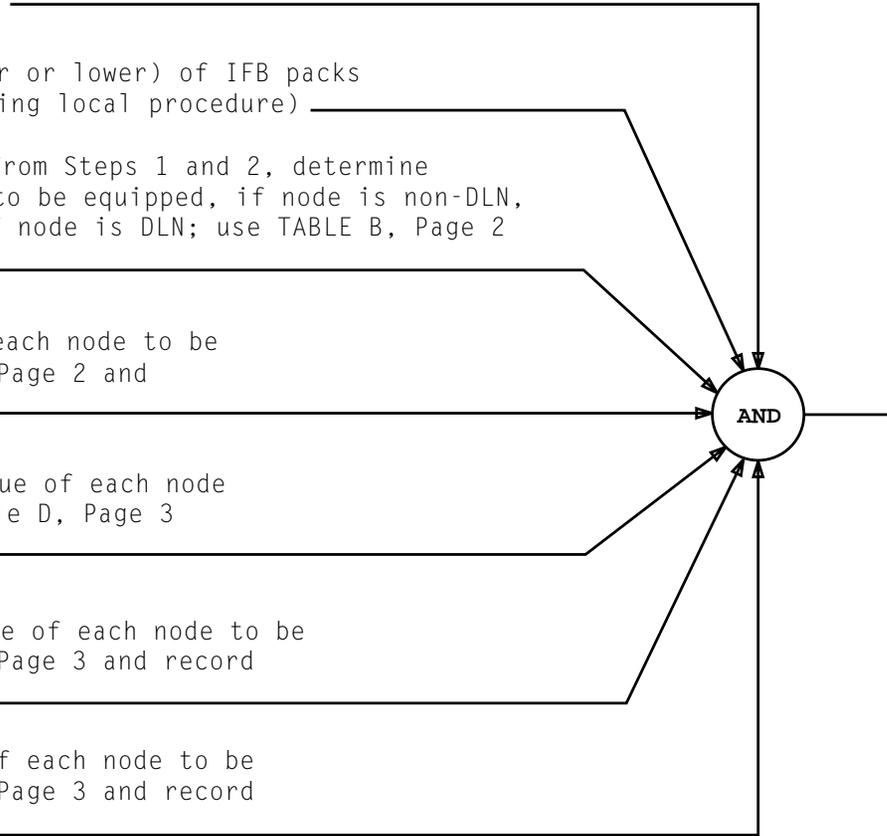
[3] Using the information from Steps 1 and 2, determine **hv** value of each node to be equipped, if node is non-DLN, use TABLE A, Page 2; if node is DLN; use TABLE B, Page 2 and record on DLP-579

[4] Determine **mv** value of each node to be equipped from TABLE C, Page 2 and record on DLP-579

[5] Determine **pack code** value of each node to be equipped from Table D, Page 3 and record on DLP-579

[6] Determine **pathname** value of each node to be equipped from Table E, Page 3 and record on DLP-579

[7] Determine **issue** value of each node to be equipped from Table F, Page 3 and record on DLP-579



DETERMINE NODE DATA FOR ALL GROWTH NODES

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TABLE A							
Ring Interface Pack(s)	IFB Type	IFB Position	HV Value	Ring Interface Pack(s)	IFB Type	IFB Position	HV Value
UN122/UN123	None	N/A	0x0100	UN303	None	N/A	0x8000
UN122/UN123	TN918	Higher	0x0110	UN303	TN918	Higher	0x8010
UN122/UN123	TN1508	Higher	0x0150	UN303	TN1508	Higher	0x8050
UN122/UN123	TN1803	Higher	0x0160	UN303	TN1803	Higher	0x8060
UN122/UN123	TN918	Lower	0x0101	UN303	TN918	Lower	0x8001
UN122/UN123	TN1508	Lower	0x0105	UN303	TN1508	Lower	0x8005
UN122/UN123	TN1803	Lower	0x0106	UN303	TN1803	Lower	0x8006
UN122B/UN123B	None	N/A	0x0900	UN303B*	None	N/A	0x9000
UN122B/UN123B	TN918	Higher	0x0910	UN303B*	TN918	Higher	0x9010
UN122B/UN123B	TN1508	Higher	0x0950	UN303B*	TN1508	Higher	0x9050
UN122B/UN123B	TN1803	Higher	0x0960	UN303B*	TN1803	Higher	0x9060
UN122B/UN123B	TN918	Lower	0x0901	UN303B*	TN918	Lower	0x9001
UN122B/UN123B	TN1508	Lower	0x0905	UN303B*	TN1508	Lower	0x9005
UN122B/UN123B	TN1803	Lower	0x0906	UN303B*	TN1803	Lower	0x9006
UN122C/UN123B	None	N/A	0x1900	UN304*	None	N/A	0xc000
UN122C/UN123B	TN918	Higher	0x1910	UN304*	TN918	Higher	0xc010
UN122C/UN123B	TN1508	Higher	0x1950	UN304*	TN1508	Higher	0xc050
UN122C/UN123B	TN1803	Higher	0x1960	UN304*	TN1803	Higher	0xc060
UN122C/UN123B	TN918	Lower	0x1901	UN304*	TN918	Lower	0xc001
UN122C/UN123B	TN1508	Lower	0x1905	UN304*	TN1508	Lower	0xc005
UN122C/UN123B	TN1803	Lower	0x1906	UN304*	TN1803	Lower	0xc006
				UN397	None	N/A	0x4000
				UN397	TN918	Higher	0x4010
				UN397	TN1508	Higher	0x4050
				UN397	TN1803	Higher	0x4060
				UN397	TN918	Lower	0x4001
				UN397	TN1508	Lower	0x4005
				UN397	TN1803	Lower	0x4006

TABLE A (Contd)			
Ring Interface Pack(s)†	IFB Type	IFB Position	HV Value‡
UN303B	None	N/A	0x200 9000
UN303B	TN918	Higher	0x200 9010
UN303B	TN1508	Higher	0x200 9050
UN303B	TN1803	Higher	0x200 9060
UN303B	TN918	Lower	0x200 9001
UN303B	TN1508	Lower	0x200 9005
UN303B	TN1803	Lower	0x200 9006
UN304	None	N/A	0x200 c000
UN304	TN918	Higher	0x200 c010
UN304	TN1508	Higher	0x200 c050
UN304	TN1803	Higher	0x200 c060
UN304	TN918	Lower	0x200 c001
UN304	TN1508	Lower	0x200 c005
UN304	TN1803	Lower	0x200 c006

* If, Node is Non-DLN, use this pack

† If, Node is DLN, use these packs

‡ HV Value for DLN's is used on both LN and RPCD UCB forms

DETERMINE NODE DATA FOR ALL GROWTH NODES

TABLE C				
Node Type	MV Value LI Equipage			
	LI 0 Only	LI 1 Only	Both LIs	No LIs
ATP				0x3
CCITT7 (without TIFA)	0x3a			
CCITT7 (with TIFA)	0x40			
CCS7 (without IRNs)	Blank*			
CCS7 (with IRNs)	0x43			
CCS7 (HSAL with ULN)	0x05			
DCHAN (without T1FA)†	0x3a	0x3b	0x3c	
DCHAN (with T1FA)†	0x40	0x41	0x42	
DLN30 16 mbytes				0x23
IUN (without IRNs)				0x1
IUN (with IRNs, IRN-B or IRN2)				0x3
DLNE (RPCD)				0x23
RPCN				Blank*
SADC (without IRN)	0x33	0x34	0x35	
SADC (with IRN or IRN-B)†	0x3d	0x3e	0x3f	
SIN (LN)				0x1a
SIN (RPCD)				0x23
EIN (LN and RPCD)				0x20

* Blank field is obtained by entering an apostrophe.
† HDRNC can only be equipped with LI 0.

TABLE E	
Node Type	Path Name
DLN30 16 mbytes	pu/iun
DLNE (RPCD)	pu/DLNI_NA
RPCN	pu/rpc
SIN (RPCD)	pu/SINI_NA
SIN (LN)	pu/irn2
EIN (RPCD)	pu/EINI_NA
EIN (LN)	pu/irn2
ULN Packs (HSAL)	pu/uln
All Other Nodes (without IRN2)	pu/iun
All Other Nodes (with IRN2)	pu/irn2

TABLE D	
Node Type	Pack Code (Note)
ATP	ATP
CCITT7 (without TIFA)	IIDP
CCITT7 (with TIFA)	IITP
CCS7 (without IRNs)	CNI7
CCS7 (HSAL with ULN)	HSA7
CCS7 (with IRNs)	C7I
DCHAN (without T1FA)	PBXD
DCHAN (with T1FA)	PBXT
DLN30 16 mbytes	DLNE
IUN (without IRNs)	IUN
IUN (with IRNs or IRN-B)	IRN
IUN (with IRN2)	IRN2
DLNE (RPCD)	Blank *
RPCN	RPC
SADC	PBXS
SIN	SIN
EIN	EIN

Note: Pack codes must be entered in capital letters.
* Blank field is obtained by entering an apostrophe.

TABLE F	
Node Type	Issue
ATP	2
CCS7	1
DLN30 (16 mbytes)	1
DLNE (RPCD)	1
SIN	1
EIN	1
DCHAN (with IRN2)	3
SADC	1
RPCN	1
IUN (UN303, UN303B, UN304)	1
All Other Nodes	1

* Blank field is obtained by entering an apostrophe.

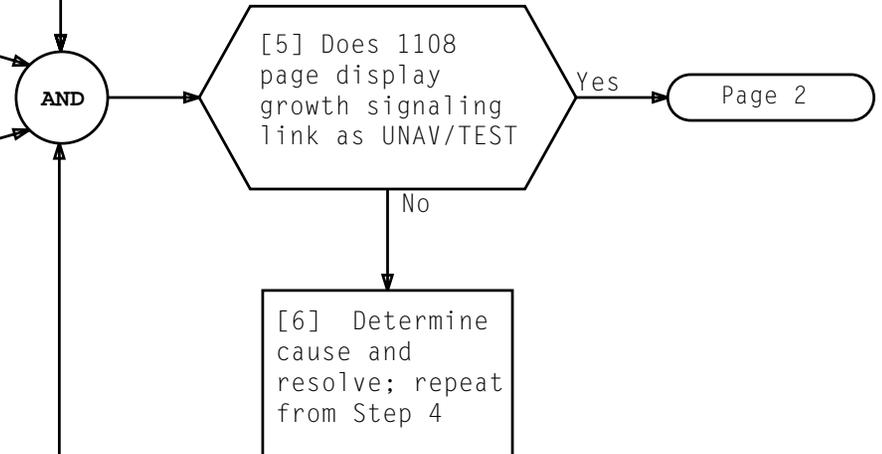
DETERMINE NODE DATA FOR ALL GROWTH NODES

[1] At MCRT, if 1108 page is not displayed,
enter 1108 in command mode

[2] If growth signaling link is not displayed
on 1108 page, enter 406 (for next page) or
407 (for previous page) until growth signaling
link is displayed

[3] Ensure that LINK STATE for growth
signaling link is UNAV/GROW

[4] Enter message for growth
signaling link
CHG:SLK(a,b,c,d);TEST!
a = group number (0-63)
b = member number (1-15)
c = link interface pack number (0 or 1
for SSI, 0 for HDRNC)
d = port number (0-3)



TEST GROWTH DCHAN SIGNALING LINKS – EXTERNAL LINK CHECK

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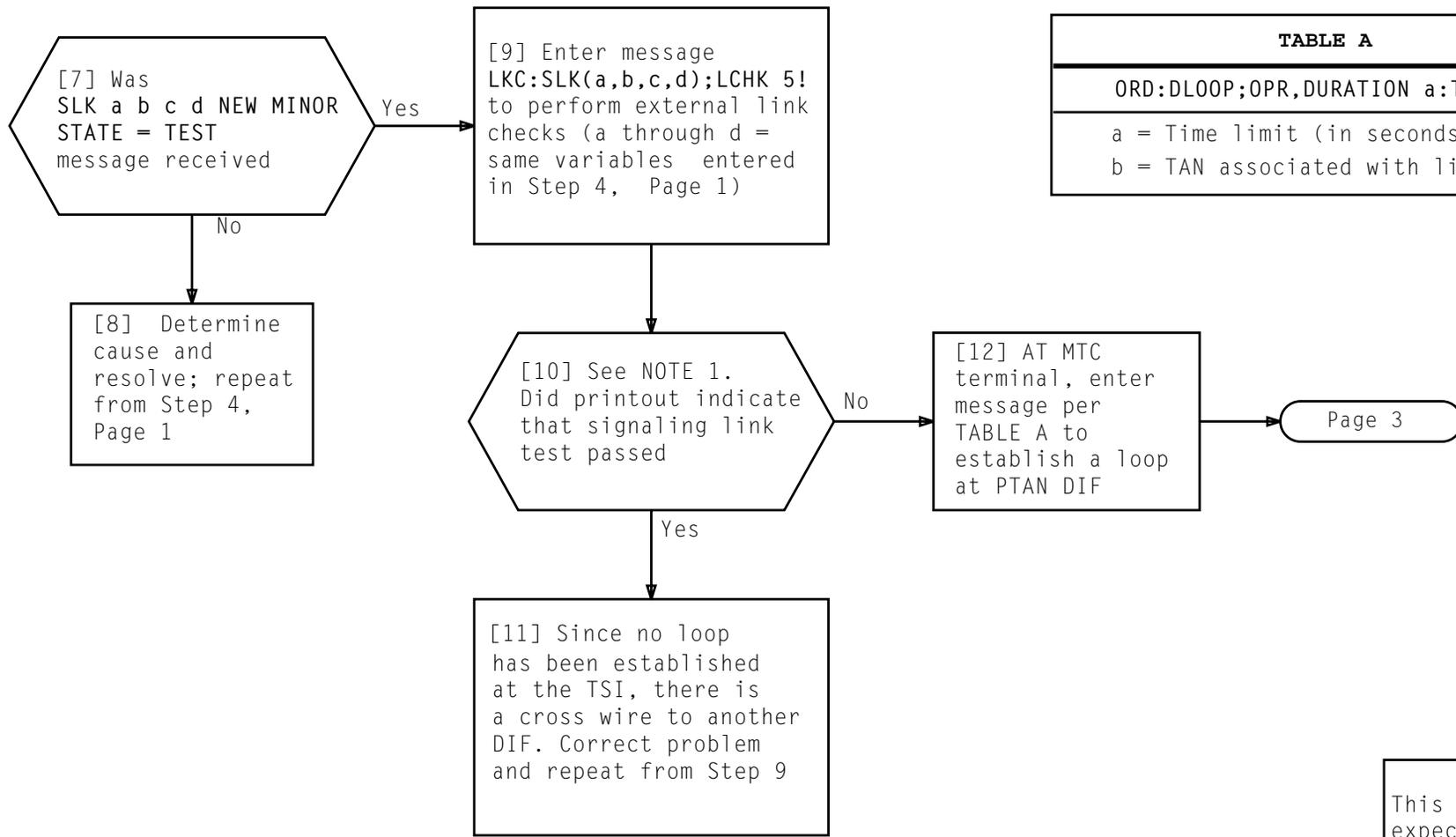
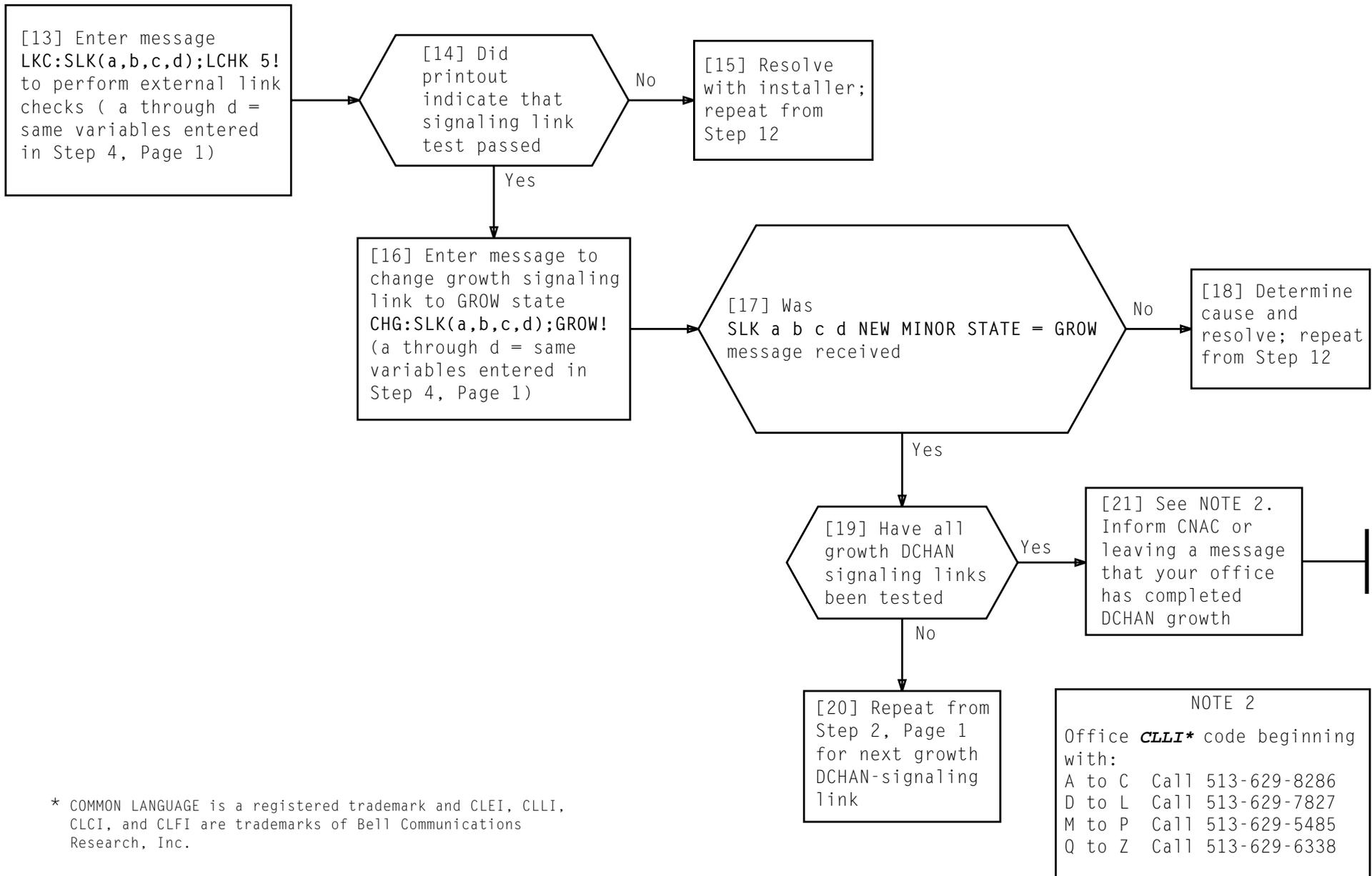


TABLE A
ORD:DLOOP;OPR,DURATION a:TAN b!
a = Time limit (in seconds) b = TAN associated with link

NOTE 1
This printout is expected to indicate test fail. If printout indicates that test passed, then either cross connect is wired to wrong DIF or there is a looping plug at the DSX

TEST GROWTH DCHAN SIGNALING LINK(S) – EXTERNAL LINK CHECK

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* COMMON LANGUAGE is a registered trademark and CLEI, CLLI, CLCI, and CLFI are trademarks of Bell Communications Research, Inc.

NOTE 2
 Office **CLLI*** code beginning with:
 A to C Call 513-629-8286
 D to L Call 513-629-7827
 M to P Call 513-629-5485
 Q to Z Call 513-629-6338

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TEST GROWTH DCHAN SIGNALING LINKS — EXTERNAL LINK CHECK

[1] At MTC terminal, enter
VER:TSG:CIN OACI *DCHN*!**
 to verify T1FA to PTAN
 (DS-1 facility)

[2] Was printout received per FIG. 1

[3] Determine cause and resolve; repeat from Step 1

[4] See NOTES 1 and 2. Using printout (FIG. 1), identify each TAN associated with the first time slot (FTS) 1, 25, 49, 73, and/or 97

AND

[6] Was **VER:TRKNAME b:a** message received

[8] On Table A, record DIF, DIU, and DG information

[5] At MTC terminal using TAN assignment, enter **VER:TRKNAME, TAN b!** message to determine DIF, DIU, and DG (PTAN/DIF)

[7] Determine cause and resolve; repeat from Step 5

[9] Have all TANs identified in Step 4 been verified and recorded

TABLE A		
DIF	DIU	DG
---	---	---
---	---	---
---	---	---
---	---	---
---	---	---
---	---	---
---	---	---
---	---	---
---	---	---
---	---	---

TAN Assignment (3110001)

First Time Slot

```

M 24 VER:TSG,OPT(TRUNKS):
      DID2  N,
      QTRK  FTN  TSI  SPC  LVL  FTS  FCHAN  STATUS
      24,   0,  31,   1,   0,   1,   0,    CAD,
      24,  24,  34,   1,   0,  41,   0,    CAD,
       2,  40,  35,   1,   0,   5,   0,    CAD,
       4,  50,  35,   1,   0,   8,   0,    CAD,
      17,  10,  35,   1,   0,  49,   0,    CAD,
       2,   1,  36,   1,   0,   6,   0,    CAD,
      24,  92,  36,   1,   0,  25,   0,    CAD,
      24,  70,  42,   1,   0,  11,   0,    CAD,
      24, 116,  46,   1,   0,   6,   0,    CAD,
00/00/00 00:24:22
#791
  
```

Page 2

[10] Repeat from Step 5

NOTES

1. FTS is first time slot assignment in module group of 24.
2. TAN assignment must be entered as 7 digits (FTS is 3 digits)

FIG. 1 - Typical VER:TSG,OPT Message Printout

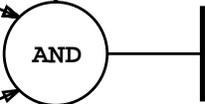
DETERMINE RNA FOR THE T1FA AND ALL GROWTH NODES

[11] Using TABLE B, Page 3, determine which RNA of DCHAN T1FA Control Node (TCN) is being grown _____

[12] Using TABLE A, determine which PTAN/DIF corresponds to RNA being grown (Step 11) on T-XXXX-Hy-464 drawing (FIG. 2) _____

[13] See NOTE 3. At RNC, obtain DSX-1 panel and jack location for T1FA appearance _____

[14] At DSX, install cross connection from T1FA to PTAN/DIF _____



T-XXXX-HX-464
PAGE XX

NETWORK ASSIGNMENT				CONNECTING EQUIPMENT IDENTIFICATION										MFS	D4 BAY			SP ASSIGNMENT						
C	S	E	U	O	E																			
H	P	V	T	I	N	Q																		
G	T	S	I	C	L	S	L	O	T	T	I	U	T	R	P	T	Y	P						
A	07	04	001			20	L	F	DCHN	0629	000	06022	.16	0910	E00									
A	07	04	002			20	L	F	DCHN	0630	000	06022	.16	0910	E00									
A	07	04	003			20	L	F	DCHN	0631	000	06022	.16	0910	E00									
A	07	04	004			20	L	F	DCHN	0632	000	06022	.16	0910	E00									

← TAN ← DIU ← RNA

ISSUE XX
SHEET XX
DIF XX
SOD 20
XXX CHANNEL ASSIGNMENTS

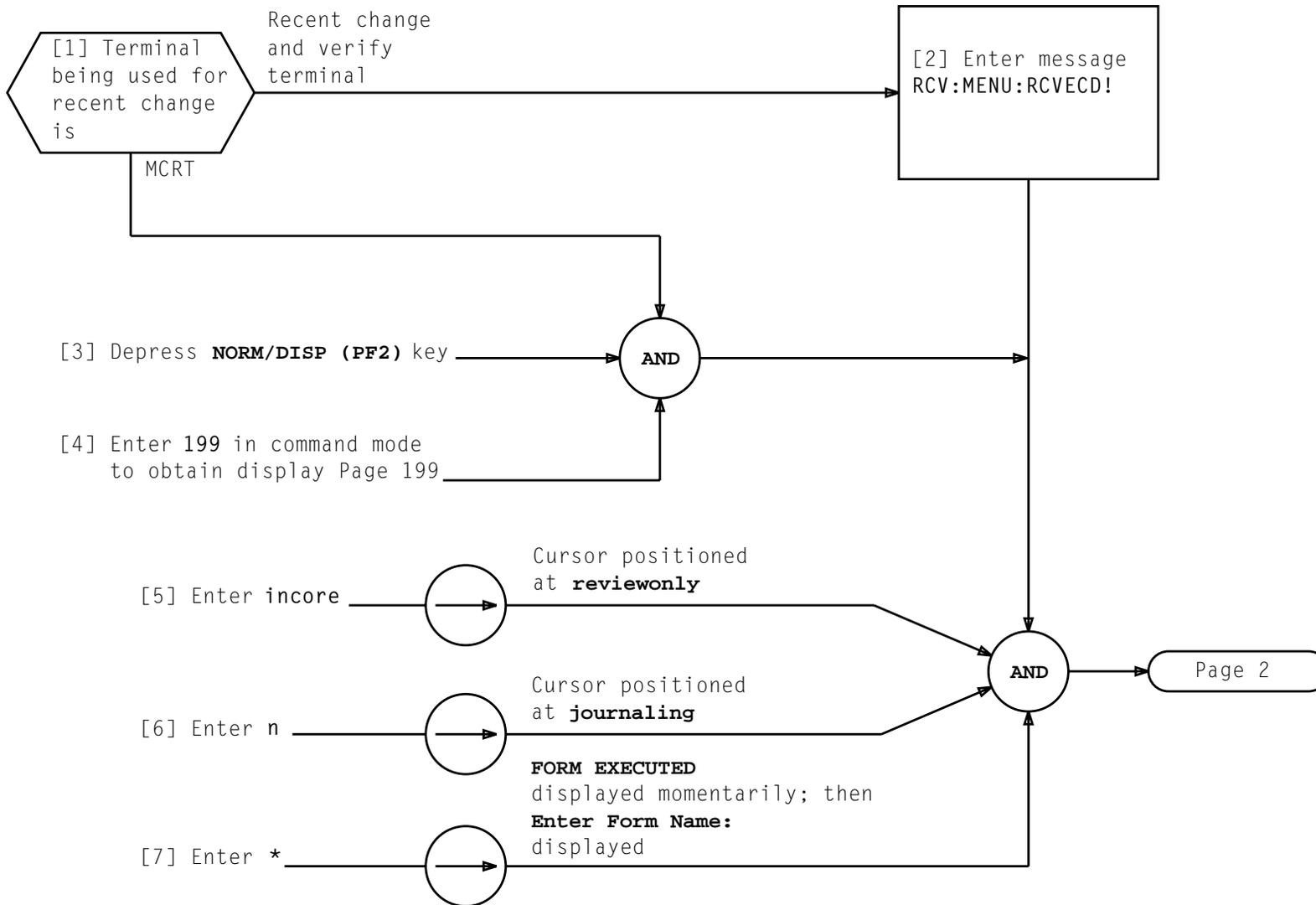
FIG. 2 - Typical Office T-464 Drawing

NOTE 3
DSX location label is on the inside of RNC door

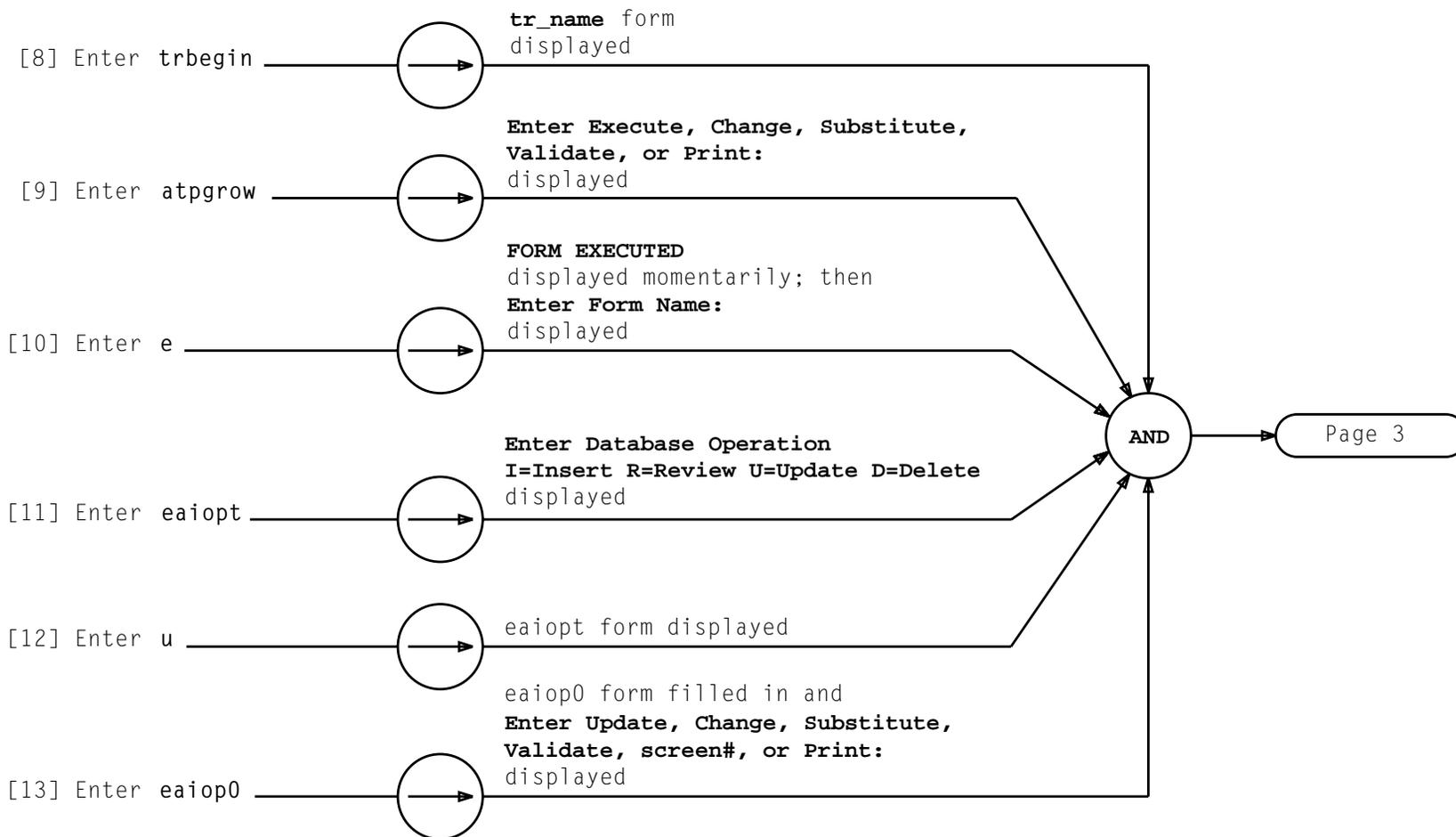
DETERMINE RNA FOR THE T1FA AND ALL GROWTH NODES

TABLE B																			
SSI Ring Node																			
Cabinet	Group	Node	RNA	Control Node	Cabinet	Group	Node	RNA	Control Node	Cabinet	Group	Node	RNA	Control Node	Cabinet	Group	Node	RNA	Control Node
00	0	2	0002		00	0	8	0008		32	0	2	0514		32	0	8	0520	
	0	3	0003			0	9	0009	Yes		0	3	0515			0	9	0521	Yes
	0	4	0004	Yes		0	12	0012			0	4	0516	Yes		0	12	0524	
	0	7	0007			0	13	0013			0	7	0519			0	13	0525	
						0	14	0014	Yes							0	14	0526	Yes
High-Density Ring Node Cabinet																			
06	7	1	0113		06	10	1	0161		38	39	1	0625		38	42	1	0673	
	7	2	0114			10	2	0162	Yes		39	2	0626			42	2	0674	Yes
	7	3	0115	Yes		10	3	0163			39	3	0627	Yes		42	3	0675	
	7	5	0117			10	5	0165			39	5	0629			42	5	0677	
	7	6	0118			10	6	0166	Yes		39	6	0630			42	6	0678	Yes
	7	7	0119			10	7	0167			39	7	0631			42	7	0679	
06	11	1	0177		06	11	5	0181		38	43	1	0689		38	43	5	0693	
	11	2	0178			11	6	0182			43	2	0690			43	6	0694	
	11	3	0179	Yes		11	7	0183			43	3	0691	Yes		43	7	0695	
DCHAN Expansion Cabinet																			
12	12	2	0194		14	14	2	0226		44	44	2	0706		46	46	2	0738	
	12	3	0195			14	3	0227			44	3	0707			46	3	0739	
	12	4	0196	Yes		14	4	0228	Yes		44	4	0708	Yes		46	4	0740	Yes
	12	7	0199			14	7	0231			44	7	0711			46	7	0743	
	12	8	0200			14	8	0232			44	8	0712			46	8	0744	
	12	9	0201	Yes		14	9	0233	Yes		44	9	0713	Yes		46	9	0745	Yes
	12	12	0204			14	12	0236			44	12	0716			46	12	0748	
	12	13	0205			14	13	0237			44	13	0717			46	13	0749	
	12	14	0206	Yes		14	14	0238	Yes		44	14	0718	Yes		46	14	0750	Yes
12	13	2	0210		14	15	2	0242		44	45	2	0722		46	47	2	0754	
	13	3	0211			15	3	0243			45	3	0723			47	3	0755	
	13	4	0212	Yes		15	4	0244	Yes		45	4	0724	Yes		47	4	0756	Yes
	13	7	0215			15	7	0247			45	7	0727			47	7	0759	
	13	8	0216			15	8	0248			45	8	0728			47	8	0760	
	13	9	0217	Yes		15	9	0249	Yes		45	9	0729	Yes		47	9	0761	Yes
	13	12	0220			15	12	0252			45	12	0732			47	12	0764	
	13	13	0221			15	13	0253			45	13	0733			47	13	0765	
	13	14	0222	Yes		15	14	0254	Yes		45	14	0734	Yes		47	14	0766	Yes

DETERMINE RNA FOR THE T1FA AND ALL GROWTH NODES

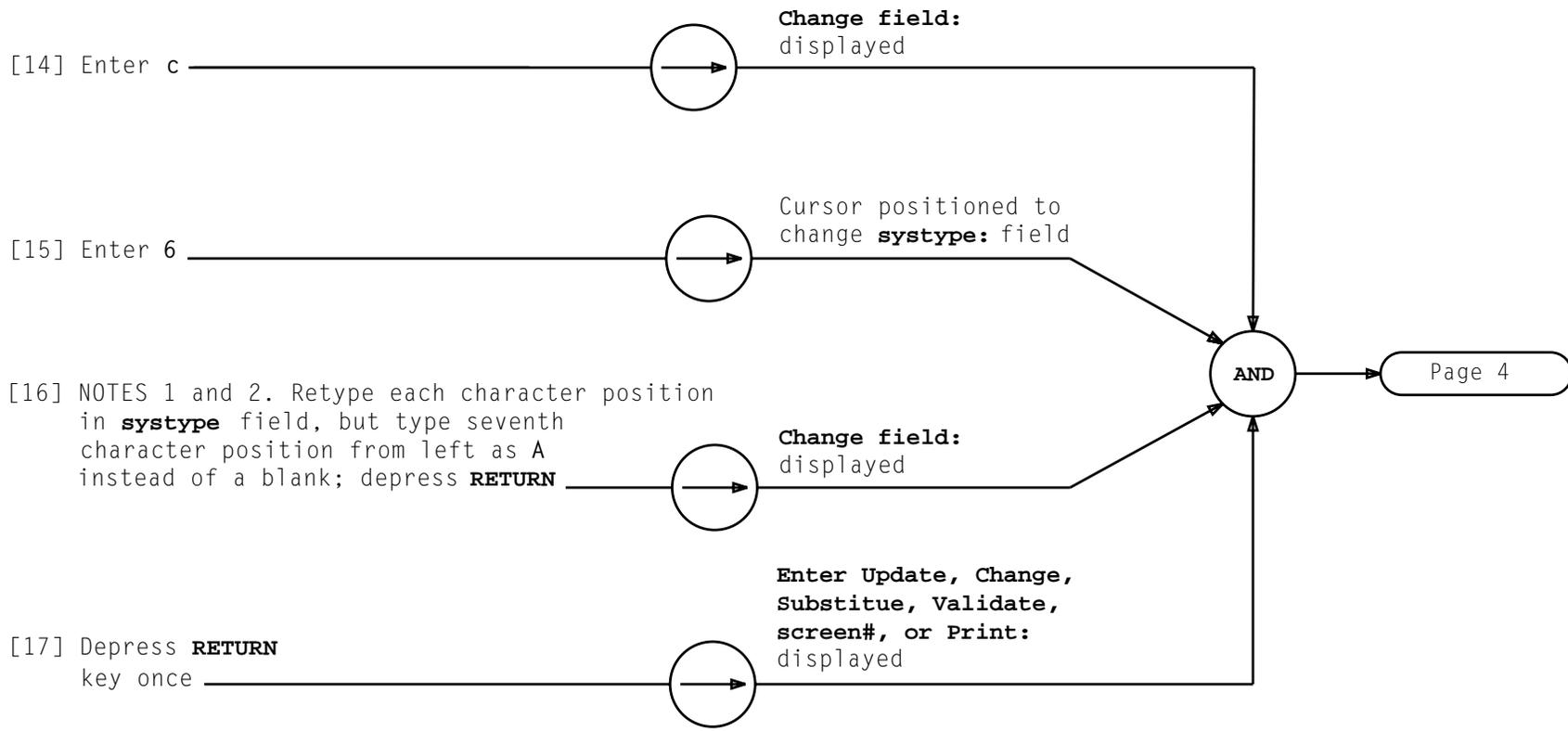


CHANGE CNI RING FEATURE FLAG FOR ATP NODE



CHANGE CNI RING FEATURE FLAG FOR ATP NODE

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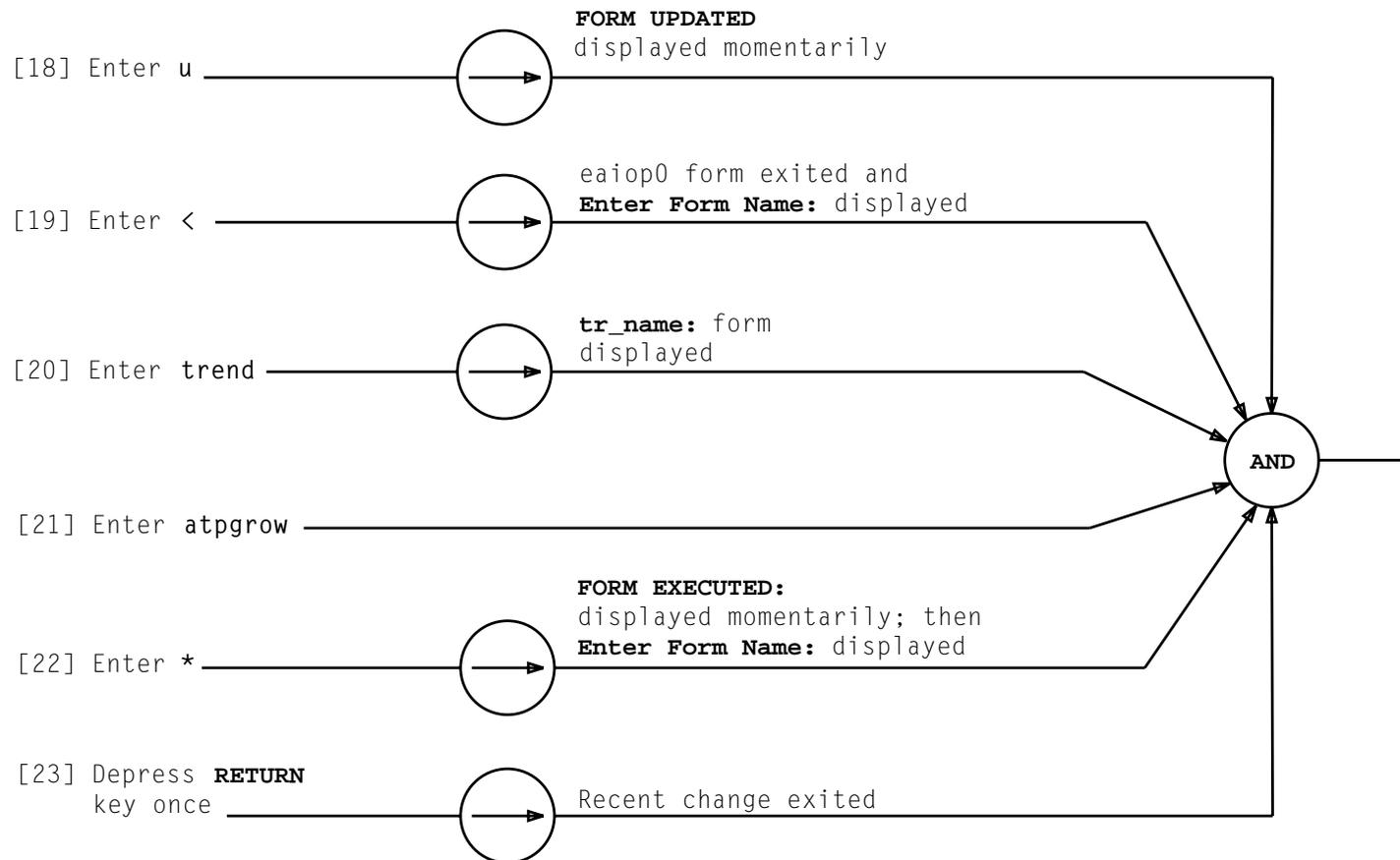


NOTES

1. This field can time out if too much time is taken to complete.
2. If backing out of the ATP Node procedure, leave the seventh character position blank.

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CHANGE CNI RING FEATURE FLAG FOR ATP NODE



CHANGE CNI RING FEATURE FLAG FOR ATP NODE

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Node-Specific Variable Record-Frames 00 & 32											
Node	HV	MV	Pack Code	Issue	Pathname	Node	HV	MV	Pack Code	Issue	Pathname
RPCN00 0		Blank *	RPC	N/A	pu/rpc	RPCN32 0		Blank *	RPC	N/A	pu/rpc
LN00 1						LN32 1					
LN00 2						LN32 2					
LN00 3						LN32 3					
LN00 4						LN32 4					
RPCD00 5	0x2009000	0x23	N/A	1	pu/DLNI_NA	RPCD32 5	0x2009000	0x23	N/A	1	pu/DLNI_NA
LN00 5	0x2009000	0x23	DLNE	1	pu/iun	LN32 5	0x2009000	0x23	DLNE	1	pu/iun
LN00 6						LN32 6					
LN00 7						LN32 7					
LN00 8						LN32 8					
LN00 9						LN32 9					
RPCD00 10	0x2009000	0x23	N/A	1	pu/DLNI_NA	RPCD32 10	0x2009000	0x23	N/A	1	pu/DLNI_NA
LN00 10	0x2009000	0x23	DLNE	1	pu/iun	LN32 10	0x2009000	0x23	DLNE	1	pu/iun
LN00 11						LN32 11					
LN00 12						LN32 12					
LN00 13						LN32 13					
LN00 14						LN32 14					
* Blank field is obtained by entering an apostrophe											

RECORD NODE DATA RESULTS

Node-Specific Variable Record-Frames 06											
Node	HV	MV	Pack Code	Issue	Pathname	Node	HV	MV	Pack Code	Issue	Pathname
LN06 2						LN09 1					
LN06 3						LN09 2					
LN06 4						LN09 3					
LN06 5						LN09 4					
LN06 6						LN09 5					
LN06 7											
LN06 8											
LN07 1											
LN07 2						LN10 1					
LN07 3						LN10 2					
						LN10 3					
LN07 5						LN10 4					
LN07 6						LN10 5					
LN07 7						LN10 6					
LN07 8						LN10 7					
LN08 1						LN10 8					
LN08 2						LN11 1					
LN08 3						LN11 2					
LN08 4						LN11 3					
LN08 5						LN11 4					
LN08 6						LN11 5					
LN08 7						LN11 6					
LN08 8						LN11 7					
* Blank field is obtained by entering an apostrophe											

RECORD NODE DATA RESULTS

Node-Specific Variable Record-Frames 38											
Node	HV	MV	Pack Code	Issue	Pathname	Node	HV	MV	Pack Code	Issue	Pathname
						LN41 1					
LN38 2						LN41 2					
LN38 3						LN41 3					
LN38 4						LN41 4					
LN38 5						LN41 5					
LN38 6											
LN38 7											
LN38 8											
LN39 1						LN42 1					
LN39 2						LN42 2					
LN39 3						LN42 3					
						LN42 4					
LN39 5						LN42 5					
LN39 6						LN42 6					
LN39 7						LN42 7					
LN39 8						LN42 8					
LN40 1						LN43 1					
LN40 2						LN43 2					
LN40 3						LN43 3					
LN40 4						LN43 4					
LN40 5						LN43 5					
LN40 6						LN43 6					
LN40 7						LN43 7					
LN40 8											
* Blank field is obtained by entering an apostrophe											

RECORD NODE DATA RESULTS

Node-Specific Variable Record-Frames 28 & 60											
Node	HV	MV	Pack Code	Issue	Pathname	Node	HV	MV	Pack Code	Issue	Pathname
LN28 2						LN60 2					
LN28 3						LN60 3					
LN28 4						LN60 4					
LN28 5						LN60 5					
LN28 6						LN60 6					
LN28 7						LN60 7					
LN28 8						LN60 8					
LN28 9						LN60 9					
LN28 60						LN60 10					
LN28 11						LN60 11					
LN28 12						LN60 12					
LN28 13						LN60 13					
LN28 14						LN60 14					
* Blank field is obtained by entering an apostrophe											

RECORD NODE DATA RESULTS

1. Verify System Status [DLP-544].
2. At MCRT, enter INH;DMQ;SRC REX! and INH:DMQ:SRC ADP!
3. Remove CNI ring feature flag (A) for ATP node [DLP-564].
4. Depress EA DISP (PF1) key and enter 42 in command mode on EAI Page followed by G; then 50 to restart AIM.
5. Verify ring processes are started up [DLP-505].
6. Using REPT AIM CHK STATUS printout (Item 5), ensure **atpcm** is listed under NAME column and verify associated STATE is DEAD.
7. Enter INH:RCV;APPDB! and wait 1 minute before continuing.
8. Enter 15 in command mode on EAI Page to reinitialize craft interface processed. Wait for REPT CFTSHL TERMINAL IN SERVICE message and 102 Page to display
9. On MCRT, look at first line on display to the right of office name. Ensure the seventh character position is blank.
10. Enter ALW:RCV;APPDBL.
11. At 3B MCRT, Enter message OP:RING;DETD! and ensure that no "i" is listed for any link node.
12. At MCRT, enter message RMV:LN06 08! to remove node being grown and ensure RING RMW LN06 08 COMPLETED message is received.
13. Enter message CFR:RING, LN06 08;EXCLUDE! to isolate node being backed out and ensure RING CFR RING LN06 08 COMPL message is received.
14. Enter message EXC:ENVIR:UPROC, FN"/database/tools/atp.uneqip", ARG("ATP06")! and ensure DEGROWTH of ATP NODE LN06 8 AND AUDIT FORM 1 - 8 BY SCRIPT atp.uneqip COMPLETED message is received.
15. Enter message EXC:ENVIR:UPROC, FN"/database/tools/atp.oos", ARG("ATP06")! and ensure EXC ENVIR UPROC /database/tools/atp.uneqip COMPLETED message is received.
16. Enter message RST:LN06 08! to restore node being backed out. Ensure RING RST LN06 08 COMPLETED message is received.
17. Copy Incore ECD to Disk [DLP-519].
18. At MCRT, enter ALW:DMQ;SRC REX! and ALW:DMQ;SRC ADP! messages to allow automatic diagnostics.

BACKOUT ATP NODE GROWTH

[1] at MCRT, enter message
INH:AUD:NIDATA!

[2] See NOTE 1. At 3B MCRT, enter message
EXC:ENVIR:UPROC, FN"/database/tools/cetool.hsa"!

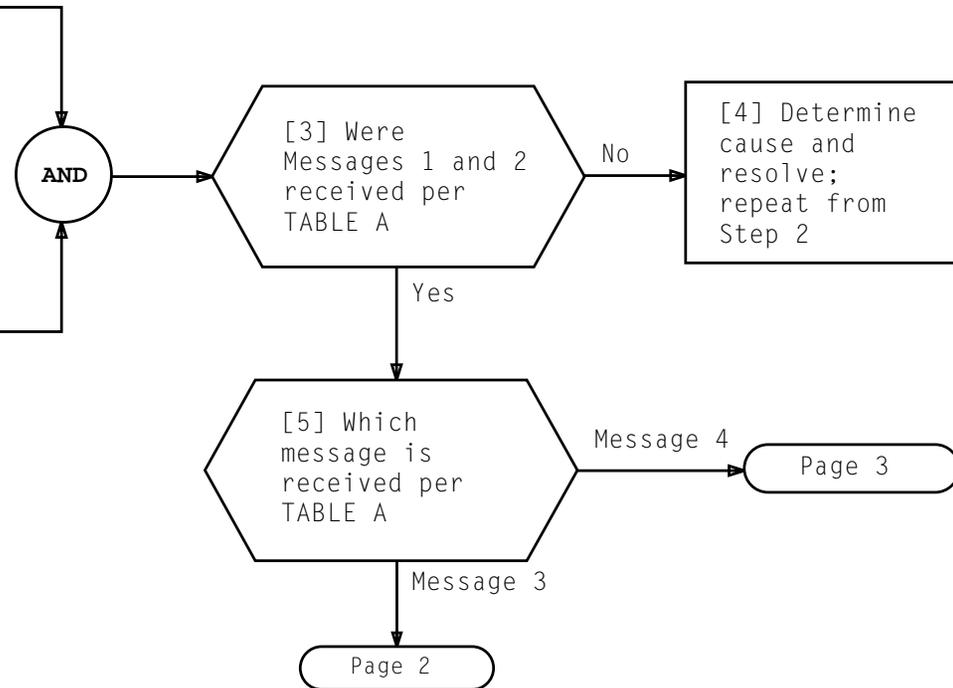


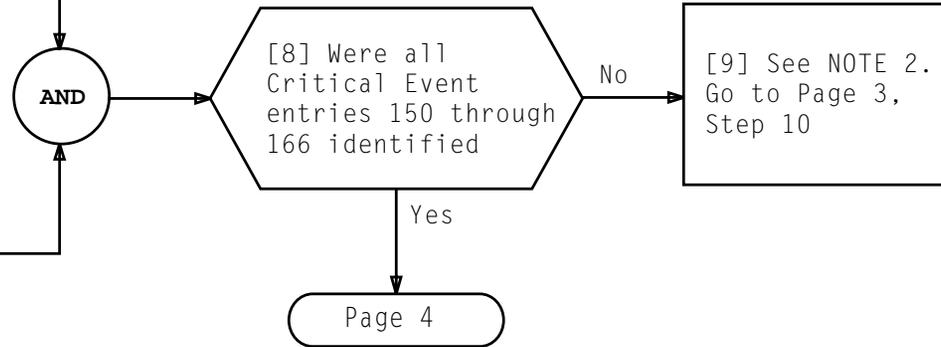
TABLE A	
MESSAGE NUMBER	OUTPUT MESSAGES
1	EXC:ENVIR:UPROC, FN"/database/tools/cetool.hsa"! PF
2	/database/tools/cetool.hsa: STARTING
3	/database/tools/cetool.hsa. SCRIPT HAS DETECTED NO EXISTING CRITICAL EVENT ENTRIES IN 150-166 - PROCEEDING
4	WARNING!!! - /database/tools/cetools.hsa SCRIPT HAS DETECTED EXISTING CRITICAL EVENT ENTRIES IN 150-166

NOTE 1	
This script command requires several minutes to complete	
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POPULATE CRITICAL EVENTS TABLE FOR HSAI

[6] Wait for Message 1 and Message 2 per TABLE B

[7] Using Printout (Figure 1, and TABLE C), identify all Critical Event entries from 150 through 166



```

REPT SPOOLIT JOB(1) COMPLETED
-----
CRITICAL EVENTS 150 TO 166 WILL BE PRINTED INDIVIDUALLY.
CAREFULLY VERIFY THE PROPER ADDING OF DATA FOR
EACH CRITICAL EVENT RECORD.
-----
The event name C7RRBOVFLW0
(cMcet table)
  ce_name = (xxx)
(cMc_avl table)
  dest = 224
  rpt_indx = CMCESRPT (001)
  threshold = 1
-----
dest = 225
rpt_indx = CMCEL RPT (000)
threshold = 1
-----
(cMcet table)
00/00/00 00:00:00 #123543
  
```

Figure 1. Typical Critical Event Table Printout

TABLE B	
MESSAGE NUMBER	OUTPUT MESSAGES
1	ALL CRITICAL EVENT MODIFICATION FOR HSA LINKS COMPLETED (ADDING CRITICAL EVENTS 150-166) CHECK THE ROP FOR REPORTS ON THE STATUS OF EACH EVENT
2	SCRIPT /database/tools/cetool.hsa COMPLETED ADDING CRITICAL EVENT FOR HSA LINKS

TABLE C		
CRITICAL EVENTS		
c7dbe	hslaise	hsllofe
c7rrbovflw0	hslffer	hslrai
c7rrbovflw1	hslffere	hslraie
c7rrbovflw2	hsllos	ringdown
c7rrbovflw3	hsllose	ringdowne
hslais	hsllof	

NOTE 2
 Recheck your printout; because if critical event entries are missing, all the critical events must be deleted before continuing

POPULATE CRITICAL EVENTS TABLE FOR HSAI

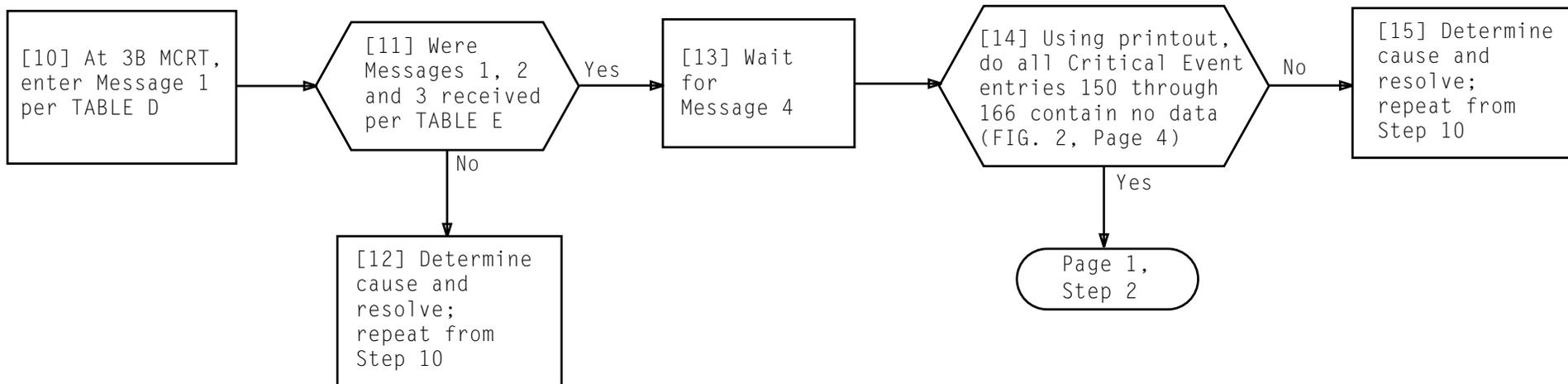
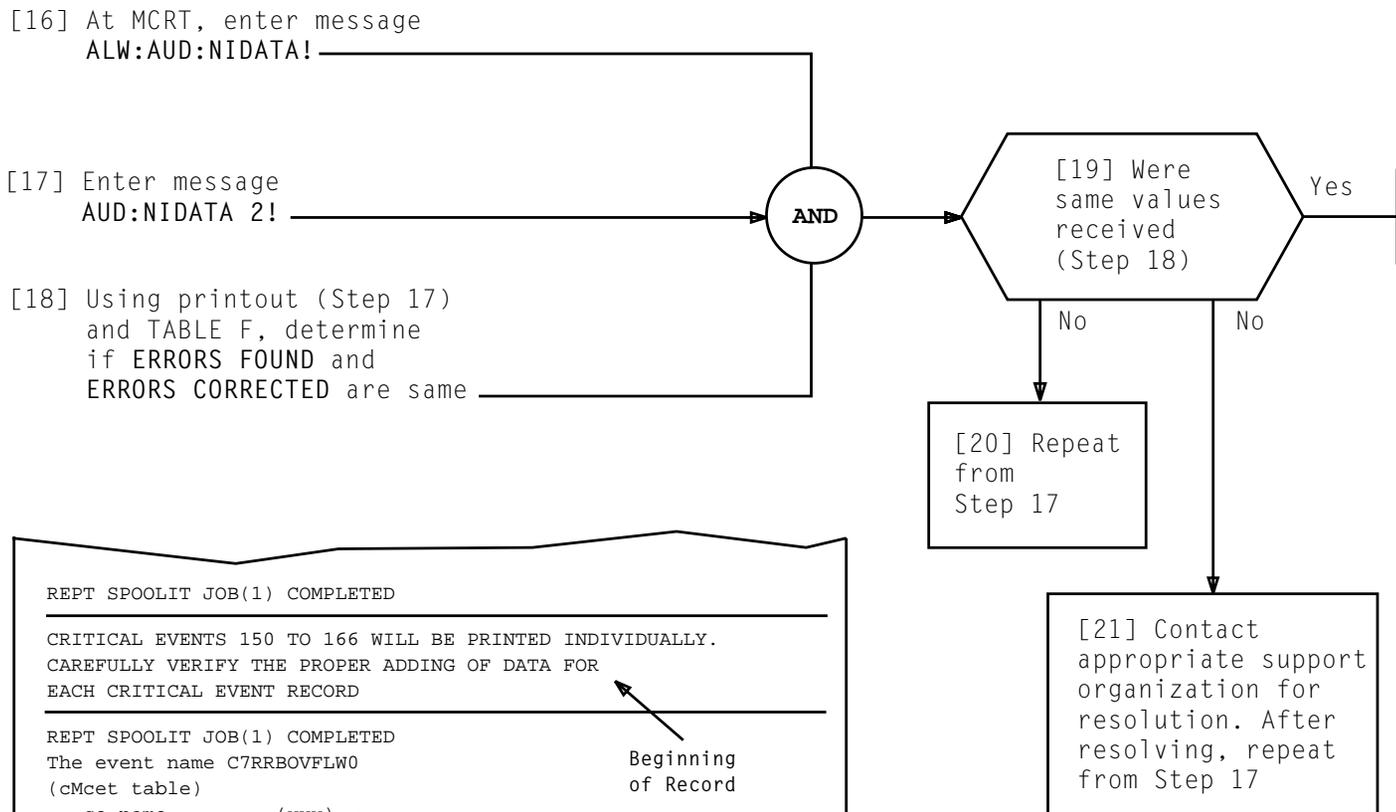


TABLE D	
MESSAGE NUMBER	OUTPUT MESSAGE
1	EXC:ENVIR:UPROC, FN"/database/tools/cetool.hsa", ARG("D")!

TABLE E	
MESSAGE NUMBER	OUTPUT MESSAGES
1	EXC:ENVIR:UPROC, FN"/database/tools/cetool.hsa", ARG("D")! PF
2	/database/tools/cetool.hsa: STARTING
3	/database/tools/cetool.hsa. DELETING CRITICAL EVENTS 150-166
4	SCRIPT /database/tools/cetool.hsa COMPLETED DELETING CRITICAL EVENTS FOR HSA LINKS

POPULATE CRITICAL EVENTS TABLE FOR HSA L



```

REPT SPOOLIT JOB(1) COMPLETED
-----
CRITICAL EVENTS 150 TO 166 WILL BE PRINTED INDIVIDUALLY.
CAREFULLY VERIFY THE PROPER ADDING OF DATA FOR
EACH CRITICAL EVENT RECORD
-----
REPT SPOOLIT JOB(1) COMPLETED
The event name C7RRBOVFLW0
(cMcet table)
  ce_name =      (xxx)
(cMc_avl table)
  ← No data
(cMcet table)
00/00/00 00:00:00 #123543
  
```

Beginning of Record

Event Number 150 through 166

Figure 2. Typical Critical Event Table Printout

TABLE F	
MESSAGE NUMBER	OUTPUT MESSAGE
1	AUD NIDATA 2 COMPLETED a ERRORS FOUND b ERRORS CORRECTED
a = Total number of errors found b = Total numbers of errors corrected	

POPULATE CRITICAL EVENTS TABLE FOR HSAL

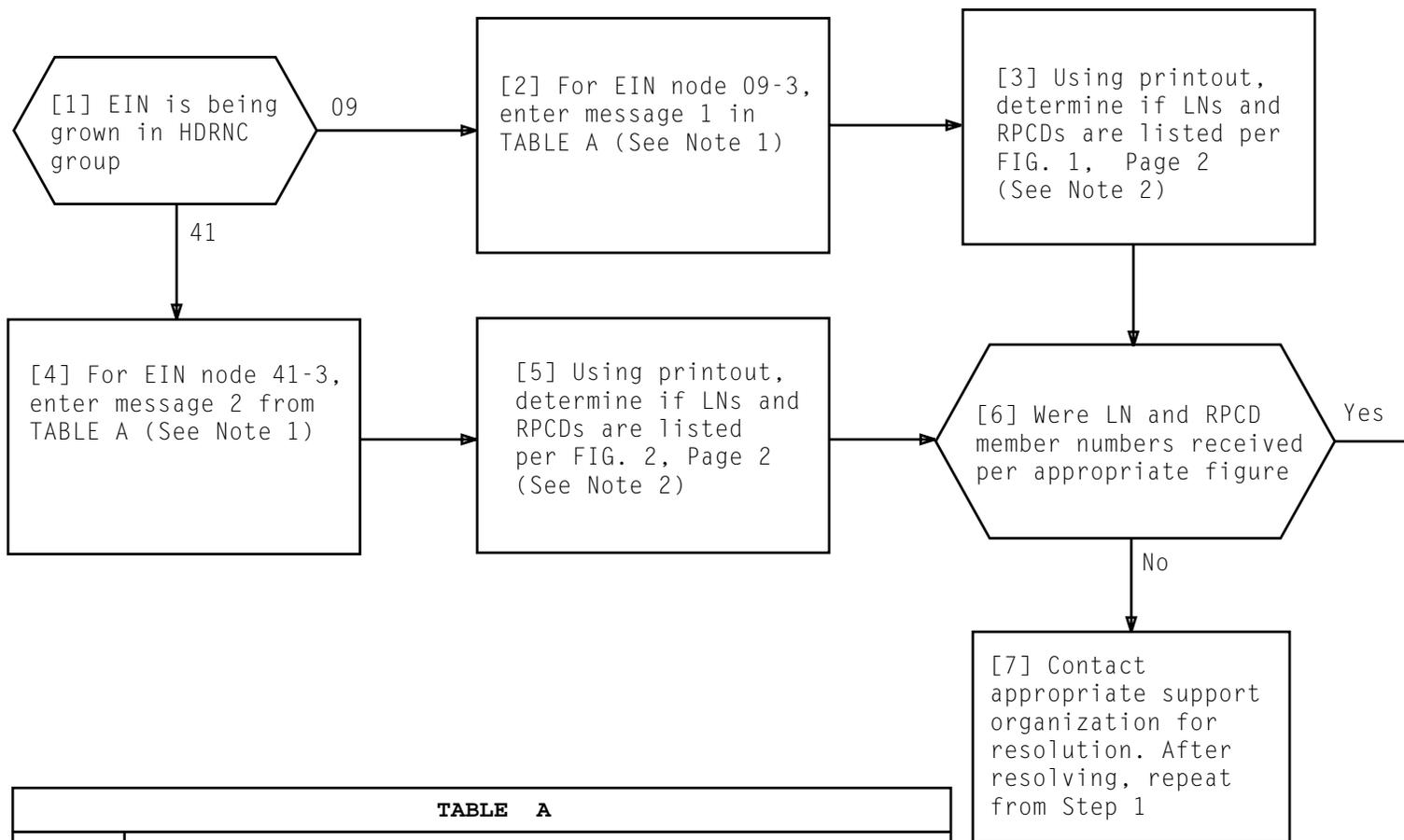


TABLE A	
Message Number	MCRT Input Message
1	EXC:ENVIR:UPROC, FN"/etc/dlnpos", ARGs("-5 LN09-3 -d -p")
2	EXC:ENVIR:UPROC, FN"/etc/dlnpos", ARGs("-6 LN41-3 -d -p")
3	EXC:ENVIR:UPROC, FN"/etc/dlnpos", ARGs("-p")

NOTES	
1. After you enter message(s) in TABLE A, you will receive rollout of AMA error messages.	
2. If forms already exist, then EXC ENVIR UPROC /etc/dlnpos STOPPED dlnpos; RPCD09 3 exits on channel 12. Enter message 3 in TABLE A to display desired printout	
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INITIATE PROCESSES TO DEFINE NEW mdct and RPCD UCB RECORDS

```

REPT SPOOLIT JOB (1) COMPLETED
REPT DLNPOS LNaa-3 ADDED TO SCRIPT FILE
/tmp/dlnpos.scr

REPT DLNPOS RCVECD CALLED ON INCORE ECD

REPT DLNPOS RCVECD COMPLETE

REPT DLNCM PROC (Redip) STARTED 4 DLNS
  LN00-5  LN32-5  LN00-10  LN32-10

REPT DLNCM PROC (Redip) STARTED 2 SINS/EINS
  LNaa-3  LNbb-3

REPT DLNCM PROC (Redip): COMPL CODED 0 4 DLNS

REPT DLNCM PROC (Redip) COMPL 2 SINS/EINS
  LNaa-3  LNbb-3

REPT DLNPOS PROCESS DLNCM TOLD TO READ ECD

REPT DLNPOS COMPLETE

EXC ENVIR UPROC /etc/dlnpos STOPPED
dlnpos: dma channel 12 configuration
  API          0          ACT/STBY
  API          1          ACT/STBY
  RPCN00       0          ACT
  RPCN32       0          ACT
  RPCD00       5          GROW      dln1
  RPCD32       5          GROW      dln2
  RPCD00       10         GROW      dln3
  RPCD32       10         GROW      dln4
  RPCDaa       3          UNEQUIP   dln5
  RPCDbb       3          UNEQUIP   dln6

```

aa=EIN node being grown (Group 09)
RPCDbb 3 will be grown in a later Step

FIG. 1 – Printout for Lower EIN Node Growth LN09-3)

```

REPT SPOOLIT JOB (1) COMPLETED
REPT DLNPOS LNbb-3 ADDED TO SCRIPT FILE
/tmp/dlnpos.scr

REPT DLNPOS RCVECD CALLED ON INCORE ECD

REPT DLNPOS RCVECD COMPLETE

REPT DLNCM PROC (Redip) STARTED 4 DLNS
  LN00-5  LN32-5  LN00-10  LN32-10

REPT DLNCM PROC (Redip) STARTED 2 SINS/EINS
  LNaa-3  LNbb-3

REPT DLNCM PROC (Redip): COMPL CODED 0 4 DLNS

REPT DLNCM PROC (Redip) COMPL 2 SINS/EINS
  LNaa-3  LNbb-3

REPT DLNPOS PROCESS DLNCM TOLD TO READ ECD

REPT DLNPOS COMPLETE

EXC ENVIR UPROC /etc/dlnpos STOPPED
dlnpos: dma channel 12 configuration
  API          0          ACT/STBY
  API          1          ACT/STBY
  RPCN00       0          ACT
  RPCN32       0          ACT
  RPCD00       5          GROW      dln1
  RPCD32       5          GROW      dln2
  RPCD00       10         GROW      dln3
  RPCD32       10         GROW      dln4
  RPCDaa       3          GROW      dln5
  RPCDbb       3          UNEQUIP   dln6

```

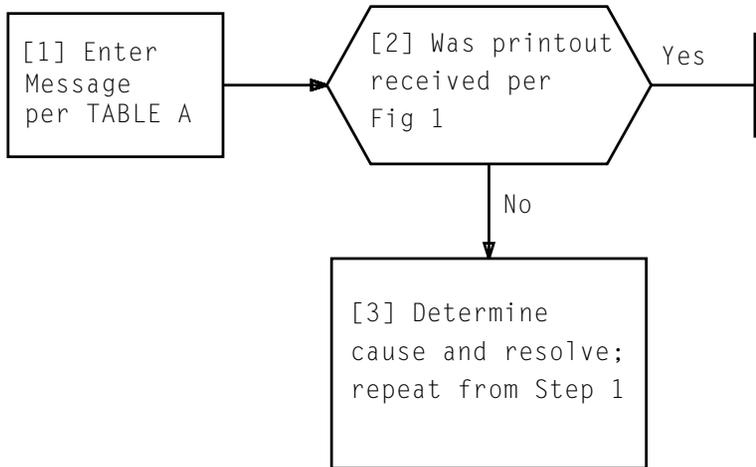
aa=EIN node already grown (Group 09)
bb=EIN node being grown (Group 41)

FIG. 2 – Printout for Higher EIN Node Growth LN41-3)

INITIATE PROCESSES TO DEFINE NEW mdct and RPCD UCB RECORDS

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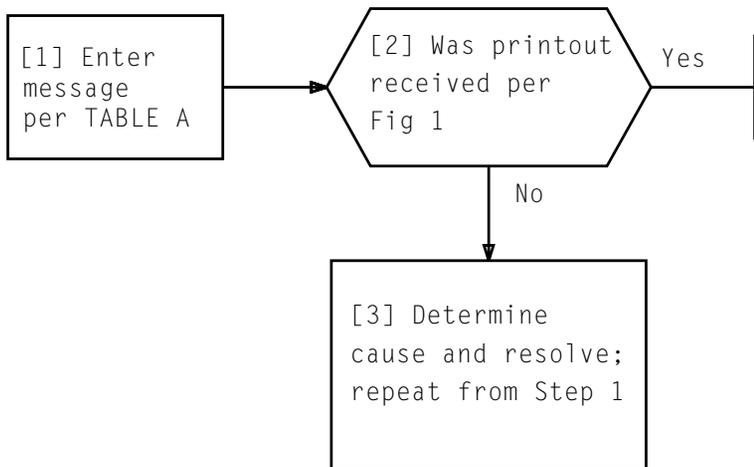
```

EXC:ENVIR:UPROC, FN"/database/tools/ein.grow", ARG("EINaa")
/database/tools/ein.grow:STARTING
BEGINNING GROWTH OF RPCDaa 03 (EIN NODE) USING THE
/database/tools/ein.grow SCRIPT
RPCDaa 03 COMPLETED FOR IRN2 EIN NODE GROWTH USING THE
/database/tools/ein.grow SCRIPT
/database/tools/ein.grow RCVECD PASSED - EXIT CODE = 0
GROWTH OF RPCDaa 03 BY SCRIPT /database/tools/ein.grow COMPLETED
RPCDaa 03 INCORE CHANGES -hv = 0xc000, mv = 0x20, path =pu/EINI_NA,
packcode =EIN, issue =1,internal device = b, device num = c
RPCDaa 03 IS IN GROW - CHANGES MADE TO INCORE DATABASE ONLY
GROWTH OF LNaa 03 BEGINNING
/database/tools/ein.grow RCVECD PASSED - EXIT CODE = 0
GROWTH OF EIN NODE LNaa 03 BY SCRIPT /database/tools/ein.grow COMPLETED
LNaa 03 INCORE CHANGES - hv = 0xc000, mv = 0x20, path =pu/irn2, packcode = EIN,
issue=1, internal device = 0, device num = NULL
LNaa 03 IS IN GROW - CHANGES MADE TO INCORE DATABASE ONLY
EXC ENVIR UPROC COMPLETED
  
```

Where aa = Group number of the EIN link node being grown.
 b = 6 or 7
 c = 8 or 9

FIG. 1 - Printout for the ein.grow Script

TABLE A	
Message Number	INPUT MESSAGE
1	EXC:ENVIR:UPROC, FN"/database/tools/ein.grow", ARG("EINaa")! aa = group number of ring node cabinet



```

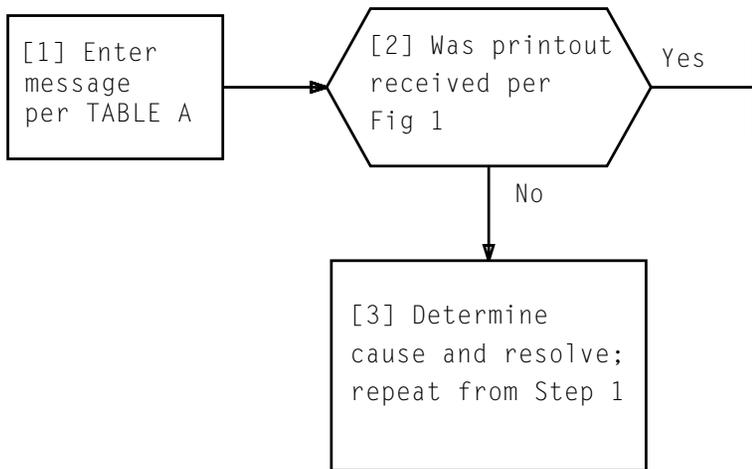
EXC:ENVIR:UPROC, FN"/database/tools/ein.oos", ARG("EINaa")
/database/tools/ein.oos:STARTED
TAKING LNaa 03 (EIN NODE) TO OOS USING THE /database/tools/ein.oos SCRIPT
LNaa 03 SET TO OOS USING THE/database/tools/ein.uneqip SCRIPT
/database/tools/ein.oos RCVECD PASSED - EXIT CODE = 0
MOVING LNaa 03 TO OOS BY SCRIPT /database/tools/ein.oos COMPLETED
LNaa 03 IS OOS - CHANGES MADE TO INCORE DATABASE ONLY
EXC ENVIR UPROC COMPLETED
  
```

Where aa = Group number of EIN link node being grown.

FIG. 1 - Printout for the ein.oos Script

TABLE A	
Message Number	INPUT MESSAGE
1	EXC:ENVIR:UPROC, FN"/database/tools/ein.oos", ARG("EINaa")!
	aa = group number of ring node cabinet

RECENT CHANGE EIN LINK NODE BEING GROWN TO OOS



```

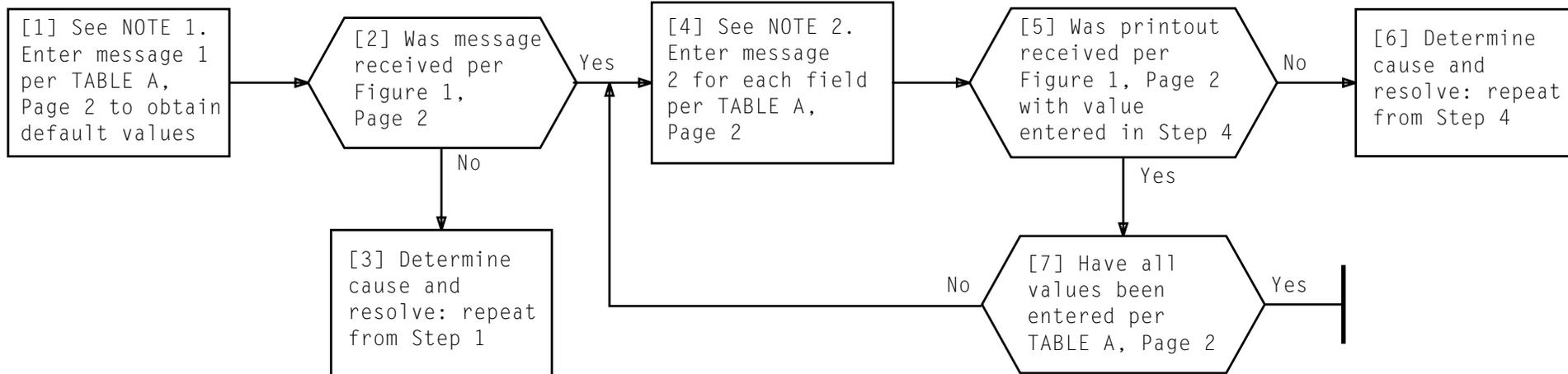
EXC:ENVIR:UPROC, FN"/database/tools/ein.unequip", ARGS("EINaa")
/database/tools/ein.unequip:STARTED
BEGINNING GROWTH OF LNaa 03 (EIN NODE) USING THE
/database/tools/ein.unequip SCRIPT
LNaa 03 SET TO UNEQIP USING THE /database/tools/ein.unequip SCRIPT
/database/tools/ein.unequip RCVECD PASSED - EXIT CODE = 0
DEGROWTH OF LNaa 03 BY SCRIPT /database/tools/ein.unequip COMPLETED
LNaa 03 IS IN UNEQIP - CHANGES MADE TO INCORE DATABASE ONLY
BEGINNING DEGROWTH OF RPCD aa 03 (EIN NODE) Using THE
/database/tools/ein.unequip SCRIPT
/database/tools/ein.unequip RCVECD PASSED - EXIT CODE = 0
DEGROWTH OF RPCDaa NODE RPCDaa 03 BY SCRIPT
/database/tools/ein.unequip COMPLETED
RPCDaa 03 IS IN UNEQIP - CHANGES MADE TO INCORE DATABASE ONLY
EXC ENVIR UPROC COMPLETED
  
```

Where aa = Group number of the EIN link node being grown.

FIG. 1 - Printout for the ein.unequip (Backout) Script

TABLE A	
Message Number	INPUT MESSAGE
1	EXC:ENVIR:UPROC, FN"/database/tools/ein.unequip", ARGS("EINaa")!
	aa = group number of ring node cabinet

RECENT CHANGE EIN LINK NODE BEING GROWN TO UNEQIP



NOTE 1
This procedure should be run in conjunction with NAMACC Configuration procedure for EIN

NOTE 2
Refer to site - specific information in the CDRP Transition Plan to populate TABLE A

SET EIN ROUTING-ADDRESS RECENT CHANGE PARAMETERS AND AMA PARTITION CONFIGURATION

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```

REPT AMA RECENT CHANGEABLE PARAMETERS
EIN IP 0 ADDRESS      0.0.0.0
EIN IP 1 ADDRESS      0.0.0.0
CDRP 0 IP 0 ADDRESS   0.0.0.0
CDRP 0 IP 1 ADDRESS   0.0.0.0
CDRP 0 ID              000000000000
CDRP 0 PASSWORD        00000000
CDRP 1 IP 0 ADDRESS   0.0.0.0
CDRP 1 IP 1 ADDRESS   0.0.0.0
CDRP 1 ID              000000000000
CDRP 1 PASSWORD        00000000
SWITCH ID              000000000000
SWITCH PASSWORD        00000000
B-ROUTER IP 0 ADDRESS 0.0.0.0
B-ROUTER IP 1 ADDRESS 0.0.0.0
SUBNET MASK            ffffffff00
COMPRESSION FLAG       OFF

```

08/28/00 17:01:53 #003064

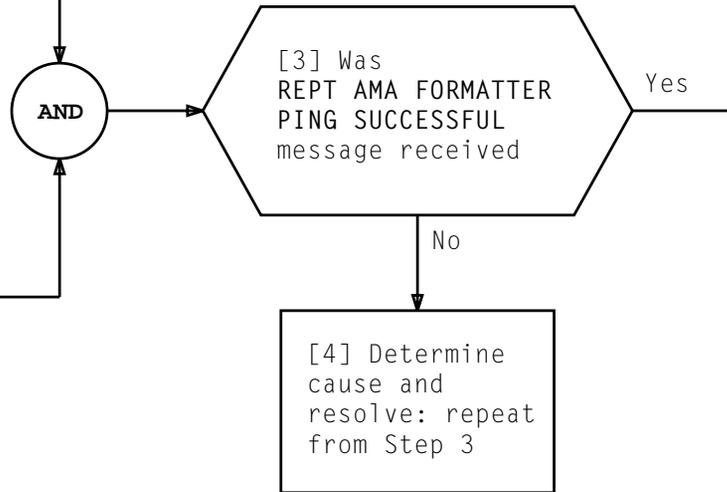
Figure 1. REPT AMA Recent Changeable Parameters

TABLE A		
MESSAGE NUMBER	OUTPUT MESSAGE	
1	OP:AMA;RC!	
2	SET:AMA;RC;a "b"!	
a(Fields)	Entry Format	b (CDRP Values)
EINIPO	000.0.1.2	
EINIP1	000.0.1.2	
CDRPOIPO	000.0.1.2	
CDRPOIP1	000.0.1.2	
CDRPID0	11 Chars.	
CDRPOPSWD	8 Chars.	
CDRP1IPO	000.0.1.2	
CDRP1IP1	000.0.1.2	
CDRPID1	11 Chars.	
CDRP1PSWD	8 Chars.	
SWID	11 Chars.	
SWPSWD	8 Chars.	
CF	OFF	
BRIP0	000.0.0.0	
BRIP1	000.0.0.0	
SNMSK	fffffff00	

**SET EIN ROUTING-ADDRESS RECENT CHANGE PARAMETERS AND
AMA PARTITION CONFIGURATION**

[1] Determine which CDRP IP to ping CDRPOIPO to EINO or CDRPOIP1 to EIN1)

[2] At MCRT, enter message START:PING;EIN a,IP "b.b.b.b"! (a = 0 or 1 and b = IP address being pinged)



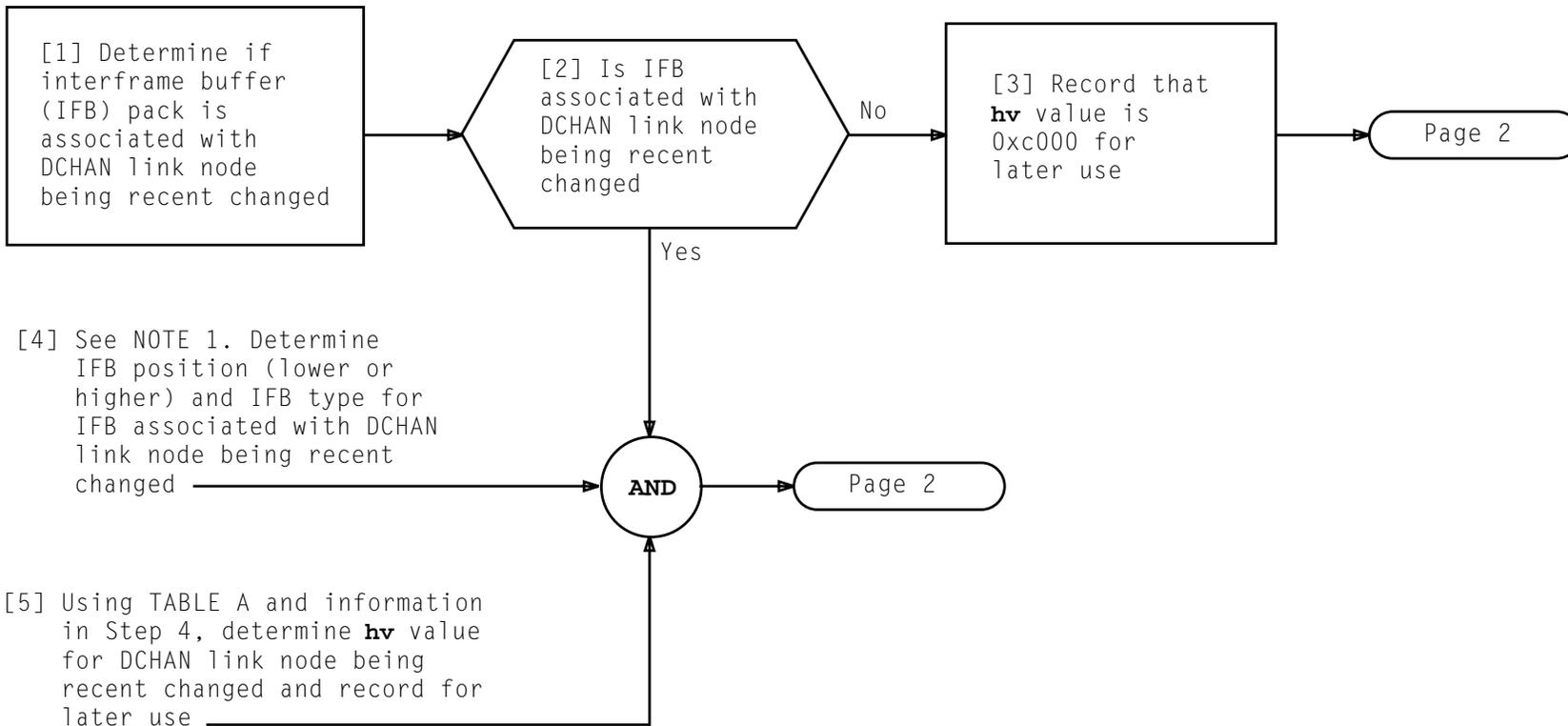


TABLE A				
IFB POSITION IN FRAME	TN918	TN1506	TN1508	TN1509 TN1803
LOWEST	0xc001	0xc004	0xc005	0xc006
HIGHEST	0xc010	0xc040	0xc050	0xc060

NOTE 1	
IFB is considered lower if IFB is located in lowest link node in cabinet. IFB is considered higher if IFB is located in highest link node in cabinet	
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RECENT CHANGE UCB DATA FOR DCHAN LINK NODE

[6] Determine which link interface pack(s) is now equipped in DCHAN link node

[7] Using TABLE B, determine **mv** value for DCHAN link node type associated with link interface equipage determined in Step 6

[8] See NOTE 2. At 3B MCRT, enter message per TABLE C, Page 3, for DCHAN link node being recent changed

[9] Wait for EXEC:ENVIR:UPROC COMPLETED message to be received

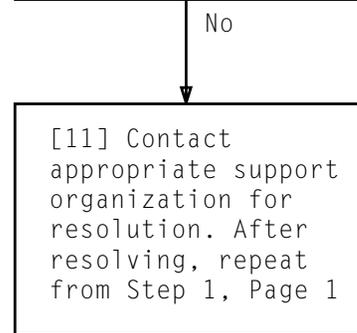
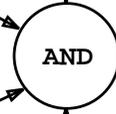


TABLE B

NODE TYPE	MV VALUE			
	LI EQUIPAGE*			
	LI 0 ONLY	LI 1 ONLY	BOTH LIs	NONE
DCHAN (non-T1FA Control Node)†	0x3a	0x3b	0x3c	N/A
DCHAN (T1FA Control Node)†	0x40	0x41	0x42	N/A
IUN (IRN2 with UN304)‡	-	-	-	0x3

* These values are associated with both SSI and HDB that are equipped with IRN-type node codes
 † The T1FA control nodes are Position 4, 9, 14 for LN00/32 and T1FA control node is node 3 on the 8-node high-density shelf
 ‡ This value is used for backout

NOTE 2

EXC input message will degrow DCHAN link node to UNEQIP, change **hv**, **mv**, **pathname**, **packcode** and **issue** fields, and grow DCHAN link node to GROW

RECENT CHANGE UCB DATA FOR DCHAN LINK NODE

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TABLE C	
MESSAGE NUMBER	INPUT MESSAGE
1	EXC:ENVIR:UPROC, FN"/database/tools/irn2.grow", ARG("LNaa", "b", "c", "d")!
aa = Cabinet number b = DCHAN link node number c = hv value recorded in Step 3 or 5, Page 1 d = mv value recorded in Step 7	

RECENT CHANGE UCB DATA FOR DCHAN LINK NODE

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[1] See NOTE 1. At MCRT, enter message per TABLE A for DCHAN link node being recent changed

[2] Wait for EXC:ENVIR:UPROC COMPLETED message to be received

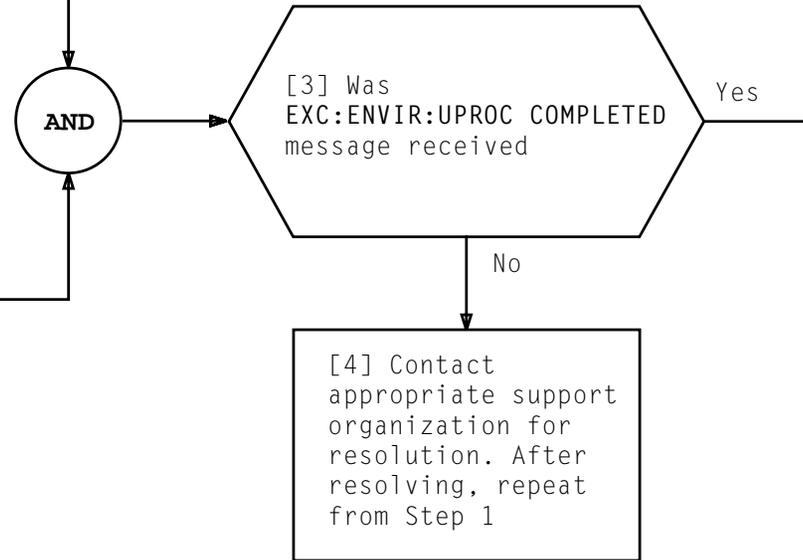
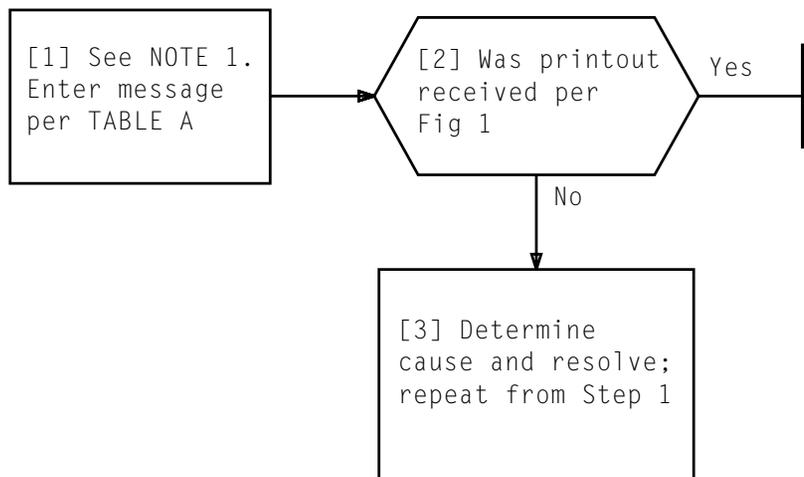


TABLE A	
MESSAGE NUMBER	INPUT MESSAGE
1	EXC:ENVIR:UPROC, FN"/database/tools/irn2.oos", ARG\$("LN aa", "b")!
aa = Cabinet number b = DCHAN link node number	

NOTE 1	
EXC input message will move DCHAN link node from GROW to OOS	
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RECENT CHANGE DCHAN LINK NODE TO OOS



```

EXC:ENVIR:UPROC, FN"/database/tools/dln.uneqip", ARGS("DLNaa", "bb")
/database/tools/dln.uneqip:STARTING
BEGINNING DEGROWTH OF LNaa bb (DLN NODE) USING THE
  /database/tools/dln.uneqip SCRIPT
LNaa bb SET TO UNEQIP USING THE /database/tools/dln.uneqip SCRIPT
/database/tools/dln.uneqip RCVECD PASSED - EXIT CODE = 0
DEGROWTH OF LNaa bb BY SCRIPT /database/tools/dln.uneqip COMPLETED
LNaa bb IS IN UNEQIP - CHANGES MADE TO INCORE DATABASE ONLY
BEGINNING DEGROWTH OF RPCD aa bb (DLN NODE) Using THE
  /database/tools/dln.uneqip SCRIPT
/database/tools/dln.uneqip RCVECD PASSED - EXIT CODE = 0
DEGROWTH OF RPCDaa NODE RPCDaa bb BY SCRIPT
  /database/tools/dln.uneqip COMPLETED
RPCDaa bb IS IN UNEQIP - CHANGES MADE TO INCORE DATABASE ONLY
EXC ENVIR UPROC /database/tools/dln.uneqip COMPLETED
  
```

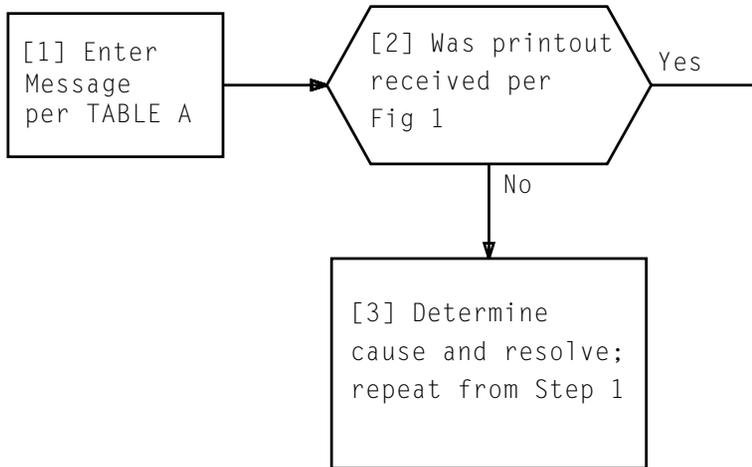
Where aa = Group number of the DLN link node being grown.
bb = Node number (5 or 10)

FIG. 1 - Example of Printout for the dln.uneqip (Backout) Script

TABLE A	
Message Number	INPUT MESSAGE
1	EXC:ENVIR:UPROC, FN"/database/tools/dln.uneqip", ARGS("DLNaa", "bb")!
	aa = group number of ring node cabinet bb = member number

NOTE 1	
This script is also used if backout is necessary	
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RECENT CHANGE DLN BEING CONVERTED AND ASSOCIATED RPCD TO UNEQIP



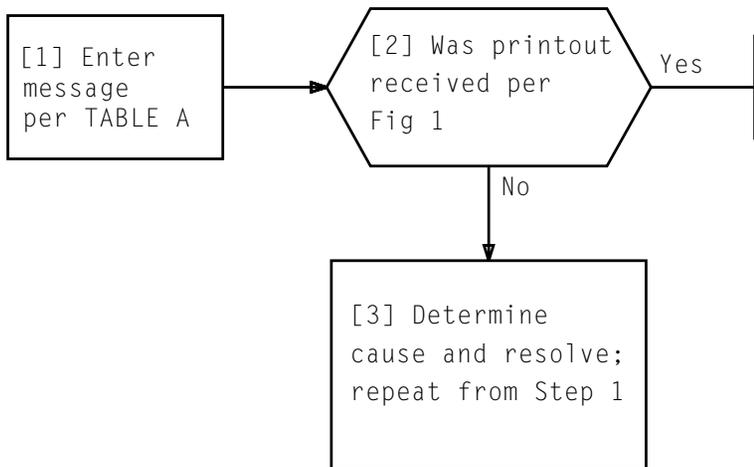
```

EXC:ENVIR:UPROC, FN"/database/tools/dln.grow", ARGS("DLNaa", "bb")
/database/tools/dln.grow:STARTING
BEGINNING GROWTH OF RPCDaa bb (DLN NODE) USING THE
/database/tools/dln.grow SCRIPT
RPCDaa bb COMPLETED FOR IRN2 DLN NODE GROWTH USING THE
/database/tools/dln.grow SCRIPT
/database/tools/dln.grow RCVECD PASSED - EXIT CODE = 0
GROWTH OF RPCDaa bb BY SCRIPT /database/tools/dln.grow COMPLETED
RPCDaa bb INCORE CHANGES -hv = 0x200c000, mv = 0x23, path =pu/DLNI_NA,
packcode =DLN, issue =1
RPCDaa bb IS IN GROW - CHANGES MADE TO INCORE DATABASE ONLY
GROWTH OF LNaa bb BEGINNING
RING REPT LNaa bb IS IN THE GROWTH STATE
/database/tools/dln.grow RCVECD PASSED - EXIT CODE = 0
GROWTH OF DLN NODE LNaa bb BY SCRIPT /database/tools/dln.grow COMPLETED
LNaa bb INCORE CHANGES - hv = 0x200c000, mv = 0x23, path =pu/irn2, packcode = DLN,
issue=1
LNaa bb IS IN GROW - CHANGES MADE TO INCORE DATABASE ONLY
EXC ENVIR UPROC /database/tools/dln.grow COMPLETED
  
```

Where aa = Group number of the DLN link node being grown (00 or 32).
bb = Node number (5 or 10)

FIG. 1 - Example of Printout for the dln.grow Script

TABLE A	
Message Number	INPUT MESSAGE
1	EXC:ENVIR:UPROC, FN"/database/tools/dln.grow", ARGS("DLNaa", "bb")!
	aa = group number of ring node cabinet bb = member number



```

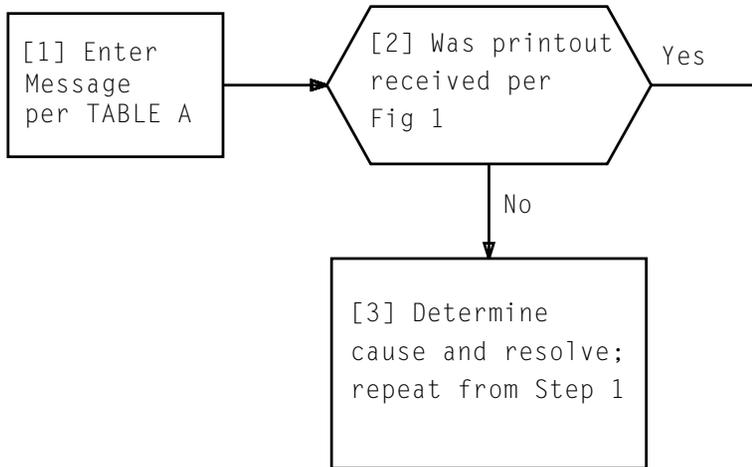
EXC:ENVIR:UPROC, FN"/database/tools/dln.oos", ARG("DLNaa", "bb")
/database/tools/dln.oos:STARTED
TAKING LNaa bb (DLN NODE) TO OOS USING THE /database/tools/dln.oos SCRIPT
RING REPT LNaa bb IS OUT OF SERVICE
LNaa bb SET TO OOS USING THE /database/tools/dln.OOS SCRIPT
/database/tools/dln.oos RCVECD PASSED - EXIT CODE = 0
MOVING LNaa bb TO OOS BY SCRIPT /database/tools/dln.oos COMPLETED
LNaa bb IS OOS - CHANGES MADE TO INCORE DATABASE ONLY
EXC ENVIR UPROC /database/tools/dln.oos COMPLETED
  
```

Where aa = Group number of DLN link node being grown.
 bb = Node number (5 or 10)

FIG. 1 - Example of Printout for the dln.oos Script

TABLE A	
Message Number	INPUT MESSAGE
1	EXC:ENVIR:UPROC, FN"/database/tools/dln.oos", ARG("DLNaa", "bb")!
	aa = group number of ring node cabinet bb = member number

RECENT CHANGE DLN LINK NODE BEING GROWN TO OOS



```

EXC:ENVIR:UPROC,FN"/database/tools/dln.bkout",ARGS("DLNaa")
/database/tools/dln.bkout:STARTING
BEGINNING GROWTH OF RPCDaa 03 (DLN NODE) USING THE
/database/tools/dln.bkout SCRIPT
RPCDaa bb COMPLETED FOR IRN2 DLN NODE GROWTH USING THE
/database/tools/dln.bkout SCRIPT
/database/tools/dln.bkout RCVECD PASSED - EXIT CODE = 0
GROWTH OF RPCDaa bb BY SCRIPT /database/tools/dln.bkout COMPLETED
RPCDaa dd INCORE CHANGES -hv = 0x2009000, mv = 0x23, path =pu/DLNI_NA,
packcode = DLNE, issue = 1
RPCDaa bb IS IN GROW - CHANGES MADE TO INCORE DATABASE ONLY
GROWTH OF LNaa 03 BEGINNING
/database/tools/dln.bkout RCVECD PASSED - EXIT CODE = 0
GROWTH OF DLN NODE LNaa 03 BY SCRIPT /database/tools/dln.bkout COMPLETED
LNaa 03 INCORE CHANGES - hv = 0x2009000, mv = 0x23, path =pu/iun, packcode = DLNE,
issue=1, device
LNaa 03 IS IN GROW - CHANGES MADE TO INCORE DATABASE ONLY
EXC ENVIR UPROC COMPLETED
  
```

Where aa = Group number of the DLN link node being grown.
 bb = Node Number (5 or 10)

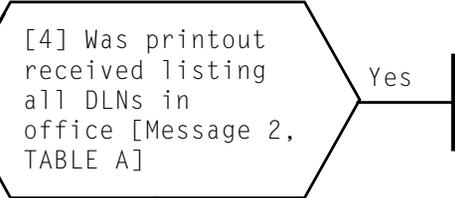
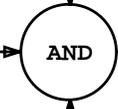
FIG. 1 - Example of Printout for the dln.bkout Script

TABLE A	
Message Number	INPUT MESSAGE
1	EXC:ENVIR:UPROC,FN"/database/tools/dln.bkout",ARGS("DLNaa","bb")!
	aa = group number of ring node cabinet bb = member number

[1] At MCRT, enter message
 EXC:ENVIR:UPROC, FN"ports", ARG("104")!

[2] Using printout (Step 1) and Message 1,
 TABLE A, record process ID (PID) for
 later use

[3] At MCRT, enter message to redip ECD
 and pump converted DLN
 EXC:ENVIR:UPROC, FN"kill", ARG("-8", "xxxxx")!
 xxxxx = PID recorded in Step 2



[5] Refer trouble to next higher level of support for resolution; repeat from Step 1

TABLE A	
MESSAGE NUMBER	OUTPUT MESSAGE
1	EXC ENVIR UPROC ports COMPLETED port #104 owned by xxxxx
2	EXC ENVIR UPROC kill COMPLETED REPT DLNCM PROC (REDIP) STARTED a DLNs LN32-5 LN00-5 [LN32-10 LN00-10]* REPT DLNCM PROC (Redip) CODE 0
XXXXX = DLNCM process ID a = Number of DLNs in office (2 or 4) * DLNs not shown in 2 DLN office	

REDIP ECD AND PUMP CONVERTED DLN

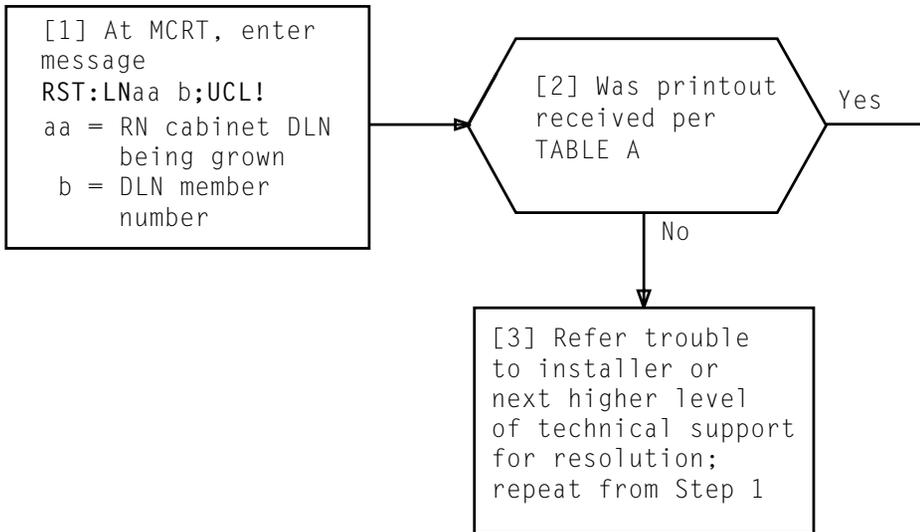


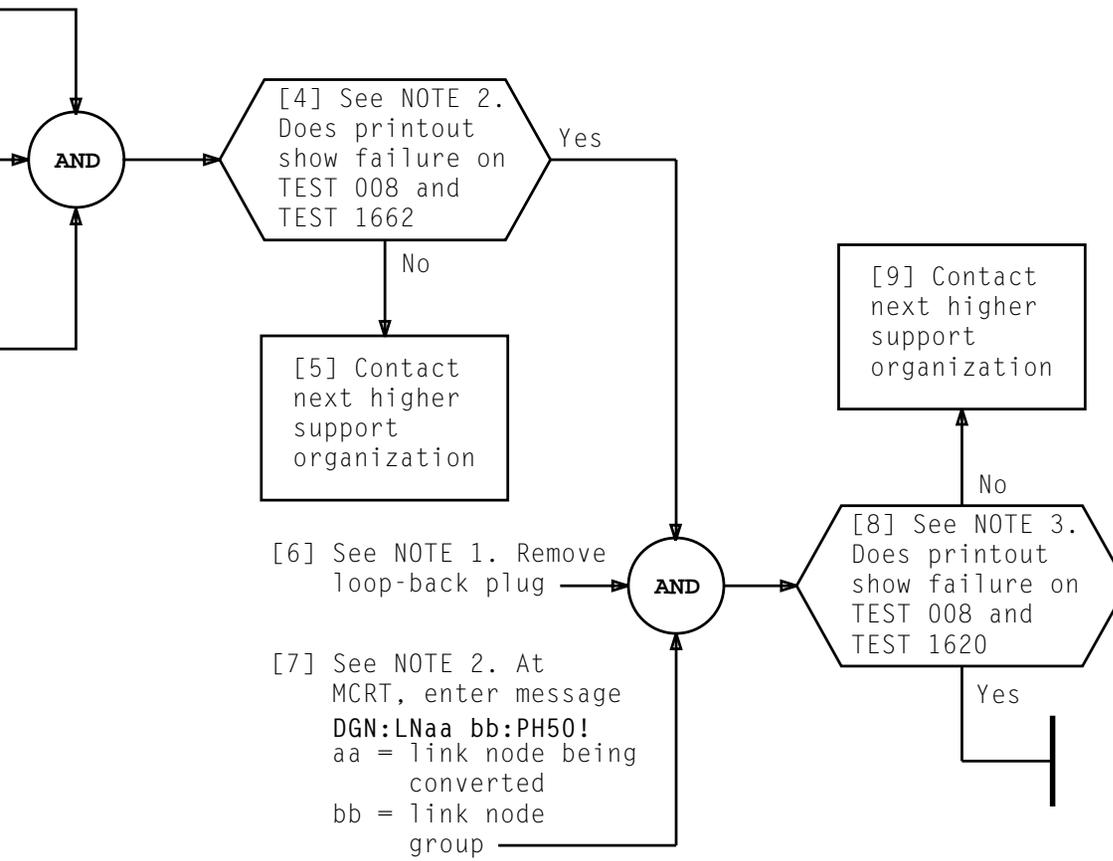
TABLE A	
MESSAGE NUMBER	OUTPUT MESSAGE
1	RST LNaa b TASK n MESSAGE STARTED RING RST LNaa b COMPLETED REPT DLNCM LNaa-b ON-LINE (X'nnnnnnnn) REPT DLNCM PROC (Pump) LNaa-b PUMP STARTED REPT DLNCM PROC (Pump) LNaa-b nnnn (nnn) BINKS PUMPED IN nnnn MSEC REPT DLNCM PROC (Pumpapp) LNaa-b pump STARTED X'nnnnnnnn REPT DLNCM PROC (Pumpapp) LNaa-b DBTOC PUMPED nnnn BYTES MSEC nnn REPT DLNCM PROC (Pumpapp) LNaa-b PCPGTT PUMPED nnnn BYTES MSEC nnn REPT DLNCM PROC (Pumpapp) LNaa-b INGTT PUMPED nnnn BYTES MSEC nnn REPT DLNCM PROC (Pumpapp) LNaa-b MISCOTT PUMPED nnnn BYTES MSEC nnn REPT DLNCM PROC (Pumpapp) LNaa-b pump COMPL nnnn BYTES MSEC nnn

RESTORE GROWTH DLN UNCONDITIONALLY

[1] Use office drawing (T-nn-Hn-464) to determine crossconnect assignment location for signaling link being converted

[2] See NOTE 1. Insert loop-back plug in the DSX Panel

[3] At MCRT, enter message
DGN:LNaa bb:PH50!
(aa = link node being converted,
bb = link node group)

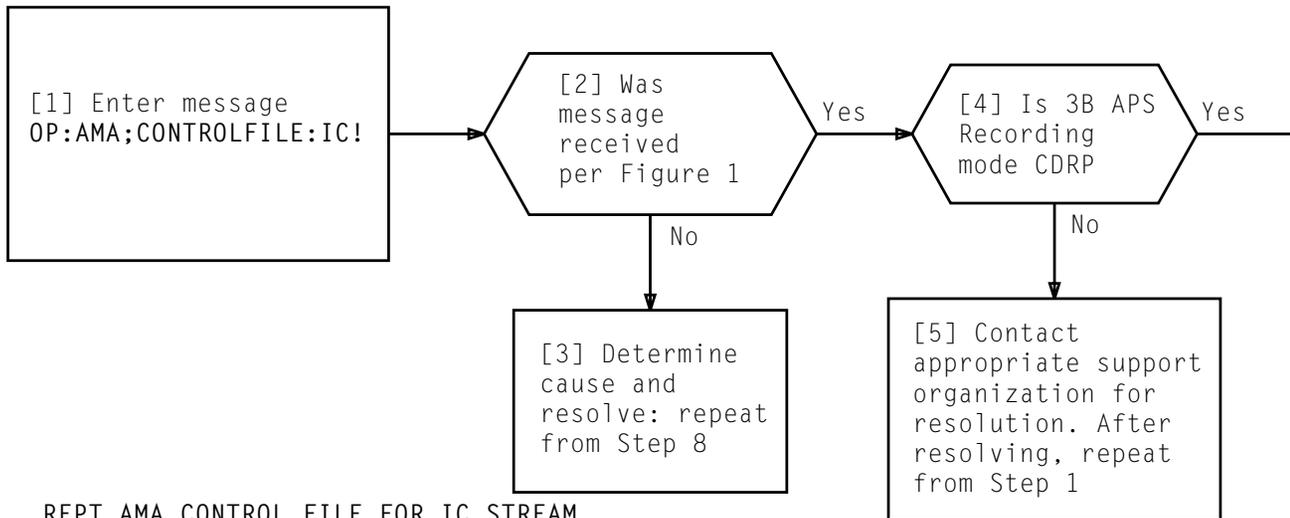


NOTES

1. The installer is responsible for removing and installing the loop-back plug
2. The expected result is a failure message which indicates that the cable is shorted (not open)
3. The expected result is a failure message which indicates that the cable is open (not shorted)

PERFORM DEMAND PHASE 50 TEST

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```

REPT AMA CONTROL FILE FOR IC STREAM
OFFICE ID 000000
DAYS UNTIL EXPIRATION 5
PROCESS START TIME 00:00
PROCESS STOP TIME 00:00
DEFAULT MT FOR AUTO TAPE START 0
AMA OPTION IS TELEPROCESSING
DATA TRANSFER IS NOT MANUALLY INHIBITED
AMAT PASSWORD 0000000000
HOC PASSWORD 0000000000
BACKUP HOC PASSWORD 0000000000
PASSWORD FROM LAST SESSION 0000000000
TAPE SESSION IS NOT IN PROGRESS
AUTOMATIC TAPE WRITING IS INHIBITED
TAPE SEQUENCE NUMBER 1
TAPE DATA SET ID N04E.AMA.ID000000
MAXIMUM DISK WRITE DELAY 10 SECONDS
MAXIMUM SEQUENCE NUMBER OPTION IS LONG (999,999,999)
THE FAST STREAM IS IC
DEFERRED FORMATTING IS NOT ALLOWED
3B APS RECORDING MODE IS CDRP
06/25/00 17:41:14 #000000
  
```

Figure 1. Typical REPT AMA CONTROL FILE Message

VERIFY 3B APS RECORDING MODE

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[1] Determine order number
for each link node to be changed
[DLP-517]

[2] At MCRT, enter message
INH:AUD:NIDATA!

At Recent Change and Verify Terminal:

[3] Enter message
RCV:DMS!

ENTER YOUR USER ID:
displayed [NOTE 1]

[4] Enter office DMS
user ID

PASSWD: displayed

[5] Enter office DMS
password

**THERE ARE x ORDERS IN
THE SYSTEM** and
**ENTER: ver, rc, recall, check,
adm, act, mail, menu, quit:**
displayed

[6] Enter **rc**

ENTER rc FUNCTION:
displayed

[7] Enter **lkdata**

ENTER ORDER NUMBER:
displayed

AND

Page 2

NOTE 1

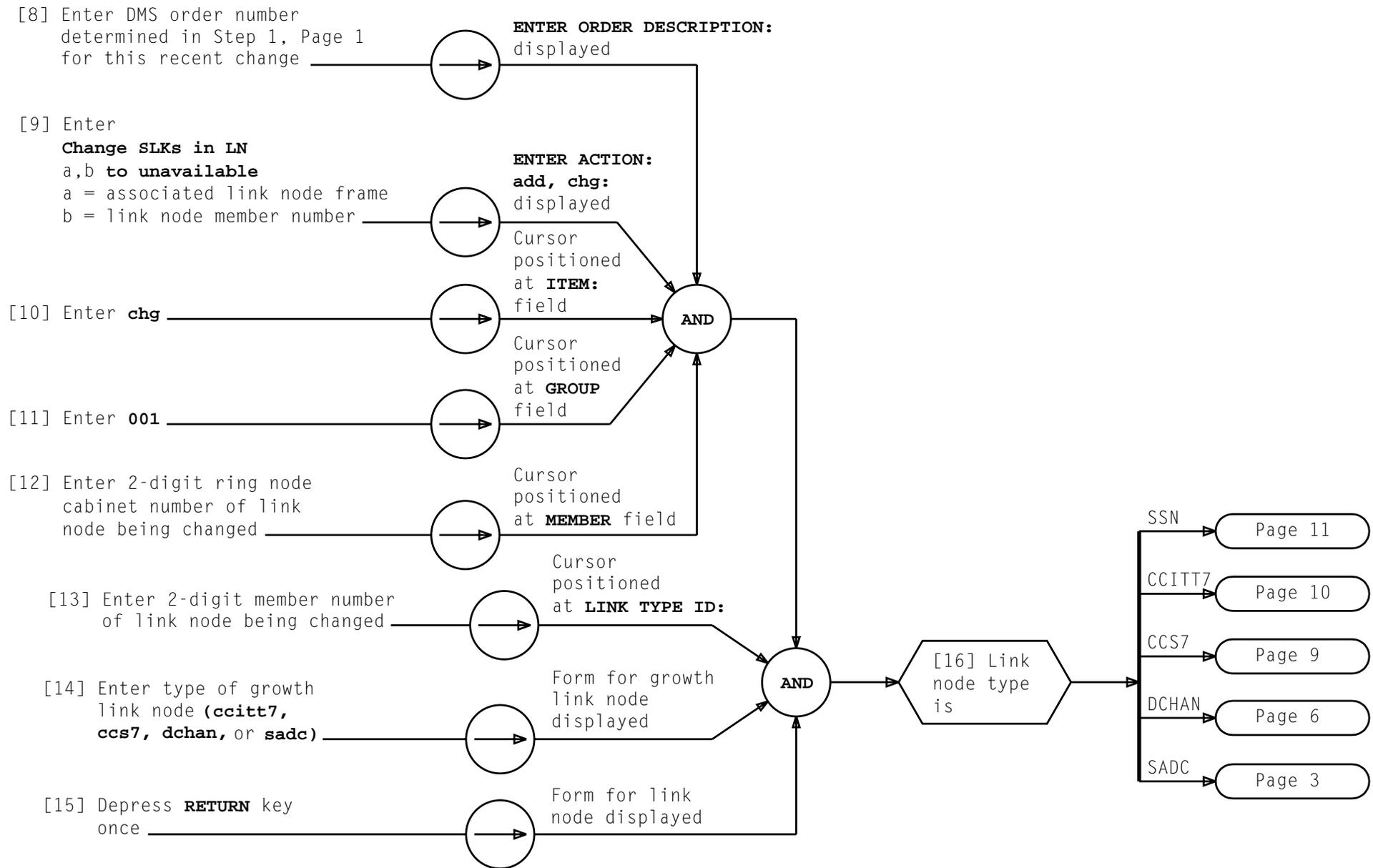
If **ENTER YOUR
USER ID:** is not
received, **BREAK**
key will have
to be depressed

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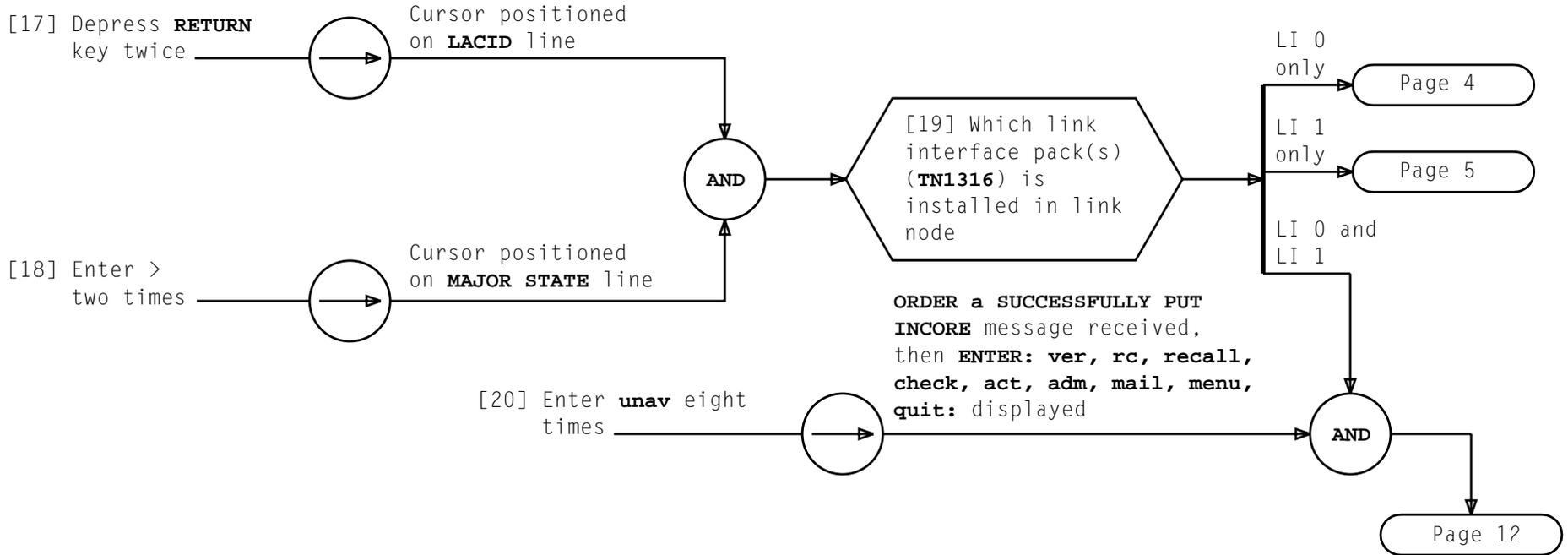
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CHANGE SIGNALING LINK(S) TO UNAV



CHANGE SIGNALING LINK(S) TO UNAV

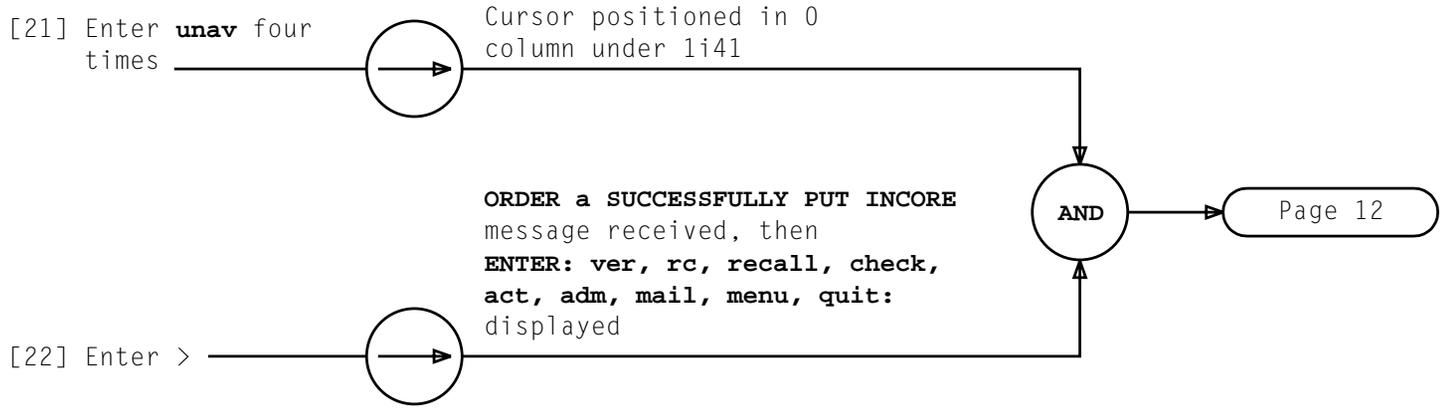
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ORDER a SUCCESSFULLY PUT INCORE message received, then ENTER: ver, rc, recall, check, act, adm, mail, menu, quit: displayed

CHANGE SIGNALING LINK(S) TO UNAV

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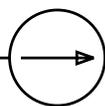


CHANGE SIGNALING LINK(S) TO UNAV

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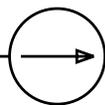
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[23] Depress **RETURN** key
four times

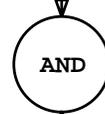


Cursor positioned in 0
column under li41

[24] Enter **unav** four
times



ORDER a SUCCESSFULLY PUT INCORE
message received, then
ENTER: ver, rc, recall, check,
act, adm, mail, menu, quit:
displayed

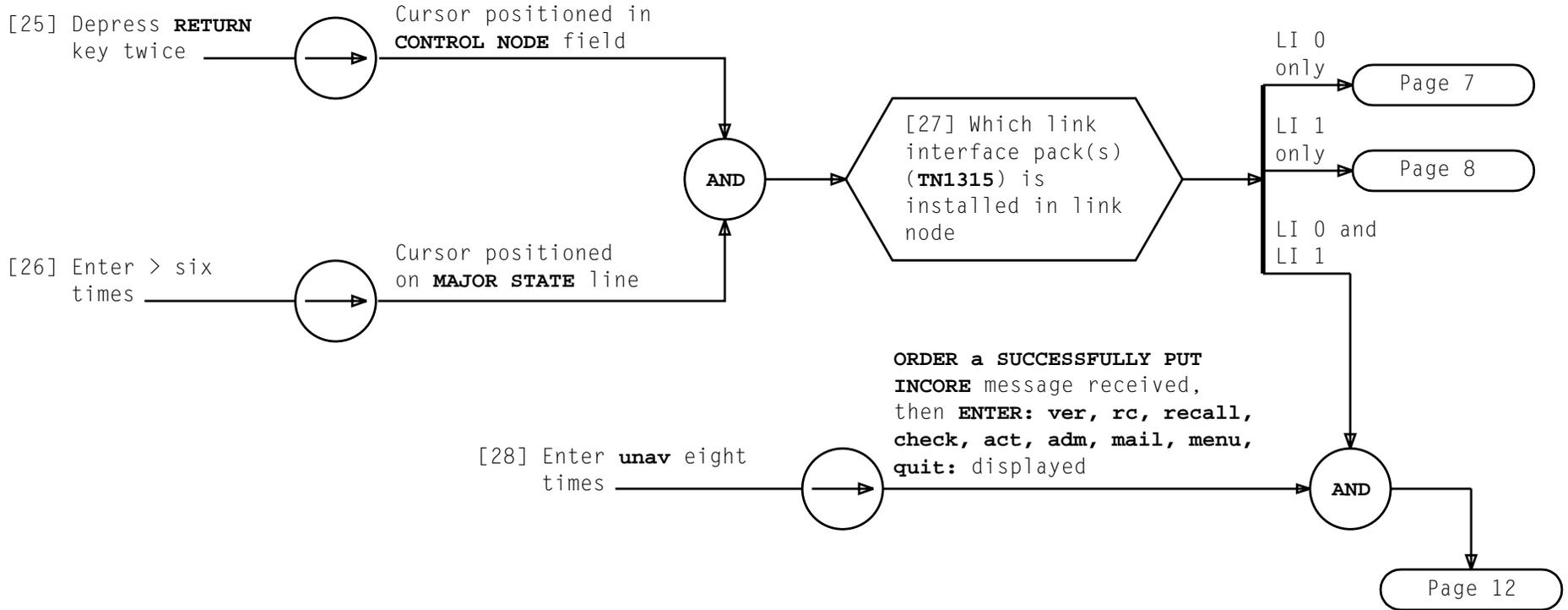


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CHANGE SIGNALING LINK(S) TO UNAV

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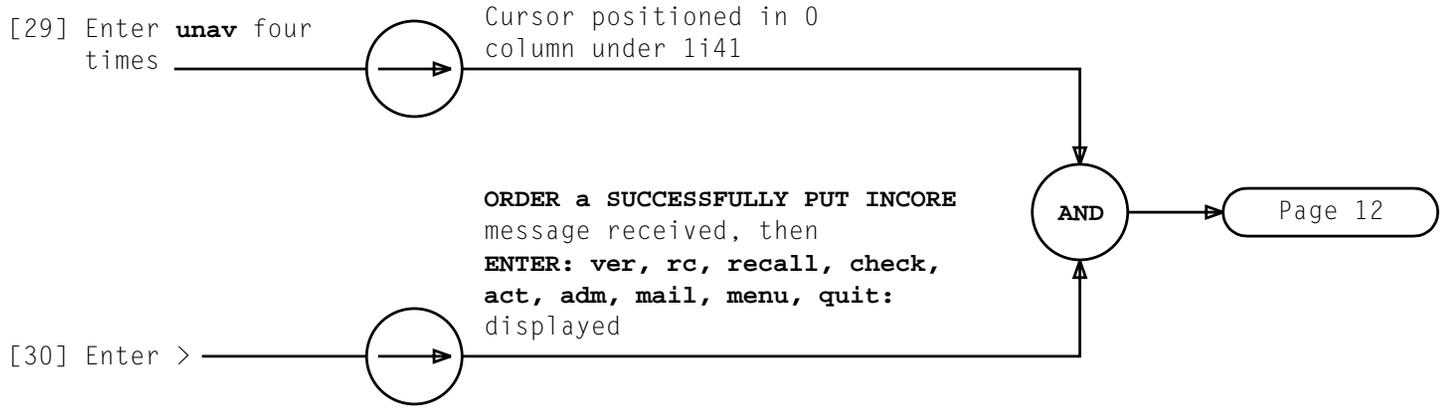
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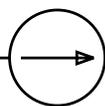
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CHANGE SIGNALING LINK(S) TO UNAV

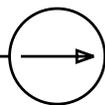
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[31] Depress **RETURN** key
four times

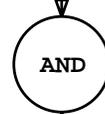


Cursor positioned in 0
column under li41

[32] Enter **unav** four
times



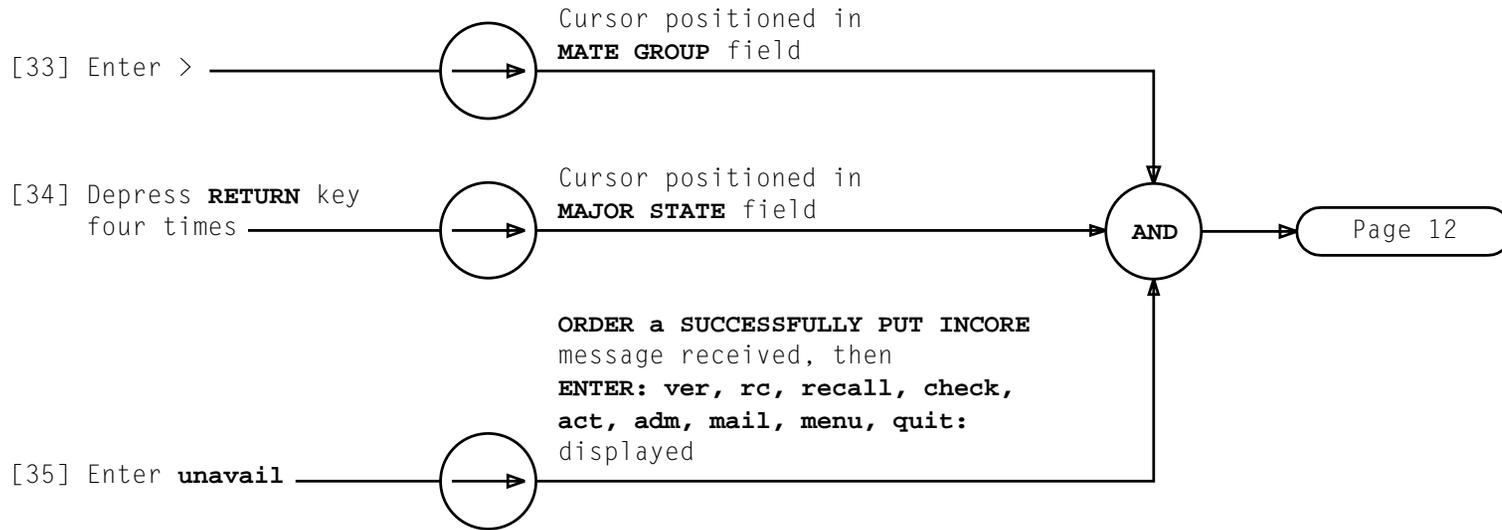
ORDER a SUCCESSFULLY PUT INCORE
message received, then
ENTER: ver, rc, recall, check,
act, adm, mail, menu, quit:
displayed



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CHANGE SIGNALING LINK(S) TO UNAV

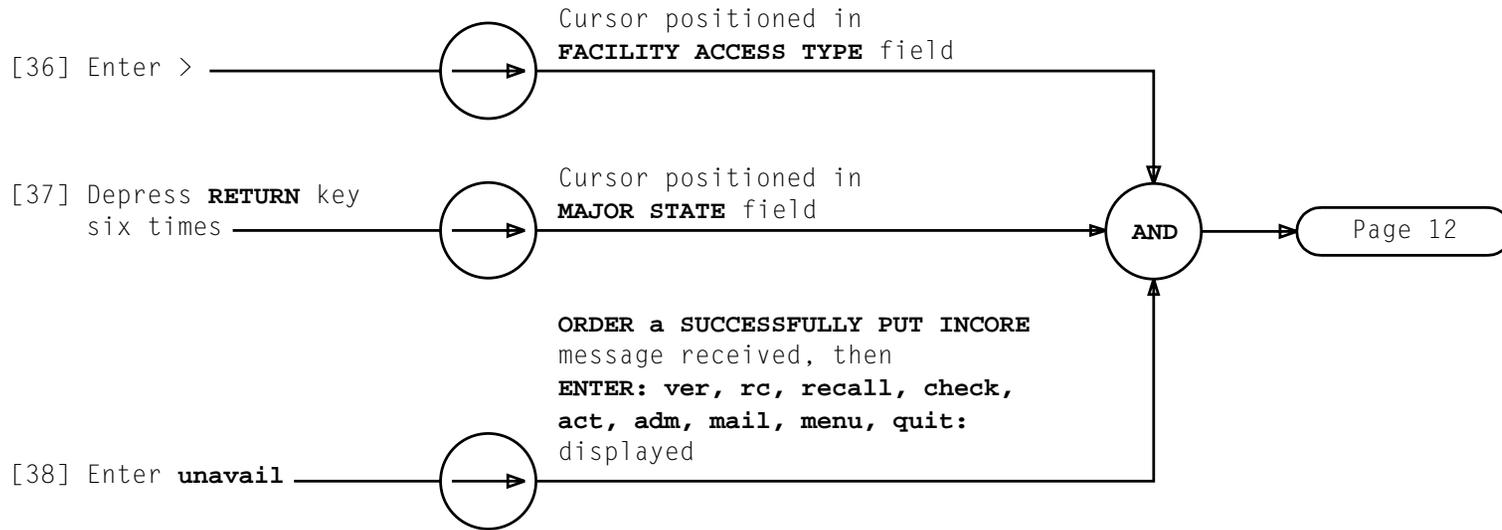
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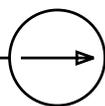


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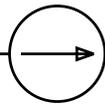
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[39] Depress **RETURN** key
two times

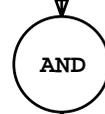


Cursor positioned in
MAJOR STATE field

[40] Enter **unavail**



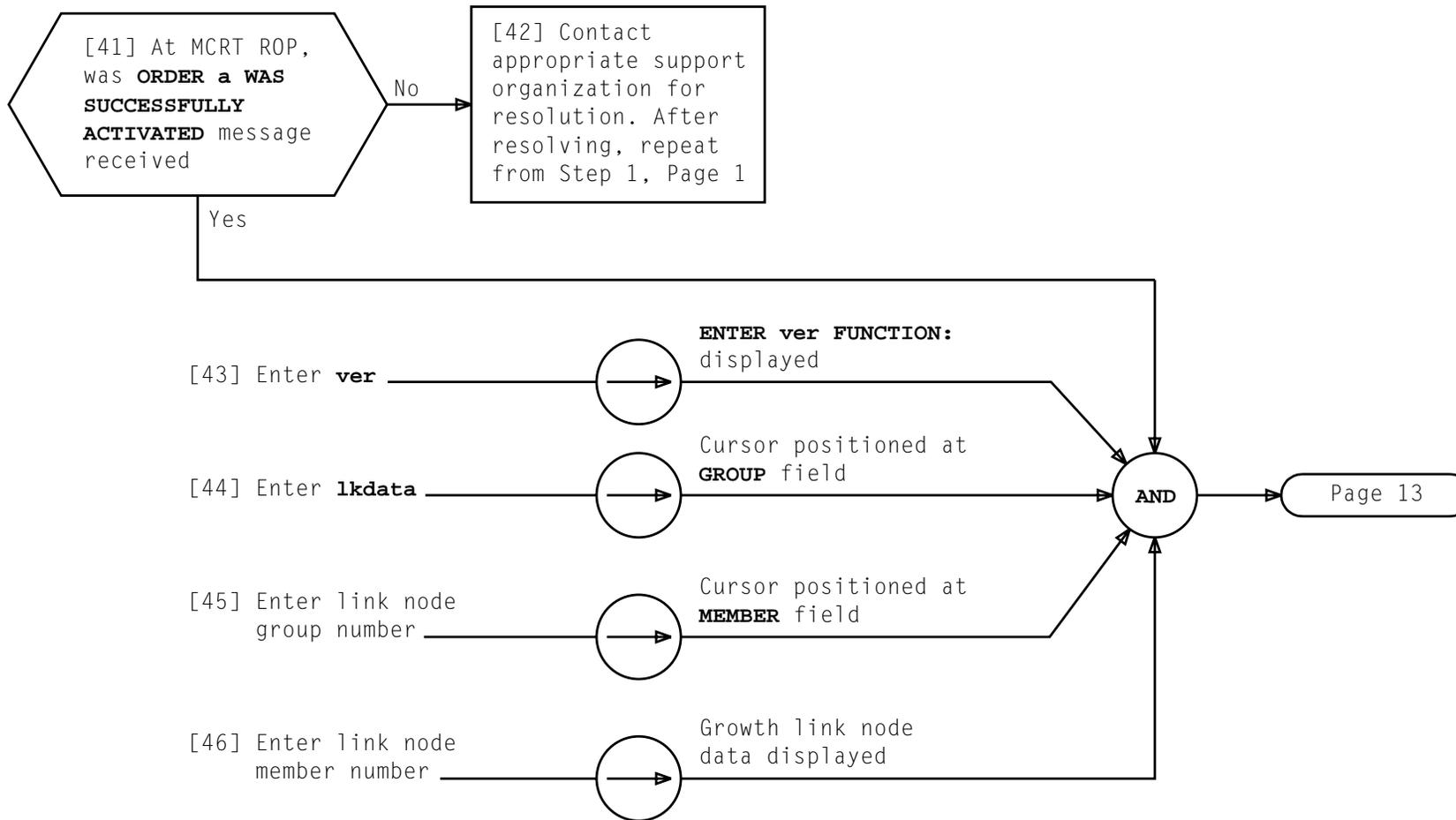
ORDER a SUCCESSFULLY PUT INCORE
message received, then
ENTER: ver, rc, recall, check,
act, adm, mail, menu, quit:
displayed



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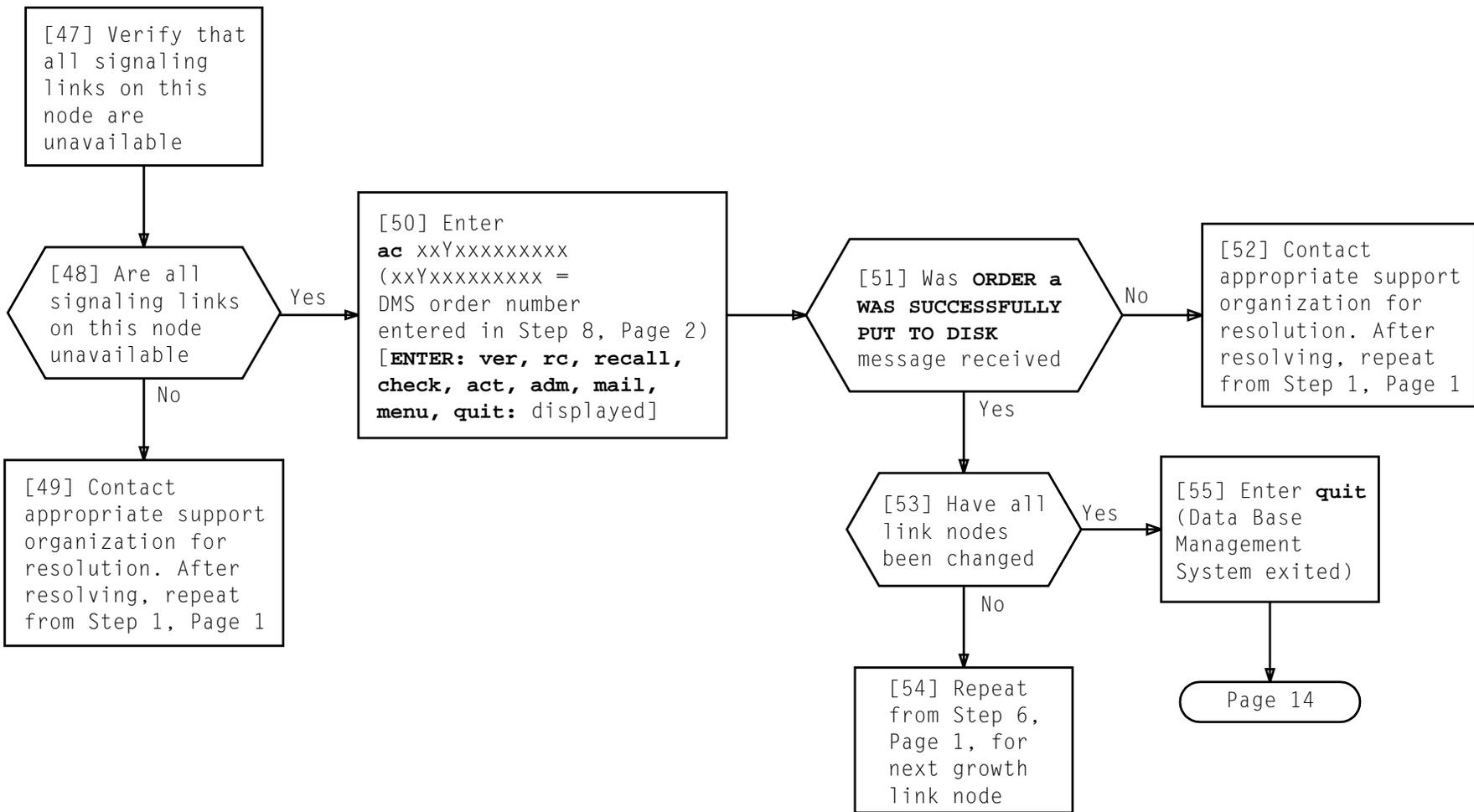
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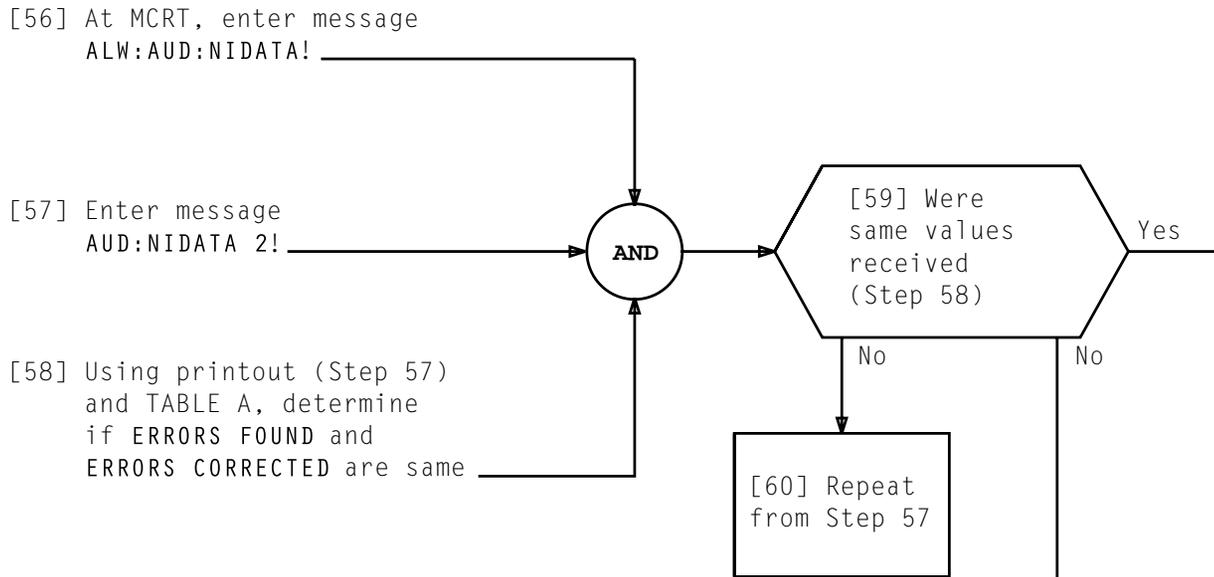


TABLE A	
MESSAGE NUMBER	OUTPUT MESSAGE
1	AUD NIDATA 2 COMPLETED a ERRORS FOUND b ERRORS CORRECTED
a = Total number of errors found b = Total number of errors corrected	

[1] Determine order number
for each link node to be changed
[DLP-517]

[2] At MCRT, enter message
INH:AUD:NIDATA!

At Recent Change and Verify Terminal:

[3] Enter message
RCV:DMS!

ENTER YOUR USER ID:
displayed [NOTE 1]

[4] Enter office DMS
user ID

PASSWD: displayed

[5] Enter office DMS
password

THERE ARE x ORDERS IN
THE SYSTEM and
ENTER: ver, rc, recall, check,
adm, act, mail, menu, quit:
displayed

[6] Enter rc

ENTER rc FUNCTION:
displayed

[7] Enter lkdata

ENTER ORDER NUMBER:
displayed

AND

Page 2

NOTE 1

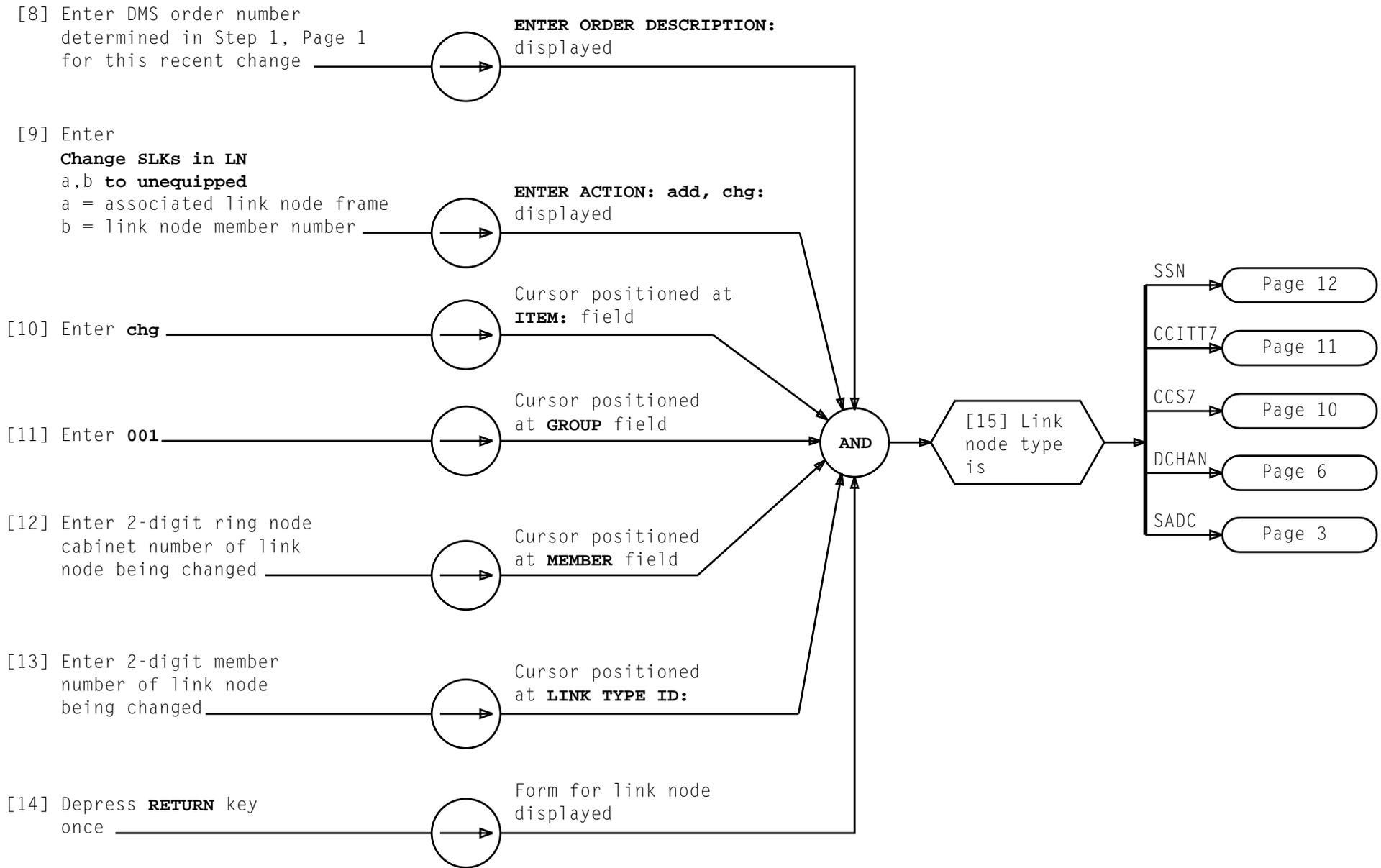
If ENTER YOUR
USER ID: is not
received, BREAK
key will have
to be depressed

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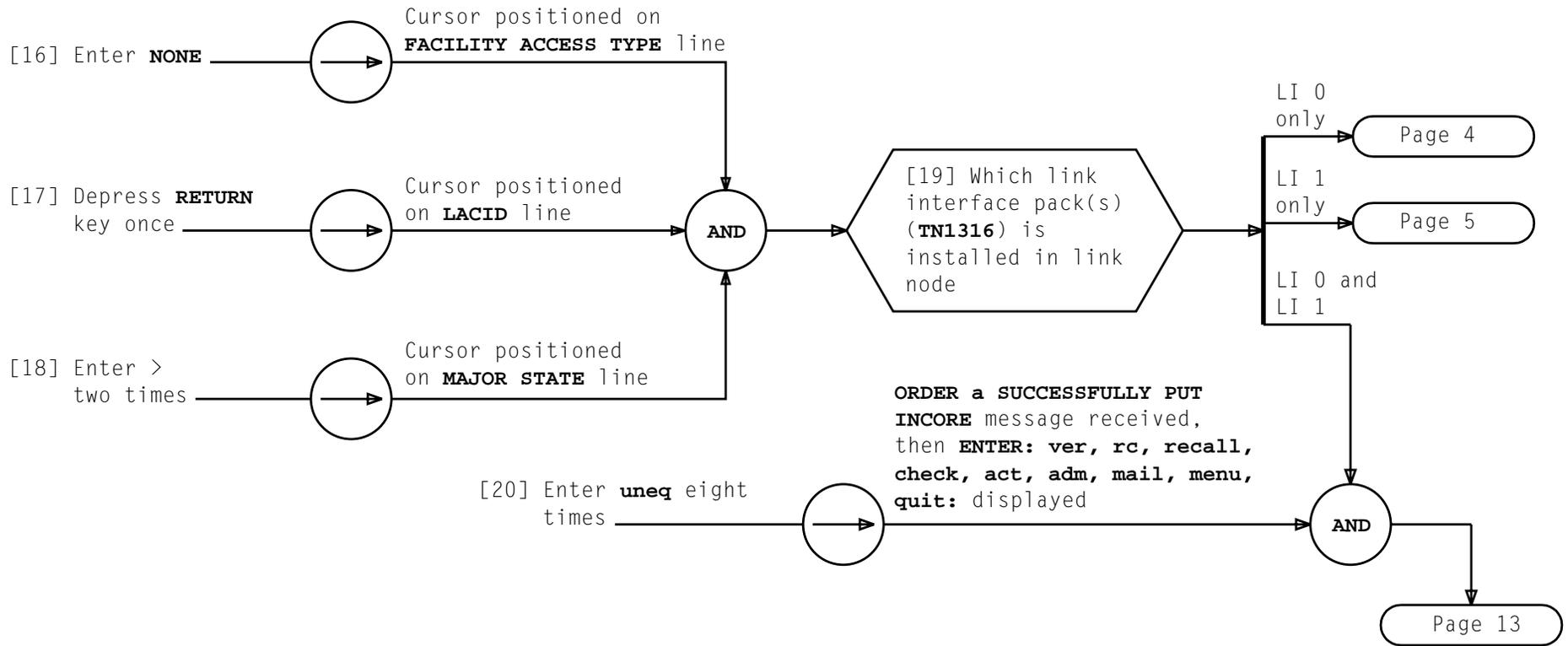
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DEGROW SIGNALING LINK(S) TO UNEQ



DEGROW SIGNALING LINK(S) TO UNEQ

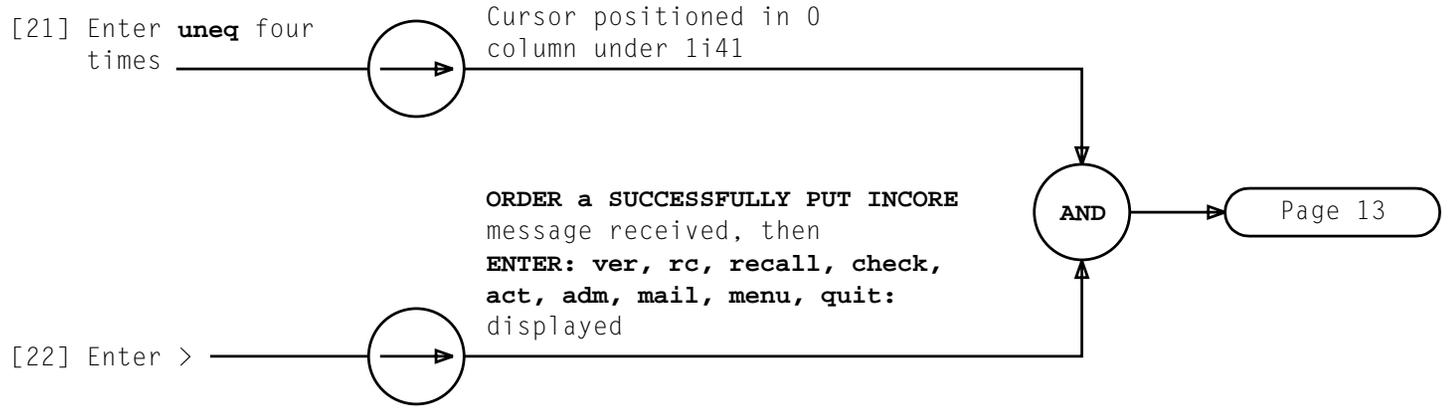
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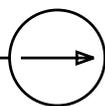
DEGROW SIGNALING LINK(S) TO UNEQ

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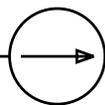


[23] Depress **RETURN** key
four times

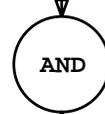


Cursor positioned in 0
column under li41

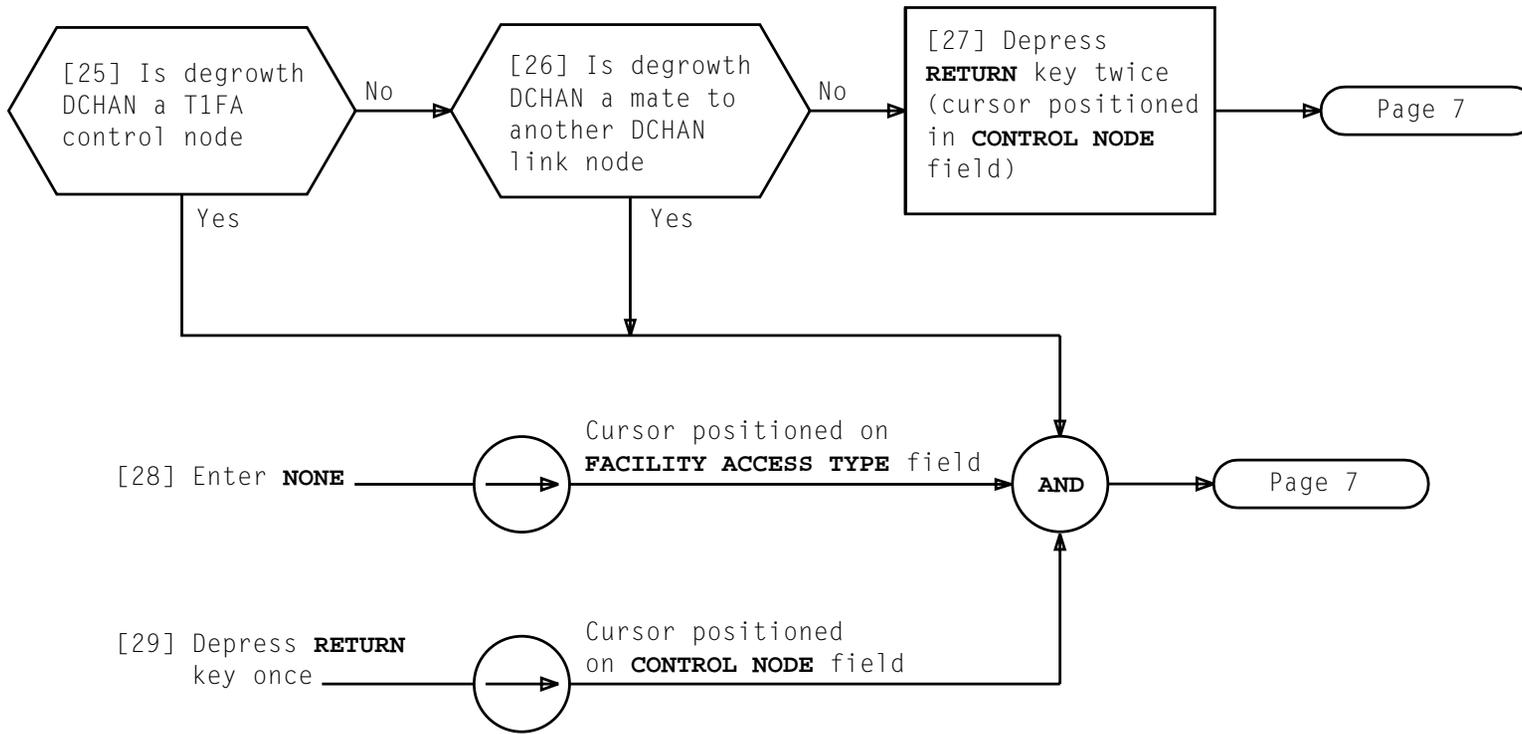
[24] Enter **uneq** four
times



ORDER a SUCCESSFULLY PUT INCORE
message received, then
ENTER: ver, rc, recall, check,
act, adm, mail, menu, quit:
displayed



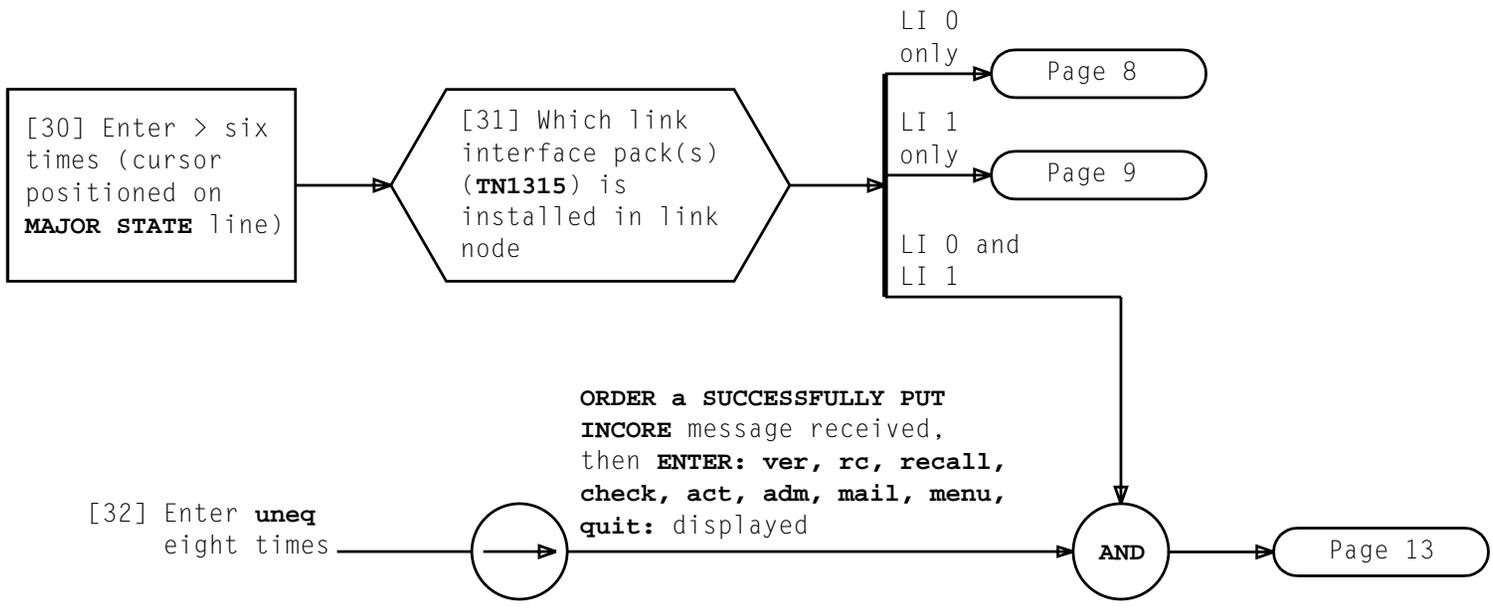
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DEGROW SIGNALING LINK(S) TO UNEQ

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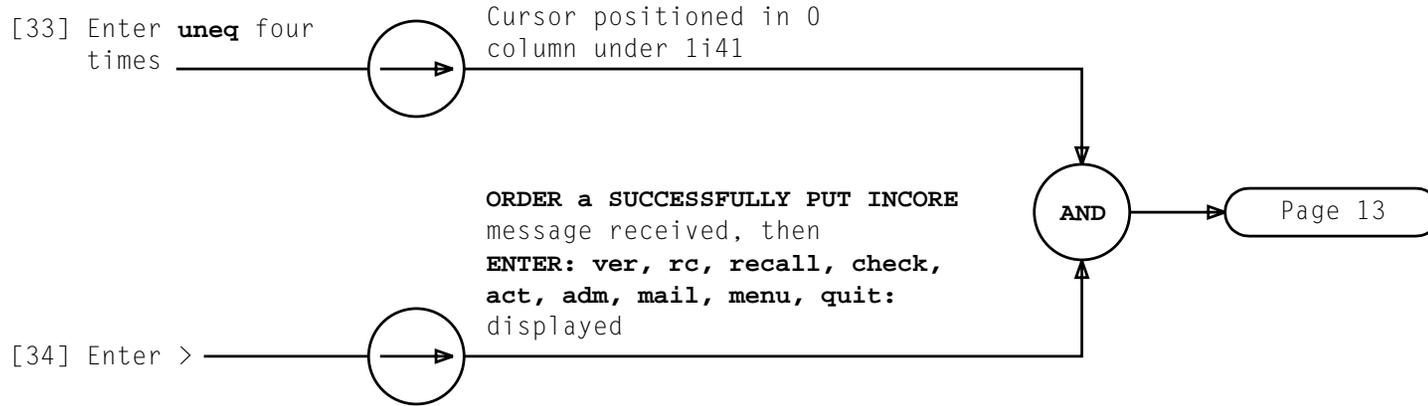
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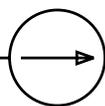
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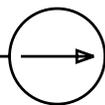


[35] Depress **RETURN** key
four times

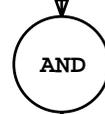


Cursor positioned in 0
column under li41

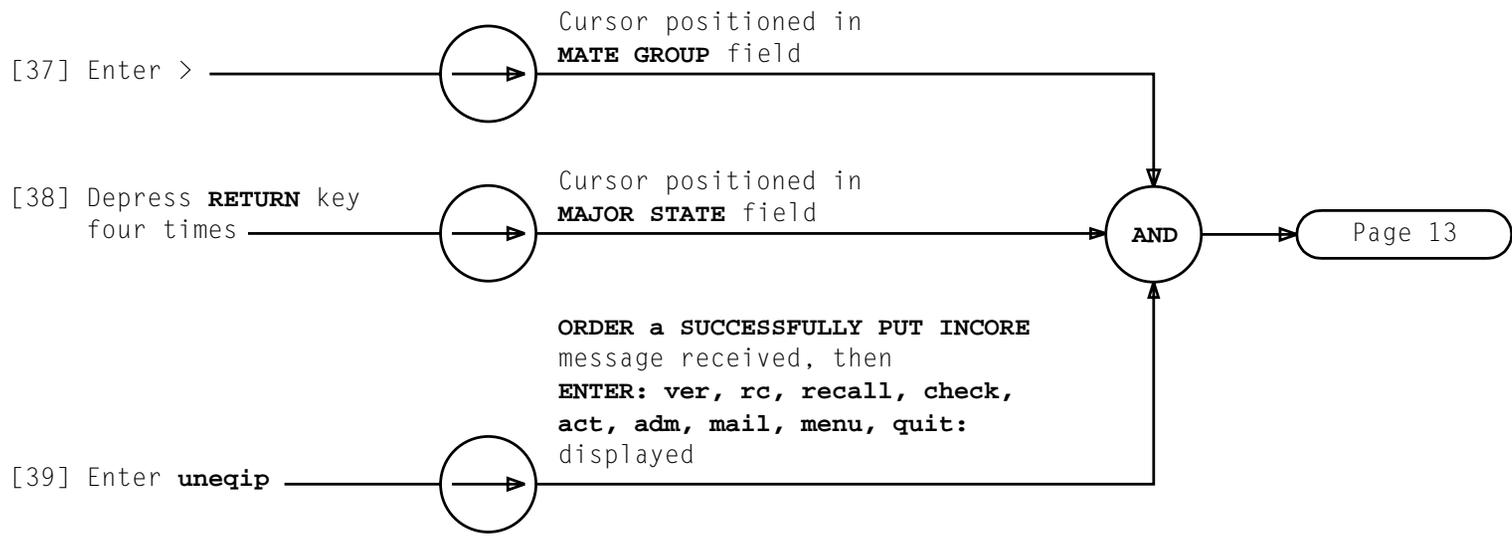
[36] Enter **uneq** four
times



ORDER a SUCCESSFULLY PUT INCORE
message received, then
ENTER: ver, rc, recall, check,
act, adm, mail, menu, quit:
displayed



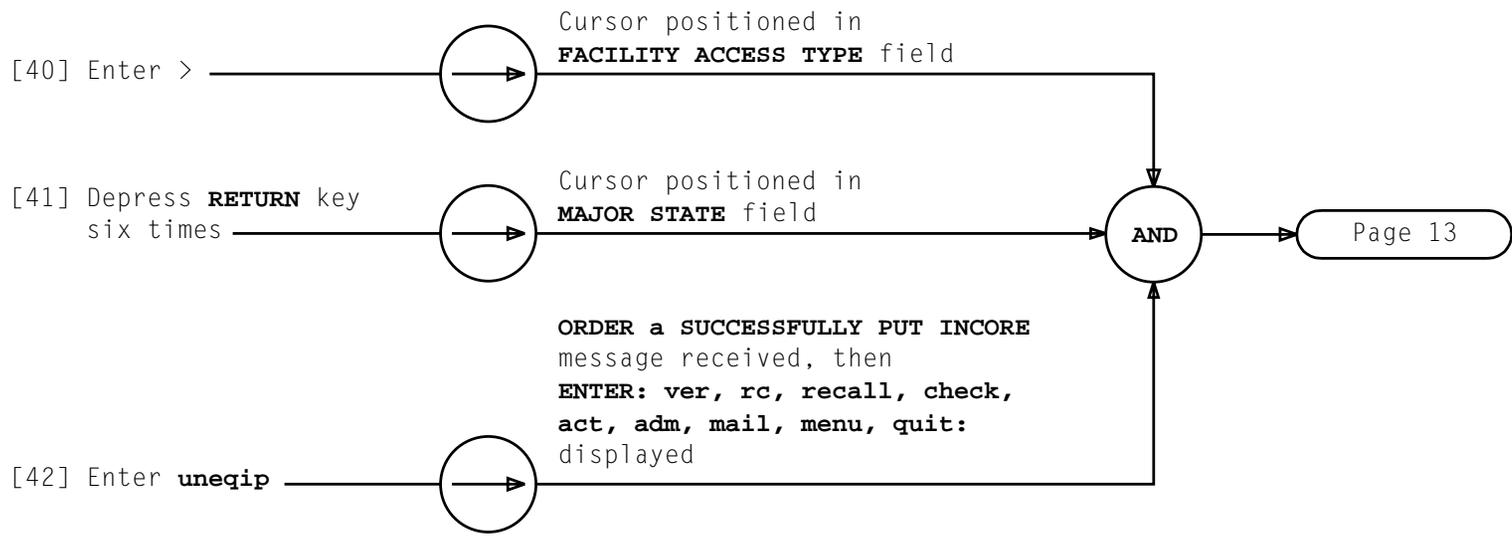
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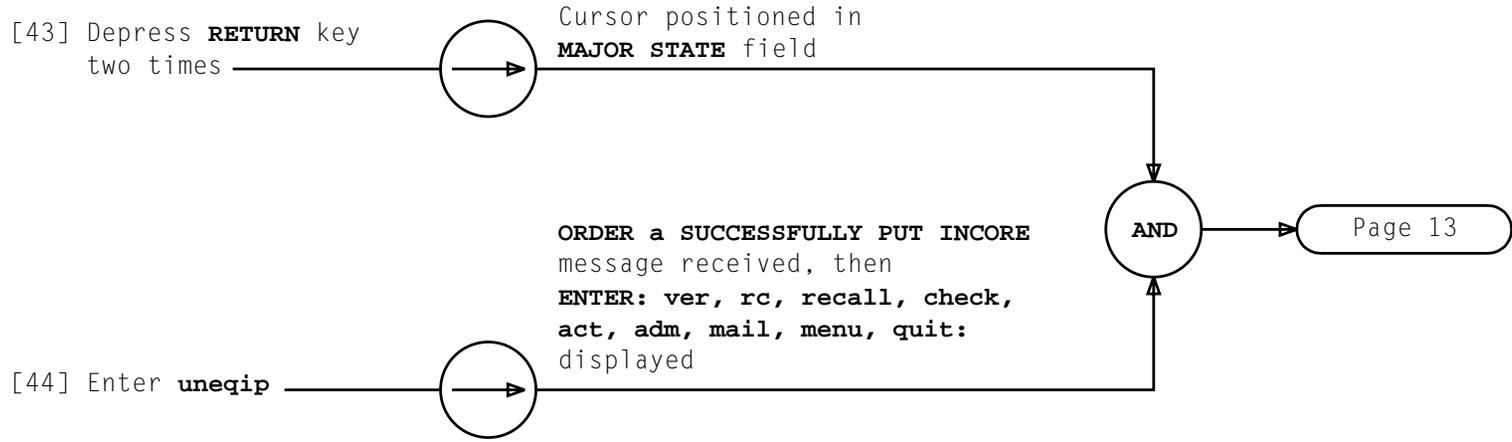


DEGROW SIGNALING LINK(S) TO UNEQ

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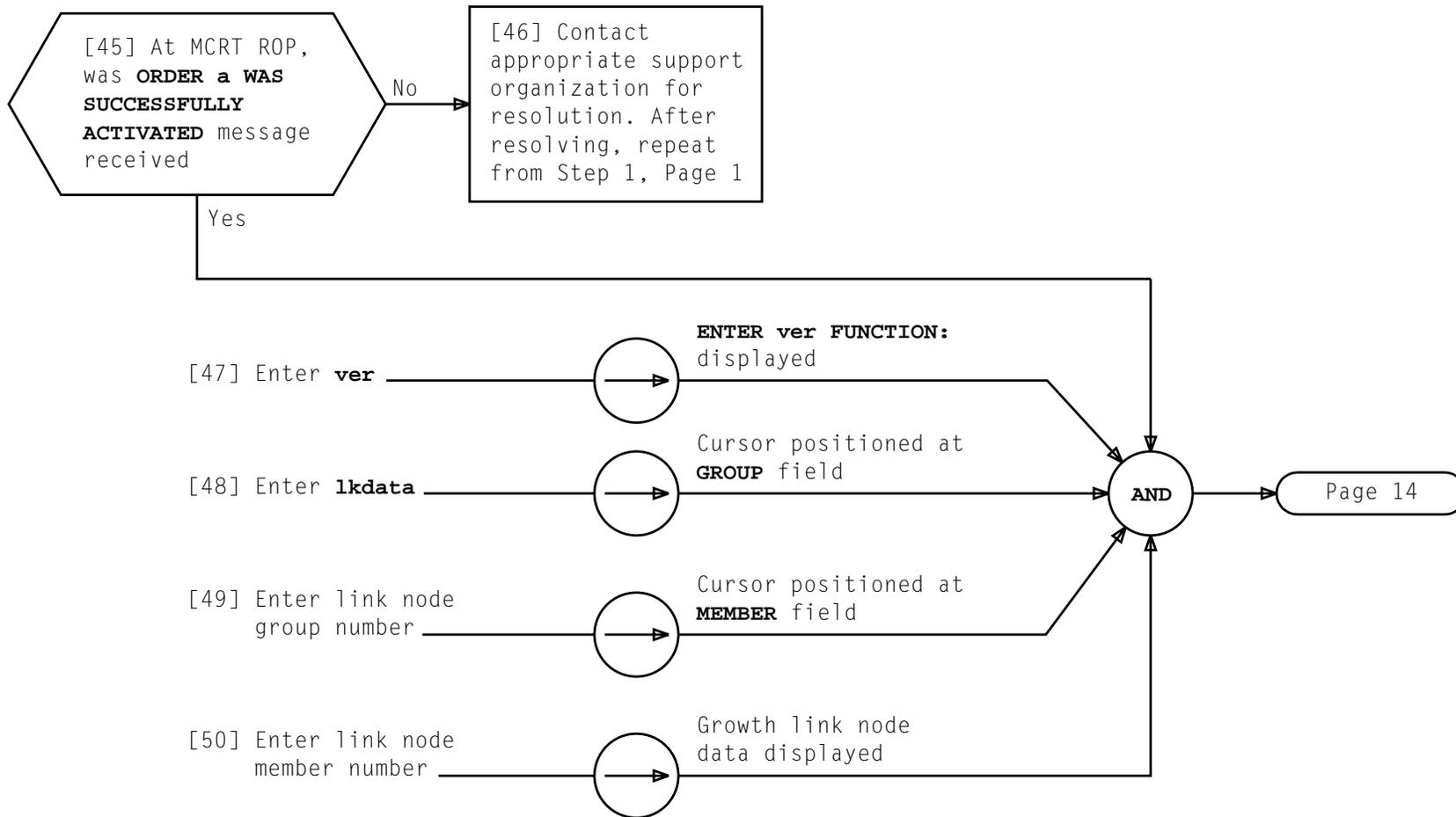


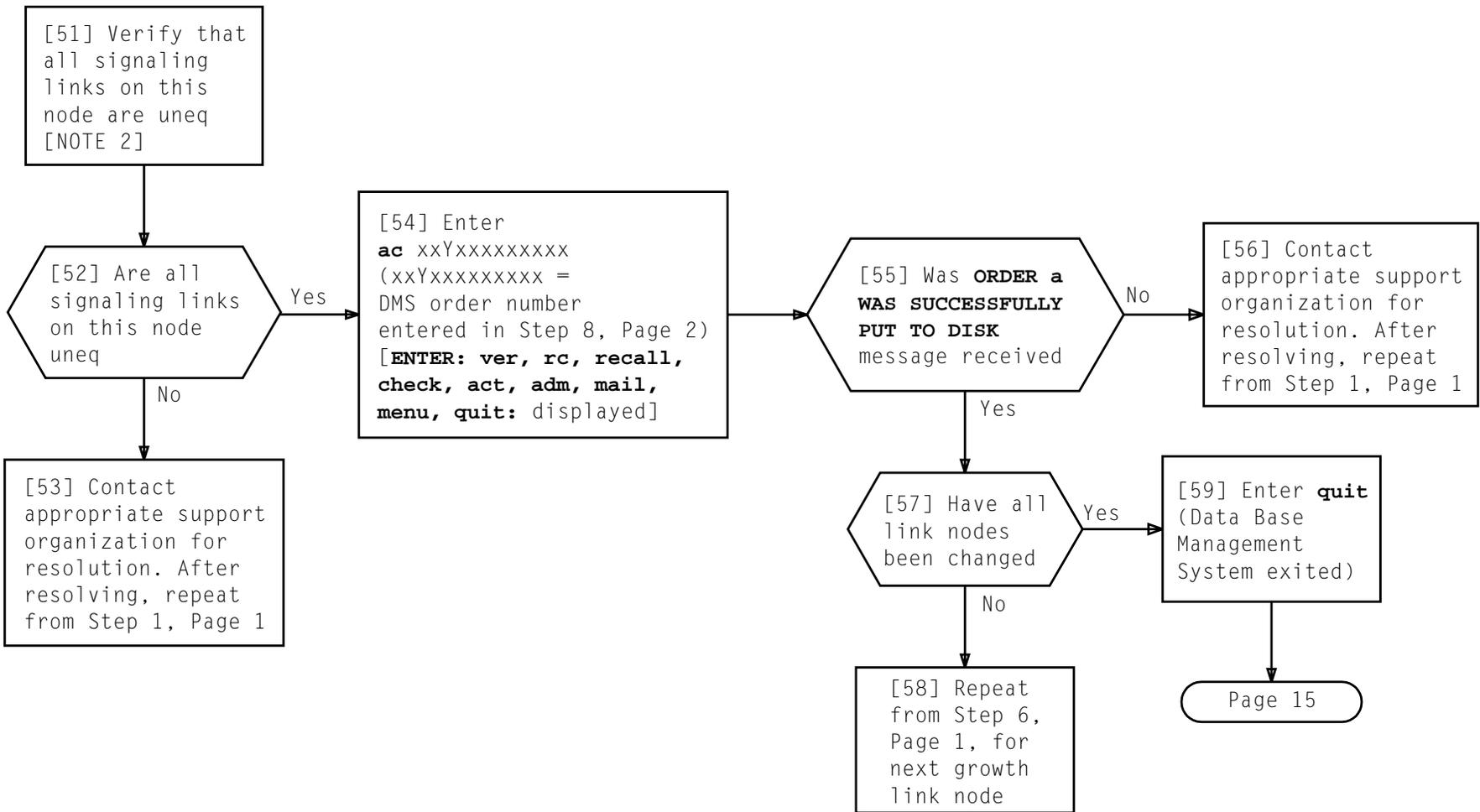


DEGROW SIGNALING LINK(S) TO UNEQ

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NOTE 2	
Any LINK SPEED that was populated will be set to 0 when signaling link is set to uneq	
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DEGROW SIGNALING LINK(S) TO UNEQ

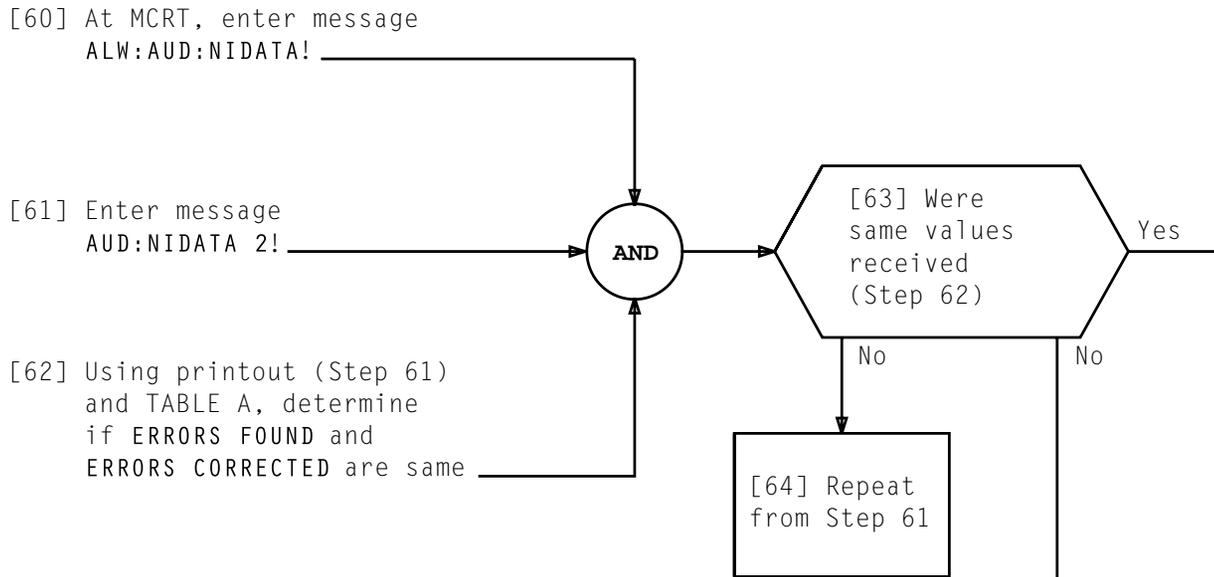
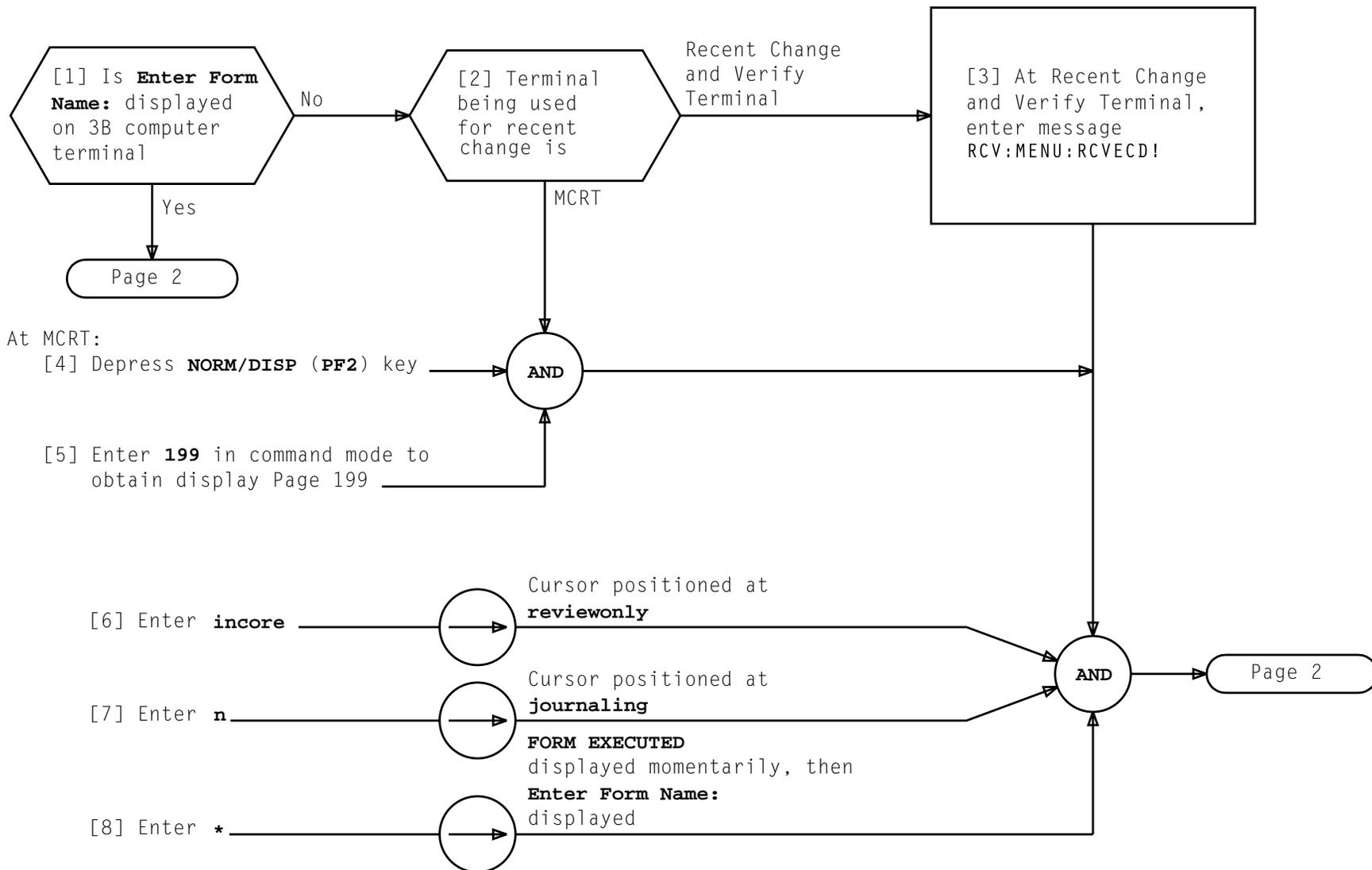
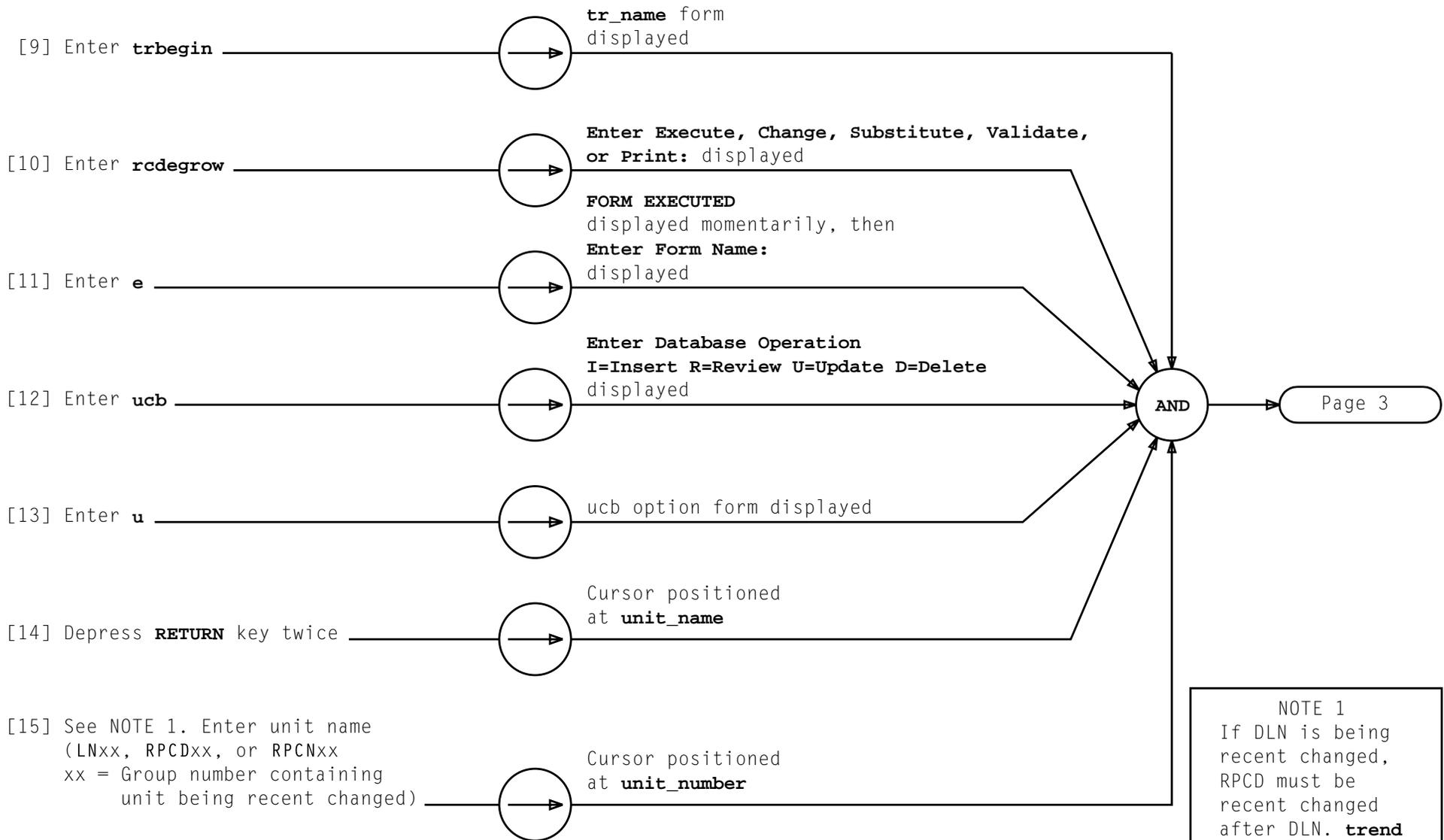


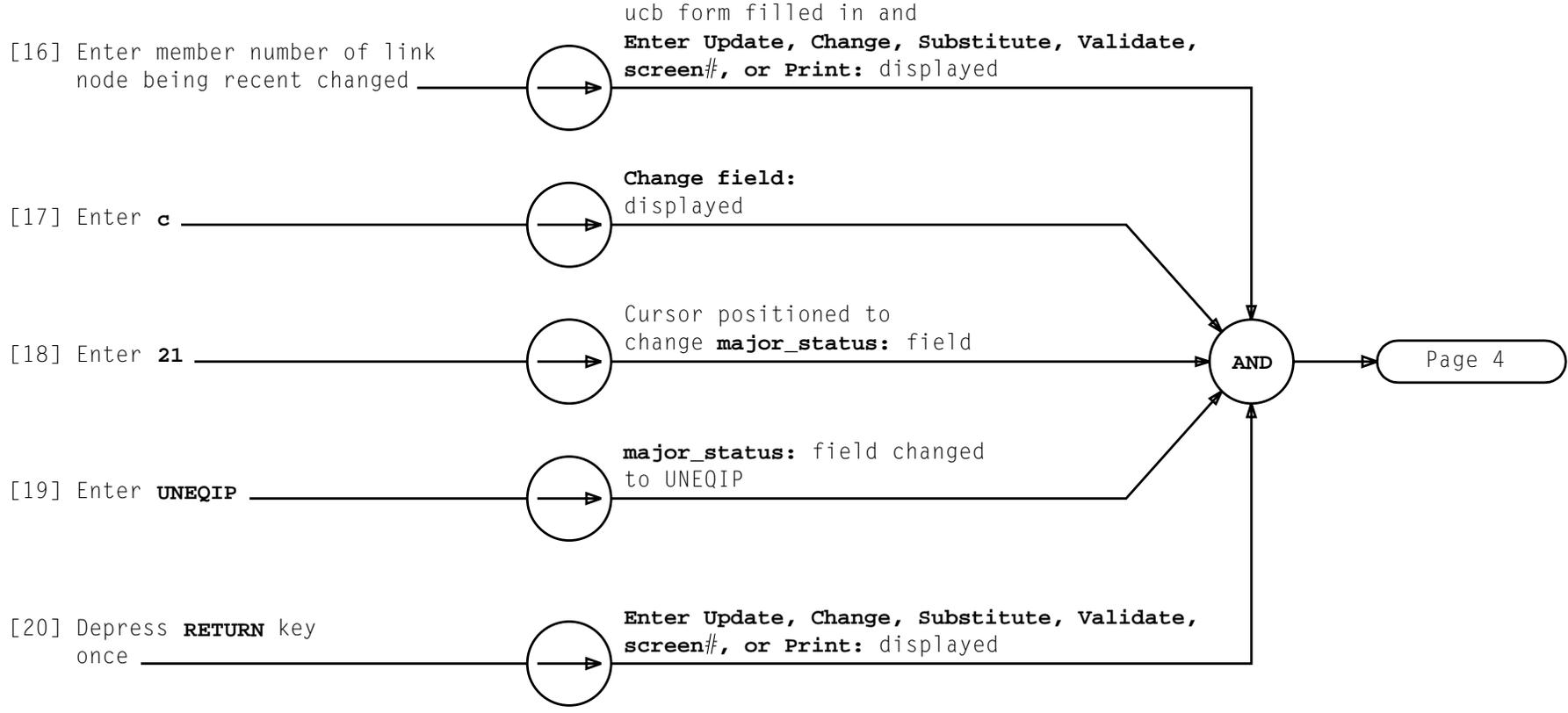
TABLE A	
MESSAGE NUMBER	OUTPUT MESSAGE
1	AUD NIDATA 2 COMPLETED a ERRORS FOUND b ERRORS CORRECTED
a = Total number of errors found b = Total number of errors corrected	





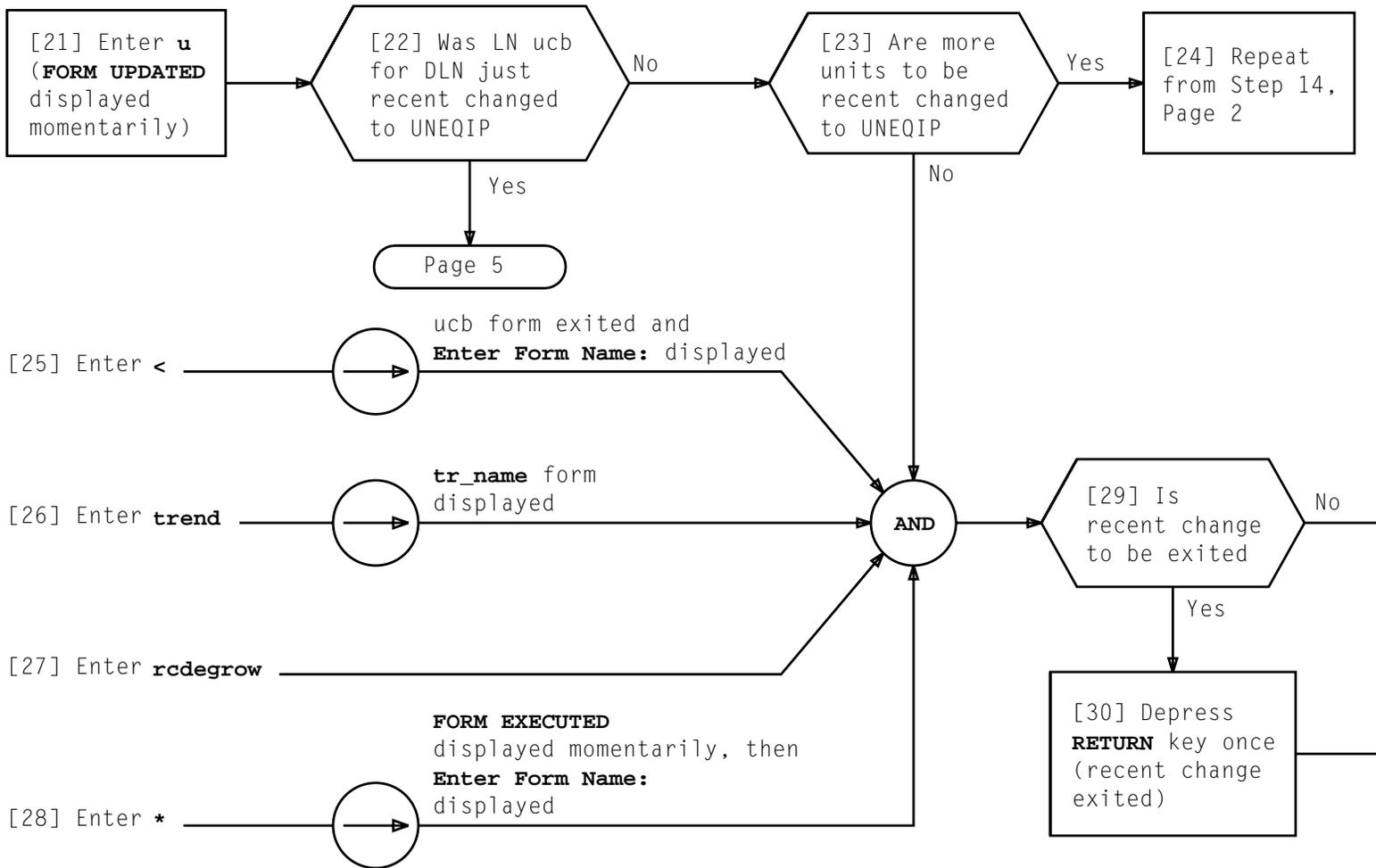
NOTE 1	
If DLN is being recent changed, RPCD must be recent changed after DLN. trend is required between recent changes	
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DEGROW GROWTH ASSOCIATED LINK NODE TO UNEQIP



DEGROW GROWTH ASSOCIATED LINK NODE TO UNEQIP

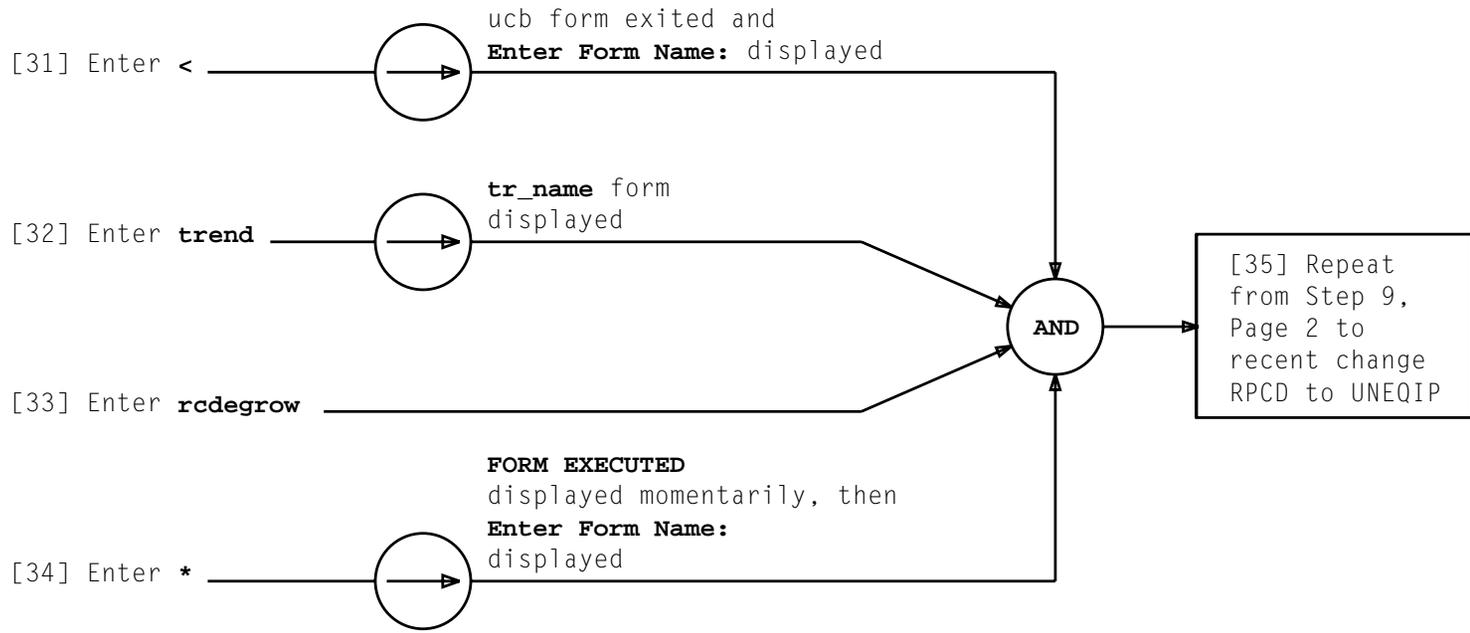
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DEGROW GROWTH ASSOCIATED LINK NODE TO UNEQIP

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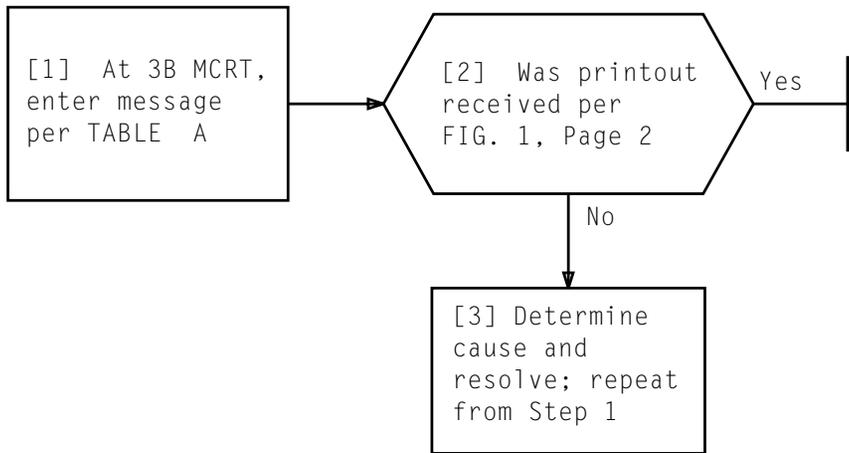


TABLE A	
MESSAGE NUMBER	INPUT MESSAGE
1	EXC:ENVIR:UPROC, FN"/database/tools/dchgro.sh", ARG("FRAME", "aa", "GROW")!
aa = Valid cabinet value (12,14, 44, or 46)	

RECENT CHANGE D-CHANNEL CABINET TO GROW

```

/database/tools/dchgro.sh: SCRIPT STARTING
SCRIPT /database/tools/growtool: STARTING
BEGINNING GROWTH OF LNaa bb NODE TO GROW USING THE /database/tools/growtool SCRIPT
/database/tools/growtool RCVECD PASSED - EXIT CODE = 0
GROWTH OF D-CHAN LNaa bb TO GROW BY SCRIPT /database/tools/growtool COMPLETED
REPT SPOOLIT JOB (1) COMPLETED
  LNaa bb INCORE UCB CHANGES MADE BY SCRIPT /database/tools/growtool
  hv = 0xc005, mv = 0x3c, path = pu/irn2, packcode = PBXD, issue = 3
LNaa bb IS IN GROW - CHANGES MADE TO INCORE DATABASE ONLY
SCRIPT /database/tools/growtool: STARTING
BEGINNING GROWTH OF LNaa bb NODE TO GROW USING THE /database/tools/growtool SCRIPT
/database/tools/growtool RCVECD PASSED - EXIT CODE = 0
GROWTH OF D-CHAN LNaa bb TO GROW BY SCRIPT /database/tools/growtool COMPLETED
REPT SPOOLIT JOB (1) COMPLETED
  LNaa bb INCORE UCB CHANGES MADE BY SCRIPT /database/tools/growtool
  hv = 0xc050, mv = 0x42, path = pu/irn2, packcode = PBXT, issue = 3
LNaa bb IS IN GROW - CHANGES MADE TO INCORE DATABASE ONLY
SCRIPT /database/tools/growtool: STARTING
BEGINNING GROWTH OF LNaa bb NODE TO GROW USING THE /database/tools/growtool SCRIPT
/database/tools/growtool RCVECD PASSED - EXIT CODE = 0
GROWTH OF D-CHAN LNaa bb TO GROW BY SCRIPT /database/tools/growtool COMPLETED
REPT SPOOLIT JOB (1) COMPLETED
  LNaa bb INCORE UCB CHANGES MADE BY SCRIPT /database/tools/growtool
  hv = 0xc005, mv = 0x3c, path = pu/irn2, packcode = PBXD, issue = 3
LNaa bb IS IN GROW - CHANGES MADE TO INCORE DATABASE ONLY
SCRIPT /database/tools/growtool: STARTING
BEGINNING GROWTH OF LNaa bb NODE TO GROW USING THE /database/tools/growtool SCRIPT
/database/tools/growtool RCVECD PASSED - EXIT CODE = 0
GROWTH OF D-CHAN LNaa bb TO GROW BY SCRIPT /database/tools/growtool COMPLETED
REPT SPOOLIT JOB (1) COMPLETED
  LNaa bb INCORE UCB CHANGES MADE BY SCRIPT /database/tools/growtool
  hv = 0xc060, mv = 0x42, path = pu/irn2, packcode = PBXT, issue = 3
LNaa bb IS IN GROW - CHANGES MADE TO INCORE DATABASE ONLY
REPT SPOOLIT JOB (1) COMPLETED
*****
*****
/database/tools/dchgro.sh SCRIPT FOR GROWTH OF DCHAN FRAME COMPLETED.
  CHANGES HAVE BEEN MADE IN THE INCORE DATABASE ONLY.
*****
*****
EXE ENVIR UPROC /database/tools/dchgro.sh COMPLETED

      * Frame GROWTH Completed FCFCFC *
Where aa = Group node of the D-Channel Node being grown (12, 14, 44 or 46)
      bb = Node number

```

FIG. 1 - Example of Printout for the dchgro Script

RECENT CHANGE D-CHANNEL CABINET TO GROW

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[1] Using Table A, determine link node value associated with cabinet being grown

[2] Enter message per Table B with appropriate value determined in Step 1

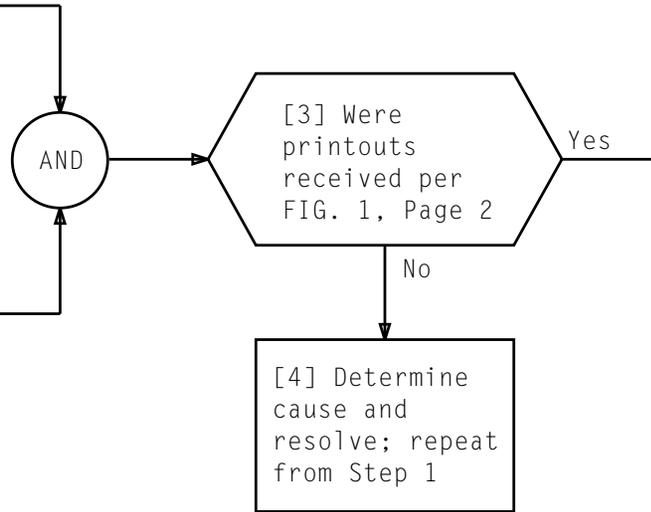


TABLE A	
Cabinet	Link Node Values
12	LN11-07
14	LN13-14
44	LN43-07
46	LN45-14

TABLE B	
MESSAGE NUMBER	INPUT MESSAGE
1	EXC:ENVIR:UPROC, FN"/database/tools/ifbmv.sh", ARG("LNaa-bb", "HV-0xc050")!
aa-bb = Link node value (Step 1)	

RECENT CHANGE LINK NODE hv VALUE

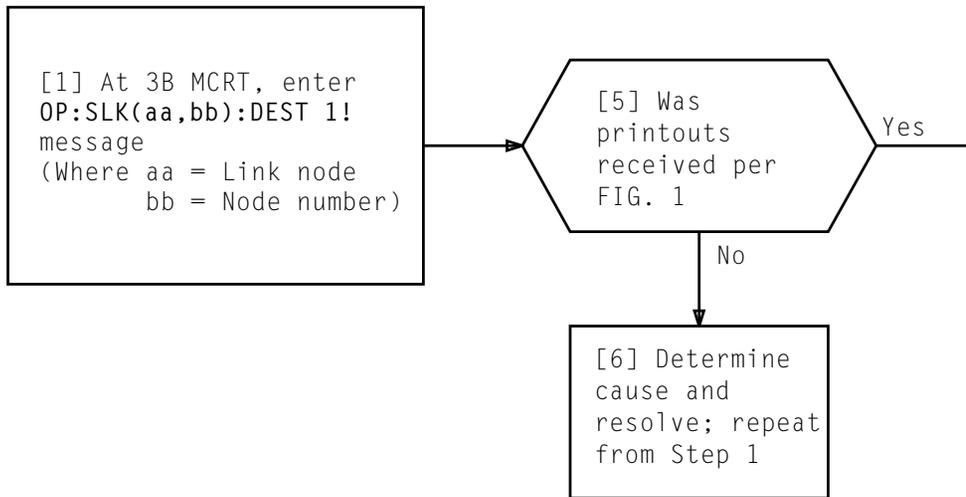
```

/database/tools/ifbmv.sh: SCRIPT STARTING
NODE BEING CHANGED IS LNaa-07 WITH A HV OF 0xcyyy
SCRIPT /database/tools/growtool: STARTING
BEGINNING GROWTH OF LNaa 07 NODE TO GROW USING THE /database/tools/growtool SCRIPT
/database/tools/growtool RCVECD PASSED - EXIT CODE=0
GROWTH OF D-CHAN LNaa 07 TO GROW BY SCRIPT /database/tools/growtool COMPLETED
REPT SPOOLIT JOB (1) COMPLETED
LNaa bb INCORE UCM CHANGES MADE BY SCRIPT /database/tools/growtool
hv = 0xcyyy, mv =, path =, packcode =, issue =
LNaa 07 IS IN GROW CHANGES MADE TO INCORE DATABASE ONLY
REPT SPOOLIT JOB (1) COMPLETED
*****
*****
/database/tools/ifbmv.sh SCRIPT FOR IFB CHANGES COMPLETED.
CHANGES HAVE BEEN MADE IN THE INCORE DATABASE ONLY.
*****
*****
EXE INVIR UPROC /database/tools/ifbmv.sh COMPLETED

```

Where aa = Link node of the D-Channel being grown
yyy = hv value

FIG. 1 - Example of Printout for the ifbmv Script



```

    RING OP SLK aa bb IN PROG

    SLK aa bb DCHN 00 00 AVL IS
    SLK aa bb DCHN 00 01 AVL STBY
    SLK aa bb DCHN 00 02 AVL IS
    SLK aa bb DCHN 00 03 UNA GROW
    SLK aa bb DCHN 01 00 AVL IS
    SLK aa bb DCHN 01 01 AVL IS
    SLK aa bb DCHN 01 02 AVL IS
    SLK aa bb DCHN 01 03 AVL IS

    RING OP SLK aa bb IN PROG
  
```

The text is enclosed in a hand-drawn, irregular border. It shows a sequence of commands and their outputs. It starts with "RING OP SLK aa bb IN PROG". This is followed by eight lines of "SLK" commands, each with a unique combination of channel numbers (00-03) and status codes (AVL IS, AVL STBY, UNA GROW). The sequence ends with another "RING OP SLK aa bb IN PROG" command.

FIG. 1 - Example of the RING OP SLK Message

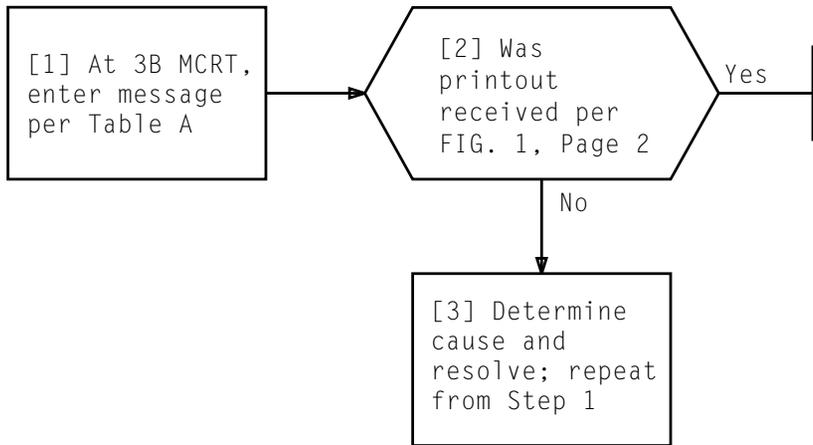


TABLE A	
MESSAGE NUMBER	INPUT MESSAGE
1	EXC:ENVIR:UPROC, FN"/database/tools/dchgro.sh", ARGS("FRAME", "aa", "OOS")!
aa = Valid cabinet value (12, 14, 44 or 46)	

```

/database/tools/dchgro.sh: SCRIPT STARTING
SCRIPT /database/tools/growtool: STARTING
BEGINNING STATE CHANGE OF LNaa bb NODE TO OOS USING THE /database/tools/growtool SCRIPT
/database/tools/growtool RCVECD PASSED - EXIT CODE = 0
GROWTH OF LNaa bb TO OOS BY SCRIPT /database/tools/growtool COMPLETED
LNaa bb IS IN OOS - CHANGES MADE TO INCORE DATABASE ONLY
SCRIPT /database/tools/growtool: STARTING
BEGINNING STATE CHANGE OF LNaa bb NODE TO OOS USING THE /database/tools/growtool SCRIPT
/database/tools/growtool RCVECD PASSED - EXIT CODE = 0
GROWTH OF LNaa bb TO OOS BY SCRIPT /database/tools/growtool COMPLETED
LNaa bb IS IN OOS - CHANGES MADE TO INCORE DATABASE ONLY
SCRIPT /database/tools/growtool: STARTING
BEGINNING STATE CHANGE OF LNaa bb NODE TO OOS USING THE /database/tools/growtool SCRIPT
/database/tools/growtool RCVECD PASSED - EXIT CODE = 0
GROWTH OF LNaa bb TO OOS BY SCRIPT /database/tools/growtool COMPLETED
LNaa bb IS IN OOS - CHANGES MADE TO INCORE DATABASE ONLY
SCRIPT /database/tools/growtool: STARTING
BEGINNING STATE CHANGE OF LNaa bb NODE TO OOS USING THE /database/tools/growtool SCRIPT
/database/tools/growtool RCVECD PASSED - EXIT CODE = 0
GROWTH OF LNaa bb TO OOS BY SCRIPT /database/tools/growtool COMPLETED
LNaa bb IS IN OOS - CHANGES MADE TO INCORE DATABASE ONLY
*****
/database/tools/dchgro.sh SCRIPT FOR GROWTH OF DCHAN FRAME COMPLETED.
    CHANGES HAVE BEEN MADE IN THE INCORE DATABASE ONLY.
*****
*****
EXC ENVIR UPROC /database/tools/dchgro.sh COMPLETED

```

Where aa = Group Number of the D-Channel being grown (12, 14, 44 or 46)
bb = Node Number

FIG. 1 - Example of Printout for the dchgro Script with OOS Option

[1] Using Table A, determine link node value (LNaa-bb) associated with cabinet being grown

[2] Enter message per Table B with appropriate value determined in Step 1

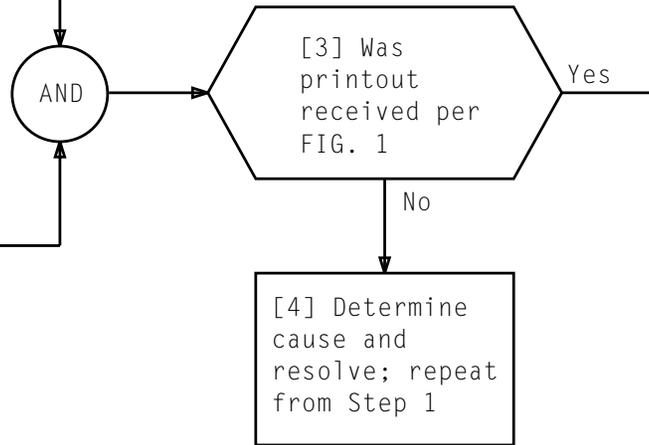


TABLE A	
Cabinet	Link Node Values (LNaa-bb)
12	LN11-07
14	LN13-14
44	LN43-07
46	LN45-14

TABLE B	
MESSAGE NUMBER	INPUT MESSAGE
1	EXC:ENVIR:UPROC, FN"/database/tools/ifbmv.sh", ARGs("LNaa-bb", "00S")!
aa-bb = Link node value (Step 1)	

RECENT CHANGE LINK NODE ON D-CHANNEL CABINET TO OOS

```

/database/tools/ifbm.sh: SCRIPT STARTING
NODE BEING CHANGED OOS IS LNaa-07
SCRIPT /database/tools/growtool: STARTING
BEGINNING STATE CHANGE OF LNaa 07 NODE TO OOS USING THE /database/tools/growtool SCRIPT
/database/tools/growtool RCVECD PASSED - EXIT CODE=0
GROWTH OF LNaa 07 TO OOS BY SCRIPT /database/tools/growtool COMPLETED
REPT SPOOLIT JOB (1) COMPLETED
LNaa 07 IS IN OOS - CHANGES MADE TO INCORE DATABASE ONLY
NODE LNaa - 07 CHANGE TO OOS COMPLETED BY SCRIPT /database/tools/growtool/ifbm.sh
REPT SPOOLIT JOB (1) COMPLETED
*****
*****
/database/tools/ifbm.sh SCRIPT FOR IFB CHANGES COMPLETED.
CHANGES HAVE BEEN MADE IN THE INCORE DATABASE ONLY.
*****
*****
EXE ENVIR UPROC /database/tools/ifbm.sh COMPLETED

```

Where aa = Link node of the D-Channel being grown

FIG. 1 - Example of Printout for the ifbm.sh Script

[1] Using Table A, determine cabinet group to be diagnosed

[2] See NOTE 1. Enter message per Table A with appropriate value determined in Step 1

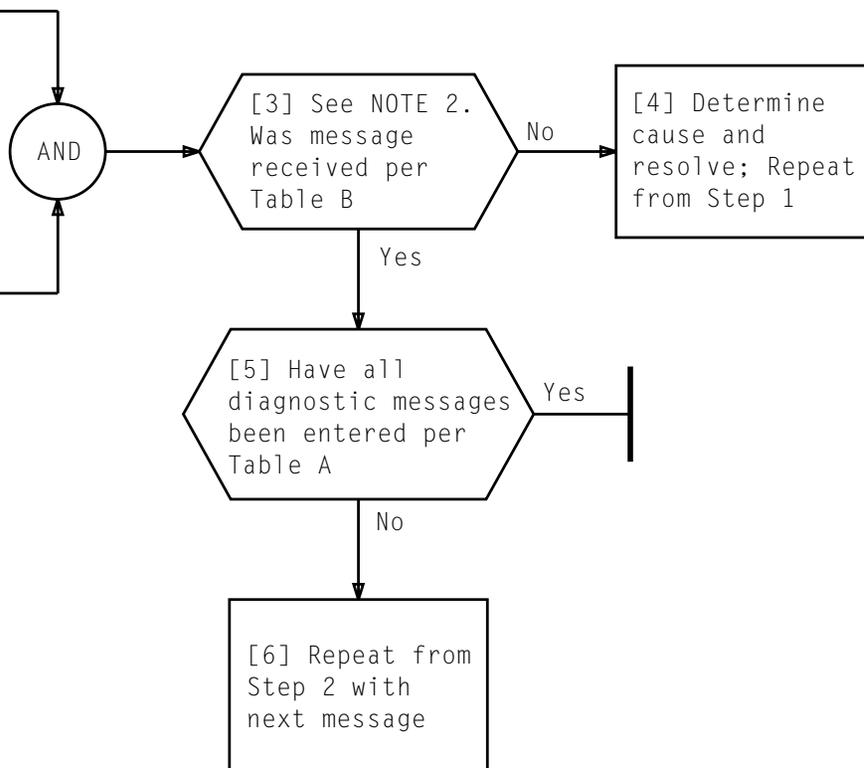


TABLE A		
If Cabinet Being Grown Is...	Diagnose Cabinet Group	
	xx	yy
12	12	13
14	14	15
44	44	45
46	46	47
MESSAGE NUMBER	INPUT MESSAGE	
1	DGN:LNxx 02;RAW!	
2	DGN:LNxx 04;RAW!	
3	DGN:LNyy 12;RAW!	
4	DGN:LNyy 14;RAW!	

TABLE B	
MESSAGE NUMBER	OUTPUT MESSAGE
1	DGN:LNaa bb CATP (x'00000000 x'40000000) MSG COMPLETE
aa = Cabinet group number (12/13, 14/15, 44/45 or 46/47) bb = Link node number (02, 04, 12 or 14)	

NOTES	
1. Enter one message at a time and wait for output before continuing with next message.	
2. The conditional ATP with the hex value indicates more than one-node is included in isolation when the diagnostic is performed. This is expected.	
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DIAGNOSE THE D-CHANNEL CABINET BEING GROWN

[1] See NOTE 1. Using Table A, determine cabinet group and shelf to be isolated

[2] Enter appropriate message per Table A determined in Step 1

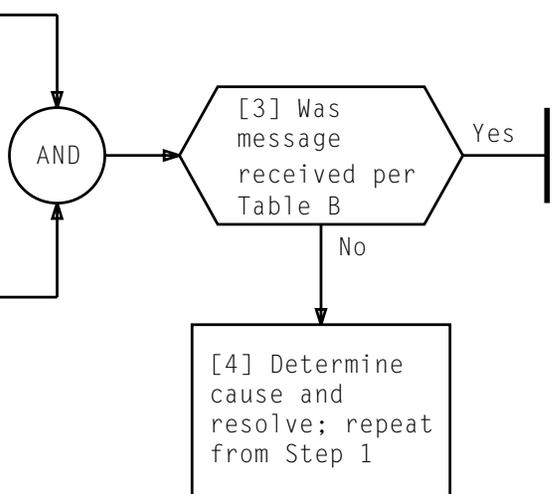


TABLE A		
CABINET	SHELF	INPUT MESSAGE
12	0	CFR:RING, LN12 02;EXCLUDE!
	1	CFR:RING, LN12 07;EXCLUDE!
	2	CFR:RING, LN12 12;EXCLUDE!
	3	CFR:RING, LN13 02;EXCLUDE!
	4	CFR:RING, LN13 07;EXCLUDE!
14	0	CFR:RING, LN14 02;EXCLUDE!
	1	CFR:RING, LN14 07;EXCLUDE!
	2	CFR:RING, LN14 12;EXCLUDE!
	3	CFR:RING, LN15 02;EXCLUDE!
	4	CFR:RING, LN15 07;EXCLUDE!
44	0	CFR:RING, LN44 02;EXCLUDE!
	1	CFR:RING, LN44 07;EXCLUDE!
	2	CFR:RING, LN44 12;EXCLUDE!
	3	CFR:RING, LN45 02;EXCLUDE!
	4	CFR:RING, LN45 07;EXCLUDE!
46	0	CFR:RING, LN46 02;EXCLUDE!
	1	CFR:RING, LN46 07;EXCLUDE!
	2	CFR:RING, LN46 12;EXCLUDE!
	3	CFR:RING, LN47 02;EXCLUDE!
	4	CFR:RING, LN47 07;EXCLUDE!
	5	CFR:RING, LN47 12;EXCLUDE!

TABLE B	
MESSAGE NUMBER	OUTPUT MESSAGE
1	RING CFR RING LN aa bb COMPL
aa = Cabinet group number (12/13, 14/15, 44/45 or 46/47) bb = Link node number (02, 07 or 12)	

NOTE	
Shelves 0 and 5 are grown during the cabinet growth. Shelf 5 is the top shelf.	
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ISOLATE REMOVE D-CHANNEL SHELF LINK NODE(S)

[1] See NOTE 1. Using TABLE A, determine cabinet group and shelf to be grown

[2] At 3B MCRT, enter message per Table B

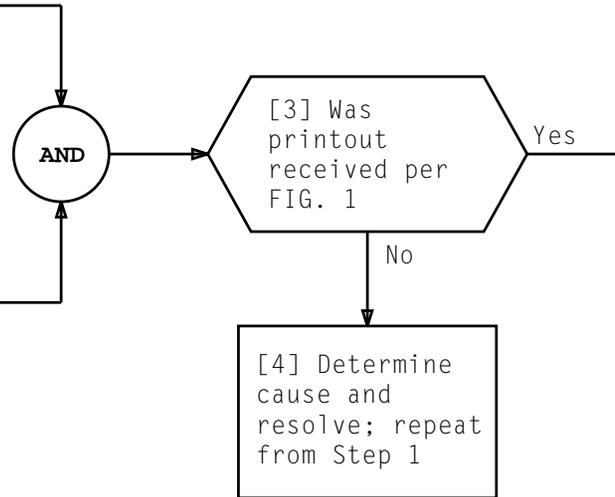


TABLE A			
CABINET	SHELF	LINK NODE VALUE	
		aa	bb
12	4	13	07
	3	13	02
	2	12	12
	1	12	07
14	4	15	07
	3	15	02
	2	14	12
	1	14	07
44	4	45	07
	3	45	02
	2	44	12
	1	44	07
46	4	47	07
	3	47	02
	2	46	12
	1	46	07

TABLE B	
MESSAGE NUMBER	INPUT MESSAGE
1	EXC:ENVIR:UPROC, FN"/database/tools/dchgro.sh", ARG("SHELF", "aa", "bb", "GROW")!
aa = Valid shelf group value bb = Member value for the first D-Channel node on the shelf	

NOTE 1	
Shelves 0 and 5 are grown during the cabinet growth. Shelf 5 is the top shelf	
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RECENT CHANGE D-CHANNEL SHELF TO GROW

```

/database/tools/dchgro.sh: SCRIPT STARTING
SCRIPT /database/tools/growtool: STARTING
BEGINNING GROWTH OF LNaa bb NODE TO GROW USING THE /database/tools/growtool SCRIPT
/database/tools/growtool RCVECD PASSED - EXIT CODE = 0
GROWTH OF D-CHAN LNaa bb TO GROW BY SCRIPT /database/tools/growtool COMPLETED
REPT SPOOLIT JOB (1) COMPLETED
  LNaa bb INCORE UCB CHANGES MADE BY SCRIPT /database/tools/growtool
  hv = 0xc000, mv = 0x3, path = pu/irn2, packcode = PBXD, issue = 3
LNaa bb IS IN GROW - CHANGES MADE TO INCORE DATABASE ONLY
SCRIPT /database/tools/growtool: STARTING
BEGINNING GROWTH OF LNaa cc NODE TO GROW USING THE /database/tools/growtool SCRIPT
/database/tools/growtool RCVECD PASSED - EXIT CODE = 0
GROWTH OF D-CHAN LNaa bb TO GROW BY SCRIPT /database/tools/growtool COMPLETED
REPT SPOOLIT JOB (1) COMPLETED
  LNaa bb INCORE UCB CHANGES MADE BY SCRIPT /database/tools/growtool
  hv = 0xc000, mv = 0x42, path = pu/irn2, packcode = PBXT, issue = 3
LNaa bb 07 IS IN GROW - CHANGES MADE TO INCORE DATABASE ONLY
REPT SPOOLIT JOB (1) COMPLETED
*****
*****
/database/tools/dchgro.sh SCRIPT FOR GROWTH OF DCHAN FRAME COMPLETED.
  CHANGES HAVE BEEN MADE IN THE INCORE DATABASE ONLY.
*****
*****
EXE ENVIR UPROC /database/tools/dchgro.sh COMPLETED

```

Where aa = Link node of the D-Channel Shelf Being Grown
bb = Node number

FIG. 1 - Example of Printout for the dchgro Script

[1] See NOTE 1. Using Table A, determine link node value associated with shelf being grown

[2] Enter message per Table B with appropriate value determined in Step 1

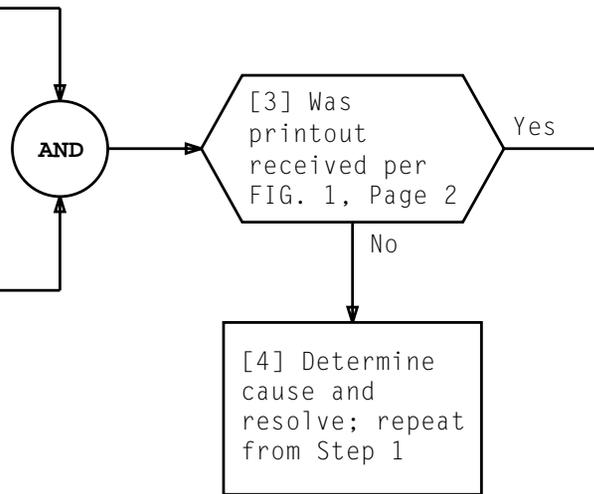


TABLE A			
CABINET	SHELF	OLD IFB CONTROL NODE	NEW IFB CONTROL NODE
12	4	LN13-12	LN13-07
	3	LN13-07	LN13-02
	2	LN13-02	LN12-12
	1	LN12-12	LN12-07
14	4	LN15-12	LN15-07
	3	LN15-07	LN15-02
	2	LN15-02	LN14-12
	1	LN14-12	LN14-07
44	4	LN45-12	LN45-07
	3	LN45-07	LN45-02
	2	LN45-02	LN44-12
	1	LN44-12	LN44-07
46	4	LN47-12	LN47-07
	3	LN47-07	LN47-02
	2	LN47-02	LN46-12
	1	LN46-12	LN46-07

TABLE B	
MESSAGE NUMBER	INPUT MESSAGE
1	EXC:ENVIR:UPROC,FN"/database/tools/ifbmv.sh",ARGS("LNaa-bb","LNcc-dd")!
aa-bb = Old IFB control node location cc-dd = New IFB control node location	

NOTE	
The new IFB control node is the left most D-Channel node on the lowest shelf being grown.	
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RECENT CHANGE SHELF FOR IFB CONTROL NODE BEING MOVED

```

/database/tools/ifbmv.sh: SCRIPT STARTING
BEING ZEROED IS LNaa-bb NEW IFB CONTROL NODE IS LNcc-dd
NODE BEING ZEROED IS LNaa - bb WITH AN HV OF 0xc010
REPT SPOOLIT JOB (1) COMPLETED
*****
*****
ifbmv.sh SCRIPT HAS DETERMINED THAT NODE LNaa-bb
IS A UN-304 - IRN2 NODE CORE THAT IS THE CONTROL PACK
FOR A TN918 IFB ADJACENT TO THAT NODE.
THE NODE HV IS CURRENTLY 0xc010
*****
*****
REPT SPOOLIT JOB (1) COMPLETED
*****
*****
THE ifbmv.sh SCRIPT WILL NOW MAKE CHANGES TO MOVE THE IFB CONTROL
PACK FROM LNaa-bb TO LNcc-dd.
*****
*****
REPT SPOOLIT JOB (1) COMPLETED
*****
*****
      NODE BEING ZEROED IS LNaa-bb
      -----
      HV BEFORE MODIFICATION: 0xc010
      HV AFTER MODIFICATION: 0xc000
      INDICATING A TN918 IFB IS BEING REMOVED
*****
*****
SCRIPT growtool: STARTING
BEGINNING GROWTH OF LNaa bb NODE TO GROW USING THE growtool SCRIPT
growtool RCVECD PASSED - EXIT CODE = 0
GROWTH OF D-CHAN LNaa bb TO GROW BY SCRIPT growtool COMPLETED
REPT SPOOLIT JOB (1) COMPLETED
      LNaa-bb INCORE UCB CHANGES MADE BY SCRIPT growtool
hv = 0xc000, mv =, path =, packcode =, issue =
LNaa bb IS IN GROW - CHANGES MADE TO INCORE DATABASE ONLY
NODE BEING UPDATED IS LNcc-dd WITH AN HV OF 0xc010
REPT SPOOLIT JOB (1) COMPLETED

```

```

*****
*****
      ifbmv.sh SCRIPT HAS DETERMINED THAT NODE LNcc-dd
      IS A UN-304 - IRN2 NODE CORE THAT IS THE CONTROL PACK
      FOR NO IFB ADJACENT TO THAT NODE.
      THE NODE HV IS CURRENTLY 0xc000
*****
*****
REPT SPOOLIT JOB (1) COMPLETED
*****
*****
THE ifbmv.sh SCRIPT WILL NOW MAKE CHANGES TO MOVE THE IFB CONTROL
PACK FROM LNaa-bb TO LNcc-dd.
*****
*****
REPT SPOOLIT JOB (1) COMPLETED
*****
*****
      NODE BEING ZEROED IS LNcc-dd
      -----
      HV BEFORE MODIFICATION: 0xc000
      HV AFTER MODIFICATION: 0xc010
      INDICATING A TN918 IFB IS BEING REMOVED
*****
*****
SCRIPT growtool: STARTING
BEGINNING GROWTH OF LNaa bb NODE TO GROW USING THE growtool SCRIPT
growtool RCVECD PASSED - EXIT CODE = 0
GROWTH OF D-CHAN LNaa bb TO GROW BY SCRIPT growtool COMPLETED
REPT SPOOLIT JOB (1) COMPLETED
      LNcc-dd INCORE UCB CHANGES MADE BY SCRIPT growtool
hv = 0xc010, mv =, path =, packcode =, issue =
LNcc-dd IS IN GROW - CHANGES MADE TO INCORE DATABASE ONLY
REPT SPOOLIT JOB (1) COMPLETED
*****
*****
ifbmv.sh SCRIPT FOR THE IFB MOVEMENT COMPLETED.
CHANGES HAVE BEEN MADE IN THE INCORE DATABASE ONLY.
*****
*****
EXC ENVIR UPROC /database/tools/ifbmv.sh COMPLETED

```

Where aa-bb = Current (Old) IFB control node value
cc-dd = New IFB control node value

FIG. 1 - Example of Printout for the ifbmv Script

RECENT CHANGE SHELF FOR IFB CONTROL NODE BEING MOVED

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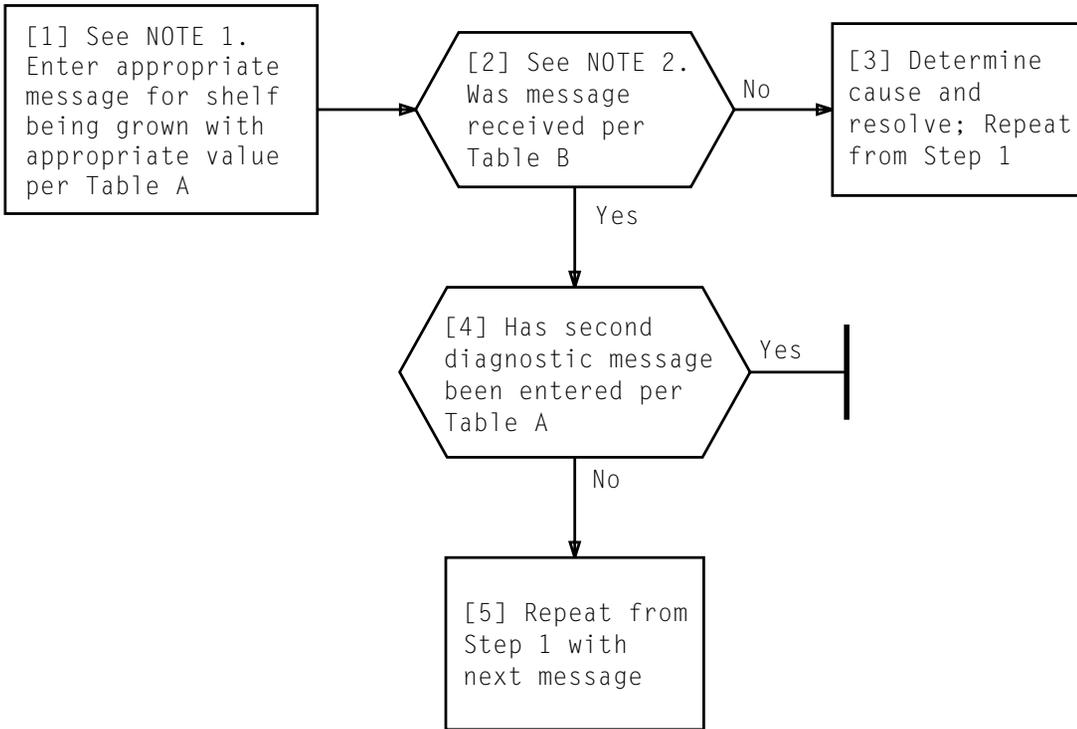


TABLE A		
If Cabinet Being Grown Is...	Cabinet Group Is...	
	xx	yy
12	12	13
14	14	15
44	44	45
46	46	47
SHELF	INPUT MESSAGE	
4	DGN:LNyy 07;RAW! DGN:LNyy 09;RAW!	
3	DGN:LNyy 02;RAW! DGN:LNyy 04;RAW!	
2	DGN:LNxx 14;RAW! DGN:LNxx 12;RAW!	
1	DGN:LNxx 07;RAW! DGN:LNxx 09;RAW!	

TABLE B	
MESSAGE NUMBER	OUTPUT MESSAGE
1	DGN:LNaa bb CATP (x'00000000 x'40000000) MSG COMPLETE
aa = Cabinet group number (12/13, 14/15, 44/45 or 46/47) bb = Link node number (02, 07, 12)	

- NOTES
1. Enter one message at a time and wait for output before continuing with next message.
 2. The conditional ATP with the hex value indicates more than one-node is included in isolation when the diagnostic is performed. This is expected.

DIAGNOSE THE D-CHANNEL SHELF BEING GROWN

[1] Using TABLE A, determine cabinet group and shelf to be grown

[2] At 3B MCRT, enter message per TABLE B

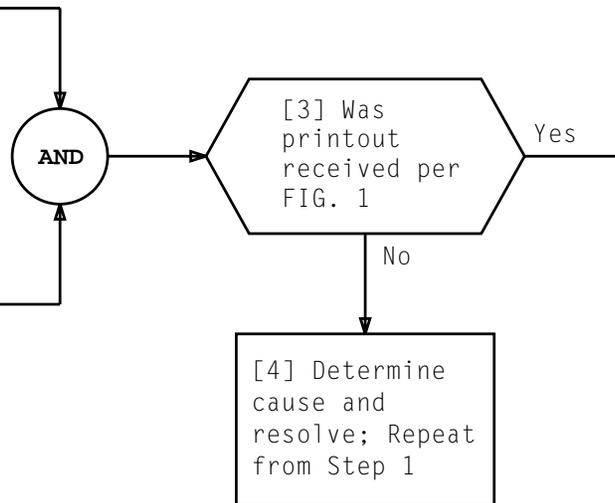


TABLE A			
CABINET	SHELF	LINK NODE VALUE	
		aa	bb
12	4	13	07
	3	13	02
	2	12	12
	1	12	07
14	4	15	07
	3	15	02
	2	14	12
	1	14	07
44	4	45	07
	3	45	02
	2	44	12
	1	44	07
46	4	47	07
	3	47	02
	2	46	12
	1	46	07

TABLE B	
MESSAGE NUMBER	INPUT MESSAGE
1	EXC:ENVIR:UPROC, FN"/database/tools/dchgro.sh", ARG("SHELF", "aa", "bb", "OOS")!
aa = Valid shelf group value bb = Member value for D-Channel node on the Shelf	

RECENT CHANGE D-CHANNEL SHELF TO OOS

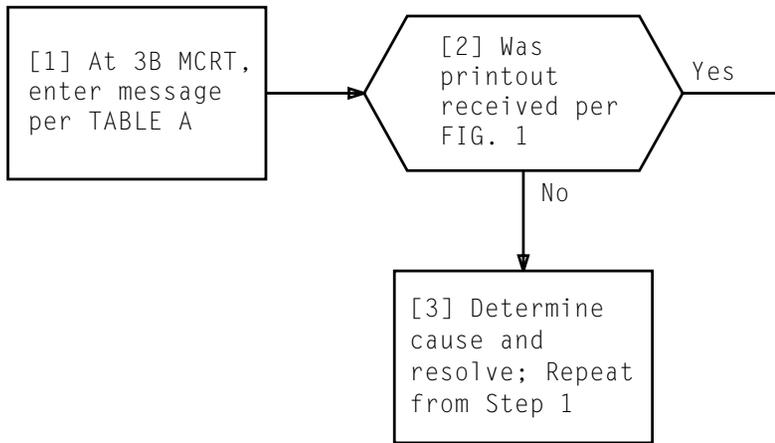
```

/database/tools/dchgro.sh: SCRIPT STARTING
SCRIPT /database/tools/growtool: STARTING
BEGINNING STATE CHANGE OF LNaa bb NODE TO OOS USING THE /database/tools/growtool SCRIPT
/database/tools/growtool RCVECD PASSED - EXIT CODE = 0
GROWTH OF LNaa bb TO OOS BY SCRIPT /database/tools/growtool COMPLETED
LNaa bb IS IN OOS - CHANGES MADE TO INCORE DATABASE ONLY
SCRIPT /database/tools/growtool: STARTING
BEGINNING STATE CHANGE OF LNaa bb NODE TO OOS USING THE /database/tools/growtool SCRIPT
/database/tools/growtool RCVECD PASSED - EXIT CODE = 0
GROWTH OF LNaa bb TO OOS BY SCRIPT /database/tools/growtool COMPLETED
LNaa bb IS IN OOS - CHANGES MADE TO INCORE DATABASE ONLY
*****
*****
/database/tools/dchgro.sh SCRIPT FOR GROWTH OF DCHAN FRAME COMPLETED.
CHANGES HAVE BEEN MADE IN THE INCORE DATABASE ONLY.
*****
*****
EXE ENVIR UPROC /database/tools/dchgro.sh COMPLETED

```

Where aa = Group Number of the D-Channel Shelf being Grown
bb = Node Number

FIG. 1 - Example of Printout for the dchgro Script with OOS Option



```

/database/tools/dchgro.sh: SCRIPT STARTING
SCRIPT /database/tools/growtool: STARTING
BEGINNING GROWTH OF LNaa bb NODE TO GROW USING THE /database/tools/growtool SCRIPT
/database/tools/growtool RCVECD PASSED - EXIT CODE = 0
GROWTH OF D-CHAN LNaa bb TO GROW BY SCRIPT /database/tools/growtool COMPLETED
REPT SPOOLIT JOB (1) COMPLETED
  LNaa bb INCORE UCB CHANGES MADE BY SCRIPT /database/tools/growtool
  hv = 0x000, mv = 0x3c, path = pu/irn2, packcode = PBXD, issue = 3
LNaa bb IS IN GROW - CHANGES MADE TO INCORE DATABASE ONLY
REPT SPOOLIT JOB (1) COMPLETED
*****
*****
/database/tools/dchgro.sh SCRIPT FOR GROWTH OF DCHAN FRAME COMPLETED.
  CHANGES HAVE BEEN MADE IN THE INCORE DATABASE ONLY.
*****
*****
EXE ENVIR UPROC /database/tools/dchgro.sh COMPLETED
  
```

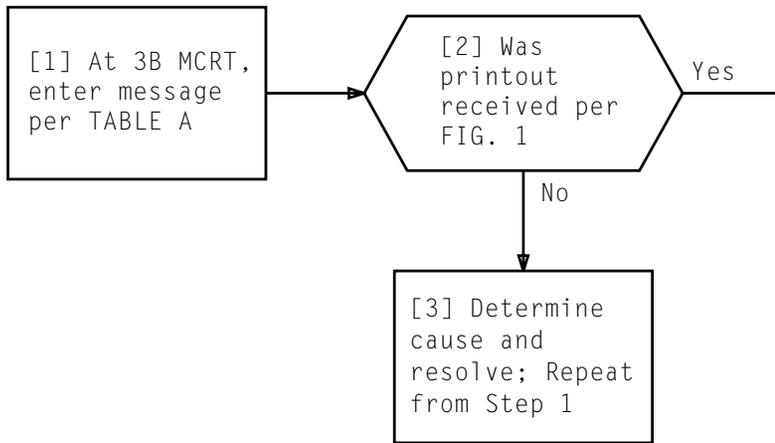
Where aa = Group node of the D-Channel Node being grown
bb = Link node number

FIG. 1 - Example of Printout for the dchgro Script

TABLE A	
MESSAGE NUMBER	INPUT MESSAGE
1	EXC:ENVIR:UPROC,FN"/database/tools/dchgro.sh",ARGS("NODE","aa","bb","GROW")!
aa = Link Node Being Grown bb = Link Node Number	

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RECENT CHANGE D-CHANNEL NODE TO GROW



```

/database/tools/dchgro.sh: SCRIPT STARTING
SCRIPT /database/tools/growtool: STARTING
BEGINNING STATE CHANGE OF LNaa bb NODE TO OOS USING THE /database/tools/growtool SCRIPT
/database/tools/growtool RCVECD PASSED - EXIT CODE = 0
GROWTH OF LNaa bb TO OOS BY SCRIPT /database/tools/growtool COMPLETED
LNaa bb IS IN OOS - CHANGES MADE TO INCORE DATABASE ONLY
SCRIPT /database/tools/growtool: STARTING
*****
*****
/database/tools/dchgro.sh SCRIPT FOR GROWTH OF DCHAN FRAME COMPLETED.
  CHANGES HAVE BEEN MADE IN THE INCORE DATABASE ONLY.
*****
*****
EXE ENVIR UPROC /database/tools/dchgro.sh COMPLETED
  
```

Where aa = Link node of the D-Channel Node being grown
 bb = Link node number

FIG. 1 - Example of Printout for the dchgro Script

TABLE A	
MESSAGE NUMBER	INPUT MESSAGE
1	EXC:ENVIR:UPROC, FN"/database/tools/dchgro.sh", ARG("NODE", "aa", "bb", "OOS")!
aa = Link Node bb = Node Number	

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RECENT CHANGE D-CHANNEL NODE TO OOS

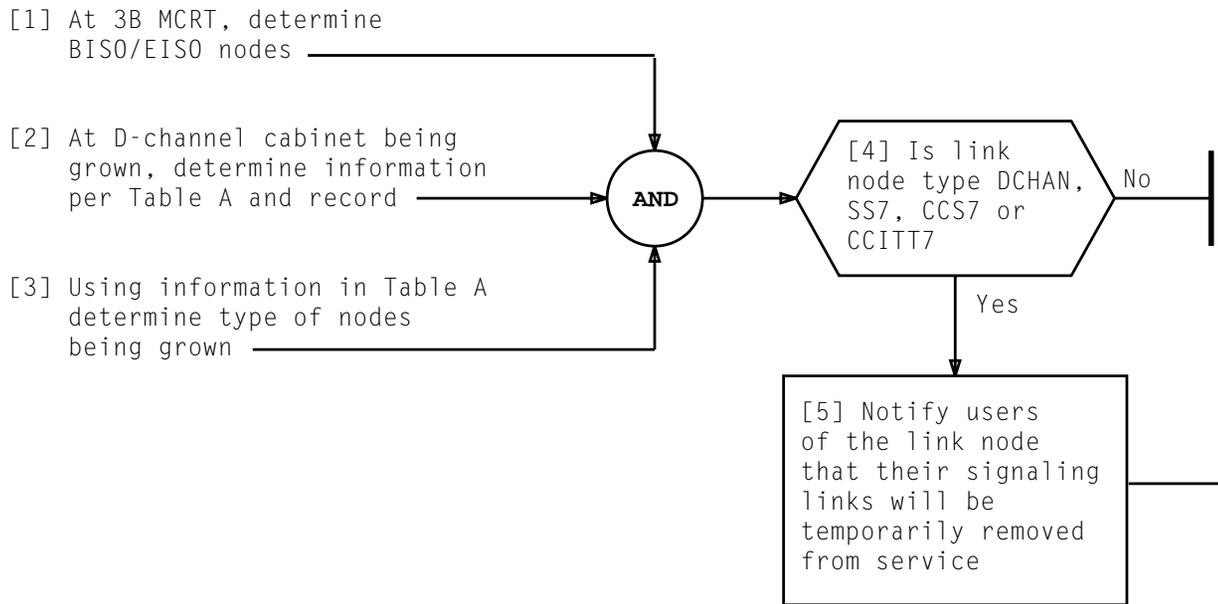


TABLE A					
CABINET	STATE OF NODE	GROUP LINK NODE	LINK MEMBER	NODE PROCESSOR PACK	IFB TYPE
12	BISO				
	EISO				
14	BISO				
	EISO				
44	BISO				
	EISO				
46	BISO				
	EISO				

DETERMINE NODE-SPECIFIED DATA FOR CABINET BEING GROWN

[1] Using Table A, determine cabinet group to be diagnosed

[2] See NOTE 1. Enter message per Table A with appropriate value determined in Step 1

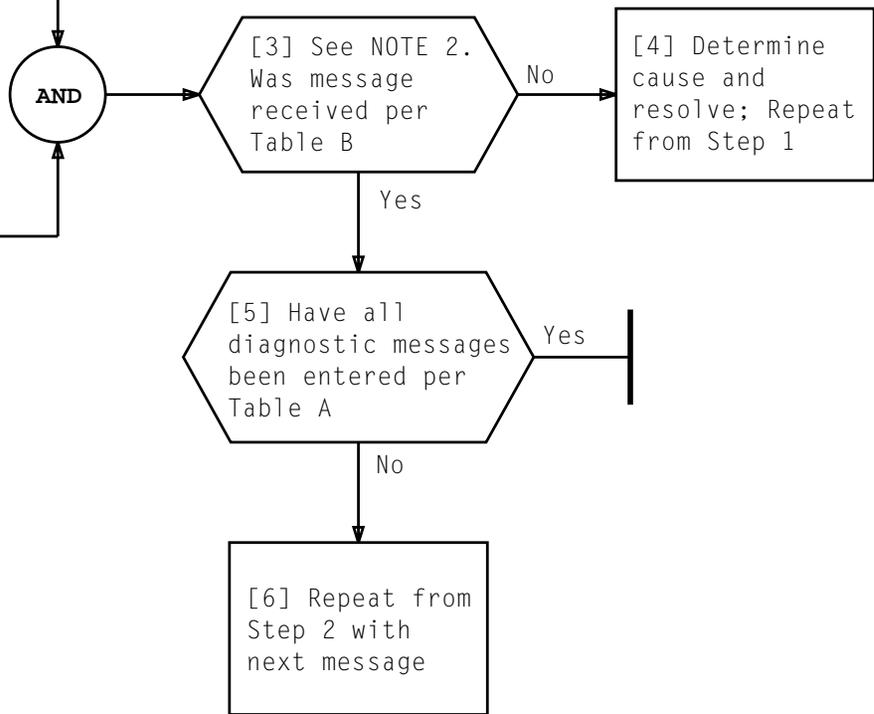


TABLE A		
If Cabinet Being Grown Is...	Cabinet Group	
	xx	yy
12	12	13
14	14	15
44	44	45
46	46	47
MESSAGE NUMBER	INPUT MESSAGE	
1	RST:LNxx 02;UCL!	
2	RST:LNxx 04;UCL!	
3	RST:LNyy 12;UCL!	
4	RST:LNyy 14;UCL!	

TABLE B	
MESSAGE NUMBER	OUTPUT MESSAGE
1	RING RST:LNaa bb COMPLETE
aa = Cabinet group number (12/13, 14/15, 44/45 or 46/47) bb = Link node number (02, 04, 12 or 14)	

NOTE

Enter one message at a time and wait for output before continuing with next message.

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RESTORE THE D-CHANNEL CABINET BEING GROWN

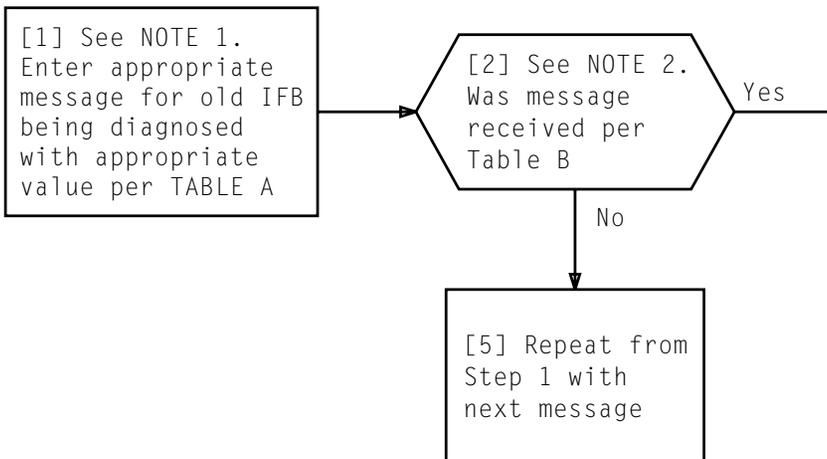


TABLE A		
If Cabinet Being Grown Is...	Cabinet Group is... xx yy	
12	12	13
14	14	15
44	44	45
46	46	47
SHELF	INPUT MESSAGE	
5	DGN:LNyy 12;RAW!	
4	DGN:LNyy 07;RAW!	
3	DGN:LNxx 02;RAW!	
2	DGN:LNxx 12;RAW!	

TABLE B	
MESSAGE NUMBER	OUTPUT MESSAGE
1	DGN:LNaa bb CATP (x'00000000 x'40000000) MSG COMPLETE
aa = Cabinet group number (12/13, 14/15, 44/45 or 46/47) bb = Link node number (02, 07 or 12)	

NOTES

1. Enter one message at a time and wait for output before continuing with next message.
2. The conditional ATP with the hex value indicates more than one-node is included in isolation when the diagnostic is performed. This is expected.

DIAGNOSE THE OLD IFB CONTROL MODE

[1] Using Table A, determine link node value associated with cabinet being grown

[2] Enter message per Table B with appropriate value determined in Step 1

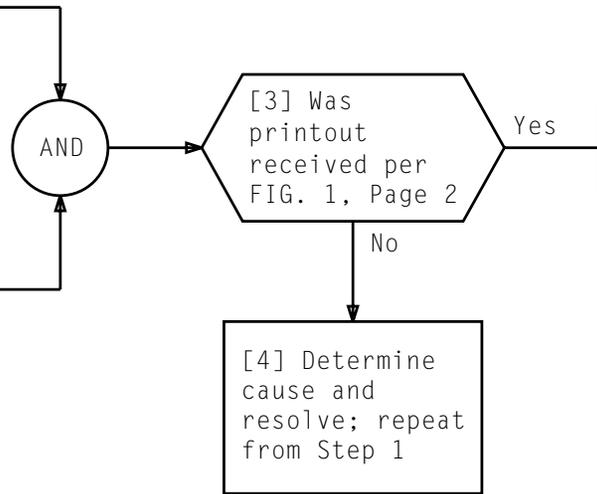


TABLE A		
CABINET	SHELF	OLD IFB CONTROL NODE
12	4	LN13-12
	3	LN13-07
	2	LN13-02
	1	LN12-12
14	4	LN15-12
	3	LN15-07
	2	LN15-02
	1	LN14-12
44	4	LN45-12
	3	LN45-07
	2	LN45-02
	1	LN44-12
46	4	LN47-12
	3	LN47-07
	2	LN47-02
	1	LN46-12

TABLE B	
MESSAGE NUMBER	INPUT MESSAGE
1	EXE:ENVIR:UPROC, FN"/database/tools/ifbmv.sh", ARGS("LNaa-bb", "OOS")!
aa-bb = Link node value (Step 1)	

RECENT CHANGE OLD IFB CONTROL MODE ON D-CHANNEL CABINET TO OOS

```

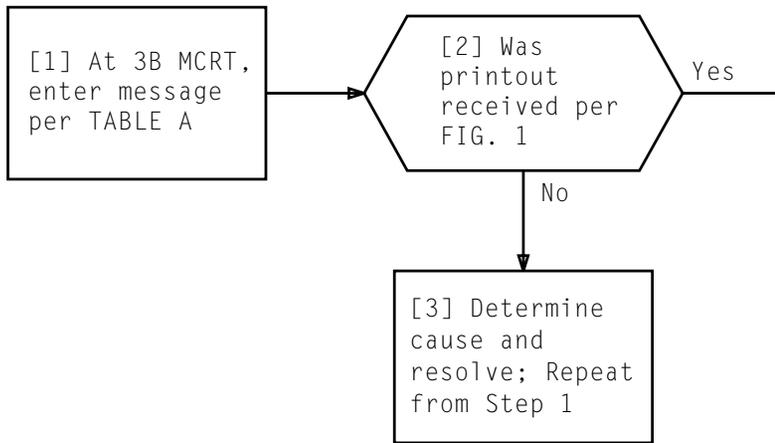
/database/tools/ifbmv.sh: SCRIPT STARTING
NODE BEING CHANGED OOS IS LNaa-07
SCRIPT /database/tools/growtool: STARTING
BEGINNING STATE CHANGE OF LNaa 07 NODE TO OOS USING THE /database/tools/growtool SCRIPT
/database/tools/growtool RCVECD PASSED - EXIT CODE = 0
GROWTH OF LNaa 07 TO OOS BY SCRIPT /database/tools/growtool COMPLETED
LNaa 07 IS IN OOS - CHANGES MADE TO INCORE DATABASE ONLY
NODE LNaa 07 OOS-CHANGES TO OOS COMPLETED BY SCRIPT /database/tools/ifbmv.sh
REPT SPOOLIT JOB (1) COMPLETED
*****
*****
/database/tools/ifbmv.sh COMPLETED.
CHANGES HAVE BEEN MADE IN THE INCORE DATABASE ONLY.
*****
*****
EXE ENVIR UPROC /database/tools/ifbmv.sh COMPLETED

```

Where aa = Link node of the D-Channel being grown

FIG. 1 - Example of Printout for the ifbmv Script

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```

/database/tools/dchgroSCRIPT STARTING
SCRIPT /database/tools/growtool STARTING
BEGINNING GROWTH OF LNaa bb NODE TO UNEQIP USING THE /database/tools/growtool SCRIPT
/database/tools/growtoolRCVECD PASSED -EXIT CODE = 0
GROWTH OF D-CHAN LNaa bb TO UNEQIP BY SCRIPT /database/tools/growtool COMPLETED
REPT SPOOLIT JOB (1)COMPLETED
  LNaa bb INCORE UCB CHANGES MADE BY SCRIPT /database/tools/growtool
  hv = 0xc000,mv = 0x3c,path= pu/irn2,packcode= PBXD, issue = 3
LNaa bb IS IN UNEQIP -CHANGES MADE TO INCORE DATABASE ONLY
REPT SPOOLIT JOB (1)COMPLETED
*****
*****
/database/tools/dchgro.sh SCRIPT FOR GROWTH OF DCHAN FRAME COMPLETED.
  CHANGES HAVE BEEN MADE IN THE INCORE DATABASE ONLY.
*****
*****
EXC ENVIR UPROC /database/tools/dchgro.sh COMPLETED
  
```

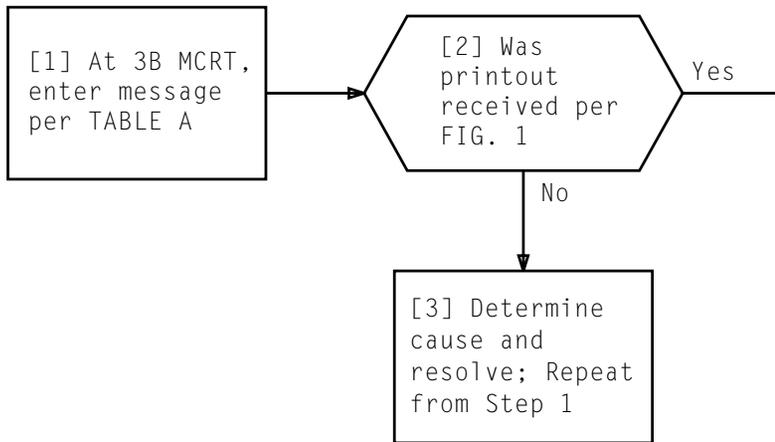
Where aa = Link Node of the D-Channel shelf Being Degrown
bb = Link node number

FIG.1 - Example of Printout for the dchgro Script

TABLE A	
MESSAGE NUMBER	INPUT MESSAGE
1	EXC:ENVIR:UPROC,FN"/database/tools/dchgro.sh",ARGS("NODE","aa","bb","UNEQIP")!
aa = Valid cabinet value (12,13,14,15,44,45,46 or 47) bb = Member value for the first D-Channel node on the shelf (02,07 or 12)	

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RECENT CHANGE D-CHANNEL NODE TO UNEQIP



```

/database/tools/dchgros SCRIPT STARTING
SCRIPT /database/tools/growtool STARTING
BEGINNING GROWTH OF LNaa bb NODE TO UNEQIP USING THE /database/tools/growtool SCRIPT
/database/tools/growtoolRCVECD PASSED -EXIT CODE = 0
GROWTH OF D-CHAN LNaa bb TO UNEQIP BY SCRIPT /database/tools/growtool COMPLETED
REPT SPOOLIT JOB (1)COMPLETED
  LNaa bb INCORE UCB CHANGES MADE BY SCRIPT /database/tools/growtool
  hv = 0xc000,mv = 0x3c,path= pu/irn2,packcode= PBXD, issue = 3
LNaa bb IS IN UNEQIP -CHANGES MADE TO INCORE DATABASE ONLY
REPT SPOOLIT JOB (1)COMPLETED
*****
*****
/database/tools/dchgros.sh SCRIPT FOR GROWTH OF DCHAN FRAME COMPLETED.
  CHANGES HAVE BEEN MADE IN THE INCORE DATABASE ONLY.
*****
*****
EXC ENVIR UPROC /database/tools/dchgros.sh COMPLETED
  
```

Where aa = Link Node of the D-Channel shelf Being Degrown
bb = Node number

FIG.1 - Example of Printout for the dchgros Script

TABLE A	
MESSAGE NUMBER	INPUT MESSAGE
1	EXC:ENVIR:UPROC,FN"/database/tools/dchgros.sh",ARGS("SHELF","aa","bb","UNEQIP")!
aa = Valid cabinet value (12,13,14,15,44,45,46 or 47) bb = Member value for the first D-Channel node on the shelf (02,07 or 12)	

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RECENT CHANGE D-CHANNEL SHELF TO UNEQIP

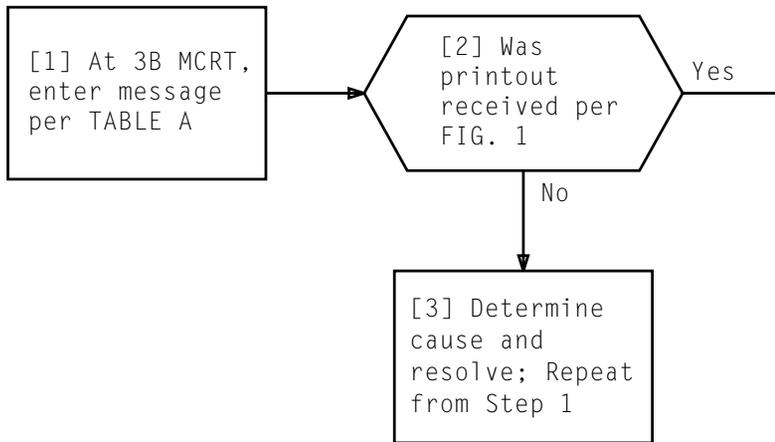


TABLE A	
MESSAGE NUMBER	INPUT MESSAGE
1	EXC:ENVIR:UPROC, FN"/database/tools/dchgro.sh", ARGs("FRAME", "aa", "UNEQIP")!
aa = Valid cabinet value (12,14,44 or 46)	

RECENT CHANGE D-CHANNEL CABINET TO UNEQIP

```

/database/tools/dchgro.sh: SCRIPT STARTING
SCRIPT /database/tools/growtool: STARTING
BEGINNING GROWTH OF LNaa bb NODE TO GROW USING THE /database/tools/growtool SCRIPT
/database/tools/growtool RCVECD PASSED - EXIT CODE = 0
GROWTH OF D-CHAN LNaa bb TO GROW BY SCRIPT /database/tools/growtool COMPLETED
REPT SPOOLIT JOB (1) COMPLETED
  LNaa bb INCORE UCB CHANGES MADE BY SCRIPT /database/tools/growtool
  hv = 0xc006, mv = 0x3, path = pu/irn2, packcode = PBXD, issue = 3
LNaa bb IS IN GROW - CHANGES MADE TO INCORE DATABASE ONLY
SCRIPT /database/tools/growtool: STARTING
BEGINNING GROWTH OF LNaa cc NODE TO GROW USING THE /database/tools/growtool SCRIPT
/database/tools/growtool RCVECD PASSED - EXIT CODE = 0
GROWTH OF D-CHAN LNaa bb TO GROW BY SCRIPT /database/tools/growtool COMPLETED
REPT SPOOLIT JOB (1) COMPLETED
  LNaa bb INCORE UCB CHANGES MADE BY SCRIPT /database/tools/growtool
  hv = 0xc010, mv = 0x42, path = pu/irn2, packcode = PBXT, issue = 3
LNaa bb 07 IS IN GROW - CHANGES MADE TO INCORE DATABASE ONLY
SCRIPT /database/tools/growtool: STARTING
BEGINNING GROWTH OF LNaa bb NODE TO GROW USING THE /database/tools/growtool SCRIPT

```

```

/database/tools/growtool RCVECD PASSED - EXIT CODE = 0
GROWTH OF D-CHAN LNaa bb TO GROW BY SCRIPT /database/tools/growtool COMPLETED
REPT SPOOLIT JOB (1) COMPLETED
  LNaa bb INCORE UCB CHANGES MADE BY SCRIPT /database/tools/growtool
  hv = 0xc001, mv = 0x3, path = pu/irn2, packcode = PBXD, issue = 3
LNaa bb IS IN GROW - CHANGES MADE TO INCORE DATABASE ONLY
SCRIPT /database/tools/growtool: STARTING
BEGINNING GROWTH OF LNaa cc NODE TO GROW USING THE /database/tools/growtool SCRIPT
/database/tools/growtool RCVECD PASSED - EXIT CODE = 0
GROWTH OF D-CHAN LNaa bb TO GROW BY SCRIPT /database/tools/growtool COMPLETED
REPT SPOOLIT JOB (1) COMPLETED
  LNaa bb INCORE UCB CHANGES MADE BY SCRIPT /database/tools/growtool
  hv = 0xc010, mv = 0x42, path = pu/irn2, packcode = PBXT, issue = 3
LNaa bb 07 IS IN GROW - CHANGES MADE TO INCORE DATABASE ONLY
REPT SPOOLIT JOB (1) COMPLETED
*****
*****
/database/tools/dchgro.sh SCRIPT FOR GROWTH OF DCHAN FRAME COMPLETED.
  CHANGES HAVE BEEN MADE IN THE INCORE DATABASE ONLY.
*****
*****
EXE ENVIR UPROC /database/tools/dchgro.sh COMPLETED
*****Frame GROWTH Completed FCFCFC*****

```

Where aa = Link node of the D-Channel Shelf Being Grown (12, 14, 44 OR 46)
bb = Node number

FIG. 1 - Example of Printout for the dchgro Script

RECENT CHANGE D-CHANNEL CABINET TO UNEQIP

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[1] Using TABLE A, Determine old IFB control node value associated with shelf being degrown

[2] Using TABLE A, Determine new IFB control node value associated with shelf being degrown

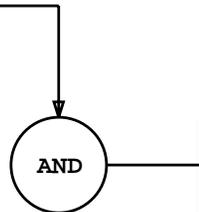


TABLE A			
Cabinet	Shelf	Old IFB Control Node	New IFB Control Node
12	4	LN13-07	LN13-12
	3	LN13-02	LN13-07
	2	LN13-12	LN12-02
	1	LN12-07	LN12-12
14	4	LN15-07	LN15-12
	3	LN15-02	LN15-07
	2	LN15-12	LN14-02
	1	LN14-07	LN14-12
44	4	LN45-07	LN45-12
	3	LN45-02	LN45-07
	2	LN45-12	LN44-02
	1	LN44-07	LN44-12
46	4	LN47-07	LN47-12
	3	LN47-02	LN47-07
	2	LN47-12	LN46-02
	1	LN46-07	LN46-12

DETERMINE IFB CONTROL NODE BEING DEGROWN

[1] See NOTE 1. Using TABLE A, determine link node value associated with shelf being grown

[2] Enter message per TABLE B with appropriate value determined in Step 1

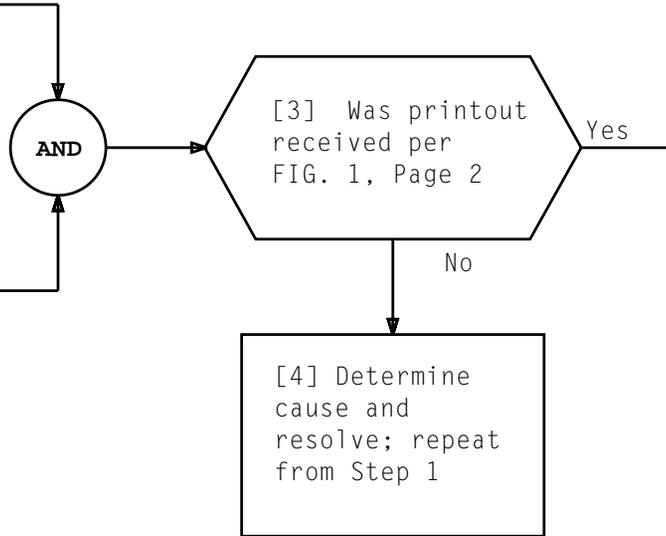


TABLE A			
Cabinet	Shelf	Old IFB Control Node	New IFB Control Node
12	4	LN13-07	LN13-12
	3	LN13-02	LN13-07
	2	LN13-12	LN12-02
	1	LN12-07	LN12-12
14	4	LN15-07	LN15-12
	3	LN15-02	LN15-07
	2	LN15-12	LN14-02
44	4	LN14-07	LN14-12
	3	LN45-07	LN45-12
	2	LN45-02	LN45-07
	1	LN45-12	LN44-02
46	4	LN44-07	LN44-12
	3	LN47-07	LN47-12
	2	LN47-02	LN47-07
	1	LN47-12	LN46-02
		LN46-07	LN46-12

TABLE B	
MESSAGE NUMBER	INPUT MESSAGE
1	EXC:ENVIR:UPROC, FN"/database/tools/ifbmv.sh", ARG("LNaa-bb", "LNcc-dd")!
	aa-bb = Old IFB control node location cc-dd = New IFB control node location

NOTE 1	
The new IFB control node is the left most D-Channel node on the lowest shelf being grown.	
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RECENT CHANGE SHELF FOR IFB CONTROL NODE BEING DEGROWN

```

/database/tools/ifbmv.sh:SCRIPT STARTING
BEING ZEROED ISLNaa-bb-NEW IFBCONTROL NODE ISLNcc-dd
NODE BEING ZEROED ISLNaa-bbWITH AN HV OF 0xc010
REPT SPOOLIT JOB (1)COMPLETED
*****
*****
ifbmv.sh SCRIPT HAS DETERMINED THAT NODE LNaa-bb
ISA UN-304-IRN2 NODE CORE THAT ISTHE CONTROL PACK
FOR A TN918 IFBADJACENT TO THAT NODE.
THE NODE HV ISCURRENTLY 0xc010
*****
*****
REPT SPOOLIT JOB (1)COMPLETED
*****
*****
THE ifbmv.shSCRIPT WILL NOW MAKE CHANGES TO MOVE THE IFB CONTROL
PACK FROM LNaa-bbTO LNcc-dd.
*****
*****
REPT SPOOLIT JOB (1)COMPLETED
*****
*****
NODE BEING ZEROED ISLNaa-bb
-----
HV BEFORE MODIFICATION: 0xc010
HV AFTER MODIFICATION: 0xc000
INDICATING A TN918 IFB IS BEING REMOVED
*****
*****
SCRIPT growtool:STARTING
BEGINNING GROWTH OF LNaa bbNODE TO GROW USING THE growtool SCRIPT
growtoolRCVECD PASSED -EXIT CODE =0
GROWTH OF D-CHAN LNaa bbTO GROW BY SCRIPT growtool COMPLETED
REPT SPOOLIT JOB (1)COMPLETED
LNaa bbINCORE UCB CHANGES MADE BY SCRIPT growtool
hv=0xc000, mv = , path = , packcode = , issue =
LNaa bbISINGROW -CHANGES MADE TO INCORE DATABASE ONLY
NODE BEING UPDATED ISLNcc -ddWITH AN HV OF 0xc000
REPT SPOOLIT JOB (1) COMPLETED

```

Where aa-bb = Current (Old) IFB control node value
cc-dd = New IFB control node value

FIG. 1 - Example of Printout for the ifbmv Script

```

*****
*****
ifbmv.shSCRIPT HAS DETERMINED THAT NODE LNcc-dd
ISA UN-304-IRN2 NODE CORE THAT ISTHE CONTROL PACK
FOR NO IFBADJACENT TO THAT NODE.
THE NODE HV ISCURRENTLY 0xc000
*****
*****
REPT SPOOLIT JOB (1)COMPLETED
*****
*****
THE ifbmv.shSCRIPT WILL NOW MAKE CHANGES TO MOVE THE IFB CONTROL
PACK FROM LNaa-bbTO LNcc-dd.
*****
*****
REPT SPOOLIT JOB (1)COMPLETED
*****
*****
NODE BEING UPDATED IS LNcc-dd
-----
HV BEFORE MODIFICATION: 0xc000
HV AFTER MODIFICATION: 0xc010
INDICATING A TN918 IFB IS BEING ADDED
*****
*****
SCRIPT growtool:STARTING
BEGINNING GROWTH OF LNccdd NODE TO GROW USING THE growtool SCRIPT
growtoolRCVECD PASSED -EXIT CODE =0
GROWTH OF D-CHAN LNcc ddTO GROW BY SCRIPT growtool COMPLETED
REPT SPOOLIT JOB (1) COMPLETED
LNccddINCORE UCB CHANGES MADE BY SCRIPT growtool
hv=0xc010, mv = , path = , packcode = , issue =
LNcc ddISINGROW -CHANGES MADE TO INCORE DATABASE ONLY
REPT SPOOLIT JOB (1) COMPLETED
*****
*****
ifbmv.shSCRIPT FOR THE IFBMOVEMENT COMPLETED.
CHANGES HAVE BEEN MADE IN THE INCORE DATABASE ONLY.
*****
*****
EXC ENVIR UPROC /database/tools/ifbmv.sh COMPLETED

```

RECENT CHANGE SHELF FOR IFB CONTROL NODE BEING DEGROWN

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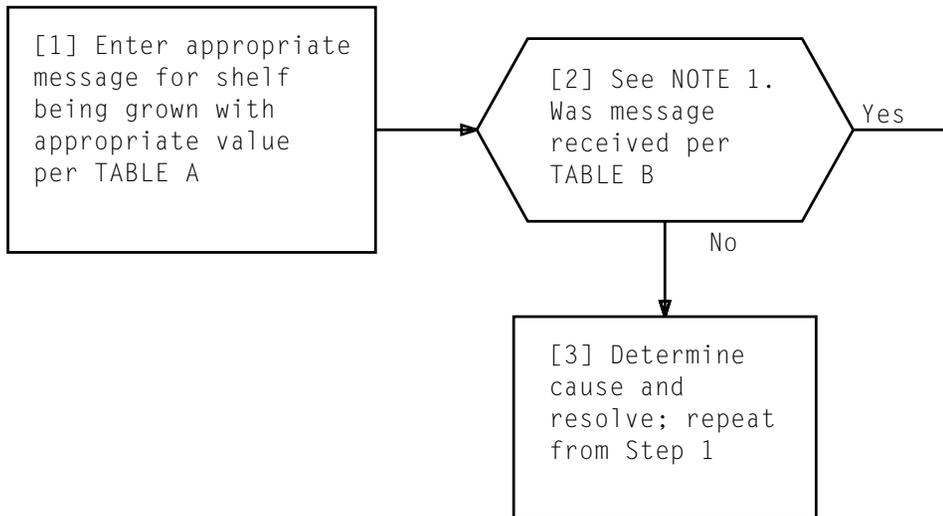


TABLE A		
If Cabinet Being Degrown Is....	Cabinet Group Is...	
	xx	yy
12	12	13
14	14	15
44	44	45
46	46	47
SHELF	INPUT MESSAGE	
5	DGN:LNyy 12;RAW!	
4	DGN:LNyy 07;RAW!	
3	DGN:LNyy 02;RAW!	
2	DGN:LNxx 14;RAW!	
1	DGN:LNxx 09;RAW!	
0	DGN:LNxx 02;RAW!	

TABLE B	
MESSAGE NUMBER	OUTPUT MESSAGE
1	DGN LNaa bb CATP (X'00000000' X '40000000) MSG COMPLETE
aa = Cabinet group number (12/13, 14/15, 44/45, or 46/47) bb = Link node number (02, 07, or 12)	

NOTE 1	
The conditional ATP with the hex value indicates more than one-node is included in isolation when the diagnostic is performed. This is expected.	
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DIAGNOSE THE D-CHANNEL SHELF BEING DEGROWN

[1] Using TABLE A, determine link node value associated with cabinet being degrown

[2] Enter message per TABLE B with appropriate value determined in Step 1

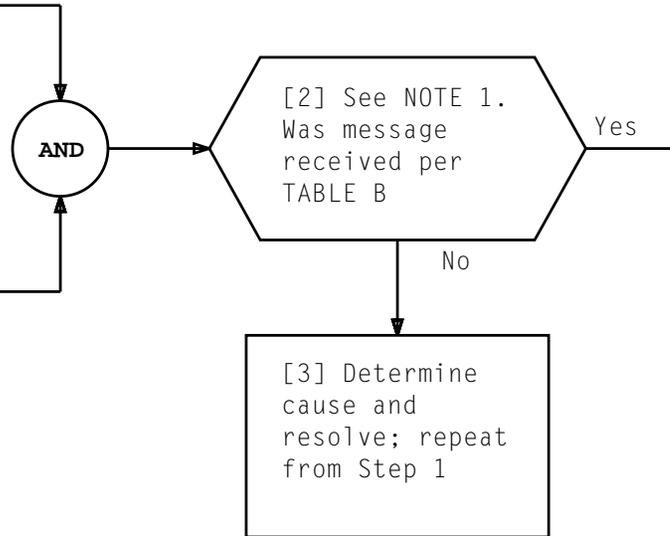


TABLE A		
If Cabinet Being Degrown Is....	Cabinet Group Is...	
	xx	yy
12	12	13
14	14	15
44	44	45
46	46	47
SHELF	LINK NODE Value (LNaa-bb)	
5	LNyy-12	
4	LNyy-07	
3	LNyy-02	
2	LNxx-12	
1	LNxx-07	
0	LNxx-02	

TABLE B	
MESSAGE NUMBER	INPUT MESSAGE
1	EXC:ENVIR:UPROC, FN"/database/tools/ifbmv.sh", ARG("LNaa-bb", "OOS")!
aa-bb = Link node value (Step 1)	

RECENT CHANGE IFB CONTROL NODE ON D-CHANNEL CABINET BEING DEGROWN TO OOS

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```

/database/tools/ifbmv.sh:SCRIPT STARTING
NODE BEING CHANGED OOS IS LNaa -07
SCRIPT /database/tools/growtool: STARTING
BEGINNING STATE CHANGE OF LNaa 07 NODE TO OOS USING THE /database/tools/growtools SCRIPT
/database/tools/growtool RCVECD PASSED - EXIT CODE =0
GROWTH OF LNaa 07 TO OOS BY SCRIPT /database/tools/growtool COMPLETED
LNaa 07 IS IN OOS COMPLETED BY SCRIPT /database/tools/ifbmv.sh
REPT SPOOLIT JOB (1) COMPLETED
*****
*****
/database/tools/ifbmv.sh SCRIPT FOR IFB CHANGES COMPLETED.
CHANGES HAVE BEEN MADE IN THE INCORE DATABASE ONLY.
*****
*****
EXC ENVIR UPROC /database/tools/ifbmv.sh COMPLETED

```

Where aa = Link node of the D-Channel being grown

FIG. 1 – Example of Printout for the ifbmv Script

**RECENT CHANGE IFB CONTROL NODE ON D-CHANNEL CABINET
BEING DEGROWN TO OOS**

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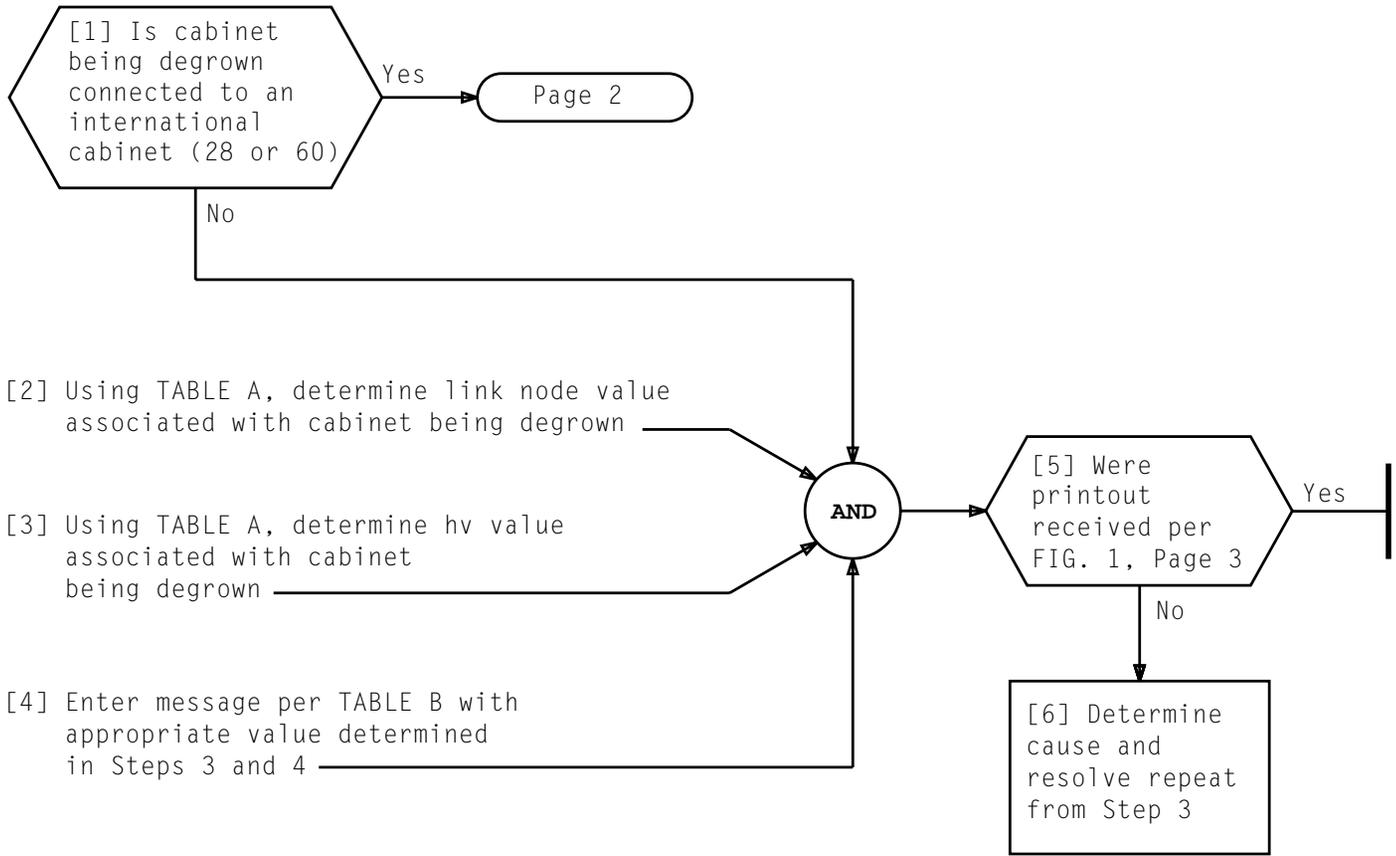


TABLE A		
Cabinet	Link Node Values	hv Values
12	LN11-07	0xc060
14	LN13-14	0xc060
44	LN43-07	0xc060
46	LN45-14	0xc060

TABLE B	
MESSAGE NUMBER	INPUT MESSAGE
1	EXC:ENVIR:UPROC, FN"/database/tools/ifbmv.sh", ARGs("LNaa-bb", "HV-bxcbbb")!
aa-bb = Link node value (Step 1) bxcbbb = hv value (Step 2)	

RECENT CHANGE hv VALUE FOR LINK NODE BEING DEGROWN

[7] Using Table C, determine link node value associated with cabinet being grown

[8] Using Table C, determine hv value associated with associated with cabinet being grown

[9] Enter message per Table D with appropriate value determined in Steps 7 and 8

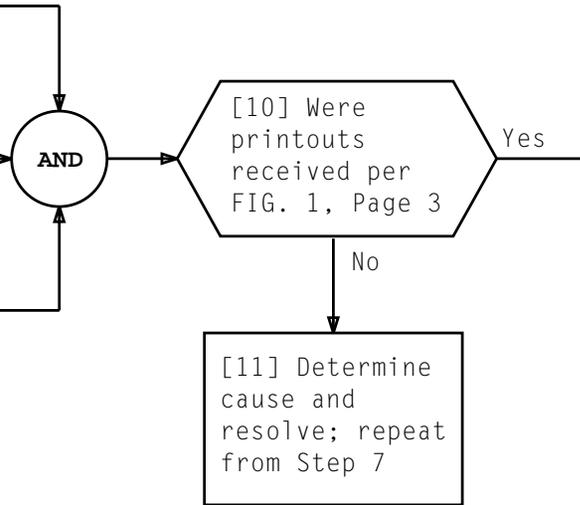


TABLE C		
Cabinet	Link Node Values	hv Values
12	LN11-07	0xc050
14	LN13-14	0xc050
44	LN43-07	0xc050
46	LN45-14	0xc050

TABLE D	
MESSAGE NUMBER	INPUT MESSAGE
1	EXC:ENVIR:UPROC, FN"/database/tools/ifbmv.sh", ARG("LNaa-bb", "HV-bxcbbb")!
aa-bb = Link node value (Step 8) bxcbbb = hv value (Step 9)	

RECENT CHANGE hv VALUE FOR LINK NODE BEING DEGROWN

```

/database/tools/ifbmv.sh SCRIPT STARTING
NODE BEING CHANGED ISLNaa -07 WITH A HV OF 0xcyyy
SCRIPT /database/tools/growtool STARTING
BEGINNING GROWTH OF LNaa 07 NODE TO GROW USING THE /database/tools/growtool SCRIPT
/database/tools/growtool RCVECD PASSED -EXIT CODE = 0
GROWTH OF D-CHAN LNaa 07 TO GROW BY SCRIPT /database/tools/growtool COMPLETED
REPT SPOOLIT JOB (1)COMPLETED
LNaa bb INCORE UCB CHANGES MADE BY SCRIPT /database/tools/growtool
hv = 0xcyyy,mv = ,path= ,packcode= ,issue=
LNaa 07 IS IN GROW -CHANGES MADE TO INCORE DATABASE ONLY
REPT SPOOLIT JOB (1)COMPLETED
*****
*****
/database/tools/ifbmv.sh SCRIPT FOR IFB CHANGES COMPLETED.
CHANGES HAVE BEEN MADE IN THE INCORE DATABASE ONLY.
*****
*****
EXC ENVIR UPROC /database/tools/ifbmv.sh COMPLETED

```

Where aa = Link node of the D-Channel being grown
yyy = hv value

FIG. 1 - Example of Printout for the ifbmv Script

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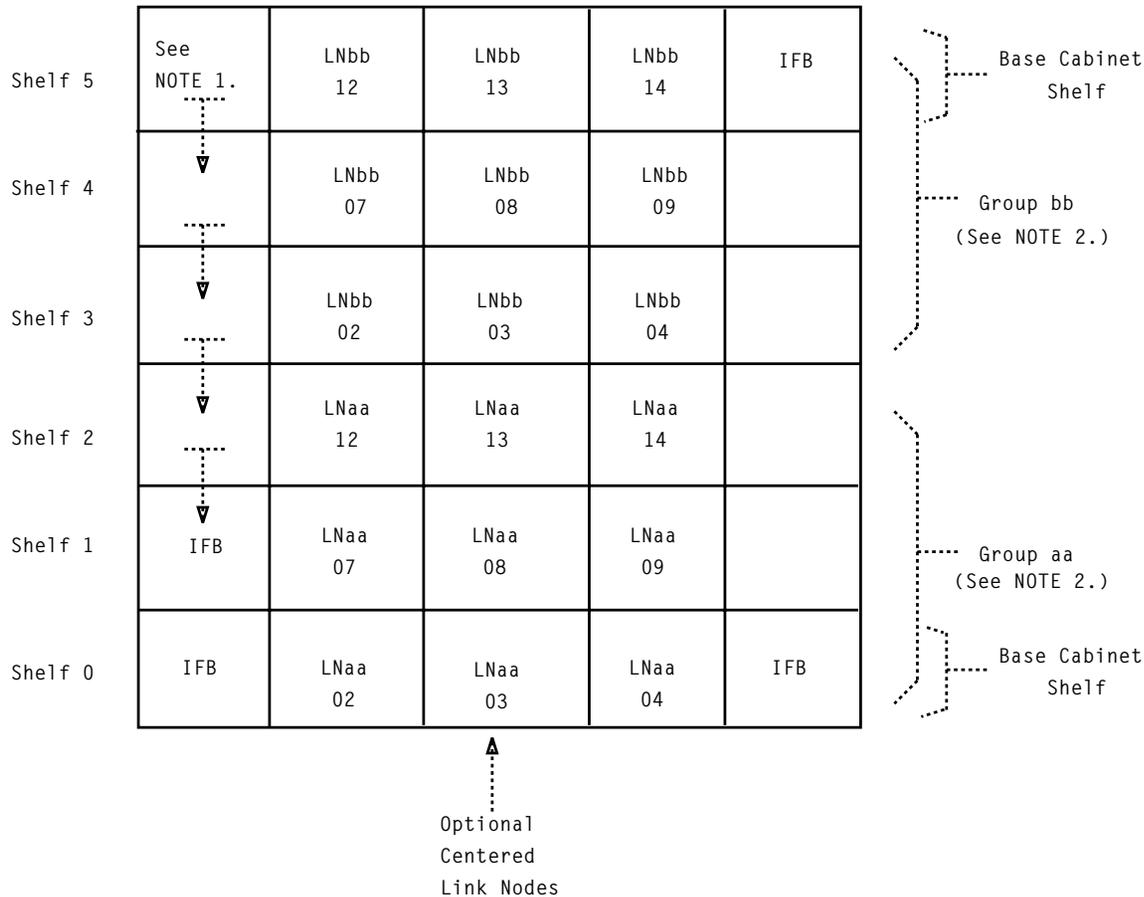
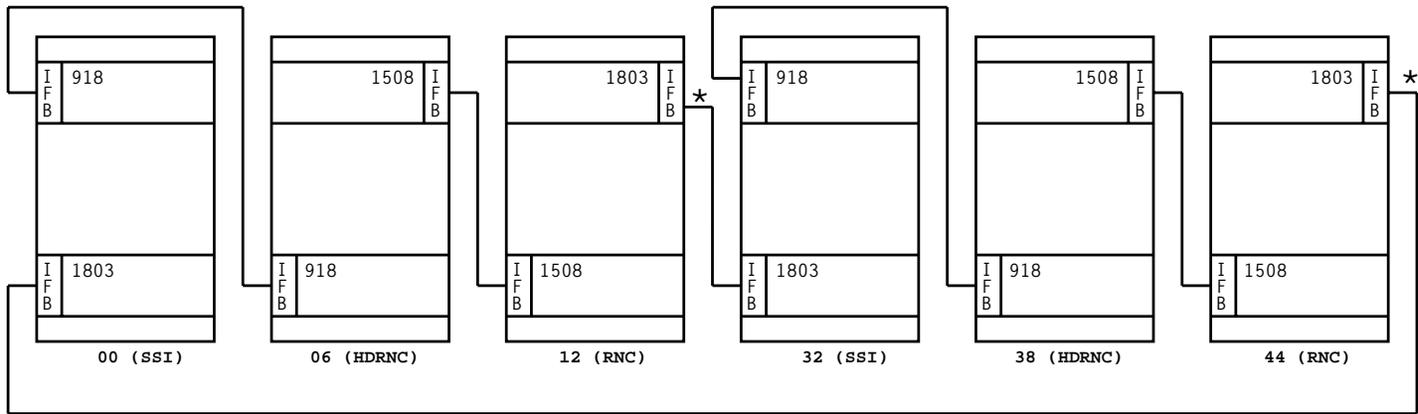


FIG. 1 - Link Node Layout for Cabinet 12, 14, 44, or 46

TABLE A		
Cabinet	aa	bb
12	12	13
14	14	15
44	44	45
46	46	47

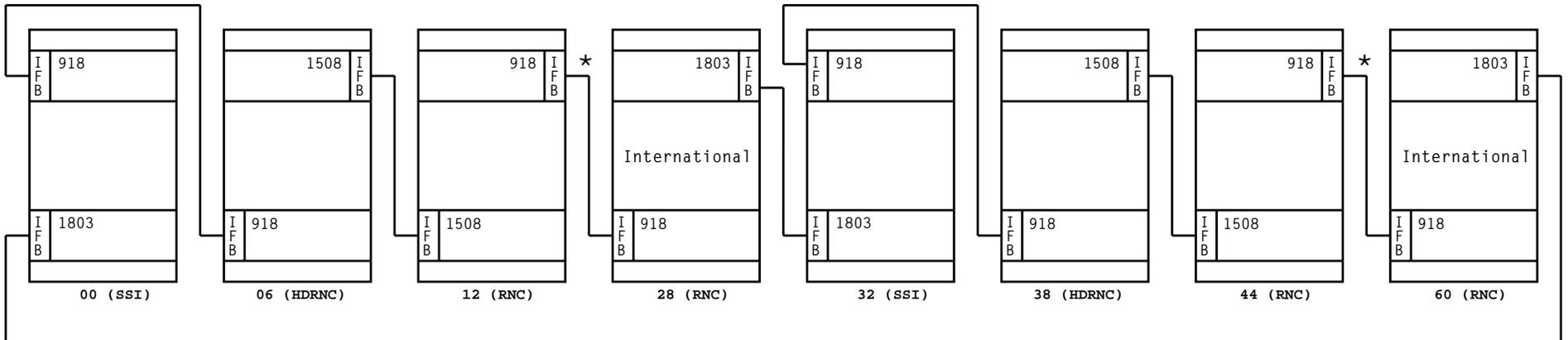
NOTE	
1. The IFB is moved down the cabinet as a shelf is being added.	
2. The link node designations for the nodes shown are mapped for each cabinet (See TABLE A)	
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D-CHANNEL LINK NODE CONFIGURATION AND CABINETS LAYOUT



* Future growth RNC 14 and 46

A. Cabinets Layout Without the International Cabinet



* Future growth RNC 14 and 46

B. Cabinets Layout With the International Cabinet

FIG. 2 - Cabinets Layout

D-CHANNEL LINK NODE CONFIGURATION AND CABINETS LAYOUT

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[1] See NOTE 1. Obtain failing printout (See FIG. 1)

[2] Map failing values on FIG 2, Page 2

[3] Check cables between link nodes as indicated on FIG . 2

[4] Return to procedure and repeat diagnostic

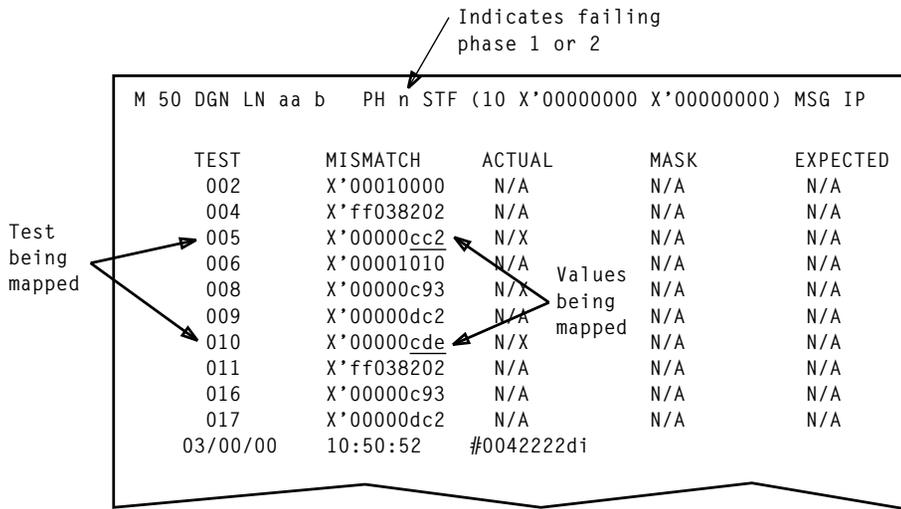


FIG. 1 - Sample Printout of Failing Diagnostic Phases 1 and 2

NOTE 1	
This example is one of many possible diagnostic failings	
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IDENTIFY LINK NODES FAILING USING TESTS 005 AND 010

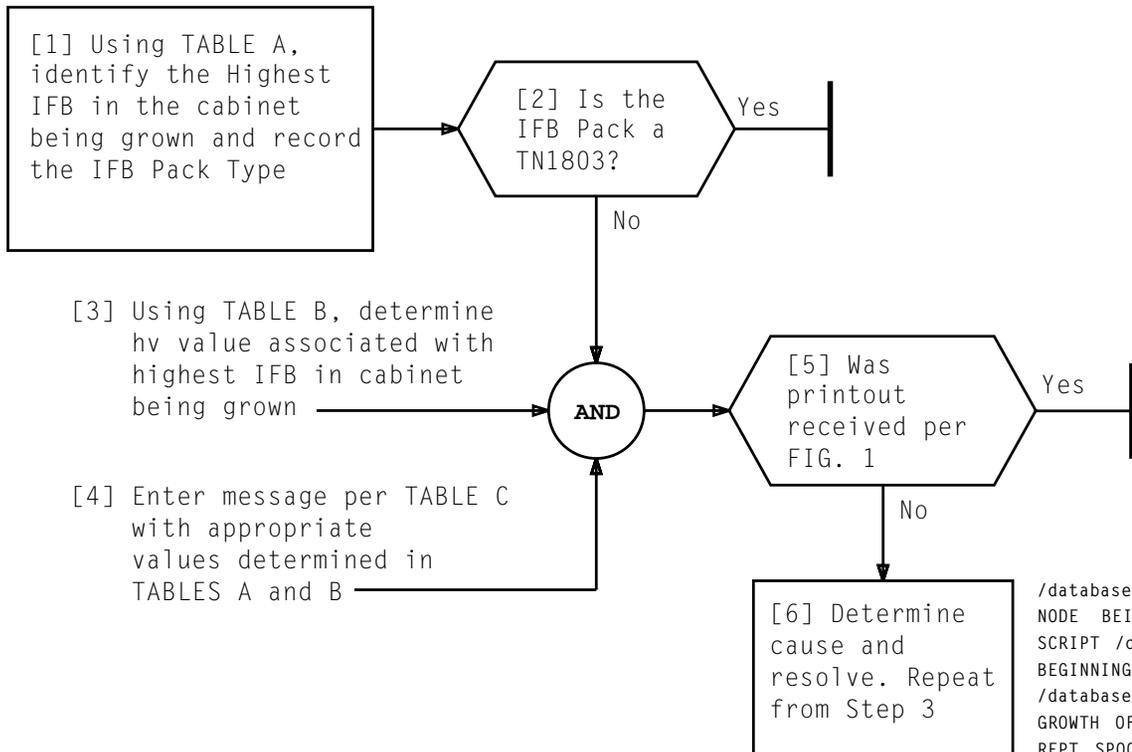
For example; if the following mismatch had occurred, the following ring groups and node values are determined

TEST	MISMATCH	RING	
		GROUP	NODE
005	X'00000cc2	= 12	2
010	X'00000cde	= 13	14

Map these values (circles) and the intersecting points (squares) indicates the ring group and nodes of the complaining cables.

		NODES																		
		(C)	d	e	f	0	1	(2)	3	4	5	6	7	8	9	10	11	12	13	(14)
RING GROUPS	00	16	32	48	00	01	02	03	04	05	06	07	08	09	0a	0b	0c	0d	0e	0f
	01	17	33	49	10	11	12	13	14	15	16	17	18	19	1a	1b	1c	1d	1e	1f
	02	18	34	50	20	21	22	23	24	25	26	27	28	29	2a	2b	2c	2d	2e	2f
	03	19	35	51	30	31	32	33	34	35	36	37	38	39	3a	3b	3c	3d	3e	3f
	04	20	36	52	40	41	42	43	44	45	46	47	48	49	4a	4b	4c	4d	4e	4f
	05	21	37	53	50	51	52	53	54	55	56	57	58	59	5a	5b	5c	5d	5e	5f
	06	22	38	54	60	61	62	63	64	65	66	67	68	69	6a	6b	6c	6d	6e	6f
	07	23	39	55	70	71	72	73	74	75	76	77	78	79	7a	7b	7c	7d	7e	7f
	08	24	40	56	80	81	82	83	84	85	86	87	88	89	8a	8b	8c	8d	8e	8f
	09	25	41	57	90	91	92	93	94	95	96	97	98	99	9a	9b	9c	9d	9e	9f
	10	26	42	58	a0	a1	a2	a3	a4	a5	a6	a7	a8	a9	aa	ab	ac	ad	ae	af
	11	27	43	59	b0	b1	(b2)	b3	b4	b5	b6	b7	b8	b9	ba	bb	bc	bd	be	bf
	(12)	28	44	60	c0	c1	(c2)	c3	c4	c5	c6	c7	c8	c9	ca	cb	cc	cd	ce	cf
	(13)	29	45	61	d0	d1	d2	d3	d4	d5	d6	d7	d8	d9	da	db	dc	dd	(de)	df
	14	30	46	62	e0	e1	e2	e3	e4	e5	e6	e7	e8	e9	ea	eb	ec	ed	ee	ef
	15	31	47	63	f0	f1	f2	f3	f4	f5	f6	f7	f8	f9	fa	fb	fc	fd	fe	ff

FIG. 2 - Physical Node Addresses



```

/database/tools/ifbmv.sh SCRIPT STARTING
NODE BEING CHANGED ISLNaa -07 WITH A HV OF 0xcyyy
SCRIPT /database/tools/growtool STARTING
BEGINNING GROWTH OF LNaa 07 NODE TO GROW USING THE /database/tools/growtool SCRIPT
/database/tools/growtool RCVECD PASSED -EXIT CODE = 0
GROWTH OF D-CHAN LNaa 07 TO GROW BY SCRIPT /database/tools/growtool COMPLETED
REPT SPOOLIT JOB (1)COMPLETED
LNaa bb INCORE UCB CHANGES MADE BY SCRIPT /database/tools/growtool
hv = 0xcyyy,mv = ,path= ,packcode= ,issue=
LNaa 07 IS IN GROW -CHANGES MADE TO INCORE DATABASE ONLY
REPT SPOOLIT JOB (1)COMPLETED
*****
*****
/database/tools/ifbmv.sh SCRIPT FOR IFB CHANGES COMPLETED.
CHANGES HAVE BEEN MADE IN THE INCORE DATABASE ONLY.
*****
*****
EXC ENVIR UPROC /database/tools/ifbmv.sh COMPLETED
  
```

Where aa = Link node of the D-Channel being grown
 yyy = hv value

FIG. 1 - Example of Printout for the ifbmv Script

RECENT CHANGE hv VALUE FOR HIGHEST IFB BEING GROWN

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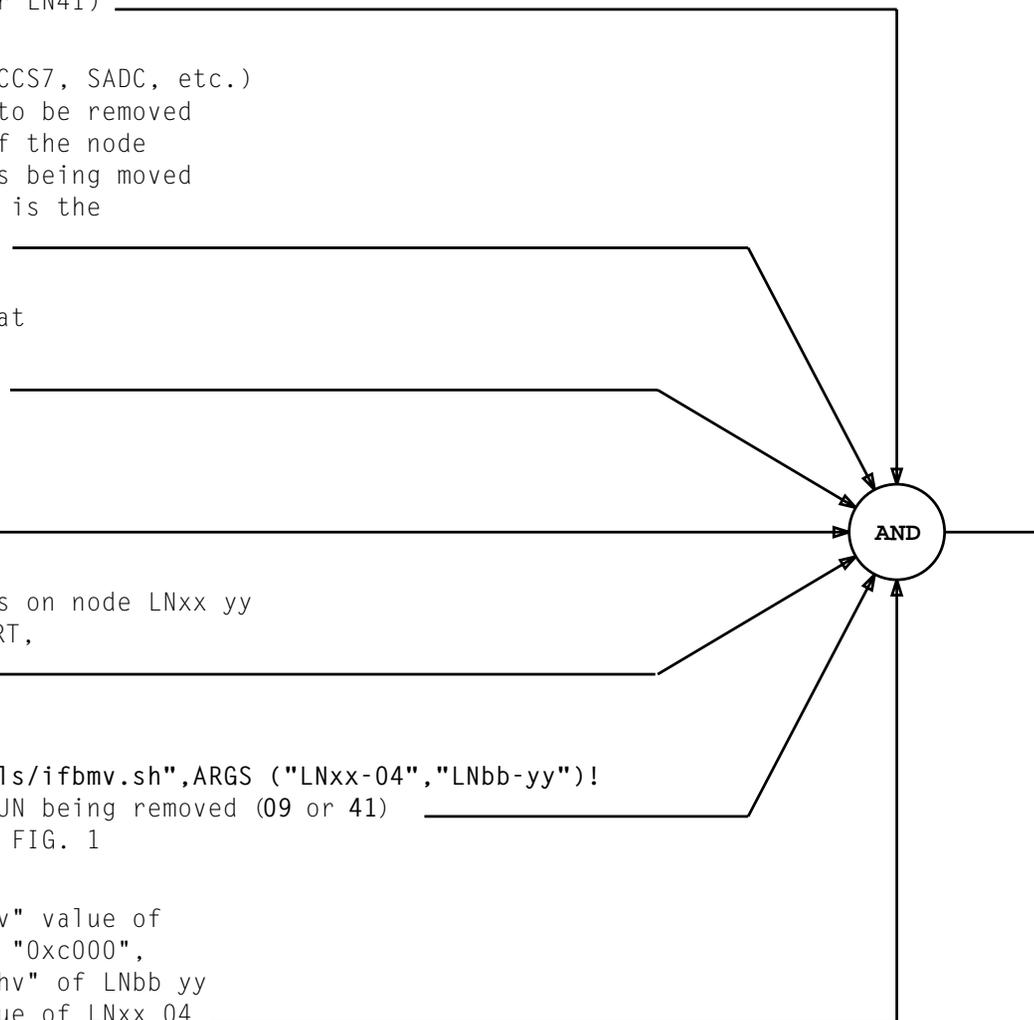
TABLE A		
Cabinet	IFB Slot	aa
12	LN13-15	LN13-14
14	LN15-15	LN15-14
44	LN45-15	LN45-14
46	LN47-15	LN47-14

TABLE B	
IFB Type	hv (bbb)
TN 918	0xc010
TN 1508	0xc050

TABLE C	
MESSAGE NUMBER	INPUT MESSAGE
1	EXC:ENVIR:UPROC, FN"/database/tools/ifbmv.sh", ARGS("LNaa-bb", "HV-bbb")!
aa-bb = Link node value (TABLE A) bbb = hv value (Step 3, TABLE B)	

RECENT CHANGE hv VALUE FOR HIGHEST IFB BEING GROWN

1. At 3B MCRT 1106/400 BISO/EISO Page, ensure that node LNxx 04 is in the GROW major state
LNxx = Frame Group number of the IUN being removed (LN09 or LN41)
2. Verify the type of node (DCHAN, CCS7, SADC, etc.) for LNbb for users who may need to be removed
LNbb is the Frame Group number of the node where the IFB Control function is being moved (the original BISO node), and yy is the member number of that node
3. Notify users on the link node that their signaling links will be temporarily removed from service
4. Change active Signaling links on the link node to MOOS using DLP-526
5. When any affected customers links on node LNxx yy have been set to MOOS; at the MCRT, enter the message RMV:LNbb yy!
6. At 3B MCRT, enter message
EXC:ENVIR:UPROC, FN"/database/tools/ifbmv.sh", ARG ("LNxx-04", "LNbb-yy")!
xx = Frame Group number of the IUN being removed (09 or 41)
Ensure printout was received per FIG. 1
7. From the ROP, verify that the "hv" value of node LNxx 04 has been changed to "0xc000", and the last two digits of the "hv" of LNbb yy are the same as the original value of LNxx 04



Reissued

MOVING AN INTRA-FRAME BUFFER (IFB) TO REMOVE A SHELF

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```

/database/tools/ifbmv.sh:SCRIPT STARTING
BEING ZEROED ISLNaa-bb-NEW IFBCONTROL NODE ISLNcc-dd
NODE BEING ZEROED ISLNaa-bbWITH AN HV OF 0xc010
REPT SPOOLIT JOB (1)COMPLETED
*****
*****
ifbmv.sh SCRIPT HAS DETERMINED THAT NODE LNaa-bb
ISA UN-304-IRN2 NODE CORE THAT ISTHE CONTROL PACK
FOR A TN918 IFBADJACENT TO THAT NODE.
THE NODE HV ISCURRENTLY 0xc010
*****
*****
REPT SPOOLIT JOB (1)COMPLETED
*****
*****
THE ifbmv.shSCRIPT WILL NOW MAKE CHANGES TO MOVE THE IFB CONTROL
PACK FROM LNaa-bbTO LNcc-dd.
*****
*****
REPT SPOOLIT JOB (1)COMPLETED
*****
*****
NODE BEING ZEROED ISLNaa-bb
-----
HV BEFORE MODIFICATION: 0xc010
HV AFTER MODIFICATION: 0xc000
INDICATING A TN918 IFB IS BEING REMOVED
*****
*****
SCRIPT growtool:STARTING
BEGINNING GROWTH OF LNaa bbNODE TO GROW USING THE growtool SCRIPT
growtoolRCVECD PASSED -EXIT CODE =0
GROWTH OF D-CHAN LNaa bbTO GROW BY SCRIPT growtool COMPLETED
REPT SPOOLIT JOB (1)COMPLETED
LNaa bbINCORE UCB CHANGES MADE BY SCRIPT growtool
hv=0xc000, mv = , path = , packcode = , issue =
LNaa bbISINGROW -CHANGES MADE TO INCORE DATABASE ONLY
NODE BEING UPDATED ISLNcc-ddWITH AN HV OF 0xc000
REPT SPOOLIT JOB (1) COMPLETED

```

Where aa-bb = Current (Old) IFB control node value
cc-dd = New IFB control node value

FIG. 1 - Example of Printout for the ifbmv Script

```

*****
*****
ifbmv.shSCRIPT HAS DETERMINED THAT NODE LNcc-dd
ISA UN-304-IRN2 NODE CORE THAT ISTHE CONTROL PACK
FOR NO IFBADJACENT TO THAT NODE.
THE NODE HV ISCURRENTLY 0xc000
*****
*****
REPT SPOOLIT JOB (1)COMPLETED
*****
*****
THE ifbmv.shSCRIPT WILL NOW MAKE CHANGES TO MOVE THE IFB CONTROL
PACK FROM LNaa-bbTO LNcc-dd.
*****
*****
REPT SPOOLIT JOB (1)COMPLETED
*****
*****
NODE BEING UPDATED IS LNcc-dd
-----
HV BEFORE MODIFICATION: 0xc000
HV AFTER MODIFICATION: 0xc010
INDICATING A TN918 IFB IS BEING ADDED
*****
*****
SCRIPT growtool:STARTING
BEGINNING GROWTH OF LNccdd NODE TO GROW USING THE growtool SCRIPT
growtoolRCVECD PASSED -EXIT CODE =0
GROWTH OF D-CHAN LNccddTO GROW BY SCRIPT growtool COMPLETED
REPT SPOOLIT JOB (1) COMPLETED
LNccddINCORE UCB CHANGES MADE BY SCRIPT growtool
hv=0xc010, mv = , path = , packcode = , issue =
LNccddISINGROW -CHANGES MADE TO INCORE DATABASE ONLY
REPT SPOOLIT JOB (1) COMPLETED
*****
*****
ifbmv.shSCRIPT FOR THE IFBMOVEMENT COMPLETED.
CHANGES HAVE BEEN MADE INTHE INCORE DATABASE ONLY.
*****
*****
EXC ENVIR UPROC /database/tools/ifbmv.sh COMPLETED

```

MOVING AN INTRA-FRAME BUFFER (IFB) TO REMOVE A SHELF

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1. Identify the **EISO** node on 3B MCRT 1106/400 page, and using TABLE A, and the Node Core Pack type recorded in DLP-622 TABLE A, record the "hv" for the IFB pack type being installed (EISO should be the higher Frame Group Number):
 EISO hv = 0x _____

2. Identify the **BISO** node on the MCRT 1106/400 page, and using TABLE A, and the Node Core Pack type recorded in DLP-622 TABLE A, record the "hv" for the IFB pack type being installed (BISO should be the higher Frame Group Number):
 BISO hv = 0x _____

3. Using the information from Step 1, check the status of the EISO node. If ACT, check node type for possible users who must be notified (DCHAN, CCS7 SADC, etc.) _____

4. Notify users on the link node that their signaling links will be temporarily removed from service _____

5. Change active Signaling links on the link node to MOOS using DLP-526 _____

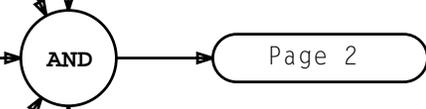


TABLE A IDENTIFYING HV VALUES FOR IFB CONTROL NODES (NOTE)						
IFB CONTROL NODE POS	NODE CORE CKT PACK TYPE	IFB PACK TYPE (IN SLOT ADJACENT TO CONTROL NODE)				
		TN1803	TN1508	TN1506	TN918	TN915
Higher Frame Group Number	UN304 (IRN2)	0xc060	0xc050	0xc040	0xc020	0xc010
	UN303B (IRNB)	0x9060	0x9050	0x9040	0x9020	0x9010
Lower Frame Group Number	UN304 (IRN2)	0xc006	0xc005	0xc004	0xc002	0xc001
	UN303B (IRNB)	0x9006	0x9005	0x9004	0x9002	0x9001

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ESTABLISHING INTRA-FRAME BUFFERS TO BRIDGE A SHELF GAP

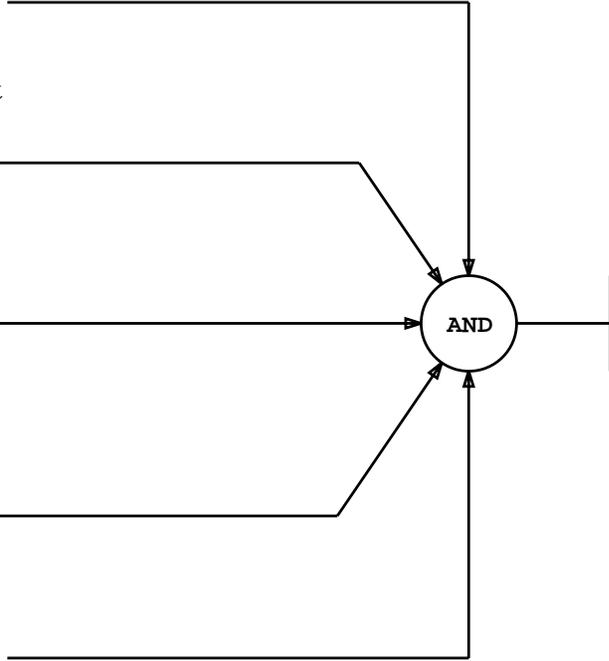
6. Using the information from Step 2, check the status of the BISO node. If ACT, check node type for possible users who must be notified (DCHAN, CCS7 SADC, etc.)

7. Notify users on the link node that their signaling links will be temporarily removed from service

8. Change active Signaling links on the link node to MOOS using DLP-526

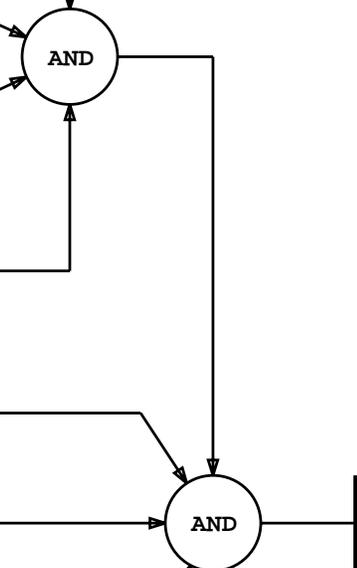
9. At the MCRT, enter message RMV:LNe`e yy!` to remove EISO node and ensure LNe`e yy` goes `oos` (`ee` = EISO Node)

10. Enter the message RMV:LNbb `yy!` to remove BISO node and ensure LNbb `yy` goes `oos` (`bb` = BISO Node)



1. At the MCRT 1106/400 BISO/EISO Page,
ensure both nodes LNxx 04 and LNbb yy
are in the **GROW** Major State
2. At 3B MCRT, enter message **DGN:LNbb yy;RAW!**
and ensure the message
DGN LNbb yy CATP MSG COMPLETE is received
bb = group number of frame containing the node being changed
yy = member number of the node being changed
3. At the MCRT, enter the message
EXC:ENVIR:UPROC, FN"/database/tools/ifbmv.sh", ARG ("LNbb-yy", "OOS")!
Ensure printout was received per FIG. 1
4. At the MCRT 1106/400 BISO/EISO Page,
ensure LNbb yy is in the **OOS** Major State
LNxx 04 is in the **GROW** State

5. Enter the message **RST:LNbb yy;UCL!**
to restore link nodes to service
6. Ensure **RING RST LNbb yy COMPLETED** message is received
and LNxx 04 is in the **GROW** state
7. At the MCRT 1106/400 BISO/EISO
Page, ensure that node LNbb yy
is in the **ACT** Major State
8. If users (DCHAN, CCS7, SADC, etc.) were
removed from service to modify LNxx yy, changing
signaling link(s) to IS of links MOOS in Step 2
to restore them to service using DLP-529



DIAGNOSE INTRA-FRAME BUFFER (IFB) BEING MOVED TO ADD/REMOVE A SHELF

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```

/database/tools/ifbm.sh: SCRIPT STARTING
NODE BEING CHANGED OOS IS LNbb-07
SCRIPT /database/tools/growtool: STARTING
BEGINNING STATE CHANGE OF LNbb 07 NODE TO OOS USING THE /database/tools/growtool SCRIPT
/database/tools/growtool RCVECD PASSED - EXIT CODE=0
GROWTH OF LNbb 07 TO OOS BY SCRIPT /database/tools/growtool COMPLETED
REPT SPOOLIT JOB (1) COMPLETED
LNbb 07 IS IN OOS - CHANGES MADE TO INCORE DATABASE ONLY
NODE LNbb - 07 CHANGE TO OOS COMPLETED BY SCRIPT /database/tools/growtool/ifbm.sh
REPT SPOOLIT JOB (1) COMPLETED
*****
*****
/database/tools/ifbm.sh SCRIPT FOR IFB CHANGES COMPLETED.
CHANGES HAVE BEEN MADE IN THE INCORE DATABASE ONLY.
*****
*****
EXE ENVIR UPROC /database/tools/ifbm.sh COMPLETED

```

Where bb = BISO Link node of the D-Channel being degrown

FIG. 1 - Example of Printout for the ifbm.sh Script

1. At the MCRT, enter the message `DGN:LNee yy;RAW!`
to diagnose the node recorded as EISO
ee = EISO group number of frame containing the node being changed
yy = member number of the node being changed
2. At the 3B ROP, ensure the message
`DGN LNee yy CATP MSG COMPLETE` is received
3. Enter the message `DGN:LNbb yy;RAW!`
to diagnose the node recorded as BISO
bb = BISO group number of frame containing the node being changed
yy = member number of the node being changed
4. At the 3B20 ROP, ensure the message
`DGN LNbb yy CATP MSG COMPLETE` is received
5. At the MCRT, enter the message
`EXC:ENVIR:UPROC, FN"/database/tools/ifbmv.sh", ARGS ("LNee-yy", "00S")!`
Ensure printout was received per FIG. 1
6. Enter the message
`EXC:ENVIR:UPROC, FN"/database/tools/ifbmv.sh", ARGS ("LNbb-yy", "00S")!`
Ensure printout was received per FIG. 1

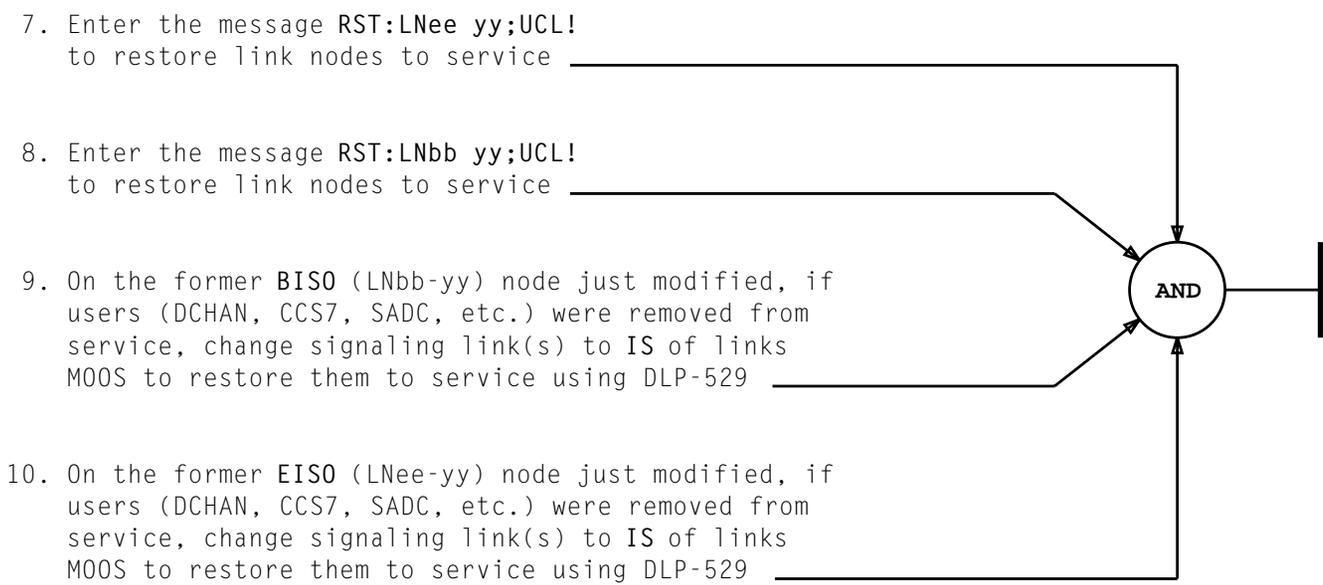


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DIAGNOSE INTRA-FRAME BUFFERS BRIDGING THE SHELF GAP

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```

/database/tools/ifbmv.sh: SCRIPT STARTING
NODE BEING CHANGED OOS IS LNaa-07
SCRIPT /database/tools/growtool: STARTING
BEGINNING STATE CHANGE OF LNaa 07 NODE TO OOS USING THE /database/tools/growtool SCRIPT
/database/tools/growtool RCVECD PASSED - EXIT CODE=0
GROWTH OF LNaa 07 TO OOS BY SCRIPT /database/tools/growtool COMPLETED
REPT SPOOLIT JOB (1) COMPLETED
LNaa 07 IS IN OOS - CHANGES MADE TO INCORE DATABASE ONLY
NODE LNaa - 07 CHANGE TO OOS COMPLETED BY SCRIPT /database/tools/growtool/ifbmv.sh
REPT SPOOLIT JOB (1) COMPLETED
*****
*****
/database/tools/ifbmv.sh SCRIPT FOR IFB CHANGES COMPLETED.
CHANGES HAVE BEEN MADE IN THE INCORE DATABASE ONLY.
*****
*****
EXE ENVIR UPROC /database/tools/ifbmv.sh COMPLETED

```

Where aa = BISO or EISO Link node of the D-Channel being degrown

FIG. 1 - Example of Printout for the ifbmv Script

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[1] Using the 1106 page, Record BISO-EISO identification in TABLE A

TABLE A BISO-EISO IDENTIFICATION			
ISO POSITION	FRAME GROUP	MEMBER NUMBER	NODE CORE CKT PACK TYPE UN303B OR UN304
BISO	LN		
EISO	LN		

BISO-EISO IDENTIFICATION

ITEM	ISSUE	ITEM	ISSUE	ITEM	ISSUE	ITEM	ISSUE	ITEM	ISSUE	ITEM	ISSUE
IXL-001		DLP-503		DLP-540		DLP-580		• DLP-615			
NTP-002		DLP-504		DLP-542		DLP-581		DLP-616			
NTP-003		DLP-505		DLP-543		DLP-582		• DLP-617			
NTP-004		DLP-506		DLP-544		DLP-583		• DLP-618			
NTP-005		DLP-507		DLP-545		DLP-584		DLP-619			
NTP-006		DLP-508		DLP-546		DLP-585		DLP-620			
NTP-007		DLP-509		DLP-547		DLP-586		DLP-621			
NTP-008		DLP-510		DLP-552		DLP-587		DLP-622			
NTP-009		DLP-511		• DLP-553		DLP-588		• CKL-891			
NTP-010		DLP-512		• DLP-554		DLP-589		TNG-893			
NTP-011		DLP-513		DLP-555		• DLP-590					
NTP-012		DLP-514		DLP-556		DLP-591					
NTP-013		DLP-515		DLP-557		DLP-592					
NTP-014		DLP-516		DLP-558		DLP-593					
NTP-015		DLP-517		DLP-559		• DLP-594					
NTP-016		DLP-518		DLP-560		• DLP-595					
NTP-017		DLP-519		DLP-561		• DLP-596					
NTP-018		• DLP-520		DLP-562		• DLP-597					
NTP-019		DLP-521		DLP-563		DLP-598					
NTP-020		• DLP-522		DLP-564		DLP-599					
NTP-021		DLP-523		DLP-565		DLP-600					
NTP-022		DLP-524		DLP-566		DLP-601					
NTP-023		DLP-525		<input type="checkbox"/> DLP-567		• DLP-602					
NTP-024		DLP-526		DLP-568		• DLP-603					
NTP-025		DLP-527		DLP-569		DLP-604					
NTP-026		DLP-528		DLP-570		DLP-605					
NTP-027		DLP-529		<input type="checkbox"/> DLP-571		DLP-606					
NTP-028		DLP-530		DLP-572		DLP-607					
• NTP-029		DLP-531		DLP-573		DLP-608					
• NTP-030		DLP-532		DLP-574		<input type="checkbox"/> DLP-609					
NTP-031		DLP-533		DLP-575		DLP-610					
• NTP-032		DLP-534		DLP-576		• DLP-611					
DLP-500		DLP-535		DLP-577		• DLP-612					
DLP-501		DLP-538		DLP-578		• DLP-613					
DLP-502		DLP-539		DLP-579		• DLP-614					

• REVISED OR ADDED ITEM

CANCELED ITEM

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CHECKLIST

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