Lucent Technologies
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SLC®-2000 Access System

Network Element Conversion From TR008 to TR303

363-060-100
Issue 1
October 1996

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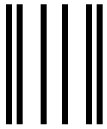

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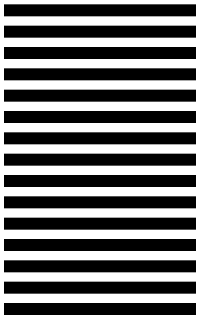

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NETWORK ELEMENT CONVERSION FROM TR008 TO TR303

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Network Element Conversion From TR008 to TR303

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1. INTRODUCTION

1.1 PURPOSE

This document describes the procedures for TR008 to TR303 conversion at a local digital switch (LDS) and a *SLC*®-2000 Access System. In this issue, the procedures will be for the *SLC*-2000 Access System Remote Terminal (RT) and the *5ESS*® Switch.

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Network Element Conversion From TR008 to TR303

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LIST OF FIGURES

2. *5ESS* SWITCH SPECIFIC CONVERSION PROCEDURES

GENERAL

Chapter 2 contains detailed level procedures performed at a *5ESS*® Switch to convert a *SLC*®-2000 Remote Digital Terminal from TR008 to TR303.

2.1 *5ESS* REFERENCE PAGES

1870,Y,X - SM X IDCU Y FACILITY PAGE [5E9(2)]

Purpose

The purpose of the 1870,Y,X page is to display assignment and status information of remote terminals (RTs), their associated integrated digital carrier unit (IDCU) facilities (IFACs), and for TR303 RTs, the status of the embedded operation and timeslot management channels (EOC/TMC).

General

On page 1870,Y,X, "Y" refers to the IDCU number, and "X" refers to the SM number.

An IDCU can support up to 40 IFACs. Assignment and status information for each of these IFACs is shown in table format on the 1870,Y,X display page. Four 3-column tables are used, with each table containing information for up to 10 IFACs.

An IFAC may or may not terminate on a remote terminal. If it terminates on an RT, the associated RT number appears in the RT column of the status table. An ampersand (&) next to the RT identifier indicates that this facility is a protection line. An asterisk (*) indicates that one of the two EOC/TMC link pairs are assigned to this facility. Red backlighting of the RT number indicates an off-normal condition associated with the RT (the source could be at the RT or at the switch). For further details, the user could access the 1880,Y,Z,X page (where Y=IDCU #, Z=RT #,X=SM #). For example, for the screen display shown in Figure 2.1-1, the user would specify master control center (MCC) page 1880,5,11 (for RT 11) or 1880,5,3 (for RT 3). Depending on the type of error condition present at the RT, the **OP:RT,LRT** input message can be used to augment the status display. If the IFAC does not terminate on an RT, the letters **NR** (Not To RT) appear in the RT column.

IFAC related alarms are displayed in the alarm column (ALM) of the status table. Possible alarm types are as follows:

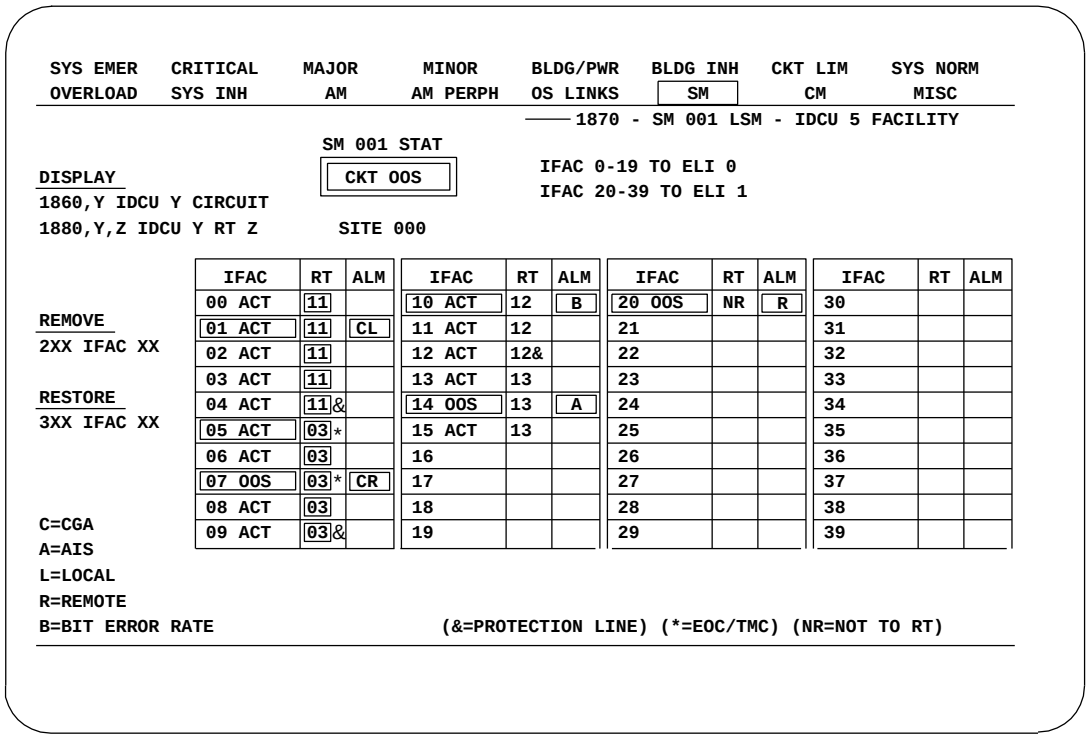
Carrier Group Alarms (CGA):

- ***CA***: CGA Alarm Indication Signal (AIS)
- ***CL***: CGA Local
- ***CR***: CGA Remote.

Carrier Failure Alarm (CFA):

- ***A***: AIS CFA
- ***B***: Bit Error Rate
- ***L***: Local CFA
- ***R***: Remote CFA.

Figure 2.1-1 is an example of the 1870,Y,X display page.



IFAC	RT	ALM	IFAC	RT	ALM	IFAC	RT	ALM	IFAC	RT	ALM
00 ACT	11		10 ACT	12	B	20 OOS	NR	R	30		
01 ACT	11	CL	11 ACT	12		21			31		
02 ACT	11		12 ACT	12&		22			32		
03 ACT	11		13 ACT	13		23			33		
04 ACT	11&		14 OOS	13	A	24			34		
05 ACT	03*		15 ACT	13		25			35		
06 ACT	03		16			26			36		
07 OOS	03*	CR	17			27			37		
08 ACT	03		18			28			38		
09 ACT	03&		19			29			39		

Figure 2.1-1 — 1870,Y,X - SM X IDCU Y Facility Page [5E9(2)]

Abbreviations:

ACT	Active	IFAC	IDCU Facility
AIS	Alarm Indication Signal	LSM	Local Switching Module
ALM	Alarm	OOS	Out of Service
CGA	Carrier Group Alarm	PROT	On Protection
CKT	Circuit	RT	Remote Terminal
ELI	Electrical Line Interface	SM	Switching Module
EOC	Embedded Operation Channel	STAT	Status
IDCU	Integrated Digital Carrier Unit	TMC	Time Slot Management Channel

Commands

The following poke commands are available on the 1870,Y,X page to remove and/or restore IFACs.

CMD	RESULT
2XX,[UCL]	IFAC XX is removed. (RMV:IFAC=SM#-IDCU#-XX)[,UCL]
3XX	IFAC XX is restored. (RST:IFAC=SM#-IDCU#-XX)[,UCL]

1880,Y,Z,X - SM X IDCU Y RT Z PAGE [5E9(2)]

Purpose

The purpose of the 1880,Y,Z,X page is to display the status of the RT and its associated IFACs. For the TR303 RTs, the state of the EOC/TMCs are also displayed.

General

On page 1880,Y,Z,X, "Y" refers to the IDCU number, "Z" refers to the RT number, and "X" refers to the SM number. This page has two versions, one for displaying TR008 RTs, the other for displaying TR303 RTs.

TR008 RT Version

The TR008 RT version of the 1880,Y,Z,X page displays the RT site identification (SID) number, its associated facility connections (IFACs), the digroup configuration, and any active alarm associated with the RT.

The TR008 RT can be configured as either a Mode I or Mode II RT. The Mode I RT is displayed as four digroups (A,B,C,D) (Figure 2.1-2). The Mode II RT is displayed as two dual digroups (AB, CD) (Figure 2.1-3). The screen display shows the RT facilities from two points of view: IDCU (IFAC) and RT (RTFAC). Although the two views are shown in separate boxes, they are physically the same entity.

The TR008 RT power/miscellaneous (PWR/MISC) alarm is used to report major or minor alarm conditions associated with the RT.

TR303 RT Version

The TR303 RT version of the 1880,Y,Z,X page displays the RT site identification (SID) number, the number of RT FACs and IFACs assigned to it, the current status of the EOC/TMC facilities, the status of all assigned IFACs, and any active alarms associated with the RT.

The status for each of the 28 RTFACs (maximum) that can terminate on the TR303 RT is displayed in table format in the center of the 1880,Y,Z,X page. An asterisk (*) is used to identify facilities with EOC/TMC links present.

The TR303 RT has two EOC links and two TMC links. The first facility, RTFAC 1, carries the first EOC/TMC pair, commonly referred to as the primary EOC/TMC links. The second facility, RTFAC 2, carries the second EOC/TMC pair, commonly referred to as the secondary EOC/TMC links. The status of the EOC/TMC links is shown in the top right portion of the display.

Six types of alarms can be displayed for a TR303 RT:

- ***PWR***: Power
- ***ENV1***: Environmental 1
- ***ENV2***: Environmental 2
- ***CRIT***: Critical
- ***MAJ***: Major
- ***MIN***: Minor.

The text string SEE PAGE 1870,Y FOR IDCU Y FAC INFO is used in both the TR008 and TR303 display versions to direct maintenance personnel to the IDCU Facility Page for facility or related information.

Figure 2.1-4 is an example of a TR303 RT display.

Figure 2.1-2 is an example of a TR008 Mode I RT with the digroup configuration displayed.

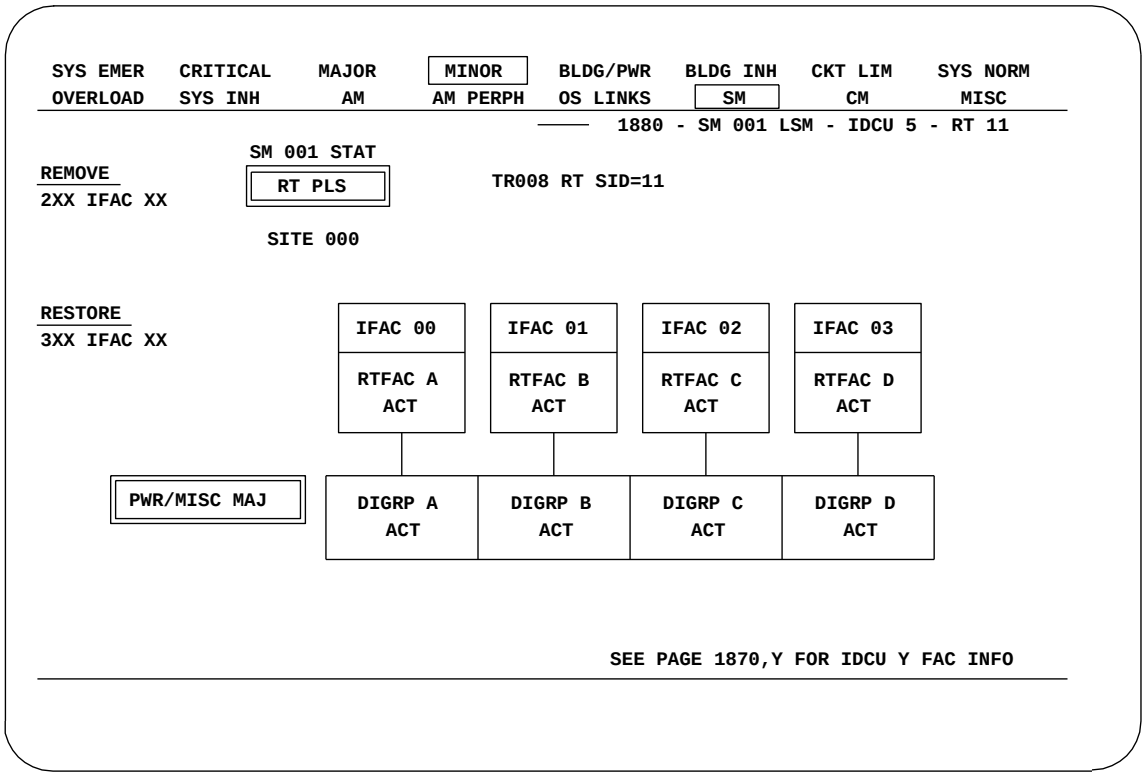


Figure 2.1-2 — 1880,Y,Z,X - SM X IDCU Y RT Z (TR008 RT Version - Mode I) [5E9(2)]

Abbreviations:

ACT	Active	PROT	On Protection
DIGRP	Digroup	PWR/MISC	Power/Miscellaneous
IDCU	Integrated Digital Carrier Unit	RT	Remote Terminal
IFAC	IDCU Facility	RTFAC	Remote Terminal Facility
INFO	Information	SID	Site Identification Number
LSM	Local Switching Module	SM	Switching Module
MAJ	Major Alarm	STAT	Status
PLS	Protection Line Switch		

Figure 2.1-3 is an example of a TR008 Mode II RT with the dual digroup configuration displayed.

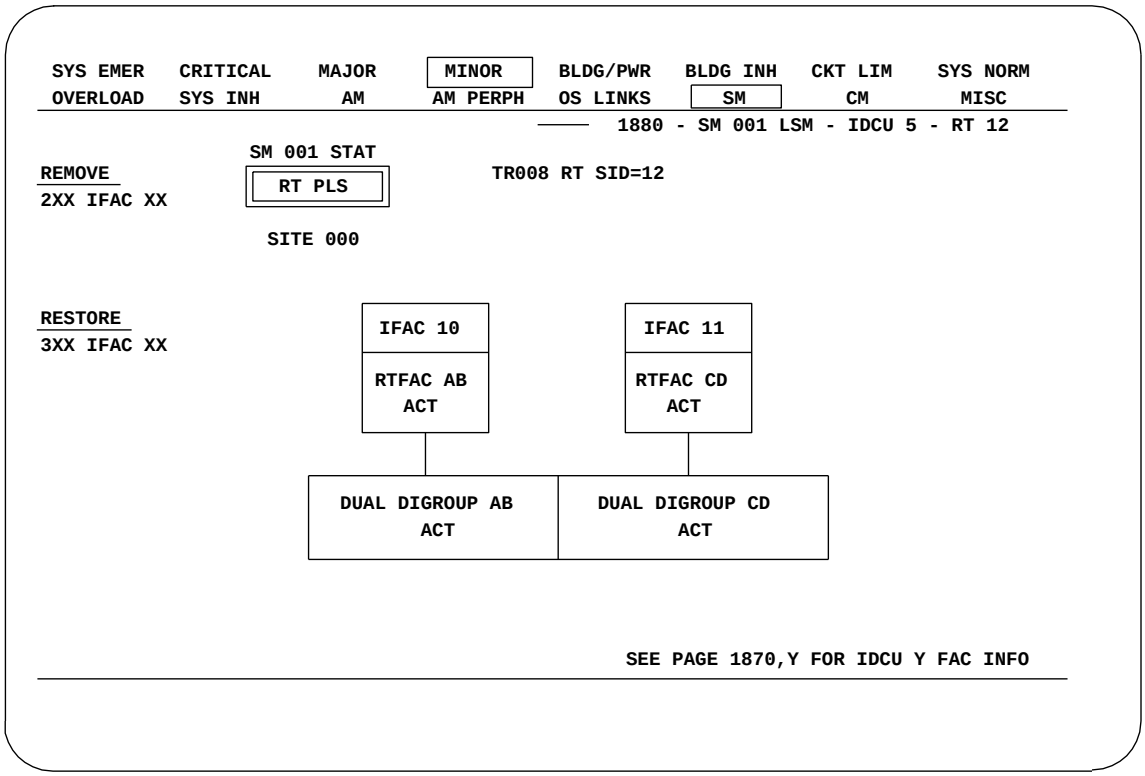


Figure 2.1-3 — 1880,Y,Z,X - SM X IDCU Y RT Z (TR008 RT Version - Mode II) [5E9(2)]

Abbreviations:

ACT	Active	PROT	On Protection
FELP	Far End Looped (On Protection)	RT	Remote Terminal
IDCU	Integrated Digital Carrier Unit	RTFAC	RT Facility
IFAC	IDCU Facility	SID	Site Identification Number
INFO	Information	SM	Switching Module
LSM	Local Switching Module	STAT	Status
PLS	Protection Line Switch		

Figure 2.1-4 is an example of a TR303 RT display. The EOC/TMC links are assigned to RTFACs 01 and 02, and alarms ENV1 and ENV2 are active.

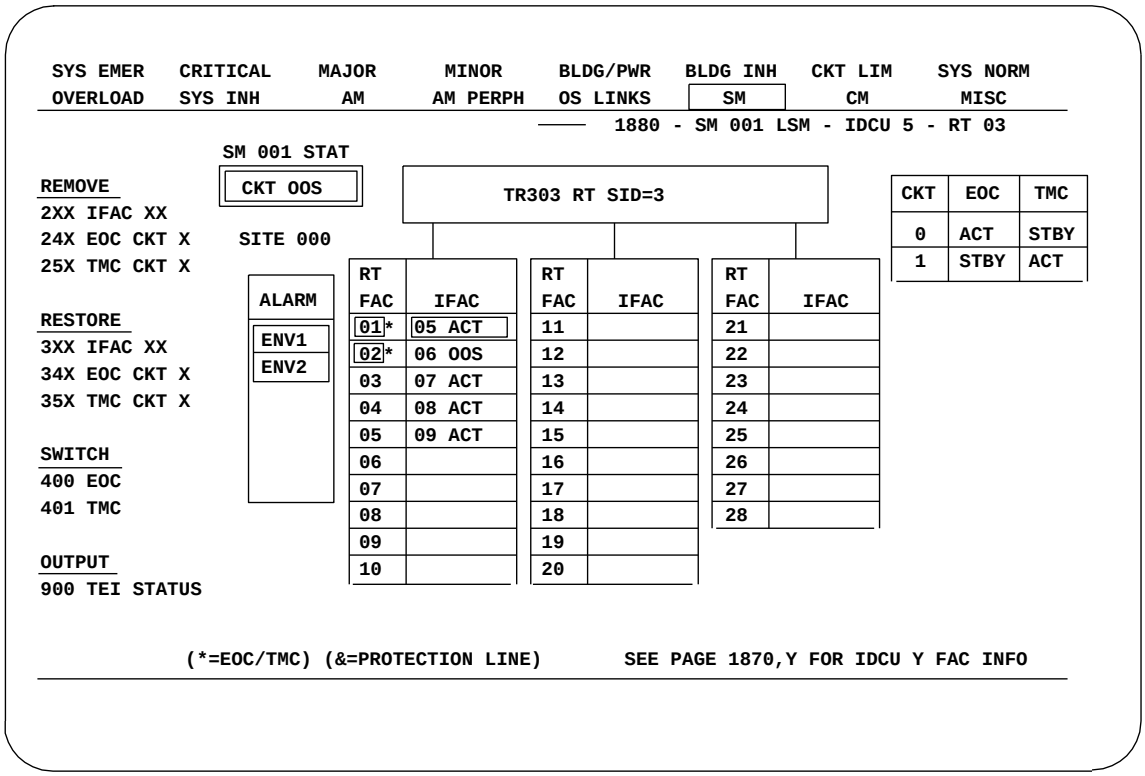


Figure 2.1-4 — 1880,Y,Z,X - SM X IDCU Y RT Z (TR303 RT Version) [5E9(2)]

Abbreviations:

ACT	Active	OOS	Out of Service
CKT	Circuit	PROT	On Protection
ENV1	Environmental 1 TR303 RT Alarm	RT	Remote Terminal
ENV2	Environmental 2 TR303 RT Alarm	RTFAC	Remote Terminal Facility
EOC	Embedded Operations Channels	SID	Site Identification Number
FAC	Facility	SM	Switching Module
FELP	Far End Looped (On Protection)	STAT	Status
IDCU	Integrated Digital Carrier Unit	STBY	Standby
IFAC	IDCU Facility	TEI	Terminal Endpoint Identifier
INFO	Information	TMC	Time Slot Management Channel
LSM	Local Switching Module		

Commands

Poke commands on the 1880,Y,Z,X page allow a user to remove and restore IFACs, EOCs, and TMCs, to switch EOCs and TMCs, and to output TEI status.

CMD	RESULT
2XX	IFAC XX is removed. (RMV:IFAC=SM#-IDCU#-XX,SCREEN=RT#)[,UCL]
24X	EOC X is removed. (RMV:EOC=SM#-IDCU#-RT#-X)[,UCL]
25X	TMC X is removed. (RMV:TMC=SM#-IDCU#-RT#-X)[,UCL]
3XX	IFAC XX is restored. (RST:IFAC=SM#-IDCU#-XX,SCREEN=RT#)[,UCL]
34X	EOC X is restored. (RST:EOC=SM#-IDCU#-RT#-X)[,STBY]
35X	TMC X is restored. (RST:TMC=SM#-IDCU#-RT#-X)[,STBY]
400	EOC is switched. (SW:EOC=SM#-IDCU#-RT#)
401	TMC is switched. (SW:TMC=SM#-IDCU#-RT#)
900	TEI status is output. (OP:RT,CHAN,LRT=SM#-IDCU#-RT#)

2.2 PERFORM TR008 TO TR303 CONVERSION OF A *SLC*-2000 ACCESS SYSTEM REMOTE TERMINAL CONNECTED TO A *5ESS* SWITCH IDCU, SOFTWARE RELEASE 5E9(1) AND LATER

GENERAL

The major sections of this TR008 to TR303 conversion procedure are as follows:

- Planning
- Remote Terminal Performance Evaluation
- Advance Preparation
- TR303 Conversion Implementation
- Post-Conversion Activities.

Planning

- Successful execution of this procedure requires planning and coordination between personnel performing the conversion at the remote terminal (RT) site and those performing conversion activity at the local digital switch (LDS). Ideally, a mutually created method of procedure (MOP) is used as a reference by both groups to govern the conversion activity.
- The conversion process does not preserve data on special circuit cross-connections (for example, direct inward dialing (DID), nailed-up ports). Service associated with these types of circuits must be reprovisioned manually at the *5ESS*® Switch and the *SLC*®-2000 [using the Craft Interface Terminal (CIT)] at the conclusion of TR303 conversion activity. Steps in the conversion procedure will help guide and direct this activity.
- Plan ahead for adequate service protection:
  - — The Primary and Secondary IFACs should be on separate IDCU loop side interfaces (LSI). For added service protection, assign the Primary and Secondary EOC/TMC links to different packet switch unit packet handler (PSUPH) cards.
  - — At the *SLC*-2000, the Primary EOC/TMC links associated with virtual feeder **v3fdr-1-1** should be cross-connected to physical termination **a-1-1**. The Secondary EOC/TMC links associated with virtual fedder **v3fdr-1-2** should be cross connected to physical termination **a-2-1** or **a-3-1**.
- After the first virtual remote terminal (VRT) has been converted to TR303, other customer lines can be moved ("rehomed") to the newly converted TR303 VRT by changing their office equipment (OE) number. Conversion personnel have the option of making the required recent changes manually or using a conversion service available specifically for this purpose. The conversion service may be obtained by contacting Lucent Professional Services at (954) 938-3700. Note that there is a fee for this service. It may also be necessary to redefine existing cross-connections at the *SLC*-2000.
- Verify that the *SLC*-2000 Access System is operating on Software Release R4.02 or later. Refer to Practice 363-208-024, Issue 3 for information on upgrading the *SLC*-2000 from Software Release R3.02 to Release R.4.02. The *5ESS* Switch should be on a minimum Software Release level of 5E9(1) with Software Update BWM95-0014, or 5E9(2) with Software Update BWM95-0018.

- If this is the first VRT being converted to the TR303 interface on this IDCU, verify that the directly connected peripheral interface data bus (DPIDB) assignments have been made and that the DPIDB cables are in place. Refer to *235-105-231 (Hardware Change Procedures - Growth)* if DPIDBs must be grown.
- Verify that the suppression method currently used by the TR008 VRT will be supported by the TR303 VRT. Procedures 2.2.6 and 2.3.6 of this document detail the steps to accomplish this.

REMOTE TERMINAL PERFORMANCE EVALUATION

Field experience has shown a need to baseline equipment both in the central office and at the remote site prior to the TR303 conversion. There are two principal reasons for this. First, to reduce the possibility of associating previously existing but unnoticed error conditions with the conversion to TR303. TR303 enhanced significantly the ability to monitor and report on network element performance levels. Marginally performing network elements, which heretofore went unnoticed or unreported, are now much more likely to be identified for what they are—potential trouble makers. The second reason is closely linked to the first: the sooner the REAL source of the problem is identified, the sooner it can be rectified.

Note: THERE IS A HIGH RISK OF A SERVICE DISRUPTION IF THE TR303 VRT DATA LINKS ARE NOISY, OR IF THE SPANS THAT CARRY THESE LINKS ARE UNSTABLE.

The following baselining activity is suggested, ***STARTING NO LATER THAN 30 DAYS PRIOR TO THE TR303 CONVERSION***. It is assumed that the RT is operating on Software Release R4.02 or later, and that the broadband management processor (BMP) circuit boards are installed.

1. Monitor TL1 autonomous report messages for the *SLC*®-2000 digital loop carrier (DLC) and synchronous optical network (SONET) OC12/OC3 systems for a period of 30 days prior to the conversion.
2. Investigate and resolve any Minor/Major far end/near end (FE/NE) alarms reported by the RT. Use the **rtrv-hsty** command, resident on both the SONET and DLC sides of the *SLC*-2000, to review the history files for trouble indicators.
3. Monitor the performance measurement counts on the DS1s (IFACs) at the *SLC*-2000. The **rtrv-pm** command is available for this purpose on both the SONET and the DLC sides of the *SLC*-2000.
4. At the central office, monitor RT performance by means of the TRFC30 traffic report Sections 141 and 143. Watch for **REPT FAC ALERT** output messages that indicate the crossing of DS1 error thresholds.
5. Request a protection switch of the OLIUs, TGs, etc. on the SONET side (via the **sw-toprotn-eqpt** command). Use the **rtrv-hsty** to review the results. Replace any implicated circuit boards (for example, LIU, OLIU, TG) if the protection switch failed.

6. Execute CORE switches at the *SLC*-2000; watch for an inability or a failure to switch sides. Note that if a CORE switch is executed more than five times in a 24-hour period, the *SLC*-2000 will automatically inhibit any further requests to switch. (This inhibit can be released manually via the **sw-towkg-eqpt:[tid]:aid:core:::reset** command.)
7. Provisioning and display control (PDC) resets and hits may be an indication of a *DDM*-2000 Multiplexer problem within the *SLC*-2000 access resource management (ARM) shelf. Look for **pdc/sysctl link** alarm reports on the ROP, or use the **rtrv-hsty** command to request SONET and DLC Maintenance History Reports. Look for event descriptions such as **SYSCTL/PDC link failed**, or **PDC reset** that may have occurred during the past 30 days.
8. Request a loop back of the DS1 facilities from the *5ESS* switch (use the **SET:FAC** input message). Review the history file at the *SLC*-2000 to verify the various transition states (use the DLC **rtrv-hsty** command).
9. At the central office, verify that switching IDCU Service Group ACTIVE/STANDBY states does not impact IFAC or RT integrity.
10. At the central office, verify that switching the module controller and time slot interchange (MCTSI) ACTIVE/STANDBY states does not impact IFAC or RT integrity.
11. At the central office, diagnose the packet switch unit packet handlers (PSUPH) that will be associated with the EOC/TMC links, and resolve any problems.
12. Track and record the volume of trouble reports before and after the conversion. This will allow objective and accurate comparison of the TR008 and TR303 trouble report rates.

ADVANCE PREPARATION

- Verify that the TR008 VRT is operational prior to the execution of this procedure.
- Obtain a work order containing the following information:
  - — IFAC numbers
  - — TMC PRI attributes
  - — TMC NPRI attributes
  - — EOC PRI attributes
  - — EOC NPRI attributes
  - — RT LINE SIZE attributes.
- Obtain a hard copy of RC/V View 18.15 for each TR008 VRT being converted to TR303.
- Obtain a hard copy of active nail-up/hairpin cross-connections that exist in the *5ESS* Switch database. Procedures 2.2.4 and 2.3.4 of this document detail the input messages required to do this. Similarly, obtain and save a copy of the nail-up/hairpin assignments as they exist in the *SLC*-2000 Access System database (use the **rtrv-t0** command).

TR303 CONVERSION IMPLEMENTATION

1. What is the configuration mode of the TR008 VRT?

   If **Mode I**, continue with Procedure **2.2.1**.
   If **Mode II**, go to Procedure **2.3**.

MODE I TR008 VRT TO TR303 VRT CONVERSION PROCEDURE

Note: Follow the procedure in the exact order presented. Complete each step before proceeding to the next.

2.2.1 Verify and Set Initial Conditions

1. At the master control center (MCC), observe Summary Status Area for a **SYS NORM** indication.
2. If a **SYS NORM** indication is not observed, type and enter: **OP:SYSSTAT**
3. At the MCC, type and enter: **OP:OFFNORM,SM=**a

   Where: a = SM that serves the VRT being converted to TR303.

   Note 1: Evaluate the system status to determine if the conversion process should continue. Be alert to any system condition that could result in a service interruption during the execution of this procedure.

   Note 2: Steps **4** through **6** that follow are recommended but not required; follow local practice. If routine exercise (REX) is inhibited, it must be allowed at the conclusion of this conversion procedure.
4. At the MCC, type and enter: **INH:REX,SM=**a

   Where: a = SM that serves the VRT being converted to TR303.

   Response: OK
5. At the MCC, type and enter: **OP:REXINH**

   Response: The inhibit status will be printed.
6. Verify that REX is inhibited for the SM.
7. At the MCC, type and enter: **BKUP:ODD**

   Note: There will be **COMPLETED** responses for the SM(s), the administrative module (AM), and the communications module (CM). The last in the series of these messages should be:

   Response: BKUP ODD COMPLETED

   Note: Database backup will take several minutes to complete.

2.2.2 Allow Peripheral Fault Recovery (PFR) Messages to Print

1. At the MCC, to save the existing log and print status for all message classes, type and enter:

   CHG:LPS,MSGCLS=ALL, TOBKUP

   Response: OK (with exceptions)

2. At the MCC, to permit the peripheral fault recognition monitor output message class to print, type and enter:

   CHG:LPS,MSGCLS=pfr_mon,PRINT=ON,LOG=OFF

   Response: OK

3. At the MCC, to set the verbose flag for peripheral fault reports, type and enter:

   SET:PERPH,SM=a**,VERBOSE**

   Where: a = SM that serves the VRT being converted to TR303.

   Response: OK

4. At the MCC, to inhibit brevity control, type and enter:

   INH:BREVC,SM=a

   Where: a = SM that serves the VRT being converted to TR303.

   Response: OK

2.2.3 Identify IFACs Associated with the TR303 VRT Conversion

1. At the MCC, type and enter:

   For 5E9(1) or earlier: **187**x,z

   For 5E9(2) and later: **1870**,x,z

   Where: x = IDCU number.
   z = SM number.

2. Make a record of the IFACs that are associated with the TR008 VRT that will be converted to TR303.

2.2.4 Identify Then Delete Nail-up/Hairpins

1. At the MCC, toggle the CMD/MSG key until the cursor is at the MSG line.

2. At the MCC, to identify nail-up/hairpins, type and enter:

   OP:NAILUP,IFAC=a-b-c

   Where: a = SM number.
   b = IDCU number.
   c = IFAC number.

   Response: **OP NAILUP** message is output for each specified IFAC.

3. Repeat Step **2** for each IFAC assigned to the VRT that is being converted to TR303. Continue to Step **4** when done with ALL IFACs.

4. Is the OP NAILUP message **PORT NOT NAILED UP** for all associated IFACs?

   If **YES**, go to Procedure **2.2.5**.
   If **NO**, continue with Step **5**.

5. At the MCC, toggle the CMD/MSG key until the cursor is at the CMD line.

6. At the MCC, type and enter **196** poke command.

7. Set the print option to **YES**.

8. Select RC/V View 7.11 in the delete and verify mode (that is, **7.11dv**).

9. Print a copy of each nailed up or hairpinned port before deleting the port from the database.

10. Exit the recent change mode.

11. Save the hard copies (the port information is needed to reinsert the nailed-up or hairpinned ports).

2.2.5 Remove the IFACs from Service

Caution: The following action is service affecting! Verify that there are no active calls to emergency services (for example, police, fire) before proceeding.

1. At the MCC, toggle the CMD/MSG key until the cursor is at the CMD line.

2. At the MCC, type and enter:

   For 5E9(1) or earlier: **187**x,z

   For 5E9(2) and later: **1870**,x,z

   Where: x = IDCU number.
   z = SM number.

3. At the MCC, to remove IFACs from service, type and enter **2**XX,**UCL** poke command for EACH associated IFAC.

   Where: XX = IFAC number.

   Response: The status box associated with each IFAC is back-lighted in red, and the status displayed is **OOS**.

   Note: At this point, the T0 cross-connections and T1 feeder cross-connections may be reestablished at the RT craft interface terminal (CIT). Refer to Chapter 3 Procedure 3.1, "PERFORM TR008 TO TR303 RT CONVERSION OF THE SLC-2000 ACCESS SYSTEM".

2.2.6 Verify/Modify TR008 VRT Suppression Method

Caution: Line encoding at all network elements (such as: DDM-2000, DACS, and LDS) involved in transporting TR303 DS1s from the LDS to the RT must be consistent.

1. At the MCC, toggle the CMD/MSG key until the cursor is at the CMD line.
2. At the MCC, type and enter **196** poke command.

   Reference: 235-105-210, *5ESS* Switch and *5ESS-2000* Switch Routine Operations and Maintenance Procedures
3. Type and enter **18.15u**

   Response: REMOTE TERMINAL page displayed. Cursor at **SM** attribute.
4. Enter the values of the KEY attributes.

   Response: System populates remainder of view.
   Enter Update, Change, Validate, Screen#, or Print:
5. Is the value of Field 13 (SUP METHOD) **TR8B8**?

   If **YES**, go to Procedure **2.2.7** Step **1**.
   If **NO**, continue with Step **6**.
6. Type and enter **c**

   Response: Change Field:
7. Type and enter **13**

   Response: Cursor at **SUP METHOD** attribute.
8. Type and enter **TR8B8**

   Response: Change Field:
9. Hit **CARRIAGE RETURN**

   Response: Enter Update, Change, Validate, Screen#, or Print.
10. Type and enter **u**

    Response: updating . . .FORM UPDATED
    REMOTE TERMINAL page displayed.
    Cursor at the **SM** attribute.
11. Type and enter the KEY attributes.

    Response: System populates remainder of view.
    Enter Update, Change, Validate, Screen#, or Print:

2.2.7 Change VRT Configuration Data from TR008 to TR303

1. Type and enter **c**

   Response: Change Field:

2. Type and enter **5**

   Response: Cursor at **RT INTERFACE** attribute.

3. Type and enter **TR303**

   Response: Change Field:

4. Type and enter **13**

   Response: Cursor at **SUP METHOD** attribute.

5. Type and enter **303B8**

   Response: Change Field:

6. Type and enter **15**

   Response: Cursor at **TR303 RT EQSTAT** attribute.

7. Type and enter **O** (letter 'O')

   Response: Change Field:

8. Type and enter:

   For 5E9(2) and earlier: **150**
   For 5E10 and later: **151**

   Response: For 5E9(2) and earlier: **Field 150:** **Row:**
   For 5E10 and later: **Field 151:** **Row:**

9. Type and enter row number **1**

   Response: Cursor at **IFAC** attribute of **RT TERM 1**.

10. Type and enter the IFAC number from the work order form.

    Response: For 5E9(2) and earlier: **Field 150:** **Row:**
    For 5E10 and later: **Field 151:** **Row:**

11. Have all the IFACs that are associated with this TR303 VRT been defined?

    If **YES**, go to Step **15**.
    If **NO**, continue with Step **12**.

12. Type and enter next appropriate row number.

13. Type and enter the IFAC number from the work order form.

    Response: For 5E9(2) and earlier: **Field 150:** **Row:**
    For 5E10 and later: **Field 151:** **Row:**

14. Go to Step **10**.

15. Hit **CARRIAGE RETURN**

    Response: Change Field:

16. Type and enter:

    For 5E9(2) and earlier: **163**
    For 5E10 and later: **164**

    Response: Cursor at **EOC/TMC BKUP RT TERM** attribute.

17. Type and enter **2**

    Response: Change Field:

18. Type and enter:

    For 5E9(2) and earlier: **164**
    For 5E10 and later: **165**

    Response: Cursor at **PROVISION RT** attribute.

19. Type and enter **Y**

    Response: Change Field:

20. Type and enter:

    For 5E9(2) and earlier: **165**
    For 5E10 and later: **166**

    Response: Cursor at **ACKTIMER** attribute.

21. Type and enter **150**

    Response: Change Field:

22. Type and enter:

    For 5E9(2) and earlier: **166**
    For 5E10 and later: **167**

    Response: Cursor at **NO RETRANS** attribute.

23. Type and enter **3**

    Response: Change Field:

24. Type and enter:

    For 5E9(2) and earlier: **167**

    For 5E10 and later: **168**

    Response: Cursor at **UNACK FRAMES** attribute.

25. Type and enter **7**

    Response: Change Field:

26. Type and enter:

    For 5E9(2) and earlier: **170**

    For 5E10 and later: **171**

    Response: Cursor at **ACTIVITY TIMER** attribute.

27. Type and enter **30**

    Response: Change Field:

28. Type and enter:

    For 5E9(2) and earlier: **171**

    For 5E10 and later: **172**

    Response: Cursor at **TMC PRI** attribute.

29. Type and enter data from work order form.

    Note: The switch will assign values for the "DPIDB" and "TIME SLOT" attributes. The "DPIDB" and "TIME SLOT" attributes will remain blank until the view is updated.

    Response: Change Field:

30. Type and enter:

    For 5E9(2) and earlier: **175**

    For 5E10 and later: **176**

    Response: Cursor at **TMC NPRI** attribute.

31. Type and enter data from work order form.

    Note: The switch will assign values for the "DPIDB" and "TIME SLOT" attributes. The "DPIDB" and "TIME SLOT" attributes will remain blank until the view is updated.

    Response: Change Field:

32. Type and enter:

    For 5E9(2) and earlier: **179**

    For 5E10 and later: **180**

    Response: Cursor at **EOC PRI** attribute.

33. Type and enter data from work order form.

    Note: The switch will assign values for the "DPIDB" and "TIME SLOT" attributes. The "DPIDB" and "TIME SLOT" attributes will remain blank until the view is updated.

    Response: Change Field:

34. Type and enter:

    For 5E9(2) and earlier: **183**

    For 5E10 and later: **184**

    Response: Cursor at **EOC NPRI** attribute.

35. Type and enter data from work order form.

    Note: The switch will assign values for the "DPIDB" and "TIME SLOT" attributes. The "DPIDB" and "TIME SLOT" attributes will remain blank until the view is updated.

    Response: Change Field:

36. Hit CARRIAGE RETURN.

    Response: Enter Update, Change, Validate, Screen#, or Print:

37. Type and enter **u**

    Response: updating ....FORM UPDATED
    REMOTE TERMINAL page displayed.
    Cursor at the **SM** attribute.

2.2.8 Verify the Accuracy of the TR303 Configuration Data

1. Type and enter **^** (that is, Shift 6)

   Response: Enter Database Operation
   I=Insert R=Review U=Update D=Delete

2. Type and enter **r**

   Response: REMOTE TERMINAL page displayed.
   Cursor at **SM** attribute.

3. Enter the values of the KEY attributes.

   Response: System populates remainder of view.
   Enter Update, Change, Validate, Screen#, or Print:

4. Review Screen 1 through Screen 6 to verify data are consistent with the work order form.

5. Are corrections to TR303 VRT data required?

   If **NO**, go to Procedure **2.2.10**.
   If **YES**, continue with Procedure **2.2.9**.

2.2.9 Make Corrections to TR303 Configuration Data

Caution: Data must be backed out and reentered by using the following steps ONLY!

1. Type and enter **c**

   Response: Change Field:

2. Type and enter **21**

   Response: Cursor at **TR303 BK OUT** attribute.

3. Type and enter **B** (for 'BACKOUT')

   Response: Change Field:

4. Hit **CARRIAGE RETURN**

   Response: Enter Update, Change, Validate, Screen#, or Print:

5. Type and enter **u**

   Response: updating . . .FORM UPDATED
   REMOTE TERMINAL page displayed.
   Cursor at the **SM** attribute.

6. Enter the required values for each KEY attribute.

7. Return to Procedure **2.2.7** and reenter TR303 VRT attributes.

2.2.10 Exit Recent Change

1. Type and enter **q**

   Response: REMOTE TERMINAL page displayed.

2. Type and enter **<**

   Response: 18.0 SM and REMOTE TERMINALS VIEWS page displayed.

3. Type and enter **q**

   Response: Prompt is at command line.

2.2.11 Verify the Accuracy of the TR303 Configuration Display

1. At the MCC, toggle the CMD/MSG key until the cursor is at the CMD line.
2. At the MCC , type and enter the following poke command:

   For 5E9(1) and earlier: **188**xy,z
   For 5E9(2) and later: **1880**,x,y,z

   Where: x = IDCU number.
   y = RT number.
   z = SM number.

3. Verify that the VRT is displayed as a "TR303 RT" and that the IFAC assignments are correct.

2.2.12 Inhibit Routine Port Conditioning

1. At the MCC, toggle the CMD/MSG key until the cursor is at the MSG line.
2. At the MCC, type and enter:

   For 5E9(1) and earlier: **INH:AUD=RPC,SM=**a

   For 5E9(2) and later: **INH:RPC,SM=**a

   Where: a = SM that serves the VRT being converted to TR303.

2.2.13 Restore the Primary EOC/TMC Link to Service

Caution: Only RT FAC #1 will be restored to service at this time.

1. At the MCC, toggle the CMD/MSG key until the cursor is at the CMD line.
2. At the MCC, type and enter the following poke command:

   For 5E9(1) and earlier: **188**xy,z
   For 5E9(2) and later: **1880**,x,y,z

   Where: x = IDCU number.
   y = RT number.
   z = SM number.

3. At the MCC, to restore the IFAC, type and enter **3**XX poke command.

   Where: XX = IFAC number of RT FAC #1.

   Response: The status box associated with the IFAC is back-lighted in green, and the status displayed is **ACT**.

   Caution: Only RT FAC #1 will be restored to service at this time.

4. Verify that the IFAC was restored to service.

5. Monitor the state of the IFAC. If the switch reports Level 2 Errors and removes the primary EOC/TMC links from service, verify that the line encoding in all network elements is consistent and set to **B8ZS**.

2.2.14 Request Provisioning of the TR303 VRT

Note: Continue with this section ONLY if the EOC/TMC links are in service and stable.

1. At the MCC, toggle the CMD/MSG key until the cursor is at the MSG line.
2. At the MCC, type and enter: **EXC:RT,PROV,TYPE=ALL,LRT=**a-b-c

   Where: a = SM number.
   b = IDCU number.
   c = Local RT number.

   Response: EXC RT PROV TYPE=ALL SID=d **LRT=**a b c
   COMPLETED - NO TASKS PENDING

   Where: d = Site identification number.

   Note: If system response is "... **SOME TASKS PENDING**", request provisioning again.

   Caution: If the* EXC:RT *command fails, the SLC-2000 Access System may be in a state wherein provisioning cannot be executed. Therefore, there is a possibility that some (perhaps all) of the lines in the converted VRT cannot be restored to service.
3. Is the response in Step **2 COMPLETED - NO TASKS PENDING**?

   If **YES**, go to Step **5**.
   If **NO**, continue with Step **4**.
4. Is the *SLC*-2000 Access System operating on Software Release 4.01.00?

   If **YES**, go to Chapter 3, Procedure **3.3** of this document. When done, continue with Step **6** of this procedure.
   If **NO**, seek technical assistance before continuing.
5. Make originating and terminating test calls at the RT site.
6. Was call set up verification testing successful?

   If **YES**, go to Procedure **2.2.15**.
   If **NO**, go to Step **7**.
7. Were both T8U packs removed from the converted VRT shelf?

   If **YES**, go to Procedure **2.5**.
   If **NO**, remove the T8U packs and return to Step **5**.

2.2.15 Commit to the TR303 Conversion

1. At the MCC, toggle the CMD/MSG key until the cursor is at the CMD line.
2. At the MCC, type and enter **196** poke command.

   Reference: 235-105-210, *5ESS* Switch and *5ESS-2000* Switch Routine Operations and Maintenance Procedures
3. Type and enter **18.15u**

   Response: REMOTE TERMINAL page displayed. Cursor at SM attribute.
4. Enter the values of the KEY attributes.

   Response: System populates remainder of view.
   Enter Update, Change, Validate, Screen#, or Print:
5. Type and enter **c**

   Response: Change Field:
6. Type and enter **21**

   Response: Cursor at **TR303 BK OUT** attribute.
7. Type and enter **C** (for Completed)

   Response: Change Field:
8. Hit **CARRIAGE RETURN**

   Response: Enter Update, Change, Validate, Screen#, or Print:
9. Type and enter **u**

   Response: updating . . .FORM UPDATED
   REMOTE TERMINAL page displayed.
   Cursor at the **SM** attribute.
10. Type and enter **<**

    Response: 18.0 SM and **REMOTE TERMINALS VIEWS** page displayed.
11. Type and enter **q**

    Response: RCV-196 COMPLETED

2.2.16 Restore Remaining IFACs to Service

1. At the MCC, toggle the CMD/MSG key until the cursor is at the CMD line.
2. At the MCC, type and enter the following poke command:

   For 5E9(1) and earlier: **188**xy,z
   For 5E9(2) and later: **1880**,x,y,z

   Where: x = IDCU number.
   y = RT number.
   z = SM number.

3. At the MCC, to restore IFACs type and enter **3**XX poke command.

   Where: XX = IFAC number of each IFAC being restored to service.

   Response: The status box associated with the IFAC is back-lighted in green, and the status displayed is **ACT**.

4. Verify that the IFACs were restored to service.

   Note: The secondary EOC/TMC links may have to be restored manually. From MCC page **1880**, enter poke command **341** for the EOC link and **351** for the TMC link. Once restored, the previously active EOC/TMC will switch to standby. This is normal.

5. Monitor the state of the IFACs. If the switch reports Level 2 Errors and removes the secondary EOC/TMC links from service, verify that the line encoding of all network elements is consistent and set to **B8ZS**.

6. Are there any nail-up/hairpin connections to be reestablished?

   If **YES**, go to Procedure **2.2.17**.
   If **NO**, continue with Step **7**.

7. Are lines being moved (rehomed) to the TR303 VRT in conjunction with this conversion procedure?

   If **YES**, go to Procedure **2.4**.
   If **NO**, go to Procedure **2.6**.

2.2.17 Reestablish Nail-up/Hairpin Connections (TR303)

1. At the MCC, toggle the CMD/MSG key until the cursor is at the CMD line.
2. At the MCC, type and enter **196** poke command.
3. At the MCC, to select RC/V View 7.11 in the insert mode, type and enter: **7.11i**
4. Perform an insert operation for each nail-up/hairpin circuit that is to be restored.

   Note: Use the OP NAILUP list obtained in Procedure **2.2.4**.

5. At the MCC, to obtain a list of nail-up/hairpins, type and enter:

   OP:NAILUP,IFAC=a-b-c

   Where: a = SM number.
   b = IDCU number.
   c = IFAC number.

   Response: OP NAILUP output message is listed for each specified IFAC.

6. Compare the nail-up/hairpin ports with the OP NAILUP list obtained in Procedure **2.2.4**.

   Note: These special service cross-connections must also be reestablished in the *SLC*-2000 Access System database before the circuits can be placed into service.

7. At the CIT, reenter the *SLC*-2000 cross-connections identified in Procedure **2.2**.

8. Are lines being moved (rehomed) to the TR303 VRT in conjunction with this conversion procedure?

   If **YES**, go to Procedure **2.4**.
   If **NO**, go to Procedure **2.6**.

2.3 MODE II TR008 VRT to TR303 VRT CONVERSION PROCEDURE

Note: Follow the procedure in the exact order presented. Complete each step before proceeding to the next.

2.3.1 Verify and Set Initial Conditions

1. At the master control center (MCC), observe the Summary Status Area for a **SYS NORM** indication.
2. If a **SYS NORM** indication is not observed, type and enter: **OP:SYSSTAT**
3. At the MCC, type and enter: **OP:OFFNORM,SM=**a

   Where: a = SM that serves the VRT being converted to TR303.

   Note 1: Evaluate the system status to determine if the conversion process should continue. Be alert to any system condition that could result in a service interruption during the execution of this procedure.

   Note 2: Steps **4** through **6** that follow are recommended but not required; follow local practice. If routine exercise (REX) is inhibited, it must be allowed at the conclusion of this conversion procedure.
4. At the MCC, type and enter: **INH:REX,SM=**a

   Where: a = SM that serves the VRT being converted to TR303.

   Response: OK
5. At the MCC, type and enter: **OP:REXINH**

   Response: The inhibit status will be printed.
6. Verify that REX is inhibited for the SM.
7. At the MCC, type and enter: **BKUP:ODD**

   Note: There will be **COMPLETED** responses for the SM(s), the AM, and the CM. The last in the series of these messages should be:

   Response: BKUP ODD COMPLETED

   Note: Database backup will take several minutes to complete.

2.3.2 Allow Peripheral Fault Recovery (PFR) Messages to Print

1. At the MCC, to save the existing log and print status for all message classes, type and enter:

   CHG:LPS,MSGCLS=ALL, TOBKUP

   Response: OK (with exceptions)

2. At the MCC, to permit the peripheral fault recognition monitor output message class to print, type and enter:

   CHG:LPS,MSGCLS=pfr_mon,PRINT=ON,LOG=OFF

   Response: OK

3. At the MCC, to set the verbose flag for peripheral fault reports, type and enter:

   SET:PERPH,SM=a**,VERBOSE**

   Where: a = SM that serves the VRT being converted to TR303.

   Response: OK

4. At the MCC, to inhibit brevity control, type and enter:

   INH:BREVC,SM=a

   Where: a = SM that serves the VRT being converted to TR303.

   Response: OK

2.3.3 Identify IFACs Associated with the TR303 VRT Conversion

1. At the MCC, toggle the CMD/MSG key until the cursor is at the CMD line.
2. At the MCC, type and enter the following poke command:

   For 5E9(1) or earlier: **187**x,z

   For 5E9(2) and later: **1870**,x,z

   Where: x = IDCU number.
   z = SM number.

3. Make a record of the IFACs that are associated with the TR008 VRT that will be converted to TR303.

2.3.4 Identify Then Delete Nail-up/Hairpins

1. At the MCC, toggle the CMD/MSG key until the cursor is at the MSG line.
2. At the MCC, to identify nail-up/hairpins, type and enter:

   OP:NAILUP,IFAC=a-b-c

   Where: a = SM number.
   b = IDCU number.
   c = IFAC number.

   Response: OP NAILUP message is output for each specified IFAC.
3. Repeat Step **2** for each IFAC assigned to the VRT that is being converted to TR303. Continue to Step **4** when done with all IFACs.
4. Is the OP NAILUP message **PORT NOT NAILED UP** for ALL associated IFACs?

   If **YES**, go to Procedure **2.3.5**.
   If **NO**, continue with Step **5**.
5. At the MCC, toggle the CMD/MSG key until the cursor is at the CMD line.
6. At the MCC, type and enter **196** poke command.
7. Set the print option to **YES**.
8. Select RC/V View 7.11 in the delete and verify mode (that is, **7.11dv**).
9. Print a copy of each nailed up or hairpinned port before deleting the port from the database.
10. Exit the recent change mode.
11. Save the hard copies (the port information is needed to reinsert the nailed-up or hairpinned ports).

2.3.5 Remove the IFACs from Service

Caution: The following action is service affecting! Verify that there are no active calls to emergency services (for example, police, fire) before proceeding.

1. At the MCC, toggle the CMD/MSG key until the cursor is at the CMD line.
2. At the MCC, type and enter the following poke command:

   For 5E9(1) or earlier: **187**x,z

   For 5E9(2) and later: **1870**,x,z

   Where: x = IDCU number.
   z = SM number.
3. At the MCC, to remove IFACs from service, type and enter **2**XX,**UCL** poke command for EACH associated IFAC.

   Where: XX = IFAC number.

   Response: The status box associated with each IFAC is back-lighted in red, and the status displayed is **OOS**.

   Note: At this point, the T0 cross-connections and T1 feeder cross-connections may be established at RT Craft Interface Terminal (CIT). Refer to Chapter 3 Procedure 3.1, "PERFORM TR008 TO TR303 RT CONVERSION OF THE SLC-2000 ACCESS SYSTEM."

2.3.6 Verify/Modify TR008 VRT Suppression Method

Caution: Line encoding at all network elements (such as: DDM-2000, digital access and cross-connect system (DACS), and LDS) involved in transporting TR303 DS1s from the LDS to the RT must be consistent.

1. At the MCC, toggle the CMD/MSG key until the cursor is at the CMD line.
2. At the MCC, type and enter **196** poke command.

   Reference: 235-105-210, *5ESS* Switch and *5ESS-2000* Switch Routine Operations and Maintenance Procedures
3. Type and enter **18.15u**

   Response: REMOTE TERMINAL page displayed. Cursor at **SM** attribute.
4. Enter the values of the KEY attributes.

   Response: System populates remainder of view.
   Enter Update, Change, Validate, Screen#, or Print:
5. Is the value of Field 13 (SUP METHOD) **TR8B8**?

   If **YES**, go to Procedure **2.3.7** Step **1**.

   If **NO**, continue with Step **6**.
6. Type and enter **c**

   Response: Change Field:

7. Type and enter **13**

   Response: Cursor at **SUP METHOD** attribute.

8. Type and enter **TR8B8**

   Response: Change Field:

9. Hit **CARRIAGE RETURN**

   Response: Enter Update, Change, Validate, Screen#, or Print.

10. Type and enter **u**

    Response: updating . . .FORM UPDATED
    REMOTE TERMINAL page displayed.
    Cursor at the **SM** attribute.

11. Type and enter the KEY attributes.

    Response: System populates remainder of view.
    Enter Update, Change, Validate, Screen#, or Print:

2.3.7 Change RT Configuration Data From TR008 to TR303

1. Type and enter **c**

   Response: Change Field:

2. Type and enter **5**

   Response: Cursor at **RT INTERFACE** attribute.

3. Type and enter **TR303**

   Response: Change Field:

4. Type and enter **13**

   Response: Cursor at **SUP METHOD** attribute.

5. Type and enter **303B8**

   Response: Change Field:

6. Type and enter **15**

   Response: Cursor at **TR303 RT EQSTAT** attribute.

7. Type and enter **O** (letter 'O')

   Response: Change Field:

8. Type and enter:

   For 5E9(2) and earlier: **150**

   For 5E10 and later: **151**

   Response: For 5E9(2) and earlier: **Field 150:** **Row:**
   For 5E10 and later: **Field 151:** **Row:**

9. Type and enter row number **1**

   Response: Cursor at **IFAC** attribute of **RT TERM 1**.

10. Type and enter the IFAC number from the work order form.

    Response: For 5E9(2) and earlier: **Field 150:** **Row:**
    For 5E10 and later: **Field 151:** **Row:**

11. Type and enter row number **3**

    Response: Cursor at **IFAC** attribute of **RT TERM 3**.

12. Type and enter the IFAC number from the work order form.

    Response: For 5E9(2) and earlier: **Field 150:** **Row:**
    For 5E10 and later: **Field 151:** **Row:**

13. Hit **CARRIAGE RETURN**

    Response: Change Field:

14. Type and enter:

    For 5E9(2) and earlier: **163**

    For 5E10 and later: **164**

    Response: Cursor at **EOC/TMC BKUP RT TERM** attribute.

15. Type and enter **3**

    Response: Change Field:

16. Type and enter:

    For 5E9(2) and earlier: **164**

    For 5E10 and later: **165**

    Response: Cursor at **PROVISION RT** attribute.

17. Type and enter **Y**

    Response: Change Field:

18. Type and enter:

    For 5E9(2) and earlier: **165**

    For 5E10 and later: **166**

    Response: Cursor at **ACKTIMER** attribute.

19. Type and enter **150**

    Response: Change Field:

20. Type and enter:

    For 5E9(2) and earlier: **166**

    For 5E10 and later: **167**

    Response: Cursor at **NO RETRANS** attribute.

21. Type and enter **3**

    Response: Change Field:

22. Type and enter:

    For 5E9(2) and earlier: **167**

    For 5E10 and later: **168**

    Response: Cursor at **UNACK FRAMES** attribute.

23. Type and enter **7**

    Response: Change Field:

24. Type and enter:

    For 5E9(2) and earlier: **170**

    For 5E10 and later: **171**

    Response: Cursor at **ACTIVITY TIMER** attribute.

25. Type and enter **30**

    Response: Change Field:

26. Type and enter:

    For 5E9(2) and earlier: **171**

    For 5E10 and later: **172**

    Response: Cursor at **TMC PRI** attribute.

27. Type and enter data from work order form.

    Note: The switch will assign values for the "DPIDB" and "TIME SLOT" attributes. The "DPIB" and "TIME SLOT" attributes will remain blank until the view is updated.

    Response: Change Field:

28. Type and enter:

    For 5E9(2) and earlier: **175**

    For 5E10 and later: **176**

    Response: Cursor at **TMC NPRI** attribute.

29. Type and enter data from work order form.

    Note: The switch will assign values for the "DPIDB" and "TIME SLOT" attributes. The "DPIB" and "TIME SLOT" attributes will remain blank until the view is updated.

    Response: Change Field:

30. Type and enter:

    For 5E9(2) and earlier: **179**

    For 5E10 and later: **180**

    Response: Cursor at **EOC PRI** attribute.

31. Type and enter data from work order form.

    Note: The switch will assign values for the "DPIDB" and "TIME SLOT" attributes. The "DPIB" and "TIME SLOT" attributes will remain blank until the view is updated.

    Response: Change Field:

32. Type and enter:

    For 5E9(2) and earlier: **183**

    For 5E10 and later: **184**

    Response: Cursor at **EOC NPRI** attribute.

33. Type and enter data from work order form.

    Note: The switch will assign values for the "DPIDB" and "TIME SLOT" attributes. The "DPIB" and "TIME SLOT" attributes will remain blank until the view is updated.

    Response: Change Field:

34. Hit CARRIAGE RETURN.

    Response: Enter Update, Change, Validate, Screen#, or Print:

35. Type and enter **u**

    Response: updating ....FORM UPDATED
    REMOTE TERMINAL page displayed.
    Cursor at the **SM** attribute.

2.3.8 Verify the Accuracy of the TR303 Configuration Data

1. Type and enter **^** (that is, Shift 6)

   Response: Enter Database Operation
   I=Insert R=Review U=Update D=Delete

2. Type and enter **r**

   Response: REMOTE TERMINAL page displayed.
   Cursor at **SM** attribute.

3. Enter the values of the KEY attributes.

   Response: System populates remainder of view.
   Enter Update, Change, Validate, Screen#, or Print:

4. Review Screen 1 through Screen 6 to verify data are consistent with the work order form.

5. Are corrections to TR303 VRT data required?

   If **NO**, go to Procedure **2.3.10**.
   If **YES**, continue with Procedure **2.3.9**.

2.3.9 Make Corrections to TR303 Configuration Data

Caution: Data must be backed out and reentered by using the following steps ONLY!

1. Type and enter **c**

   Response: Change Field:

2. Type and enter **21**

   Response: Cursor at **TR303 BK OUT** attribute.

3. Type and enter **B** (for 'BACKOUT')

   Response: Change Field:

4. Hit **CARRIAGE RETURN**

   Response: Enter Update, Change, Validate, Screen#, or Print:

5. Type and enter **u**

   Response: updating . . .FORM UPDATED
   REMOTE TERMINAL page displayed.
   Cursor at the **SM** attribute.

6. Enter the required values for each KEY attribute.

7. Return to Procedure **2.3.7** and reenter TR303 VRT attributes.

2.3.10 Exit Recent Change

1. Type and enter **q**

   Response: REMOTE TERMINAL page displayed.

2. Type and enter **<**

   Response: 18.0 SM and REMOTE TERMINALS VIEWS page displayed.

3. Type and enter **q**

   Response: Prompt is at command line.

2.3.11 Verify the Accuracy of the TR303 Configuration Display

1. At the MCC, type and enter the following poke command:

   For 5E9(1) and earlier: **188**xy,z
   For 5E9(2) and later: **1880**,x,y,z

   Where: x = IDCU number.
   y = RT number.
   z = SM number.

2. Verify that the VRT is displayed as a TR303 RT and that the IFAC assignments are correct.

2.3.12 Inhibit Routine Port Conditioning

1. At the MCC, toggle the CMD/MSG key until the cursor is at the MSG line.
2. At the MCC, type and enter:

   For 5E9(1) and earlier: **INH:AUD=RPC,SM=**a

   For 5E9(2) and later: **INH:RPC,SM=**a

   Where: a = SM that serves the VRT being converted to TR303.

2.3.13 Restore the Primary EOC/TMC Link to Service

Caution: Only RT FAC #1 will be restored to service.

1. At the MCC, toggle the CMD/MSG key until the cursor is at the CMD line.
2. At the MCC, type and enter the following command:

   For 5E9(1) and earlier: **188**xy,z
   For 5E9(2) and later: **1880**,x,y,z

   Where: x = IDCU number.
   y = RT number.
   z = SM number.

3. At the MCC, to restore IFAC, type and enter **3**XX poke command.

   Where: XX = IFAC number.

   Response: The status box associated with the IFAC is back-lighted in green, and the status displayed is **ACT**.

   Caution: Only RT FAC #1 will be restored to service.

4. Verify that the IFAC was restored to service.

5. Monitor the state of the IFAC. If the switch reports Level 2 Errors and removes the primary EOC/TMC links from service, verify that the line encoding in all the network elements is consistent and set to **B8ZS**.

2.3.14 Request Provisioning of the TR303 VRT

Note: Continue with this section ONLY if the EOC/TMC links are in service and stable.

1. At the MCC, toggle the CMD/MSG key until the cursor is at the MSG line.
2. At the MCC, type and enter: **EXC:RT,PROV,TYPE=ALL,LRT=**a-b-c

   Where: a = SM number.
   b = IDCU number.
   c = Local RT number.

   Response: EXC RT PROV TYPE=ALL SID=d **LRT=**a b c
   COMPLETED - NO TASKS PENDING

   Where: d = Site identification number.

   Note: If system response is "... **SOME TASKS PENDING**", request provisioning again.

   Caution: If* EXC:RT *command fails, the SLC-2000 Access System may be in a state wherein provisioning cannot be executed. Therefore, there is a possibility that some (perhaps all) of the lines in the converted VRT cannot be restored to service.
3. Is the response in Step **2 COMPLETED - NO TASKS PENDING**?

   If **YES**, go to Step **5**.
   If **NO**, continue with Step **4**.
4. Is the *SLC*-2000 Access System operating on Software Release 4.01.00?

   If **YES**, go to Chapter 3, procedure **3.3**, of this document. When done continue with Step **6** of this procedure.
   If **NO**, seek technical assistance before continuing.
5. Make originating and terminating test calls at the RT site.
6. Was call set up verification testing successful?

   If **YES**, go to Procedure **2.3.15**.
   If **NO**, continue with Step **7**.
7. Were both T8U packs removed from the converted VRT shelf?

   If **YES**, go to Procedure **2.5**.
   If **NO**, remove T8U packs and return to Step **5**.

2.3.15 Commit to the TR303 Conversion

1. At the MCC, toggle the CMD/MSG key until the cursor is at the CMD line.
2. At the MCC, type and enter **196** poke command.

   Reference: 235-105-210, *5ESS* Switch and *5ESS-2000* Switch Routine Operations and Maintenance Procedures
3. Type and enter **18.15u**

   Response: REMOTE TERMINAL page displayed. Cursor at SM attribute.
4. Enter the values of the KEY attributes.

   Response: System populates remainder of view.
   Enter Update, Change, Validate, Screen#, or Print:
5. Type and enter **c**

   Response: Change Field:
6. Type and enter **21**

   Response: Cursor at **TR303 BK OUT** attribute.
7. Type and enter **C** (for Completed)

   Response: Change Field:
8. Hit **CARRIAGE RETURN**

   Response: Enter Update, Change, Validate, Screen#, or Print:
9. Type and enter **u**

   Response: updating . . .FORM UPDATED
   REMOTE TERMINAL page displayed.
   Cursor at the **SM** attribute.

2.3.16 Move Secondary EOC/TMC From "RT TERM 3" to "RT TERM 2"

Note: The secondary EOC/TMCs must be assigned to the second RT Facility, (RT FAC #2). This procedure makes the needed configuration change.

1. Enter the required values for each KEY attribute.

   Response: System populates remainder of view.
   Enter Update, Change, Validate, Screen#, or Print:

2. Type and enter **c**

   Response: Change Field:

3. Type and enter:

   For 5E9(2) and earlier: **150**

   For 5E10 and later: **151**

   Response: For 5E9(2) and earlier: **Field 150:** **Row:**
   For 5E10 and later: **Field 151:** **Row:**

4. Type and enter the row number **3**

   Response: Cursor at **IFAC** attribute of **RT TERM 3**.

   Note: Write down the IFAC number that appears in this row. It is needed in Step **7** that follows!

5. Type and enter a single quote (**'**); this will null out the current IFAC value.

   Response: For 5E9(2) and earlier: **Field 150:** **Row:**
   For 5E10 and later: **Field 151:** **Row:**

6. Type and enter the row number **2**

   Response: Cursor at **IFAC** attribute of **RT TERM 2**.

7. Type and enter the **IFAC** number that was saved in Step **4**.

   Response: For 5E9(2) and earlier: **Field 150:** **Row:**
   For 5E10 and later: **Field 151:** **Row:**

8. Hit **CARRIAGE RETURN**.

   Response: Change Field:

9. Type and enter:

   For 5E9(2) and earlier: **163**

   For 5E10 and later: **164**

   Response: Cursor at **EOC/TMC BKUP RT TERM** attribute.

10. Type and enter **2**

    Response: Change Field:

11. Hit **CARRIAGE RETURN** until the following response is received:

    Response: Enter Update, Change, Validate, Screen#, or Print:

12. Type and enter **u**

    Response: updating ....FORM UPDATED REMOTE TERMINAL page displayed. Cursor at the **SM** attribute.

13. Type and enter **<**

    Response: 18.0 SM & REMOTE TERMINALS VIEWS page displayed.

14. Type and enter **q**

    Response: RCV-196 COMPLETED

2.3.17 Restore Remaining IFAC to Service

1. At the MCC, toggle the CMD/MSG key until the cursor is at the CMD line.
2. At the MCC, type and enter the following poke command:

   For 5E9(1) and earlier: **188**xy,z
   For 5E9(2) and later: **1880**,x,y,z

   Where: x = IDCU number.
   y = RT number.
   z = SM number.

3. At the MCC, to restore IFAC, type and enter **3**XX poke command.

   Where: XX = IFAC number of the IFAC being restored to service.

   Response: The status box associated with the IFAC is back-lighted in green, and the status displayed is **ACT**.

4. Verify that the IFAC was restored to service.

   Note: The secondary EOC/TMC links may have to be restored manually. From MCC page **1880**, enter poke command **341** for the EOC link and **351** poke command for the TMC link). Once restored, the previously active EOC/TMC will switch to standby. This is normal.

5. Monitor the state of the IFACs. If the switch reports Level 2 Errors and removes the secondary EOC/TMC links from service, verify that the line encoding in all network elements is consistent and set to **B8ZS**.
6. Are there any nail-up/hairpin connections to be reestablished?

   If **YES**, go to Procedure **2.3.18**.
   If **NO**, continue with Step **7**.

7. Are lines being moved (rehomed) to the TR303 VRT in conjunction with this conversion procedure?

   If **YES**, go to Procedure **2.4**.
   If **NO**, go to Procedure **2.6**.

2.3.18 Reestablish Nail-up/Hairpin Connections (TR303)

1. At the MCC, toggle the CMD/MSG key until the cursor is at the CMD line.
2. At the MCC, type and enter the **196** poke command.
3. At the MCC, to select RC/V View 7.11 in the insert mode, type and enter: **7.11i**
4. Perform an insert operation for each nail-up/hairpin circuit that is to be restored.

   Note: Use the OP NAILUP list obtained in Procedure **2.3.4**.
5. At the MCC, to obtain a list of nail-up/hairpins, type and enter:

   OP:NAILUP,IFAC=a-b-c

   Where: a = SM number.
   b = IDCU number.
   c = IFAC number.

   Response: OP NAILUP output message is listed for each IFAC specified.
6. Compare the nail-up/hairpin ports with the OP NAILUP list obtained in Procedure **2.3.4**.

   Note: These special service cross-connections must also be reestablished in the *SLC*-2000 Access System database before the circuits can be placed into service.
7. At the CIT, reenter the *SLC*-2000 cross-connections identified in Procedure **2.2**.
8. Are lines being moved (rehomed) to the TR303 VRT in conjunction with this conversion procedure?

   If **YES**, go to Procedure **2.4**.
   If **NO**, go to Procedure **2.6**.

2.4 PERFORM LINE REHOMING

This procedure provides the user the steps associated with relocating lines (rehoming) to a newly converted VRT. In this procedure, it is assumed that lines are being relocated from a VRT that is being totally deloaded (vacated). If this is NOT the case, go to Procedure **2.6**.

2.4.1 Verify Line Size of the TR303 VRT

1. Does the value of the RT LINE SIZE attribute need to be increased (refer to work order form)?

   If **YES**, continue with Step 2.
   If **NO**, proceed to **2.4.2**

2. At the MCC, toggle the CMD/MSG key until the cursor is at the CMD line.

3. At the MCC, type and enter **196** poke command.

   Reference: 235-105-210, *5ESS* Switch and *5ESS-2000* Switch Routine Operations and Maintenance Procedures

4. Type and enter **18.15u**

   Response: REMOTE TERMINAL page displayed. Cursor at **SM** attribute.

5. Enter the values of the KEY attributes.

   Response: System populates remainder of view.
   Enter Update, Change, Validate, Screen#, or Print:

6. Type and enter **c**

   Response: Change Field:

7. Type and enter **16**

   Response: Cursor at **RT LINE SIZE** attribute.

8. Type and enter the new line size value from the work order form.

   Response: Change Field:

9. Hit **CARRIAGE RETURN**

   Response: Enter Update, Change, Validate, Screen#, or Print:

10. Type and enter **u**

    Response: updating . . .FORM UPDATED
    REMOTE TERMINAL page displayed.
    Cursor at the **SM** attribute.

11. Type and enter **<**

    Response: 18.0 SM and REMOTE TERMINALS VIEWS page displayed.

12. Type and enter **q**

    Response: RCV-196 COMPLETED

2.4.2 Identify Then Delete Nail-up/Hairpins

1. At the MCC, toggle the CMD/MSG key until the cursor is at the MSG line.
2. At the MCC, to identify nail-up/hairpins, type and enter:

   OP:NAILUP,IFAC=a-b-c

   Where: a = SM number.
   b = IDCU number.
   c = IFAC number.

   Response: OP NAILUP message is output for each IFAC specified.

3. Repeat Step **2** for each IFAC assigned to the VRT that is being vacated.
4. Is the OP NAILUP message **PORT NOT NAILED UP** for each associated IFAC?

   If **YES**, go to Procedure **2.4.3**.
   If **NO**, continue with Step **5**.

5. At the MCC, toggle the CMD/MSG key until the cursor is at the CMD line.
6. At the MCC, type and enter **196** poke command.
7. Set the print option to **YES**.
8. Select RC/V View 7.11 in the delete and verify mode (that is, **7.11dv**).
9. Print a copy of each nailed up or hairpinned port before deleting the port from the database.
10. Save the hard copies (the port information is needed to reinsert the nailed-up or hairpinned ports).

2.4.3 Identify Lines That Are to Be Rehomed

1. At the MCC, toggle the CMD/MSG key until the cursor is at the MSG line.
2. At the MCC, type and enter:

   OP:LISTOTO,ILEN=a-b-c-**1&&**d

   Where: a = SM number.
   b = IDCU number.
   c = Local RT number of RT being vacated.
   d = Highest terminal number on this RT (that is, value of RT LINE SIZE).

   Response: A list of the directory numbers associated with lines (ports) served by the specified RT is output to the ROP.
3. Save the LISTOTO data for future reference.

2.4.4 Move Lines to the TR303 VRT

Caution: The following action is service affecting!

1. Verify that there are NO active calls to emergency services (for example, police, fire) before proceeding.
2. At the MCC, toggle the CMD/MSG key until the cursor is at the CMD line.
3. At the MCC, type and enter the following poke command:

   For 5E9(1) or earlier: **187**x,z

   For 5E9(2) and later: **1870**,x,z

   Where: x = IDCU number.
   z = SM number.
4. At the MCC, to remove from service those IFACs that are associated with the RT being vacated, type and enter the **2**XX,**UCL** poke command.

   Where: XX = IFAC number.

   Response: The status box associated with the IFAC is back-lighted, and the status displayed is **OOS**.
5. Verify that the IFACs have been removed from service.
6. Conversion personnel at the switch should request their counterpart at the RT site to establish the new T0 cross-connections. Refer to Chapter 3 Procedure 3.1, "PERFORM TR008 TO TR303 RT CONVERSION OF THE SLC-2000 ACCESS SYSTEM."
7. Conversion personnel at the RT site should notify their counterpart at the switch when the T0 cross-connections have been established and line rehoming to the TR303 VRT can begin.

8. At this point, lines may be moved (rehomed) to the TR303 VRT by changing their office equipment (OE) number. Conversion personnel have the option of making the required changes manually or using a script designed specifically for this purpose. The conversion service may be obtained by contacting Lucent Professional Services at (954) 938-3700. Note that there is a fee for this service. Once ALL lines have been rehomed, the vacated TR008 VRT may be deleted from the database and its IFACs reused.

9. Are there Nail-up or Hairpin connections to reestablish?

   If **YES**, go to Procedure **2.4.5**.
   If **NO**, go to Procedure **2.4.6**.

2.4.5 Reestablish Nail-up/Hairpin Connections (TR303)

1. At the MCC, toggle the CMD/MSG key until the cursor is at the CMD line.
2. At the MCC, type and enter **196** poke command.
3. At the MCC, to select RC/V View 7.11 in the insert mode, type and enter: **7.11i**
4. Perform an insert operation for each nail-up/hairpin circuit that is to be restored.

   Note: The number of nail-up/hairpin circuits to be inserted should match the number of circuits on the OP NAILUP list that was obtained in Procedure **2.4.2**. **As a consequence of the rehoming, these circuits will have different OEs.**

5. At the MCC, to obtain a list of nail-up/hairpins, type and enter for each IFAC:

   OP:NAILUP,IFAC=a-b-c

   Where: a = SM number.
   b = IDCU number.
   c = IFAC number of the TR303 VRT.

   Response: OP NAILUP output message is listed for each IFAC specified.

6. Compare the nail-up/hairpin ports with the OP NAILUP list obtained in Procedure **2.4.2**. Verify that ALL of the nail-up/hairpin circuits were rehomed.

   Note: These special service cross-connections must also be reprovisioned in the *SLC*-2000 Access System database before these cross-connections can be placed into service.

7. At the CIT, reenter the *SLC*-2000 cross-connections identified in Procedure **2.2**.

2.4.6 Verify the Accuracy of Line Rehoming Activity

Note: The purpose of this procedure is to verify the accuracy and completeness of the line transfers. The steps in this procedure should be executed at the conclusion of the rehoming activity.

1. At the MCC, toggle the CMD/MSG key until the cursor is at the MSG line.
2. At the MCC, type and enter:

   OP:LISTOTO,ILEN=a-b-c-**1&&**d

   Where: a = SM number.
   b = IDCU number.
   c = Local RT number of TR008 RT being vacated.
   d = Highest terminal number on this RT (that is, value of RT LINE SIZE).

   Response: A list of the directory numbers associated with lines (ports) served by the specified RT is output to the ROP.
3. Verify that all the entries on the OP LISTOTO LINE REPORT obtained in Step **2** show a status of UNASSIGNED.
4. At the MCC, type and enter:

   OP:LISTOTO,ILEN=a-b-c-d**&&**e

   Where: a = SM number.
   b = IDCU number.
   c = Local RT number of TR303 VRT.
   d = Lowest rehomed terminal number.
   e = Highest rehomed terminal number.

   For example:

   OP:LISTOTO,ILEN=a-b-c-**97&&192**
   or
   OP:LISTOTO,ILEN=a-b-c-**193&&288**

   Where: a = SM number.
   b = IDCU number.
   c = Local RT number of TR303 VRT.

   Response: A list (of the directory numbers associated with the terminals (ports) specified) is output to the ROP.
5. Verify that all lines previously assigned to the vacated TR008 VRT have been relocated to the TR303 VRT.

   Note: Do this by comparing the OP LISTOTO LINE REPORT obtained in Procedure **2.4.3** with the list obtained in Step **4** of this procedure. Verify that ALL lines were rehomed.

2.4.7 Request TR303 VRT Provisioning

1. At the MCC, to provision the TR303 VRT, type and enter:

   EXC:RT,PROV,TYPE=ALL,LRT=a-b-c

   Where: a = SM number.
   b = IDCU number.
   c = Local RT number of the TR303 VRT.

   Response: EXC RT PROV TYPE=ALL SID=d **LRT=**a b c
   COMPLETED - NO TASKS PENDING

   Where: d = Site identification number.

   Caution: If* EXC:RT *command fails, the SLC-2000 Access System may be in a state wherein provisioning cannot be executed. Therefore, there is a possibility that some (perhaps all) of the lines in the converted VRT cannot be restored to service.

2. Is the response in Step **1 COMPLETED - NO TASKS PENDING**?

   If **YES**, go to Step **4**.
   If **NO**, continue with Step **3**.

3. Is the *SLC*-2000 Access System operating on Software Release 4.01.00?

   If **YES**, go to Chapter 3, procedure **3.3**, of this document. When done, continue with Step **5** of this procedure.
   If **NO**, continue with Step **4**.

4. Make test calls from a select group of the newly rehomed lines.

5. Was call set-up verification testing successful?

   If **YES**, go to Procedure **2.4.8**.
   If **NO**, continue with Step **6**.

6. Were both T8U packs removed from the converted VRT shelf?

   If **YES**, contact next level of technical support.
   If **NO**, remove both T8U packs and return to Step **4**.

2.4.8 Determine Disposition of the Vacated TR008 VRT

1. Is the vacated TR008 being deleted from the switch database?

   If **NO,** go to Procedure **2.6**.
   If **YES**, continue with Step **2**.

2. At the MCC, toggle the CMD/MSG key until the cursor is at the CMD line.

3. At the MCC, type and enter the **196** poke command.

   Reference: 235-105-210, *5ESS* Switch and *5ESS-2000* Switch Routine Operations and Maintenance Procedures

4. Type and enter **18.15dv**

   Response: REMOTE TERMINAL page displayed. Cursor at **SM** attribute.

5. Enter the values of the KEY attributes.

   Response: System populates remainder of view.
   Enter Update, Change, Validate, Screen#, or Print:

6. ***Caution: Verify that this is the VRT to be deleted!***

   Type and enter **d**

   Response: Deleting.... FORM DELETED
   REMOTE TERMINAL page displayed.
   Cursor at the **SM** attribute.

7. Repeat Steps **5** and **6** for each VRT to be deleted. Continue to Step **8** when done.

8. Type and enter **<**

   Response: 18.0SM and **REMOTE TERMINALS VIEWS** page displayed.

9. Type and enter **q**

   Response: RCV-196 COMPLETED

10. Are the IFACs that were previously assigned to the deleted TR008 VRTs being reused on a TR303 VRT?

    If **YES**, continue with **2.4.9**.
    If **NO**, go to **2.6**.

2.4.9 Change Suppression Method of Old IFACs

Caution: Line encoding at all network elements (such as: DDM-2000, DACS, and LDS) involved in transporting TR303 DS1s from the LDS to the RT must be consistent.

Note: This procedure will change the suppression method of the IFACs that were associated with the deleted TR008 VRTs so that they may then be added to the TR303 VRT.

1. At the MCC, toggle the CMD/MSG key until the cursor is at the CMD line.
2. Type and enter the **196** poke command.

   Reference: 235-105-210, *5ESS* Switch and *5ESS-2000* Switch Routine Operations and Maintenance Procedures
3. Type and enter **20.23u**

   Response: **FACILITY EQUIPMENT (IFAC)** page displayed.
   Cursor at **SM** attribute.
4. Enter the values of the KEY attributes.

   Response: System populates remainder of view.
   Enter Update, Change, Validate, Screen#, or Print:
5. Type and enter **c**

   Response: **Change Field:**
6. Type and enter **4**

   Response: **Field 4: Row:**
7. Type and enter the row number of the IFAC whose suppression method is to be changed.

   Response: Cursor at **EQSTAT** of row specified.
8. Hit **CARRIAGE RETURN** to move cursor to the **SUP MTHD** field.
9. Type and enter **303B8**
10. Hit **CARRIAGE RETURN** until:

    Response: **Field 4: Row:**
11. Repeat Steps **7** through **10** until the Suppression Method has been changed for the desired IFACs, then continue to Step **12**.
12. Hit **CARRIAGE RETURN** until:

    Response: **Enter Update, Change, Validate, Screen#, or Print:**
13. Type and enter **u**

    Response: **updating . . .FORM UPDATED**
    IDCU FACILITY EQUIPMENT page displayed.
    Cursor at the **SM** attribute.

14. If necessary, repeat Steps **4** through **13** for LSI 1, then continue to Step **15**.

15. Type and enter **<**

    Response: 20.0 SM PACK & SUBPACK page displayed.

2.4.10 Add IFACs to TR303 VRT

Note: This procedure will add IFACs whose suppression method is now 303B to the newly converted TR303 VRT.

1. Type and enter **18.15u**

   Response: REMOTE TERMINAL page displayed. Cursor at **SM** attribute.

2. Enter the values of the KEY attributes.

   Response: System populates remainder of view.
   Enter Update, Change, Validate, Screen#, or Print:

3. Type and enter **c**

   Response: Change Field:

4. Type and enter:

   For 5E9(2) and earlier: **150**

   For 5E10 and later: **151**

   Response: For 5E9(2) and earlier: **Field 150: Row:**
   For 5E10 and later: **Field 151: Row:**

5. Type and enter the desired row number.

   Response: Cursor at **IFAC** attribute of desired **RT TERM**.

6. Type and enter the IFAC number.

   Response: For 5E9(2) and earlier: **Field 150: Row:**
   For 5E10 and later: **Field 151: Row:**

7. Repeat Step **6** until all the IFACs that will be associated with this TR303 VRT have been defined, then continue to Step **8**.

8. Hit **CARRIAGE RETURN** until:

   Response: Enter Update, Change, Validate, Screen#, or Print:

9. Type and enter **u**

   Response: updating ....FORM UPDATED
   REMOTE TERMINAL page displayed.
   Cursor at the **SM** attribute.

10. Type and enter **<**

    Response: 18.0 SM and REMOTE TERMINALS VIEWS page displayed.

11. Type and enter **q**

    Response: RCV-196 COMPLETED

12. Notify RT personnel to reestablish the T1 cross-connections for the DS1 feeders in the logical TR303 VRTs. Refer to Chapter 3 Procedure 3.1, "PERFORM TR008 TO TR303 RT CONVERSION OF THE SLC-2000 ACCESS SYSTEM."

    Note 1: Only execute the step to reestablish the T1 cross-connections.

    Note 2: It is highly recommended that the primary and secondary EOC/TMC data channels NOT be located on the same line interface unit/virtual tributary unit (LIU/VTU) circuit pack. If adding more IFACs to the TR303 VRT at this time, then relocate the secondary EOC/TMC data channel to a different LIU/VTU circuit pack, if necessary.

2.4.11 Restore IFACs to Service

1. At the MCC, type and enter the following command:

   For 5E9(1) and earlier: **187**x,z
   For 5E9(2) and later: **1870**,x,z

   Where: x = IDCU number.
   z = SM number.

2. At the MCC, to restore IFACs type and enter **3**XX poke command.

   Where: XX = IFAC number.

   Response: The status box associated with the IFAC is back-lighted in green, and the status displayed is **ACT**.

3. Are other TR008 VRTs being vacated?

   If **YES**, return to Procedure **2.4.1**, Step **1**.
   If **NO**, go to Procedure **2.6**.

2.5 PERFORM TR008 to TR303 CONVERSION BACKOUT

Caution: Execute this procedure ONLY if the TR303 conversion process is being aborted and the RT is to be restored to service.

2.5.1 Remove Primary EOC/TMC IFAC from Service

1. At the MCC, toggle the CMD/MSG key until the cursor is at the CMD line.
2. At the MCC, type and enter the following poke command:

   For 5E9(1) and earlier: **188**xy,z
   For 5E9(2) and later: **1880**,x,y,z

   Where: x = IDCU number.
   y = RT number.
   z = SM number.

3. At the MCC, to remove the primary EOC/TMC IFAC from service, type and enter **2**XX,**UCL** poke command.

   Where: XX = IFAC number.

   Response: The status box associated with the IFAC is back-lighted in red, and the status displayed is **OOS**.

2.5.2 Restore Original TR008 VRT Configuration Data

1. At the MCC, toggle the CMD/MSG key until the cursor is at the CMD line.
2. At the MCC, type and enter **196** poke command.

   Reference: *5ESS* Switch and *5ESS-2000* Switch Routine Operations and Maintenance Procedures

3. Type and enter **18.15u**

   Response: REMOTE TERMINAL page displayed. Cursor at SM attribute.

4. Enter the values of the KEY attributes.

   Response: System populates remainder of view.
   Enter Update, Change, Validate, Screen#, or Print:

5. Type and enter **c**

   Response: Change Field:

6. Type and enter **21**

   Response: Cursor at **TR303 BK OUT** attribute.

7. Type and enter **B**

   Response: Change Field:

8. Hit **CARRIAGE RETURN**

   Response: Enter Update, Change, Validate, Screen#, or Print:

9. Type and enter **u**

   Response: updating . . .FORM UPDATED
   REMOTE TERMINAL page displayed.
   Cursor at **SM** attribute.

10. Type and enter **^** (that is, Shift 6).

    Response: Enter Database Operation
    I=Insert R=Review U=Update D=Delete

2.5.3 Verify That TR008 Configuration Data Was Restored

1. Type and enter **r**

   Response: REMOTE TERMINAL page displayed. Cursor at SM attribute.

2. Enter the values of the KEY attributes.

   Response: System populates remainder of view.
   Enter Update, Change, Validate, Screen#, or Print:

3. Verify that all TR303 data was backed out and that the original TR008 data populates the view.

4. Type and enter **q**

   Response: REMOTE TERMINAL page displayed.

5. Type and enter **<**

   Response: 18.0 SM and REMOTE TERMINALS VIEWS page displayed.

6. Type and enter **q**

   Response: RCV-196 COMPLETED

2.5.4 Reinstall TR008 Hardware/Software

1. Perform activity at the site in accordance with procedures outlined in *363-208-001*, *SLC*-2000 Access System User Service Manual.

   Note: At this point, the TR008 T0 cross-connections and T1 feeder cross-connections can be reestablished using the Craft Interface Terminal (CIT). Refer to Chapter 3 Procedure 3.2, "PERFORM TR303 TO TR008 BACKOUT PROCEDURE."

2.5.5 Verify the Accuracy of the TR008 Configuration Display

1. At the MCC, toggle the CMD/MSG key until the cursor is at the CMD line.
2. At the MCC, type and enter the following poke command:

   For 5E9(1) and earlier: **188**xy,z
   For 5E9(2) and later: **1880**,x,y,z

   Where: x = IDCU number.
   y = RT number.
   z = SM number.

3. Verify that the VRT is displayed as TR008 RT and that the IFAC assignments are correct.

2.5.6 Restore TR008 VRT Facilities

Note: Restore lowest-numbered RT FAC first.

1. At the MCC, to restore IFAC, type and enter **3**XX poke command for each IFAC associated with the RT.

   Where: XX = IFAC number.

   Response: The status box associated with the IFAC is back-lighted in green, and the status displayed is **ACT**.

2. Verify RT hardware integrity:

   Perform activity at the site.

3. Repeat Steps **1** and **2** to restore the remaining RT FACs.

2.5.7 Perform Call Set-up Verification

1. Make originating and terminating test calls at the RT site.
2. If call set-up fails, seek technical assistance.
3. When call set-up verification is completed, continue to Procedure **2.5.8**.

2.5.8 Reestablish Nail-up/Hairpin Connections (TR008)

1. At the MCC, toggle the CMD/MSG key until the cursor is at the CMD line.
2. At the MCC, type and enter **196** poke command.
3. At the MCC, to select RC/V View 7.11 in the insert mode, type and enter: **7.11i**
4. Perform an insert operation for each nail-up/hairpin circuit that is to be restored.

   Note: Use the OP NAILUP list obtained in Procedure **2.2.4** or **2.3.4**.
5. At the MCC, to obtain a list of nail-up/hairpins, type and enter:

   OP:NAILUP,IFAC=a-b-c

   Where: a = SM number.
   b = IDCU number.
   c = IFAC number.

   Response: OP NAILUP output message is listed for each specified IFAC.
6. Compare the nail-up/hairpin ports with the OP NAILUP list obtained in Procedure **2.2.4** or **2.3.4**.

   Note: These special service cross-connections must also be reprovisioned in the *SLC*-2000 Access System database before these circuits can be placed into service.
7. At the CIT, reenter the *SLC*-2000 cross-connections that were obtained in Procedure **2.2.4** or **2.3.4**.
8. When all nail-up and hairpin cross-connections have been reentered, go to Procedure 2.6.

2.6 RESTORE *5ESS* SWITCH OFFICE CONTROLS TO NORMAL

The following procedures return output message routing to its previous state, re-allow routine port conditioning and routine exercises, and perform a backup of the office dependent data (ODD).

2.6.1 Restore Message Control to Normal

Note: Wait 30 minutes and monitor the read-only printer (ROP) for any abnormal reports (that is, interrupts, audits, asserts, etc.) related to the RT conversion, and take corrective action if necessary. If the ROP is quiet after this interval, continue with this procedure.

1. At the MCC, toggle the CMD/MSG key until the cursor is at the MSG line.
2. At the MCC, type and enter the following command to enable brevity control:

   ALW:BREVC,SM=a

   Where: a = SM that serves the VRT being converted to TR303.
3. At the MCC, type and enter the following command to deactivate the peripheral message verbose mode:

   CLR:PERPH,SM=a**,VERBOSE**

   Where: a = SM that serves the VRT being converted to TR303.
4. At the MCC, type and enter the following command to restore original message class logging and printing:

   CHG:LPS,MSGCLS=ALL,FROMBKUP

2.6.2 Allow Routine Port Conditioning

1. At the MCC, type and enter:

   For 5E9(1) and earlier: **ALW:AUD=RPC,SM=**a

   For 5E9(2) and later: **ALW:RPC,SM=**a

   Where: a = SM that serves the VRT being converted to TR303.

2.6.3 Allow Routine Exercises (REX) to Resume

Note: This procedure is necessary only if routine exercises were inhibited at the start of the conversion procedure.

1. At the MCC, type and enter: **ALW:REX,SM=**a

   Where: a = SM that serves the VRT being converted to TR303.

   Response: OK

2.6.4 Perform Office-Dependent Data (ODD)Back-up

1. At the MCC, type and enter: **BKUP:ODD**.

   Note: There will be "COMPLETED" responses for the SM(s), the AM, and the CM. The last in the series of these messages should be:

   Response: BKUP ODD COMPLETED

   Note: Database backup will take some minutes to complete.

STOP. YOU HAVE COMPLETED THIS PROCEDURE.

2.7 POST-CONVERSION ACTIVITIES

2.7.1 Monitor VRT Performance

Continue to monitor VRT performance via Sections 141 and 143 of the TRFC30 traffic report. Watch for **REPT FAC ALERT** output messages that indicate the crossing of DS1 error thresholds.

If clock synchronization problems are suspected, establish a DDS nail-up and check the quality of the connection using a BER test set. Run BER test at 56Kb and verify that the error rate is within acceptable limits (not to exceed 1 error in 10^9 bits).

When investigating **No Dial Tone** reports, verify that T0 objects in the *SLC*-2000 Access System match their counterpart in the *5ESS* Switch. Compare the response to the **OP:STATUS:DN** request in the *5ESS* Switch to the **rtrv-t0** request in the *SLC*-2000. If the line status in the switch is **INS AUTO**, the T0 primary service state should also indicate **inservice**.

Depending on the nature of the discrepancy, use **ed t0** or **ent t0** to resolve the cause of the mismatched line states.

Network Element Conversion From TR008 to TR303

CONTENTS PAGE

3. TR008 TO TR303 CONVERSION PROCEDURES

GENERAL

Chapter 3 contains detailed level procedures performed at a *SLC*®-2000 Access System to convert from TR008 to TR303.

3.1 PERFORM TR008 TO TR303 RT CONVERSION OF THE SLC®-2000 ACCESS SYSTEM

PREREQUISITE CONDITIONS

The commands in this procedure should be entered at the *SLC*-2000 craft interface terminal (CIT). Therefore, it is assumed that the user is familiar with the CIT and the following commands:

- RTRV-CRS-T0
- ENT-CRS-T0
- DLT-CRS-T0
- RTRV-CRS-T1
- ENT-CRS-T1
- DLT-CRS-T1
- ED-MODE-T8U.

For a description of the *SLC*®-2000 Access System commands, refer to 363-208-003, *SLC*-2000 Access System Command and Message Manual.

PROCEDURE

3.1.1 Delete/Insert Cross-Connections at SLC-2000 Remote Terminal During TR008 to TR303 Conversion

1. At the CIT, to identify the drops associated with the TR008 virtual remote terminal (VRT) undergoing conversion, type and enter:

   RTRV-CRS-T0:[a]:[b]:[c]

   Where: a = Target identifier.
   b = Address identifier.
   c = Correlation tag (always leave blank when using CIT).

   For example:

   RTRV-CRS-T0::VRTDP-x**-ALL**

   Where: x = VRT being converted.

   Response:

```
rtrv-crs-t0::vrtdp-x-all COMPLD
/* t0 Cross Connect Report
==========================================
 Address                  Address
   1                        2
==========================================
vrtdp-x-1                 drop-x-1-1
    :                        :
    :                        :
vrtdp-x-96                drop-x-24-4
```

2. At the CIT, to identify the DS1 feeders associated with the TR008 VRT undergoing conversion, type and enter:

   RTRV-CRS-T1:[a]:[b]:[c]

   Where: a = Target identifier.
   b = Address identifier.
   c = Correlation tag (always leave blank when using CIT).

   For example:

   RTRV-CRS-T1::VRTFDR-x**-ALL**

   Where: x = VRT being converted.

   Response: **rtrv-crs-t1::vrtfdr-**x**-all COMPLD**
   /* t1 Cross Connect Report
   ==========

Address 1	**Address 2**
a-b-c	**vrtfdr-**x-a
:	:
:	:
a-b-c	**vrtfdr-**x-c

3. At the CIT, to delete the T0 cross-connections that were identified in Step **1**, type and enter:

   DLT-CRS-T0:[a]:b,c:[d]

   Where: a = Target identifier.
   b = Logical VRT or INA DS0 address.
   c = Physical line address.
   d = Correlation tag (always leave blank when using CIT).

   For example:

   DLT-CRS-T0::VRTDP-x**-ALL,DROP-**y**-ALL**

   Where: x = VRT number.
   y = Shelf at RT.

   Response: **dlt-crs-t0::vrtdp-**x**-all,drop-**y**-all** COMPLD

4. At the CIT, to delete the DS1 feeders identified in Step **2**, type and enter:

   DLT-CRS-T1:[a]:b,c:[d]

   Where: a = Target identifier.
   b = Physical feeder DS1 address.
   c = VRT feeder or logical INA address.
   d = Correlation tag (always leave blank when using CIT).

   Note: A Mode I VRT is configured with a maximum of 4 T1 feeders. A Mode II VRT is configured with a maximum of 2 T1 feeders.

   For example:

   DLT-CRS-T1::a**-**x**-**y**,VRTFDR-**x**-**z

   Where: a = 'a'.
   x = VTU/LIU circuit pack.
   y = DS1 on VTU/LIU.
   z = Digroup (a-d).

   Response: **dlt-crs-t1::**a**-**x**-**y**,vrtfdr-**x**-**z COMPLD

5. At the CIT, to verify that the T0 and T1 cross-connections have been deleted, type and enter:

   For T0 cross-connections: **RTRV-CRS-T0**:[a]:[b]:[c]
   For T1 cross-connections: **RTRV-CRS-T1**:[a]:[b]:[c]

   Where: a = Target identifier.
   b = Address identifier.
   c = Correlation tag (always leave blank when using CIT).

   For example:

   For T0 cross-connections: **RTRV-CRS-T0::VRTDP-**x**-ALL**
   For T1 cross-connections: **RTRV-CRS-T1::VRTFDR-**x**-ALL**

   Where: x = VRT number.

6. At the CIT, to change the T8U mode to ENABLE=NO for the VRT shelf undergoing conversion, type and enter:

   ED-MODE-T8U:[a]:b:[c]:::[d]

   Where: a = Target identifier.
   b = Address identifier.
   c = Correlation tag (always leave blank when using CIT).
   d = T8U mode.

   For example:

   ED-MODE-T8U::SHELF-x**::::T8UMODE=NO**

   Where: x = Shelf containing T8U packs.

   Note: After the **ED-MODE-T8U** command is entered, the PTUs, MDCs, and T8Us on the shelf will reset. Wait for the reset to complete and the MDCs to report an incompatible alarm before removing the T8U packs.

7. Once the command completes, remove the T8U circuit packs from the VRT shelf undergoing conversion.

   Caution: Failure to remove the T8U packs may cause call set-up verification to fail, or result in subsequent no-dial-tone (NDT) complaints.

8. At the CIT, to reestablish the T0 cross-connections, type and enter:

   ENT-CRS-T0:[a]:b,c:[d]

   Where: a = Target identifier.
   b = Address identifier.
   c = Address identifier.
   d = Correlation tag (always leave blank when using CIT).

   For example:

   ENT-CRS-T0::V3DP-1-a**&&**b**,DROP-**x**-ALL**

   Where: a = First TR303 virtual line number of the VRT undergoing conversion.
   b = Last TR303 virtual line number of the VRT undergoing conversion.
   x = Shelf being converted.

   Note: The mathematical difference between variable **a** and variable **b** in the **ENT-CRS-T0** command line should equal 96 (the number of physical lines for each shelf). It is recommended to keep a one-to-one correspondence between the physical and virtual lines in the system (for example, the 96 lines on shelf 6 equate to virtual line numbers 481-576).

9. At the CIT, to verify the new T0 cross-connections, type and enter:

   RTRV-CRS-T0:[a]:b,c:[d]

   Where: a = Target identifier.
   b = Address identifier.
   c = Address identifier.
   d = Correlation tag (always leave blank when using CIT).

   For example:

   RTRV-CRS-T0::V3DP-1-a**&&**b**,DROP-**x**-ALL**

   Where: a = First TR303 virtual line number of the VRT undergoing conversion.
   b = Last TR303 virtual line number of the VRT undergoing conversion.
   x = Shelf being converted.

10. At the CIT, to reestablish the T1 cross-connections, type and enter:

    ENT-CRS-T1:[a]:b,c:[d]

    Where: a = Target identifier.
    b = Physical feeder address identifier.
    c = VRT feeder of logical INA address identifier.
    d = Correlation tag (always leave blank when using CIT).

    For example:

    ENT-CRS-T1::a**-**x**-**y**,V3FDR-1-**z

    Where: a = 'a'.
    x = VTU/LIU circuit pack.
    y = DS1 on the VTU/LIU.
    z = Logical feeder number.

11. At the CIT, to verify the new T1 cross-connections, type and enter:

    RTRV-CRS-T1:[a]:b,c:[d]

    Where: a = Target identifier.
    b = Physical feeder address identifier.
    c = VRT feeder of logical INA address identifier.
    d = Correlation tag (always leave blank when using CIT).

    For example:

    RTRV-CRS-T1::a**-**x**-**y**,V3FDR-1-**z

    Where: a = 'a'.
    x = VTU/LIU circuit pack.
    y = DS1 on the VTU/LIU.
    z = Logical feeder number.

12. Notify central office personnel that you have completed this procedure.

STOP. YOU HAVE COMPLETED THIS PROCEDURE.

3.2 PERFORM TR303 TO TR008 BACKOUT PROCEDURE

PREREQUISITE CONDITIONS

Caution: This procedure should be executed ONLY if the TR303 conversion is being abandoned and the VRT is being restored to its TR008 mode of operation.

The commands in this procedure are entered from the *SLC*-2000 craft interface terminal (CIT). Therefore, the user should be familiar with the CIT and the following commands:

- RTRV-CRS-T0
- ENT-CRS-T0
- DLT-CRS-T0
- RTRV-CRS-T1
- ENT-CRS-T1
- DLT-CRS-T1
- ED-MODE-T8U.

For a description of the *SLC*®-2000 Access System commands, refer to 363-208-003, *SLC*-2000 Access System Command and Message Manual.

PROCEDURE

3.2.1 Delete/Insert Cross-Connections at SLC-2000 Remote Terminal During a TR303 to TR008 Backout

1. At the CIT, to delete the TR303 T0 cross-connections, type and enter:

   DLT-CRS-T0:[a]:b,c:[d]

   Where: a = Target identifier.
   b = Logical VRT or INA DS0 address.
   c = Physical line address.
   d = Correlation tag (always leave blank when using CIT).

   For example:

   DLT-CRS-T0::V3DP-1-a**&&**b**,DROP-**x**-ALL**

   Where: a = First TR303 virtual line number of the VRT undergoing conversion.
   b = Last TR303 virtual line number of the VRT undergoing conversion.
   x = Shelf being converted.

   Note: The mathematical difference between variable **a** and variable **b** in the **DLT-CRS-T0** command line should equal 96 (the number of physical lines for each shelf). It is recommended to keep a one-to-one correspondence between the physical and virtual lines in the system (for example, the 96 lines on shelf 6 equate to virtual line numbers of 481-576).

2. At the CIT, to delete the T1 cross-connections, type and enter:

   DLT-CRS-T1:[a]:b,c:[d]

   Where: a = Target identifier.
   b = Physical feeder DS1 address.
   c = VRT feeder or logical INA address.
   d = Correlation tag (always leave blank when using CIT).

   For example:

   DLT-CRS-T1::a-x-y**,V3FDR-1-**z

   Where: a = 'a'.
   x = VTU/LIU circuit pack.
   y = DS1 on the VTU/LIU.
   z = Logical feeder number.

3. At the CIT, to verify that the TR303 T0 and T1 cross-connections have been deleted, type and enter:

   For T0 cross-connections: **RTRV-CRS-T0**:[a]:[b]:[c]
   For T1 cross-connections: **RTRV-CRS-T1**:[a]:[b]:[c]

   Where: a = Target identifier.
   b = Address identifier.
   c = Correlation tag (always leave blank when using CIT).

   For example:

   For T0 cross-connections: **RTRV-CRS-T0::V3FDR-**x**-ALL**
   For T1 cross-connections: **RTRV-CRS-T1::V3DP-**x**-ALL**

   Where: x = VRT number.

4. At the CIT, to reenter the T0 cross-connections for the VRT that is being restored to TR008 mode of operation, type and enter:

   ENT-CRS-T0:[a]:b,c:[d]

   Where: a = Target identifier.
   b = Address identifier.
   c = Address identifier.
   d = Correlation tag (always leave blank when using CIT).

   For example:

   ENT-CRS-T0::VRTDP-1-x**-ALL,DROP-**y**-ALL**

   Where: x = VRT number.
   y = Shelf at RT.

   Response: ent-crs-t0::vrtdp-1-x**-all,drop-**y**-all** COMPLD

5. At the CIT, to reenter the DS1 feeders associated with the VRT that is being restored to the TR008 mode of operation, type and enter:

   ENT-CRS-T1:[a]:b,c:[d]

   Where: a = Target identifier.
   b = Physical feeder DS1 address.
   c = VRT feeder of logical INA address.
   d = Correlation tag (always leave blank when using CIT).

   Note: A Mode I VRT is configured with a maximum of 4 T1 feeders. A Mode II VRT is configured with a maximum of 2 T1 feeders.

   For example:

   ENT-CRS-T1::a-x-y**,VRTFDR-**x-z

   Where: a = 'a'.
   x = VTU/LIU circuit pack.
   y = DS1 on the VTU/LIU.
   z = Digroup (a-d).

   Response: ENT-CRS-T1::a-x-y**,VRTFDR-**x-z COMPLD

6. At the CIT, to verify that the TR008 T0 and T1 cross-connections have been reentered correctly, type and enter:

   For T0 cross-connections: **RTRV-CRS-T0**:[a]:[b]:[c]
   For T1 cross-connections: **RTRV-CRS-T1**:[a]:[b]:[c]

   Where: a = Target identifier.
   b = Address identifier.
   c = Correlation tag (always leave blank when using CIT).

   For example:

   For T0 cross-connections: **RTRV-CRS-T0::VRTDP-**x**-ALL**
   For T1 cross-connections: **RTRV-CRS-T1::VRTFDR-**x**-ALL**

   Where: x = VRT number.

7. At the CIT, to change the T8U mode to ENABLE=YES for the VRT shelf being restored to the TR008 mode of operation, type and enter:

   ED-MODE-T8U:[a]:b:[c]:::[d]

   Where: a = Target identifier.
   b = Address identifier.
   c = Correlation tag (always leave blank when using CIT).
   d = T8U mode.

   For example:

   ED-MODE-T8U::SHELF-x**::::T8UMODE=YES**

   Where: x = Shelf containing T8U packs.

   Note: After the **ED-MODE-T8U** command is entered, the PTUs, MDCs, and T8Us on the shelf will reset. Wait for the reset to complete before reinserting the T8U packs.

8. Once the command completes, reinsert the T8U circuit packs into the VRT shelf being restored to the TR008 mode of operation.

9. Notify central office personnel to continue with Chapter 2, Procedure 2.5.5.

STOP. YOU HAVE COMPLETED THIS PROCEDURE.

3.3 PERFORM WORK-AROUND FOR 'STUCK' BMP PROBLEM

PREREQUISITE CONDITIONS

Caution: At this point, the SLC-2000 system may be in a condition where provisioning can not be executed. It is recommended that this procedure be executed if the SLC-2000 Access System is operating with the version 4.01.00 software release.

All commands in this procedure should be entered at the craft interface terminal (CIT). Therefore, it is assumed that the user is familiar with the CIT and the CIT commands.

For a description of the *SLC*®-2000 Access System commands, refer to 363-208-003, *SLC*-2000 Access System Command and Message Manual.

Successful execution of this procedure requires a coordinated effort on the part of the RT conversion personnel and the local digital switch (LDS) personnel. Therefore, it is recommended that a review of the procedure takes place prior to its execution.

PROCEDURE

3.3.1 Reset BMP Procedure

Note: A CORE copy switch can be forced at the site by pulling the active TSI latch and reseating the TSI or by an input command. If the first method is used (by reseating the TSI), do NOT execute the **SW-TO** (switch to) commands. Instead, go directly to Step **4** in the following procedure.

1. Force a CORE copy switch by typing and entering:

   SW-TOPROTN-EQPT::CORE:::FRCD

2. Verify the active core is now switched to what was the standby core.
3. Type and enter:

   SW-TOWKG-EQPT::CORE:::RESET

4. Request the *5ESS* Switch conversion personnel to reexecute the provisioning command:

   EXEC:RT,PROV,TYPE=ALL,LRT=a-b-c

   Where: a = SM number.
   b = IDCU number.
   c = Local RT number.

5. Request that *5ESS* Switch conversion personnel verify that lines are in-service (some or all of the lines may have been out-of service).

   Note: The switch personnel should use the **OP:STATUS:DN=** command to verify that lines are in-service.

6. Sample a sufficient number of lines to assure that all the lines in the converted VRT can pull dial tone.

7. At the CIT, type and enter:

   RESET::BMP-a**:::LEVEL=COLD**

   Where: a = Number of the standby BMP (for example, 1 or 2).

8. At the CIT or user interface panel (UIP), verify that the reset has completed and the BMP is no longer in the **PACK-INIT** state.

9. Notify central office personnel that you have completed this procedure.

STOP. YOU HAVE COMPLETED THIS PROCEDURE.