Meridian 1
Succession 1000M

Large System
Upgrade Procedures
Book 3 of 3

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Revision history

October 2003

Standard 1.00. This document is a new NTP for Succession 3.0. It was created to support a restructuring of the Documentation Library. This document contains information previously contained in the following legacy document, now retired: *Upgraded Systems Installation: Upgrade to Options 51C, 61C, 81C* (553-3001-258).

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Adding a Network Group 303

Installing IODU/C cards, CP cards, CP memory 305

Terminal and modem connections 641

About this document

This document is a global document. Contact your system supplier or your Nortel Networks representative to verify that the hardware and software described is supported in your area.

Subject

Use this document to perform upgrades on Meridian 1 Large Systems (see Applicable systems below for details). This document also contains information on database transfers, Call processor card upgrades and network group upgrades.

This document also contains information on converting Release 19.0x or later software to Succession 3.0 Software or later on Meridian 1 Options 51C, 61C, 81, 81C, and 81C Call Processor Pentium II (CP PII). For software conversion procedures prior to Release 19.xx, refer to the *Software conversion procedures* (553-2001-320) NTP for software Release 24.

IMPORTANT!

Database conversion for Meridian 1 Options 21E, 51, 61, 71, STE, NT and XT must be completed by Nortel Networks Software Conversion Lab. Consult the current Nortel Networks price book for cost and contact information.

Upgrade Paths

This document contains information on the following large system upgrades:

Meridian 1 Options 21E, 51, 61, 71, 51C, 61C and 81C, upgrades to FNF, software upgrades and network additions.

The upgrades documented in this NTP are structured as source platform to target platform upgrades.

Related information

> **CAUTION**
> **Loss of Data**
> Only personnel who are familiar with the system and with conversion procedures should perform the conversion.
>
> Read the procedure carefully before beginning the conversion.

Note: Converting software on single CPU systems disrupts call processing and allows service only to those telephones connected to Power Failure Transfer Units (PFTUs).

> **CAUTION WITH ESD DEVICES**
>
> To avoid damaging equipment from electrostatic discharge, wear a properly connected anti-static wrist strap when working on system equipment.

Follow pre-conversion and post-conversion procedures for every system conversion.

Throughout this document the term Media refers to tape, disk, or CD-ROM, whichever applies to the system.

The term **Source** refers to the hardware and software that is currently running. **Target** refers to the new hardware and software to which the system is converting.

> **CAUTION**
> **Loss of Data**
> Read "General software conversion information" on page 45 before performing any operations.
>
> It contains information vital to the conversion process.

Note on legacy products and releases

This NTP contains information about systems, components, and features that are compatible with Succession 3.0 Software. For more information on legacy products and releases, click the **Technical Documentation** link under **Support** on the Nortel Networks home page:

http://www.nortelnetworks.com/

Applicable systems

This document applies to the following systems:

- Meridian 1 Option 21E

- Meridian 1 Option 51

- Meridian 1 Option 51C

- Meridian 1 Option 61

- Meridian 1 Option 61C

- Meridian 1 Option 61C CP PII

- Meridian 1 Option 81

- Meridian 1 Option 81C

- Meridian 1 Option 81C CP PII

- Succession 1000M Half Group

- Succession 1000M Single Group

- Succession 1000M Multi Group

Note that memory upgrades may be required to run Succession 3.0 Software on CP3 or CP4 systems (Options 51C, 61, 61C, 81, 81C).

System migration

When particular Meridian 1 systems are upgraded to run Succession 3.0 Software and configured to include a Succession Signaling Server, they become Succession 1000M systems. Table 1 below lists each Meridian 1 Large System that supports an upgrade path to a Succession 1000M Large System.

Table 1
Meridian 1 systems to Succession 1000M systems

This Meridian 1 system...	Maps to this Succession 1000M system
Meridian 1 Option 51C	Succession 1000M Half Group
Meridian 1 Option 61	Succession 1000M Single Group
Meridian 1 Option 61C	Succession 1000M Single Group
Meridian 1 Option 61C CP PII	Succession 1000M Single Group
Meridian 1 Option 81	Succession 1000M Multi Group
Meridian 1 Option 81C	Succession 1000M Multi Group
Meridian 1 Option 81C CP PII	Succession 1000M Multi Group

Succession 3.0 Software is supported on a Meridian 1 CP3, CP4 and CP PII processor, although memory and other upgrades may be required. Succession 3.0 Software is not supported on a Meridian 1 CP1 or CP2 system. To run Succession 3.0 Software, the Meridian 1 CP1 or CP2 system must be upgraded.

The Call Processor on Meridian 1 Large Systems is referred to as a Call Server on the Succession 1000M Systems.

In this document, Succession 1000M Large Systems and Meridian 1 Large Systems are referred to generically as "system."

As a general rule, this NTP only contains information about systems, components, and features that are compatible with Succession 3.0 Software. For more information about legacy systems and software releases before Succession 3.0, including all X11 software releases, click the **Technical Documentation** link under **Support** on the Nortel Networks home page:

http://www.nortelnetworks.com/

Related NTPs

The following NTPs are referenced in this document:

- *Product Compatibility* (553-3001-156)

- *Data Networking for Voice over IP* (553-3001-160)

- *Circuit Card: Description and Installation* (553-3001-211)

- *IP Peer Networking* (553-3001-213)

- *Succession 1000 Element Manager: Installation and Configuration* (553-3001-232)

- *Features and Services* (553-3001-306)

- *Software Input/Output: Administration* (553-3001-311)

- *Succession 1000 Element Manager: System Administration* (553-3001-332)

- *IP Trunk: Description, Installation, and Operation* (553-3001-363)

- *IP Line: Description, Installation, and Operation* (553-3001-365)

- *ISDN Basic Rate Interface: Features* (553-3001-380)

- *Software Input/Output: Maintenance* (553-3001-511)

- *Large System: Planning and Engineering* (553-3021-120)

- *Large System: Installation and Configuration* (553-3021-210)

- *Large System: Maintenance* (553-3021-500)

- *Succession 1000 System: Overview* (553-3031-010)

   • *Succession 1000 System: Installation and Configuration* (553-3031-210)

   • *Succession 1000 System: Upgrade Procedures* (553-3031-258)

Intended audience

This document is intended for individuals responsible for upgrading Large Systems.

This document is intended for individuals responsible for software conversion and memory upgrades.

NTP Feedback

Nortel Networks strives to provide accurate documentation for our customers. However, if you feel there are errors or omissions in this document, your feedback is welcome.

Send comments via email to gntsdoc@nortelnetworks.com or open a problem report via the normal procedures.

Please provide as much information as possible including the NTP number, standard version and date of the document, as well as the page, problem description, and any supporting documentation and capture files.

Conventions

Terminology

In this document, the following systems are referred to generically as "system":

• Meridian 1

• Succession 1000M

The following systems are referred to generically as "Large System":

• Meridian 1 Option 21E

• Meridian 1 Option 51

- Meridian 1 Option 51C

- Meridian 1 Option 61

- Meridian 1 Option 61C

- Meridian 1 Option 61C CP PII

- Meridian 1 Option 81

- Meridian 1 Option 81C

- Meridian 1 Option 81C CP PII

- Succession 1000M Half Group

- Succession 1000M Single Group

- Succession 1000M Multi Group

Online

To access Nortel Networks documentation online, click the **Technical Documentation** link under **Support** on the Nortel Networks home page:

http://www.nortelnetworks.com/

CD-ROM

To obtain Nortel Networks documentation on CD-ROM, contact your Nortel Networks customer representative.

Software conversion

Contents

This section contains information on the following topics:

Software pre-conversion

> **IMPORTANT!**
>
> Database conversion for Meridian 1 Options 21E, 51, 61,71, STE, NT and XT must be completed by Nortel Networks Software Conversion Lab. Consult the current Nortel Networks price book for cost and contact information.
>
> If the system is equipped with IOP/CMDU cards the database must be converted with the Database Transfer utility. See "Database transfer" on page 179.
>
> If the system is equipped with IODUC cards, the database should be data dumped (EDD) to a blank 2 MB floppy.
>
> All systems can be converted by Nortel Networks in the software conversion lab.

Introduction

Read "General software conversion information" on page 45 of Book 1 before beginning the conversion procedures. The conversion procedure used depends on the release of the Source and Target software. Obtain all necessary hardware and software. Save a copy of the data-dumped **Source** software until it is determined that all site data converted successfully.

> **IMPORTANT!**
>
> Database backup information should be preserved for a minimum of 5 days.

Use these procedures to convert from one software release to a later release or to up-issue software within the same software release. These procedures are for software conversions only. Do not use this procedure for any other purpose. After the conversion is completed, perform the post-conversion procedures in "Post-conversion procedure" on page 244.

Note: These procedures do not include instructions for installing new IODU/C cards, CP cards or CP memory. If required, refer to "Installing IODU/C cards, CP cards, CP memory" on page 305.

Have the following items available before proceeding:

- The General Release Bulletin for the new software.

- The appropriate software and conversion media.

- The CD-ROM and diskettes (as required).

- A temporary SDI card and a local TTY or remote TTY modem may be required.

- To perform parallel reload in dual CPU systems.

- Required Dependency list patches for the target system.

- A capture file should be maintained during all processes.

Succession 3.0 Software compatibility

Consult Table 2 for Succession 3.0 Software compatibility.

Table 2
Succession 3.0 Software compatibility (Part 1 of 13)

Auxiliary Processor	Compatibility (Release)		
	Meridian 1 Options 51C, 61C, 81, 81C; Succession 1000M Half Group, Single Group, Multi Group	**Succession 1000**	**Branch Office**
Updated 2003 08 29	**Attendant Console**		
PC Attendant Console	1.2.X (1.2.411 is latest)	1.2.X (1.2.411 is latest)	1.2.X (1.2.411 is latest)

Table 2
Succession 3.0 Software compatibility (Part 2 of 13)

Auxiliary Processor	Compatibility (Release)		
	Meridian 1 Options 51C, 61C, 81, 81C; Succession 1000M Half Group, Single Group, Multi Group	**Succession 1000**	**Branch Office**
M2250 Attendant Console	Supported	Supported	Supported
System Management			
Meridian Administration Tools (MAT)	Not supported	Not supported	Not supported
Optivity Telephony Manager (OTM)	OTM 2.1	OTM 2.1	OTM 2.1
Messaging			
CallPilot	1.07 (with Service Update 4), 2.0 Used on Platforms: 201i, 702t, 1001rp versions	1.07 (with Service Update 4), 2.0 used on Platforms: 201i, 702t, 1001rp versions	1.07 (with Service Update 4), 2.0 used on Platforms: 201i
CallPilot Mini	1.5	1.5	1.5
Meridian Mail	12.xx -13.xx	Not supported directly (can network back to MMail on an Meridian 1 through NMS)	Not supported
Meridian Mail Card Option	12.xx -13.xx	Not supported	Not supported

Table 2
Succession 3.0 Software compatibility (Part 3 of 13)

Auxiliary Processor	Compatibility (Release)		
	Meridian 1 Options 51C, 61C, 81, 81C; Succession 1000M Half Group, Single Group, Multi Group	Succession 1000	Branch Office
Meridian Mail reporter	2.xa	Not supported	Not supported
Companion			
Companion	3.xx -7.xx (7.xx required for Enhanced Capacity)	Not supported	Not supported
Voice over Internet Protocol			
Meridian/ Succession Companion DECT (DMC8 version)	470001xx – SW embedded on IPE card	470001xx – SW embedded on IPE card	470001xx – SW embedded on IPE card
VoIP – 802.11 Wireless IP Gateway	1.1x - Application supported on ITG-Pentium only	1.19 - Application supported on ITG-Pentium only	Not supported
Internet Telephone – i2002 (2 line display)	Minimum FW version – 1.39	Minimum FW version – 1.39	Minimum FW version – 1.39
Internet Telephone – i2050 (Software Telephone)	Minimum SW version – Build 299	Minimum SW version – Build 299	Minimum SW version – Build 299

Table 2
Succession 3.0 Software compatibility (Part 4 of 13)

Auxiliary Processor	Compatibility (Release)		
	Meridian 1 Options 51C, 61C, 81, 81C; Succession 1000M Half Group, Single Group, Multi Group	**Succession 1000**	**Branch Office**
Internet Telephone – i2004 (Software Telephone)	Minimum FW version – 1.39	Minimum FW version – 1.39	Minimum FW version – 1.39
Remote Office Portfolio			
Remote Office 9150	1.3 or higher. 1.3.4 is M3900 Phase III Concurrent	1.3.1. or 1.3.4	Not supported
Remote Office 9110/9115/ IP Adaptor	1.3.x or higher. 1.3.4 is M3900 Phase III Concurrent	1.3.4	Not supported
Meridian Home Office MHO-II	1.18 is supported with Release 3.0, but not supported with M3900 Phase III	Not Supported	Not supported
Mini Carrier Remote	Supported	Not Supported	Not supported
Carrier Remote	Supported	Not Supported	Not supported
Fiber I	Supported	Not Supported	Not supported
Fiber II	Supported	Not Supported	Not supported

Table 2
Succession 3.0 Software compatibility (Part 5 of 13)

Auxiliary Processor	Compatibility (Release)		
	Meridian 1 Options 51C, 61C, 81, 81C; Succession 1000M Half Group, Single Group, Multi Group	**Succession 1000**	**Branch Office**
RPE (Remote Peripheral Equipment)	Not supported	Not supported	Not supported
Retired Call Center Applications			
Meridian MAX [any platform]	9.2, 9.3, 10.x	Not supported	Not supported
Network Administration Center [NAC]	2.5a	Not supported	Not supported
Meridian Customer Controlled Routing [MCCR] (Discontinued as of July 2000, SCCS offer the functionality of MCRR)	3B, 3C a	Not supported	Not supported
Meridian Link [Mlink]	5, 5Ca (Replaced by Meridian Link Services – MLS 4.0)	Not supported. Replaced by Meridian Link Services – MLS 4.0	Not supported. Replaced by Meridian Link Services – MLS 4.1

Table 2
Succession 3.0 Software compatibility (Part 6 of 13)

Auxiliary Processor	Compatibility (Release)		
	Meridian 1 Options 51C, 61C, 81, 81C; Succession 1000M Half Group, Single Group, Multi Group	**Succession 1000**	**Branch Office**
Meridian Link & MCCR Co-residency	6.0, 6.4	Not supported	Not supported
Symposium Call Center and CTI Applications			
Meridian Link	6.x	Not supported – replaced by MLS	Not supported
Symposium Messenger	Not supported	Not supported	Not supported
Symposium Call Manager	Not supported - Replaced by Symposium Agent	Not supported	Not supported
Symposium Communicator	Not supported	Not supported	Not supported
Symposium Multimedia Conference	Not supported	Not supported	Not supported
Symposium Desktop TAPI Service Provider for MCA (Meridian Communicator Adapter)	1.x - 2.x	Not supported	Not supported

Table 2
Succession 3.0 Software compatibility (Part 7 of 13)

Auxiliary Processor	Compatibility (Release)		
	Meridian 1 Options 51C, 61C, 81, 81C; Succession 1000M Half Group, Single Group, Multi Group	**Succession 1000**	**Branch Office**
Symposium Fast Call / Fast View (Windows Only)	Not supported - Replaced by Symposium Agent	Not supported	Not supported
Meridian Link Services [MLS] (i.e., SCCS 4.x sold with 1 Agent)	SCCS 4.2 is supported with Succession 3.0 in general. If using the Call Centre Transfer Connect (UUI) feature, the following are required: • Meridian 1 with Core Succession 3.0; connected to any switch by ESS4 or ESS5 interface (NI-1 only); subscription and connection to AT&T Transfer Connect Services • SCCS Release 4.2 SU 09 or later (GA Q3 2003) • Symposium TAPI server 3.0 or 3rd party CTI application licensed to work with S MLS	SCCS 4.2 is supported with Succession 3.0 in general. If using the Call Centre Transfer Connect (UUI) feature, the following are required: • Meridian 1 with Core Succession 3.0; connected to any switch by ESS4 or ESS5 interface (NI-1 only); subscription and connection to AT&T Transfer Connect Services • SCCS Release 4.2 SU 09 or later (GA Q3 2003) • Symposium TAPI server 3.0 or 3rd party CTI application licensed to work with S MLS	Not supported Not supported Not supported Not supported

Table 2
Succession 3.0 Software compatibility (Part 8 of 13)

Auxiliary Processor	Compatibility (Release)		
	Meridian 1 Options 51C, 61C, 81, 81C; Succession 1000M Half Group, Single Group, Multi Group	**Succession 1000**	**Branch Office**
Symposium TAPI Service Provider for Meridian 1/ Succession 1000	2.3.1, 3.0	2.3.1, 3.0	Not supported
Symposium Agent	2.3	2.3	Not supported
Symposium Agent Greeting	2.0	2.0	Not supported
Symposium Express Call Center [SECC]	4.2	4.2	Not supported

Table 2
Succession 3.0 Software compatibility (Part 9 of 13)

Auxiliary Processor	Compatibility (Release)		
	Meridian 1 Options 51C, 61C, 81, 81C; Succession 1000M Half Group, Single Group, Multi Group	**Succession 1000**	**Branch Office**
Symposium Call Center Server [SCCS]	SCCS 4.2 is supported with Succession 3.0 Software in general. If using the Call Centre Transfer Connect (UUI) feature, the following are required:	SCCS 4.2 is supported with Succession 3.0 Software in general. If using the Call Centre Transfer Connect (UUI) feature, the following are required:	Not supported
	• Meridian 1 with Core Succession 3.0; connected to any switch by ESS4 or ESS5 interface (NI-1 only); subscription and connection to AT&T Transfer Connect Services	• Meridian 1 with Core Succession 3.0; connected to any switch by ESS4 or ESS5 interface (NI-1 only); subscription and connection to AT&T Transfer Connect Services	Not supported
	• SCCS rls 4.2 SU 09 or higher (GA Q3 2003)	• SCCS rls 4.2 SU 09 or higher (GA Q3 2003)	Not supported
	• Symposium TAPI server 3.0 or 3rd party CTI application licensed to work with S MLS	• Symposium TAPI server 3.0 or 3rd party CTI application licensed to work with S MLS	Not supported
Symposium Web Centre Portal [SWCP]	4.0	4.0	Not supported

Table 2
Succession 3.0 Software compatibility (Part 10 of 13)

Auxiliary Processor	Compatibility (Release)		
	Meridian 1 Options 51C, 61C, 81, 81C; Succession 1000M Half Group, Single Group, Multi Group	**Succession 1000**	**Branch Office**
Symposium Web Client	4.5	4.5	Not supported
IVR Applications			
Symposium Integrated Interactive Voice Response	Not supported	Not supported	Not supported
Symposium Open Interactive Voice Response	Not supported	Not supported	Not supported
Periphonics Open IVR (VPS/is)	5.x	5.4.2	Not supported
Periphonics Integrated Package for Meridian Link (IPML) – VPS/is based	2.0, 2.1a	2.0, 2.1a	Not supported
Periphonics Multimedia Processing Server (MPS) 100, including IPML 2.0	1.0, 2.1	1.0, 2.1	Not supported

Table 2
Succession 3.0 Software compatibility (Part 11 of 13)

Auxiliary Processor	Compatibility (Release)		
	Meridian 1 Options 51C, 61C, 81, 81C; Succession 1000M Half Group, Single Group, Multi Group	**Succession 1000**	**Branch Office**
Periphonics Multimedia Processing Server (MPS) 500	2.1	Not supported	Not supported
Business Communication Manager			
Business Communications Manager	2.5 + Feature pack 1 – Supports interoperability between Meridian 1, Succession 1000 through MCDN over PSTN trunks.	2.5 + Feature pack 1 – Supports interoperability between Meridian 1, Succession 1000 through MCDN over PSTN trunks.	Not supported
	3.5 Minimum BCM release for IP interoperability with Succession 1000M (that is, first BCM release that supports Virtual Trunk and Gatekeeper).	3.5 Minimum BCM release for IP interoperability with Succession 1000 (that is, first BCM release that supports Virtual Trunk and Gatekeeper).	Not supported
MIXX Portfolio			
Integrated Call Assistant (MICA)	1.5	1.6	Not supported
Integrated Conference Bridge (MICB)	2.1, 3.0x	2.1, 3.0x	2.1, 3.0x

Table 2
Succession 3.0 Software compatibility (Part 12 of 13)

Auxiliary Processor	Compatibility (Release)		
	Meridian 1 Options 51C, 61C, 81, 81C; Succession 1000M Half Group, Single Group, Multi Group	**Succession 1000**	**Branch Office**
Meridian Integrated Recorded Announcement (MIRAN)	2.0.16 and above	2.0.17 and above	2.0.17 and above
Meridian/ Succession Integrated Personal Call Director (MICPD)	1.0.3 and above	1.0.4 and above	Not supported
Integrated Voice Services (MIVS)	0.17	1.17	Not supported
MCS 5100 (formally Succession MX)			
MCS 5100	1.1	1.1	Not supported
Note 1: In addition to the systems and application compatibility chart above, information at a card and shelf level can be found in the Compatibility Section of *Product Compatibility* (553-3001-156)			
Note 2: a = No Core Software dependency			

Table 2
Succession 3.0 Software compatibility (Part 13 of 13)

Auxiliary Processor	Compatibility (Release)		
	Meridian 1 Options 51C, 61C, 81, 81C; Succession 1000M Half Group, Single Group, Multi Group	**Succession 1000**	**Branch Office**
Note 3: Mixed Software Operation between Main Office and Branch Office: It is possible for the Main Office Call Server and the Branch Office to temporarily have different software releases, as long as the Main Office is running at the highest release (Release 3.0). Also, it is possible to temporarily have Branch Offices running different software releases (2.0 / 3.0) associated with a given Succession 3.0 Main Office Call Server. This is required to support customers who are currently running a network of Succession 1000 Release 2.0 Branch systems, and who want to add one Branch running Release 3.0 software. By allowing this mixed software operation, customers will not have to upgrade their entire network from Release 2.0 to Release 3.0 at the same time, in order to add a single additional Branch Office - the network upgrade can be scheduled over a longer period. This mixed software configuration between the Main and Branch can only remain on a temporary basis. Customers must upgrade their Branch Offices to Succession Release 3.0 Software within a month's time frame. Indefinite operation with a mixed configuration is not supported.			
Note 4: Call Server and Succession Signaling Server software releases on both the Main Office and at the Branch Offices, should be congruent at all times.			
Note 5: In Normal mode, the feature set of Internet Telephones is the feature set on the Main Office. In Local mode, the Internet telephones use the feature set on the Branch. Analog or Digital users always use the feature set on the Branch.			

Software Install Kit

The Software Install Kit is a generic set of software and utility programs that are specific to a single release and issue of software. A new kit must be obtained when upgrading to a new release or issue of software.

Table 3 lists the contents of the Software Install Kit.

Table 3
Contents of the Software Install Kit

Item	Quantity	Description
Software CD-ROM	1	Each CD contains all nine generics for a given release and issue of software.
Install Program diskettes (2 Mbyte media)	3	Used to launch the Install Program and to download software from the CD-ROM. Each 2 Mbyte diskette supports one processor type (68060 or 68060E).
Database Transfer Utility diskettes (4 Mbyte media)	3	Used to transfer the customer database from an IOP/CMDU drive onto 2 Mbyte diskettes that can be ready by the IODU/C. Each 4 Mbyte diskette supports one processor type (68060 or 68060E).
Distributor Keycode Application diskette (2 Mbyte media)	1	A Windows 95 utility that supports download of keycodes from a keycode server.
Database diskettes (blank, 2 Mbyte media)	2	Blank 2 Mbyte diskettes that can be used to archive the customer database.
Keycode diskette (blank, 2 Mbyte media)	1	A blank 2 Mbyte diskette that can be used to store a back-up copy of the keycode file.

Meridian 1 61C CP PII, 81C CP PII software upgrade procedure

Prepare for upgrade

This document implements a source to target approach to performing an upgrade. It is important to correctly identify the source platform, target platform and maintenance window required to perform the upgrade.

Each chapter features check boxes indicating what condition the system should be in at that stage of the upgrade. If the system is not in the proper condition steps should be taken to correct this.

Each section is written to maintain Dial Tone where possible and limit service interruptions.

Before attempting any software or hardware upgrade field personnel should follow the steps in Table 4.

Table 4
Prepare for upgrade steps

Procedure Step	Page
Plan upgrade	34
Upgrade Checklists	34
Prepare	34
Identifying the proper procedure	35
Connect a terminal	35
Perform a template audit	38
Back up the database (data dump and ABKO)	40
Identify two unique IP addresses	42

Plan upgrade

Planning for an upgrade involves the following tasks:

- Conduct a site inspection to determine proper power and grounding.

- Review the site profile to determine proper foot space if adding new columns or modules.

- Ensure Sufficient power for new columns/modules or applications

- Identify all applications (Call Pilot, SCCS, IP, Meridian Mail etc.) that are currently installed on the source platform.

- Identify and correct outstanding service problems.

- Verify the site log is updated with current trunking, call routing, application notes, and site contact information.

- Review all product bulletins and Nortel Alerts that impact the site.

- Determine if software can be converted on site or must be sent to Nortel Networks.

- Prepare a contingency plan for backing out of the upgrade.

Upgrade Checklists

Upgrade checklists can be found in the "Upgrade checklists" on 707 of this book. Engineers may print this section in order to facilitate the upgrade.

Prepare

Preparing for an upgrade involves the following tasks:

- Identify and become familiar with all procedures.

- Verify that all installed applications meet the minimum software requirements for the target platform (see Table 4 on page 28 of Book 1).

- Verify proper cable lengths for the target platform.

- Verify card vintage requirements of the target platform.

- Determine the current patch or Dep lists installed at the source platform.

- Determine the required patch or Dep lists at the target platform.

- Determine and communicate the required maintenance window, contingency plan and the impact to the customer to complete the procedure.

- Perform an inventory on required software and hardware.

- Secure the source software and key code.

- Secure the target software and key code.

- Verify the new key code using the DKA program.

- Print site data.

Identifying the proper procedure

Each procedure has been written in a source to target format. Each procedure features warning boxes and check boxes placed at critical points. Changing the procedure or ignoring the warning boxes could cause longer service interruptions.

> ⚠️ **IMPORTANT!**
>
> Database backup information should be preserved for a minimum of 5 days.

Connect a terminal

Procedure 1
Connecting a terminal

A maintenance terminal is required to access the Core or Core/Net modules during the upgrade procedure.

1   Connect a terminal to the J25 port on the I/0 panel in the *inactive* Core or Core/Net module.

2   The settings for the terminal are:

    a.   9600 Baud

    b.   7 data

    c.   space parity

    d. 1 stop bit

    e. full duplex

    f. XOFF

3 If only one terminal is used for both Core or Core/Net modules, the terminal must be connected from side-to-side to access each module. An "A/B" switch box can also be installed to switch the terminal from side to side.

————— **End of Procedure** —————

Print Site Data

Print site data to preserve a record of the system configuration (Table 5). Verify that all information is correct. Make corrections as necessary.

Note: Items marked with an asterisk (*) are required. Other items are recommended for a total system status.

Table 5
Print site data (Part 1 of 3)

Site data	Print command	
Terminal blocks for all TNs	LD 20	
	REQ	PRT
	TYPE	TNB
	CUST	\<cr\>
Directory Numbers	LD 20	
	REQ	PRT
	TYPE	DNB
	CUST	\<cr\>
Attendant Console data block for all customers	LD 20	LD 20
	REQ	PRT
	TYPE	ATT, 2250
	CUST	\<cr\>

Table 5
Print site data (Part 2 of 3)

Site data	Print command	
*Customer data block for all customers	LD 21	LD 21
	REQ	PRT
	TYPE	CDB
	CUST	<cr>
Route data block for all customers	LD 21	
	REQ	PRT
	TYPE	RDB
	CUST	Customer number
	ROUT	<cr>
	ACOD	<cr>
*Configuration Record	LD 22	
	REQ	PRT
	TYPE	CFN
*Software packages	LD 22	
	REQ	PRT
	TYPE	PKG
*Software issue, ROM and tape ID	LD 22	
	REQ	ISS
	REQ	ROM
	REQ	TID
* Peripheral software versions	LD 22	
	REQ	PRT
	TYPE	PSWV

Table 5
Print site data (Part 3 of 3)

Site data	Print command	
ACD data block for all customers	LD 23	
	REQ	PRT
	TYPE	ACD
	CUST	Customer Number
	ACDN	ACD DN (or <CR>)
Superloop card IDs and software version (peripheral controller, superloop network and controller cards)	LD 32	
		IDC loop
Multi-purpose ISDN Signaling Processor (MISP) card	LD 27	
	REQ	PRT
	TYPE	MISP
	LOOP	loop number (0-158)
	APPL	<cr>
	PH	<cr>
DTI/PRI data block for all customers	LD 73	
	REQ	PRT
	TYPE	DDB
Note: Items marked with asterisks (*) are required printout for conversion. Other items are recommended for a total system status.		

Perform a template audit

A template audit (LD 01) reviews the templates in your system. Corrupted and duplicate templates are cleaned up. An example of the information generated during the audit is listed below.

Note: The template audit may take an extended period of time on large systems. Run the audit during a low traffic period.

CAUTION

Loss of Data

Do not abort this overlay until the audit is complete. If the overlay is interrupted, data will be corrupted.

LD 01   The audit begins as soon as LD 01 is entered.

TEMPLATE AUDIT

STARTING PBX TEMPLATE SCAN

TEMPLATE 0001 USER COUNT LOW	**CHECKSUM OK**
TEMPLATE 0002 USER COUNT HIGH	**CHECKSUM OK**
TEMPLATE 0003 NO USERS FOUND	

STARTING SL1 TEMPLATE SCAN

TEMPLATE 0001 USER COUNT OK	**CHECKSUM OK**

•

•

TEMPLATE 0120 USER COUNT OK	**CHECKSUM OK**

TEMPLATE AUDIT COMPLETE

Back up the database (data dump and ABKO)

To back up system data, complete the following two procedures.

1 Perform a data dump to save all system memory to the hard disk.

2 Perform a ABKO (attended backup) to save the database to a spare set of floppy disks.

Procedure 2
Performing a data dump

1 Log into the system.

2 Load the Equipment Data Dump Program (LD 43). At the prompt, enter:

LD 43   Load the program

3 When "EDD000" appears on the terminal, enter:

EDD   Begin the data dump

> **CAUTION**
>
> **Loss of Data**
>
> If the data dump does not succeed, do not continue. Contact your technical support organization. You must correct a data dump problem before the system can be upgraded.

The messages "DATADUMP COMPLETE" and "DATABASE BACKUP COMPLETE" will appear once the data dump is complete.

****   Exit the program

Procedure 3
Performing an ABKO (save the database to floppies)

1   Insert floppy diskettes into BOTH floppy disk drives in each Core IODU/C or MMDU.

   Note: If the file is too large to fit on a single floppy disk, the ABKO command will compress the data. If the compressed data is still too large to fit on a single disk, both floppy disks in the two IODU/C drives will be used. Be sure to insert floppy disks into BOTH IODU/C drives before the ABKO backup is begun.

2   Load the Customer Configuration Backup and Restore (LD 143).
   At the prompt, enter:

   LD 143   Load the program

3   Run the ABKO backup (LD 143).

   ABKO   Run the backup

   Result: If the backup is successful, the system displays a message that states that the database backup is complete and generates a report that indicates which floppy drives were used.

4   If there are validation errors, repeat the procedure.

CAUTION

Loss of Data

If the backup is not successful, do not continue; contact your technical support organization. Any backup problems must be corrected before the system is upgraded to CP PII.

---

5   Once the backup is complete, type:

   ****   Exit the program

End of Procedure

Procedure 4
Converting the 4 MB database media to 2 MB database media

> **IMPORTANT!**
>
> Database conversion for Meridian 1 Options 21E, 51, 61,71, STE, NT and XT must be completed by Nortel Networks Software Conversion Lab. Consult the current Nortel Networks price book for cost and contact information.
>
> If the system is equipped with IOP/CMDU cards the database must be converted with the Database Transfer utility. See "Database transfer" on page 179.
>
> If the system is equipped with IODUC cards, the database should be data dumped (EDD) to a blank 2 MB floppy.
>
> All systems can be converted by Nortel Networks in the software conversion lab.

If the system is equipped with IOP/CMDU cards the database must be converted with the Database Transfer utility. See "Database transfer" on page 179.

If the system is equipped with IODUC cards, the database should be data dumped (EDD) to a blank 2 MB floppy.

Identify two unique IP addresses

Each CP PII system must be configured with two unique IP addresses for LAN identification and communication. One IP address is defined for the *active* Core. The second IP address is defined for the *inactive* Core. In this configuration, the *active* Core (either Core 0 or Core 1) that handles call processing is always identified by the same IP address.

- Contact your systems administrator to identify two unique IP addresses before the upgrade.

- For instructions to configure these IP numbers, see "Configuring IP addresses" on page 667 of Book 1.

Perform upgrade

CAUTION WITH ESD DEVICES

To avoid damaging equipment from electrostatic discharge, wear a properly connected anti-static wrist strap when working on or near Meridian 1 equipment.

WARNING

Use the procedures in this section if the system is equipped with an NT4N43 CP PII Multi Media Disk Unit (CP PII MMDU) with CD-ROM. If the system is not equipped with the IODU/C card, do not use these procedures.

The NT4N43CA CP PII Multi-Media Disk Unit (CP PII MMDU) is located in the extreme right hand slot next to the CP PII card. The CP PII MMDU contains the hard drive, floppy drive and CD-ROM drive.

Perform a parallel reload in Meridian 1 Option 61C CP PII and Meridian 1 Option 81C CP PII

Software must be installed on both Core hard drives. Follow the procedures in this section to complete the installation.

Note: To complete these procedures, the system must be working and connected to a terminal.

Verify memory

Determine whether the system requires additional memory. Refer to "Installing IODU/C cards, CP cards, CP memory" on page 305 for memory requirements and upgrade procedures.

Perform data dump

Follow the steps in Procedure 5 to back up the current data.

Procedure 5
Backing up the current data

1   Load the Equipment Data Dump Program (LD 43). At the prompt, enter:

    LD 43   Load program

2   When "EDD000" appears on the terminal, enter:

    EDD   Begin data dump

3   When "DATABASE BACKUP COMPLETE" or "DATADUMP COMPLETE" appears on the terminal, enter:

    ****   Exit program

> **CAUTION**
>
> **Loss of Data**
>
> If the data dump is not successful, do not continue. Contact the technical support organization. Correct any data dump problem before continuing.

> **IMPORTANT!**
>
> Database backup information should be preserved for a minimum of 5 days.

End of Procedure

Check the status of the hardware

Follow the steps in Procedure 6 to determine the status of the hardware.

Procedure 6
Determining hardware status

1   Load LD 137 to check the status of the hard disks.

LD 137	Load program
STAT	Get the status of the hard disks
TEST CMDU	Perform hard and floppy disk test

2   Load LD 135 and check the status of the CPs, CNIs and memories.

LD 135	Load program
STAT CPU	Get the status of both CPs and memory
STAT CNI	Get the status of all configured CNIs

———————————   **End of Procedure**   ———————————

Check that Core 0 is active

Check that Core 0 is active. If Core 1 is active, make Core 0 active:

LD 135	Load program
STAT CPU	Get the status of the CPUs
SCPU	Switch to Core 0 (if necessary)

Split the Cores

From the active side, split the cores:.

LD 135   Load program

SPLIT   Enter Split on the active core

****   Exit program

> ✔ System is in split mode, CP 0 is active, clock 0 is active, Core/Net 1 is in split mode.

Install the software on Core/Net 1

Follow the steps in Procedure 7 to install the software on Core/Net 1.

Procedure 7
Installing the software on Core/Net 1

1   Install the CD-ROM into the CD-ROM drive in the CP PII MMDU:

   a.   Press the button on the CD-ROM drive to open the CD-ROM disk holder.

   b.   Place the CD-ROM disk into the holder with the disk label facing up. Use the four tabs to secure the CD-ROM drive.

   c.   Press the button to close the CD-ROM disk holder. Do not push the holder in by hand.

   Note: If the CD-ROM is not in the CD-ROM drive, the installation will not continue. Insert the CD-ROM to continue.

2   Place the CP PII Install floppy disk into the CP PII MMDU floppy drive.

   Note: If a problem is detected during the system verification, the install stops, prints an error message, and aborts the installation. If the verification is not successful, do not continue; contact the technical support organization.

3   Press the manual RESET button on the CP PII card faceplate.

Before the install runs, the system validates hard disk partitioning which takes about five minutes. The screen displays:

Testing partition 0

> 0 percent done...1 percent done......99 percent done....100 percent done

Testing partition 1

> 0 percent done...1 percent done......99 percent done....100 percent done

Testing partition 2

> 0 percent done...1 percent done......99 percent done....100 percent completed!

Disk physical checking is completed!

Validate hard drive partition number and size...

There are 3 partitions in disk 0:
The size of partition 0 of disk 0 is XX Mbyte
The size of partition 0 of disk 0 is XX Mbyte
The size of partition 0 of disk 0 is XX Mbyte

Disk partitions and sectors checking is completed!

The system then checks the partitions for any errors. The screen displays the following for each partition:

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Disk Check In Progress...

     total disk space (bytes): XX

     bytes in each allocation unit: XX

     total allocation units on disk: XX

     bad allocation units: XX

     available bytes on disk: XX

     available clusters on disk: XX

     maximum available contiguous chain (bytes): XX

     available space fragmentation (%): XX

     clusters allocated: XX

     Done Checking Disk.

       chkdsk for PART_X OK!

       pmDosFsCheck is completed!

4   Select yes or (no) when asked if a Signaling Server is connected:

> System Date and Time now is:
>
> Day-Month-Year, Hour:Min:Sec
>
> Succession Enterprise Software/Database/BOOTROM CDROM INSTALL Tool
>
> Does this System have a Signaling Server.....? (Default - No)
>
> Please enter:
>
> <CR> -> <n> - No
>
> <y> - Yes
>
> Enter Choice>

5   The system then enters the Main Menu for keycode authorization. Remove the CP PII Install Program diskette and insert the Keycode diskette.

> M A I N   M E N U
>
> The Software Installation Tool will install or upgrade Succession Enterprise System Software, Database and the CP-BOOTROM. You will be prompted throughout the installation and given the opportunity to quit at any time.
>
> Please enter:
>
> <CR> -> <u> - To Install menu
>
> <t> - To Tools menu.
>
> <q> - Quit.
>
> Enter Choice> **<CR>**
>
> >Validating Keycode
>
> The provided keycode authorizes the install of X210300 software
>
> (all subissues) for machine type XXXX
>
> (XXX processor on XXXX System)

> **IMPORTANT!**
>
> Remove keycode floppy disk at this time and insert the database backup disk.

6   The screen displays the Install Menu. Confirm that the keycode matches the CD-ROM release:

Please confirm that this keycode matches the CDROM Release

    Please enter:

<CR> -> <y> - Yes, the keycode matches. Go on to Install Menu.

    <n> - No, the keycode does not match. Try another keycode diskette.

    Enter Choice> **<CR>**

    >Obtain database file names

---

7   Enter **b** to install the Software, Database and CP-BOOTROM:

I N S T A L L   M E N U

    The Software Installation Tool will install or upgrade Succession Enterprise System Software, Database and the CP-BOOTROM. You will be prompted throughout the installation and given the opportunity to quit at any time.

    Please enter:

<CR> -> <a> - To install Software, CP-BOOTROM.

    <b> - To install Software, Database, CP-BOOTROM.

    <c> - To install Database only.

    <d> - To install CP-BOOTROM only.

    <t> - To go to the Tools menu.

    <k> - To install Keycode only.

      For Feature Expansion, use OVL143.

    <p> - To install 3900 set Languages.

    <q> - Quit.

    Enter Choice> **a**

8   Verify the CD-ROM version:

> Please insert the installation CDROM into the drive on Core X.
>
> The labeled side of the CDROM should be side up in the CDROM tray.
>
> Please enter:
>
> <CR> -> <a> - CDROM is now in drive. Continue with s/w checking.
>
> <q> - Quit.
>
> Enter Choice> **<CR>**
>
> The installation CDROM contains version X210300_K.
>
> Please enter:
>
> <CR> -> <y> - Yes, this is the correct version. Continue.
>
> <n> - No, this is not the correct version. Try another CDROM.
>
> or keycode disk
>
> Enter Choice> **<CR>**
>
> >copying direct.rec from /cd0/0300_KMR.N33/target/p/sl1/ direct.rec to /u/direct.rec
>
> >Updating /u/direct.rec
>
> >Processing the Install Control file
>
> >Installing release 0300K

9 Confirm all options before installing the software:

```
                    INSTALLATION STATUS SUMMARY

                    --------------------------------------------

        ============+=======+=======+============
    |    Option    |  Choice  | Status |  Comment         |
    ================+=======+=======+=========
    | SW: CD to disk  |    yes      |        | install for rel 0300K |
        ============+========+========+=============
    |    Option    |  Choice  | Status |  Comment         |
    ================+=======+=======+=========
    |   Database   |    no      |      |                  |


    |    Option    |  Choice  | Status |  Comment         |
    ================+=======+=======+=========
    | CP-BOOTROM |    yes      |      |                  |


        Please enter:<CR> -> <y> - Yes, start Installation.

        <n> - No, stop Installation. Return to the Main Menu.
```

Enter Choice> **<CR>**

>Checking System Configuration

You selected to upgrade the system from release: XXXX to release: 0300K.

This will erase all old system files.

> Database files will NOT be erased. You may continue installing the software or quit now and leave your system unchanged.
>
> Please enter:
>
> <CR> -> <a> - Continue with Upgrade.
>
> <q> - Quit.
>
> Enter Choice> **<CR>**
>
> >Starting Software Install
>
> >Upgrading from release XXXX to release 0300K

10   After a number of files are copied over, select a PSDL file to install. The PSDL file contains the loadware for all downloadable cards in the system and loadware for M3900 series sets.

Select one of the six PSDL files

<1>   Global 10 Languages

<2>   Western Europe 10 Languages

<3>   Eastern Europe 10 Languages

<4>   North America 6 Languages

<5>   Spare Group A

<6>   Spare Group B

The languages contained in each selection are outlined as follows:

- 1 – Global 10 Languages (Release 3) English, French, German, Spanish, Swedish, Italian, Norwegian, Brazilian Portuguese, Finnish, Japanese Katakana.

- 2 – Western Europe 10 Languages (Release 3) English, French, German, Spanish, Swedish, Italian, Norwegian, Brazilian Portuguese, Finnish, Danish.

- 3 – Eastern Europe 10 Languages (Release 3) English, French, German, Dutch, Polish, Czech, Hungarian, Russian, Latvian, Turkish.

- 4 – North America six Languages (Release 3) English, French, German, Spanish, Brazilian Portuguese, Japanese Katakana.

- 5 – Spare Group A.

- 6 – Spare Group B.

11 Continue with upgrade when prompted. Select a database to install:

> Software release 0300K was installed successfully on Core X.
>
> All files were copied from CDROM to the hard disk.
>
> Please press <CR> when ready... **<CR>**

12 Enter **q** to quit:

I N S T A L L   M E N U

The Software Installation Tool will install or upgrade Succession Enterprise System Software, Database and the CP-BOOTROM. You will be prompted throughout the installation and given the opportunity to quit at any time.

Please enter:

<CR> -> <a> - To install Software, CP-BOOTROM.

    <b> - To install Software, Database, CP-BOOTROM.

    <c> - To install Database only.

    <d> - To install CP-BOOTROM only.

    <t> - To go to the Tools menu.

    <k> - To install Keycode only.

      For Feature Expansion, use OVL143.

    <p> - To install 3900 set Languages.

    <q> - Quit.

Enter Choice> **q**

---

13 The system then prompts you to confirm and reboot:

You selected to Quit the Software Installation Tool.

You may reboot the system or return to the Main Menu.

Before rebooting the system, remove Install diskette from the floppy drive(s).

DO NOT REBOOT USING BUTTON!!

Please enter:

<CR> -> <a> - Reboot the system.

<m> - Return to the Main menu.

Enter Choice> **<CR>**

>Removing temporary files

>Remove /u/diskXXXX.sys

>Quit Install. Reboot system...

End of Procedure

Check for peripheral software download

Access LD 22 and print the Target peripheral software version. (The Source peripheral software version was printed during the pre-conversion procedure.)

If there is a difference between the Source and Target peripheral software version, a forced download occurs during initialization when coming out of parallel reload. System initialization takes longer and established calls on IPE are dropped.

LD 22	Load program
REQ	Print
TYPE	PSWV
ISS	Print issue and release
TID	Print Tape/Aux ID
ISSP	Print System and patch information
****	Exit program

Transfer call processing from Core/Net 0 to Core/Net 1From

CAUTION

Service Interruption

Call Processing will be interrupted! Perform these next steps carefully. This is the point at which service is interrupted. Calls in process are interrupted, especially if Peripheral Software Download takes place. Some calls might be dropped.

WARNING

System initialization may take up to 15 minutes or longer.

IMPORTANT!

Power down all applications (Meridian Mail, Call Pilot, Symposium).

Core/Net 0, the active side, transfer call processing to Core/Net 1

To transfer call processing, do the following:

LD 135	Load the program
CUTOVR	The inactive CP become active

Core/Net 0 is in split mode, CP 1is active, Clock 1 is active.

> ⚠️ **IMPORTANT!**
>
> Power up all applications (Meridian Mail, Call Pilot, Symposium).

FIJI Download

On FNF based systems after the INI, a FIJI download will occur if the FIJI firmware on Bank 1 of the FIJI card is different from the firmware on the system hard drive (PSDL file). This is automatic and no attempt should be made to prevent the download. The system will switch full to one ring, download up to 4 FIJI cards on the opposite ring at a time. This process continues on both rings until all Fiji's have been downloaded. The rings will then reset and come into service with the highest firmware available. This process is not service affecting. Depending on the number of groups installed, this process may take up to 20 minutes per ring.

Test Core/Net 1

Follow the steps in Procedure 8 to test call processing on Core/Net 1.

Procedure 8
Testing call processing on Core/Net 1

1   Check for dial tone.

2   Make internal, external, and network calls.

3   Check attendant console activity.

4   Check DID trunks.

5   Check any auxiliary processors.

———————— **End of Procedure** ————————

Note: From this point forward Core/Net 0 is being upgraded with new software.

Install software on Core/Net 0

Follow the steps in Procedure 9 to install the new software on Core/Net 0.

Procedure 9
Installing the software and converting the database

1   Check that a terminal is connected to J25 on Core/Net 0.

2   In Core/Net 0, install the CD-ROM into the CD-ROM drive in the MMDU:

   a.   Press the button on the CD-ROM drive to open the CD-ROM disk holder.

   b.   Place the CD-ROM disk into the holder with the disk label showing.

   c.   Press the button again to close the CD-ROM disk holder.
   Do not push the holder in by hand.

   Note: If the CD-ROM is not in the CD-ROM drive, the installation will not continue. Insert the CD-ROM to continue.

3   Place the CP PII Install floppy disk into the MMDU floppy drive.

   Note: If a problem is detected during the system verification, Install stops, prints an error message, and aborts the installation. If the verification is not successful, do not continue; contact your technical support organization.

4   Press the manual RESET button on the CP PII card faceplate.

Before the install runs, the system validates hard disk partitioning which takes about five minutes. The screen displays:

Testing partition 0

    0 percent done...1 percent done......99 percent done....100 percent done

Testing partition 1

    0 percent done...1 percent done......99 percent done....100 percent done

Testing partition 2

    0 percent done...1 percent done......99 percent done....100 percent completed!

Disk physical checking is completed!

Validate hard drive partition number and size...

There are 3 partitions in disk 0:
The size of partition 0 of disk 0 is XX Mbyte
The size of partition 0 of disk 0 is XX Mbyte
The size of partition 0 of disk 0 is XX Mbyte

Disk partitions and sectors checking is competed!

The system then checks the partitions for any errors. The screen displays
the following for each partition:

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reserved

ver: 2.6 FCS

Disk Check In Progress...

> total disk space (bytes): XX
>
> bytes in each allocation unit: XX
>
> total allocation units on disk: XX
>
> bad allocation units: XX
>
> available bytes on disk: XX
>
> available clusters on disk: XX
>
> maximum available contiguous chain (bytes): XX
>
> available space fragmentation (%): XX
>
> clusters allocated: XX
>
> Done Checking Disk.
>
>> chkdsk for PART_X OK!
>>
>> pmDosFsCheck is completed!

5   Select yes or (no) when asked if a Signaling Server is connected:

```
System Date and Time now is:

    Day-Month-Year, Hour:Min:Sec

    Succession Enterprise Software/Database/BOOTROM
CDROM INSTALL Tool

    Does this System have a Signaling Server.....? (Default - No)

    Please enter:

<CR> -> <n> - No

    <y> - Yes

    Enter Choice>
```

6   The system then enters the Main Menu for keycode authorization. Remove the CP PII Install Program diskette and insert the Keycode diskette.

```
                    M A I N    M E N U

    The Software Installation Tool will install or upgrade
Succession Enterprise System Software, Database and the CP-
BOOTROM. You will be prompted throughout the installation and
given the opportunity to quit at any time.

    Please enter:

<CR> -> <u> - To Install menu

    <t> - To Tools menu.

    <q> - Quit.

    Enter Choice> <CR>

    >Validating Keycode

 The provided keycode authorizes the install of X210300 software

 (all subissues) for machine type XXXX

 (XXX processor on XXXX System)
```

IMPORTANT!

Remove keycode floppy disk at this time and insert the database backup disk.

7 The screen displays the Install Menu. Confirm that the keycode matches the CD-ROM release:

Please confirm that this keycode matches the CDROM Release

Please enter:

<CR> -> <y> - Yes, the keycode matches. Go on to Install Menu.

<n> - No, the keycode does not match. Try another keycode diskette.

Enter Choice> **<CR>**

>Obtain database file names

8   Enter **b** to install the Software, Database and CP-BOOTROM:

I N S T A L L   M E N U

The Software Installation Tool will install or upgrade Succession Enterprise System Software, Database and the CP-BOOTROM. You will be prompted throughout the installation and given the opportunity to quit at any time.

Please enter:

<CR> -> <a> - To install Software, CP-BOOTROM.

<b> - To install Software, Database, CP-BOOTROM.

<c> - To install Database only.

<d> - To install CP-BOOTROM only.

<t> - To go to the Tools menu.

<k> - To install Keycode only.

For Feature Expansion, use OVL143.

<p> - To install 3900 set Languages.

<q> - Quit.

Enter Choice> **b**

---

9 Verify the CD-ROM version:

Please insert the installation CDROM into the drive on Core X.

The labeled side of the CDROM should be side up in the CDROM tray.

Please enter:

<CR> -> <a> - CDROM is now in drive. Continue with s/w checking.

<q> - Quit.

Enter Choice> **<CR>**

The installation CDROM contains version X210300_K.

Please enter:

<CR> -> <y> - Yes, this is the correct version. Continue.

<n> - No, this is not the correct version. Try another CDROM.

or keycode disk

Enter Choice> **<CR>**

>copying direct.rec from /cd0/0300_KMR.N33/target/p/sl1/ direct.rec to /u/direct.rec

>Updating /u/direct.rec

>Processing the Install Control file

>Installing release 0300K

---

10 Confirm all options before installing the software:

```
                    INSTALLATION STATUS SUMMARY

                  --------------------------------------------

      ============+========+========+============
    |     Option    |    Choice    | Status |   Comment         |
      ================+========+========+=========
    | SW: CD to disk  |     yes     |         | install for rel 0300K |
      ============+========+========+============
    |     Option    |    Choice    | Status |   Comment         |
      ================+========+========+=========
    |   Database   |     yes     |        |        |            |

    |    Option    |    Choice    | Status |   Comment         |
      ================+========+========+=========
    | CP-BOOTROM |     yes     |        |        |            |


       Please enter:<CR> -> <y> - Yes, start Installation.

        <n> - No, stop Installation. Return to the Main Menu.
```

Enter Choice> **<CR>**

>Checking System Configuration

You selected to upgrade the system from release: XXXX to release: 0300K.

This will erase all old system files.

Database files will NOT be erased. You may continue installing the software or quit now and leave your system unchanged.

Please enter:

<CR> -> <a> - Continue with Upgrade.

<q> - Quit.

Enter Choice> **<CR>**

>Starting Software Install

    >Upgrading from release XXXX to release 0300K

11 After a number of files are copied over, select a PSDL file to install. The PSDL file contains the loadware for all downloadable cards in the system and loadware for M3900 series sets.

Select one of the six PSDL files

<1>   Global 10 Languages

<2>   Western Europe 10 Languages

<3>   Eastern Europe 10 Languages

<4>   North America 6 Languages

<5>   Spare Group A

<6>   Spare Group B

The languages contained in each selection are outlined as follows:

- 1 – Global 10 Languages (Release 3) English, French, German, Spanish, Swedish, Italian, Norwegian, Brazilian Portuguese, Finnish, Japanese Katakana.

- 2 – Western Europe 10 Languages (Release 3) English, French, German, Spanish, Swedish, Italian, Norwegian, Brazilian Portuguese, Finnish, Danish.

- 3 – Eastern Europe 10 Languages (Release 3) English, French, German, Dutch, Polish, Czech, Hungarian, Russian, Latvian, Turkish.

- 4 – North America six Languages (Release 3) English, French, German, Spanish, Brazilian Portuguese, Japanese Katakana.

- 5 – Spare Group A.

- 6 – Spare Group B.

12 Continue with upgrade when prompted. Select a database to install:

Software release 0300K was installed successfully on Core X.

All files were copied from CDROM to the hard disk.

Please press <CR> when ready. **<CR>**

You will now perform the database installation.

Note: If you are installing the Database from a floppy disk, please insert the correct disk now. Perform data dump using the back up disk from Core/Net 1 and use this back up disk to install the customer database.

Please enter:

<CR> -> <a> - Install CUSTOMER Database

     (the customer database diskette must be in the Core X disk drive).

<b> - Install DEFAULT Database

     (the installation CDROM must be in the Core X disk drive).

<c> - Transfer the previous system Database.

<e> - Check the Database that exists on the hard disk.

<q> - Quit.

Enter Choice> **<CR>**

---

13 Confirm database transfer:

You selected to transfer the database from the floppy disk - release:
XXXX to the hard disk on Core X. release: XXXX.

This will erase the database on the hard disk.

The database diskette has been inserted into the floppy disk drive.

   If you quit now, the database will be left unchanged.

   Please enter:

<CR> -> <a> - Continue with Database Install.

<q> - Quit.

Enter Choice> **<CR>**

The system then informs you of the database details and prompts you to
confirm:

You have chosen to restore database dated: Jul 07 14:10:00 2003

   Please confirm.

   Please enter:

<CR> -> <y> - Yes, load.

   <n> - No, DO NOT load.

   Enter Choice> **<CR>**

14 The system restores the database and provides a status summary.

Note: The hard drive on a new system displays an error message that no
database is found on hard drive. This message can be ignored.

15 Enter **<CR>** when prompted, returning the system to the Install Menu.

16 Enter **q** to quit:

I N S T A L L   M E N U

The Software Installation Tool will install or upgrade Succession Enterprise System Software, Database and the CP-BOOTROM. You will be prompted throughout the installation and given the opportunity to quit at any time.

Please enter:

<CR> -> <a> - To install Software, CP-BOOTROM.

<b> - To install Software, Database, CP-BOOTROM.

<c> - To install Database only.

<d> - To install CP-BOOTROM only.

<t> - To go to the Tools menu.

<k> - To install Keycode only.

For Feature Expansion, use OVL143.

<p> - To install 3900 set Languages.

<q> - Quit.

Enter Choice> **q**

---

17 The system then prompts you to confirm and reboot:

You selected to Quit the Software Installation Tool.

You may reboot the system or return to the Main Menu.

Before rebooting the system, remove Install diskette from the floppy drive(s).

        DO NOT REBOOT USING BUTTON!!

        Please enter:

<CR> -> <a> - Reboot the system.

        <m> - Return to the Main menu.

        Enter Choice> **<CR>**

        >Removing temporary files

        >Remove /u/diskXXXX.sys

        >Quit Install. Reboot system...

————————————— **End of Procedure** —————————————

Enable system redundancy

Follow the steps in Procedure 10 on to enable system redundancy.

Procedure 10
Enabling system redundancy

1   From the active CPU, Core/Net 1, enable redundancy:

   LD 135   Load program

   JOIN   Synchronize the memory and drives

————————   **End of Procedure**   ————————

> ✔ System is now in redundant mode,

Test Core/Net 1 and Core/Net 0

Follow the steps in Procedure 11 to test Core/Net 1 and Core/Net 0.

Procedure 11
Testing Core/Net 1 and Core/Net 0

From the active CPU, Core/Net 1, perform these tests:

1   Perform a redundancy sanity test using the following sequence.

LD 135	Load program
STAT CNI c s	Get status of cCNI cards
STAT CPU	Get status of CPU and memory
TEST CPU	Test the CP PII card in both Core/Nets
TEST CNI c s	Test each cCNI card (core, slot)
STAT SUTL	Get status of System Utility (main and Transition) cards
TEST SUTL	Test the System Utility (main and Transition) cards
TEST IPB	Test the Inter Processor Bus
TEST LCD	Test the LCDs
TEST LED	Test the LEDs

2   Test system redundancy.

LD 137	Load program
TEST RDUN	Test redundancy
DATA RDUN	
TEST CMDU	Test the CP PII MMDU card

3 Switch Cores and test the other side (Core/Net 0).

LD 135	Load program
SCPU	Switch cores
TEST CPU	Test the inactive Core/Net
STAT CNI c s	Get status of cCNI (both main and Transition) cards
TEST CNI c s	Test cCNI (both main and Transition) cards
STAT SUTL	Get status of System Utility card
TEST SUTL	Test System Util card
TEST IPB	Test Inter Processor Bus
TEST LCD	Test LCDs
TEST LED	Test LEDs

4 Clear the display and minor alarms on both Cores.

CDSP	Clear the displays on the Cores
CMAJ	Clear major alarms
CMIN ALL	Clear minor alarms

5 Get the status of the Cores, CNIs, and memory.

STAT CPU	Get the status of both Cores and redundancy
STAT CNI c s	Get the status of all configured cCNIs (both main and Transition) cards
****	Exit program

———————————— **End of Procedure** ————————————

Perform a data dump

Follow the steps in Procedure 12 below to perform a data dump.

Procedure 12
Performing a data dump

1   Load the LD 43. At the prompt, enter:

    LD 43   Load the program

2   Insert a floppy disk into the CP PII MMDU to capture the backup.

3   When "EDD000" appears on the terminal, enter:

    EDD   Begin the data dump

4   When "DATABASE BACKUP COMPLETE" or "DATADUMP
    COMPLETE" appears on the terminal, enter:

    ****   Exit the program

CAUTION

Loss of Data

If the data dump is not successful, do not continue.
Contact the technical support organization. Correct any
data dump problem before continuing.

———   **End of Procedure**   ———

To complete the parallel reload, proceed to "Post-conversion procedure" on .

The parallel reload procedure is complete.

Back out of a system software upgrade

To back out of a system software upgrade once it is in the redundant mode running CP PII, split the cores and install the old release of software. Perform the following procedures in order.

Split the Cores

Follow the steps in Procedure 13 to split the core processors.

Procedure 13
Splitting the cores

1   From the active side, split the cores.

LD 135	Load the program
SPLIT	Enter Split on the active core (Allow the former active side to INIT before continuing)
****	Exit program

──────────────── **End of Procedure** ────────────────

Install the software on Core/Net 1

Follow the steps in Procedure 14 to re-install the old release of software.

Procedure 14
Installing the old release of software:

1   Install the CD-ROM into the CD-ROM drive in the CP PII MMDU:

  a.   Press the button on the CD-ROM drive to open the CD-ROM disk holder.

  b.   Place the CD-ROM disk into the holder with the disk label facing up. Use the four tabs to secure the CD-ROM drive.

  c.   Press the button again to close the CD-ROM disk holder.
  Do not push the holder in by hand.

Note: If the CD-ROM is not in the CD-ROM drive, the installation will not continue. Insert the CD-ROM to continue.

2   Place the Install floppy disk with the old software release into the CP PII MMDU floppy drive.

Note: If a problem is detected during the system verification, the install stops, prints an error message, and aborts the installation.
If the verification is not successful, do not continue. Contact the technical support organization.

3   Press the manual RESET button on the CP PII card faceplate.
Before the install menu runs, the system validates hard disk partitioning which takes about five minutes. The screen displays the following:

Testing partition 0

0 percent done...1 percent done...99 percent done....100 percent done

Testing partition 1

0 percent done...1 percent done...99 percent done....100 percent done

Testing partition 2

0 percent done...1 percent done...99 percent done....100 percent completed!

Disk physical checking is completed!

There are 3 partitions in disk 0:
The size of partition 0 of disk 0 is XX MB
The size of partition 0 of disk 0 is XX MB
The size of partition 0 of disk 0 is XX MB

Disk partitions and sectors checking is competed!

4   At the terminal, press <cr> to start the software installation.

5   When prompted, remove the Install Program diskette and insert the Keycode diskette.

<a>   Continue with keycode validation.

<y>   Confirm that the keycode matches the CD-ROM release.

6   When the screen displays the Install Menu, select the following options in sequence when prompted:

<a>   Install software.

<a>   Verify that the CD-ROM is now in drive.

The Installation Status Summary screen appears that lists the options to be installed.

<y>   Start Installation.

<a>   Continue with Upgrade.

Pre-release 3 language groups

7   Select a PSDL file to install. The PSDL file contains the loadware for all downloadable cards in the system and loadware for M3900 series sets.

Select one of the six PSDL files

<1>   Global 10 Languages

<2>   Western Europe 10 Languages

<3>   Eastern Europe 10 Languages

<4>   North America 6 Languages

<5>   Spare Group A

<6>   North America 6 Languages (Duplicate of **<4>**)

The languages contained in each selection are outlined as follows:

- 1 – English, French, German, Spanish, Swedish, Italian, Norwegian, Brazilian Portuguese, Finnish, Japanese Katakana.

- 2 – English, French, German, Spanish, Swedish, Norwegian, Danish, Finnish, Italian, Brazilian Portuguese.

- 3 – English, French, German, Dutch, Polish, Czech, Hungarian, Russian, Latvian, Turkish.

- 4 – English, Spanish, French, Brazilian Portuguese, Japanese Katakana, German.

- 5 – English, French, German, Spanish, Swedish, Italian, Norwegian,

Portuguese, Finnish, Japanese Katakana.

- 6 – English, Spanish, French, Brazilian Portuguese, Japanese Katakana, German.

Release 3 language groups

8   Select a PSDL file to install. The PSDL file contains the loadware for all downloadable cards in the system and loadware for M3900 series sets.

Select one of the six PSDL files

<1>   Global 10 Languages

<2>   Western Europe 10 Languages

<3>   Eastern Europe 10 Languages

<4>   North America 6 Languages

<5>   Spare Group A

<6>   North America 6 Languages (Duplicate of **<4>**)

The languages contained in each selection are outlined as follows:

- 1 – Global 10 Languages (Release 3) English, French, German, Spanish, Swedish, Italian, Norwegian, Brazilian Portuguese, Finnish, Japanese Katakana.

- 2 – Western Europe 10 Languages (Release 3) English, French, German, Spanish, Swedish, Italian, Norwegian, Brazilian Portuguese, Finnish, Danish.

- 3 – Eastern Europe 10 Languages (Release 3) English, French, German, Dutch, Polish, Czech, Hungarian, Russian, Latvian, Turkish.

- 4 – North America six Languages (Release 3) English, French, German, Spanish, Brazilian Portuguese, Japanese Katakana.

- 5 – Spare Group A.

- 6 – Spare Group B.

9   Continue with ROM upgrade when prompted.
     Select a database to install.

   <cr>   Enter carriage return to continue.

   <a>   Continue with CP BOOTROM installation.

   <a>   Install the CP BOOTROM from hard disk.

   <a>   Start installation.

   <a>   Continue with ROM upgrade.

   The Installation Status Summary screen appears. Verify that CD
   to disk, disk to ROM, and CP-BOOTROM were installed.

   <cr>   Continue.

   <q>   Quit.
             Remove any diskettes and the CD-ROM from the CP PII
             MMDU drives.

   <y>   Confirm quit.

   <a>   Reboot the system.

10   The system automatically performs a Sysload: several message appear
      on the system terminal. Wait for "DONE" and then "INI" message to
      display before continuing.

      While the Sysload is being performed, database conversion occurs.

      Verify that the following message appears on the system terminal:

      DATA CONVERSION

      rel 0300K TO RELEASE 25.XX

11 Confirm that the software is installed and working on Core/Net 1:

    LD 135   Load program

    STAT CPU   Display CPU status

    STAT CNI   Display cCNI status

—————— **End of Procedure** ——————

Transfer call processing from Core/Net 0 to Core/Net 1

⚠	**CAUTION** **Service Interruption** The following procedure to transfer call processing can cause service interruptions. Time the procedure to minimize the effect of any breaks in service.

⚠	**IMPORTANT!** Power down all applications (Meridian Mail, Call Pilot, Symposium).

⚠	**CAUTION** **Service Interruption** The INI may take up to15 minutes to complete.

From Core/Net 0, the active side, transfer call processing to Core/Net 1:

    LD 135   Load program

    CUTOVR   The inactive CP become active

CAUTION

Service Interruption

The INI may take up to15 minutes to complete.

Call processing is now switched from Core/Net 0 to Core/Net 1.

FIJI Download

On FNF based systems after the INI, a FIJI download will occur if the FIJI firmware on Bank 1 of the FIJI card is different from the firmware on the system hard drive (PSDL file). This is automatic and no attempt should be made to prevent the download. The system will switch full to one ring, download up to 4 FIJI cards on the opposite ring at a time. This process continues on both rings until all Fiji's have been downloaded. The rings will then reset and come into service with the highest firmware available. This process is not service affecting. Depending on the number of groups installed, this process may take up to 20 minutes per ring.

IMPORTANT!

Power up all applications (Meridian Mail, Call Pilot, Symposium).

Test Core/Net 1

Follow the steps in to test call processing on Core/Net 1. Testing call processing includes, but is not limited to the following tests.

Procedure 15
Testing call processing on Core/Net 1

1   Check for dial tone.

2   Make internal, external, and network calls.

3   Check attendant console activity.

4   Check DID trunks.

5   Check any auxiliary processors.

────────── **End of Procedure** ──────────

Note: From this point Core/Net 0 is being upgraded with the replacement software.

Install software on Core/Net 0

Follow the steps in Procedure 16 to install the old software on Core/Net 0.

Procedure 16
Installing the software and converting the database

1   Check that a terminal is connected to J25 on Core/Net 0.

2   In Core/Net 0, install the CD-ROM into the CD-ROM drive in the MMDU:

   a.   Press the button on the CD-ROM drive to open the CD-ROM disk holder.

   b.   Place the CD-ROM disk into the holder with the disk label showing.

   c.   Press the button again to close the CD-ROM disk holder.
   Do not push the holder in by hand.

   Note: If the CD-ROM is not in the CD-ROM drive, the installation will not continue. Insert the CD-ROM to continue.

3   Place the CP PII Install floppy disk into the MMDU floppy drive.

   Note: If a problem is detected during the system verification, Install stops, prints an error message, and aborts the installation. If the verification is not successful, do not continue; contact your technical support organization.

4   Press the manual RESET button on the CP PII card faceplate.

Before the install runs, the system validates hard disk partitioning which takes about five minutes. The screen displays:

Testing partition 0

      0 percent done...1 percent done......99 percent done....100 percent done

Testing partition 1

      0 percent done...1 percent done......99 percent done....100 percent done

Testing partition 2

      0 percent done...1 percent done......99 percent done....100 percent completed!

Disk physical checking is completed!

Validate hard drive partition number and size...

There are 3 partitions in disk 0:
The size of partition 0 of disk 0 is XX Mbyte
The size of partition 0 of disk 0 is XX Mbyte
The size of partition 0 of disk 0 is XX Mbyte

Disk partitions and sectors checking is competed!

The system then checks the partitions for any errors. The screen displays the following for each partition:

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ver: 2.6 FCS

Disk Check In Progress...

    total disk space (bytes): XX

    bytes in each allocation unit: XX

    total allocation units on disk: XX

    bad allocation units: XX

    available bytes on disk: XX

    available clusters on disk: XX

    maximum available contiguous chain (bytes): XX

    available space fragmentation (%): XX

    clusters allocated: XX

    Done Checking Disk.

        chkdsk for PART_X OK!

        pmDosFsCheck is completed!

5   Select yes or (no) when asked if a Signaling Server is connected:

```
 System Date and Time now is:

       Day-Month-Year, Hour:Min:Sec

       Succession Enterprise Software/Database/BOOTROM
 CDROM INSTALL Tool

       Does this System have a Signaling Server.....? (Default - No)

       Please enter:

 <CR> -> <n> - No

       <y> - Yes

       Enter Choice>
```

6   The system then enters the Main Menu for keycode authorization. Remove the CP PII Install Program diskette and insert the Keycode diskette.

```
                      M A I N   M E N U

       The Software Installation Tool will install or upgrade
 Succession Enterprise System Software, Database and the CP-
 BOOTROM. You will be prompted throughout the installation and
 given the opportunity to quit at any time.

       Please enter:

 <CR> -> <u> - To Install menu

       <t> - To Tools menu.

       <q> - Quit.

       Enter Choice> <CR>

       >Validating Keycode

 The provided keycode authorizes the install of X210300 software

 (all subissues) for machine type XXXX

 (XXX processor on XXXX System)
```

> **IMPORTANT!**
>
> Remove keycode floppy disk at this time and insert the database backup disk.

7   The screen displays the Install Menu. Confirm that the keycode matches the CD-ROM release:

Please confirm that this keycode matches the CDROM Release

Please enter:

<CR> -> <y> - Yes, the keycode matches. Go on to Install Menu.

<n> - No, the keycode does not match. Try another keycode diskette.

Enter Choice> **<CR>**

>Obtain database file names

8 Enter **b** to install the Software, Database and CP-BOOTROM:

```
                    I N S T A L L   M E N U

        The Software Installation Tool will install or upgrade
Succession Enterprise System Software, Database and the CP-
BOOTROM. You will be prompted throughout the installation and
given the opportunity to quit at any time.

        Please enter:

<CR> -> <a> - To install Software, CP-BOOTROM.

        <b> - To install Software, Database, CP-BOOTROM.

        <c> - To install Database only.

        <d> - To install CP-BOOTROM only.

        <t> - To go to the Tools menu.

        <k> - To install Keycode only.

            For Feature Expansion, use OVL143.

        <p> - To install 3900 set Languages.

        <q> - Quit.

        Enter Choice> b
```

9   Verify the CD-ROM version:

 Please insert the installation CDROM into the drive on Core X.

    The labeled side of the CDROM should be side up in the CDROM tray.

    Please enter:

<CR> -> <a> - CDROM is now in drive. Continue with s/w checking.

    <q> - Quit.

    Enter Choice> **<CR>**

The installation CDROM contains version X210300_K.

    Please enter:

<CR> -> <y> - Yes, this is the correct version. Continue.

    <n> - No, this is not the correct version. Try another CDROM.

        or keycode disk

    Enter Choice> **<CR>**

    >copying direct.rec from /cd0/0300_KMR.N33/target/p/sl1/ direct.rec to /u/direct.rec

    >Updating /u/direct.rec

    >Processing the Install Control file

    >Installing release 0300K

10 Confirm all options before installing the software:

```
                   INSTALLATION STATUS SUMMARY

              ---------------------------------------

    ============+=======+=======+============
    |   Option    |   Choice   | Status |   Comment        |
    ================+=======+=======+=========
    | SW: CD to disk  |    yes     |        | install for rel 0300K |
    ============+=======+========+=============
    |   Option    |   Choice   | Status |   Comment        |
    ================+=======+=======+=========
    |   Database   |    yes     |       |                   |

    |   Option    |   Choice   | Status |   Comment        |
    ================+=======+=======+=========
    | CP-BOOTROM |    yes     |       |                   |


      Please enter:<CR> -> <y> - Yes, start Installation.

        <n> - No, stop Installation. Return to the Main Menu.
Enter Choice> <CR>
>Checking System Configuration
You selected to upgrade the system from release: XXXX to release:
0300K.
This will erase all old system files.
```

Database files will NOT be erased. You may continue installing the software or quit now and leave your system unchanged.

Please enter:

<CR> -> <a> - Continue with Upgrade.

<q> - Quit.

Enter Choice> **<CR>**

>Starting Software Install

>Upgrading from release XXXX to release 0300K

11   After a number of files are copied over, select a PSDL file to install. The PSDL file contains the loadware for all downloadable cards in the system and loadware for M3900 series sets.

Select one of the six PSDL files

<1>   Global 10 Languages

<2>   Western Europe 10 Languages

<3>   Eastern Europe 10 Languages

<4>   North America 6 Languages

<5>   Spare Group A

<6>   Spare Group B

The languages contained in each selection are outlined as follows:

- 1 – Global 10 Languages (Release 3) English, French, German, Spanish, Swedish, Italian, Norwegian, Brazilian Portuguese, Finnish, Japanese Katakana.

- 2 – Western Europe 10 Languages (Release 3) English, French, German, Spanish, Swedish, Italian, Norwegian, Brazilian Portuguese, Finnish, Danish.

- 3 – Eastern Europe 10 Languages (Release 3) English, French, German, Dutch, Polish, Czech, Hungarian, Russian, Latvian, Turkish.

- 4 – North America six Languages (Release 3) English, French, German, Spanish, Brazilian Portuguese, Japanese Katakana.

- 5 – Spare Group A.

- 6 – Spare Group B.

12 Continue with upgrade when prompted. Select a database to install:

Software release 0300K was installed successfully on Core X.

All files were copied from CDROM to the hard disk.

Please press <CR> when ready.. **<CR>**

You will now perform the database installation.

Note: If you are installing the Database from a floppy disk, please insert the correct disk now.

Please enter:

<CR> -> <a> - Install CUSTOMER Database

(the customer database diskette must be in the Core X disk drive).

<b> - Install DEFAULT Database

(the installation CDROM must be in the Core X disk drive).

<c> - Transfer the previous system Database.

<e> - Check the Database that exists on the hard disk.

<q> - Quit.

Enter Choice> **<CR>**

---

13 Confirm database transfer:

You selected to transfer the database from the floppy disk - release: XXXX to the hard disk on Core X. release: XXXX.

This will erase the database on the hard disk.

The database diskette has been inserted into the floppy disk drive.

If you quit now, the database will be left unchanged.

Please enter:

<CR> -> <a> - Continue with Database Install.

<q> - Quit.

Enter Choice> **<CR>**

The system then informs you of the database details and prompts you to confirm:

You have chosen to restore database dated: Jul 07 14:10:00 2003

Please confirm.

Please enter:

<CR> -> <y> - Yes, load.

<n> - No, DO NOT load.

Enter Choice> **<CR>**

14 The system restores the database and provides a status summary.

Note: The hard drive on a new system displays an error message that no database is found on hard drive. This message can be ignored.

15 Enter **<CR>** when prompted, returning the system to the Install Menu.

16 Enter **q** to quit:

```
I N S T A L L   M E N U

    The Software Installation Tool will install or upgrade
Succession Enterprise System Software, Database and the CP-
BOOTROM. You will be prompted throughout the installation and
given the opportunity to quit at any time.

    Please enter:

<CR> -> <a> - To install Software, CP-BOOTROM.

    <b> - To install Software, Database, CP-BOOTROM.

    <c> - To install Database only.

    <d> - To install CP-BOOTROM only.

    <t> - To go to the Tools menu.

    <k> - To install Keycode only.

        For Feature Expansion, use OVL143.

    <p> - To install 3900 set Languages.

    <q> - Quit.

    Enter Choice> q
```

17 The system then prompts you to confirm and reboot:

> You selected to Quit the Software Installation Tool.
>
> You may reboot the system or return to the Main Menu.
>
> Before rebooting the system, remove Install diskette from the floppy drive(s).
>
> ------------------------------
>
> DO NOT REBOOT USING BUTTON!!
>
> ------------------------------
>
> Please enter:
>
> <CR> -> <a> - Reboot the system.
>
> <m> - Return to the Main menu.
>
> Enter Choice> **<CR>**
>
> >Removing temporary files
>
> >Remove /u/diskXXXX.sys
>
> >Quit Install. Reboot system...

——————— **End of Procedure** ———————

Check for peripheral software download

Access LD 22 to print the Target peripheral software version. (The Source peripheral software version was printed during the pre-conversion procedure.)

If there is a difference between the Source and Target peripheral software version, a forced download occurs during initialization when coming out of parallel reload. System initialization takes longer and established calls on IPE are dropped.

LD 22	Load program
REQ	Print
TYPE	PSWV

ISS	Print issue and release
TID	Print Tape/Aux ID
ISSP	Print System and patch information
****	Exit program

Enable system redundancy

Follow the steps in Procedure 17 to enable system redundancy.

Procedure 17
Enabling system redundancy

1   From the active CPU, Core/Net 1, enable redundancy:

LD 135	Load program
JOIN	Synchronize the memory and drives

 System is now in redundant mode.

Test Core/Net 1 and Core/Net 0

Follow the steps in Procedure 18 to test call processing on Core Net 1 and Core/Net 0.

Procedure 18
Testing call processing on Core/Net 1 and Core/Net 0

1   From the active CPU, Core/Net 1, perform a redundancy sanity test using the following sequence:

LD 135	Load program
STAT CNI c s	Get status of cCNI cards
STAT CPU	Get status of CPU and memory
TEST CPU	Test the CP PII card in both Core/Nets
TEST CNI c s	Test each cCNI card (core, slot)
STAT SUTL	Get status of System Utility (main and Transition) cards
TEST SUTL	Test System Utility (main and Transition) cards
TEST IPB	Test Inter Processor Bus
TEST LCD	Test LCDs
TEST LED	Test LEDs

2   Test system redundancy:

LD 137	Load program
TEST RDUN	Test redundancy
DATA RDUN	
TEST CMDU	Test the MMDU card

3   Switch Cores and test the other side (Core/Net 0).

LD 135	Load program
SCPU	Switch cores
TEST CPU	Test the inactive Core/Net
STAT CNI c s	Get status of cCNI (both main and Transition) cards
TEST CNI c s	Test cCNI (both main and Transition) cards
STAT SUTL	Get status of System Utility card
TEST SUTL	Test System Util card
TEST IPB	Test Inter Processor Bus
TEST LCD	Test LCDs
TEST LED	Test LED

4   Clear the display and minor alarms on both Cores.

CDSP	Clear the displays on the Cores
CMAJ	Clear major alarms
CMIN ALL	Clear minor alarms

5   Get the status of the Cores, CNIs, and memory.

STAT CPU	Get the status of both Cores and redundancy
STAT CNI c s	Get the status of all configured cCNIs (both main and Transition) cards
****	Exit program

———————————— **End of Procedure** ————————————

Perform a data dump

Follow the steps in Procedure 19 on to perform a data dump.

Procedure 19
Performing a data dump

1   Load the LD 43. At the prompt, enter

   LD 43   Load program

2   When "EDD000" appears on the terminal, enter

   EDD   Begin data dump

3   When "DATABASE BACKUP COMPLETE" or "DATADUMP
   COMPLETE" appears on the terminal, enter:

   ****   Exit program

CAUTION

Loss of Data

If the data dump is not successful, do not continue.
Contact the technical support organization. Correct any
data dump problem before continuing.

Meridian 1 Options 61C, 81 and 81C software upgrade procedure

Prepare for upgrade

This document implements a source to target approach to performing an upgrade. It is important to correctly identify the source platform, target platform and maintenance window required to perform the upgrade.

Each chapter features check boxes indicating what condition the system should be in at that stage of the upgrade. If the system is not in the proper condition steps should be taken to correct this.

Each section is written to maintain Dial Tone where possible and limit service interruptions.

Before attempting any software or hardware upgrade field personnel should follow the steps in Table 6.

Table 6
Prepare for upgrade steps

Procedure Step	Page
Plan upgrade	105
Upgrade Checklists	105
Prepare	105
Identifying the proper procedure	106
Connect a terminal	106
Print site data	107
Perform a template audit	109
Back up the database (data dump and ABKO)	111
Identify two unique IP addresses	114

Plan upgrade

Planning for an upgrade involves the following tasks:

- Conduct a site inspection to determine proper power and grounding.

- Review the site profile to determine proper foot space if adding new columns or modules.

- Ensure Sufficient power for new columns/modules or applications.

- Identify all applications (Call Pilot, SCCS, IP, Meridian Mail etc.) that are currently installed on the source platform.

- Identify and correct outstanding service problems.

- Verify the site log is updated with current trunking, call routing, application notes, and site contact information.

- Review all product bulletins and Nortel Alerts that impact the site.

- Determine if software can be converted on site or must be sent to Nortel Networks.

- Prepare a contingency plan for backing out of the upgrade.

Upgrade Checklists

Upgrade checklists can be found in the "Upgrade checklists" chapter on . Engineers may print this section in order to facilitate the upgrade.

Prepare

Preparing for an upgrade involves the following tasks:

- Identify and become familiar with all procedures.

- Verify that all installed applications meet the minimum software requirements for the target platform (see Table 4 on of Book 1).

- Verify proper cable lengths for the target platform.

- Verify card vintage requirements of the target platform.

- Determine the current patch or Dep lists installed at the source platform.

- Determine the required patch or Dep lists at the target platform.

- Determine and communicate the required maintenance window, contingency plan and the impact to the customer to complete the procedure.

- Perform an inventory on required software and hardware.

- Secure the source software and key code.

- Secure the target software and key code.

- Verify the new key code using the DKA program.

- Print site data.

Identifying the proper procedure

Each procedure has been written in a source to target format. Each procedure features warning boxes and check boxes placed at critical points. Changing the procedure or ignoring the warning boxes could cause longer service interruptions.

> **IMPORTANT!**
>
> Database backup information should be preserved for a minimum of 5 days.

Connect a terminal

Procedure 20
Connecting a terminal

A maintenance terminal is required to access the Core or Core/Net modules during the upgrade procedure.

1   Connect a terminal to the J25 port on the I/0 panel in the *inactive* Core or Core/Net module.

2   The settings for the terminal are:

   a.   9600 Baud

   b.   7 data

   c.   space parity

    d.   1 stop bit

    e.   full duplex

    f.   XOFF

3   If only one terminal is used for both Core or Core/Net modules, the terminal must be connected from side-to-side to access each module. An "A/B" switch box can also be installed to switch the terminal from side to side.

—————— **End of Procedure** ——————

Print site data

Print site data to preserve a record of the system configuration (Table 7 on page 107). Verify that all information is correct. Make corrections as necessary.

Note: Items marked with an asterisk (*) are required. Other items are recommended for a total system status.

Table 7
Print site data (Part 1 of 3)

Site data	Print command	
Terminal blocks for all TNs	LD 20	
	REQ	PRT
	TYPE	TNB
	CUST	<cr>
Directory Numbers	LD 20	
	REQ	PRT
	TYPE	DNB
	CUST	<cr>
Attendant Console data block for all customers	LD 20	LD 20
	REQ	PRT
	TYPE	ATT, 2250
	CUST	<cr>

Table 7
Print site data (Part 2 of 3)

Site data	Print command	
*Customer data block for all customers	LD 21	LD 21
	REQ	PRT
	TYPE	CDB
	CUST	<cr>
Route data block for all customers	LD 21	
	REQ	PRT
	TYPE	RDB
	CUST	Customer number
	ROUT	<cr>
	ACOD	<cr>
*Configuration Record	LD 22	
	REQ	PRT
	TYPE	CFN
*Software packages	LD 22	
	REQ	PRT
	TYPE	PKG
*Software issue, ROM and tape ID	LD 22	
	REQ	ISS
	REQ	ROM
	REQ	TID
* Peripheral software versions	LD 22	
	REQ	PRT
	TYPE	PSWV

Table 7
Print site data (Part 3 of 3)

Site data	Print command	
ACD data block for all customers	LD 23	
	REQ	PRT
	TYPE	ACD
	CUST	Customer Number
	ACDN	ACD DN (or <CR>)
Superloop card IDs and software version (peripheral controller, superloop network and controller cards)	LD 32	
		IDC loop
Multi-purpose ISDN Signaling Processor (MISP) card	LD 27	
	REQ	PRT
	TYPE	MISP
	LOOP	loop number (0-158)
	APPL	<cr>
	PH	<cr>
DTI/PRI data block for all customers	LD 73	
	REQ	PRT
	TYPE	DDB

Note: Items marked with asterisks (*) are required printout for conversion. Other items are recommended for a total system status.

Perform a template audit

A template audit (LD 01) reviews the templates in your system. Corrupted and duplicate templates are cleaned up. An example of the information generated during the audit is listed below.

Note: The template audit may take an extended period of time on large systems. Run the audit during a low traffic period.

CAUTION

Loss of Data

Do not abort this overlay until the audit is complete. If the overlay is interrupted, data will be corrupted.

LD 01   The audit begins as soon as LD 01 is entered.

TEMPLATE AUDIT

STARTING PBX TEMPLATE SCAN

TEMPLATE 0001 USER COUNT LOW	**CHECKSUM OK**
TEMPLATE 0002 USER COUNT HIGH	**CHECKSUM OK**
TEMPLATE 0003 NO USERS FOUND	

STARTING SL1 TEMPLATE SCAN

TEMPLATE 0001 USER COUNT OK	**CHECKSUM OK**

-

-

TEMPLATE 0120 USER COUNT OK	**CHECKSUM OK**

TEMPLATE AUDIT COMPLETE

Back up the database (data dump and ABKO)

To back up system data, complete the following two procedures.

1 Perform a data dump to save all system memory to the hard disk.

2 Perform a ABKO (attended backup) to save the database to a spare set of floppy disks.

Procedure 21
Performing a data dump

1 Log into the system.

2 Load the Equipment Data Dump Program (LD 43). At the prompt, enter:

  LD 43 Load program

3 When "EDD000" appears on the terminal, enter:

  EDD Begin data dump

⚠	**CAUTION**
	Loss of Data
	If the data dump does not succeed, do not continue. Contact your technical support organization. You must correct a data dump problem before the system can be upgraded.

---

4 The messages "DATADUMP COMPLETE" and "DATABASE BACKUP COMPLETE" will appear once the data dump is complete.

  **** Exit program

————— **End of Procedure** —————

Procedure 22
Performing an ABKO (save the database to floppies)

1   Insert floppy diskettes into BOTH floppy disk drives in each Core IODU/C
    or MMDU.

    Note: If the file is too large to fit on a single floppy disk, the ABKO
    command will compress the data. If the compressed data is still too large
    to fit on a single disk, both floppy disks in the two IODU/C drives will be
    used. Be sure to insert floppy disks into BOTH IODU/C drives before the
    ABKO backup is begun.

2   Load the Customer Configuration Backup and Restore (LD 143). At the
    prompt, enter:

    LD 143   Load program

3   Run the ABKO backup (LD 143).

    ABKO   Run backup

    Result: If the backup is successful, the system displays a message that
    states that the database backup is complete and generates a report that
    indicates which floppy drives were used.

4   If there are validation errors, repeat the procedure.

> **CAUTION**
>
> **Loss of Data**
>
> If the backup is not successful, do not continue;
> contact your technical support organization. Any
> backup problems must be corrected before the
> system is upgraded to CP PII.

---

5   Once the backup is complete, type:

    ****   Exit program

——————— **End of Procedure** ———————

Procedure 23
Converting the 4 Mbyte database media to 2 Mbyte database media

> **IMPORTANT!**
>
> Database conversion for Meridian 1 Options 21E, 51, 61,71, STE, NT and XT must be completed by Nortel Networks Software Conversion Lab. Consult the current Nortel Networks price book for cost and contact information.
>
> If the system is equipped with IOP/CMDU cards the database must be converted with the Database Transfer utility. See "Database transfer" on .
>
> If the system is equipped with IODUC cards, the database should be data dumped (EDD) to a blank 2 MB floppy.
>
> All systems can be converted by Nortel Networks in the software conversion lab.

Before the system is upgraded to CP PII, you must convert the database to 2 MB media. Systems with an IODU/C drive already have 2 MB media and can skip this procedure.

If the database is on a 4 MB database media (the system has an IOP/CMDU), the 4 Mbyte customer database must be transferred to 2 MB media.

1   Split the Cores and transfer call processing to Core 0.

2   Install the Database Transfer Utility diskette into the floppy drive on the IOP or CMDU in Core 1.

3   Press the reset button (MAN RST) on the Call Processor card in Core 1 to reboot the system. Start the Database Transfer Utility Tool.

CAUTION — Service Interruption

Select only options:

- <t> Tools Menu from the Install menu, and

- <s> To archive existing database from the Tools menu.

DO NOT select any other options. Other options can result in operating system corruption.

---

4   From the installation menu select:

<t>	Go to the Tools menu.
<s>	Archive existing database.
<cr> <a>	Continue with archive (insert blank 2MB diskette from the software kit into the floppy drive in Core 1).
<cr> <a>	Diskette is now in floppy drive in Core 1.

5   The message displays "Database backup complete!" and the Tool menu appears again after the backup completes correctly.

6   Remove the 2 MB diskette with the customer database from the floppy drive of the IOP or CMDU. Keep the diskette for use after you convert Core 1 to NT4N40 Core/Net 1. Do not reboot the system at this point.

———————————— **End of Procedure** ————————————

Identify two unique IP addresses

Each CP PII system must be configured with two unique IP addresses for LAN identification and communication. One IP address is defined for the *active* Core. The second IP address is defined for the *inactive* Core. In this

configuration, the *active* Core (either Core 0 or Core 1) that handles call processing is always identified by the same IP address.

- Contact your systems administrator to identify two unique IP addresses before the upgrade.

- For instructions to configure these IP numbers, see "Configuring IP addresses" on page 667 of Book 1.

Perform upgrade

CAUTION WITH ESD DEVICES

To avoid damaging equipment from electrostatic discharge, wear a properly connected anti-static wrist strap when working on or near Meridian 1 equipment.

WARNING

Use the procedures in this section if the system is equipped with NT5D61 Input Output Disk Unit with CD-ROM (IODU/C) card(s). If the system is not equipped with the IODU/C card, do not use these procedures

The procedures in this section describe how to do the following:

- convert one software release to a later release

- perform a software up-issue within in the same software release

The procedure should only be used for systems equipped with IODUC cards.

To better understand the process, read through the entire procedure before beginning the conversion.

Parallel reload the Meridian 1 Option 61C and Meridian 1 81/81C CP3 CP4

Note: This procedure does not include instructions for installing new IODU/C cards, CP cards or CP memory. If required, refer to "Installing IODU/C cards, CP cards, CP memory" on page 305.

Use the parallel reload procedures to convert from one software release to a later release or to up-issue software within the same software release. These parallel reload procedures are for software conversions only. Do *not* use this procedure for any other purpose. Parallel reloads can be done from either CPU. For the purposes of this document, the parallel reload begins with CPU 0.

If during the software conversion a problem is detected and it is determined that the system should revert back to the source release follow the "Parallel reload procedures" on .

Verify memory

Determine whether the system requires additional memory. Refer to "Installing IODU/C cards, CP cards, CP memory" on for memory requirements and upgrade procedures.

Perform a data dump

Follow the steps in Procedure 24 to perform a data dump.

Procedure 24
Performing a data dump

1   Load the Equipment Data Dump Program (LD 43). At the prompt, enter:

   LD 43   Load program

2   When "EDD000" appears on the terminal, enter:

   EDD   Begin data dump.

3   When "DATABASE BACKUP COMPLETE" or "DATADUMP
COMPLETE" appears on the terminal, enter:

****   Exit program

CAUTION

Loss of Data

If the data dump is not successful, do not continue.
Contact the technical support organization. A data dump
problem must be corrected before proceeding.

──────────── **End of Procedure** ────────────

Determine status (STAT) of the hardware

Follow the steps in Procedure 25 to determine the required hardware status.

Procedure 25
Obtaining hardware status

1   Load LD 137 and get status of the hard disks.

Note: Be sure the hard disks are synchronized. If not, synchronize before
proceeding.

LD 137	Load the program
STAT	Get the status of the hard disks
SYNC	Synchronize hard disks if necessary (Synchronization may take up to 50 minutes)
TEST CMDU	Performs hard and floppy disk test
****	Exit program

2   Load LD 135 and determine the status of the CPs, CNIs and memory.

    LD 135   Load program

    STAT CPU   Get the status of both CPs and memory

    STAT CNI   Get the status of all configured CNIs

3   Test the standby (inactive) CP. Then switch CPs, and test again.

    TEST CPU   Test standby (inactive) CP

    Wait until the terminal returns a complete test message. The message "HWI533 or HWI534" does not mean the test has completed!

    SCPU   Switch CPs

    TEST CPU   Test the standby (inactive) CP

    Note: Testing the CPs can take up to 20 minutes for each test. When the test is complete, the memories are automatically synchronized.

———— **End of Procedure** ————

Split the Core processors

Follow the steps in Procedure 26 to split the core processors.

Procedure 26
Splitting the Core processors

1   Be sure CP 0 is active and CP1 is standby. If necessary, switch CPs again:

   STAT CPU

   SCPU   Switch CPs if necessary

   ****   Exit program

2   Verify that IODU/C 0 is active. If necessary, switch IODU/Cs.

   LD 137

   STAT   Get the status of IODU/C

   SWAP   Switch IODU/Cs (if necessary)

   ****   Exit program

3   Connect a terminal from the CPSI port in Core/Net 1 to J25 of the I/O panel at the back of the Core/Net. Be sure it is configured as follows. The recommended baud rate is 9600, to be the same as the CPSI port.

   7 data bits, 1 stop bit, Space parity, Full-duplex, XON protocol

4   Place CP 0 in Maintenance by setting the MAINT/NORM switch to MAINT.

5   In Core/Net 1, disable the CNI cards by setting the ENB/DIS faceplate switches to DIS.

6   Place CP1 in Maintenance by setting the MAINT/NORM switch to MAINT.

   Note: Core 1 will now sysload. Allow the system to complete the sysload and INI. Review any sysload errors and correct before proceeding.

System is now is split mode, Core 0 active, Clock Controller 0 is active if equipped with FNF. Rings are in half/half mode.

End of Procedure

Install software on Core/Net 1

Follow the steps in Procedure 27 to install the system software on Core/Net 1.

Procedure 27
Installing the system software on Core/Net 1

1   Place the CP Install disk that corresponds with the installed CP card type into the IODU/C in Core/Net 1.

2   Install the CD-ROM into the CD drive:

    a.   Press the button on the CD-ROM drive to open the CD-ROM disk holder.

    b.   Place the CD-ROM disk into the holder with the disk label showing.

    c.   Use the four tabs to secure the CD-ROM drive.

    d.   Press the button again to close the CD-ROM disk holder. Don't push the holder in by hand.

3   In Core/Net 1 press and release the MAN RST button on the CP card.

A Sysload begins (cold start). Wait for the Main Menu to appear on the terminal before proceeding.

    Note 1: If the CD-ROM is not in the CD drive of the IODU/C, the installation procedure will not continue. Insert the CD-ROM into the drive to continue.

    Note 2: If a problem is detected during the system verification, the Install process stops, prints an error message, and aborts the installation. If the verification is not successful, do not continue. Contact the technical support organization.

4   Press <CR> to continue.

5   Log into the system. Enter the time and date, when prompted.

6 Select yes or (no) when asked if a Signaling Server is connected:

System Date and Time now is:

Day-Month-Year, Hour:Min:Sec

Succession Enterprise Software/Database/BOOTROM
CDROM INSTALL Tool

Does this System have a Signaling Server.....? (Default - No)

Please enter:

<CR> -> <n> - No

<y> - Yes

Enter Choice>

7 The system then enters the Main Menu for keycode authorization.
Remove the CP PII Install Program diskette and insert the Keycode
diskette.

M A I N   M E N U

The Software Installation Tool will install or upgrade
Succession Enterprise System Software, Database and the CP-
BOOTROM. You will be prompted throughout the installation and
given the opportunity to quit at any time.

Please enter:

<CR> -> <u> - To Install menu

<t> - To Tools menu.

<q> - Quit.

Enter Choice> **<CR>**

>Validating Keycode

The provided keycode authorizes the install of X210300 software

(all subissues) for machine type XXXX

(XXX processor on XXXX System)

> **IMPORTANT!**
>
> Remove keycode floppy disk at this time and insert the database backup disk.

8   The screen displays the Install Menu. Confirm that the keycode matches the CD-ROM release:

> Please confirm that this keycode matches the CDROM Release
>
> Please enter:
>
> <CR> -> <y> - Yes, the keycode matches. Go on to Install Menu.
>
> <n> - No, the keycode does not match. Try another keycode diskette.
>
> Enter Choice> **<CR>**
>
> >Obtain database file names

9   Enter **b** to install the Software, Database and CP-BOOTROM:

I N S T A L L   M E N U

    The Software Installation Tool will install or upgrade Succession Enterprise System Software, Database and the CP-BOOTROM. You will be prompted throughout the installation and given the opportunity to quit at any time.

    Please enter:

<CR> -> <a> - To install Software, CP-BOOTROM.

    <b> - To install Software, Database, CP-BOOTROM.

    <c> - To install Database only.

    <d> - To install CP-BOOTROM only.

    <t> - To go to the Tools menu.

    <k> - To install Keycode only.

      For Feature Expansion, use OVL143.

    <p> - To install 3900 set Languages.

    <q> - Quit.

    Enter Choice> **b**

---

10   Verify the CD-ROM version:

Please insert the installation CDROM into the drive on Core X.

The labeled side of the CDROM should be side up in the CDROM tray.

Please enter:

<CR> -> <a> - CDROM is now in drive. Continue with s/w checking.

<q> - Quit.

Enter Choice> **<CR>**

The installation CDROM contains version X210300_K.

Please enter:

<CR> -> <y> - Yes, this is the correct version. Continue.

<n> - No, this is not the correct version. Try another CDROM.

or keycode disk

Enter Choice> **<CR>**

>copying direct.rec from /cd0/0300_KMR.N33/target/p/sl1/ direct.rec to /u/direct.rec

>Updating /u/direct.rec

>Processing the Install Control file

>Installing release 0300K

---

11 Confirm all options before installing the software:

```
                    INSTALLATION STATUS SUMMARY

                 ---------------------------------------

        ============+=======+=======+============
      |    Option    |    Choice    | Status |   Comment      |
        ================+=======+=======+=========
      | SW: CD to disk |     yes     |       | install for rel 0300K |
        ============+========+========+=============
      |    Option    |    Choice    | Status |   Comment      |
        ================+=======+=======+=========
      |   Database   |     yes     |       |              |

      |    Option    |    Choice    | Status |   Comment      |
        ================+=======+=======+=========
      | CP-BOOTROM |     yes     |       |              |


        Please enter:<CR> -> <y> - Yes, start Installation.

         <n> - No, stop Installation. Return to the Main Menu.

Enter Choice> <CR>

>Checking System Configuration

You selected to upgrade the system from release: XXXX to release:
0300K.

This will erase all old system files.
```

> Database files will NOT be erased. You may continue installing the software or quit now and leave your system unchanged.
>
> Please enter:
>
> <CR> -> <a> - Continue with Upgrade.
>
> <q> - Quit.
>
> Enter Choice> **<CR>**
>
> >Starting Software Install
>
> >Upgrading from release XXXX to release 0300K

12 After a number of files are copied over, select a PSDL file to install. The PSDL file contains the loadware for all downloadable cards in the system and loadware for M3900 series sets.

Select one of the six PSDL files

<1>   Global 10 Languages

<2>   Western Europe 10 Languages

<3>   Eastern Europe 10 Languages

<4>   North America 6 Languages

<5>   Spare Group A

<6>   Spare Group B

The languages contained in each selection are outlined as follows:

- 1 – Global 10 Languages (Release 3) English, French, German, Spanish, Swedish, Italian, Norwegian, Brazilian Portuguese, Finnish, Japanese Katakana.

- 2 – Western Europe 10 Languages (Release 3) English, French, German, Spanish, Swedish, Italian, Norwegian, Brazilian Portuguese, Finnish, Danish.

- 3 – Eastern Europe 10 Languages (Release 3) English, French, German, Dutch, Polish, Czech, Hungarian, Russian, Latvian, Turkish.

- 4 – North America six Languages (Release 3) English, French, German, Spanish, Brazilian Portuguese, Japanese Katakana.

- 5 – Spare Group A.

- 6 – Spare Group B.

13 Continue with upgrade when prompted. Select a database to install:

Software release 0300K was installed successfully on Core X.

All files were copied from CDROM to the hard disk.

Please press <CR> when ready... **<CR>**

You will now perform the database installation.

Note: If you are installing the Database from a floppy disk, please insert the correct disk now.

Please enter:

<CR> -> <a> - Install CUSTOMER Database

(the customer database diskette must be in the Core X disk drive).

<b> - Install DEFAULT Database

(the installation CDROM must be in the Core X disk drive).

<c> - Transfer the previous system Database.

<e> - Check the Database that exists on the hard disk.

<q> - Quit.

Enter Choice> **<CR>**

---

14 Confirm database transfer:

You selected to transfer the database from the floppy disk - release: XXXX to the hard disk on Core X. release: XXXX.

This will erase the database on the hard disk.

The database diskette has been inserted into the floppy disk drive.

If you quit now, the database will be left unchanged.

Please enter:

<CR> -> <a> - Continue with Database Install.

<q> - Quit.

Enter Choice> **<CR>**

The system then informs you of the database details and prompts you to confirm:

You have chosen to restore database dated: Jul 07 14:10:00 2003

Please confirm.

Please enter:

<CR> -> <y> - Yes, load.

<n> - No, DO NOT load.

Enter Choice> **<CR>**

15 The system restores the database and provides a status summary.

Note: The hard drive on a new system displays an error message that no database is found on hard drive. This message can be ignored.

16 Enter **<CR>** when prompted, returning the system to the Install Menu.

17 Enter **q** to quit:

I N S T A L L   M E N U

The Software Installation Tool will install or upgrade Succession Enterprise System Software, Database and the CP-BOOTROM. You will be prompted throughout the installation and given the opportunity to quit at any time.

Please enter:

\<CR\> -> \<a\> - To install Software, CP-BOOTROM.

\<b\> - To install Software, Database, CP-BOOTROM.

\<c\> - To install Database only.

\<d\> - To install CP-BOOTROM only.

\<t\> - To go to the Tools menu.

\<k\> - To install Keycode only.

For Feature Expansion, use OVL143.

\<p\> - To install 3900 set Languages.

\<q\> - Quit.

Enter Choice> **q**

---

18 The system then prompts you to confirm and reboot:

You selected to Quit the Software Installation Tool.

You may reboot the system or return to the Main Menu.

Before rebooting the system, remove Install diskette from the floppy drive(s).

DO NOT REBOOT USING BUTTON!!

Please enter:

<CR> -> <a> - Reboot the system.

<m> - Return to the Main menu.

Enter Choice> **<CR>**

>Removing temporary files

>Remove /u/diskXXXX.sys

>Quit Install. Reboot system...

—————— **End of Procedure** ——————

If the system fails to load, or system messages indicate data corruption, back out of the parallel reload process by performing the steps in "Back out of the parallel reload and re-install old software" on .

Determine peripheral software version

Follow the steps in Procedure 28 below to determine the peripheral software version.

Procedure 28
Checking peripheral software versions

1 Load LD 22 and print Target peripheral software version. The Source peripheral software version was printed during the pre-conversion procedure. If there is a difference between the Source and Target peripheral software version, a forced download will occur during initialization when coming out of parallel reload. System initialization will take longer and established calls on IPE will be dropped.

LD 22	Load program
REQ	PRT
TYPE	PSWV
****	Exit program

Switch call processing to Core/Net 1

	CAUTION
	Service Interruption
	Call Processing will be interrupted! Perform these next steps carefully. This is the point at which service is interrupted. Calls in process are interrupted, especially if Peripheral Software Download takes place. Some calls might be dropped.

	WARNING
	System initialization may take up to 15 minutes or longer.

> ⚠️ **IMPORTANT!**
>
> Power down all applications (Meridian Mail, Call Pilot, Symposium).

Follow the steps in Procedure 29 to switch call processing from Core/Net 0 to Core/Net 1.

Procedure 29
Switching call processing from Core/Net 0 to Core/Net 1

1   In Core/Net 0, disable the CNI cards by setting the ENB/DIS faceplate switches to DIS.

2   In Core/Net 0, set the DIS/ENB faceplate switch on the IODU/C card to DIS and unseat it.

3   In Core/Net 1, enable the CNI cards by setting the ENB/DIS faceplate to ENB.

4   In Core/Net 1, press the MAN INT button.

———————— **End of Procedure** ————————

FIJI Download

On FNF based systems after the INI, a FIJI download will occur if the FIJI firmware on Bank 1 of the FIJI card is different from the firmware on the system hard drive (PSDL file). This is automatic and no attempt should be made to prevent the download. The system will switch full to one ring, download up to 4 FIJI cards on the opposite ring at a time. This process continues on both rings until all Fiji's have been downloaded. The rings will then reset and come into service with the highest firmware available. This process is not service affecting. Depending on the number of groups installed, this process may take up to 20 minutes per ring.

> ⚠️ **CAUTION**
>
> **Service Interruption**
>
> The INI may take up to15 minutes to complete.

> CP1 is active, Clock 1 is active, IODU/C is active. If equipped, the FIJI ring is in half/half mode.
>
> Call processing is now switched from Core/Net 0 to Core/Net 1.

> **IMPORTANT!**
>
> Power up all applications (Meridian Mail, Call Pilot, Symposium).

Test Core/Net 1

Procedure 30
Testing Core/Net 1

1   Check dial tone.

2   Make internal, external and network calls.

3   Check attendant console activity.

4   Check DID trunks.

5   Check applications (Call Pilot, Symposium, Meridian Mail, etc.).

––––––––––––––– **End of Procedure** –––––––––––––––

Install new software on Core/Net 0

Follow the steps in Procedure 31 to install the new software on Core/Net 0.

Procedure 31
Installing the software and converting the database

1   Check that a terminal is connected to J25 on Core/Net 0.

2   In Core/Net 0, install the CD-ROM into the CD-ROM drive in the IODU/C:

    a.   Press the button on the CD-ROM drive to open the CD-ROM disk holder.

    b.   Place the CD-ROM disk into the holder with the disk label showing.

    c. Press the button again to close the CD-ROM disk holder.
Do not push the holder in by hand.

Note: If the CD-ROM is not in the CD-ROM drive, the installation will not continue. Insert the CD-ROM to continue.

3   Place the CP PII Install floppy disk into the IODU/C floppy drive.

Note: If a problem is detected during the system verification, Install stops, prints an error message, and aborts the installation. If the verification is not successful, do not continue; contact your technical support organization.

4   Press the manual RESET button on the CP card faceplate.

5   Select yes or (no) when asked if a Signaling Server is connected:

> System Date and Time now is:
>
>   Day-Month-Year, Hour:Min:Sec
>
>   Succession Enterprise Software/Database/BOOTROM
> CDROM INSTALL Tool
>
>   Does this System have a Signaling Server.....? (Default - No)
>
>   Please enter:
>
> <CR> -> <n> - No
>
>   <y> - Yes
>
>   Enter Choice>

6   The system then enters the Main Menu for keycode authorization. Remove the CP PII Install Program diskette and insert the Keycode diskette.

M A I N   M E N U

The Software Installation Tool will install or upgrade Succession Enterprise System Software, Database and the CP-BOOTROM. You will be prompted throughout the installation and given the opportunity to quit at any time.

Please enter:

<CR> -> <u> - To Install menu

<t> - To Tools menu.

<q> - Quit.

Enter Choice> **<CR>**

>Validating Keycode

The provided keycode authorizes the install of X210300 software

(all subissues) for machine type XXXX

(XXX processor on XXXX System)

IMPORTANT!

Remove keycode floppy disk at this time and insert the database backup disk.

---

7 The screen displays the Install Menu. Confirm that the keycode matches the CD-ROM release:

Please confirm that this keycode matches the CDROM Release

Please enter:

<CR> -> <y> - Yes, the keycode matches. Go on to Install Menu.

<n> - No, the keycode does not match. Try another keycode diskette.

Enter Choice> **<CR>**

>Obtain database file names

---

8 Enter **b** to install the Software, Database and CP-BOOTROM:

I N S T A L L   M E N U

The Software Installation Tool will install or upgrade Succession Enterprise System Software, Database and the CP-BOOTROM. You will be prompted throughout the installation and given the opportunity to quit at any time.

Please enter:

<CR> -> <a> - To install Software, CP-BOOTROM.

<b> - To install Software, Database, CP-BOOTROM.

<c> - To install Database only.

<d> - To install CP-BOOTROM only.

<t> - To go to the Tools menu.

<k> - To install Keycode only.

For Feature Expansion, use OVL143.

<p> - To install 3900 set Languages.

<q> - Quit.

Enter Choice> **b**

---

9   Verify the CD-ROM version:

Please insert the installation CDROM into the drive on Core X.

The labeled side of the CDROM should be side up in the CDROM tray.

Please enter:

<CR> -> <a> - CDROM is now in drive. Continue with s/w checking.

<q> - Quit.

Enter Choice> **<CR>**

The installation CDROM contains version X210300_K.

Please enter:

<CR> -> <y> - Yes, this is the correct version. Continue.

<n> - No, this is not the correct version. Try another CDROM.

or keycode disk

Enter Choice> **<CR>**

>copying direct.rec from /cd0/0300_KMR.N33/target/p/sl1/ direct.rec to /u/direct.rec

>Updating /u/direct.rec

>Processing the Install Control file

>Installing release 0300K

---

10 Confirm all options before installing the software:

```
                    INSTALLATION STATUS SUMMARY

              ---------------------------------------

        ============+=======+=======+============
      |    Option   |   Choice  | Status |   Comment       |
        ================+=======+=======+=========
      | SW: CD to disk  |    yes     |       | install for rel 0300K |
        ============+========+========+=============
      |    Option   |   Choice  | Status |   Comment       |
        ================+=======+=======+=========
      |   Database   |    yes     |     |      |             |

      |    Option   |   Choice  | Status |   Comment       |
        ================+=======+=======+=========
      | CP-BOOTROM |     yes     |     |      |             |


        Please enter:<CR> -> <y> - Yes, start Installation.

          <n> - No, stop Installation. Return to the Main Menu.
```

Enter Choice> **<CR>**

>Checking System Configuration

You selected to upgrade the system from release: XXXX to release: 0300K.

This will erase all old system files.

Database files will NOT be erased. You may continue installing the software or quit now and leave your system unchanged.

Please enter:

<CR> -> <a> - Continue with Upgrade.

<q> - Quit.

Enter Choice> **<CR>**

>Starting Software Install

>Upgrading from release XXXX to release 0300K

11 After a number of files are copied over, select a PSDL file to install. The PSDL file contains the loadware for all downloadable cards in the system and loadware for M3900 series sets.

Select one of the six PSDL files

<1>   Global 10 Languages

<2>   Western Europe 10 Languages

<3>   Eastern Europe 10 Languages

<4>   North America 6 Languages

<5>   Spare Group A

<6>   Spare Group B

The languages contained in each selection are outlined as follows:

- 1 – Global 10 Languages (Release 3) English, French, German, Spanish, Swedish, Italian, Norwegian, Brazilian Portuguese, Finnish, Japanese Katakana.

- 2 – Western Europe 10 Languages (Release 3) English, French, German, Spanish, Swedish, Italian, Norwegian, Brazilian Portuguese, Finnish, Danish.

- 3 – Eastern Europe 10 Languages (Release 3) English, French, German, Dutch, Polish, Czech, Hungarian, Russian, Latvian, Turkish.

- 4 – North America six Languages (Release 3) English, French, German, Spanish, Brazilian Portuguese, Japanese Katakana.

- 5 – Spare Group A.

- 6 – Spare Group B.

12 Continue with upgrade when prompted. Select a database to install:

Software release 0300K was installed successfully on Core X.

All files were copied from CDROM to the hard disk.

Please press <CR> when ready... **<CR>**

You will now perform the database installation.

Note: If you are installing the Database from a floppy disk, please insert the correct disk now.

Please enter:

<CR> -> <a> - Install CUSTOMER Database

(the customer database diskette must be in the Core X disk drive).

<b> - Install DEFAULT Database

(the installation CDROM must be in the Core X disk drive).

<c> - Transfer the previous system Database.

<e> - Check the Database that exists on the hard disk.

<q> - Quit.

Enter Choice> **<CR>**

---

13 Confirm database transfer:

You selected to transfer the database from the floppy disk - release: XXXX to the hard disk on Core X. release: XXXX.

This will erase the database on the hard disk.

The database diskette has been inserted into the floppy disk drive.

If you quit now, the database will be left unchanged.

Please enter:

<CR> -> <a> - Continue with Database Install.

<q> - Quit.

Enter Choice> **<CR>**

The system then informs you of the database details and prompts you to confirm:

You have chosen to restore database dated: Jul 07 14:10:00 2003

Please confirm.

Please enter:

<CR> -> <y> - Yes, load.

<n> - No, DO NOT load.

Enter Choice> **<CR>**

14 The system restores the database and provides a status summary.

Note: The hard drive on a new system displays an error message that no database is found on hard drive. This message can be ignored.

15 Enter **<CR>** when prompted, returning the system to the Install Menu.

16   Enter **q** to quit:

I N S T A L L   M E N U

The Software Installation Tool will install or upgrade Succession Enterprise System Software, Database and the CP-BOOTROM. You will be prompted throughout the installation and given the opportunity to quit at any time.

Please enter:

<CR> -> <a> - To install Software, CP-BOOTROM.

<b> - To install Software, Database, CP-BOOTROM.

<c> - To install Database only.

<d> - To install CP-BOOTROM only.

<t> - To go to the Tools menu.

<k> - To install Keycode only.

For Feature Expansion, use OVL143.

<p> - To install 3900 set Languages.

<q> - Quit.

Enter Choice> **q**

---

17 The system then prompts you to confirm and reboot:

You selected to Quit the Software Installation Tool.

You may reboot the system or return to the Main Menu.

Before rebooting the system, remove Install diskette from the floppy drive(s).

DO NOT REBOOT USING BUTTON!!

Please enter:

<CR> -> <a> - Reboot the system.

<m> - Return to the Main menu.

Enter Choice> **<CR>**

>Removing temporary files

>Remove /u/diskXXXX.sys

>Quit Install. Reboot system...

End of Procedure

Exiting split mode

Follow the steps in Procedure 32 to exit the split mode.

Procedure 32
Exiting the split mode

1   Connect CPSI port or maintenance SDI port.

2   Enable the CNI cards by setting the ENB/DIS faceplate switch to ENB in Core/Net 0.

3   Perform the following in uninterrupted sequence:

- Press and release the MAN RST button in Core/Net 0.

- When SYS700 messages appears on the LCD display on Core/ Net 0, set the MAINT/NORM switch to NORM in Core/Net 0.

In 60 seconds, the LCD lights and confirms the processes with:

   RUNNING ROM OS

   ENTERING CP VOTE

An HWI534 message indicates the start of memory synchronization. In 10 minutes, an HWI533 message on Core/Net 1 CSPI or SDI terminal indicates the memory synchronization is complete.

4   In Core/Net 1, set the MAINT/NORM switch on the CP card to NORM.

─────────── **End of Procedure** ───────────

Test Core/Net 1 and Core/Net 0

Follow the steps in Procedure 33 to test Core/Net 0 and Core/Net 1.

Procedure 33
Testing Core/Net 0 and Core/Net 1

1   Perform a redundancy sanity test. Use the following sequence:

    LD 135

    STAT CNI   Get status of CNI cards

    STAT CPU   Get status of CPU and memory

    TEST CPU   Test the inactive Core/Net/Net

    TEST CNI c s   Test each inactive CNI card

2   Switch Core/Nets and test the other side (Core/Net 0).

    SCPU   Switch Core/Nets

    TEST CPU   Test the inactive Core/Net/Net

    TEST CNI c s   Test each inactive CNI card

Note: Testing the Call Processor and CNI cards and synchronizing memory can take up to 20 minutes for each test. When the Call Processor test is complete, the Call Processor the memory is automatically synchronized.

3   Clear the display and minor alarms on both Core/Nets.

    CDSP   Clear the displays on the Core/Nets

    CMAJ   Clear major alarms

    CMIN ALL   Clear minor alarms

4   Get the status of the Core/Nets, CNIs, and memory.

> **STAT CPU**   Get the status of both Core/Nets
>
> **STAT CNI**   Get the status of all configured CNIs and memory

> *Note:* You may need to execute the STAT CNI command twice before receiving a response from the system.

> ********   Exit program

─────────── **End of Procedure** ───────────

Switch the Clocks

Procedure 34
Switching the Clocks

1   Verify that the clock controller is assigned to the *active* Core.

> **LD 60**   Load program
>
> **SSCK *x***   Get the status of the clock controllers (*x* is "0" or "1" for Clock 0 or Clock 1)
>
> **SWCK**   Switch the Clock if necessary
>
> ********   Exit program

2   Verify that the Clock Controllers are switching correctly:.

> **SWCK**   Switch the Clock
>
> **SWCK**   Switch the Clock again

─────────── **End of Procedure** ───────────

If equipped, stat the FIJI rings

Procedure 35
Stat the rings

1   Check the status of Ring 0 and Ring 0.

LD 39	Load program
STAT RING 0	To get the status of Ring 0 (Ring state should be HALF/HALF)

2   Check the status of Ring 0 and Ring 1.

LD 39	Load program
STAT RING 1	To get the status of Ring 0 (Ring state should be HALF/HALF)

———————   **End of Procedure**   ———————

Synchronize the hard disks

Follow the steps in Procedure 36 to synchronize the hard disks.

Procedure 36
Synchronizing the hard disks

1   Access LD 137 and synchronize the hard disks. Synchronization can take
    up to 50 minutes. To ensure that the contents of IODU/C 1 are copied to
    IODU/C 0, verify that IODU/C 0 is disabled.

LD 137	Load program
STAT	Get the status of the IODU/C and redundancy
SYNC	Enter "Yes" to synchronize disks (Wait until the memory synchronization successfully completes before continuing)
TEST CMDU	Perform hard and floppy disk test

2   Get the status of the CMDU's and be sure CMDU 0 is active. Switch if
    necessary.

STAT	Get the status of IODU/C and redundancy
SWAP	Switch CMDU if necessary
STAT CMDU	Get the status of the IODU/Cs (Be sure the same IODU/C and CPU are active)
****	Exit program

Perform a data dump

Procedure 37
Performing a data dump

1   Load the Equipment Data Dump Program (LD 43)
At the prompt, enter:

   LD 43   Load program

2   When "EDD000" appears on the terminal, enter:

   EDD   Begin the data dump

3   When "DATABASE BACKUP COMPLETE" or "DATADUMP
COMPLETE" appears on the terminal, enter the following:

   ****   Exit program

Proceed to "Post-conversion procedure" on .

> ✔ The parallel Reload process is complete. The system is
> now running on the target release
>
> System is now in redundant mode.

──────── **End of Procedure** ────────

Back out of the parallel reload and re-install old software

Follow the steps in Procedure 38 to back out of the parallel reload and re-install the old software.

Procedure 38
Backing out of the parallel reload and re-installing old software

1   Place the original Install disk 1 into the IODU/C in Core/Net 1.

2   In Core/Net 1, press the MAN RST button.

3   Select <u> to initiate the Install Tool.

4   Remove the CP Install diskette and insert the source keycode diskette.

5   Select <a> to continue with keycode validation.

IMPORTANT!

Remove keycode floppy disk at this time.

---

6   When the install screen appears, select the following options in sequence, and insert the **source** database diskette when prompted.

  <b>   Install software, database, CP-BOOT ROM, and IOP-ROM.

  <a>   Start installation.

  <a>   Continue with upgrade.

7   When the database installation screen appears, select the following:

  <c>   Transfer the previous system database (DBMT).

  <a>   Continue with the database install.

  <y>   Delete the hardware infrastructure database files from the hard disk.

8   When the ROM installation screen appears, select the following:

  <a>   Continue with the ROM upgrade.

9   Following the database installation, upgrade the ROMs:

  <a>   Continue with ROM upgrade (CP-BOOT).

  <y>   Start installation.

  <a>   Continue with ROM upgrade (IOP-ROM).

10   Remove the source database disk from the IODU/C in Core/Net 1.

11 From the main menu, select the following options to quit and reload the system:

   <q>   Quit.

   <y>   Confirm quit.

12 Remove any diskettes from the floppy drive, and type:

   <a>   Reboot the system.

                    The system automatically performs a Sysload during which several messages appear on the system terminal. Wait for "DONE" and then "INI" messages to be displayed before continuing.

13 In Core/Net 1, perform the following steps:

   • Enable the CNI cards by setting the ENB/DIS faceplate switches to ENB.

   • Press and release the MAN RST button on the CP card.

   • When SYS700 messages appear on the CP 1 LCD display, set CP 1 MAINT/NORM switch to NORM.

   Within 60 seconds, the LCD displays the following messages, confirming the process.

   > **RUNNING ROM OS**
   > **ENTERING CP VOTE**

   An "HWI534" message from the CPSI or SDI port indicates the start of memory synchronization. Within 10 minutes, an "HWI533" message on Core/Net 0 CPSI or SDI TTY indicates the memory synchronization is complete. Wait until the memory synchronization is complete before continuing.

14 In Core/Net 0, set the MAINT/NORM switch on the CP card to NORM.

15   Perform a redundancy sanity test.

LD 135   Load program
TEST CPU   Test the standby (inactive) Core/Net
SCPU   Switch the Cores
CDSP   Clear display
TEST CPU   Test the standby (inactive) Core/Net
SCPU   Switch the Cores

Note: Testing the CPs can take up to 20 minutes for each test. When the test is complete, the memories are automatically synchronized.

16   Load LD 137 and synchronize hard disks. Synchronization can take up to 50 minutes. To be sure the contents of CMDU 0 are copied to CMDU 1, use the STAT command to verify that CMDU 1 is disabled.

LD 137   Load program
STAT CMDU   Get the status of both CMDUs
SYNC   Synchronize disks
TEST CMDU   Performs hard and floppy disk test

——————————   **End of Procedure**   ——————————

> Backing our of the parallel reload process is complete. The system is now running on the source release.
>
> System is now in redundant mode.

Proceed to "Post-conversion procedure" on .

Meridian 1 Option 51C software conversion

CAUTION WITH ESD DEVICES

To avoid damaging equipment from electrostatic discharge, wear a properly connected anti-static wrist strap when working on or near Meridian 1 equipment.

WARNING

Use the procedures in this section if the system is equipped with NT5D61 Input Output Disk Unit with CD-ROM (IODU/C) card(s). If the system is not equipped with the IODU/C card, do not use these procedures

The procedures in this section describe how to do the following:

• convert one software release to a later release

• perform a software up-issue within in the same software release

The procedure should only be used for systems equipped with IODUC cards.

To better understand the process, read through the entire procedure before beginning the conversion.

The following section describes how to convert from one software release to another on Meridian 1 Option 51C systems **only**.

Prepare for upgrade

This document implements a source to target approach to performing an upgrade. It is important to correctly identify the source platform, target platform and maintenance window required to perform the upgrade.

Each chapter features check boxes indicating what condition the system should be in at that stage of the upgrade. If the system is not in the proper condition steps should be taken to correct this.

Each section is written to maintain Dial Tone where possible and limit service interruptions.

Before attempting any software or hardware upgrade field personnel should follow the steps in Table 8 below:

Table 8
Prepare for upgrade steps

Procedure Step	Page
Plan upgrade	156
Upgrade Checklists	157
Prepare	157
Identifying the proper procedure	158
Connect a terminal	158
Print site data	159
Perform a template audit	161
Back up the database (data dump and ABKO)	162
Identify two unique IP addresses	164

Plan upgrade

Planning for an upgrade involves the following tasks:

- Conduct a site inspection to determine proper power and grounding.

- Review the site profile to determine proper foot space if adding new columns or modules.

- Ensure sufficient power for new columns/modules or applications.

- Identify all applications (Call Pilot, SCCS, IP, Meridian Mail etc.) that are currently installed on the source platform.

- Identify and correct outstanding service problems.

- Verify the site log is updated with current trunking, call routing, application notes, and site contact information.

- Review all product bulletins and Nortel Alerts that impact the site.

- Determine if software can be converted on site or must be sent to Nortel Networks.

- Prepare a contingency plan for backing out of the upgrade.

Upgrade Checklists

Upgrade checklists can be found in the "Upgrade checklists" chapter on 707. Engineers may print this section in order to facilitate the upgrade.

Prepare

Preparing for an upgrade involves the following tasks:

- Identify and become familiar with all procedures.

- Verify that all installed applications meet the minimum software requirements for the target platform (see Table 4 on page 28 of Book 1).

- Verify proper cable lengths for the target platform.

- Verify card vintage requirements of the target platform.

- Determine the current patch or Dep lists installed at the source platform.

- Determine the required patch or Dep lists at the target platform.

- Determine and communicate the required maintenance window, contingency plan and the impact to the customer to complete the procedure.

- Perform an inventory on required software and hardware.

- Secure the source software and key code.

- Secure the target software and key code.

- Verify the new key code using the DKA program.

- Print site data.

Identifying the proper procedure

Each procedure has been written in a source to target format. Each procedure features warning boxes and check boxes placed at critical points. Changing the procedure or ignoring the warning boxes could cause longer service interruptions.

> **IMPORTANT!**
>
> Database backup information should be preserved for a minimum of 5 days.

Connect a terminal

Procedure 39
Connecting a terminal

A maintenance terminal is required to access the Core or Core/Net modules during the upgrade procedure.

1   Connect a terminal to the J25 port on the I/0 panel in the *inactive* Core or Core/Net module.

2   The settings for the terminal are:

    a.   9600 Baud

    b.   7 data

    c.   space parity

    d.   1 stop bit

    e.   full duplex

    f.   XOFF

3   If only one terminal is used for both Core or Core/Net modules, the terminal must be connected from side-to-side to access each module. An "A/B" switch box can also be installed to switch the terminal from side to side.

———————— **End of Procedure** ————————

Print site data

Print site data to preserve a record of the system configuration (Table 9 on page 159). Verify that all information is correct. Make corrections as necessary.

Note: Items marked with an asterisk (*) are required. Other items are recommended for a total system status.

Table 9
Print site data (Part 1 of 3)

Site data	Print command	
Terminal blocks for all TNs	LD 20	
	REQ	PRT
	TYPE	TNB
	CUST	<cr>
Directory Numbers	LD 20	
	REQ	PRT
	TYPE	DNB
	CUST	<cr>
Attendant Console data block for all customers	LD 20	LD 20
	REQ	PRT
	TYPE	ATT, 2250
	CUST	<cr>
*Customer data block for all customers	LD 21	LD 21
	REQ	PRT
	TYPE	CDB
	CUST	<cr>

Table 9
Print site data (Part 2 of 3)

Site data	Print command	
Route data block for all customers	LD 21	
	REQ	PRT
	TYPE	RDB
	CUST	Customer number
	ROUT	<cr>
	ACOD	<cr>
*Configuration Record	LD 22	
	REQ	PRT
	TYPE	CFN
*Software packages	LD 22	
	REQ	PRT
	TYPE	PKG
*Software issue, ROM and tape ID	LD 22	
	REQ	ISS
	REQ	ROM
	REQ	TID
* Peripheral software versions	LD 22	
	REQ	PRT
	TYPE	PSWV
ACD data block for all customers	LD 23	
	REQ	PRT
	TYPE	ACD
	CUST	Customer Number
	ACDN	ACD DN (or <CR>)
Superloop card IDs and software version (peripheral controller, superloop network and controller cards)	LD 32	
		IDC loop

Table 9
Print site data (Part 3 of 3)

Site data	Print command	
Multi-purpose ISDN Signaling Processor (MISP) card	LD 27	
	REQ	PRT
	TYPE	MISP
	LOOP	loop number (0-158)
	APPL	<cr>
	PH	<cr>
DTI/PRI data block for all customers	LD 73	
	REQ	PRT
	TYPE	DDB

Note: Items marked with asterisks (*) are required printout for conversion. Other items are recommended for a total system status.

Perform a template audit

A template audit (LD 01) reviews the templates in your system. Corrupted and duplicate templates are cleaned up. An example of the information generated during the audit is listed below.

Note: The template audit may take an extended period of time on large systems. Run the audit during a low traffic period.

CAUTION

Loss of Data

Do not abort this overlay until the audit is complete. If the overlay is interrupted, data will be corrupted.

LD 01   The audit begins as soon as LD 01 is entered.

TEMPLATE AUDIT

STARTING PBX TEMPLATE SCAN

TEMPLATE 0001 USER COUNT LOW	**CHECKSUM OK**
TEMPLATE 0002 USER COUNT HIGH	**CHECKSUM OK**
TEMPLATE 0003 NO USERS FOUND	

STARTING SL1 TEMPLATE SCAN

TEMPLATE 0001 USER COUNT OK	**CHECKSUM OK**

- •

- •

TEMPLATE 0120 USER COUNT OK	**CHECKSUM OK**

TEMPLATE AUDIT COMPLETE

Back up the database (data dump and ABKO)

To back up system data, complete the following two procedures.

1 Perform a data dump to save all system memory to the hard disk.

2 Perform a ABKO (attended backup) to save the database to a spare set of floppy disks.

Procedure 40
Performing a data dump

1 Log into the system.

2 Load the Equipment Data Dump Program (LD 43). At the prompt, enter:

    LD 43   Load program

3 When "EDD000" appears on the terminal, enter:

    EDD   Begin the data dump

CAUTION

Loss of Data

If the data dump does not succeed, do not continue. Contact your technical support organization. You must correct a data dump problem before the system can be upgraded.

The messages "DATADUMP COMPLETE" and "DATABASE BACKUP COMPLETE" will appear once the data dump is complete.

    ****   Exit program

Procedure 41
Performing an ABKO (save the database to floppies)

1   Insert floppy diskettes into BOTH floppy disk drives in each Core IODU/C or MMDU.

    Note: If the file is too large to fit on a single floppy disk, the ABKO command will compress the data. If the compressed data is still too large to fit on a single disk, both floppy disks in the two IODU/C drives will be used. Be sure to insert floppy disks into BOTH IODU/C drives before the ABKO backup is begun.

2   Load the Customer Configuration Backup and Restore (LD 143). At the prompt, enter:

    LD 143   Load program

3   Run the ABKO backup (LD 143).

    ABKO   Run the backup

Result: If the backup is successful, the system displays a message that states that the database backup is complete and generates a report that indicates which floppy drives were used.

4   If there are validation errors, repeat the procedure.

> ⚠️ **CAUTION**
>
> **Loss of Data**
>
> If the backup is not successful, do not continue; contact
> your technical support organization. Any backup
> problems must be corrected before the system is
> upgraded to CP PII.

5   Once the backup is complete, type:

  ****   Exit program

—————— **End of Procedure** ——————

Identify two unique IP addresses

Each CP PII system must be configured with two unique IP addresses for
LAN identification and communication. One IP address is defined for the
active Core. The second IP address is defined for the *inactive* Core. In this
configuration, the *active* Core (either Core 0 or Core 1) that handles call
processing is always identified by the same IP address.

- Contact your systems administrator to identify two unique IP addresses
  before the upgrade.

- For instructions to configure these IP numbers, see "Configuring IP
  addresses" on page 667 of Book 1.

Perform upgrade

Verify memory

Determine whether the system requires additional memory. Refer to
"Installing IODU/C cards, CP cards, CP memory" on page 305 for memory
requirements and upgrade procedures.

Perform a data dump

Follow the steps in Procedure 42 below to perform a data dump on the Meridian 1 Option 51C.

Procedure 42
Performing a data dump on the Meridian 1 Option 51C

1   Load the Equipment Data Dump Program (LD 43). At the prompt, enter:

   LD 43   Load program

2   When "EDD000" appears on the terminal, enter:

   EDD   Begin the data dump

3   When "DATABASE BACKUP COMPLETE" or "DATADUMP COMPLETE" appears on the terminal, enter

   ****   Exit program

———— **End of Procedure** ————

⚠️	**CAUTION** **Loss of Data** If the data dump is not successful, do not continue. Contact the technical support organization. A data dump problem must be corrected before proceeding.

STAT the hardware on the Meridian 1 Option 51C

Follow the steps in Procedure 43 to determine the status of the hardware on the Meridian 1 Option 51C.

Procedure 43
Determining the hardware status on the Meridian 1 Option 51C

1   Access LD 137 and get the status of the hard disk.

   LD 137   Load program

   STAT   Get the status of the hard disks

2   Access LD 135 and get status of the CP, CNI and memory.

   LD 135   Load program

   STAT CPU   Get the status of the CP and memory

   STAT CNI   Get the status of the CNI

	IMPORTANT!
⚠️	Power down all applications (Meridian Mail, Call Pilot, Symposium).

———————— **End of Procedure** ————————

	CAUTION
⚠️	**Service Interruption**
	Meridian 1 Option 51C conversion is service affecting
	The procedure takes approximately 30 minutes to complete.

Install new software on Meridian 1 Option 51C

Follow the steps in Procedure 44 below to install the new software on the Meridian 1 Option 51C.

Procedure 44
Installing the software and converting the database

1   Install the CD-ROM into the CD-ROM drive in the MMDU:

    a. Press the button on the CD-ROM drive to open the CD-ROM disk holder.

    b. Place the CD-ROM disk into the holder with the disk label showing.

    c. Press the button again to close the CD-ROM disk holder. Do not push the holder in by hand.

Note: If the CD-ROM is not in the CD-ROM drive, the installation will not continue. Insert the CD-ROM to continue.

2   Place the Install floppy disk into the MMDU floppy drive.

Note: If a problem is detected during the system verification, Install stops, prints an error message, and aborts the installation. If the verification is not successful, do not continue; contact your technical support organization.

3   Press the manual RESET button on the CP card faceplate.

4   Select yes or (no) when asked if a Signaling Server is connected:

```
 System Date and Time now is:

      Day-Month-Year, Hour:Min:Sec

      Succession Enterprise Software/Database/BOOTROM
 CDROM INSTALL Tool

      Does this System have a Signaling Server.....? (Default - No)

      Please enter:
 <CR> -> <n> - No

      <y> - Yes

      Enter Choice>
```

5   The system then enters the Main Menu for keycode authorization. Remove the CP PII Install Program diskette and insert the Keycode diskette.

M A I N   M E N U

The Software Installation Tool will install or upgrade Succession Enterprise System Software, Database and the CP-BOOTROM. You will be prompted throughout the installation and given the opportunity to quit at any time.

Please enter:

<CR> -> <u> - To Install menu

<t> - To Tools menu.

<q> - Quit.

Enter Choice> **<CR>**

>Validating Keycode

The provided keycode authorizes the install of X210300 software

(all subissues) for machine type XXXX

(XXX processor on XXXX System)

IMPORTANT!

Remove keycode floppy disk at this time and insert the database backup disk.

---

6   The screen displays the Install Menu. Confirm that the keycode matches the CD-ROM release:

Please confirm that this keycode matches the CDROM Release

Please enter:

<CR> -> <y> - Yes, the keycode matches. Go on to Install Menu.

<n> - No, the keycode does not match. Try another keycode diskette.

Enter Choice> **<CR>**

>Obtain database file names

---

7   Enter **b** to install the Software, Database and CP-BOOTROM:

I N S T A L L   M E N U

The Software Installation Tool will install or upgrade Succession Enterprise System Software, Database and the CP-BOOTROM. You will be prompted throughout the installation and given the opportunity to quit at any time.

Please enter:

<CR> -> <a> - To install Software, CP-BOOTROM.

<b> - To install Software, Database, CP-BOOTROM.

<c> - To install Database only.

<d> - To install CP-BOOTROM only.

<t> - To go to the Tools menu.

<k> - To install Keycode only.

For Feature Expansion, use OVL143.

<p> - To install 3900 set Languages.

<q> - Quit.

Enter Choice> **b**

---

8   Verify the CD-ROM version:

> Please insert the installation CDROM into the drive on Core X.
>
> The labeled side of the CDROM should be side up in the CDROM tray.
>
> Please enter:
>
> <CR> -> <a> - CDROM is now in drive. Continue with s/w checking.
>
> <q> - Quit.
>
> Enter Choice> **<CR>**
>
> The installation CDROM contains version X210300_K.
>
> Please enter:
>
> <CR> -> <y> - Yes, this is the correct version. Continue.
>
> <n> - No, this is not the correct version. Try another CDROM.
>
> or keycode disk
>
> Enter Choice> **<CR>**
>
> >copying direct.rec from /cd0/0300_KMR.N33/target/p/sl1/ direct.rec to /u/direct.rec
>
> >Updating /u/direct.rec
>
> >Processing the Install Control file
>
> >Installing release 0300K

9   Confirm all options before installing the software:

```
                   INSTALLATION STATUS SUMMARY

             ----------------------------------------

       ============+=======+=======+============
      |   Option    |  Choice | Status |  Comment        |
       ================+=======+=======+=========
      | SW: CD to disk |    yes    |         | install for rel 0300K |
       ============+========+========+=============
      |   Option    |  Choice  | Status |  Comment        |
       ================+=======+=======+=========
      |  Database   |    yes    |       |                 |

      |   Option    |  Choice  | Status |  Comment        |
       ================+=======+=======+=========
      | CP-BOOTROM |    yes    |       |                 |


        Please enter:<CR> -> <y> - Yes, start Installation.

          <n> - No, stop Installation. Return to the Main Menu.

Enter Choice> <CR>

>Checking System Configuration

You selected to upgrade the system from release: XXXX to release:
0300K.

This will erase all old system files.
```

Database files will NOT be erased. You may continue installing the software or quit now and leave your system unchanged.

Please enter:

<CR> -> <a> - Continue with Upgrade.

<q> - Quit.

Enter Choice> **<CR>**

>Starting Software Install

>Upgrading from release XXXX to release 0300K

10 After a number of files are copied over, select a PSDL file to install. The PSDL file contains the loadware for all downloadable cards in the system and loadware for M3900 series sets.

Select one of the six PSDL files

<1>   Global 10 Languages

<2>   Western Europe 10 Languages

<3>   Eastern Europe 10 Languages

<4>   North America 6 Languages

<5>   Spare Group A

<6>   Spare Group B

The languages contained in each selection are outlined as follows:

- 1 – Global 10 Languages (Release 3) English, French, German, Spanish, Swedish, Italian, Norwegian, Brazilian Portuguese, Finnish, Japanese Katakana.

- 2 – Western Europe 10 Languages (Release 3) English, French, German, Spanish, Swedish, Italian, Norwegian, Brazilian Portuguese, Finnish, Danish.

- 3 – Eastern Europe 10 Languages (Release 3) English, French, German, Dutch, Polish, Czech, Hungarian, Russian, Latvian, Turkish.

- 4 – North America six Languages (Release 3) English, French, German, Spanish, Brazilian Portuguese, Japanese Katakana.

- 5 – Spare Group A.

- 6 – Spare Group B.

11 Continue with upgrade when prompted. Select a database to install:

Software release 0300K was installed successfully on Core X.

All files were copied from CDROM to the hard disk.

Please press <CR> when ready... **<CR>**

You will now perform the database installation.

Note: If you are installing the Database from a floppy disk, please insert the correct disk now.

Please enter:

<CR> -> <a> - Install CUSTOMER Database

(the customer database diskette must be in the Core X disk drive).

<b> - Install DEFAULT Database

(the installation CDROM must be in the Core X disk drive).

<c> - Transfer the previous system Database.

<e> - Check the Database that exists on the hard disk.

<q> - Quit.

Enter Choice> **<CR>**

12 Confirm database transfer:

You selected to transfer the database from the floppy disk - release: XXXX to the hard disk on Core X. release: XXXX.

This will erase the database on the hard disk.

The database diskette has been inserted into the floppy disk drive.

If you quit now, the database will be left unchanged.

Please enter:

<CR> -> <a> - Continue with Database Install.

<q> - Quit.

Enter Choice> **<CR>**

The system then informs you of the database details and prompts you to confirm:

You have chosen to restore database dated: Jul 07 14:10:00 2003

Please confirm.

Please enter:

<CR> -> <y> - Yes, load.

<n> - No, DO NOT load.

Enter Choice> **<CR>**

13 The system restores the database and provides a status summary.

Note: The hard drive on a new system displays an error message that no database is found on hard drive. This message can be ignored.

14 Enter **<CR>** when prompted, returning the system to the Install Menu.

15   Enter **q** to quit:

I N S T A L L   M E N U

The Software Installation Tool will install or upgrade Succession Enterprise System Software, Database and the CP-BOOTROM. You will be prompted throughout the installation and given the opportunity to quit at any time.

Please enter:

<CR> -> <a> - To install Software, CP-BOOTROM.

<b> - To install Software, Database, CP-BOOTROM.

<c> - To install Database only.

<d> - To install CP-BOOTROM only.

<t> - To go to the Tools menu.

<k> - To install Keycode only.

For Feature Expansion, use OVL143.

<p> - To install 3900 set Languages.

<q> - Quit.

Enter Choice> **q**

---

16 The system then prompts you to confirm and reboot:

You selected to Quit the Software Installation Tool.

You may reboot the system or return to the Main Menu.

Before rebooting the system, remove Install diskette from the floppy drive(s).

DO NOT REBOOT USING BUTTON!!

Please enter:

<CR> -> <a> - Reboot the system.

<m> - Return to the Main menu.

Enter Choice> **<CR>**

>Removing temporary files

>Remove /u/diskXXXX.sys

>Quit Install. Reboot system...

--- **End of Procedure** ---

Complete the upgrade

Follow the steps in Procedure 45 to complete the upgrade.

Procedure 45
Completing the upgrade

1   Perform a redundancy sanity test using the following sequence:

   LD 135   Load program

   STAT CNI   Get status of CNI card

   STAT CPU   Get status of CPU and memory

2   Clear the display and minor alarms.

   CDSP   Clear the displays on the Cores

   CMAJ   Clear major alarms

   CMIN ALL   Clear minor alarms

   ****   Exit program

Note: Wait for the system to INI.

IMPORTANT!

Power up all applications (Meridian Mail, Call Pilot, Symposium).

Proceed to "Post-conversion procedure" on .

Test Core/Net 1

Procedure 46
Testing Core/Net 1

1   Check dial tone.

2   Make internal, external and network calls.

3   Check attendant console activity.

4   Check DID trunks.

5   Check applications (Call Pilot, Symposium, Meridian Mail, etc.).

——————— **End of Procedure** ———————

Database transfer

Use this procedure to transfer system database on systems equipped with IOP/
CMDU 4 MB format to 2 MB format.

	IMPORTANT!
⚠	Database conversion for Meridian 1 Options 21E, 51, 61,71, STE, NT and XT must be completed by Nortel Networks Software Conversion Lab. Consult the current Nortel Networks price book for cost and contact information.
	If the system is equipped with IOP/CMDU cards the database must be converted with the Database Transfer utility. See "Database transfer" on .
	If the system is equipped with IODUC cards, the database should be data dumped (EDD) to a blank 2 MB floppy.
	All systems can be converted by Nortel Networks in the software conversion lab.

Database requirements

If the system is running pre-release 19 software or the source platform is an STE, NT or XT, Meridian 1 Option 21E, 51, 61, or 71, the database must be sent to Nortel Networks for conversion.

To perform this procedure, an NT5D20 IOP/CMDU and QMM42 security cartridge are required.

Before beginning this procedure:

- The system must be running Release 19, 21,22, or 23 software.

- For dual-CPU systems, the system must be in split mode with Core 0 processing calls.

Perform a Data Dump

Procedure 47
Performing a data dump

1   Load the Equipment Data Dump Program (LD 43). At the prompt, enter:

   LD 43   Load program

2   When "EDD000" appears on the terminal, enter:

   EDD   Begin data dump

3   When "DATABASE BACKUP COMPLETE" or "DATADUMP COMPLETE" appears on the terminal, enter:

   ****   Exit program

	CAUTION
	Loss of Data
	If the data dump is not successful, do not continue. Contact the technical support organization. A data dump problem must be corrected before proceeding.

———————— **End of Procedure** ————————

Determine status (STAT) of the hardware

Procedure 48
Obtaining hardware status

1   Load LD 137 and get status of the hard disks.

   Note: Be sure the hard disks are synchronized. If not, synchronize before proceeding.

LD 137	Load program
STAT	Get the status of the hard disks
SYNC	Synchronize hard disks if necessary (Synchronization may take up to 50 minutes)
TEST CMDU	Performs hard and floppy disk test
****	Exit program

2   Load LD 135 and determine the status of the CPs, CNIs and memory.

LD 135	Load program
STAT CPU	Get the status of both CPs and memory
STAT CNI	Get the status of all configured CNIs

3   Test the standby (inactive) CP. Then switch CPs, and test again.

TEST CPU	Test standby (inactive) CP

   Wait until the terminal returns a complete test message. The message "HWI533 or HWI534" does not mean the test has completed!

SCPU	Switch CPs
TEST CPU	Test the standby (inactive) CP

   Note: Testing the CPs can take up to 20 minutes for each test. When the test is complete, the memories are automatically synchronized.

   —————— **End of Procedure** ——————

Split the Core processors

Follow the steps in Procedure 49 to split the core processors.

Procedure 49
Splitting the Core processors

1   Be sure CP 0 is active and CP1 is standby. If necessary, switch CPs again:

    STAT CPU

    SCPU   Switch CPs (if necessary)

    ****   Exit program

2   Verify that IOP/CMDU 0 is active. If necessary, switch IOP/CMDUs.

    LD 137

    STAT   Get the status of IOP/CMDU

    SWAP   Switch IOP/CMDUs (if necessary)

    ****   Exit program

3   Connect a terminal from the CPSI port in Core/Net 1 to J25 of the I/O panel at the back of the Core/Net. Be sure it is configured as follows. The recommended baud rate is 9600, to be the same as the CPSI port.

    7 data bits, 1 stop bit, Space parity, Full-duplex, XON protocol

4   Place CP 0 in Maintenance by setting the MAINT/NORM switch to MAINT.

5   In Core/Net 1, disable the CNI cards by setting the ENB/DIS faceplate switches to DIS.

6 Place CP1 in Maintenance by setting the MAINT/NORM switch to MAINT.

Note: Core 1 will now sysload. Allow the system to complete the sysload and INI. Review any sysload errors and correct before proceeding.

> System is now is split mode, Core 0 active, Clock Controller 0 is active if equipped with FNF. Rings are in half/half mode.

————— **End of Procedure** —————

Procedure 50
Using the Database Transfer Utility

1 Place the database transfer utility disk that matches your system type into the floppy drive of Core/Net 1.

2 Press the manual reset button on the CP card in Core/Net 1.

3 When the Nortel Networks Logo Screen appears on the terminal, the Database Transfer Utility has loaded. Press **<CR>** to continue.

> **CAUTION**
>
> **Loss of Data**
>
> When using the Database Transfer Utility, do not select options other than those specified by this procedure. Selecting any other options can result in operating system corruption.

4 When the Main Menu appears, select **<d>** *To install Database only*.

5 Select **<c>** *to transfer the previous system database (DBMT).* Follow all on-screen instructions. When DBMT is complete, press **<CR>** to return to the Main Menu.

6   Select **<t>** to go to the Tools Menu

   <s>   to archive existing database

   <a>   to continue with archive (insert 2.0 Mbyte
                    diskette into the floppy drive in Core 1)

   <a>   diskette is now in floppy drive in side 1

   The message "Database backup complete!" is displayed and the Tool
   menu reappears after the backup is successfully completed.

7   Remove the 2.0 MB diskette containing the customer database from the
         IOP/CMDU floppy drive.

> **IMPORTANT!**
>
> Database backup information should be preserved for a
> minimum of 5 days.

8   When the database is converted to 2.0 MB, place it in a safe place for use
         after the IOP/CMDU card is replaced with an IODU/C card, and continue
         with the system upgrade.

———————————— **End of Procedure** ————————————

Exiting split mode

Procedure 51
Exiting the split mode

1   Enable the CNI cards by setting the ENB/DIS faceplate switch to ENB in
         Core/Net 1.

2   Perform the following in uninterrupted sequence:

   •   Press and release the MAN RST button in Core/Net 1.

   •   When SYS700 messages appears on the LCD display on Core/
        Net 0, set the MAINT/NORM switch to NORM in Core/Net 1.

In 60 seconds, the LCD lights and confirms the processes with:

RUNNING ROM OS

ENTERING CP VOTE

An HWI534 message on Core/Net 0 indicates the start of memory synchronization. In 10 minutes, an HWI533 message on Core/Net 0 CSPI or SDI terminal indicates the memory synchronization is complete.

3   In Core/Net 1, set the MAINT/NORM switch on the CP card to NORM.

—————————— **End of Procedure** ——————————

Test Core/Net 1 and Core/Net 0

Procedure 52
Testing Core/Net 0 and Core/Net 1

1   Perform a redundancy sanity test using the following sequence:

LD 135

STAT CNI	Get status of CNI cards
STAT CPU	Get status of CPU and memory
TEST CPU	Test the inactive Core/Net/Net
TEST CNI c s	Test each inactive CNI card

2   Switch Core/Nets and test the other side (Core/Net 0)

SCPU	Switch Core/Nets
TEST CPU	Test the inactive Core/Net/Net
TEST CNI c s	Test each inactive CNI card

Note: Testing the Call Processor and CNI cards and synchronizing memory can take up to 20 minutes for each test. When the Call Processor test is complete, the Call Processor the memory is automatically synchronized.

3   Clear the display and minor alarms on both Core/Nets.

CDSP   Clear the displays on the Core/Nets

CMAJ   Clear major alarms

CMIN ALL   Clear minor alarms

4   Get the status of the Core/Nets, CNIs, and memory.

STAT CPU   Get the status of both Core/Nets

STAT CNI   Get the status of all configured CNIs and memory

Note: You may need to execute the STAT CNI command twice before receiving a response from the system.

****   Exit program

5   Check for dial tone.

6   Make internal, external, and network calls.

7   Check attendant console activity.

8   Check DID trunks.

9   Check any auxiliary processors.

———————————— **End of Procedure** ————————————

Procedure 53
Switching the Clocks

1   Verify that the clock controller is assigned to the *active* Core.

LD 60	Load program
SSCK *x*	Get the status of the clock controllers (*x* is "0" or "1" for Clock 0 or Clock 1
SWCK	Switch the Clock if necessary
****	Exit program

2   Verify that the Clock Controllers are switching correctly.

SWCK	Switch the Clock
SWCK	Switch the Clock again

———————————   **End of Procedure**   ———————————

Synchronize the hard disks

Procedure 54
Synchronizing the hard disks

1   Access LD 137 and synchronize the hard disks. Synchronization can take up to 50 minutes. To ensure that the contents of IODU/C 1 are copied to IODU/C 0, verify that IODU/C 0 is disabled.

LD 137	Load program
STAT	Get the status of the IODU/C and redundancy
SYNC	Enter "Yes" to synchronize disks. (Wait until the memory synchronization successfully completes before continuing)
TEST CMDU	Perform hard and floppy disk test

2   Get the status of the CMDU's and be sure CMDU 0 is active. Switch if necessary.

STAT	Get the status of IODU/C and redundancy
SWAP	Switch CMDU if necessary
STAT CMDU	Get the status of the IODU/Cs (Be sure the same IODU/C and CPU are active)
****	Exit program

——————— **End of Procedure** ———————

The database transfer procedure is complete. You are now ready to install Succession 3.0 software.

Feature and ISM upgrade

Prepare for upgrade

This document implements a source to target approach to performing an upgrade. It is important to correctly identify the source platform, target platform and maintenance window required to perform the upgrade.

Each chapter features check boxes indicating what condition the system should be in at that stage of the upgrade. If the system is not in the proper condition steps should be taken to correct this.

Each section is written to maintain Dial Tone where possible and limit service interruptions.

Plan upgrade

Planning for an upgrade involves the following tasks:

- Conduct a site inspection to determine proper power and grounding.

- Review the site profile to determine proper foot space if adding new columns or modules.

- Ensure sufficient power for new columns/modules or applications.

- Identify all applications (Call Pilot, SCCS, IP, Meridian Mail etc.) that are currently installed on the source platform.

- Identify and correct outstanding service problems.

- Verify the site log is updated with current trunking, call routing, application notes, and site contact information.

- Review all product bulletins and Nortel Alerts that impact the site.

- Determine if software can be converted on site or must be sent to Nortel Networks.

- Prepare a contingency plan for backing out of the upgrade.

Upgrade Checklists

Upgrade checklists can be found in the"Upgrade checklists" chapter on 707. Engineers may print this section in order to facilitate the upgrade.

Prepare

Preparing for an upgrade involves the following tasks:

- Identify and become familiar with all procedures.

- Verify that all installed applications meet the minimum software requirements for the target platform (see Table 4 on page 28 of Book 1).

- Verify proper cable lengths for the target platform.

- Verify card vintage requirements of the target platform.

- Determine the current patch or Dep lists installed at the source platform.

- Determine the required patch or Dep lists at the target platform.

- Determine and communicate the required maintenance window, contingency plan and the impact to the customer to complete the procedure.

- Perform an inventory on required software and hardware.

- Secure the source software and key code.

- Secure the target software and key code.

- Verify the new key code using the DKA program.

- Print site data.

Identifying the proper procedure

Each procedure has been written in a source to target format. Each procedure features warning boxes and check boxes placed at critical points. Changing

the procedure or ignoring the warning boxes could cause longer service interruptions.

┌───┐
│   **IMPORTANT!**   │
│ ⚠   Database backup information should be preserved for a   │
│   minimum of 5 days.   │
└───┘

Connect a terminal

Procedure 55
Connecting a terminal

A maintenance terminal is required to access the Core or Core/Net modules during the upgrade procedure.

1 Connect a terminal to the J25 port on the I/0 panel in the *inactive* Core or Core/Net module.

2 The settings for the terminal are:

    a. 9600 Baud

    b. 7 data

    c. space parity

    d. 1 stop bit

    e. full duplex

    f. XOFF

3 If only one terminal is used for both Core or Core/Net modules, the terminal must be connected from side-to-side to access each module. An "A/B" switch box can also be installed to switch the terminal from side to side.

───────────── **End of Procedure** ─────────────

Print site data

Print site data to preserve a record of the system configuration (Table 10). Verify that all information is correct. Make corrections as necessary.

Note: Items marked with an asterisk (*) are required. Other items are recommended for a total system status.

Table 10
Print site data (Part 1 of 3)

Site data	Print command	
Terminal blocks for all TNs	LD 20	
	REQ	PRT
	TYPE	TNB
	CUST	<cr>
Directory Numbers	LD 20	
	REQ	PRT
	TYPE	DNB
	CUST	<cr>
Attendant Console data block for all customers	LD 20	LD 20
	REQ	PRT
	TYPE	ATT, 2250
	CUST	<cr>
*Customer data block for all customers	LD 21	LD 21
	REQ	PRT
	TYPE	CDB
	CUST	<cr>
Route data block for all customers	LD 21	
	REQ	PRT
	TYPE	RDB
	CUST	Customer number
	ROUT	<cr>
	ACOD	<cr>

Table 10
Print site data (Part 2 of 3)

Site data	Print command	
*Configuration Record	LD 22	
	REQ	PRT
	TYPE	CFN
*Software packages	LD 22	
	REQ	PRT
	TYPE	PKG
*Software issue, ROM and tape ID	LD 22	
	REQ	ISS
	REQ	ROM
	REQ	TID
* Peripheral software versions	LD 22	
	REQ	PRT
	TYPE	PSWV
ACD data block for all customers	LD 23	
	REQ	PRT
	TYPE	ACD
	CUST	Customer Number
	ACDN	ACD DN (or <CR>)
Superloop card IDs and software version (peripheral controller, superloop network and controller cards)	LD 32	
		IDC loop
Multi-purpose ISDN Signaling Processor (MISP) card	LD 27	
	REQ	PRT
	TYPE	MISP
	LOOP	loop number (0-158)
	APPL	<cr>
	PH	<cr>

Table 10
Print site data (Part 3 of 3)

Site data	Print command	
DTI/PRI data block for all customers	LD 73	
	REQ	PRT
	TYPE	DDB
Note: Items marked with asterisks (*) are required printout for conversion. Other items are recommended for a total system status.		

Perform a template audit

A template audit (LD 01) reviews the templates in your system. Corrupted and duplicate templates are cleaned up. An example of the information generated during the audit is listed below.

Note: The template audit may take an extended period of time on large systems. Run the audit during a low traffic period.

⚠️ **CAUTION**

Loss of Data

Do not abort this overlay until the audit is complete. If the overlay is interrupted, data will be corrupted.

LD 01   The audit begins as soon as LD 01 is entered.

TEMPLATE AUDIT

STARTING PBX TEMPLATE SCAN

TEMPLATE 0001 USER COUNT LOW   CHECKSUM OK

TEMPLATE 0002 USER COUNT HIGH   CHECKSUM OK

TEMPLATE 0003 NO USERS FOUND

STARTING SL1 TEMPLATE SCAN

TEMPLATE 0001 USER COUNT OK   CHECKSUM OK

•

•

TEMPLATE 0120 USER COUNT OK   CHECKSUM OK

TEMPLATE AUDIT COMPLETE

Back up the database (data dump and ABKO)

To back up system data, complete the following two procedures.

1   Perform a data dump to save all system memory to the hard disk.

2   Perform a ABKO (attended backup) to save the database to a spare set of floppy disks.

Procedure 56
Performing a data dump

1   Log into the system.

2   Load the Equipment Data Dump Program (LD 43). At the prompt, enter:

   LD 43   Load program

3   When "EDD000" appears on the terminal, enter:

   EDD   Begin the data dump

> **CAUTION**
>
> **Loss of Data**
>
> If the data dump does not succeed, do not continue. Contact your technical support organization. You must correct a data dump problem before the system can be upgraded.

The messages "DATADUMP COMPLETE" and "DATABASE BACKUP COMPLETE" will appear once the data dump is complete.

    ****   Exit program

Procedure 57
Performing an ABKO (save the database to floppies)

1 Insert floppy diskettes into BOTH floppy disk drives in each Core IODU/C or MMDU.

Note: If the file is too large to fit on a single floppy disk, the ABKO command will compress the data. If the compressed data is still too large to fit on a single disk, both floppy disks in the two IODU/C drives will be used. Be sure to insert floppy disks into BOTH IODU/C drives before the ABKO backup is begun.

2 Load the Customer Configuration Backup and Restore (LD 143). At the prompt, enter:

    LD 143   Load program

3 Run the ABKO backup (LD 143).

    ABKO   Run the backup

Result: If the backup is successful, the system displays a message that states that the database backup is complete and generates a report that indicates which floppy drives were used.

4 If there are validation errors, repeat the procedure.

> **CAUTION**
>
> **Loss of Data**
>
> If the backup is not successful, do not continue; contact your technical support organization. Any backup problems must be corrected before the system is upgraded to CP PII.

5 Once the backup is complete, type:

**** Exit program

─────────── **End of Procedure** ───────────

Perform upgrade

Adding features and ISM limits

Adding new features and/or modifying Incremental Software Management (ISM) limits requires the installation of a new keycode. Keycodes are delivered by diskette or electronic file transfer. They are installed using the keycode management commands in LD 143 or the Meridian 1 Software Installation Tool.

The following procedures outline the steps to install a new keycode that can be activated "instantly" or that requires a Sysload (Cold Restart). More information on the "Instant ISM" feature can be found in *Features and Services* (553-3001-306).

This section describes how to install a keycode using the commands listed below:

Table 11
Keycode installation

Keycode delivery	Keycode Installation command
Diskette	Use the KNEW F0 or KNEW F1 command in LD 143.
Electronic file on a PC	Use the KUPL command in LD 143, followed by the KNEW HD command (see note).
Faxed to the customer site (paper-based keycode)	Use the KMAN command in LD 143, followed by the KNEW HD command.
Note: If the keycode is downloaded from the Keycode Distributor Server (KDS), use the KUPL command to install the keycode. Refer to the Distributor Keycode Application section in this document for more information about KDS.	

Feature operation

Feature operation is further broken down into four options:

- Upgrade feature and ISM parameter using a keycode diskette

- Upgrade feature and ISM parameter using HyperTerminal

- Upgrade feature and ISM parameter entered manually

- Revert to the previous keycode with the KRVR command

For the following procedures, Core 0 is initially active and Core 1 is initially inactive.

Feature and ISM parameter upgrade using a keycode diskette

Follow the steps in Procedure 58 on to perform a feature and ISM parameter upgrade using a keycode diskette.

Leave the system in full redundant mode (hard-disk and CPU redundancy).

Procedure 58
Performing a feature and ISM parameter upgrade using a keycode diskette.

1   Log in on a system terminal and load LD 143.

>**LD 143**
CCBR000

.

2   Insert the new keycode diskette into the floppy drive on the active IODU/ C card.

3   Print the pending keycode contents.

KSHO F1 (or F0)   print the contents of the candidate keycode in the floppy drive on the active Core. Where:

F1 = Core 1

F0 = Core 0

4   Enter the KDIF command and select keycode comparison options.

Note: Ensure that the new keycode does not lower ISM limits or reduce features compared with the existing keycode. If it has been determined that the keycode lowers ISM limits or reduces features, do not continue with the KNEW command. Contact the Nortel Networks order management representative.

. KDIF
Please use: KDIF <param1> <param2> with the following parameters:

NEW   Accepted new keycode

REC   Currently used keycode

OLD   Previously used keycode

F0   Candidate keycode on diskette in /f0 floppy drive

F1   Candidate keycode on diskette in /f1 floppy drive

HD   Candidate keycode which was uploaded to hard disk

Enter the keycode comparison option. The new keycode option is shown in **bold**.

Note: In the following example, the (REC) currently used keycode will be compared with the new keycode disk in floppy drive F0. The limits shown are for example purposes only.

.**KDIF REC F0**

Validating Keycode File /p/install/keycode.rec... OK

Validating Keycode File /f0/keycode.kcd... OK

System parameters	1st keycode	2nd keycode
System Serial Number	: 46XX	46XX
Software Version	: 2511	2511
System Type	: Meridian 1 Option 61C	Meridian 1 Option 61C
Call Processor	: CP68060	CP68060
Release	: Succession 3.0	Succession 3.0
Issue	: XX	XX
NTI Order Number	:	
NT SDID - 1	:	
NT SDID - 2	:	
Date and Time of Manufacture	:	

Note: (:) indicates that information is not available

ISM Limits	1st keycode	2nd keycode
Loop Limit	: 32	32
Sys TNs Limit	: 0	200
ACD Agt Limit	: 10	10
ACD DNs Limit	: 10	10
AST Limit	: 10	10

......

Common packages for both keycodes:
0-2 4-5 7-25 28-29 32-55 58-65

......

Additional packages in the 2nd keycode:
<   **30-31**
.

5   Select the new keycode for activation using the KNEW command.

.   **KNEW F0**

The uploaded keycode is validated against the security device.

If the following system message is displayed:

CCBR020 New Keycode accepted and activated successfully.

Sysload is not needed!

This means that the new keycode is eligible for instant activation and no further user action is required. Go to steps 6 and 7.

If the keycode is not eligible for instant activation, a Sysload is needed to activate the new keycode and the following system message is displayed:

CCBR009 New Keycode accepted. New ISM limits and feature packages will be activated during the next Sysload (Cold Restart).

Go to step 8.

6   Load LD 22 and confirm that the new ISM parameters have been updated.

>LD 22
REQ SLT
....

If ISM limits are correct, then the keycode installation is complete.

See "Reverting to the previous keycode with the KRVR command" on if ISM limits are not increased or problems exist.

7   Once it is confirmed that the keycode changes taken effect as expected, perform a data dump in LD 43.

8   Perform the following steps for keycodes that are not eligible for Instant ISM.

   a. Place the system in split mode. This puts a redundant (shadowed) system into single (non-shadowed) mode.

   b. Be sure CP 0 is active and CP1 is standby. It might be necessary to switch CPs:

   LD 135

   STAT CPU

   SCPU   Switch CPUs if necessary

   ****   Exit program

   c. Verify that IODU/C 0 is active. It might be necessary to switch IODU/Cs.

   LD 137

   STAT   Get the status of IODU/C

   SWAP   Switch IODU/Cs if necessary

   ****   Exit program

   d. In Core 0, set the CP card MAINT/NORM switch to MAINT.

   e. In Core 1, disable the CNI cards by setting the ENB/DIS faceplate switches to DIS.

   f. In Core/Net 1, perform the following three steps in uninterrupted sequence:

      — Press and hold the MAN RST button on the CP card

      — Set the MAINT/NORM switch on the CP card to MAINT

      — Release the MAN RST button

   A Sysload begins (cold start).

9 In the inactive core (Core 1), load LD 22 and confirm that the new ISM parameters have been updated.

   >LD 22
   REQ SLT
   ....

10 Switch call processing from the active core (Core 0) to the inactive core (Core 1).

CAUTION

Service Interruption

Call Processing will be interrupted! Perform these next steps carefully and quickly. This is the point at which service is interrupted. Calls in process are interrupted, especially if Peripheral Software Download takes place. Some calls might be dropped.

a. In Core 0, access LD 137 to software-disable the IODU/C card.

>**LD 137**
.**DIS CMDU 0**

b. In Core 0, set the DIS/ENB faceplate switch on the IODU/C card to DIS.

c. In Core 0, disable the CNI cards by setting the ENB/DIS faceplate switches to DIS. Call Processing is interrupted.

d. In Core 1, enable the CNI cards by setting the ENB/DIS faceplate to ENB.

e. In Core 1, press the MAN INT button. Call processing is switched from Core 0 to Core 1 when the warm restart is completed.

The previously inactive core (Core 1) with the new keycode now becomes active.

11 In Core 0, set the DIS/ENB faceplate switch on the IODU/C card to ENB.

12 To activate the new keycode on the new inactive core, perform a Sysload (Cold Restart).

Press the MAN RST button on Core/Net 0.

13 In Core 0, load LD 22 and confirm that the new ISM parameters have been updated.

>**LD 22**
REQ SLT
....

14 Return the system to redundant mode, synchronizing the memory and hard drive of the inactive core with the active core. Perform the following actions:

a. Enable the CNI cards by setting the ENB/DIS faceplate switch to ENB in Core/Net 0.

b. Perform the following in uninterrupted sequence:

— Press and release the MAN RST button in Core/Net 0.

— When SYS700 messages appears on LCD display on Core/Net 0, set the MAINT/NORM switch to NORM in Core/Net 0.

In 60 seconds, the LCD displays and confirm the processes with:

RUNNING ROM OS

ENTERING CP VOTE

An HWI534 message indicates the start of memory synchronization. In 10 minutes, an HWI533 message on the Core/Net 1 CSPI or SDI terminal indicates the memory synchronization is complete.

c. In Core/Net 1, set the MAINT/NORM switch on the CP card to NORM.

15 Test Core/Net 1 and Core/Net 0. Perform the following actions:

a. Perform a redundancy sanity test using the following sequence:

LD 135

STAT CNI	Get status of CNI cards
STAT CPU	Get status of CPU and memory
TEST CPU	Test the inactive Core/Net
TEST CNI c s	Test each inactive CNI card

b. Switch Cores and test the other side (Core/Net 0)

SCPU	Switch cores
TEST CPU	Test the inactive Core/Net
TEST CNI c s	Test each inactive CNI card

Note: Testing the CP and CNI cards and synchronizing memory can take up to 20 minutes for each test. When the CP test is complete, the CP the memory is automatically synchronized.

c. Clear the display and minor alarms on both Cores.

CDSP	Clear the displays on the Cores
CMAJ	Clear major alarms
CMIN ALL	Clear minor alarms

d. Get the status of the Cores, CNIs, and memory.

STAT CPU	Get the status of both Cores
STAT CNI	Get the status of all configured CNIs and memory

Note: It might be necessary to execute the STAT CNI command twice before receiving a response from the system.

****	Exit program

16   Synchronize the hard disks.

    a.   Load LD 137 and synchronize the hard disks. Synchronization can take up to 50 minutes. To be sure that the contents of IODU/C 1 hard disk are copied to IODU/C 0 hard disk, verify that IODU/C 0 is disabled.

    LD 137

STAT	Get the status of the IODU/C and redundancy
SYNC	Enter "Yes" to synchronize disks (Wait until the memory synchronization successfully completes before continuing)
TEST CMDU	Performs hard and floppy disk test

    b.   Get the status of the CMDU's and be sure CMDU 0 is active. Switch if necessary.

STAT	Get the status of the IODU/C and redundancy
SWAP	Switch CMDU (if necessary)
STAT CMDU	Get the status of the IODU/Cs (Be sure the same IODU/C and CPU are active)
****	Exit program

17   Perform a data dump.

<div align="center">

p in LD 43.

———————   **End of Procedure**   ———————
</div>

Feature and ISM parameter upgrade using HyperTerminal®

Follow the steps in Procedure 59 to perform a feature and ISM parameter upgrade using HyperTerminal®. Leave the system in full redundant mode (hard-disk and CPU redundancy).

Procedure 59
Performing a feature and ISM parameter upgrade using HyperTerminal®

1 On a PC, access the Meridian 1 system (through a modem) with HyperTerminal®:

Click the Start button | Programs | Accessories | HyperTerminal.

2 Double-click the HyperTerminal client to the Meridian 1 system.

3 Log into the Meridian 1 system.

4 Load the Keycode Management Program (LD 143).

LD 143	Load program
KUPL	Upload keycodes to the hard disk on the target system

5 Click the **Transfer** menu in HyperTerminal and select **Send Text File**.

6 From the **Files of type** pull-down menu, select **All Files (*.*)**.

7 Locate and select the keycode file on the PC. Use the **Look in** pull-down menu to select the drive on which the keycode is located.

8 Click **Open**.

The keycode is displayed after the KUPL prompt.

Example:

KUPL   0001PBX 0101
9FPAMSRHNN17KRUQAFFSPREQEVMTHIDHRKDJHRKEJR56

9 Press the Enter key.

The Keycode is checked for CRC errors and is uploaded to the hard disk.

Enter the following command:

KDIF REC HD	Compare the existing keycode with the new keycode on the hard disk

Ensure that the new keycode does not lower ISM limits or reduce features compared with the existing keycode. If it is determined that the keycode lowers ISM limits or reduces features, do not continue with the KNEW command. Contact the Nortel Networks order management representative.

10 Select the new keycode for activation using the KNEW command.

KNEW HD

The uploaded keycode is validated against the security device.

If the following system message is displayed:

CCBR020 New Keycode accepted and activated successfully. Sysload is NOT needed!

This means that the new keycode is eligible for instant activation and no further user action is required. Go to steps 11 and 12.

If the keycode is not eligible for instant activation, a Sysload is needed to activate the new keycode. The following system message is displayed:

CCBR009 New Keycode accepted. New ISM limits and feature packages will be activated during the next Sysload (Cold Restart).

Go to step 13.

11 Load LD 22 and confirm that the new ISM parameters have been updated.

>LD 22
REQ SLT
....

If ISM limits are correct, then the keycode installation is complete.

See "Reverting to the previous keycode with the KRVR command" on if ISM limits are not increased or problems exist.

12 Once it is confirmed that the keycode changes taken effect as expected, perform a data dump in LD 43.

13 For keycodes that are not eligible for Instant ISM, place the system in split mode. This puts a redundant (shadowed) system into single (non-shadowed) mode. Perform the following steps:

a. Be sure CP 0 is active and CP1 is standby. It might be necessary to switch CPUs.

LD 135	Load program
STAT CPU	
SCPU	Switch CPUs (if necessary)
****	Exit program

b. Verify that IODU/C 0 is active. It might be necessary to switch IODU/Cs.

LD 137	Load program
STAT	Get the status of IODU/C
SWAP	Switch IODU/Cs (if necessary)
****	Exit program

c. In Core 0, set the CP card MAINT/NORM switch to MAINT.

d. In Core 1, disable the CNI cards by setting the ENB/DIS faceplate switches to DIS.

e. In Core/Net 1, perform the following three steps in uninterrupted sequence:

— Press and hold the MAN RST button on the CP card.

— Set the MAINT/NORM switch on the CP card to MAINT.

— Release the MAN RST button.

A Sysload begins (cold start).

14 In the inactive core (Core 1), load LD 22 and confirm that the new ISM parameters have been updated.

>**LD 22**
REQ SLT
....

15 Switch call processing from the active core (Core 0) to the inactive core (Core 1). Perform the following steps:.

> **CAUTION**
>
> **Service Interruption**
>
> Call Processing will be interrupted! Perform these next steps carefully and quickly. This is the point at which service is interrupted. Calls in process are interrupted, especially if Peripheral Software Download takes place. Some calls might be dropped.

a. In Core 0, use LD 137 to software disable the IODU/C card.

   >**LD 137**
   .**DIS CMDU 0**

b. In Core 0, set the DIS/ENB faceplate switch on the IODU/C card to DIS.

c. In Core 0, disable the CNI cards by setting the ENB/DIS faceplate switches to DIS. Call Processing is interrupted.

d. In Core 1, enable the CNI cards by setting the ENB/DIS faceplate to ENB.

e. In Core 1, press the MAN INT button. Call processing is switched from Core 0 to Core 1 when the warm restart is completed.

The previously inactive core (Core 1) with the new keycode now becomes active.

16 In Core 0, set the DIS/ENB faceplate switch on the IODU/C card to ENB.

17 In order to activate the new keycode on the new inactive core, a Sysload (Cold Restart) is required.

Press the MAN RST button on Core/Net 0.

18 In Core 0, load LS 22 and confirm that the new ISM parameters have been updated.

>LD 22
REQ SLT
....

19 Return the system to redundant mode, synchronizing the memory and hard drive of the inactive core with the active core. Perform the following actions:

   a. Enable the CNI cards by setting the ENB/DIS faceplate switch to ENB in Core/Net 0.

   b. Perform the following in uninterrupted sequence:

   • Press and release the MAN RST button in Core/Net 0.

   • When SYS700 messages appears on the LCD display on Core/Net 0, set the MAINT/NORM switch to NORM in Core/Net 0.

   In 60 seconds, the LCD lights and confirms the processes with:

   RUNNING ROM OS

   ENTERING CP VOTE

   An HWI534 message indicates the start of memory synchronization. In 10 minutes, an HWI533 message on Core/Net 1 CSPI or SDI terminal indicates the memory synchronization is complete.

   c. In Core/Net 1, set the MAINT/NORM switch on the CP card to NORM.

20 Test Core/Net 1 and Core/Net 0. Perform the following actions:

   a. Perform a redundancy sanity test using the following sequence:

   LD 135

STAT CNI	Get status of CNI cards
STAT CPU	Get status of CPU and memory
TEST CPU	Test the inactive Core/Net
TEST CNI c s	Test each inactive CNI card

b. Switch Cores and test the other side (Core/Net 0)

SCPU	Switch cores
TEST CPU	Test the inactive Core/Net
TEST CNI c s	Test each inactive CNI card

Note: Testing the CP and CNI cards and synchronizing memory can take up to 20 minutes for each test. When the CP test is complete, the CP the memory is automatically synchronized.

c. Clear the display and minor alarms on both Cores.

CDSP	Clear the displays on the Cores
CMAJ	Clear major alarms
CMIN ALL	Clear minor alarms

d. Get the status of the Cores, CNIs, and memory.

STAT CPU	Get the status of both Cores
STAT CNI	Get the status of all configured CNIs and memory

Note: It might be necessary to execute the STAT CNI command twice before receiving a response from the system.

****	Exit program

21 Synchronize the hard disks. Perform the following actions:

    a. Access LD 137 and synchronize the hard disks. Synchronization can take up to 50 minutes. To be sure that the contents of the IODU/C 1 hard disk are copied to IODU/C 0 hard disk, verify that IODU/C 0 is disabled.

LD 137	
STAT	Get the status of the IODU/C and redundancy
SYNC	Enter "Yes" to synchronize disks (Wait until the memory synchronization successfully completes before continuing)
TEST CMDU	Performs hard and floppy disk test

    b. Get the status of the CMDU's and be sure CMDU 0 is active. Switch if necessary.

STAT	Get the status of the IODU/C and redundancy
SWAP	Switch CMDU (if necessary)
STAT CMDU	Get the status of the IODU/Cs (Be sure the same IODU/C and CPU are active)
****	Exit program

22 Perform a data dump in LD 43.

—————— **End of Procedure** ——————

Feature and ISM parameter upgrade entered manually

Before beginning this procedure, obtain a copy of the keycode. The keycode can reside on paper or as an electronic file. To enter the keycode manually, type the keycode in LD 143 as 21 lines, 16 characters per line.

Follow the steps in Procedure 60 on to perform a feature and ISM parameter upgrade manually.

Procedure 60
Performing a feature and ISM parameter upgrade manually

1   Log into the system.

2   Load the Keycode Management Program (LD 143).

    LD 143   Load program

    KMAN   Manually enter the keycode to the target system

3   Type the keycode file, 21 lines of 16 characters each. Press **Return** to go to the next line.

    Note: When entering the keycode, do not enter the header information that proceeds the keycode.

4   Type "end" at line 22 to end the process.

5   Press **Enter**. The new keycode file is saved on the hard disk.

    Enter the following command:

    KDIF REC HD   Compare the existing keycode with the new keycode on the hard disk.

    Ensure that the new keycode does not lower ISM limits or reduce features compared with the existing keycode. If it is determined that the keycode lowers ISM limits or reduces features, do not continue with the KNEW command. Contact the Nortel Networks order management representative.

6   Select the new keycode for activation using the KNEW command.

KNEW HD

The uploaded keycode is validated against the security device.

If the following system message is displayed:

CCBR020 New Keycode accepted and activated successfully. Sysload is NOT needed!

This implies that the new keycode is eligible for instant activation and no further user action is required. Go to step 7 and 8.

If the keycode is not eligible for instant activation, a Sysload is needed to activate the new keycode. The following system message is displayed:

CCBR009 New Keycode accepted. New ISM limits and feature packages will be activated during the next Sysload (Cold Restart).

Go to step 9.

7   Load LD 22 and confirm that the new ISM parameters have been updated.

>LD 22
REQ SLT
....

If ISM limits are correct, then the keycode installation is complete.

See "Reverting to the previous keycode with the KRVR command" on if ISM limits are not increased or problems exist.

8   Once it is confirmed that the keycode changes have taken effect as expected, perform a data dump in LD 43.

9 For keycodes that are not eligible for Instant ISM, place the system in split mode. This puts a redundant (shadowed) system into single (non-shadowed) mode. Perform the following actions:

a. Be sure CP 0 is active and CP1 is standby. It might be necessary to switch CPs:

LD 135	Load program
STAT CPU	
SCPU	Switch CPUs (if necessary)
****	Exit program

b. Verify that IODU/C 0 is active. It might be necessary to switch IODU/Cs.

LD 137	Load program
STAT	Get the status of IODU/C
SWAP	Switch IODU/Cs (if necessary)
****	Exit program

c. In Core 0, set the CP card MAINT/NORM switch to MAINT.

d. In Core 1, disable the CNI cards by setting the ENB/DIS faceplate switches to DIS.

e. In Core/Net 1, perform the following three steps in uninterrupted sequence:

- Press and hold the MAN RST button on the CP card.

- Set the MAINT/NORM switch on the CP card to MAINT.

- Release the MAN RST button.

A Sysload begins (cold start).

10 In the inactive core (Core 1), load LD 22 and confirm that the new ISM parameters have been updated.

> **>LD 22**
> **REQ SLT**
> **....**

11 Switch call processing from the active core (Core 0) to the inactive core (Core 1).

> **CAUTION**
>
> **Service Interruption**
>
> Call Processing will be interrupted! Perform these next steps carefully and quickly. This is the point at which service is interrupted. Calls in process are interrupted, especially if Peripheral Software Download takes place. Some calls might be dropped.

a. In Core 0, access LD 137 to software disable the IODU/C card.

>**LD 137**
.**DIS CMDU 0**

b. In Core 0, set the DIS/ENB faceplate switch on the IODU/C card to DIS.

c. In Core 0, disable the CNI cards by setting the ENB/DIS faceplate switches to DIS. Call Processing is interrupted.

d. In Core 1, enable the CNI cards by setting the ENB/DIS faceplate to ENB.

e. In Core 1, press the MAN INT button. Call processing is switched from Core 0 to Core 1 when the warm restart is completed.

The previously inactive core (Core 1) with the new keycode now becomes active.

12 In Core 0, set the DIS/ENB faceplate switch on the IODU/C card to ENB.

13 In order to activate the new keycode on the new inactive core, a Sysload (Cold Restart) is required.

Press the MAN RST button on Core/Net 0.

14 In Core 0, load LD 22 and confirm that the new ISM parameters have been updated.

   >LD 22
   REQ SLT
   ....

15 Return the system to redundant mode, synchronizing the memory and hard drive of the inactive core with the active core. Perform the following actions:

a. Enable the CNI cards by setting the ENB/DIS faceplate switch to ENB in Core/Net 0.

b. Perform the following in uninterrupted sequence:

— Press and release the MAN RST button in Core/Net 0.

— When SYS700 messages appears on LCD display on Core/Net 0, set the MAINT/NORM switch to NORM in Core/Net 0.

In 60 seconds, the LCD lights and confirms the processes with:

RUNNING ROM OS

ENTERING CP VOTE

An HWI534 message indicates the start of memory synchronization. In 10 minutes, an HWI533 message on Core/Net 1 CSPI or SDI terminal indicates the memory synchronization is complete.

c. In Core/Net 1, set the MAINT/NORM switch on the CP card to NORM.

16 Test Core/Net 1 and Core/Net 0. Perform the following actions:

a. Perform a redundancy sanity test using the following sequence:

LD 135	Load program
STAT CNI	Get status of CNI cards
STAT CPU	Get status of CPU and memory
TEST CPU	Test the inactive Core/Net
TEST CNI c s	Test each inactive CNI card

b. Switch Cores and test the other side (Core/Net 0)

SCPU	Switch cores
TEST CPU	Test the inactive Core/Net
TEST CNI c s	Test each inactive CNI card

Note: Testing the CP and CNI cards and synchronizing memory can take up to 20 minutes for each test. When the CP test is complete, the CP the memory is automatically synchronized.

c. Clear the display and minor alarms on both Cores.

CDSP	Clear the displays on the Cores
CMAJ	Clear major alarms
CMIN ALL	Clear minor alarms

d. Get the status of the Cores, CNIs, and memory.

STAT CPU	Get the status of both Cores
STAT CNI	Get the status of all configured CNIs and memory

Note: It might be necessary to execute the STAT CNI command twice before receiving a response from the system.

****	Exit program

17   Synchronize the hard disks. Perform the following actions:

   a.   Load LD 137 and synchronize the hard disks. Synchronization can take up to 50 minutes. To be sure that the contents of IODU/C 1 hard disk are copied to the IODU/C 0 hard disk, verify that IODU/C 0 is disabled.

   LD 137

STAT	Get the status of the IODU/C and redundancy
SYNC	Enter "Yes" to synchronize disks (Wait until the memory synchronization successfully completes before continuing)
TEST CMDU	Performs hard and floppy disk test

   b.   Get the status of the CMDU's and be sure CMDU 0 is active. Switch if necessary.

STAT	Get the status of the IODU/C and redundancy
SWAP	Switch CMDU (if necessary)
STAT CMDU	Get the status of the IODU/Cs (Be sure the same IODU/C and CPU are active)
****	Exit program

18   Perform a data dump in LD 43.

_____ **End of Procedure** _____

Reverting to the previous keycode with the KRVR command

The terms "old" and "new" keycode, as discussed here, refer to the most recent previous KNEW command. The "old" keycode is the former keycode, prior to the KNEW command. The "new" keycode is the keycode that was activated by the KNEW command.

To revert to the old keycode, in LD 143, enter the **KRVR** command.

The old keycode is eligible for instant activation with the KRVR command if the only difference between the old keycode and the new keycode is that some or all of the ISM parameters in the old keycode are *higher*.

If the old keycode is eligible for instant activation, it is activated without further user action. The following system message is displayed:

> **CCBR020 New Keycode accepted and activated successfully. Sysload is NOT needed!**

If the keycode is not eligible for instant activation, a Sysload is needed to activate the old keycode and the following system message is displayed:

> **CCBR009 New Keycode accepted. New ISM limits and feature packages will be activated during the next Sysload (Cold Restart).**

Follow the steps in Procedure 61 to Sysload the system (and activate the old keycode) if the keycode is not eligible for Instant ISM and the CCR009 message is displayed.

Procedure 61
Performing a Sysload and re-activating the old keycode

1   Place the system in split mode. This puts a redundant (shadowed) system into single (non-shadowed) mode. Perform the following actions:

   a.   Be sure CP 0 is active and CP1 is standby. It might be necessary to switch CPs:

LD 135	Load program
STAT CPU	
SCPU	Switch CPUs (if necessary)
****	Exit program

   b.   Verify that IODU/C 0 is active. It might be necessary to switch IODU/Cs.

   | **LD 137** | Load program |
   | **STAT** | Get the status of IODU/C |

SWAP   Switch IODU/Cs (if necessary)

****   Exit program

c.   In Core 0, set the CP card MAINT/NORM switch to MAINT.

d.   In Core 1, disable the CNI cards by setting the ENB/DIS faceplate switches to DIS.

e.   In Core/Net 1, perform the following three steps in uninterrupted sequence:

   — Press and hold the MAN RST button on the CP card.

   — Set the MAINT/NORM switch on the CP card to MAINT.

   — Release the MAN RST button

A Sysload begins (cold start).

2   In the inactive core (Core 1), load LD 22 and confirm that the new ISM parameters have been updated.

   >LD 22
   REQ SLT
   ....

3   Switch call processing from the active core (Core 0) to the inactive core (Core 1). Perform the following actions:.

⚠️ **CAUTION**

Service Interruption

Call Processing will be interrupted! Perform these next steps carefully and quickly. This is the point at which service is interrupted. Calls in process are interrupted, especially if Peripheral Software Download takes place. Some calls might be dropped.

---

a.   In Core 0, access LD 137 to software disable the IODU/C card.

   >**LD 137**
   .**DIS CMDU 0**

b.   In Core 0, set the DIS/ENB faceplate switch on the IODU/C card to DIS.

c.   In Core 0, disable the CNI cards by setting the ENB/DIS faceplate switches to DIS. Call Processing is interrupted.

d.   In Core 1, enable the CNI cards by setting the ENB/DIS faceplate to ENB.

e.   In Core 1, press the MAN INT button. Call processing will be switched from Core 0 to Core 1 when the warm restart is completed.

The previously inactive core (Core 1) with the new keycode now becomes active.

4   In Core 0, set the DIS/ENB faceplate switch on the IODU/C card to ENB.

5   In order to activate the new keycode on the new inactive core, a Sysload (Cold Restart) is required.

Press the MAN RST button on Core/Net 0.

6   In Core 0, load LD 22 and confirm that the new ISM parameters have been updated.

> **>LD 22**
> **REQ SLT**
> **....**

7   Return the system to redundant mode, synchronizing the memory and hard drive of the inactive core with the active core. Perform the following actions:

a.   Enable the CNI cards by setting the ENB/DIS faceplate switch to ENB in Core/Net 0.

b.   Perform the following in uninterrupted sequence:

— Press and release the MAN RST button in Core/Net 0.

When SYS700 messages appears on LCD display on Core/Net 0, set the MAINT/NORM switch to NORM in Core/Net 0.

In 60 seconds, the LCD lights and confirms the processes by displaying:

RUNNING ROM OS

ENTERING CP VOTE

An HWI534 message indicates the start of memory synchronization. In 10 minutes, an HWI533 message on Core/Net 1 CSPI or SDI terminal indicates the memory synchronization is complete.

c.   In Core/Net 1, set the MAINT/NORM switch on the CP card to NORM.

8   Test Core/Net 1 and Core/Net 0. Perform the following actions:

a.   Perform a redundancy sanity test using the following sequence:

LD 135	Load program
STAT CNI	Get status of CNI cards
STAT CPU	Get status of CPU and memory
TEST CPU	Test the inactive Core/Net
TEST CNI c s	Test each inactive CNI card

b.   Switch Cores and test the other side (Core/Net 0)

SCPU	Switch cores
TEST CPU	Test the inactive Core/Net
TEST CNI c s	Test each inactive CNI card

Note: Testing the CP and CNI cards and synchronizing memory can take up to 20 minutes for each test. When the CP test is complete, the CP the memory is automatically synchronized.

c.   Clear the display and minor alarms on both Cores.

CDSP	Clear the displays on the Cores
CMAJ	Clear major alarms
CMIN ALL	Clear minor alarms

d.   Get the status of the Cores, CNIs, and memory.

STAT CPU	Get the status of both Cores
STAT CNI	Get the status of all configured CNIs and memory

Note: It might be necessary to execute the STAT CNI command twice before receiving a response from the system.

****	Exit program

9   Synchronize the hard disks. Perform the following actions:

    a.   Load LD 137 and synchronize the hard disks. Synchronization can take up to 50 minutes. To be sure that the contents of IODU/C 1 hard disk are copied to the IODU/C 0 hard disk, verify that IODU/C 0 is disabled.

LD 137	Load program
STAT	Get the status of the IODU/C and redundancy
SYNC	Enter "Yes" to synchronize disks (Wait until the memory synchronization successfully completes before continuing)
TEST CMDU	Performs hard and floppy disk test

    b.   Get the status of the CMDU's and be sure CMDU 0 is active. Switch if necessary.

STAT	Get the status of the IODU/C and redundancy
SWAP	Switch CMDU (if necessary)
STAT CMDU	Get the status of the IODU/Cs (Be sure the same IODU/C and CPU are active)
****	Exit program

────────────── **End of Procedure** ──────────────

Parallel reload procedures

Use these procedures to perform a parallel reload for maintenance purposes only.

Meridian 1 Options 61C CP PII and 81C CP PII

Perform a Data Dump

Procedure 62
Performing a data dump

1 Load the Equipment Data Dump Program (LD 43). At the prompt, enter:

LD 43   Load program

2 When "EDD000" appears on the terminal, enter:

EDD   Begin the data dump

3 When "DATABASE BACKUP COMPLETE" or "DATADUMP COMPLETE" appears on the terminal, enter:

****   Exit program

⚠ **CAUTION**

Loss of Data

If the data dump is not successful, do not continue. Contact the technical support organization. A data dump problem must be corrected before proceeding.

———————— **End of Procedure** ————————

Determine status (STAT) of the hardware

Procedure 63
Obtaining hardware status

1   Load LD 137 and get status of the hard disks.

Note: Be sure the hard disks are synchronized. If not, synchronize before proceeding.

LD 137	Load program
STAT	Get the status of the hard disks
SYNC	Synchronize hard disks if necessary (Synchronization may take up to 50 minutes)
TEST CMDU	Performs hard and floppy disk test
****	Exit program

2   Load LD 135 and determine the status of the CPs, CNIs and memory.

LD 135	Load program
STAT CPU	Get the status of both CPs and memory
STAT CNI	Get the status of all configured CNIs

3   Test the standby (inactive) CP. Then switch CPs, and test again.

TEST CPU	Test standby (inactive) CP

Wait until the terminal returns a complete test message. The message "HWI533 or HWI534" does not mean the test has completed!

SCPU	Switch CPs
TEST CPU	Test the standby (inactive) CP

Note: Testing the CPs can take up to 20 minutes for each test. When the test is complete, the memories are automatically synchronized.

——— **End of Procedure** ———

Split the Core processors

Procedure 64
Splitting the Core processors

1   Be sure CP 0 is active and CP1 is standby. If necessary, switch CPs
    again:

    STAT CPU

    SCPU   Switch CPs (if necessary)

    ****   Exit program

2   Verify that IODU/C 0 is active. If necessary, switch IODU/Cs.

    LD 137

    STAT   Get the status of IODU/C

    SWAP   Switch IODU/Cs (if necessary)

    ****   Exit program

3   Connect a terminal from the CPSI port in Core/Net 1 to J25 of the I/O
    panel at the back of the Core/Net. Be sure it is configured as follows. The
    recommended baud rate is 9600, to be the same as the CPSI port.

    7 data bits, 1 stop bit, Space parity, Full-duplex, XON protocol

4   Place CP 0 in Maintenance by setting the MAINT/NORM switch to
    MAINT.

5   In Core/Net 1, disable the CNI cards by setting the ENB/DIS faceplate
    switches to DIS.

6   Place CP1 in Maintenance by setting the MAINT/NORM switch to MAINT.

Note: Core 1 will now sysload. Allow the system to complete the sysload and INI. Review any sysload errors and correct before proceeding.

> System is now is split mode, Core 0 active, Clock Controller 0 is active if equipped with FNF. Rings are in half/half mode.

—— **End of Procedure** ——

Exit split mode

Procedure 65
Exiting the split mode

1   Connect CPSI port or maintenance SDI port.

2   Enable the CNI cards by setting the ENB/DIS faceplate switch to ENB in Core/Net 0.

3   Perform the following in uninterrupted sequence:

- Press and release the MAN RST button in Core/Net 0.

- When SYS700 messages appears on the LCD display on Core/Net 0, set the MAINT/NORM switch to NORM in Core/Net 0.

In 60 seconds, the LCD lights and confirms the processes with:

RUNNING ROM OS

ENTERING CP VOTE

An HWI534 message indicates the start of memory synchronization. In 10 minutes, an HWI533 message on Core/Net 1 CSPI or SDI terminal indicates the memory synchronization is complete.

4   In Core/Net 1, set the MAINT/NORM switch on the CP card to NORM.

—— **End of Procedure** ——

Test Core/Net 1 and Core/Net 0

Procedure 66
Testing Core/Net 0 and Core/Net 1

1   Perform a redundancy sanity test using the following sequence:

LD 135

STAT CNI   Get status of CNI cards

STAT CPU   Get status of CPU and memory

TEST CPU   Test the inactive Core/Net/Net

TEST CNI c s   Test each inactive CNI card

2   Switch Core/Nets and test the other side (Core/Net 0)

SCPU   Switch Core/Nets

TEST CPU   Test the inactive Core/Net/Net

TEST CNI c s   Test each inactive CNI card

Note: Testing the Call Processor and CNI cards and synchronizing memory can take up to 20 minutes for each test. When the Call Processor test is complete, the Call Processor the memory is automatically synchronized.

3   Clear the display and minor alarms on both Core/Nets.

CDSP   Clear the displays on the Core/Nets

CMAJ   Clear major alarms

CMIN ALL   Clear minor alarms

4   Get the status of the Core/Nets, CNIs, and memory.

   STAT CPU   Get the status of both Core/Nets

   STAT CNI   Get the status of all configured CNIs and memory

Note: You may need to execute the STAT CNI command twice before receiving a response from the system.

   ****   Exit program

────────   **End of Procedure**   ────────

Procedure 67
Switching the Clocks

1   Verify that the clock controller is assigned to the *active* Core.

   LD 60   Load the program

   SSCK *x*   Get the status of the clock controllers (*x* is "0" or "1" for Clock 0 or Clock 1)

   SWCK   Switch the Clock (if necessary)

   ****   Exit program

2   Verify that the Clock Controllers are switching correctly.

   SWCK   Switch the Clock

   SWCK   Switch the Clock again

────────   **End of Procedure**   ────────

If equipped, stat the FIJI rings

Procedure 68
Stat the rings

1   Check the status of Ring 0 and Ring 0.

LD 39	Load program
STAT RING 0	Get the status of Ring 0 (Ring state should be HALF/HALF)

2   Check the status of Ring 0 and Ring 1.

LD 39	Load program
STAT RING 1	Get the status of Ring 0 (Ring state should be HALF/HALF)

—————— **End of Procedure** ——————

Synchronize the hard disks

Procedure 69
Synchronizing the hard disks

1   Access LD 137 and synchronize the hard disks. Synchronization can take up to 50 minutes. To ensure that the contents of IODU/C 1 are copied to IODU/C 0, verify that IODU/C 0 is disabled.

LD 137	Load program
STAT	Get the status of the IODU/C and redundancy
SYNC	Enter "Yes" to synchronize disks (Wait until the memory synchronization successfully completes before continuing)
TEST CMDU	(Perform hard and floppy disk test)

2   Get the status of the CMDU's and be sure CMDU 0 is active. Switch if necessary.

STAT	Get the status of IODU/C and redundancy
SWAP	Switch CMDU (if necessary)
STAT CMDU	Get the status of the IODU/Cs (Be sure the same IODU/C and CPU are active)
****	Exit program

———————— **End of Procedure** ————————

Parallel reload procedure for Meridian 1 Options 61C, 81, 81C

Perform a data dump

Procedure 70
Performing a data dump

1   Load the Equipment Data Dump Program (LD 43). At the prompt, enter:

   LD 43   Load program

2   When "EDD000" appears on the terminal, enter:

   EDD   Begin the data dump

3   When "DATABASE BACKUP COMPLETE" or "DATADUMP COMPLETE" appears on the terminal, enter:

   ****   Exit program

> **CAUTION**
>
> **Loss of Data**
>
> If the data dump is not successful, do not continue. Contact the technical support organization. A data dump problem must be corrected before proceeding.

——————————— **End of Procedure** ———————————

Determine status (STAT) of the hardware

Procedure 71
Obtaining hardware status

1   Load LD 137 and get status of the hard disks.

   Note: Be sure the hard disks are synchronized. If not, synchronize before proceeding.

   LD 137   Load program

   STAT   Get the status of the hard disks

SYNC	Synchronize hard disks if necessary (Synchronization may take up to 50 minutes)
TEST CMDU	Performs hard and floppy disk test
****	Exit program

2   Load LD 135 and determine the status of the CPs, CNIs and memory.

LD 135	Load program
STAT CPU	Get the status of both CPs and memory
STAT CNI	Get the status of all configured CNIs

3   Test the standby (inactive) CP. Then switch CPs, and test again.

TEST CPU	Test standby (inactive) CP

Wait until the terminal returns a complete test message. The message "HWI533 or HWI534" does not mean the test has completed!

SCPU	Switch CPs
TEST CPU	Test the standby (inactive) CP

Note: Testing the CPs can take up to 20 minutes for each test. When the test is complete, the memories are automatically synchronized.

———————— **End of Procedure** ————————

Split the Core processors

Procedure 72
Splitting the Core processors

1   Be sure CP 0 is active and CP1 is standby. If necessary, switch CPs again:

   STAT CPU

   SCPU   Switch CPs (if necessary)

   ****   Exit program

2   Verify that IODU/C 0 is active. If necessary, switch IODU/Cs.

   LD 137

   STAT   Get the status of IODU/C

   SWAP   Switch IODU/Cs (if necessary)

   ****   Exit program

3   Connect a terminal from the CPSI port in Core/Net 1 to J25 of the I/O panel at the back of the Core/Net. Be sure it is configured as follows. The recommended baud rate is 9600, to be the same as the CPSI port.

   7 data bits, 1 stop bit, Space parity, Full-duplex, XON protocol

4   Place CP 0 in Maintenance by setting the MAINT/NORM switch to MAINT.

5   In Core/Net 1, disable the CNI cards by setting the ENB/DIS faceplate switches to DIS.

6   Place CP1 in Maintenance by setting the MAINT/NORM switch to MAINT.

Note: Core 1 will now sysload. Allow the system to complete the sysload and INI. Review any sysload errors and correct before proceeding.

System is now is split mode, Core 0 active, Clock Controller 0 is active if equipped with FNF. Rings are in half/half mode.

—————————————— **End of Procedure** ——————————————

Switch call processing to Core/Net 1

> **CAUTION**
>
> **Service Interruption**
>
> Call Processing will be interrupted! Perform these next steps carefully. This is the point at which service is interrupted. Calls in process are interrupted, especially if Peripheral Software Download takes place. Some calls might be dropped.

> **WARNING**
>
> System initialization may take up to 15 minutes or longer.

> **IMPORTANT!**
>
> Power down all applications (Meridian Mail, Call Pilot, Symposium).

Procedure 73
Switching call processing from Core/Net 0 to Core/Net 1

1   In Core/Net 0, disable the CNI cards by setting the ENB/DIS faceplate switches to DIS.

2   In Core/Net 0, set the DIS/ENB faceplate switch on the IODU/C card to DIS and unseat it.

3   In Core/Net 1, enable the CNI cards by setting the ENB/DIS faceplate to ENB.

4   In Core/Net 1, press the MAN INT button.

CAUTION

Service Interruption

The INI may take up to15 minutes to complete.

CP1 is active, Clock 1 is active, IODU/C is active. If equipped, the FIJI ring is in half/half mode.

Call processing is now switched from Core/Net 0 to Core/Net 1

IMPORTANT!

Power up all applications (Meridian Mail, Call Pilot, Symposium).

——— **End of Procedure** ———

Procedure 74
Testing Core/Net 1

From Core/Net 1, perform these tests:

1   Check dial tone.

2   Make internal, external and network calls.

3   Check attendant console activity.

4   Check DID trunks.

5   Check applications (Call Pilot, Symposium, Meridian Mail, etc.).

——— **End of Procedure** ———

Exit split mode

Procedure 75
Exiting the split mode

1 Connect CPSI port or maintenance SDI port.

2 Enable the CNI cards by setting the ENB/DIS faceplate switch to ENB in Core/Net 0.

3 Perform the following in uninterrupted sequence:

- Press and release the MAN RST button in Core/Net 0.

- When SYS700 messages appears on the LCD display on Core/Net 0, set the MAINT/NORM switch to NORM in Core/Net 0.

In 60 seconds, the LCD lights and confirms the processes with:

RUNNING ROM OS

ENTERING CP VOTE

An HWI534 message indicates the start of memory synchronization. In 10 minutes, an HWI533 message on Core/Net 1 CSPI or SDI terminal indicates the memory synchronization is complete.

4 In Core/Net 1, set the MAINT/NORM switch on the CP card to NORM.

———————— **End of Procedure** ————————

Test Core/Net 1 and Core/Net 0

Procedure 76
Testing Core/Net 0 and Core/Net 1

1   Perform a redundancy sanity test using the following sequence:

LD 135

STAT CNI   Get status of CNI cards

STAT CPU   Get status of CPU and memory

TEST CPU   Test the inactive Core/Net/Net

TEST CNI c s   Test each inactive CNI card

2   Switch Core/Nets and test the other side (Core/Net 0)

SCPU   Switch Core/Nets

TEST CPU   Test the inactive Core/Net/Net

TEST CNI c s   Test each inactive CNI card

Note: Testing the Call Processor and CNI cards and synchronizing memory can take up to 20 minutes for each test. When the Call Processor test is complete, the Call Processor the memory is automatically synchronized.

3   Clear the display and minor alarms on both Core/Nets.

CDSP   Clear the displays on the Core/Nets

CMAJ   Clear major alarms

CMIN ALL   Clear minor alarms

4   Get the status of the Core/Nets, CNIs, and memory.

    STAT CPU   Get the status of both Core/Nets

    STAT CNI   Get the status of all configured CNIs and memory

    Note: You may need to execute the STAT CNI command twice before receiving a response from the system.

    ****   Exit program

–––––––––––––––– **End of Procedure** ––––––––––––

Procedure 77
Switching the Clocks

1   Verify that the clock controller is assigned to the *active* Core.

    LD 60   Load program

    SSCK *x*   Get the status of the clock controllers (*x* is "0" or "1" for Clock 0 or Clock 1

    SWCK   Switch the Clock (if necessary)

    ****   Exit program

2   Verify that the Clock Controllers are switching correctly:.

    SWCK   Switch the Clock

    SWCK   Switch the Clock again

–––––––––––––––– **End of Procedure** ––––––––––––

If equipped, stat the FIJI rings

Procedure 78
Stat the rings

1   Check the status of Ring 0 and Ring 0.

LD 39	Load program
STAT RING 0	Get the status of Ring 0 (Ring state should be HALF/HALF)

2   Check the status of Ring 0 and Ring 1.

LD 39	Load program
STAT RING 1	Get the status of Ring 0 (Ring state should be HALF/HALF)

─────────────   **End of Procedure**   ─────────────

Synchronize the hard disks

Procedure 79
Synchronizing the hard disks

1   Access LD 137 and synchronize the hard disks. Synchronization can take up to 50 minutes. To ensure that the contents of IODU/C 1 are copied to IODU/C 0, verify that IODU/C 0 is disabled.

    LD 137   Load program

    STAT   Get the status of the IODU/C and redundancy

    SYNC   Enter "Yes" to synchronize disks
                          (Wait until the memory synchronization
                          successfully completes before continuing)

    TEST CMDU   Perform hard and floppy disk test

2   Get the status of the CMDU's and be sure CMDU 0 is active. Switch if necessary.

    STAT   Get the status of IODU/C and redundancy

    SWAP   Switch CMDU (if necessary)

    STAT CMDU   Get the status of the IODU/Cs
                          (Be sure the same IODU/C and CPU are active)

    ****   Exit program

———————————— **End of Procedure** ————————————

Post-conversion procedure

Introduction

This procedure verifies that the conversion process was successful, and system data converted completely. This is the last part of the total conversion procedure. Perform these steps **after** completing all other procedures for the system.

The site data should be printed before and after conversion. See Table 12 on page 249. If the data has changed, make the necessary updates on the **Target** release, and datadump to the new system media. Print out the items marked with an asterisk (*) to be sure everything converted properly. All other items on Table 12 on page 249 are provided to be printed if desired.

Check the General Release Bulletin (GRB), and the Conversion notes (earlier in this document) to verify any database updates that need to be made as a result of conversion. Be sure to verify all SYSxxx messages that might appear during the conversion process. These messages might indicate some database updates are required.

> **CAUTION**
>
> **Service Interruption**
>
> Test call processing thoroughly. This can include more testing than is described in this procedure, depending on system configuration. This procedure is intended to show some of the basic tests performed to complete the conversion process.

Note: When parallel reload is complete, the attendant consoles will be in Night mode. If performing these procedures during the day, contact the attendant. If these procedures are taking place during the evening, it might not be desirable to perform these call processing steps.

Post-conversion steps

Follow the steps in Procedure 80 to perform the post-conversion procedure.

Procedure 80
Performing the post-conversion procedure

1 Print system data listed in Table 12 on page 249. Verify that all information matches the printouts created before conversions. Make changes if necessary.

2 From any unrestricted telephone, dial the access code for an outside line (usually 9), and dial the listed Directory Number (DN) for the customer. Verify that the correct Incoming Call Indicator (ICI) lights at the attendant console.

3   If the customer is equipped with more than one console, transfer the call to another console.

4   Extend the call to a telephone, and release the call from the console.

5   From the called telephone, transfer the call back to the attendant.

6   Answer and release the call.

7   From any telephone dial the DN for the attendant. Verify that the correct ICI lights at the console, then release the call.

8   Busy-out one trunk group using a Trunk Group Busy (TGB) key on the console.

9   From any telephone with TGAR 0-7, dial the access code of the busied-out trunk group, to verify that the call is intercepted to the console and receives either overflow tone or a recorded announcement.

10   Restore the trunk group to the in-service state using the Trunk Group Busy (TGB) key on the console.

11   During the conversion procedure the Central Office might have busied-out the DID trunks. If DID trunks are equipped, from any unrestricted telephone, dial the access code for an outside line, and dial a DID number into the system.

12   If a private network is used, from any unrestricted telephone, dial the network access code and place a CDP, ESN, BARS/NARS, or ISDN call as applicable to the system.

13   If not done previously, set the time and date. If Call Detail Recording (CDR) is used, system message ERR225 will appear. This is normal.

LD 02

STAD dd mm yyyy hh mm ss

dd = day (for example, 05 for the fifth)

mm = month (for example, 09 for September)

yyyy = year (last 2 or all four digits, for example, 92 or 1992)

hh = hour (in 24-hour time, for example, 13:00 for 1:00 pm)

mm = minute (for example, 25)

ss = seconds (for example, 00)

Note: Test all applications and call handling

14 If auxiliary processors are working with the system, ensure they are powered up. Be sure the Application Module Links (AML) are up. DCH and AML messages might indicate problems during the conversion. Investigate any of these messages.

15 Keep one copy of the **Source** software, as it was backed up in the pre-conversion procedure, in case it becomes necessary to reconvert. After the **Target** software has been running well for a few weeks, return the original software to Nortel Networks through the usual distribution channel.

16 Load LD 135 to test and switch CPUs. (Omit this step for Option 51C.)

LD 135	Load program
TEST CPU	Test CPU
SCPU	Switch CPUs
****	Exit overlay

17 Load LD 137 to get the status of the CMDUs and IOPs.

LD 137	Load program
STAT	Get the status of both CMDUs and IOPs
****	Exit overlay

Note: Check MMDU in CP PII machines.

18 Load LD 43 to back up the other set of B1 disks. Insert the B1 disk in the active CMDU.

LD 43	Load program
BKO	Back up to the backup disks and the active CMDU

Note: Back up additional 2 MB floppy disks.

19 If not done previously, set the time and date. If Call Detail Recording (CDR) is used, the system message ERR225 will appear. This is normal.

LD 02

STAD dd mm yyyy hh mm ss

dd = day (for example, 05 for the fifth)

mm = month (for example, 09 for September)

yyyy = year (last 2 or all four digits, for example, 92 or 1992)

hh = hour (in 24-hour time, for example, 13:00 for 1:00 pm)

mm = minute (for example, 25)

ss = seconds (for example, 00)

****   Exit overlay

20   Check that Fiber Ring 1 operates correctly:

LD 39   Load the program

STAT RING 1   Check the status of Ring 1

21   Reset the Rings:

RSET   Reset the Rings and prepare them for
                          redundancy

RSTR   Restore both Rings to HALF state

22   Check that the Rings operate correctly:

STAT RING 0   Check the status of Ring 0 (HALF/HALF)

STAT RING 1   Check the status of Ring 1 (HALF/HALF)

23   If any Ring problems occur, correct them now.

STAT ALRM <X>   Check the alarm status of individual
<Y>   FIJI cards or all FIJI cards
                                  (See *Software Input/Output:*
                                  Administration (553-3001-311) for
                                  more information)

24   Verify that call processing operates correctly: this includes, but is not
limited to the following:

- Check for dial tone.

- Make internal, external, and network calls.

- Check attendant console activity.

- Check DID trunks.

- Check any auxiliary processors.

25 If auxiliary processors are working with the system, ensure they are powered up. Be sure the Application Module Links (AML) are up. DCH and AML messages might indicate problems during the conversion. Investigate any of these messages.

26 Keep one copy of the **Source** software, as it was backed up in the pre-conversion procedure, in case it becomes necessary to reconvert. After the **Target** software has been running well for a few weeks, return the original software to Nortel Networks through the usual distribution channel.

Items marked with asterisks (*) are required printout for conversion. Other items are recommended for a total system status.

Table 12
Print site data (Part 1 of 3)

Site data	Print command	
Terminal Blocks for all TNs	LD 20	
	REQ	PRT
	TYPE	TNB
	CUST	<cr>
Directory Numbers	LD 20	
	REQ	PRT
	TYPE	DNB
	CUST	<cr>
Attendant Console data block for all customers	LD 20	
	REQ	PRT
	TYPE	ATT, 2250
	CUST	<cr>
*Customer Data Block for all customers	LD 21	
	REQ	PRT
	TYPE	CDB

Table 12
Print site data (Part 2 of 3)

Site data	Print command
	CUST <cr>
Route Data Block for all customers	LD 21
	REQ PRT
	TYPE RDB
	CUST Customer number
	ROUT <cr>
	ACOD <cr>
*Configuration Record	LD 22
	REQ PRT
	TYPE CFN
*Software Packages	LD 22
	REQ PRT
	TYPE PKG
* Software Issue, ROM and tape ID	LD 22
	REQ ISS
	REQ ROM
	REQ TID
* Peripheral software versions	LD 22
	REQ PRT
	TYPE PSWV

Table 12
Print site data (Part 3 of 3)

Site data	Print command	
ACD data block for all customers	LD 23	
	REQ	PRT
	TYPE	ACD
	CUST	Customer Number
	ACDN	ACD DN (or <CR>)
Superloop card IDs and software version	LD 32	
(peripheral controller, superloop network and controller cards)	.	IDC loop
Multi-purpose ISDN Signaling Processor (MISP) card	LD 27	
	REQ	PRT
	TYPE	MISP
	LOOP	loop number (0–158)
	APPL	<cr>
	PH	<cr>
DTI/PRI data block for all customers	LD 73	
	REQ	PRT
	TYPE	DDB
Note: Items marked with asterisks (*) are required printout for conversion. Other items are recommended for a total system status.		

Replace NT4N46 CP PII Core/Net with NT4N40

Contents

This section contains information on the following topics:

Prepare for upgrade

This document implements a source to target approach to performing an upgrade. It is important to correctly identify the source platform, target platform and maintenance window required to perform the upgrade.

Each chapter features check boxes indicating what condition the system should be in at that stage of the upgrade. If the system is not in the proper condition steps should be taken to correct this.

Each section is written to maintain Dial Tone where possible and limit service interruptions.

Before attempting any software or hardware upgrade field personnel should follow the steps in Table 13.

Table 13
Prepare for upgrade steps

Procedure Step	Page
Plan upgrade	255
Upgrade Checklists	255
Prepare	255
Identifying the proper procedure	256
Connect a terminal	257
Check the Core ID switches	258
Print site data	261
Perform a template audit	263
Back up the database (data dump and ABKO)	264
Identify two unique IP addresses	268
Check requirements for cCNI to 3PE cables (NTND14)	269

Plan upgrade

Planning for an upgrade involves the following tasks:

- Conduct a site inspection to determine proper power and grounding.

- Review the site profile to determine proper foot space if adding new columns or modules.

- Ensure sufficient power for new columns/modules or applications.

- Identify all applications (Call Pilot, SCCS, IP, Meridian Mail etc.) that are currently installed on the source platform.

- Identify and correct outstanding service problems.

- Verify the site log is updated with current trunking, call routing, application notes, and site contact information.

- Review all product bulletins and Nortel Alerts that impact the site.

- Determine if software can be converted on site or must be sent to Nortel Networks.

- Prepare a contingency plan for backing out of the upgrade.

> **DANGER OF ELECTRIC SHOCK**
>
> In a DC-powered system, power to the column can remain on during the following procedures. In an AC-powered system, however, power to the entire column *must* be shut down throughout the procedures.

Upgrade Checklists

Upgrade checklists can be found in the "Upgrade checklists" chapter on 707. Engineers may print this section in order to facilitate the upgrade.

Prepare

Preparing for an upgrade involves the following tasks:

- Identify and become familiar with all procedures.

- Verify that all installed applications meet the minimum software requirements for the target platform (see Table 4 on page 28 of Book 1).

- Verify proper cable lengths for the target platform.

- Verify card vintage requirements of the target platform.

- Determine the current patch or Dep lists installed at the source platform.

- Determine the required patch or Dep lists at the target platform.

- Determine and communicate the required maintenance window, contingency plan and the impact to the customer to complete the procedure.

- Perform an inventory on required software and hardware.

- Secure the source software and key code.

- Secure the target software and key code.

- Verify the new key code using the DKA program.

- Print site data.

Identifying the proper procedure

Each procedure has been written in a source to target format. Each procedure features warning boxes and check boxes placed at critical points. Changing the procedure or ignoring the warning boxes could cause longer service interruptions.

IMPORTANT!

Database backup information should be preserved for a minimum of 5 days.

Connect a terminal

Procedure 81
Connecting a terminal

A maintenance terminal is required to access the Core or Core/Net modules during the upgrade procedure.

1 Connect a terminal to the J25 port on the I/0 panel in the *inactive* Core or Core/Net module.

2 The settings for the terminal are:

    a. 9600 Baud

    b. 7 data

    c. space parity

    d. 1 stop bit

    e. full duplex

    f. XOFF

3 If only one terminal is used for both Core or Core/Net modules, the terminal must be connected from side-to-side to access each module. An "A/B" switch box can also be installed to switch the terminal from side to side.

———————— **End of Procedure** ————————

Check the Core ID switches

Procedure 82
Checking the Core ID switches

Each CP PII NT4N40 Core/Net card cage or module is identified as "Core 0" or "Core 1". This setting is made by a set of option switches on the System Utility card. The Core ID switches are set in the factory. Confirm that these settings match the identification labels for the module into which they will be installed.

> ⚠ **CAUTION**
>
> **System Failure**
>
> The CP PII Core/Net card cages MUST be installed in the correct Core 0 or Core 1 module.

1   Pull the System Utility card (NT4N48) far enough out of its slot so you can see the ID switch settings.

2   Check and confirm the switch settings according to Table 14.

3   Reinstall the System Utility card.

    a.   Gently slide the card into the slot until it makes contact with the backplane. Never force a card into the slot.

    b.   Push in the top and bottom latches on the card to lock it in place.

─────── **End of Procedure** ───────

Table 14
Core module ID switch settings (System Utility card)

	Position 1	Position 2
Core 0	On	On
Core 1	Off	On

Figure 1
Core card placement in the NT4N40 Core/Net card cage (front)
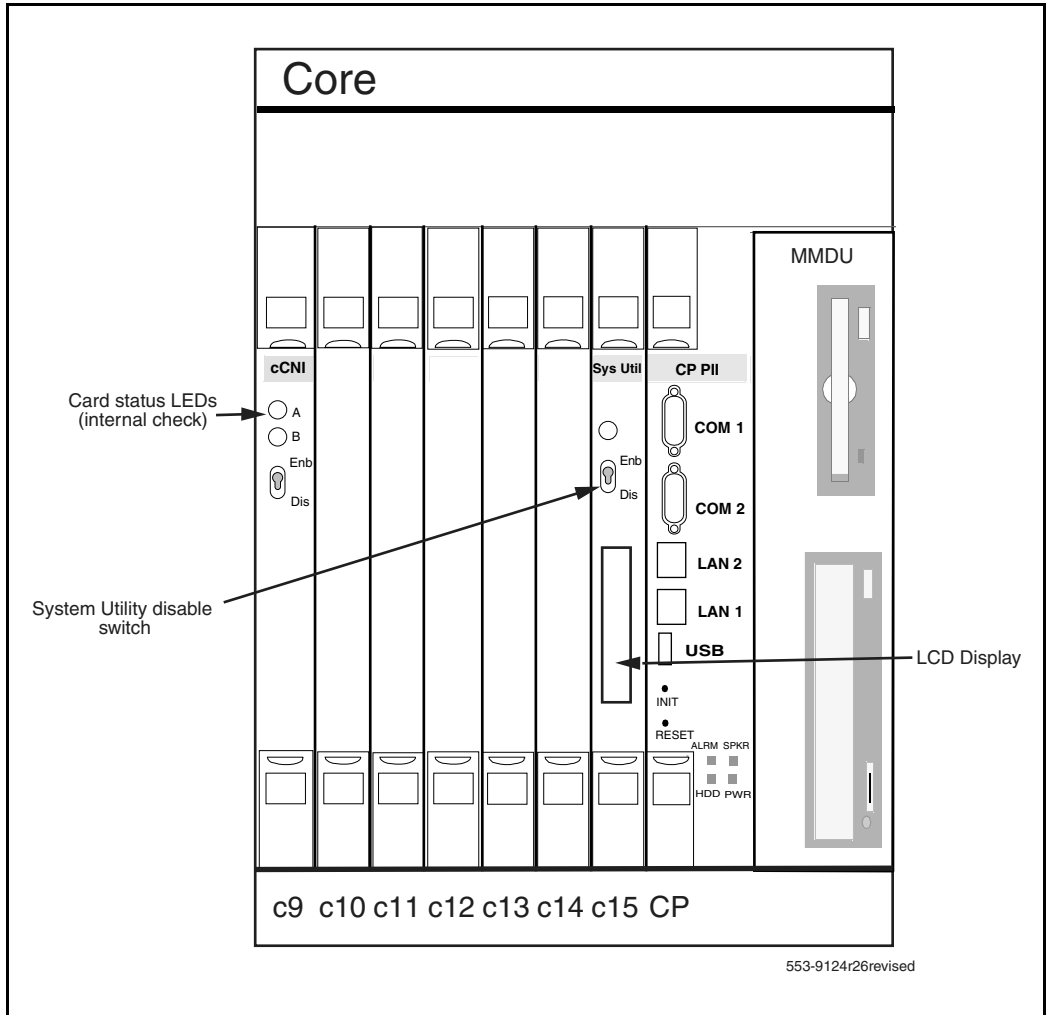
Figure 2
Core Module ID switch

Print site data

Print site data to preserve a record of the system configuration (Table 15). Verify that all information is correct. Make corrections as necessary.

Note: Items marked with an asterisk (*) are required. Other items are recommended for a total system status.

Table 15
Print site data (Part 1 of 3)

Site data	Print command	
Terminal blocks for all TNs	LD 20	
	REQ	PRT
	TYPE	TNB
	CUST	<cr>
Directory Numbers	LD 20	
	REQ	PRT
	TYPE	DNB
	CUST	<cr>
Attendant Console data block for all customers	LD 20	LD 20
	REQ	PRT
	TYPE	ATT, 2250
	CUST	<cr>
*Customer data block for all customers	LD 21	LD 21
	REQ	PRT
	TYPE	CDB
	CUST	<cr>
Route data block for all customers	LD 21	
	REQ	PRT
	TYPE	RDB
	CUST	Customer number
	ROUT	<cr>
	ACOD	<cr>

Table 15
Print site data (Part 2 of 3)

Site data	Print command	
*Configuration Record	LD 22	
	REQ TYPE	PRT CFN
*Software packages	LD 22	
	REQ TYPE	PRT PKG
*Software issue, ROM and tape ID	LD 22	
	REQ REQ REQ	ISS ROM TID
* Peripheral software versions	LD 22	
	REQ TYPE	PRT PSWV
ACD data block for all customers	LD 23	
	REQ TYPE CUST ACDN	PRT ACD Customer Number ACD DN (or <CR>)
Superloop card IDs and software version (peripheral controller, superloop network and controller cards)	LD 32	IDC loop
Multi-purpose ISDN Signaling Processor (MISP) card	LD 27	
	REQ TYPE LOOP APPL PH	PRT MISP loop number (0-158) <cr> <cr>

Table 15
Print site data (Part 3 of 3)

Site data	Print command	
DTI/PRI data block for all customers	LD 73	
	REQ	PRT
	TYPE	DDB

Note: Items marked with asterisks (*) are required printout for conversion. Other items are recommended for a total system status.

Perform a template audit

A template audit (LD 01) reviews the templates in your system. Corrupted and duplicate templates are cleaned up. An example of the information generated during the audit is listed below.

Note: The template audit may take an extended period of time on large systems. Run the audit during a low traffic period.

> **CAUTION**
>
> **Loss of Data**
>
> Do not abort this overlay until the audit is complete. If the overlay is interrupted, data will be corrupted.

LD 01   The audit begins as soon as LD 01 is entered.

TEMPLATE AUDIT

STARTING PBX TEMPLATE SCAN

TEMPLATE 0001 USER COUNT   **CHECKSUM**
LOW   **OK**

TEMPLATE 0002 USER COUNT   **CHECKSUM**
HIGH   **OK**

TEMPLATE 0003 NO USERS FOUND

STARTING SL1 TEMPLATE SCAN

TEMPLATE 0001 USER COUNT OK   **CHECKSUM OK**

- •

- •

TEMPLATE 0120 USER COUNT OK   **CHECKSUM OK**

TEMPLATE AUDIT COMPLETE

Back up the database (data dump and ABKO)

To back up system data, complete the following two procedures.

1   Perform a data dump to save all system memory to the hard disk.

2   Perform a ABKO (attended backup) to save the database to a spare set of floppy disks.

**Procedure 83
Performing a data dump**

1   Log into the system.

2   Load the Equipment Data Dump Program (LD 43). At the prompt, enter:

LD 43   Load program

3   When "EDD000" appears on the terminal, enter:

EDD   Begin the data dump

CAUTION

Loss of Data

If the data dump does not succeed, do not continue. Contact your technical support organization. You must correct a data dump problem before the system can be upgraded.

4 The messages "DATADUMP COMPLETE" and "DATABASE BACKUP COMPLETE" will appear once the data dump is complete.

****   Exit program

──────── **End of Procedure** ────────

Procedure 84
Performing an ABKO (save the database to floppies)

1 Insert floppy diskettes into BOTH floppy disk drives in each Core IODU/C or MMDU.

Note: If the file is too large to fit on a single floppy disk, the ABKO command will compress the data. If the compressed data is still too large to fit on a single disk, both floppy disks in the two IODU/C drives will be used. Be sure to insert floppy disks into BOTH IODU/C drives before the ABKO backup is begun.

2 Load the Customer Configuration Backup and Restore (LD 143). At the prompt, enter:

LD 143   Load program

3 Run the ABKO backup (LD 143).

ABKO   Run the backup

Result: If the backup is successful, the system displays a message that states that the database backup is complete and generates a report that indicates which floppy drives were used.

4   If there are validation errors, repeat the procedure.

> **CAUTION**
>
> **Loss of Data**
>
> If the backup is not successful, do not continue; contact your technical support organization. Any backup problems must be corrected before the system is upgraded to CP PII.

5   Once the backup is complete, type:

****   Exit program

—————— **End of Procedure** ——————

Procedure 85
Converting the 4 MB database media to 2 MB database media

> **IMPORTANT!**
>
> Database conversion for Meridian 1 Options STE, NT, XT, 21E, 51, 61, 71, must be completed by Nortel Networks Software Conversion Lab. Consult the current Nortel Networks price book for cost and contact information.
>
> If the system is equipped with IOP/CMDU cards the database must be converted with the Database Transfer utility.
>
> If the system is equipped with IODUC cards, the database should be data dumped (EDD) to a blank 2 MB floppy.
>
> All systems can be converted by Nortel Networks in the software conversion lab.

Before the system is upgraded to CP PII, you must convert the database to 2 MB media. Systems with an IODU/C drive already have 2 MB media and can skip this procedure.

If the database is on a 4 Mbyte database media (the system has an IOP/ CMDU), the 4 Mbyte customer database must be transferred to 2 Mbyte media.

1   Split the Cores and transfer call processing to Core 0.

2   Install the Database Transfer Utility diskette into the floppy drive on the IOP or CMDU in Core 1.

3   Press the reset button (MAN RST) on the Call Processor card in Core 1 to reboot the system. Start the Database Transfer Utility Tool.

CAUTION

System Failure

Select only options:

- <t> Tools Menu from the Install menu, and

- <s> To archive existing database from the Tools menu.

  DO NOT select any other options. Other options can result in operating system corruption.

---

4   From the installation menu select:

<t>	Go to the Tools menu.
<s>	Archive existing database.
<cr> <a>	Continue with archive (insert blank 2MB diskette from the software kit into the floppy drive in Core 1).
<cr> <a>	Diskette is now in floppy drive in Core 1.

5   The message displays "Database backup complete!" and the Tool menu appears again after the backup completes correctly.

6   Remove the 2 Mbyte diskette with the customer database from the floppy drive of the IOP or CMDU. Keep the diskette for use after you convert Core 1 to NT4N40 Core/Net 1. Do not reboot the system at this point.

──────────── **End of Procedure** ────────────

Identify two unique IP addresses

Each CP PII system must be configured with two unique IP addresses for LAN identification and communication. One IP address is defined for the *active* Core. The second IP address is defined for the *inactive* Core. In this configuration, the *active* Core (either Core 0 or Core 1) that handles call processing is always identified by the same IP address.

•   Contact your systems administrator to identify two unique IP addresses before the upgrade.

•   For instructions to configure these IP numbers, see "Configuring IP addresses" on page 667 of Book 1.

Check requirements for cCNI to 3PE cables (NTND14)

Existing NTND14 CNI to 3PE cables on Meridian 1 81 and 81C platforms using NT5D21 and/or NTND60 shelves can be reused if they meet the following conditions:

<table>
<tr>
<td>⚠️</td>
<td>

IMPORTANT!

When configuring NTND14 cables, observe the following rules:

- The shortest NTND14 Cable should always be used.

- A network group requires 4 NTND14 cables, 2 to each half group. Both cables to each half group must be the same length.

- A check should be made on the existing NTND14 cables. Replace any cables that do not meet the above requirement.

Note: The NTND14 BX 50' cables are manufacture discontinued.

</td>
</tr>
</table>

Equipment requirements

This section describes the minimum equipment required to replace the CPP II Core/Net module. Some cards and cables are shipped in separate packages to prevent damage to the equipment. The required hardware must be ordered by piece and not by assemble. For order codes, see Table 16 on page 270.

Before you begin to replace equipment, check that the equipment listed on the order form is also listed on the packing slip. If any items are missing, contact your supplier for replacements before you begin the replacement.

<table>
<tr>
<td>⚠️</td>
<td>

WARNING

If any required equipment is missing, DO NOT proceed with equipment replacement. Instead, contact your supplier for replacements.

</td>
</tr>
</table>

Table 16 describes the minimum hardware required to replace an NT4N46 CoreNet shelf with an NT4N40 Core/Net shelf.

Table 16
Required hardware

Order number	Description	Quantity per Core/Net Shelf
NT4N40AA	CP PII Core/Network Card Cage AC/DC	1*
NT4N48AA	CP PII System Utility Card	1*
NTND14	cCNI to 3PE cables	2**
MMDU NT4N43CA		1***
CPU NT4N64		1***
cCNI NT4N65AB		1-4***

Note 1: *Assumes customer is replacing ONE Core/Network Card cage but not both.

Note 2: ** Two NTND14 cables are required for each Network shelf to connect to NT4N40AA card cage. If more than 2 groups are configured, more NTND14 cables are required.

Note 3: ***Reuse from existing NT4N46 shelf.

Check personnel requirements

Nortel Networks recommends that no fewer than two people perform a card cage replacement.

DANGER OF ELECTRIC SHOCK

In a DC-powered system, power to the column can remain on during the following procedures. In an AC-powered system, however, power to the entire column *must* be shut down throughout the procedures.

Install Core 1 hardware

In this section, the customer is assumed to be replacing a Core/Net 1 NT4N46 card cage. If you are replacing a Core/Net 0, care should be taken to change Core/Net 0 to Core/Net 1. For information on customer supplied hardware in the NT4N46 Core/Net shelf, see Table 16 on .

Procedure 86
Checking main Core card installation

1   If not already installed, install a P0605337 CP PII Card Slot Filler Panel in each slot. (Slots c13 and c14 are left empty.)

2   Check side ID switch settings for SU card in Core/Net 1 according to Table 17 below. (NT4N48AA System Utility card is located in slot c15.)

Table 17
Core module ID switch settings (System Utility card)

	Position 1	Position 2
Core 0	On	On
Core 1	Off	On

—————————— **End of Procedure** ——————————

Check factory-installed cables

Table 18 lists factory-installed cables.

Table 18
Factory-installed cables

Order Number	Description	Quantity per Core/Net shelf
NT4N4405	Shelf Power Cable	1
NT4N89AA	System Monitor cable	1
NT4N29AA	CNI to 3PE cable	2

Disable and remove equipment from Core 1

See Table 16 on for minimum equipment requirements to replace the CPP II Core/Net module.

Procedure 87
Checking that Core 0 is active and split the cores

1   Verify that Core 0 is the active side performing call processing.

    LD 135   Load program

    STAT CPU   Get the status of the CPUs

2   If Core 1 is active, make Core 0 active.

    SCPU   Switch to Core 0

    ****   Exit program

3   Split the cores.

    LD 135   Load program

    SPLIT CPU   Split call processing from Core 0 to Core 1

    ****   Exit program

Result: The system is now in split mode, with call processing on Core 0.

———————————— End of Procedure ————————————

Check that Clock Controller 0 is active

1   Check the status of the Clock Controllers:

LD 60   Load program

SSCK 0   Get the status of Clock Controller 0

SSCK 1   Get the status of Clock Controller 1

2   If Clock Controller 1 is active, switch to Clock Controller 0.

SWCK   If necessary, switch to Clock Controller 0

DIS CC 1   Disable Clock Controller 1

****   Exit program

3   Faceplate disable Clock Controller 1.

—————— **End of Procedure** ——————

Check that Ring 0 is active

1   Check the status of Ring 0.

LD 39   Load program

**STAT RING   Get the status of Ring 0
0**   (Ring state should be HALF/HALF)

2   Disable Ring auto recovery.

LD 39   Load program

**ARCV ON/   Set or reset auto-recovery operation for ring
OFF**

3   Swap to Ring 0.

LD 39   Load program

SWRG 0   Switch call processing to ring 0

4   Disable Ring 1.

> **LD 39**   Load program
>
> **DIS RING 1**   Disables all FIJI cards on side 1

––––––––––––– **End of Procedure** –––––––––––––

Software disable Network cards in Core/Net 1

> ⚠ **CAUTION**
>
> **Service Interruption**
>
> At this point, the upgrade interrupts service.

Procedure 88
Software disabling cards in network slots of Core/Net 1

1   In Core/Net 1 only, software disable all network and I/O cards, such as XNET, TTY, Conf/TDS and ISDN cards:

   a.   In Core/Net 1 only, disable XNET.

> **LD 32**   Load program
>
> **DISL sl**   Disable XNET, where sl = the superloop number of the XNET card
>
> ********   Exit program

   b.   In Core/Net 1 only, disable ENET.

> **LD 32**   Load program
>
> **DISL X**   Disable ENET, where X = loop number of ENET card
>
> ********   Exit program

> **CAUTION**
>
> **Service Interruption**
>
> If the system terminal is assigned to an SDI port that you are disabling, assign the system terminal to another port before disabling the SDI.

c. In Core/Net 1 only, software disable each port on the SDI cards:

LD 37	Load program
DIS TTY x	Disable port on SDI card, where x = the number of the interface device attached to a port
****	Exit program

d. In Core/Net 1 only**,** disable DTI cards.

LD 60	Load program
DISL x	Disable the DTI card, where x = the loop number of the DTI port
****	Exit program

e. In Core/Net 1 only, disable PRI cards.

LD 60	Load program
DISL x	Disable the PRI card, where x = the loop number PRI port
****	Exit program

f. In Core/Net 1 only, disable MSDL cards.

LD 48	Load program
DIS MSDL x	Disable the MSDL card, where x = the MSDL card number. System will respond with group 0
****	Exit program

    g. In Core/Net 1 only, disable XCT cards.

LD 34	Load program
DISX x	Disable the XCT card, where x = the superloop number of the XCT card
****	Exit program

2   In Core/Net 1 only, software disable the QPC43 Peripheral Signaling Card:

LD 32	Load program
DSPS x	Disable the QPC43 card. See Table 19 for Peripheral Signaling Card numbers
****	Exit program

Table 19
Peripheral Signaling Card numbers

Group/ shelf	Peripheral Signaling Card	Loops disabled/enabled
0 / 0	0	0–15
0 / 1	1	16–31

3   In Core/Net 1 only, faceplate disable the fiji, 3PE, PS and all network cards.

———————— **End of Procedure** ————————

Procedure 89
Removing the system monitors from Core 1

> *Note:* This procedure applies to both AC and DC systems.

1   In Core 1, software disable the master system monitor (NT8D22).

    LD 37   Load program

    DIS TTY #   Disable the master system monitor TTY interface

2   Remove J3 and J4 cables on Core 1 system monitors.

> *Note:* Do *not* turn off the blower units in the front of the pedestals.

3   Remove the system monitor from the rear of the pedestal on Core 1.

CAUTION

Service Interruption

The system can shut down if the system monitors are not removed. Remove the monitors and keep the cooling fans ON.

DANGER OF ELECTRIC SHOCK

In a DC-powered system, power to the column can remain on during the following procedures. In an AC-powered system, however, power to the entire column *must* be shut down throughout the procedures.

──────────────── **End of Procedure** ────────────────

Power down Core/Net 1

> ⚠️ **CAUTION**
>
> **Service Interruption**
>
> Call processing is interrupted for approximately 60 minutes while the procedures are completed.

In AC-powered systems, set the MPDU circuit breaker located at the left end of the module to OFF (top position).

In DC-powered systems, set the breaker for the Core 1 module in the back of the column pedestal to OFF (down position).

Procedure 90
Removing Core 1 cables and card cage

1 Label and disconnect all cables from the front of the module.

2 Tape over the contacts to avoid grounding.

3 Tie all cables to the sides so the working area in front of the card cage is totally clear.

4 Remove the I/O safety panel by turning the screws on each side. Set the I/O safety panel aside.

5 Tag and disconnect all cables from the backplane to the interior of the I/O assembly.

6 Tag and disconnect all plugs, wires, and cables to the backplane.

Note 1: Leave the network cards in the card cage. You will relocate them to the CP PII card cage later in the upgrade procedure.

Note 2: Two people are needed to remove the Core card cage because of the weight of the card cage and its contents.

7   Use a 1/4" nut driver to remove the two mounting screws at the bottom rear of the card cage. The screws secure the card cage to the module casting. Keep the screws to use with the CP PII card cage.

> ⚠ **CAUTION**
>
> Do not drop the mounting screws into the pedestal. Doing so can cause serious damage.

8   Remove the front trim panels on both sides of the card cage.

9   Remove the three mounting screws that secure the front of the card cage to the bottom of the module. Keep the screws for use with the CP PII card cage.

10   Pull the card cage forward until it is halfway out of the module.

11   Disconnect cables, plugs, and wires from the rear of the module to the backplane.

12   Remove the logic return (LTRN) (orange) wire from the backplane bolt. Be careful; do not drop the nut or lock washer into the pedestal. See Figure 3 below for DC power connectors; Figure 4 on page 281 for AC power connectors.

13   Remove the frame ground (FGND) (green) wire from the frame ground bolt on the module.

14   Label and disconnect the module power connectors. These are small orange connectors plugged into the module power distribution unit (MPDU) in an AC-powered system, or connected to each other in a DC-powered system.

15   Label and disconnect the system monitor ribbon cables to J1 and J2.

16   Remove the Core card cage from the module.

17   Remove the power harness and reserve it for reinstallation when you install the new NT4N40 card cage. The power harness is located at the right rear lower corner and plugs into the rear of the power supply.

   •   For AC systems, relocate power harness NT8D80AM.

   •   For DC systems, relocate power harness NT7D11.

Figure 3
DC power connectors on the Core module backplane

Do *not* disconnect

System monitor connectors

J2
J1

Logic ground bolt

Frame ground bolt

Floating power connector (reused in Core/Net Module)

DC-power: module power connectors (see Note)

Do *not* disconnect

Frame ground post

Note: With AC-power, the module power connectors plug into J1 and J2 on the MPDU. (With DC-power, they connect to each other and hang loose.)

553-9582
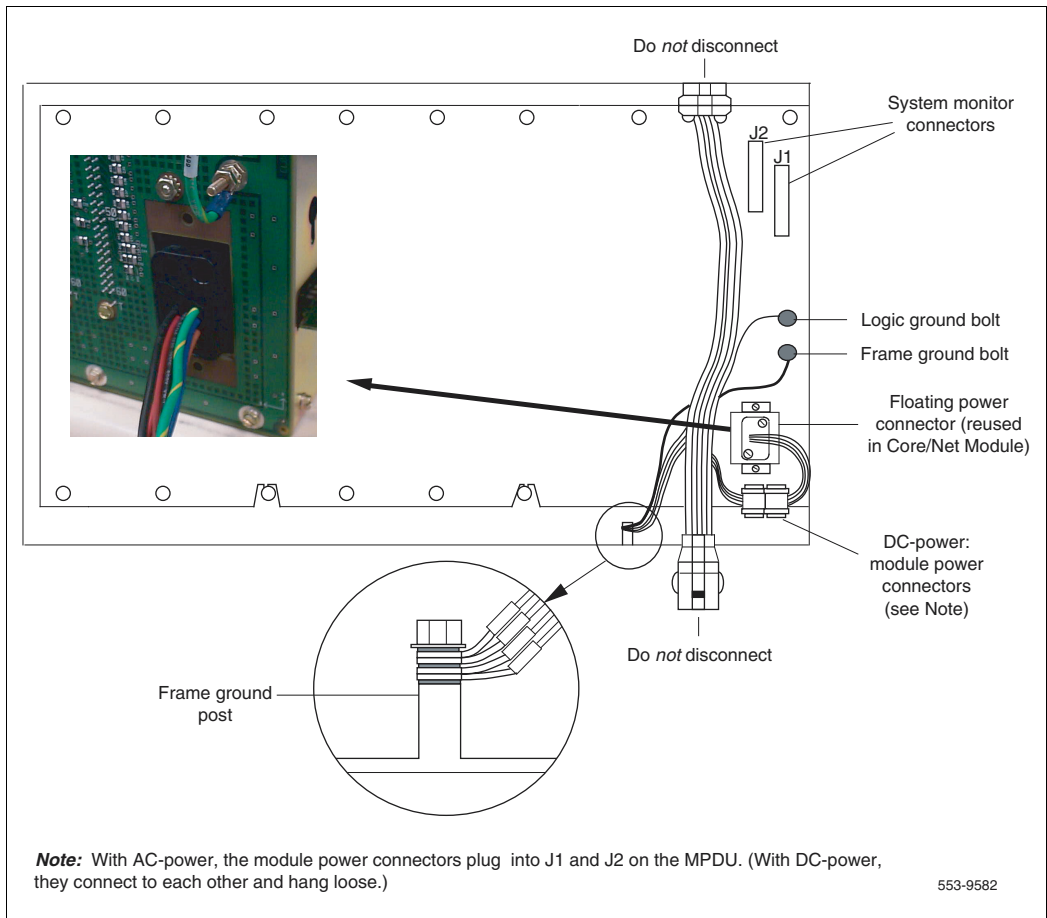
Figure 4
AC power connectors on the Core module backplane

System monitor connectors

Do *not* disconnect

J2 J1

LRTN

FGND

Frame ground bolt

Do *not* disconnect

J2

J3

Module power connectors (see Note)

MPDU (AC-powered systems only)

Note: AC-powered system shown. With DC-power, module power connectors connect to each other.

553-9583
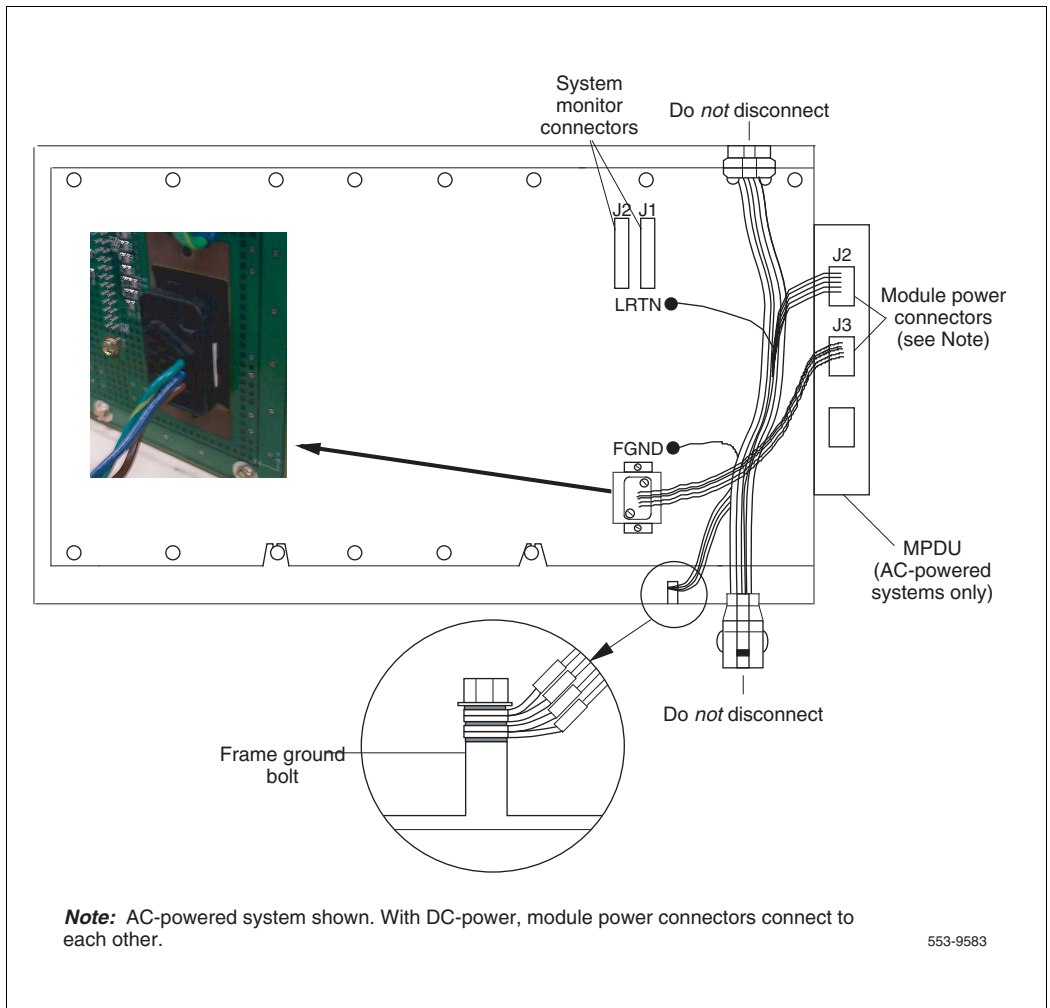
18   Reposition the EMI shield (it looks like a brass grill) in the base of the module. Tape over the front mounting tabs to hold the shield in position. You will remove the tape later.

CAUTION

Service Interruption

If you do not tape the EMI shield in position, you cannot install the card cage correctly.

---

19   In AC-power systems only, plug the module power cable (the short harness attached to the module power connector) into connector J3 on the MPDU. The MPDU is attached to the side of the card cage.

——————————   **End of Procedure**   ——————————

CAUTION

Damage to Equipment

Remove any debris (such as screws) that fell into the base of the UEM module.

Install the CP PII card cage in Core 1

Procedure 91
Installing the CP PII card cage in Core 1

1   Check that the card cage is configured as Core 1. See "Check the Core ID switches" on for instructions.

2   For AC-powered systems only, after the card cage is out of the module, do the following:

    a.   Remove the MPDU.

    b.   Reinstall the MPDU on the CP PII card cage.

    c.   Attach the new MPDU (part of the CP PII Upgrade kit) to the side of the NT4N40 card cage. The screws that secure the MPDU are accessible from the power supply slot, as shown in Figure 5 on .

   d. Pre-thread two bottom mounting screws at the back of the Core/Net shelf.

Figure 5
Location of the screws for the MPDU

   553-5890
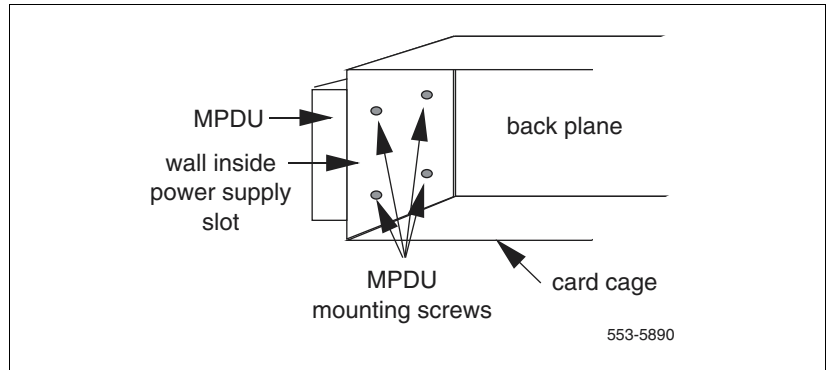
3 Check that the power harness at the right rear corner of the card cage has been transferred from the old card cage to the CP PII card cage.

4 Slide the CP PII card cage halfway into the module.

5 Hold the card cage firmly and make the following connections at the rear of the module.

   a. In AC-powered systems, connect the remaining module power connectors to J2 on the MPDU. Then plug the module power cable (the short harness attached to the module power connector) into connector J3 on the MPDU (attached to the side of the card cage).

CAUTION

Damage to Equipment

Check for and remove any debris (such as screws) that may have fallen into the base of the UEM module.

---

   b. In DC-powered systems, connect the module power connectors to each other. Then attach the system monitor ribbon cables. Connect the ribbon cable that goes down the column to connector J1 on the backplane. Connect the ribbon cable that goes up the column to J2 on the backplane.

    c. Use a 11/32" socket wrench is used to attach the green ground wire to the frame ground bolt on the module. Remove the nut and the lock washer at the top of the bolt. Put the frame ground wire terminal over the bolt. Reinstall the top lock washer and the nut and then tighten down the nut.

    Note: For all of the wire terminals to fit on the bolt, remove one of the lock washers. Leave one lock washer at the bottom of the bolt, leave a second lock washer at the top of the bolt, and a third lock washer between the second and third, or third and fourth, wire terminals.

    d. Attach the orange logic return wire. Remove one nut and the lock washer from the LRTN bolt at the rear of the card cage. Put the wire terminal over the bolt, reinstall the lock washer and nut, then tighten down the nut. (You need a 1/4" socket wrench.)

6 Slide the card cage completely into the module.

7 Check the position of the EMI shield. If the EMI shield has shifted, reposition it. Remove the tape holding the EMI shield.

8 Pre-route cables NT4N88AA, NT4N88BA and NT4N90BA before you secure the card cage. (See Figure 7 on .)

    a. Route cable NT4N88AA from COM1 on the CP PII faceplate to J25 on the I/O panel. (NT4N88AA is used to connect a terminal.)

    b. Route cable NT4N88BA from COM2 on the CP PII faceplate to J21 on the I/O panel. (NT4N88BA is used to connect a modem.)

9 Route cable NT4N90BA from LAN 1 on the CP PII faceplate to J31 (top) of the I/O panel.

10 Connect NTRC17BA crossover ethernet cable.

                      End of Procedure

Install the Security Device

The Security Device fits into the System Utility card (see Figure 6 on page 286). To install the Security Device, do the following.

1   Remove the original Security dongle from the Security Device holder on the System Utility Transition Card.

2   Insert the Security Device into the Security Device holder on the System Utility card with the "Nortel" side facing up. Do not bend the clip more than necessary.

3   Check that the Security Device is securely in place.

——————————————— **End of Procedure** ———————————————

Figure 6
Security Device
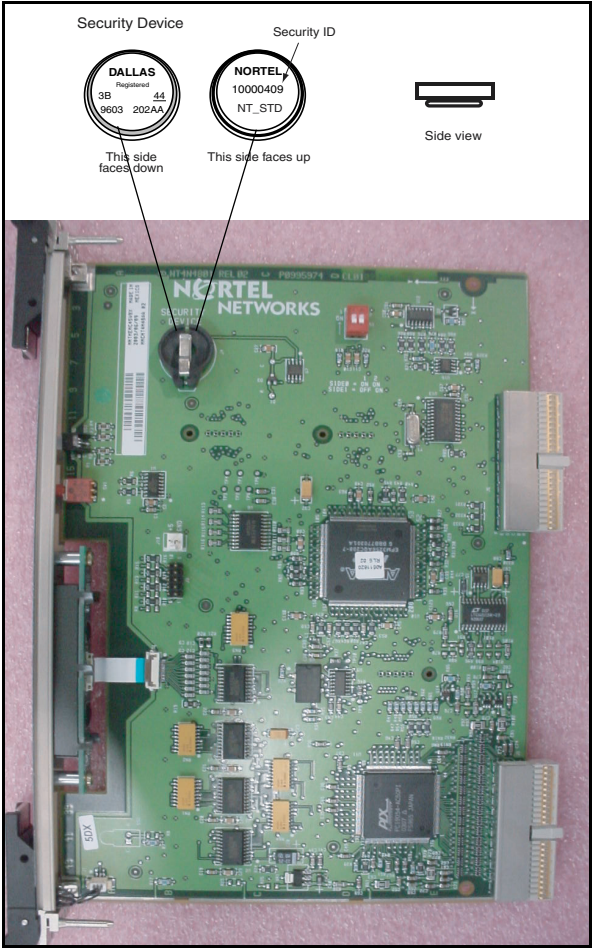
Relocate Core and Network cards to CoreNet 1

Procedure 92
Relocating Core and Network cards to CoreNet 1

1 Move all Core cards from the NT4N46 card cage to the NT4N40 card cage.

2 Move all remaining Network cards from the NT4N46AA card cage to the NT4N40 card cage.

3 Connect the tagged cables to the relocated cards.

———————————— **End of Procedure** ————————————

Cable Core 1

In Core 1, inspect factory installed cables

New NT4N29 cables must be installed for existing Network group 0. If the system has XSDI cards, reinstall the cards and attach the cables. Then inspect the system monitor cables (NT4N89).

Installing intermodule cables

Procedure 93
Installing intermodule cables

1 Connect the NT8D99AD and NT8D80BZ cables.

2 Install NT8D99AD cables between the D connectors on the backplane of each Core/Net module. Install another NT8D99AD cable between the E connectors on the backplane of each Core/Net module (see Figure 8 on).

3 Install an NT8D80BZ cable between the J3 connector on the 3PE card in Core/Net 0 and the J3 connector on the 3PE card in Core/Net 1. Install another cable between the J4 connectors on the 3PE cards (see Figure 9 on).

———————————— **End of Procedure** ————————————

Figure 7
COM and LAN connections to the Core/Net I/O panel
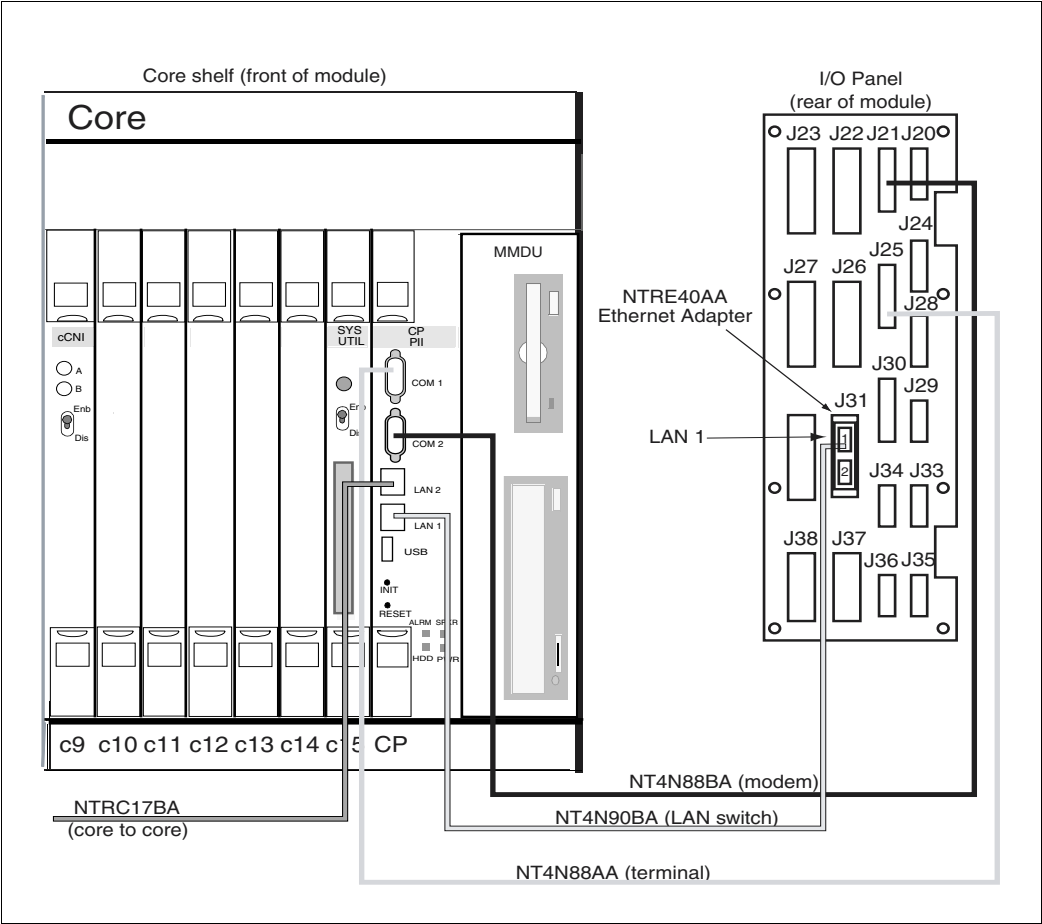
Figure 8
Fanout Panel connections on the CP PII Core/Net backplane
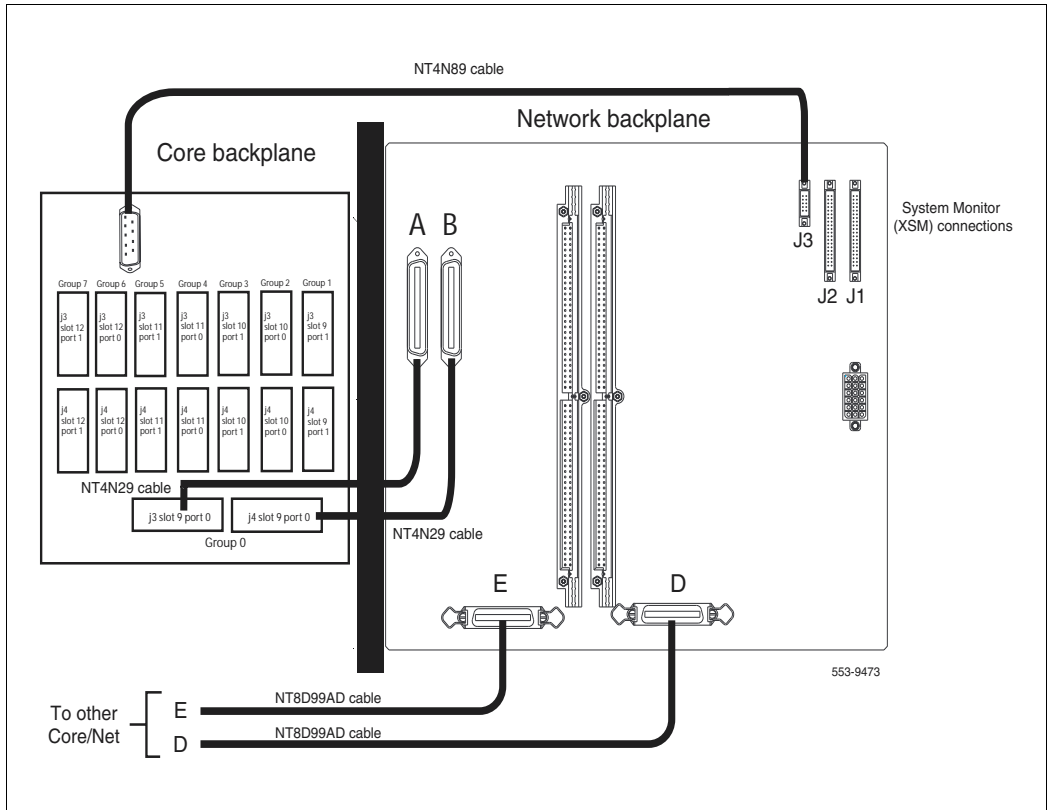
Figure 9
3PE card connections
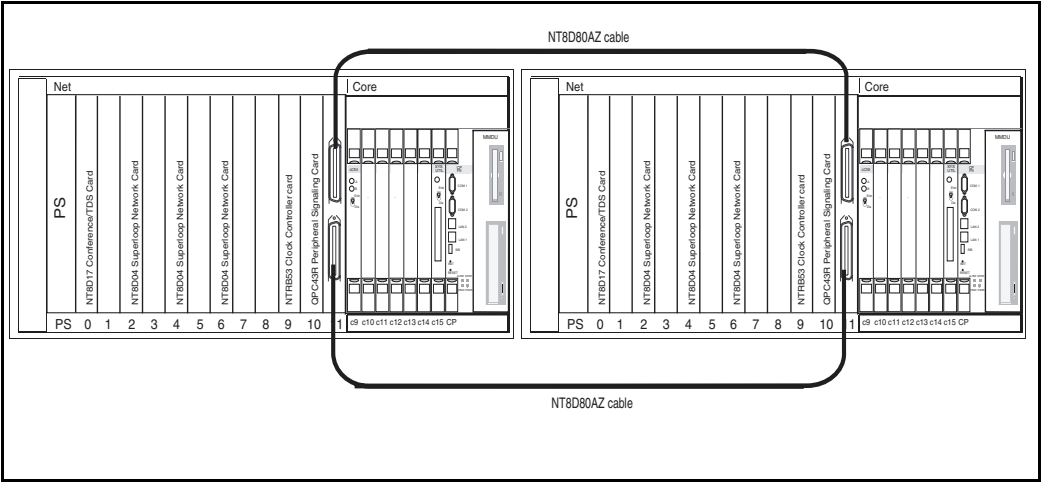
Figure 10
Connectors for CNI-3PE cables to the Fanout panel

Group 7	Group 6	Group 5	Group 4	Group 3	Group 2	Group 1
j3 slot 12 port 1	j3 slot 12 port 0	j3 slot 11 port 1	j3 slot 11 port 0	j3 slot 10 port 1	j3 slot 10 port 0	j3 slot 9 port 1
j4 slot 12 port 1	j4 slot 12 port 0	j4 slot 11 port 1	j4 slot 11 port 0	j4 slot 10 port 1	j4 slot 10 port 0	j4 slot 9 port 1

j3 slot 9 port 0   j4 slot 9 port 0

Group 0
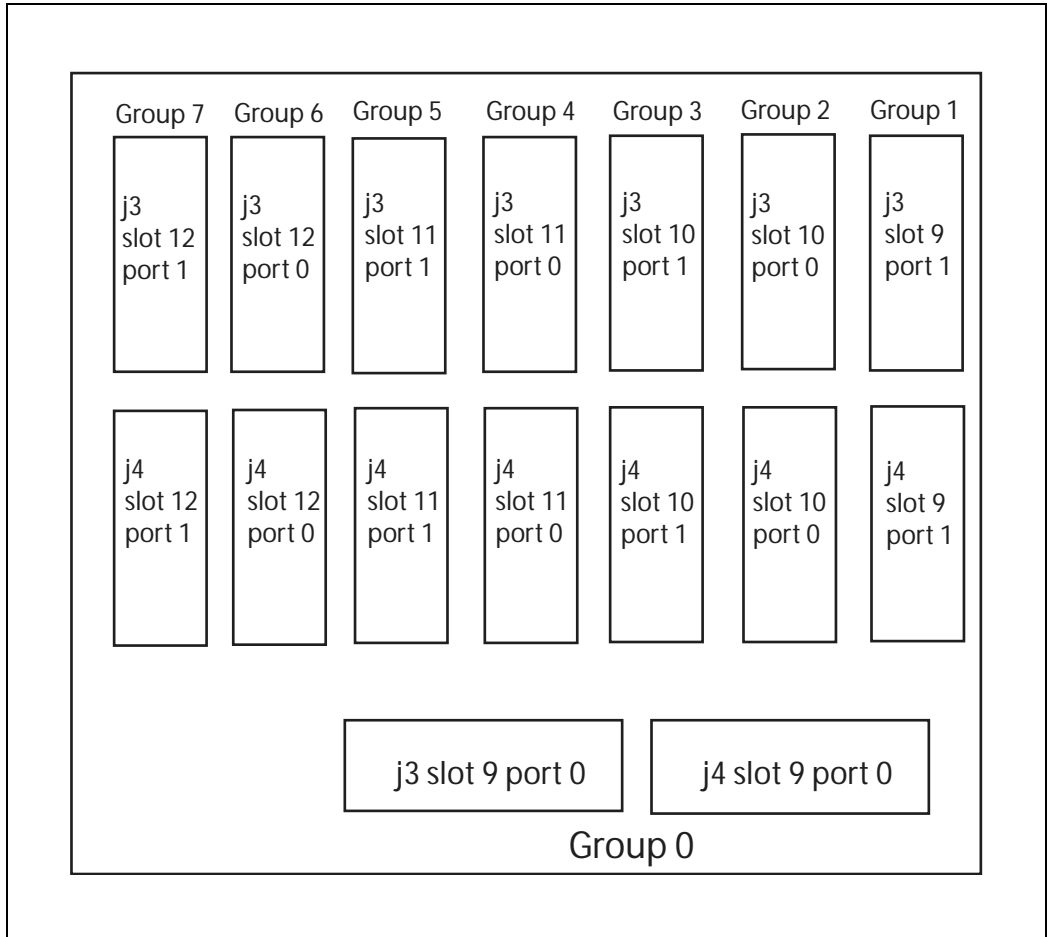
In Core 1, route and connect the cCNI to 3PE (NTND14) cables

Each (NT8D35)Network shelf requires 2 NTND14 cables (for cCNI to 3PE connection) to a Core/Net Card cage. Cables are routed to a module beside the Core/Net module to allow for equipment removal. Once the NT4N46 card cage has been replaced with a new NT4N40 card cage, you can install the cables in the new Core/Net card cage.

1   Remove the existing NT8D76 cCNI to 3PE cables.

2   Label each cable at both ends with:

   •   Network group number

   •   Shelf 1 of the Network group

   •   J3 or J4 (of the 3PE card)

3   Route the NT4N14 cCNI to 3PE cables from the Side 1 3PE cards to a module above or adjacent to Core/Net 1.

Table 20
Fanout Panel to 3PE card connectors (Part 1 of 2)

Group Number	Fanout Panel connector	3PE card connector
0	9-0, J3	A
0	9-0, J4	B
1	9-1, J3	J3
1	9-1, J4	J4
2	10-0, J3	J3
2	10-0, J4	J4
3	10-1, J3	J3
Note: Group 0/shelf 1 cables (NT4N29) connect from the Fanout panel directly to the backplane of Core/Net 1.(see Figure 10 on page 291. Group 1 cables (NTND14) connect from the Fanout panel to the faceplate of the 3PE cards of Group 1 (see Figure 11 on page 294).		

Table 20
Fanout Panel to 3PE card connectors (Part 2 of 2)

Group Number	Fanout Panel connector	3PE card connector
3	10-1, J4	J4
4	11-0, J3	J3
4	11-0, J4	J4
5	11-1, J3	J3
5	11-1, J4	J4
6	12-0, J3	J3
6	12-0, J4	J4
7	12-1, J3	J3
7	12-1, J4	J4

Note: Group 0/shelf 1 cables (NT4N29) connect from the Fanout panel directly to the backplane of Core/Net 1.(see Figure 10 on . Group 1 cables (NTND14) connect from the Fanout panel to the faceplate of the 3PE cards of Group 1 (see Figure 11 on).

—————————— **End of Procedure** ——————————

Power up Core 1

Procedure 94
Preparing for power up

1   Check that a terminal is connected to the J25 I/O panel connector on Core/Net 1.

Note: A maintenance terminal is required to access the Core/Net modules during the upgrade.

Figure 11
3PE Fanout Panel connections
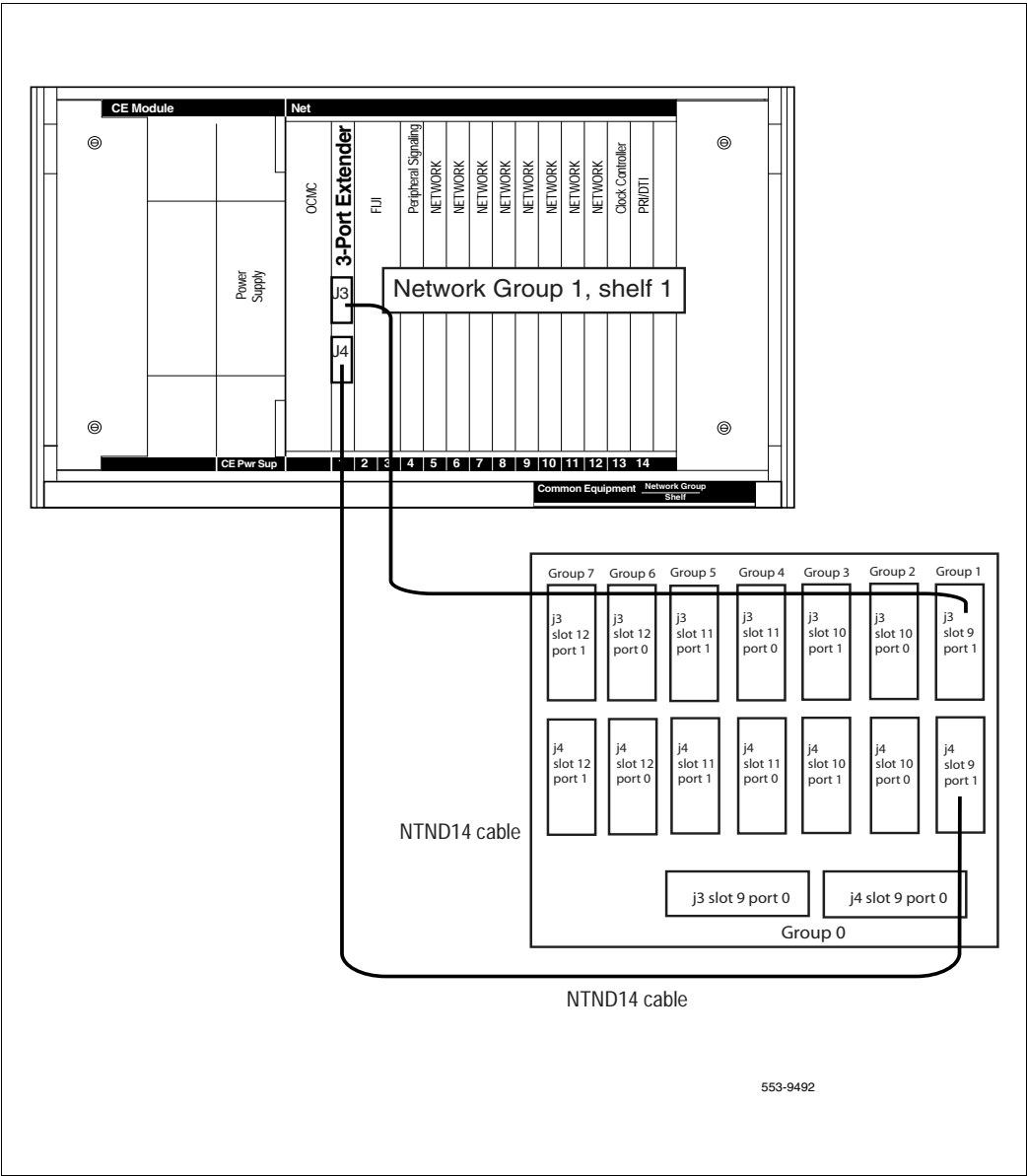
2   Connect a terminal to the J25 port on the I/0 panel in Core 1.

3   Check the terminal settings as follows:

- 9600 Baud

- 7 data

- 1 space parity

- 1 stop bit

- full duplex

- XOFF

Note: If only one terminal is used for both Cores, that terminal must be switched from side to side to access each module. An "A/B" switch box can also be installed to switch the terminal from side to side.

4   Faceplate *enable* the cCNI cards in Core 1.

────────────── **End of Procedure** ──────────────

Procedure 95
Powering up Core 1

1   Power up the Core/Net Module.

2   Wait for the system to load/initialize.

3   Check that the Network and I/O cards have working power.

Result: CoreNet 1 should now come up with CoreNet 0 as Active Call processor.

────────────── **End of Procedure** ──────────────

Re-enable all network cards in CoreNet 1 from CoreNet 0

Re-enable all network cards in CoreNet 1 from CoreNet 0 so full call processing can resume.

Procedure 96
Software enabling cards in network slots of Core/Net 1

1   In Core/Net 1 only, faceplate enable fiji, 3PE, PS and all network cards.

2   In Core/Net 1 only, software enable the QPC43 Peripheral Signaling Card:

LD 32	Load program
ENPS x	Enable the QPC43 card. See Table 21 below for Peripheral Signaling Card numbers
****	Exit program

Table 21
Peripheral Signaling Card numbers

Group/ shelf	Peripheral Signaling Card	Loops disabled/enabled	
0 / 0	0	0 –	15
0 / 1	1	16 –	31

3   In Core/Net 1 only, software enable all network and I/O cards such as XNET, TTY, Conf/TDS and ISDN cards:

a.   In Core/Net 1 only, enable XNET.

LD 32	Load program
ENLL sl	Enable XNET, where sl = the superloop number of the XNET card
****	Exit program

b.   In Core/Net 1 only, enable ENET.

LD 37	Load program
ENLL x	Enable ENET, where x = the loop number
****	Exit program

c. In Core/Net 1 only, software enable each port on the SDI cards:

LD 37	Load program
ENL TTY x	Enable each SDI port, where x = number of the interface devices attached to a port
****	Exit program

d. In Core/Net 1 only**,** enable DTI cards.

LD 60	Load program
ENLL x	Enable DTI card, where x = loop number
****	Exit program

e. In Core/Net 1 only, enable PRI cards.

LD 60	Load program
ENLL x	Enable PRI card, where x = loop number
****	Exit program

f. In Core/Net 1 only, enable MSDL cards.

LD 48	Load program
ENL MSDL x	Enable MSDL card, where x = MSDL card number. System will respond with group X
****	Exit program

g. In Core/Net 1 only, enable XCT cards.

LD 34	Load program
ENLX x	Enable XCT card, where x = the loop number of the XCT card
****	Exit program

——————————— **End of Procedure** ———————————

Enable Ring 1

Procedure 97
Software enabling Ring 1

1   Software enable ring 1:

LD 39	Load program
ENL RING 1	Enable all FIJI cards on ring (x = 0 or 1)
STAT RING x	Get status of ring on side x (x = 0 or 1)
RSET	Reset threshold for switchover functionality
RSTR	Restore ring
ARCV ON	Enable auto-recovery operation for ring

2   Confirm ring is enabled and in Half/Half state:

LD 39	Load the program
STAT RING x	Get status of ring on side x (x = 0 or 1)
STAT ALRM x y FULL	Query status of all alarms (active and inactive) for FIJI card in group x, side y
****	Exit

3   Verify status of system clocks:

LD 60	Load the program
SSCK x	Get status of system clock (x = 0 or 1)
****	Exit

—————— **End of Procedure** ——————

Make the system redundant

Procedure 98
Making the system redundant

> **LD 135**   Load program
>
> **JOIN**   Join the 2 CPUs together to become redundant

Core/Net 1 will INI and become the inactive call processor.

——————— **End of Procedure** ———————

Complete the CP PII replacement

Test Core/Net 1

From Core/Net 1, perform the following tests.

1   Perform a redundancy sanity test:

> **LD 135**   Load program
>
> **STAT CPU**   Get status of CPU and memory
>
> **TEST CPU**   Test the CPU

2   Check the LCD states.

   a.   Perform a visual check of the LCDs.

   b.   Test LCDs:

> **LD 135**   Load program
>
> **TEST LCDs**   Test LCDs
>
> **DSPL ALL**   Display all

   c.   Check that the LCD display matches the software check.

3   Test the System Utility cards and the cCNI cards:

LD 135	Load program
STAT SUTL	Get the status of the System Utility (main and Transition) cards
TEST SUTL	Test the System Utility (main and Transition) cards
STAT CNI c s	Get status of cCNI cards (core, slot)
TEST CNI c s	Test cCNI (core, slot)

4   Test system redundancy:

LD 137	Load program
TEST RDUN	Test redundancy
DATA RDUN	
TEST CMDU	Test the MMDU card

5   Install the two system monitors. Test that the system monitors are working.

LD 37	Load program
ENL TTY x	Enable the TTY, where x= system XMS
STAT XSM	Check the system monitors
****	Exit program

6   Clear the display and minor alarms on both Cores.

LD 135	Load program
CDSP	Clear the displays on the cores
CMAJ	Clear major alarms
CMIN ALL	Clear minor alarms

7 Test the clocks.

    a. Verify that the clock controller is assigned to the *active* Core.

LD 60	Load program
SSCK *x*	To get the status of the clock controllers (*x* is "0" or "1" for Clock 0 or Clock 1
SWCK	Switch the Clock if necessary
****	Exit program

    b. Verify that the Clock Controllers are switching correctly.

SWCK	Switch the Clock
SWCK	Switch the Clock again

8 Test the Fiber Rings

See the *Software Input/Output: Maintenance* (553-3001-511) for more information on LD 39 commands.

    a. Check that the Fiber Rings operate correctly.

LD 39	Load program
STAT RING 0	Check the status of Ring 0 (HALF/HALF)
STAT RING 1	Check the status of Ring 1 (HALF/HALF)

    b. If necessary, restore the Rings to Normal State.

RSTR	Restore both Rings to HALF state

    c. Check that the Rings operate correctly:

STAT RING 0	Check the status of Ring 0 (HALF/HALF)
STAT RING 1	Check the status of Ring 1 (HALF/HALF)

9   Check the status of the FIJI alarms

  STAT ALRM Query the alarm condition for all FIJI cards in all
            Network Groups

  ****   Exit program

———————— **End of Procedure** ————————

Switch call processing

Procedure 99
Switching call processing

  LD 135   Load program

  SCPU   Switch call processing from CoreNet 0 to
         CoreNet 1

Core/Net 0 will INI and Core/Net 1 will become the active call processor.

———————— **End of Procedure** ————————

This concludes replacement of the NT4N46 Card Cage for Core/Net 1.

Verify that all system applications are active and functional (such as CallPilot
and Symposium).

If the Core/Net 0 shelf is being replaced, repeat the procedures in this chapter
for Core/Net 0.

Adding a Network Group

Eight Network Group upgrade procedures will be made available online.

To access this documentation online, click the **Technical Documentation** link under **Support** on the Nortel Networks home page:

http://www.nortelnetworks.com/

Installing IODU/C cards, CP cards, CP memory

Contents

This section contains information on the following topics:

Installing memory on Meridian 1 Options 61C CP PII, 81C CP PII

> **CAUTION WITH ESD DEVICES**
>
> To avoid damaging equipment from electrostatic discharge, wear a properly connected anti-static wrist strap when working on or near Meridian 1 equipment.

The NT4N43 CP PII Multi-Media Disk Unit (CP PII MMDU) is located in the extreme right hand slot next to the CP PII card. The CP PII MMDU contains the hard drive, floppy drive and CD-ROM drive.

Software must be installed on both Core hard drives. Follow the procedures in this section to complete the installation.

Note: To complete these procedures, the system must be working and connected to a terminal.

Prepare for installation

This document implements a source to target approach to performing an upgrade. It is important to correctly identify the source platform, target platform and maintenance window required to perform the upgrade.

Each chapter features check boxes indicating what condition the system should be in at that stage of the upgrade. If the system is not in the proper condition steps should be taken to correct this.

Each section is written to maintain Dial Tone where possible and limit service interruptions.

Before attempting any software or hardware upgrade field personnel should follow the steps in Table 22 below:

Table 22
Prepare for upgrade steps

Procedure Step	Page
Planning	307
Upgrade Checklists	308
Preparing	308
Identifying the proper procedure	308
Connect a terminal	309
Print Site Data	310
Perform a template audit	312
Back up the database (data dump and ABKO)	313
Identify two unique IP addresses	316

Planning

Planning for an upgrade involves the following tasks:

- Conduct a site inspection to determine proper power and grounding.

- Review the site profile to determine proper foot space if adding new columns or modules.

- Ensure sufficient power for new columns/modules or applications.

- Identify all applications (Call Pilot, SCCS, IP, Meridian Mail etc.) that are currently installed on the source platform.

- Identify and correct outstanding service problems.

- Verify the site log is updated with current trunking, call routing, application notes, and site contact information.

- Review all product bulletins and Nortel Alerts that impact the site.

- Determine if software can be converted on site or must be sent to Nortel Networks.

- Prepare a contingency plan for backing out of the upgrade.

Upgrade Checklists

Upgrade checklists can be found in the "Upgrade checklists" chapter on 707. Engineers may print this section in order to facilitate the upgrade.

Preparing

Preparing for an upgrade involves the following tasks:

- Identify and become familiar with all procedures.

- Verify that all installed applications meet the minimum software requirements for the target platform (see Table 4 on page 28 of Book 1).

- Verify proper cable lengths for the target platform.

- Verify card vintage requirements of the target platform.

- Determine the current patch or Dep lists installed at the source platform.

- Determine the required patch or Dep lists at the target platform.

- Determine and communicate the required maintenance window, contingency plan and the impact to the customer to complete the procedure.

- Perform an inventory on required software and hardware.

- Secure the source software and key code.

- Secure the target software and key code.

- Verify the new key code using the DKA program.

- Print site data.

Identifying the proper procedure

Each procedure has been written in a source to target format. Each procedure features warning boxes and check boxes placed at critical points. Changing

the procedure or ignoring the warning boxes could cause longer service interruptions.

> **IMPORTANT!**
>
> Database backup information should be preserved for a minimum of 5 days.

Connect a terminal

Procedure 100
Connecting a terminal

A maintenance terminal is required to access the Core or Core/Net modules during the upgrade procedure.

1   Connect a terminal to the J25 port on the I/0 panel in the *inactive* Core or Core/Net module.

2   The settings for the terminal are:

   a.   9600 Baud

   b.   7 data

   c.   space parity

   d.   1 stop bit

   e.   full duplex

   f.   XOFF

3   If only one terminal is used for both Core or Core/Net modules, the terminal must be connected from side-to-side to access each module. An "A/B" switch box can also be installed to switch the terminal from side to side.

————————————   **End of Procedure**   ————————————

Print Site Data

Print site data to preserve a record of the system configuration (see Table 23). Verify that all information is correct. Make corrections as necessary.

Note: Items marked with an asterisk (*) are required. Other items are recommended for a total system status.

Table 23
Print site data (Part 1 of 3)

Site data	Print command	
Terminal blocks for all TNs	LD 20	
	REQ	PRT
	TYPE	TNB
	CUST	<cr>
Directory Numbers	LD 20	
	REQ	PRT
	TYPE	DNB
	CUST	<cr>
Attendant Console data block for all customers	LD 20	LD 20
	REQ	PRT
	TYPE	ATT, 2250
	CUST	<cr>
*Customer data block for all customers	LD 21	LD 21
	REQ	PRT
	TYPE	CDB
	CUST	<cr>
Route data block for all customers	LD 21	
	REQ	PRT
	TYPE	RDB
	CUST	Customer number
	ROUT	<cr>
	ACOD	<cr>

Table 23
Print site data (Part 2 of 3)

Site data	Print command	
*Configuration Record	LD 22	
	REQ	PRT
	TYPE	CFN
*Software packages	LD 22	
	REQ	PRT
	TYPE	PKG
*Software issue, ROM and tape ID	LD 22	
	REQ	ISS
	REQ	ROM
	REQ	TID
* Peripheral software versions	LD 22	
	REQ	PRT
	TYPE	PSWV
ACD data block for all customers	LD 23	
	REQ	PRT
	TYPE	ACD
	CUST	Customer Number
	ACDN	ACD DN (or <CR>)
Superloop card IDs and software version (peripheral controller, superloop network and controller cards)	LD 32	
		IDC loop
Multi-purpose ISDN Signaling Processor (MISP) card	LD 27	
	REQ	PRT
	TYPE	MISP
	LOOP	loop number (0-158)
	APPL	<cr>
	PH	<cr>

Table 23
Print site data (Part 3 of 3)

Site data	Print command	
DTI/PRI data block for all customers	LD 73	
	REQ	PRT
	TYPE	DDB
Note: Items marked with asterisks (*) are required printout for conversion. Other items are recommended for a total system status.		

Perform a template audit

A template audit (LD 01) reviews the templates in your system. Corrupted and duplicate templates are cleaned up. An example of the information generated during the audit is listed below.

Note: The template audit may take an extended period of time on large systems. Run the audit during a low traffic period.

CAUTION

Loss of Data

Do not abort this overlay until the audit is complete. If the overlay is interrupted, data will be corrupted.

LD 01   The audit begins as soon as LD 01 is entered.

TEMPLATE AUDIT

STARTING PBX TEMPLATE SCAN

TEMPLATE 0001 USER COUNT LOW	**CHECKSUM OK**
TEMPLATE 0002 USER COUNT HIGH	**CHECKSUM OK**

TEMPLATE 0003 NO USERS FOUND

STARTING SL1 TEMPLATE SCAN

TEMPLATE 0001 USER COUNT OK   CHECKSUM OK

•

•

TEMPLATE 0120 USER COUNT OK   CHECKSUM OK

TEMPLATE AUDIT COMPLETE

Back up the database (data dump and ABKO)

To back up system data, complete the following two procedures.

1   Perform a data dump to save all system memory to the hard disk.

2   Perform a ABKO (attended backup) to save the database to a spare set of floppy disks.

Procedure 101
Performing a data dump

1   Log into the system.

2   Load the Equipment Data Dump Program (LD 43). At the prompt, enter:

   LD 43   Load program

3   When "EDD000" appears on the terminal, enter:

   EDD   Begin data dump

> **CAUTION**
>
> **Loss of Data**
>
> If the data dump does not succeed, do not continue. Contact your technical support organization. You must correct a data dump problem before the system can be upgraded.

4   The messages "DATADUMP COMPLETE" and "DATABASE BACKUP COMPLETE" will appear once the data dump is complete.

    ****   Exit program

-------- **End of Procedure** --------

Procedure 102
Performing an ABKO (save the database to floppies)

1   Insert floppy diskettes into BOTH floppy disk drives in each Core IODU/C or MMDU.

Note: If the file is too large to fit on a single floppy disk, the ABKO command will compress the data. If the compressed data is still too large to fit on a single disk, both floppy disks in the two IODU/C drives will be used. Be sure to insert floppy disks into BOTH IODU/C drives before the ABKO backup is begun.

2   Load the Customer Configuration Backup and Restore (LD 143). At the prompt, enter:

    LD 143   Load program

3   Run the ABKO backup (LD 143).

    ABKO   Run the backup

Result: If the backup is successful, the system displays a message that states that the database backup is complete and generates a report that indicates which floppy drives were used.

4   If there are validation errors, repeat the procedure.

> **CAUTION**
>
> **Loss of Data**
>
> If the backup is not successful, do not continue;
> contact your technical support organization. Any
> backup problems must be corrected before the
> system is upgraded to CP PII.

5   Once the backup is complete, type:

    ****   Exit program

End of Procedure

Procedure 103
Converting the 4 MB database media to 2 MB database media

> **IMPORTANT!**
>
> Database conversion for Meridian 1 Options 21E, 51,
> 61,71, STE, NT and XT must be completed by Nortel
> Networks Software Conversion Lab. Consult the current
> Nortel Networks price book for cost and contact
> information.
>
> If the system is equipped with IOP/CMDU cards the
> database must be converted with the Database Transfer
> utility. See "Database transfer" on .
>
> If the system is equipped with IODUC cards, the
> database should be data dumped (EDD) to a blank 2 MB
> floppy.
>
> All systems can be converted by Nortel Networks in the
> software conversion lab.

If the system is equipped with IOP/CMDU cards the database must be converted with the Database Transfer utility. See "Database transfer" on page 179.

If the system is equipped with IODUC cards, the database should be data dumped (EDD) to a blank 2 MB floppy.

Identify two unique IP addresses

Each CP PII system must be configured with two unique IP addresses for LAN identification and communication. One IP address is defined for the *active* Core. The second IP address is defined for the *inactive* Core. In this configuration, the *active* Core (either Core 0 or Core 1) that handles call processing is always identified by the same IP address.

- Contact your systems administrator to identify two unique IP addresses before the upgrade.

- For instructions to configure these IP numbers, see "Configuring IP addresses" on page 667 of Book 1.

Perform installation

Verify memory

Determine whether the system requires additional memory.

Succession 3.0 Software

Table 24 lists the memory requirements of Succession 3.0 Software.

Table 24
Succession 3.0 Software memory requirements

Minimum memory requirement			
System type	Flash memory requirement	DRAM memory requirement	Total memory requirement
Meridian 1 Option 51C/61C	32 MB	48 MB	128 MB
Meridian 1 Option 61C CP PII	64 MB	64 MB	256 MB
Meridian 1 Option 81/81C	32 MB	64 MB	96 MB
• Meridian 1 Option 81/81C systems operating on Call Processor 68060 or 68060E with five or fewer network groups (including Fiber Network Fabric systems)	32 MB	64 MB	96 MB
• any Meridian 1 Option 81/81C systems operating on Call Processor 68040	32 MB	64 MB	96 MB
Meridian 1 Option 81/81C Meridian 1 Option 81/81C systems operating on Call Processor 68060 or 68060E with six or more network groups	64 MB	96 MB	160 MB
Meridian 1 Option 81C CP PII	128 MB	128 MB	256 MB

Perform data dump

Procedure 104
Backing up the current data

1   Load the Equipment Data Dump Program (LD 43). At the prompt, enter:

    LD 43   Load program

2   When "EDD000" appears on the terminal, enter:

    EDD   Begin data dump

3   Check total memory allocation before the upgrade.

    LD 10   Load program

When the header for LD 10 is displayed, note the value associated with Total Memory. After the upgrade, compare Total Memory before and after the upgrade. Total Memory should be greater after the upgrade.

4   Exit the program:

    ****   Exit program

⚠️	**IMPORTANT!** Database backup information should be preserved for a minimum of 5 days.

⚠️	**CAUTION** **Loss of Data** If the data dump is not successful, do not continue. Contact the technical support organization. Correct any data dump problem before continuing.

—————— **End of Procedure** ——————

Check the status of the hardware

Follow the steps in Procedure 105 to determine the status of the hardware.

Procedure 105
Determining hardware status

1   Load LD 137 to check the status of the hard disks.

LD 137	Load program
STAT	Get the status of the hard disks
TEST CMDU	Perform hard and floppy disk test

2   Load LD 135 and check the status of the CPs, CNIs and memories.

LD 135	Load program
STAT CPU	Get the status of both CPs and memory
STAT CNI	Get the status of all configured CNIs

———————————   **End of Procedure**   ———————————

Check that Core 0 is active

Check that Core 0 is active. If Core 1 is active, make Core 0 active:

LD 135	Load program
STAT CPU	Get the status of the CPUs
SCPU	Switch to Core 0 (if necessary)

Split the Cores

From the active side, split the cores:

LD 135   Load program

SPLIT   Enter Split on the active core.

****   Exit program

System is in split mode, CP 0 is active, clock 0 is active, all network cards in shelf 1 are software disabled.

Memory upgrade

Follow the steps in Procedure 106 to upgrade the memory.

Procedure 106
Upgrade memory

1   Remove all cables connected to the faceplate of the standby Call Processor card on Core 1.

2   Hot unplug the card and place with the DIMM side-up on a flat, clean surface.

3   Hold the latches of the DIMM socket. See Figure 12.

Figure 12
Latches
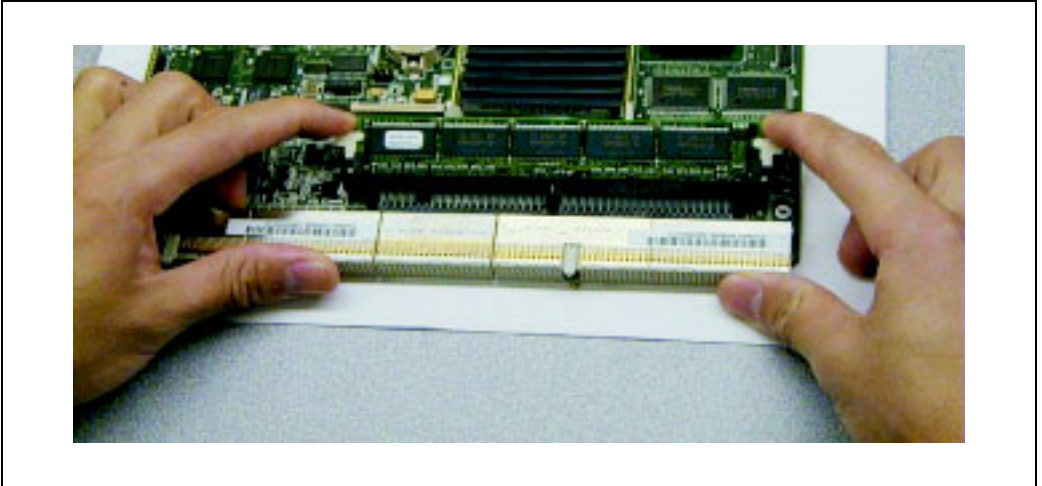
4   Press and rotate the latches from inside to outside carefully. See
Figure 13 on .

Figure 13
Rotate latches
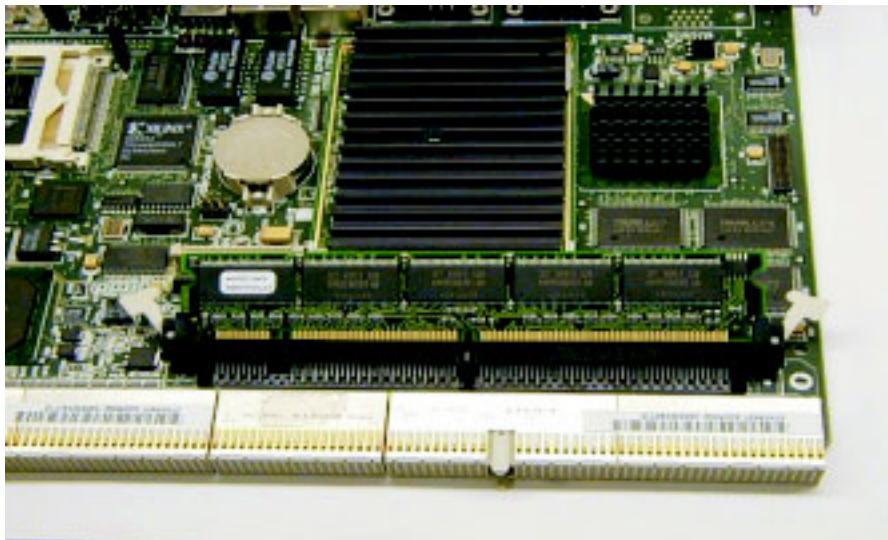
5   Remove the 128 MB memory module.

6   Keep the latches open and insert the 256MB module into the DIMM socket. Align the two notches on the module with the two keys in the DIMM socket. See Figure 16 on .

Figure 14
Insert 256MB module
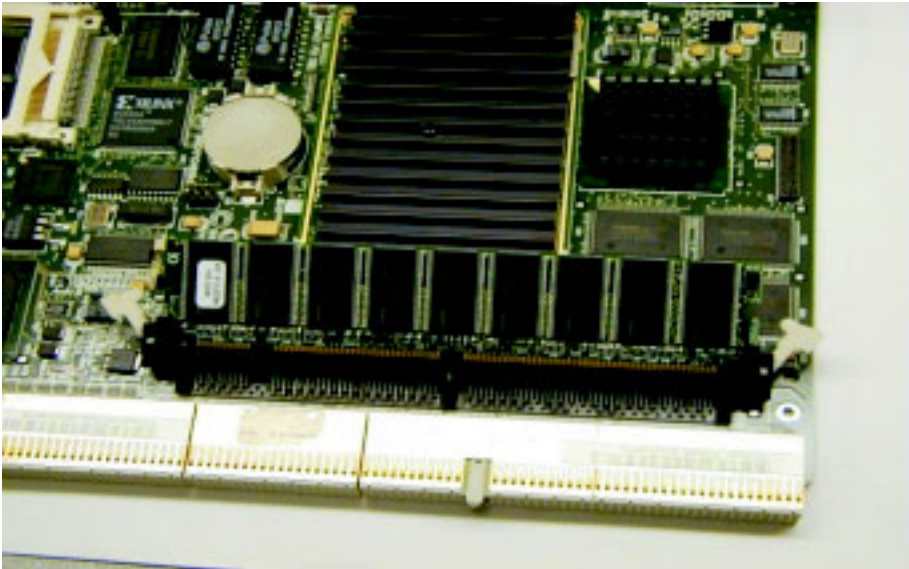
7   Hold the memory module as shown in Figure 15.

Figure 15
Hold memory module
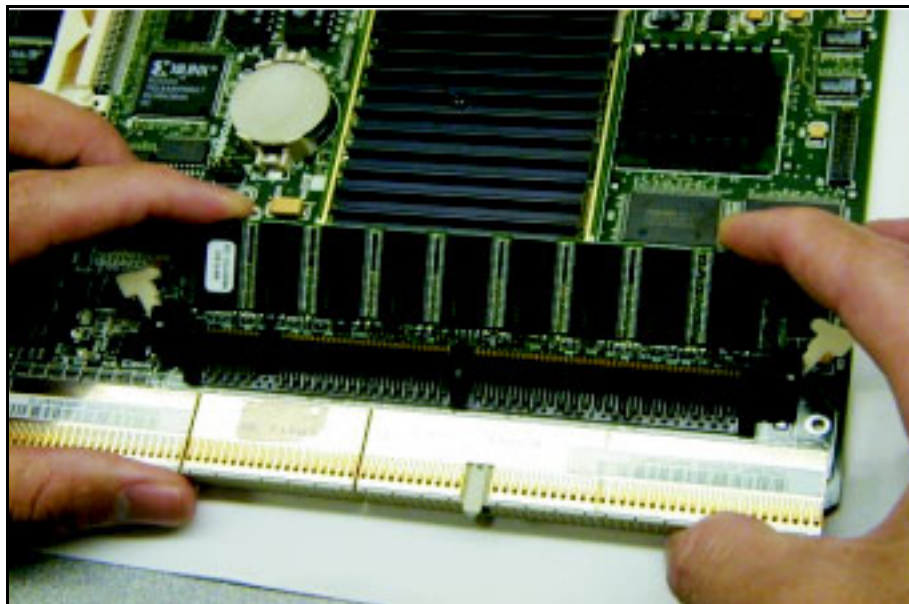
8   Push the module into the DIMM socket until it is locked by the latches. See Figure 16.

Figure 16
Lock latches
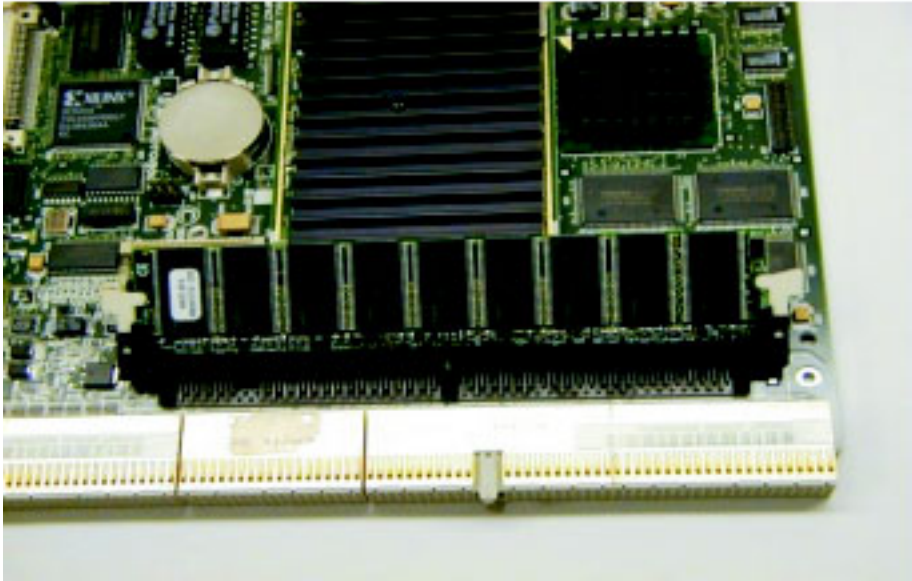
9   Put the faceplate label on the faceplate of the card. See Figure 17.

Figure 17
Faceplate label
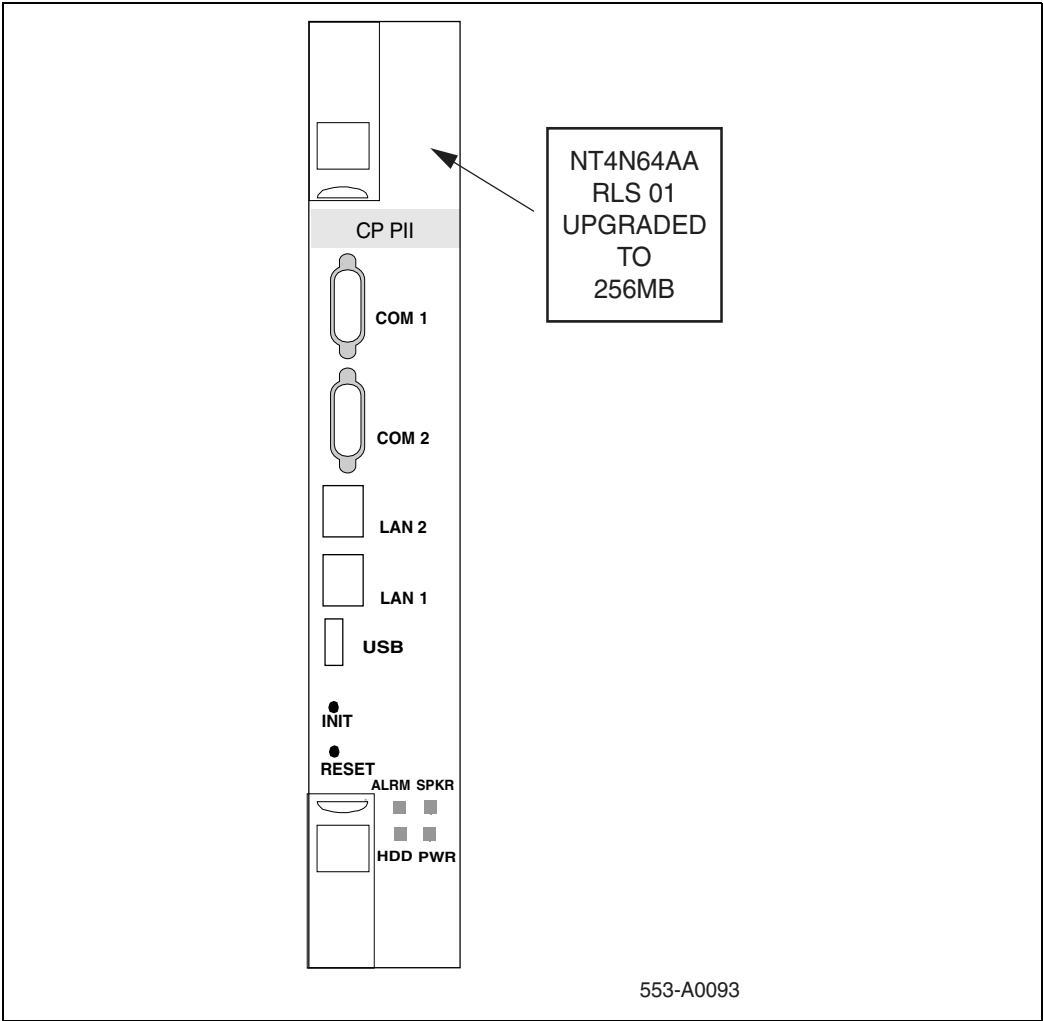
553-A0093

10   Return the card to its slot and reconnect all original cables.

———————— **End of Procedure** ————————

Install the software on Core/Net 1

Follow the steps in Procedure 107 to install the software on Core/Net 1.

Procedure 107
Installing the software on Core/Net 1

1   Install the CD-ROM into the CD-ROM drive in the CP PII MMDU:

   a.   Press the button on the CD-ROM drive to open the CD-ROM disk holder.

   b.   Place the CD-ROM disk into the holder with the disk label facing up. Use the four tabs to secure the CD-ROM drive.

   c.   Press the button to close the CD-ROM disk holder.
   Do not push the holder in by hand.

   Note: If the CD-ROM is not in the CD-ROM drive, the installation will not continue. Insert the CD-ROM to continue.

2   Place the CP PII Install floppy disk into the CP PII MMDU floppy drive.

   Note: If a problem is detected during the system verification, the install stops, prints an error message, and aborts the installation.
   If the verification is not successful, do not continue; contact the technical support organization.

3   Press the manual RESET button on the CP PII card faceplate.

Before the install runs, the system validates hard disk partitioning which takes about five minutes. The screen displays:

Testing partition 0

    0 percent done...1 percent done......99 percent done....100 percent done

Testing partition 1

    0 percent done...1 percent done......99 percent done....100 percent done

Testing partition 2

    0 percent done...1 percent done......99 percent done....100 percent completed!

Disk physical checking is completed!

Validate hard drive partition number and size...

There are 3 partitions in disk 0:
The size of partition 0 of disk 0 is XX Mbyte
The size of partition 0 of disk 0 is XX Mbyte
The size of partition 0 of disk 0 is XX Mbyte

Disk partitions and sectors checking is completed!

The system then checks the partitions for any errors. The screen displays the following for each partition:

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ver: 2.6 FCS

Disk Check In Progress.

       total disk space (bytes): XX

       bytes in each allocation unit: XX

       total allocation units on disk: XX

       bad allocation units: XX

       available bytes on disk: XX

       available clusters on disk: XX

       maximum available contiguous chain (bytes): XX

       available space fragmentation (%): XX

       clusters allocated: XX

       Done Checking Disk.

          chkdsk for PART_X OK!

          pmDosFsCheck is completed!

4   Select yes or (no) when asked if a Signaling Server is connected:

System Date and Time now is:

    Day-Month-Year, Hour:Min:Sec

    Succession Enterprise Software/Database/BOOTROM
CDROM INSTALL Tool

    Does this System have a Signaling Server.....? (Default - No)

    Please enter:

<CR> -> <n> - No

    <y> - Yes

    Enter Choice>

---

5   The system then enters the Main Menu for keycode authorization.
Remove the CP PII Install Program diskette and insert the Keycode
diskette.

M A I N   M E N U

    The Software Installation Tool will install or upgrade
Succession Enterprise System Software, Database and the CP-
BOOTROM. You will be prompted throughout the installation and
given the opportunity to quit at any time.

    Please enter:

<CR> -> <u> - To Install menu

    <t> - To Tools menu.

    <q> - Quit.

    Enter Choice> **<CR>**

    >Validating Keycode

 The provided keycode authorizes the install of X210300
software

 (all subissues) for machine type XXXX

 (XXX processor on XXXX System)

> **IMPORTANT!**
>
> Remove keycode floppy disk at this time and insert the database backup disk.

6 The screen displays the Install Menu. Confirm that the keycode matches the CD-ROM release:

Please confirm that this keycode matches the CDROM Release

    Please enter:

<CR> -> <y> - Yes, the keycode matches. Go on to Install Menu.

    <n> - No, the keycode does not match. Try another keycode diskette.

    Enter Choice> **<CR>**

    >Obtain database file names

7   Enter **a** to install the Software, Database and CP-BOOTROM:

I N S T A L L   M E N U

The Software Installation Tool will install or upgrade Succession Enterprise System Software, Database and the CP-BOOTROM. You will be prompted throughout the installation and given the opportunity to quit at any time.

Please enter:

<CR> -> <a> - To install Software, CP-BOOTROM.

    <b> - To install Software, Database, CP-BOOTROM.

    <c> - To install Database only.

    <d> - To install CP-BOOTROM only.

    <t> - To go to the Tools menu.

    <k> - To install Keycode only.

       For Feature Expansion, use OVL143.

    <p> - To install 3900 set Languages.

    <q> - Quit.

Enter Choice> **a**

---

8   Verify the CD-ROM version:

Please insert the installation CDROM into the drive on Core X.

The labeled side of the CDROM should be side up in the CDROM tray.

Please enter:

<CR> -> <a> - CDROM is now in drive. Continue with s/w checking.

<q> - Quit.

Enter Choice> **<CR>**

The installation CDROM contains version X210300_K.

Please enter:

<CR> -> <y> - Yes, this is the correct version. Continue.

<n> - No, this is not the correct version. Try another CDROM.

or keycode disk

Enter Choice> **<CR>**

>copying direct.rec from /cd0/0300_KMR.N33/target/p/sl1/ direct.rec to /u/direct.rec

>Updating /u/direct.rec

>Processing the Install Control file

>Installing release 0300K

---

9   Confirm all options before installing the software:

```
                    INSTALLATION STATUS SUMMARY

                    --------------------------------------------

     ============+========+========+============
    |    Option      |     Choice     | Status |   Comment          |
     ================+========+========+=========
    | SW: CD to disk |      yes       |        | install for rel 0300K |
     ============+========+========+============
    |    Option      |     Choice     | Status |   Comment          |
     ================+========+========+=========
    |   Database     |     no         |        |                    |

    |    Option      |     Choice     | Status |   Comment          |
     ================+========+========+=========
    | CP-BOOTROM     |     yes        |        |                    |


        Please enter:<CR> -> <y> - Yes, start Installation.

        <n> - No, stop Installation. Return to the Main Menu.
```

Enter Choice> **<CR>**

>Checking System Configuration

You selected to upgrade the system from release: XXXX to release: 0300K.

This will erase all old system files.

Database files will NOT be erased. You may continue installing the software or quit now and leave your system unchanged.

Please enter:

<CR> -> <a> - Continue with Upgrade.

<q> - Quit.

Enter Choice> **<CR>**

>Starting Software Install

>Upgrading from release XXXX to release 0300K

10   After a number of files are copied over, select a PSDL file to install. The PSDL file contains the loadware for all downloadable cards in the system and loadware for M3900 series sets.

Select one of the six PSDL files

<1>   Global 10 Languages

<2>   Western Europe 10 Languages

<3>   Eastern Europe 10 Languages

<4>   North America 6 Languages

<5>   Spare Group A

<6>   Spare Group B

The languages contained in each selection are outlined as follows:

- 1 – Global 10 Languages (Release 3) English, French, German, Spanish, Swedish, Italian, Norwegian, Brazilian Portuguese, Finnish, Japanese Katakana.

- 2 – Western Europe 10 Languages (Release 3) English, French, German, Spanish, Swedish, Italian, Norwegian, Brazilian Portuguese, Finnish, Danish.

- 3 – Eastern Europe 10 Languages (Release 3) English, French, German, Dutch, Polish, Czech, Hungarian, Russian, Latvian, Turkish.

- 4 – North America six Languages (Release 3) English, French, German, Spanish, Brazilian Portuguese, Japanese Katakana.

- 5 – Spare Group A.

- 6 – Spare Group B.

11 Continue with upgrade when prompted.:

> Software release 0300K was installed successfully on Core X.
>
> All files were copied from CDROM to the hard disk.
>
> Please press <CR> when ready... **<CR>**

12 Enter **q** to quit:

I N S T A L L   M E N U

The Software Installation Tool will install or upgrade Succession Enterprise System Software, Database and the CP-BOOTROM. You will be prompted throughout the installation and given the opportunity to quit at any time.

Please enter:

<CR> -> <a> - To install Software, CP-BOOTROM.

<b> - To install Software, Database, CP-BOOTROM.

<c> - To install Database only.

<d> - To install CP-BOOTROM only.

<t> - To go to the Tools menu.

<k> - To install Keycode only.

For Feature Expansion, use OVL143.

<p> - To install 3900 set Languages.

<q> - Quit.

Enter Choice> **q**

---

13 The system then prompts you to confirm and reboot:

You selected to Quit the Software Installation Tool.

You may reboot the system or return to the Main Menu.

Before rebooting the system, remove Install diskette from the floppy drive(s).

DO NOT REBOOT USING BUTTON!!

Please enter:

<CR> -> <a> - Reboot the system.

<m> - Return to the Main menu.

Enter Choice> **<CR>**

>Removing temporary files

>Remove /u/diskXXXX.sys

>Quit Install. Reboot system...

─────────── **End of Procedure** ───────────

Check for peripheral software download

Access LD 22 and print the Target peripheral software version. (The Source peripheral software version was printed during the pre-conversion procedure.)

If there is a difference between the Source and Target peripheral software version, a forced download occurs during initialization when coming out of parallel reload. System initialization takes longer and established calls on IPE are dropped.

LD 22	Load program
REQ	Print
TYPE	PSWV
ISS	Print issue and release
TID	Print Tape/Aux ID
ISSP	Print System and patch information
****	Exit program

Transfer call processing from Core/Net 0 to Core/Net 1

CAUTION

Service Interruption

Call Processing will be interrupted! Perform these next steps carefully. This is the point at which service is interrupted. Calls in process are interrupted, especially if Peripheral Software Download takes place. Some calls might be dropped.

WARNING

System initialization may take up to 15 minutes or longer.

Follow the steps in Procedure 108 on page 341 to transfer call processing from Core/Net 0 to Core/Net 1.

IMPORTANT!

Power down all applications (Meridian Mail, Call Pilot, Symposium).

Procedure 108
Transferring call processing from Core/Net 0 to Core/Net 1

1   From Core/Net 0, the active side, transfer call processing to Core/Net 1:

LD 135   Load program

CUTOVR   The inactive CP become active

──────────────   **End of Procedure**   ──────────────

> ### IMPORTANT!
>
> Power up all applications (Meridian Mail, Call Pilot, Symposium).

Note: On FNF based systems after the INI:
A FIJI download will occur if the FIJI firmware on Bank 1 of the FIJI card is different from the firmware on the system hard drive (PSDL file). This is automatic and no attempt should be made to prevent the download. The system will switch full to one ring, download up to 4 FIJI cards on the opposite ring at a time. This process continues on both rings until all Fiji's have been downloaded. The rings will then reset and come into service with the highest firmware available. This process is not service affecting. Depending on the number of groups installed, this process may take up to 20 minutes per ring.

> Core 1 is active, Clock Controller 1 is active with Core 0 in split mode.

Test Core/Net 1

Follow the steps in Procedure 109 to test call processing on Core/Net 1.

Procedure 109
Testing call processing on Core/Net 1

1   Check for dial tone.

2   Make internal, external, and network calls.

3   Check attendant console activity.

4   Check DID trunks.

5   Check any auxiliary processors.

————————   **End of Procedure**   ————————

Note: From this point forward Core/Net 0 is being upgraded with new software.

Upgrade hardware on Core/Net 1

Memory upgrade

Follow the steps in Procedure 110 to upgrade the memory.

Procedure 110
Upgrade memory

1   Remove all cables connected to the faceplate of the standby Call Processor card on Core 1.

2   Hot unplug the card and place with the DIMM side-up on a flat, clean surface.

3   Hold the latches of the DIMM socket. See Figure 18.

Figure 18
Latches
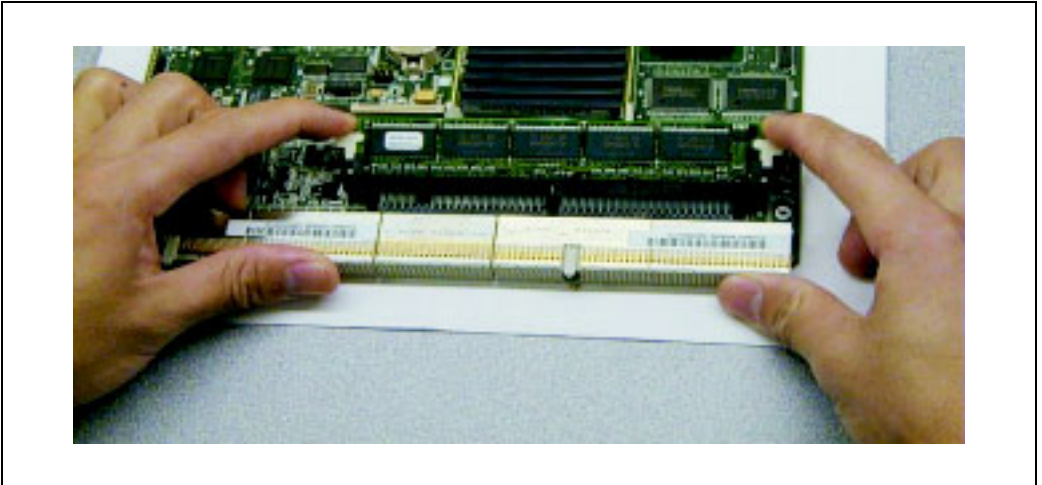
4   Press and rotate the latches from inside to outside carefully. See
Figure 19 on .

Figure 19
Rotate latches
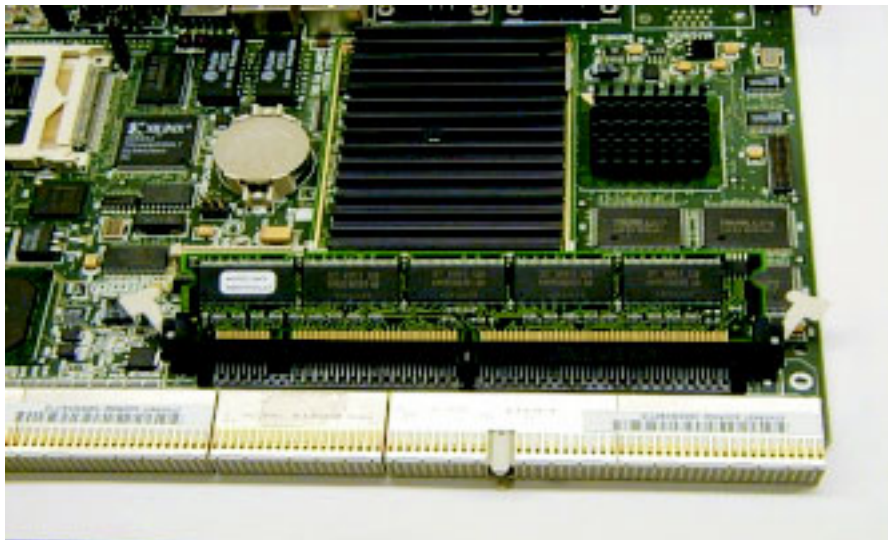
5   Remove the 128 MB memory module.

6 Keep the latches open and insert the 256MB module into the DIMM socket. Align the two notches on the module with the two keys in the DIMM socket. See Figure 22 on .

Figure 20
Insert 256MB module
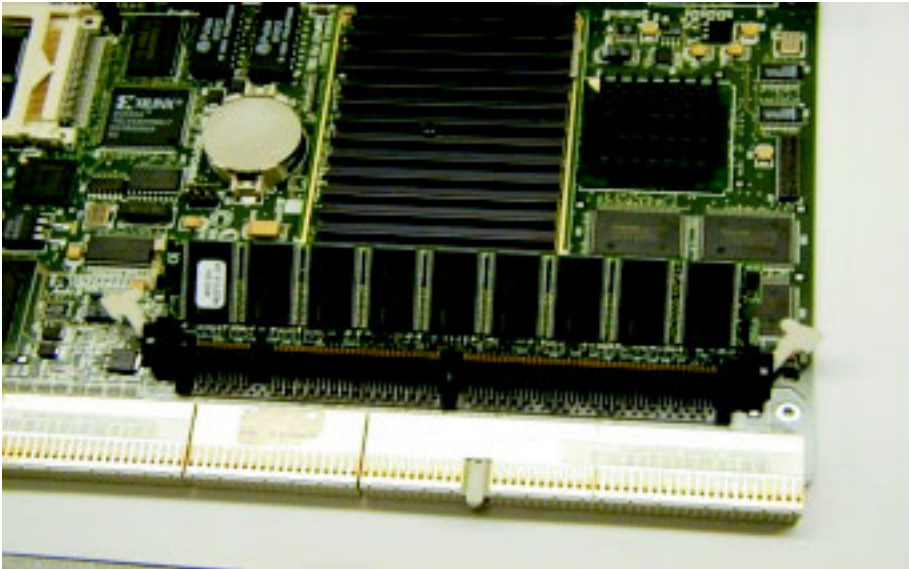
7   Hold the memory module as shown in Figure 21.

Figure 21
Hold memory module
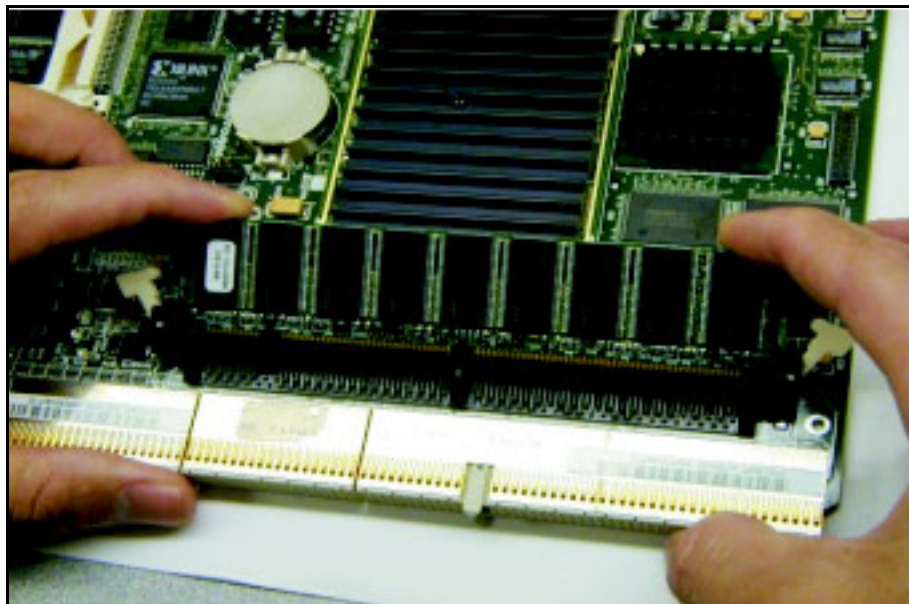
8   Push the module into the DIMM socket until it is locked by the latches. See Figure 22.

Figure 22
Lock latches
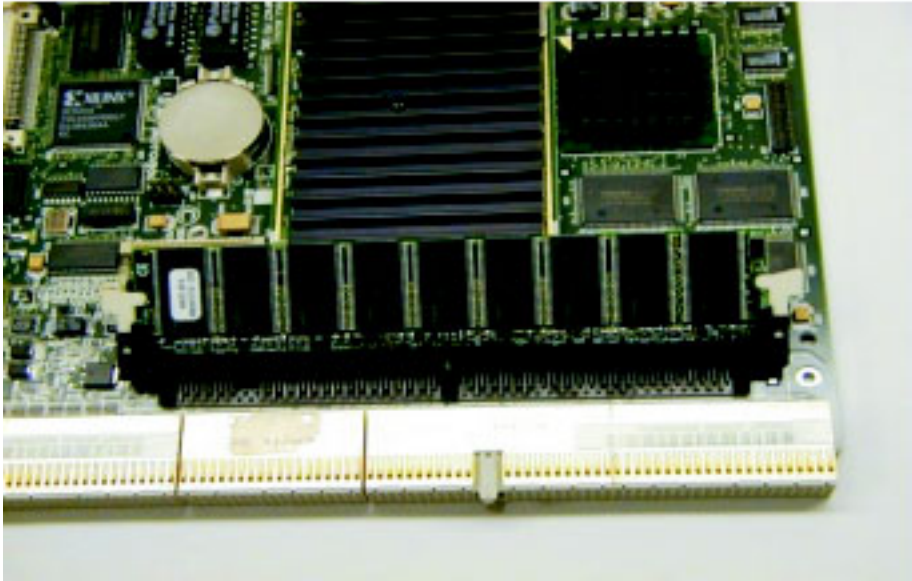
9   Put the faceplate label on the faceplate of the card. See Figure 23.

Figure 23
Faceplate label
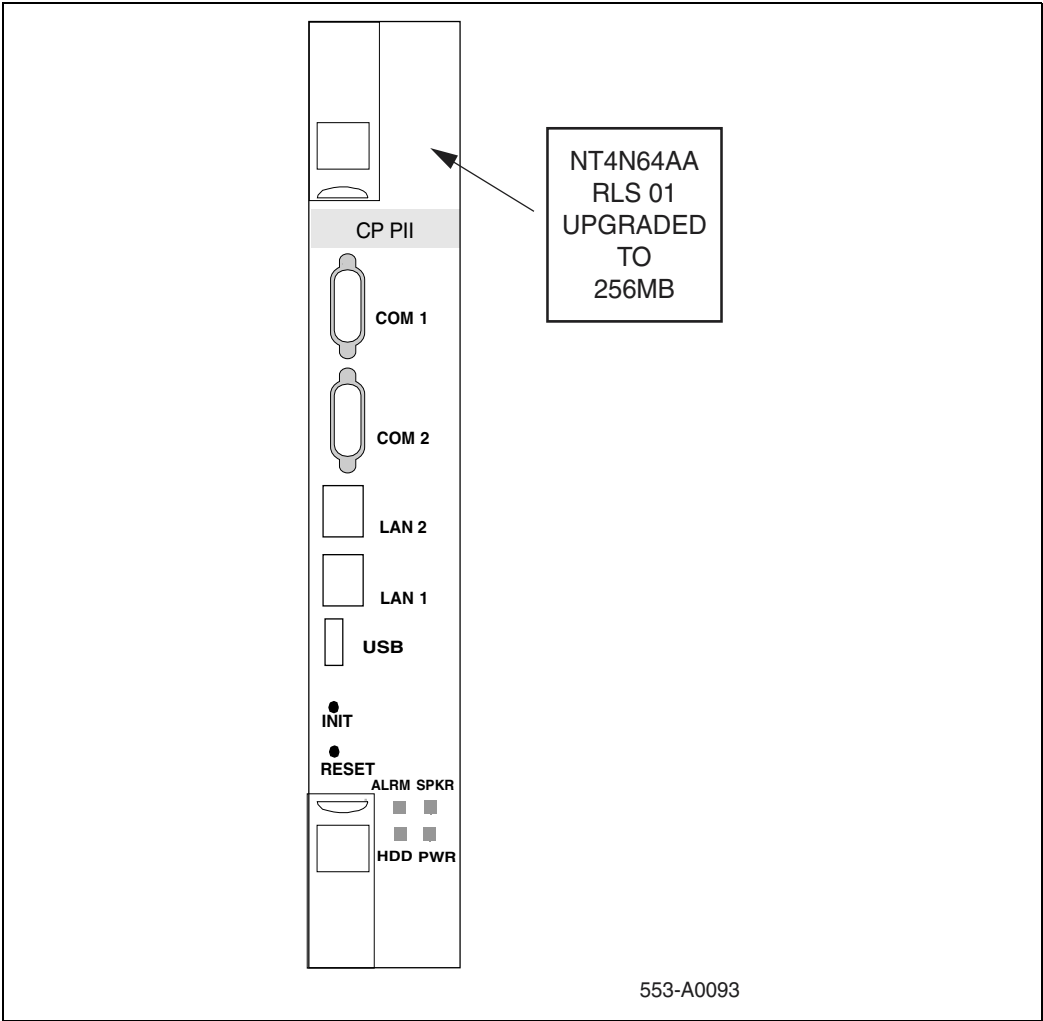
553-A0093

10   Return the card to its slot and reconnect all original cables.

———— **End of Procedure** ————

Install software on Core/Net 0

Follow the steps in Procedure 111 on to install the new software on Core/Net 0.

Procedure 111
Installing the software and converting the database

1   Check that a terminal is connected to J25 on Core/Net 0.

2   In Core/Net 0, install the CD-ROM into the CD-ROM drive in the MMDU:

   a.   Press the button on the CD-ROM drive to open the CD-ROM disk holder.

   b.   Place the CD-ROM disk into the holder with the disk label showing.

   c.   Press the button again to close the CD-ROM disk holder.
   Do not push the holder in by hand.

   Note: If the CD-ROM is not in the CD-ROM drive, the installation will not continue. Insert the CD-ROM to continue.

3   Place the CP PII Install floppy disk into the MMDU floppy drive.

   Note: If a problem is detected during the system verification, Install stops, prints an error message, and aborts the installation. If the verification is not successful, do not continue; contact your technical support organization.

4   Press the manual RESET button on the CP PII card faceplate.

Before the install runs, the system validates hard disk partitioning which takes about five minutes. The screen displays:

Testing partition 0

> 0 percent done...1 percent done......99 percent done....100 percent done

Testing partition 1

> 0 percent done...1 percent done......99 percent done....100 percent done

Testing partition 2

> 0 percent done...1 percent done......99 percent done....100 percent completed!

Disk physical checking is completed!

Validate hard drive partition number and size...

There are 3 partitions in disk 0:
The size of partition 0 of disk 0 is XX Mbyte
The size of partition 0 of disk 0 is XX Mbyte
The size of partition 0 of disk 0 is XX Mbyte

Disk partitions and sectors checking is competed!

The system then checks the partitions for any errors. The screen displays the following for each partition:

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ver: 2.6 FCS

Disk Check In Progress...

    total disk space (bytes): XX

    bytes in each allocation unit: XX

    total allocation units on disk: XX

    bad allocation units: XX

    available bytes on disk: XX

    available clusters on disk: XX

    maximum available contiguous chain (bytes): XX

    available space fragmentation (%): XX

    clusters allocated: XX

    Done Checking Disk.

      chkdsk for PART_X OK!

      pmDosFsCheck is completed!

5   Select yes or (no) when asked if a Signaling Server is connected:

System Date and Time now is:

Day-Month-Year, Hour:Min:Sec

Succession Enterprise Software/Database/BOOTROM CDROM INSTALL Tool

Does this System have a Signaling Server.....? (Default - No)

Please enter:

<CR> -> <n> - No

<y> - Yes

Enter Choice>

6   The system then enters the Main Menu for keycode authorization. Remove the CP PII Install Program diskette and insert the Keycode diskette.

M A I N   M E N U

The Software Installation Tool will install or upgrade Succession Enterprise System Software, Database and the CP-BOOTROM. You will be prompted throughout the installation and given the opportunity to quit at any time.

Please enter:

<CR> -> <u> - To Install menu

<t> - To Tools menu.

<q> - Quit.

Enter Choice> **<CR>**

>Validating Keycode

The provided keycode authorizes the install of X210300 software

(all subissues) for machine type XXXX

(XXX processor on XXXX System)

IMPORTANT!

Remove keycode floppy disk at this time and insert the database backup disk.

7 The screen displays the Install Menu. Confirm that the keycode matches the CD-ROM release:

Please confirm that this keycode matches the CDROM Release

Please enter:

<CR> -> <y> - Yes, the keycode matches. Go on to Install Menu.

<n> - No, the keycode does not match. Try another keycode diskette.

Enter Choice> **<CR>**

>Obtain database file names

8   Enter **a** to install the Software, Database and CP-BOOTROM:

I N S T A L L   M E N U

The Software Installation Tool will install or upgrade Succession Enterprise System Software, Database and the CP-BOOTROM. You will be prompted throughout the installation and given the opportunity to quit at any time.

Please enter:

<CR> -> <a> - To install Software, CP-BOOTROM.

   <b> - To install Software, Database, CP-BOOTROM.

   <c> - To install Database only.

   <d> - To install CP-BOOTROM only.

   <t> - To go to the Tools menu.

   <k> - To install Keycode only.

       For Feature Expansion, use OVL143.

   <p> - To install 3900 set Languages.

   <q> - Quit.

Enter Choice> **b**

---

9   Verify the CD-ROM version:

 Please insert the installation CDROM into the drive on Core X.

The labeled side of the CDROM should be side up in the CDROM tray.

Please enter:

<CR> -> <a> - CDROM is now in drive. Continue with s/w checking.

<q> - Quit.

Enter Choice> **<CR>**

The installation CDROM contains version X210300_K.

Please enter:

<CR> -> <y> - Yes, this is the correct version. Continue.

<n> - No, this is not the correct version. Try another CDROM.

or keycode disk

Enter Choice> **<CR>**

>copying direct.rec from /cd0/0300_KMR.N33/target/p/sl1/direct.rec to /u/direct.rec

>Updating /u/direct.rec

>Processing the Install Control file

>Installing release 0300K

---

10 Confirm all options before installing the software:

```
                    INSTALLATION STATUS SUMMARY

                    ---------------------------------------------

      =============+========+========+=============
  |     Option     |    Choice    | Status |   Comment          |
      =================+========+========+=========
  | SW: CD to disk |     yes      |        |  install for rel 0300K |
      =============+========+========+=============
  |     Option     |    Choice    | Status |   Comment          |
      =================+========+========+=========
  |   Database     |    no        |        |                    |

  |     Option     |    Choice    | Status |   Comment          |
      =================+========+========+=========
  | CP-BOOTROM  |     yes      |        |        |                |


      Please enter:<CR> -> <y> - Yes, start Installation.

        <n> - No, stop Installation. Return to the Main Menu.

Enter Choice> **<CR>**

>Checking System Configuration

You selected to upgrade the system from release: XXXX to release:
0300K.

This will erase all old system files.
```

Database files will NOT be erased. You may continue installing the software or quit now and leave your system unchanged.

Please enter:

<CR> -> <a> - Continue with Upgrade.

<q> - Quit.

Enter Choice> **<CR>**

>Starting Software Install

>Upgrading from release XXXX to release 0300K

11 After a number of files are copied over, select a PSDL file to install. The PSDL file contains the loadware for all downloadable cards in the system and loadware for M3900 series sets.

Select one of the six PSDL files

<1>   Global 10 Languages

<2>   Western Europe 10 Languages

<3>   Eastern Europe 10 Languages

<4>   North America 6 Languages

<5>   Spare Group A

<6>   Spare Group B

The languages contained in each selection are outlined as follows:

- 1 – Global 10 Languages (Release 3) English, French, German, Spanish, Swedish, Italian, Norwegian, Brazilian Portuguese, Finnish, Japanese Katakana.

- 2 – Western Europe 10 Languages (Release 3) English, French, German, Spanish, Swedish, Italian, Norwegian, Brazilian Portuguese, Finnish, Danish.

- 3 – Eastern Europe 10 Languages (Release 3) English, French, German, Dutch, Polish, Czech, Hungarian, Russian, Latvian, Turkish.

- 4 – North America six Languages (Release 3) English, French, German, Spanish, Brazilian Portuguese, Japanese Katakana.

- 5 – Spare Group A.

- 6 – Spare Group B.

12 Continue with upgrade when prompted. Select a database to install:

Software release 0300K was installed successfully on Core X.

All files were copied from CDROM to the hard disk.

Please press <CR> when ready... **<CR>**

You will now perform the database installation.

Note: If you are installing the Database from a floppy disk, please insert the correct disk now. Perform data dump using the back up disk from Core/Net 1 and use this back up disk to install the customer database.

Please enter:

<b> - Install DEFAULT Database

(the installation CDROM must be in the Core X disk drive).

<c> - Transfer the previous system Database.

<e> - Check the Database that exists on the hard disk.

<q> - Quit.

Enter Choice> **<CR>**

---

13 The system restores the database and provides a status summary.

Note: The hard drive on a new system displays an error message that no database is found on hard drive. This message can be ignored.

14 Enter **<CR>** when prompted, returning the system to the Install Menu.

15 Enter **q** to quit:

I N S T A L L   M E N U

The Software Installation Tool will install or upgrade Succession Enterprise System Software, Database and the CP-BOOTROM. You will be prompted throughout the installation and given the opportunity to quit at any time.

Please enter:

<CR> -> <a> - To install Software, CP-BOOTROM.

<b> - To install Software, Database, CP-BOOTROM.

<c> - To install Database only.

<d> - To install CP-BOOTROM only.

<t> - To go to the Tools menu.

<k> - To install Keycode only.

For Feature Expansion, use OVL143.

<p> - To install 3900 set Languages.

<q> - Quit.

Enter Choice> **q**

---

16 The system then prompts you to confirm and reboot:

You selected to Quit the Software Installation Tool.

You may reboot the system or return to the Main Menu.

Before rebooting the system, remove Install diskette from the floppy drive(s).

DO NOT REBOOT USING BUTTON!!

Please enter:

<CR> -> <a> - Reboot the system.

<m> - Return to the Main menu.

Enter Choice> **<CR>**

>Removing temporary files

>Remove /u/diskXXXX.sys

>Quit Install. Reboot system...

———————————— **End of Procedure** ————————————

Enable system redundancy

Follow the steps in Procedure 112 on to enable system redundancy.

Procedure 112
Enabling system redundancy

1   From the active CPU, Core/Net 1, enable redundancy:

>   **LD 135**   Load program

>   **JOIN**   Synchronize the memory and drives

———————————— **End of Procedure** ————————————

Test Core/Net 1 and Core/Net 0

Follow the steps in Procedure 113 on to test Core/Net 1 and Core/Net 0.

Procedure 113
Testing Core/Net 1 and Core/Net 0

From the active CPU, Core/Net 1, perform these tests:

1   Perform a redundancy sanity test using the following sequence.

LD 135	Load program
STAT CNI c s	Get status of cCNI cards
STAT CPU	Get status of CPU and memory
TEST CPU	Test the CP PII card in both Core/Nets
TEST CNI c s	Test each cCNI card (core, slot)
STAT SUTL	Get status of System Utility (main and Transition) cards
TEST SUTL	Test the System Utility (main and Transition) cards
TEST IPB	Test the Inter Processor Bus
TEST LCD	Test LCDs
TEST LED	Test LEDs

2   Test system redundancy:

LD 137	Load program
TEST RDUN	Test redundancy
DATA RDUN	
TEST CMDU	Test the CP PII MMDU card

3 Switch Cores and test the other side (Core/Net 0).

LD 135	Load program
SCPU	Switch cores
TEST CPU	Test the inactive Core/Net
STAT CNI c s	Get status of cCNI (both main and Transition) cards
TEST CNI c s	Test cCNI (both main and Transition) cards
STAT SUTL	Get status of System Utility card
TEST SUTL	Test System Util card
TEST IPB	Test Inter Processor Bus
TEST LCD	Test LCDs
TEST LED	Test LEDs

4 Clear the display and minor alarms on both Cores.

CDSP	Clear the displays on the Cores
CMAJ	Clear major alarms
CMIN ALL	Clear minor alarms

5 Get the status of the Cores, CNIs, and memory.

STAT CPU	Get the status of both Cores and redundancy
STAT CNI c s	Get the status of all configured cCNIs (both main and Transition) cards
****	Exit program

———— **End of Procedure** ————

Perform a data dump

Follow the steps in Procedure 114 on page 364 to perform a data dump.

Procedure 114
Performing a data dump

1   Load the LD 43. At the prompt, enter:

LD 43   Load program

2   Insert a floppy disk into the CP PII MMDU to capture the backup.

3   When "EDD000" appears on the terminal, enter:

EDD   Begin the data dump

4   When "DATABASE BACKUP COMPLETE" or "DATADUMP
COMPLETE" appears on the terminal, enter:

****   Exit program

> **CAUTION**
>
> **Loss of Data**
>
> If the data dump is not successful, do not continue.
> Contact the technical support organization. Correct any
> data dump problem before continuing.

5   Proceed to "Post-conversion procedure" on page 244.

> The parallel reload procedure is complete.

——————— **End of Procedure** ———————

Installing memory on Meridian 1 Option 51C

> **CAUTION WITH ESD DEVICES**
>
> To avoid damaging equipment from electrostatic discharge, wear a properly connected anti-static wrist strap when working on or near Meridian 1 equipment.

> **WARNING**
>
> Use the procedures in this section if the system is equipped with NT5D61 Input Output Disk Unit with CD-ROM (IODU/C) card(s). If the system is not equipped with the IODU/C card, do not use these procedures

The procedures in this section describe how to increase CP memory on CP3 and CP4 systems.

To better understand the process, read through the entire procedure before beginning the conversion.

The following section describes how to increase memory on Meridian 1 Option 51C systems **only.**

Prepare for installation

This document implements a source to target approach to performing an upgrade. It is important to correctly identify the source platform, target platform and maintenance window required to perform the upgrade.

Each chapter features check boxes indicating what condition the system should be in at that stage of the upgrade. If the system is not in the proper condition steps should be taken to correct this.

Each section is written to maintain Dial Tone where possible and limit service interruptions.

Before attempting any software or hardware upgrade field personnel should follow the steps in Table 25 below:

Table 25
Prepare for upgrade steps

Procedure Step	Page
Planning	366
Upgrade Checklists	367
Preparing	367
Identifying the proper procedure	367
Connect a terminal	368
Print Site Data	369
Perform a template audit	371
Back up the database (data dump and ABKO)	372
Identify two unique IP addresses	375

Planning

Planning for an upgrade involves the following tasks:

- Conduct a site inspection to determine proper power and grounding.

- Review the site profile to determine proper foot space if adding new columns or modules.

- Ensure sufficient power for new columns/modules or applications.

- Identify all applications (Call Pilot, SCCS, IP, Meridian Mail etc.) that are currently installed on the source platform.

- Identify and correct outstanding service problems.

- Verify the site log is updated with current trunking, call routing, application notes, and site contact information.

- Review all product bulletins and Nortel Alerts that impact the site.

- Determine if software can be converted on site or must be sent to Nortel Networks.

- Prepare a contingency plan for backing out of the upgrade.

Upgrade Checklists

Upgrade checklists can be found in the "Upgrade checklists" chapter on . Engineers may print this section in order to facilitate the upgrade.

Preparing

Preparing for an upgrade involves the following tasks:

- Identify and become familiar with all procedures.

- Verify that all installed applications meet the minimum software requirements for the target platform (see Table 4 on of Book 1).

- Verify proper cable lengths for the target platform.

- Verify card vintage requirements of the target platform.

- Determine the current patch or Dep lists installed at the source platform.

- Determine the required patch or Dep lists at the target platform.

- Determine and communicate the required maintenance window, contingency plan and the impact to the customer to complete the procedure.

- Perform an inventory on required software and hardware.

- Secure the source software and key code.

- Secure the target software and key code.

- Verify the new key code using the DKA program.

- Print site data.

Identifying the proper procedure

Each procedure has been written in a source to target format. Each procedure features warning boxes and check boxes placed at critical points. Changing

the procedure or ignoring the warning boxes could cause longer service interruptions.

> **IMPORTANT!**
>
> Database backup information should be preserved for a minimum of 5 days.

Connect a terminal

Procedure 115
Connecting a terminal

A maintenance terminal is required to access the Core or Core/Net modules during the upgrade procedure.

1   Connect a terminal to the J25 port on the I/0 panel in the *inactive* Core or Core/Net module.

2   The settings for the terminal are:

    a.   9600 Baud

    b.   7 data

    c.   space parity

    d.   1 stop bit

    e.   full duplex

    f.   XOFF

3   If only one terminal is used for both Core or Core/Net modules, the terminal must be connected from side-to-side to access each module. An "A/B" switch box can also be installed to switch the terminal from side to side.

End of Procedure

Print Site Data

Print site data to preserve a record of the system configuration (Table 26 below). Verify that all information is correct. Make corrections as necessary.

Note: Items marked with an asterisk (*) are required. Other items are recommended for a total system status.

Table 26
Print site data (Part 1 of 3)

Site data	Print command	
Terminal blocks for all TNs	LD 20	
	REQ	PRT
	TYPE	TNB
	CUST	<cr>
Directory Numbers	LD 20	
	REQ	PRT
	TYPE	DNB
	CUST	<cr>
Attendant Console data block for all customers	LD 20	LD 20
	REQ	PRT
	TYPE	ATT, 2250
	CUST	<cr>
*Customer data block for all customers	LD 21	LD 21
	REQ	PRT
	TYPE	CDB
	CUST	<cr>
Route data block for all customers	LD 21	
	REQ	PRT
	TYPE	RDB
	CUST	Customer number
	ROUT	<cr>
	ACOD	<cr>

Table 26
Print site data (Part 2 of 3)

Site data	Print command	
*Configuration Record	LD 22	
	REQ	PRT
	TYPE	CFN
*Software packages	LD 22	
	REQ	PRT
	TYPE	PKG
*Software issue, ROM and tape ID	LD 22	
	REQ	ISS
	REQ	ROM
	REQ	TID
* Peripheral software versions	LD 22	
	REQ	PRT
	TYPE	PSWV
ACD data block for all customers	LD 23	
	REQ	PRT
	TYPE	ACD
	CUST	Customer Number
	ACDN	ACD DN (or <CR>)
Superloop card IDs and software version (peripheral controller, superloop network and controller cards)	LD 32	IDC loop
Multi-purpose ISDN Signaling Processor (MISP) card	LD 27	
	REQ	PRT
	TYPE	MISP
	LOOP	loop number (0-158)
	APPL	<cr>
	PH	<cr>

Table 26
Print site data (Part 3 of 3)

Site data	Print command	
DTI/PRI data block for all customers	LD 73	
	REQ	PRT
	TYPE	DDB
Note: Items marked with asterisks (*) are required printout for conversion. Other items are recommended for a total system status.		

Perform a template audit

A template audit (LD 01) reviews the templates in your system. Corrupted and duplicate templates are cleaned up. An example of the information generated during the audit is listed below.

Note: The template audit may take an extended period of time on large systems. Run the audit during a low traffic period.

> **CAUTION**
>
> **Loss of Data**
>
> Do not abort this overlay until the audit is complete. If the overlay is interrupted, data will be corrupted.

LD 01   The audit begins as soon as LD 01 is entered.

TEMPLATE AUDIT

STARTING PBX TEMPLATE SCAN

TEMPLATE 0001 USER COUNT LOW   **CHECKSUM OK**

TEMPLATE 0002 USER COUNT HIGH   **CHECKSUM OK**

TEMPLATE 0003 NO USERS FOUND

STARTING SL1 TEMPLATE SCAN

TEMPLATE 0001 USER COUNT OK   CHECKSUM OK

- •

- •

TEMPLATE 0120 USER COUNT OK   CHECKSUM OK

TEMPLATE AUDIT COMPLETE

Back up the database (data dump and ABKO)

To back up system data, complete the following two procedures.

1   Perform a data dump to save all system memory to the hard disk.

2   Perform a ABKO (attended backup) to save the database to a spare set of floppy disks.

Procedure 116
Performing a data dump

1   Log into the system.

2   Load the Equipment Data Dump Program (LD 43). At the prompt, enter:

   LD 43   Load program

3   When "EDD000" appears on the terminal, enter:

   EDD   Begin the data dump

> **CAUTION**
>
> **Loss of Data**
>
> If the data dump does not succeed, do not continue. Contact your technical support organization. You must correct a data dump problem before the system can be upgraded.

4   The messages "DATADUMP COMPLETE" and "DATABASE BACKUP COMPLETE" will appear once the data dump is complete.

  ****   Exit program

──────── **End of Procedure** ────────

Procedure 117
Performing an ABKO (save the database to floppies)

1   Insert floppy diskettes into BOTH floppy disk drives in each Core IODU/C or MMDU.

Note: If the file is too large to fit on a single floppy disk, the ABKO command will compress the data. If the compressed data is still too large to fit on a single disk, both floppy disks in the two IODU/C drives will be used. Be sure to insert floppy disks into BOTH IODU/C drives before the ABKO backup is begun.

2   Load the Customer Configuration Backup and Restore (LD 143). At the prompt, enter:

  LD 143   Load program

3   Run the ABKO backup (LD 143).

  ABKO   Run the backup

Result: If the backup is successful, the system displays a message that states that the database backup is complete and generates a report that indicates which floppy drives were used.

4   If there are validation errors, repeat the procedure.

CAUTION

Loss of Data

If the backup is not successful, do not continue; contact your technical support organization. Any backup problems must be corrected before the system is upgraded to CP PII.

---

5   Once the backup is complete, type:

    ****   Exit program

———————— **End of Procedure** ————————

Procedure 118
Converting the 4 MB database media to 2 MB database media

IMPORTANT!

Database conversion for Meridian 1 Options 21E, 51, 61,71, STE, NT and XT must be completed by Nortel Networks Software Conversion Lab. Consult the current Nortel Networks price book for cost and contact information.

If the system is equipped with IOP/CMDU cards the database must be converted with the Database Transfer utility. See "Database transfer" on page 179.

If the system is equipped with IODUC cards, the database should be data dumped (EDD) to a blank 2 MB floppy.

All systems can be converted by Nortel Networks in the software conversion lab.

If the system is equipped with IOP/CMDU cards the database must be converted with the Database Transfer utility. See "Database transfer" on page 179.

If the system is equipped with IODUC cards, the database should be data dumped (EDD) to a blank 2 MB floppy.

Identify two unique IP addresses

Each CP PII system must be configured with two unique IP addresses for LAN identification and communication. One IP address is defined for the *active* Core. The second IP address is defined for the *inactive* Core. In this configuration, the *active* Core (either Core 0 or Core 1) that handles call processing is always identified by the same IP address.

- Contact your systems administrator to identify two unique IP addresses before the upgrade.

- For instructions to configure these IP numbers, see "Configuring IP addresses" on page 667 of Book 1.

Perform installation

Verify memory

Determine whether the system requires additional memory. Refer to Table 27 on page 376 for memory requirement.

Table 27
Supported memory upgrade configurations (Part 1 of 2)

Total Memory	Total FLASH	Total DRAM	Call Processor		Slot 0	Slot 1	Slot 2	Slot 3
			68060	68060E	X5	X6	X7	X8
48	32	16	NT5D10AA	NT5D03AA	16	0	0	0
64	32	32	NT5D10CA	NT5D03BA	16	16	0	0
					32	0	0	0
80	32	48	NT5D10EA	NT5D03CA	16	16	16	0
					16	32	0	0
96	32	64	NT5D10TA	NT5D03TA	16	16	16	16
					16	16	32	0
					32	32	0	0
112*	32	80	NT5D10UA	NT5D03UA	16	16	16	32
					16	32	32	0
128*	32	96	NT5D10VA	NT5D03VA	16	16	32	32
					32	32	32	0
96	64	32	N/A	N/A	16	16	0	0
					32	0	0	0
112	64	48	NT5D10JA	NT5D03EA	16	16	16	0
					16	32	0	0
128	64	64	N/A	NT5D03FA	16	16	16	16
128	64	64	NT5D10FB	NT5D03FB	16	16	16	16

* This configuration requires Release 24 or later.

** The 68040 CP card is available in A and B vintages. When labeling the CP card, use the appropriate vintage suffix.

Table 27
Supported memory upgrade configurations (Part 2 of 2)

Total Memory	Total FLASH	Total DRAM	Call Processor		Slot 0	Slot 1	Slot 2	Slot 3
			68060	68060E	X5	X6	X7	X8
					16	16	32	0
					32	32	0	0
144*	64	80	NT5D10NA	NT5D03NA	16	16	16	32
					16	32	32	0
160*	64	96	NT5D10PB	NT5D03PB	16	16	32	32
					32	32	32	0

* This configuration requires Release 24 or later.

** The 68040 CP card is available in A and B vintages. When labeling the CP card, use the appropriate vintage suffix.

Succession 3.0 Software

Table 28 below lists the memory requirements of Succession 3.0 Software.

Table 28
Succession 3.0 Software memory requirements

Minimum memory requirement			
System type	**Flash memory requirement**	**DRAM memory requirement**	**Total memory requirement**
Meridian 1 Option 51C/61C	32 MB	48 MB	128 MB
Meridian 1 Option 61C CP PII	64 MB	64 MB	256 MB
Meridian 1 Option 81/81C	32 MB	64 MB	96 MB
• Meridian 1 Option 81/81C systems operating on Call Processor 68060 or 68060E with five or fewer network groups (including Fiber Network Fabric systems)	32 MB	64 MB	96 MB
• any Meridian 1 Option 81/81C systems operating on Call Processor 68040	32 MB	64 MB	96 MB
Meridian 1 Option 81/81C Meridian 1 Option 81/81C systems operating on Call Processor 68060 or 68060E with six or more network groups	64 MB	96 MB	160 MB
Meridian 1 Option 81C CP PII	128 MB	128 MB	256 MB

Perform a data dump

Follow the steps in Procedure 119 below to perform a data dump on the Meridian 1 Option 51C.

Procedure 119
Performing a data dump on the Meridian 1 Option 51C

1   Load the Equipment Data Dump Program (LD 43). At the prompt, enter:

   LD 43   Load program

2   When "EDD000" appears on the terminal, enter:

   EDD   Begin the data dump

3   When "DATABASE BACKUP COMPLETE" or "DATADUMP COMPLETE" appears on the terminal, enter:

   ****   Exit program

—————— **End of Procedure** ——————

> **CAUTION**
>
> **Loss of Data**
>
> If the data dump is not successful, do not continue. Contact the technical support organization. A data dump problem must be corrected before proceeding.

> **IMPORTANT!**
>
> Database backup information should be preserved for a minimum of 5 days.

STAT the hardware on the Meridian 1 Option 51C

Follow the steps in Procedure 120 to determine the status of the hardware on the Meridian 1 Option 51C.

Procedure 120
Determining the hardware status on the Meridian 1 Option 51C

1   Access LD 137 and get the status of the hard disk.

   LD 137   Load program

   STAT   Get the status of the hard disks

2   Access LD 135 and get status of the CP, CNI and memory.

   LD 135   Load program

   STAT CPU   Get the status of the CP and memory

   STAT CNI   Get the status of the CNI

———————————————— **End of Procedure** ————————————————

Procedure 121
Remove CP card from Core/Net 1

1   Push the manual reset button on the CP card.

2   Release the button and immediately unlatch the card and remove it from the shelf.

———————————————— **End of Procedure** ————————————————

⚠	**IMPORTANT!** Power down all applications (Meridian Mail, Call Pilot, Symposium).

NT5D03, NT5D10 CP cards

Use the procedures in this section to complete the upgrade, or refer to " Install the DRAM SIMMs" on page 415 and Appendix on page 419 for detailed upgrade instructions.

Table 27 on page 376 defines the memory upgrade paths for the following Motorola-based Call Processor cards:

- 68060E

- 68040

To perform a DRAM and/or Flash upgrade:

- Locate your existing processor vintage in Table 27 on page 376.

- Locate the target processor vintage in Table 27 on page 376.

- Compare the existing SIMM configuration with the target configuration.

- Determine what SIMMs must be added or deleted from the existing location.

- Add or delete DRAM SIMMs as required to achieve the target memory configuration.

- Install the Flash memory modules in an available Flash connector.

- Install the label and label inserts. Discard all unused labels.

> The upgrade is complete.

Install the DRAM SIMMs

Procedure 122
Installing the DRAM SIMMs

1 Place the CP card SIMM-side up on the antistatic mat.

2 Locate the DRAM SIMM connectors (see Figure 24 on page 383).

3   Determine if your memory upgrade requires you to remove an existing DRAM SIMM (see Table 27 on) If removal is required, remove the SIMM from the highest numbered slot available first (X8, X7, X6, etc.) To remove the DRAM SIMM:

   a.   Use a nonconducting screw driver to carefully move each latch away first from one end of the SIMM, and then the other end. The SIMM pivots away from the others until it is at approximately a 50- to 70-degree angle to the board (see Figure 24).

   b.   If the SIMM does not release from the latches, use your thumbnails, one on each latch, to release the latches. If the board has plastic latches, the latches are located on the side facing the card faceplate. If the board has metal latches, the levers protrude from each latch. Carefully move the latches outward simultaneously until the SIMM pivots away from the others and is at approximately a 50- to 70-degree angle to the board (see Figure 24 on).

⚠️ **CAUTION**

Do not mix up the 32 MB DRAM SIMM with the 16 MB DRAM SIMM. The 16 MB DRAM SIMM is labeled A0662646 or A0614334; the 32 MB DRAM SIMM is labeled A0634230. Older 16 MB DRAM SIMMs may not be labeled.

---

4   Working from left to right, install the 32 MB SIMM(s) in the SIMM location designated X5, X6, X7 or X8 where appropriate (see Figure 24 on)

   a.   Orient the new SIMM so that the notch at one end of the SIMM aligns with the key at one end of the SIMM socket. Hold the SIMM at approximately a 50- to 70-degree angle and gently insert the SIMM into the socket. See Figure 24 on .

5   Using your thumbs and index fingers only (at the upper corners of the SIMM), carefully lean the SIMM toward the others until it is upright and the latch at each end of the SIMM snaps into place. If necessary, use a nonconducting screwdriver to help open each latch while you move the SIMM into the upright position.Apply the generic label over the existing label.

6   Select the correct labels for your CP card from the sheet provided.

7   Place the CP/memory configuration label at the top of the faceplate.

---

8   Place the engineering code/release level label on the bottom of the faceplate.

9   Discard unused labels.

Figure 24
NT5D10, NT5D03 card DRAM SIMM installation

553-8492
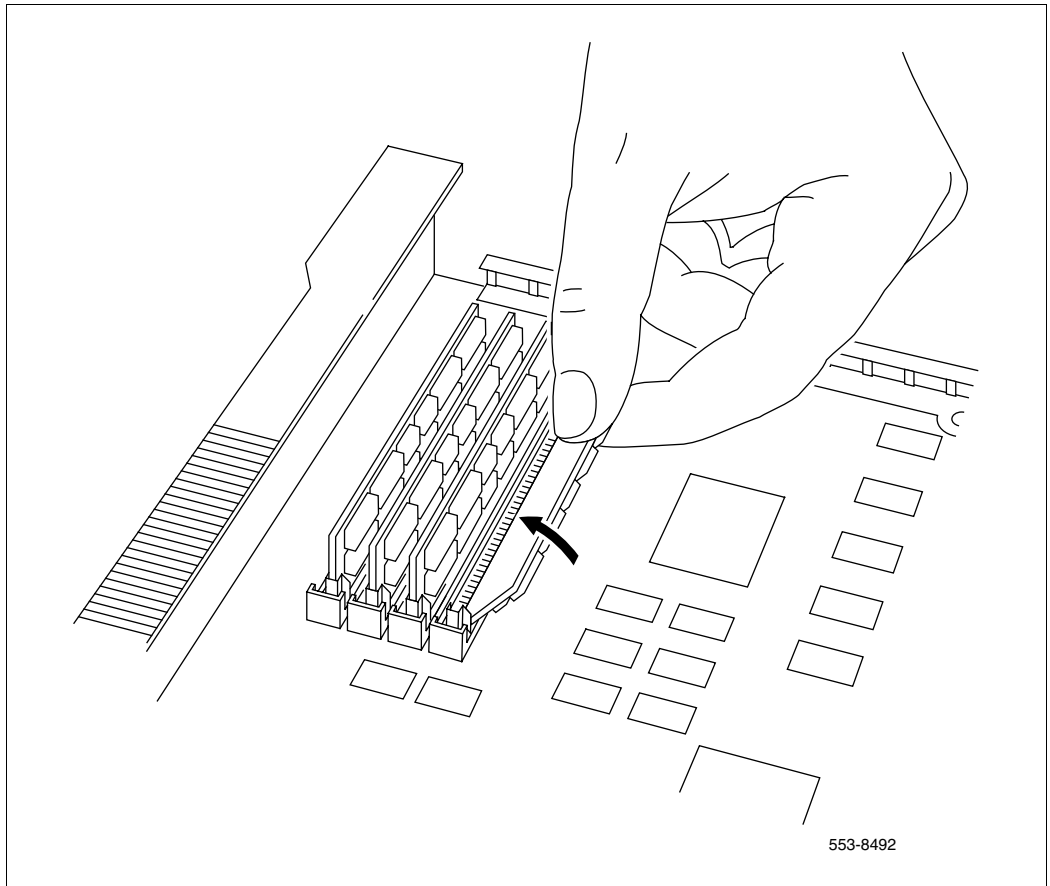
—— **End of Procedure** ——

Install the Flash memory

Procedure 123
Installing the Flash memory

	CAUTION
⚠	**Do not** remove the existing Flash SIMMS from the Call Processor board.

1   Place the CP card SIMM-side up on the antistatic mat.

2   Determine the location of the new Flash SIMM connectors.

3   Install the new 32 MB Flash SIMM module in the appropriate slot:

   a.   Orient the new SIMM so that the notches on the bottom of the SIMM align with the notches on the connector.

   b.   Gently guide the Flash SIMM toward the connector socket.

   c.   When the Flash SIMM makes contact with the connector, apply pressure to one end of the Flash SIMM and close the latch connector.

   d.   Apply pressure to the other end of the Flash SIMM and close the latch connector.

4   Apply the generic label over the existing label.

5   Select the correct labels for your CP card from the sheet provided.

6   Place the CP/memory configuration label at the top of the faceplate.

7   Place the engineering code/release level label on the bottom of the faceplate.

8   Discard unused labels.

9   Update the Flash ROM using the Software Install Tool:

   Note: For dual CPU systems, verify that the system is operating in split mode before activating the Software Install Tool.

    a. To activate the Software Install Tool, insert the Install disk into the inactive the IODU/C (or IOP/CMDU). Press the MAN RST button on the Call Processor card in the inactive Core.

    b. From the Main Menu, select <G>, to update the Flash ROMs from the hard disk.

    c. Select <Y> to confirm installation.

    d. Press <CR> to return to the Install Menu.

    e. Upon successful installation of software on the Flash ROMs, select <E> to update the CP-BOOT ROM.

    f. Repeat this procedure for the second Core.

———— **End of Procedure** ————

Install new software on Meridian 1 Option 51C

Follow the steps in Procedure 124 below to install the new software on the Meridian 1 Option 51C.

Procedure 124
Installing the software and converting the database

1 Install the CD-ROM into the CD-ROM drive in the MMDU:

    a. Press the button on the CD-ROM drive to open the CD-ROM disk holder.

    b. Place the CD-ROM disk into the holder with the disk label showing.

    c. Press the button again to close the CD-ROM disk holder. Do not push the holder in by hand.

Note: If the CD-ROM is not in the CD-ROM drive, the installation will not continue. Insert the CD-ROM to continue.

2 Place the Install floppy disk into the MMDU floppy drive.

Note: If a problem is detected during the system verification, Install stops, prints an error message, and aborts the installation. If the verification is not successful, do not continue; contact your technical support organization.

3 Press the manual RESET button on the CP card faceplate.

4   Select yes or (no) when asked if a Signaling Server is connected:

 System Date and Time now is:

     Day-Month-Year, Hour:Min:Sec

     Succession Enterprise Software/Database/BOOTROM
CDROM INSTALL Tool

     Does this System have a Signaling Server.....? (Default - No)

     Please enter:

<CR> -> <n> - No

     <y> - Yes

     Enter Choice>

---

5   The system then enters the Main Menu for keycode authorization. Remove the CP PII Install Program diskette and insert the Keycode diskette.

               M A I N   M E N U

     The Software Installation Tool will install or upgrade
Succession Enterprise System Software, Database and the CP-
BOOTROM. You will be prompted throughout the installation and
given the opportunity to quit at any time.

     Please enter:

<CR> -> <u> - To Install menu

     <t> - To Tools menu.

     <q> - Quit.

     Enter Choice> **<CR>**

     >Validating Keycode

 The provided keycode authorizes the install of X210300
software

 (all subissues) for machine type XXXX

 (XXX processor on XXXX System)

IMPORTANT!

Remove keycode floppy disk at this time and insert the database backup disk.

6   The screen displays the Install Menu. Confirm that the keycode matches the CD-ROM release:

Please confirm that this keycode matches the CDROM Release

Please enter:

<CR> -> <y> - Yes, the keycode matches. Go on to Install Menu.

<n> - No, the keycode does not match. Try another keycode diskette.

Enter Choice> **<CR>**

>Obtain database file names

7   Enter **b** to install the Software, Database and CP-BOOTROM:

I N S T A L L   M E N U

The Software Installation Tool will install or upgrade Succession Enterprise System Software, Database and the CP-BOOTROM. You will be prompted throughout the installation and given the opportunity to quit at any time.

Please enter:

<CR> -> <a> - To install Software, CP-BOOTROM.

     <b> - To install Software, Database, CP-BOOTROM.

     <c> - To install Database only.

     <d> - To install CP-BOOTROM only.

     <t> - To go to the Tools menu.

     <k> - To install Keycode only.

       For Feature Expansion, use OVL143.

     <p> - To install 3900 set Languages.

     <q> - Quit.

Enter Choice> **b**

---

8 Verify the CD-ROM version:

Please insert the installation CDROM into the drive on Core X.

The labeled side of the CDROM should be side up in the CDROM tray.

Please enter:

<CR> -> <a> - CDROM is now in drive. Continue with s/w checking.

<q> - Quit.

Enter Choice> **<CR>**

The installation CDROM contains version X210300_K.

Please enter:

<CR> -> <y> - Yes, this is the correct version. Continue.

<n> - No, this is not the correct version. Try another CDROM.

or keycode disk

Enter Choice> **<CR>**

>copying direct.rec from /cd0/0300_KMR.N33/target/p/sl1/direct.rec to /u/direct.rec

>Updating /u/direct.rec

>Processing the Install Control file

>Installing release 0300K

9   Confirm all options before installing the software:

```
                 INSTALLATION STATUS SUMMARY

              ---------------------------------------

    ============+========+========+============
   |    Option    |   Choice   | Status |   Comment         |
   ================+========+========+=========
  | SW: CD to disk |     yes     |        | install for rel 0300K |
    ============+========+========+============
   |    Option    |   Choice   | Status |   Comment         |
   ================+========+========+=========
   |   Database   |     yes     |     |     |              |

   |    Option    |   Choice   | Status |   Comment         |
   ================+========+========+=========
  | CP-BOOTROM |     yes     |     |     |              |


      Please enter:<CR> -> <y> - Yes, start Installation.

      <n> - No, stop Installation. Return to the Main Menu.
```

Enter Choice> **<CR>**

>Checking System Configuration

You selected to upgrade the system from release: XXXX to release: 0300K.

This will erase all old system files.

> Database files will NOT be erased. You may continue installing the software or quit now and leave your system unchanged.
>
> Please enter:
>
> <CR> -> <a> - Continue with Upgrade.
>
> <q> - Quit.
>
> Enter Choice> **<CR>**
>
> >Starting Software Install
>
> >Upgrading from release XXXX to release 0300K

10 After a number of files are copied over, select a PSDL file to install. The PSDL file contains the loadware for all downloadable cards in the system and loadware for M3900 series sets.

Select one of the six PSDL files

<1>   Global 10 Languages

<2>   Western Europe 10 Languages

<3>   Eastern Europe 10 Languages

<4>   North America 6 Languages

<5>   Spare Group A

<6>   Spare Group B

The languages contained in each selection are outlined as follows:

- 1 – Global 10 Languages (Release 3) English, French, German, Spanish, Swedish, Italian, Norwegian, Brazilian Portuguese, Finnish, Japanese Katakana.

- 2 – Western Europe 10 Languages (Release 3) English, French, German, Spanish, Swedish, Italian, Norwegian, Brazilian Portuguese, Finnish, Danish.

- 3 – Eastern Europe 10 Languages (Release 3) English, French, German, Dutch, Polish, Czech, Hungarian, Russian, Latvian, Turkish.

- 4 – North America six Languages (Release 3) English, French, German, Spanish, Brazilian Portuguese, Japanese Katakana.

- 5 – Spare Group A.

- 6 – Spare Group B.

11 Continue with upgrade when prompted. Select a database to install:

Software release 0300K was installed successfully on Core X.

All files were copied from CDROM to the hard disk.

Please press <CR> when ready... **<CR>**

You will now perform the database installation.

Note: If you are installing the Database from a floppy disk, please insert the correct disk now.

Please enter:

<CR> -> <a> - Install CUSTOMER Database

(the customer database diskette must be in the Core X disk drive).

<b> - Install DEFAULT Database

(the installation CDROM must be in the Core X disk drive).

<c> - Transfer the previous system Database.

<e> - Check the Database that exists on the hard disk.

<q> - Quit.

Enter Choice> **<CR>**

---

12 Confirm database transfer:

You selected to transfer the database from the floppy disk - release: XXXX to the hard disk on Core X. release: XXXX.

This will erase the database on the hard disk.

The database diskette has been inserted into the floppy disk drive.

If you quit now, the database will be left unchanged.

Please enter:

<CR> -> <a> - Continue with Database Install.

<q> - Quit.

Enter Choice> **<CR>**

The system then informs you of the database details and prompts you to confirm:

```
You have chosen to restore database dated: Jul 07 14:10:00 2003

    Please confirm.

    Please enter:

<CR> -> <y> - Yes, load.

    <n> - No, DO NOT load.

    Enter Choice> <CR>
```

13 The system restores the database and provides a status summary.

Note: The hard drive on a new system displays an error message that no database is found on hard drive. This message can be ignored.

14 Enter **<CR>** when prompted, returning the system to the Install Menu.

15 Enter **q** to quit:

I N S T A L L   M E N U

The Software Installation Tool will install or upgrade Succession Enterprise System Software, Database and the CP-BOOTROM. You will be prompted throughout the installation and given the opportunity to quit at any time.

Please enter:

<CR> -> <a> - To install Software, CP-BOOTROM.

<b> - To install Software, Database, CP-BOOTROM.

<c> - To install Database only.

<d> - To install CP-BOOTROM only.

<t> - To go to the Tools menu.

<k> - To install Keycode only.

For Feature Expansion, use OVL143.

<p> - To install 3900 set Languages.

<q> - Quit.

Enter Choice> **q**

---

16 The system then prompts you to confirm and reboot:

You selected to Quit the Software Installation Tool.

You may reboot the system or return to the Main Menu.

Before rebooting the system, remove Install diskette from the floppy drive(s).

DO NOT REBOOT USING BUTTON!!

Please enter:

<CR> -> <a> - Reboot the system.

   <m> - Return to the Main menu.

   Enter Choice> **<CR>**

   >Removing temporary files

   >Remove /u/diskXXXX.sys

   >Quit Install. Reboot system...

Note: Before completing the next procedure, wait the Core/Net to INI.

———————— **End of Procedure** ————————

	IMPORTANT!
⚠	Power up all applications (Meridian Mail, Call Pilot, Symposium).

Complete the upgrade

Procedure 125
Completing the upgrade

1   Perform a redundancy sanity test using the following sequence:

   LD 135   Load program

   STAT CNI   Get status of CNI card

   STAT CPU   Get status of CPU and memory

2   Clear the display and minor alarms.

   CDSP   Clear the displays on the Cores

   CMAJ   Clear major alarms

   CMIN ALL   Clear minor alarms

   ****   Exit program

3   Check dial tone.
4   Make internal, external and network calls.
5   Check attendant console activity.
6   Check DID trunks.

   Note: Proceed to "Post-conversion procedure" on .

———————— **End of Procedure** ————————

Installing memory on Meridian 1 Options 61C, 81, 81C

CAUTION WITH ESD DEVICES

To avoid damaging equipment from electrostatic discharge, wear a properly connected anti-static wrist strap when working on or near Meridian 1 equipment.

WARNING

Use the procedures in this section if the system is equipped with NT5D61 Input Output Disk Unit with CD-ROM (IODU/C) card(s). If the system is not equipped with the IODU/C card, do not use these procedures.

The procedure in this section is used to increase the memory of the NT5D10 or NT5D03 card

To better understand the process, read through and understand the entire procedure before beginning the conversion.

Prepare for installation

This document implements a source to target approach to performing an upgrade. It is important to correctly identify the source platform, target platform and maintenance window required to perform the upgrade.

Each chapter features check boxes indicating what condition the system should be in at that stage of the upgrade. If the system is not in the proper condition steps should be taken to correct this.

Each section is written to maintain Dial Tone where possible and limit service interruptions.

Before attempting any software or hardware upgrade field personnel should follow the steps in Table 29 below:

Table 29
Prepare for upgrade steps

Procedure Step	Page
Planning	399
Upgrade Checklists	400
Preparing	400
Identifying the proper procedure	400
Connect a terminal	401
Print Site Data	402
Perform a template audit	404
Back up the database (data dump and ABKO)	405
Identify two unique IP addresses	408

Planning

Planning for an upgrade involves the following tasks:

- Conduct a site inspection to determine proper power and grounding.

- Review the site profile to determine proper foot space if adding new columns or modules.

- Ensure sufficient power for new columns/modules or applications.

- Identify all applications (Call Pilot, SCCS, IP, Meridian Mail etc.) that are currently installed on the source platform.

- Identify and correct outstanding service problems.

- Verify the site log is updated with current trunking, call routing, application notes, and site contact information.

- Review all product bulletins and Nortel Alerts that impact the site.

- Determine if software can be converted on site or must be sent to Nortel Networks.

- Prepare a contingency plan for backing out of the upgrade.

Upgrade Checklists

Upgrade checklists can be found in the "Upgrade checklists" chapter on 707. Engineers may print this section in order to facilitate the upgrade.

Preparing

Preparing for an upgrade involves the following tasks:

- Identify and become familiar with all procedures.

- Verify that all installed applications meet the minimum software requirements for the target platform (see Table 4 on page 28 of Book 1).

- Verify proper cable lengths for the target platform.

- Verify card vintage requirements of the target platform.

- Determine the current patch or Dep lists installed at the source platform.

- Determine the required patch or Dep lists at the target platform.

- Determine and communicate the required maintenance window, contingency plan and the impact to the customer to complete the procedure.

- Perform an inventory on required software and hardware.

- Secure the source software and key code.

- Secure the target software and key code.

- Verify the new key code using the DKA program.

- Print site data.

Identifying the proper procedure

Each procedure has been written in a source to target format. Each procedure features warning boxes and check boxes placed at critical points. Changing

the procedure or ignoring the warning boxes could cause longer service interruptions.

	IMPORTANT!
⚠️	Database backup information should be preserved for a minimum of 5 days.

Connect a terminal

Procedure 126
Connecting a terminal

A maintenance terminal is required to access the Core or Core/Net modules during the upgrade procedure.

1   Connect a terminal to the J25 port on the I/0 panel in the *inactive* Core or Core/Net module.

2   The settings for the terminal are:

   a.   9600 Baud

   b.   7 data

   c.   space parity

   d.   1 stop bit

   e.   full duplex

   f.   XOFF

3   If only one terminal is used for both Core or Core/Net modules, the terminal must be connected from side-to-side to access each module. An "A/B" switch box can also be installed to switch the terminal from side to side.

———————————— **End of Procedure** ————————————

Print Site Data

Print site data to preserve a record of the system configuration (Table 30 below). Verify that all information is correct. Make corrections as necessary.

Note: Items marked with an asterisk (*) are required. Other items are recommended for a total system status.

Table 30
Print site data (Part 1 of 3)

Site data	Print command	
Terminal blocks for all TNs	LD 20	
	REQ	PRT
	TYPE	TNB
	CUST	<cr>
Directory Numbers	LD 20	
	REQ	PRT
	TYPE	DNB
	CUST	<cr>
Attendant Console data block for all customers	LD 20	LD 20
	REQ	PRT
	TYPE	ATT, 2250
	CUST	<cr>
*Customer data block for all customers	LD 21	LD 21
	REQ	PRT
	TYPE	CDB
	CUST	<cr>
Route data block for all customers	LD 21	
	REQ	PRT
	TYPE	RDB
	CUST	Customer number
	ROUT	<cr>
	ACOD	<cr>

Table 30
Print site data (Part 2 of 3)

Site data	Print command	
*Configuration Record	LD 22	
	REQ	PRT
	TYPE	CFN
*Software packages	LD 22	
	REQ	PRT
	TYPE	PKG
*Software issue, ROM and tape ID	LD 22	
	REQ	ISS
	REQ	ROM
	REQ	TID
* Peripheral software versions	LD 22	
	REQ	PRT
	TYPE	PSWV
ACD data block for all customers	LD 23	
	REQ	PRT
	TYPE	ACD
	CUST	Customer Number
	ACDN	ACD DN (or <CR>)
Superloop card IDs and software version (peripheral controller, superloop network and controller cards)	LD 32	
		IDC loop
Multi-purpose ISDN Signaling Processor (MISP) card	LD 27	
	REQ	PRT
	TYPE	MISP
	LOOP	loop number (0-158)
	APPL	<cr>
	PH	<cr>

Table 30
Print site data (Part 3 of 3)

Site data	Print command	
DTI/PRI data block for all customers	LD 73	
	REQ	PRT
	TYPE	DDB
Note: Items marked with asterisks (*) are required printout for conversion. Other items are recommended for a total system status.		

Perform a template audit

A template audit (LD 01) reviews the templates in your system. Corrupted and duplicate templates are cleaned up. An example of the information generated during the audit is listed below.

Note: The template audit may take an extended period of time on large systems. Run the audit during a low traffic period.

CAUTION

Loss of Data

Do not abort this overlay until the audit is complete. If the overlay is interrupted, data will be corrupted.

LD 01   The audit begins as soon as LD 01 is entered.

TEMPLATE AUDIT

STARTING PBX TEMPLATE SCAN

TEMPLATE 0001 USER COUNT LOW	**CHECKSUM OK**

TEMPLATE 0002 USER COUNT HIGH	**CHECKSUM OK**

TEMPLATE 0003 NO USERS FOUND

STARTING SL1 TEMPLATE SCAN

TEMPLATE 0001 USER COUNT OK   **CHECKSUM OK**

•

•

TEMPLATE 0120 USER COUNT OK   **CHECKSUM OK**

TEMPLATE AUDIT COMPLETE

Back up the database (data dump and ABKO)

To back up system data, complete the following two procedures.

1 Perform a data dump to save all system memory to the hard disk.

2 Perform a ABKO (attended backup) to save the database to a spare set of floppy disks.

Procedure 127
Performing a data dump

1 Log into the system.

2 Load the Equipment Data Dump Program (LD 43). At the prompt, enter:

LD 43   Load program

3 When "EDD000" appears on the terminal, enter:

EDD   Begin the data dump

> ⚠ **CAUTION**
>
> **Loss of Data**
>
> If the data dump does not succeed, do not continue. Contact your technical support organization. You must correct a data dump problem before the system can be upgraded.

4   The messages "DATADUMP COMPLETE" and "DATABASE BACKUP COMPLETE" will appear once the data dump is complete.

****   Exit program

———————— **End of Procedure** ————————

Procedure 128
Performing an ABKO (save the database to floppies)

1   Insert floppy diskettes into BOTH floppy disk drives in each Core IODU/C or MMDU.

Note: If the file is too large to fit on a single floppy disk, the ABKO command will compress the data. If the compressed data is still too large to fit on a single disk, both floppy disks in the two IODU/C drives will be used. Be sure to insert floppy disks into BOTH IODU/C drives before the ABKO backup is begun.

2   Load the Customer Configuration Backup and Restore (LD 143). At the prompt, enter:

LD 143   Load program

3   Run the ABKO backup (LD 143).

ABKO   Run the backup

Result: If the backup is successful, the system displays a message that states that the database backup is complete and generates a report that indicates which floppy drives were used.

4   If there are validation errors, repeat the procedure.

	CAUTION
⚠	**Loss of Data**
	If the backup is not successful, do not continue; contact your technical support organization. Any backup problems must be corrected before the system is upgraded to CP PII.

5   Once the backup is complete, type:

    ****   Exit program

———————— **End of Procedure** ————————

Procedure 129
Converting the 4 MB database media to 2 MB database media

> **IMPORTANT!**
>
> Database conversion for Meridian 1 Options 21E, 51, 61,71, STE, NT and XT must be completed by Nortel Networks Software Conversion Lab. Consult the current Nortel Networks price book for cost and contact information.
>
> If the system is equipped with IOP/CMDU cards the database must be converted with the Database Transfer utility. See "Database transfer" on .
>
> If the system is equipped with IODUC cards, the database should be data dumped (EDD) to a blank 2 MB floppy.
>
> All systems can be converted by Nortel Networks in the software conversion lab.

If the system is equipped with IOP/CMDU cards the database must be converted with the Database Transfer utility. See "Database transfer" on .

If the system is equipped with IODUC cards, the database should be data dumped (EDD) to a blank 2 MB floppy.

Identify two unique IP addresses

Each CP PII system must be configured with two unique IP addresses for LAN identification and communication. One IP address is defined for the *active* Core. The second IP address is defined for the *inactive* Core. In this configuration, the *active* Core (either Core 0 or Core 1) that handles call processing is always identified by the same IP address.

- Contact your systems administrator to identify two unique IP addresses before the upgrade.

- For instructions to configure these IP numbers, see "Configuring IP addresses" on .

Perform installation

Parallel reload the Meridian 1 Option 61C and Meridian 1 81/81C CP3 CP4

Note: This procedure does not include instructions for installing new IODU/C cards or CP cards. If required, refer to "Installing a Call Processor card on Options 61C CP PII, 81C CP PII" on and "Installing a Call Processor card on Option 51C" on .

Parallel reloads can be done from either CPU. For the purposes of this document, the parallel reload begins with CPU 0.

If during the software conversion a problem is detected and it is determined that the system should revert back to the source release follow the "Parallel reload procedures" on .

Verify memory

Determine whether the system requires additional memory. Refer to "Installing IODU/C cards, CP cards, CP memory" on for memory requirements and upgrade procedures.

Perform a data dump

Follow the steps in Procedure 130 to perform a data dump.

Procedure 130
Performing a data dump

1   Load the Equipment Data Dump Program (LD 43). At the prompt, enter:

   LD 43   Load program

2   When "EDD000" appears on the terminal, enter:

   EDD   Begin the data dump

3 When "DATABASE BACKUP COMPLETE" or "DATADUMP COMPLETE" appears on the terminal, enter:

****   Exit program

CAUTION

Loss of Data

If the data dump is not successful, do not continue. Contact the technical support organization. A data dump problem must be corrected before proceeding.

IMPORTANT!

Database backup information should be preserved for a minimum of 5 days.

—————— **End of Procedure** ——————

Determine status (STAT) of the hardware

Follow the steps in Procedure 131 on to determine the required hardware status.

Procedure 131
Obtaining hardware status

1 Load LD 137 and get status of the hard disks.

Note: Be sure the hard disks are synchronized. If not, synchronize before proceeding.

LD 137   Load program

STAT   Get the status of the hard disks

SYNC   Synchronize hard disks if necessary
                  (Synchronization may take up to 50 minutes)

TEST CMDU	Performs hard and floppy disk test
****	Exit program

2   Load LD 135 and determine the status of the CPs, CNIs and memory.

LD 135	Load program
STAT CPU	Get the status of both CPs and memory
STAT CNI	Get the status of all configured CNIs

3   Test the standby (inactive) CP. Then switch CPs, and test again.

TEST CPU	Test standby (inactive) CP

Wait until the terminal returns a complete test message. The message "HWI533 or HWI534" does not mean the test has completed!

SCPU	Switch CPs
TEST CPU	Test the standby (inactive) CP

4   Check total memory allocation before the upgrade.

LD 10	Load program

When the header for LD 10 is displayed, note the value associated with Total Memory. After the upgrade, compare Total Memory before and after the upgrade. Total Memory should be greater after the upgrade.

Exit the program:

****	Exit program

Note: Testing the CPs can take up to 20 minutes for each test. When the test is complete, the memories are automatically synchronized.

──────────── **End of Procedure** ────────────

Split the Core processors

Follow the steps in Procedure 132 to split the core processors.

Procedure 132
Splitting the Core processors

1   Be sure CP 0 is active and CP1 is standby. If necessary, switch CPs
    again:

    STAT CPU

    SCPU   Switch CPs (if necessary)

    ****   Exit program

2   Verify that IODU/C 0 is active. If necessary, switch IODU/Cs.

    LD 137

    STAT   Get the status of IODU/C

    SWAP   Switch IODU/Cs (if necessary)

    ****   Exit program

3   Connect a terminal from the CPSI port in Core/Net 1 to J25 of the I/O
    panel at the back of the Core/Net. Be sure it is configured as follows. The
    recommended baud rate is 9600, to be the same as the CPSI port.

    7 data bits, 1 stop bit, Space parity, Full-duplex, XON protocol

4   Place CP 0 in Maintenance by setting the MAINT/NORM switch to
    MAINT.

5   In Core/Net 1, disable the CNI cards by setting the ENB/DIS faceplate
    switches to DIS.

6   Place CP1 in Maintenance by setting the MAINT/NORM switch to MAINT.

Note: Core 1 will now sysload. Allow the system to complete the sysload and INI. Review any sysload errors and correct before proceeding.

> System is now is split mode, Core 0 active, Clock Controller 0 is active if equipped with FNF. Rings are in half/half mode.

——————— **End of Procedure** ———————

NT5D03, NT5D10 CP cards

Use the procedures in this section to complete the upgrade, or refer to " Install the DRAM SIMMs" on page 415 and "Install the Flash memory" on page 419 for detailed upgrade instructions.

Table 31 on page 414 defines the memory upgrade paths for the following Motorola-based Call Processor cards:

• 68060

• 68060E

To perform a DRAM and/or Flash upgrade:

• Locate your existing processor vintage in Table 31 on page 414.

• Locate the target processor vintage in Table 31 on page 414.

• Compare the existing SIMM configuration with the target configuration.

• Determine what SIMMs must be added or deleted from the existing location.

• Add or delete DRAM SIMMs as required to achieve the target memory configuration (see Figure 25 on page 416 for the DRAM and Flash SIMM slot locations).

• Install the Flash memory modules in an available Flash connector.

• Install the label and label inserts. Discard all unused labels.

Table 31
Supported memory upgrade configurations (Part 1 of 2)

Total Memory	Total FLASH	Total DRAM	Call Processor 68060	Call Processor 68060E	Slot 0 X5	Slot 1 X6	Slot 2 X7	Slot 3 X8
48	32	16	NT5D10AA	NT5D03AA	16	0	0	0
64	32	32	NT5D10CA	NT5D03BA	16	16	0	0
					32	0	0	0
80	32	48	NT5D10EA	NT5D03CA	16	16	16	0
					16	32	0	0
96	32	64	NT5D10TA	NT5D03TA	16	16	16	16
					16	16	32	0
					32	32	0	0
112*	32	80	NT5D10UA	NT5D03UA	16	16	16	32
					16	32	32	0
128*	32	96	NT5D10VA	NT5D03VA	16	16	32	32
					32	32	32	0
96	64	32	N/A	N/A	16	16	0	0
					32	0	0	0
112	64	48	NT5D10JA	NT5D03EA	16	16	16	0
					16	32	0	0
128	64	64	N/A	NT5D03FA	16	16	16	16
128	64	64	NT5D10FB	NT5D03FB	16	16	16	16

* This configuration requires Release 24 or later.

** The 68040 CP card is available in A and B vintages. When labeling the CP card, use the appropriate vintage suffix.

Table 31
Supported memory upgrade configurations (Part 2 of 2)

Total Memory	Total FLASH	Total DRAM	Call Processor 68060	68060E	Slot 0 X5	Slot 1 X6	Slot 2 X7	Slot 3 X8
					16	16	32	0
					32	32	0	0
144*	64	80	NT5D10NA	NT5D03NA	16	16	16	32
					16	32	32	0
160*	64	96	NT5D10PB	NT5D03PB	16	16	32	32
					32	32	32	0

* This configuration requires Release 24 or later.

** The 68040 CP card is available in A and B vintages. When labeling the CP card, use the appropriate vintage suffix.

Install the DRAM SIMMs

Procedure 133
Installing the DRAM SIMMs

1   Place the CP card SIMM-side up on the antistatic mat.

2   Locate the DRAM SIMM connectors (see Figure 25 on).

3   Determine if your memory upgrade requires you to remove an existing DRAM SIMM (see Table 31 on) If removal is required, remove the SIMM from the highest numbered slot available first (X8, X7, X6, etc.) To remove the DRAM SIMM.

   a.   Use a nonconducting screw driver to carefully move each latch away first from one end of the SIMM, and then the other end. The SIMM

Figure 25
NT5D10 or NT5D03 DRAM and Flash location

DRAM SIMMs

Notch location

X5 X6 X7 X8

FLASH SIMMs

553-7622

pivots away from the others until it is at approximately a 50- to 70-degree angle to the board (see Figure 26 on).

b. If the SIMM does not release from the latches, use your thumbnails, one on each latch, to release the latches. If the board has plastic latches, the latches are located on the side facing the card faceplate. If the board has metal latches, the levers protrude from each latch. Carefully move the latches outward simultaneously until the SIMM pivots away from the others and is at approximately a 50- to 70-degree angle to the board (see Figure 26 on).

CAUTION

Do not mix up the 32 MB DRAM SIMM with the 16 MB DRAM SIMM. The 16 MB DRAM SIMM is labeled A0662646 or A0614334; the 32 MB DRAM SIMM is labeled A0634230. Older 16 MB DRAM SIMMs may not be labeled.

---

4 Working from left to right, install the 32 MB SIMM(s) in the SIMM location designated X5, X6, X7 or X8 where appropriate (Table 31 on).

a. Orient the new SIMM so that the notch at one end of the SIMM aligns with the key at one end of the SIMM socket. Hold the SIMM at approximately a 50- to 70-degree angle and gently insert the SIMM into the socket. See Figure 26 on .

5 Using your thumbs and index fingers only (at the upper corners of the SIMM), carefully lean the SIMM toward the others until it is upright and the latch at each end of the SIMM snaps into place. If necessary, use a nonconducting screwdriver to help open each latch while you move the SIMM into the upright position.Apply the generic label over the existing label.

6 Select the correct labels for your CP card from the sheet provided.

7 Place the CP/memory configuration label at the top of the faceplate.

8 Place the engineering code/release level label on the bottom of the faceplate.

9 Discard unused labels.

--- **End of Procedure** ---

Figure 26
NT5D10, NT5D03 card DRAM SIMM installation
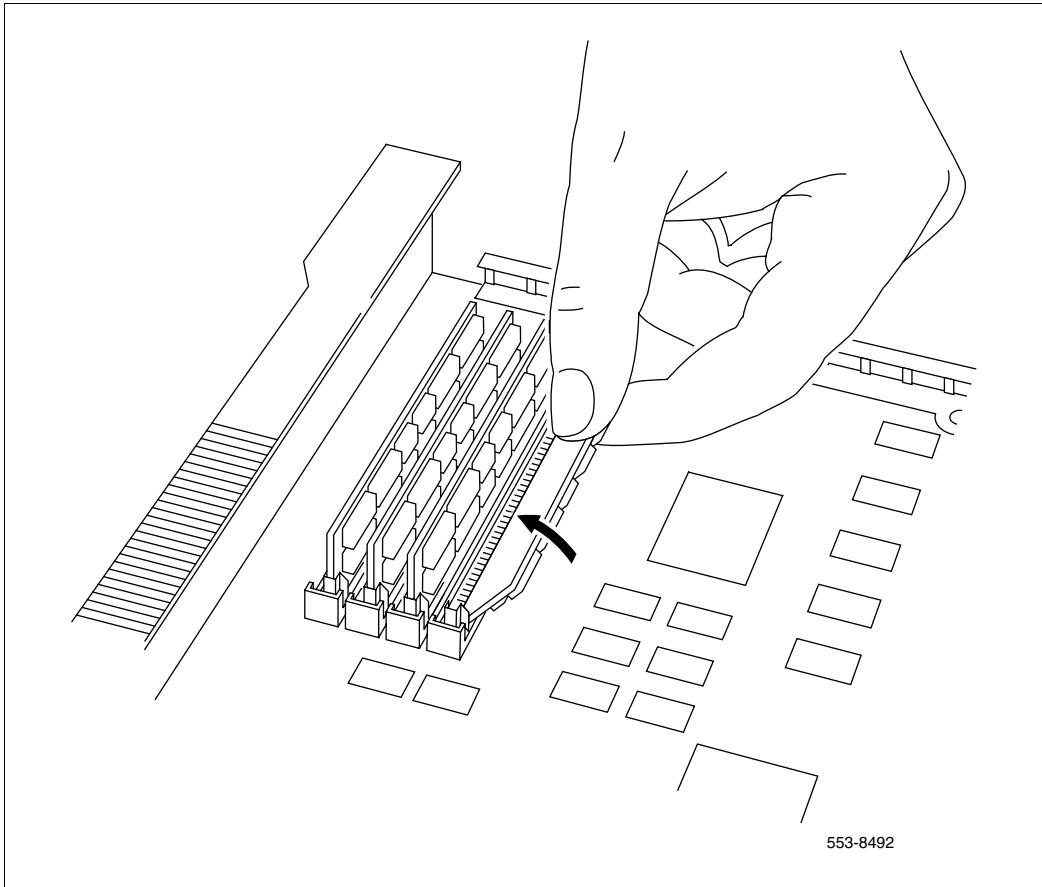
553-8492

Install the Flash memory

	CAUTION
⚠️	**Do not** remove the existing Flash SIMMS from the Call Processor board.

Procedure 134
Installing the Flash memory

1   Place the CP card SIMM-side up on the antistatic mat.

2   Determine the location of the new Flash SIMM connectors (see Table 31 on page 414)

3   Install the new 32 MB Flash SIMM module in the appropriate slot:

    a.   Orient the new SIMM so that the notches on the bottom of the SIMM align with the notches on the connector.

    b.   Gently guide the Flash SIMM toward the connector socket.

    c.   When the Flash SIMM makes contact with the connector, apply pressure to one end of the Flash SIMM and close the latch connector.

    d.   Apply pressure to the other end of the Flash SIMM and close the latch connector.

4   Apply the generic label over the existing label.

5   Select the correct labels for your CP card from the sheet provided.

6   Place the CP/memory configuration label at the top of the faceplate.

7   Place the engineering code/release level label on the bottom of the faceplate.

8   Discard unused labels.

—————————————— **End of Procedure** ——————————————

Install software on Core/Net 1

Procedure 135
Installing the system software on Core/Net 1

1   Place the CP Install disk that corresponds with the installed CP card type into the IODU/C in Core/Net 1.

2   Install the CD-ROM into the CD drive:

   a.   Press the button on the CD-ROM drive to open the CD-ROM disk holder.

   b.   Place the CD-ROM disk into the holder with the disk label showing.

   c.   Use the four tabs to secure the CD-ROM drive.

   d.   Press the button again to close the CD-ROM disk holder. Don't push the holder in by hand.

3   In Core/Net 1, perform the following three steps in uninterrupted sequence:

   a.   In Core/Net 1 press and release the MAN RST button on the CP card.

   b.   Set the MAINT/NORM switch on the CP card to MAINT.

   c.   Release the MAN RST button.

A Sysload begins (cold start). Wait for the Main Menu to appear on the terminal before proceeding.

Note 1: If the CD-ROM is not in the CD drive of the IODU/C, the installation procedure will not continue. Insert the CD-ROM into the drive to continue.

Note 2: If a problem is detected during the system verification, the Install process stops, prints an error message, and aborts the installation. If the verification is not successful, do not continue. Contact the technical support organization.

4   Press <CR> to continue.

5   Log into the system. Enter the time and date, when prompted.

6   Select yes or (no) when asked if a Signaling Server is connected:

> System Date and Time now is:
>
>   Day-Month-Year, Hour:Min:Sec
>
>   Succession Enterprise Software/Database/BOOTROM
> CDROM INSTALL Tool
>
>   Does this System have a Signaling Server.....? (Default - No)
>
>   Please enter:
>
> <CR> -> <n> - No
>
>   <y> - Yes
>
>   Enter Choice>

7   The system then enters the Main Menu for keycode authorization. Remove the CP PII Install Program diskette and insert the Keycode diskette.

> M A I N   M E N U
>
>   The Software Installation Tool will install or upgrade
> Succession Enterprise System Software, Database and the CP-
> BOOTROM. You will be prompted throughout the installation and
> given the opportunity to quit at any time.
>
>   Please enter:
>
> <CR> -> <u> - To Install menu
>
>   <t> - To Tools menu.
>
>   <q> - Quit.
>
>   Enter Choice> **<CR>**
>
>   >Validating Keycode
>
> The provided keycode authorizes the install of X210300
> software
>
> (all subissues) for machine type XXXX
>
> (XXX processor on XXXX System)

<div style="border:1px solid">

⚠

IMPORTANT!

Remove keycode floppy disk at this time and insert the database backup disk.

</div>

8   The screen displays the Install Menu. Confirm that the keycode matches the CD-ROM release:

Please confirm that this keycode matches the CDROM Release

Please enter:

<CR> -> <y> - Yes, the keycode matches. Go on to Install Menu.

<n> - No, the keycode does not match. Try another keycode diskette.

Enter Choice> **<CR>**

>Obtain database file names

9   Enter **a** to install the Software and CP-BOOTROM:

I N S T A L L   M E N U

   The Software Installation Tool will install or upgrade Succession Enterprise System Software, Database and the CP-BOOTROM. You will be prompted throughout the installation and given the opportunity to quit at any time.

   Please enter:

<CR> -> <a> - To install Software, CP-BOOTROM.

   <b> - To install Software, Database, CP-BOOTROM.

   <c> - To install Database only.

   <d> - To install CP-BOOTROM only.

   <t> - To go to the Tools menu.

   <k> - To install Keycode only.

      For Feature Expansion, use OVL143.

   <p> - To install 3900 set Languages.

   <q> - Quit.

   Enter Choice> **b**

---

10 Verify the CD-ROM version:

Please insert the installation CDROM into the drive on Core X.

The labeled side of the CDROM should be side up in the CDROM tray.

Please enter:

<CR> -> <a> - CDROM is now in drive. Continue with s/w checking.

<q> - Quit.

Enter Choice> **<CR>**

The installation CDROM contains version X210300_K.

Please enter:

<CR> -> <y> - Yes, this is the correct version. Continue.

<n> - No, this is not the correct version. Try another CDROM.

or keycode disk

Enter Choice> **<CR>**

>copying direct.rec from /cd0/0300_KMR.N33/target/p/sl1/ direct.rec to /u/direct.rec

>Updating /u/direct.rec

>Processing the Install Control file

>Installing release 0300K

11 Confirm all options before installing the software:

```
                    INSTALLATION STATUS SUMMARY

              ----------------------------------------

    =============+========+========+=============
    |   Option    |   Choice   | Status |   Comment       |
    ================+========+========+=========
    | SW: CD to disk |    yes     |        | install for rel 0300K |
    =============+========+========+=============
    |   Option    |   Choice   | Status |   Comment       |
    ================+========+========+=========
    |   Database    |    no     |        |                 |

    |   Option    |   Choice   | Status |   Comment       |
    ================+========+========+=========
    | CP-BOOTROM |    yes     |        |                 |


      Please enter:<CR> -> <y> - Yes, start Installation.

        <n> - No, stop Installation. Return to the Main Menu.
```

Enter Choice> **<CR>**

>Checking System Configuration

You selected to upgrade the system from release: XXXX to release: 0300K.

This will erase all old system files.

> Database files will NOT be erased. You may continue installing the software or quit now and leave your system unchanged.
>
> Please enter:
>
> <CR> -> <a> - Continue with Upgrade.
>
> <q> - Quit.
>
> Enter Choice> **<CR>**
>
> >Starting Software Install
>
>   >Upgrading from release XXXX to release 0300K

12   After a number of files are copied over, select a PSDL file to install. The PSDL file contains the loadware for all downloadable cards in the system and loadware for M3900 series sets.

Select one of the six PSDL files

<1>   Global 10 Languages

<2>   Western Europe 10 Languages

<3>   Eastern Europe 10 Languages

<4>   North America 6 Languages

<5>   Spare Group A

<6>   Spare Group B

The languages contained in each selection are outlined as follows:

- 1 – Global 10 Languages (Release 3) English, French, German, Spanish, Swedish, Italian, Norwegian, Brazilian Portuguese, Finnish, Japanese Katakana.

- 2 – Western Europe 10 Languages (Release 3) English, French, German, Spanish, Swedish, Italian, Norwegian, Brazilian Portuguese, Finnish, Danish.

- 3 – Eastern Europe 10 Languages (Release 3) English, French, German, Dutch, Polish, Czech, Hungarian, Russian, Latvian, Turkish.

- 4 – North America six Languages (Release 3) English, French, German, Spanish, Brazilian Portuguese, Japanese Katakana.

- 5 – Spare Group A.

- 6 – Spare Group B.

13 Continue with upgrade when prompted. Select a database to install:

Software release 0300K was installed successfully on Core X.

    All files were copied from CDROM to the hard disk.

    Please press <CR> when ready... **<CR>**

Enter Choice> **<CR>**

---

14 Enter **q** to quit:

I N S T A L L   M E N U

The Software Installation Tool will install or upgrade Succession Enterprise System Software, Database and the CP-BOOTROM. You will be prompted throughout the installation and given the opportunity to quit at any time.

Please enter:

<CR> -> <a> - To install Software, CP-BOOTROM.

<b> - To install Software, Database, CP-BOOTROM.

<c> - To install Database only.

<d> - To install CP-BOOTROM only.

<t> - To go to the Tools menu.

<k> - To install Keycode only.

For Feature Expansion, use OVL143.

<p> - To install 3900 set Languages.

<q> - Quit.

Enter Choice> **q**

---

15 The system then prompts you to confirm and reboot:

You selected to Quit the Software Installation Tool.

You may reboot the system or return to the Main Menu.

Before rebooting the system, remove Install diskette from the floppy drive(s).

DO NOT REBOOT USING BUTTON!!

Please enter:

<CR> -> <a> - Reboot the system.

<m> - Return to the Main menu.

Enter Choice> **<CR>**

>Removing temporary files

>Remove /u/diskXXXX.sys

>Quit Install. Reboot system...

─────────── **End of Procedure** ───────────

Determine peripheral software version

Procedure 136
Checking peripheral software versions

1   Load LD 22 and print Target peripheral software version. The Source
     peripheral software version was printed during the pre-conversion
     procedure. If there is a difference between the Source and Target
     peripheral software version, a forced download will occur during
     initialization when coming out of parallel reload. System initialization will
     take longer and established calls on IPE will be dropped.

LD 22	Load program
REQ	PRT
TYPE	PSWV
****	Exit program

——————————— **End of Procedure** ———————————

Switch call processing to Core/Net 1

> **CAUTION**
>
> **Service Interruption**
>
> Call Processing will be interrupted! Perform these next steps carefully. This is the point at which service is interrupted. Calls in process are interrupted, especially if Peripheral Software Download takes place. Some calls might be dropped.

> **WARNING**
>
> System initialization may take up to 15 minutes or longer.

> **IMPORTANT!**
>
> Power down all applications (Meridian Mail, Call Pilot, Symposium).

Follow the steps in Procedure 137 to switch call processing from Core/Net 0 to Core/Net 1.

Procedure 137
Switching call processing from Core/Net 0 to Core/Net 1

1   In Core/Net 0, disable the CNI cards by setting the ENB/DIS faceplate switches to DIS.

2   In Core/Net 0, set the DIS/ENB faceplate switch on the IODU/C card to DIS and unseat it.

3   In Core/Net 1, enable the CNI cards by setting the ENB/DIS faceplate to ENB.

4   In Core/Net 1, press the MAN INT button.

–––––––––––––– **End of Procedure** ––––––––––––––

> **CAUTION**
>
> **Service Interruption**
>
> The INI may take up to15 minutes to complete.

> **IMPORTANT!**
>
> Power up all applications (Meridian Mail, Call Pilot, Symposium).

Procedure 138
Testing Core/Net 1

From Core/Net 1, perform these tests:

1 Check dial tone.

2 Make internal, external and network calls.

3 Check attendant console activity.

4 Check DID trunks.

5 Check applications (Call Pilot, Symposium, Meridian Mail, etc.).

> ✔ CP1 is active, Clock 1 is active, IODU/C is active. If equipped, the FIJI ring is in half/half mode.

———— **End of Procedure** ————

Procedure 139
Removing CP card from Core/Net 0

1   Push the manual reset button on the CP card.

2   Release the button and immediately unlatch the card and remove it from
        the shelf.

———————————— **End of Procedure** ————————————

NT5D03, NT5D10 CP cards

Table 32 on defines the memory upgrade paths for the following
Motorola-based Call Processor cards:

•   68060

•   68060E

To perform a DRAM and/or Flash upgrade:

•   Locate your existing processor vintage in Table 32 on .

•   Locate the target processor vintage in Table 32 on .

•   Compare the existing SIMM configuration with the target configuration.

•   Determine what SIMMs must be added or deleted from the existing
     location.

•   Add or delete DRAM SIMMs as required to achieve the target memory
     configuration (see Figure 27 on for the DRAM and Flash
     SIMM slot locations).

•   Install the Flash memory modules in an available Flash connector.

•   Install the label and label inserts. Discard all unused labels.

Table 32
Supported memory upgrade configurations (Part 1 of 2)

Total Memory	Total FLASH	Total DRAM	Call Processor		Slot 0	Slot 1	Slot 2	Slot 3
			68060	68060E	X5	X6	X7	X8
48	32	16	NT5D10AA	NT5D03AA	16	0	0	0
64	32	32	NT5D10CA	NT5D03BA	16	16	0	0
					32	0	0	0
80	32	48	NT5D10EA	NT5D03CA	16	16	16	0
					16	32	0	0
96	32	64	NT5D10TA	NT5D03TA	16	16	16	16
					16	16	32	0
					32	32	0	0
112*	32	80	NT5D10UA	NT5D03UA	16	16	16	32
					16	32	32	0
128*	32	96	NT5D10VA	NT5D03VA	16	16	32	32
					32	32	32	0
96	64	32	N/A	N/A	16	16	0	0
					32	0	0	0
112	64	48	NT5D10JA	NT5D03EA	16	16	16	0
					16	32	0	0
128	64	64	N/A	NT5D03FA	16	16	16	16
128	64	64	NT5D10FB	NT5D03FB	16	16	16	16

* This configuration requires Release 24 or later.

** The 68040 CP card is available in A and B vintages. When labeling the CP card, use the appropriate vintage suffix.

Table 32
Supported memory upgrade configurations (Part 2 of 2)

Total Memory	Total FLASH	Total DRAM	Call Processor		Slot 0	Slot 1	Slot 2	Slot 3
			68060	68060E	X5	X6	X7	X8
					16	16	32	0
					32	32	0	0
144*	64	80	NT5D10NA	NT5D03NA	16	16	16	32
					16	32	32	0
160*	64	96	NT5D10PB	NT5D03PB	16	16	32	32
					32	32	32	0

* This configuration requires Release 24 or later.

** The 68040 CP card is available in A and B vintages. When labeling the CP card, use the appropriate vintage suffix.

Install the DRAM SIMMs

Procedure 140
Installing the DRAM SIMMs

1   Place the CP card SIMM-side up on the antistatic mat.

2   Locate the DRAM SIMM connectors (see Figure 27 on).

3   Determine if your memory upgrade requires you to remove an existing DRAM SIMM (see Table 31 on) If removal is required, remove the SIMM from the highest numbered slot available first (X8, X7, X6, etc.) To remove the DRAM SIMM.

   a.   Use a nonconducting screw driver to carefully move each latch away first from one end of the SIMM, and then the other end. The SIMM

Figure 27
NT5D10 or NT5D03 DRAM and Flash location

DRAM SIMMs

Notch location

X5 X6 X7 X8

FLASH SIMMs

553-7622

pivots away from the others until it is at approximately a 50- to 70-degree angle to the board (see Figure 27 on).

b. If the SIMM does not release from the latches, use your thumbnails, one on each latch, to release the latches. If the board has plastic latches, the latches are located on the side facing the card faceplate. If the board has metal latches, the levers protrude from each latch. Carefully move the latches outward simultaneously until the SIMM pivots away from the others and is at approximately a 50- to 70-degree angle to the board (see Figure 27 on).

CAUTION

Do not mix up the 32 MB DRAM SIMM with the 16 MB DRAM SIMM. The 16 MB DRAM SIMM is labeled A0662646 or A0614334; the 32 MB DRAM SIMM is labeled A0634230. Older 16 MB DRAM SIMMs may not be labeled.

---

4 Working from left to right, install the 32 MB SIMM(s) in the SIMM location designated X5, X6, X7 or X8 where appropriate (Table 31 on).

a. Orient the new SIMM so that the notch at one end of the SIMM aligns with the key at one end of the SIMM socket. Hold the SIMM at approximately a 50- to 70-degree angle and gently insert the SIMM into the socket. See Figure 27 on .

5 Using your thumbs and index fingers only (at the upper corners of the SIMM), carefully lean the SIMM toward the others until it is upright and the latch at each end of the SIMM snaps into place. If necessary, use a nonconducting screwdriver to help open each latch while you move the SIMM into the upright position.Apply the generic label over the existing label.

6 Select the correct labels for your CP card from the sheet provided.

7 Place the CP/memory configuration label at the top of the faceplate.

8 Place the engineering code/release level label on the bottom of the faceplate.

9 Discard unused labels.

--- **End of Procedure** ---

Figure 28
NT5D10, NT5D03 card DRAM SIMM installation

553-8492

Install the Flash memory

> **CAUTION**
>
> **Do not** remove the existing Flash SIMMS from the Call
> Processor board.

Procedure 141
Installing the Flash memory

1   Place the CP card SIMM-side up on the antistatic mat.

2   Determine the location of the new Flash SIMM connectors (see Table 31
on).

3   Install the new 32 MB Flash SIMM module in the appropriate slot:

   a. Orient the new SIMM so that the notches on the bottom of the SIMM
   align with the notches on the connector.

   b. Gently guide the Flash SIMM toward the connector socket.

   c. When the Flash SIMM makes contact with the connector, apply
   pressure to one end of the Flash SIMM and close the latch connector.

   d. Apply pressure to the other end of the Flash SIMM and close the
   latch connector.

4   Apply the generic label over the existing label.

5   Select the correct labels for your CP card from the sheet provided.

6   Place the CP/memory configuration label at the top of the faceplate.

7   Place the engineering code/release level label on the bottom of the
faceplate.

8   Discard unused labels.

   The Flash memory upgrade is complete.

Install new software on Core/Net 0

Procedure 142
Installing the software and converting the database

1   Check that a terminal is connected to J25 on Core/Net 0.

2   In Core/Net 0, install the CD-ROM into the CD-ROM drive in the MMDU:

    a.   Press the button on the CD-ROM drive to open the CD-ROM disk holder.

    b.   Place the CD-ROM disk into the holder with the disk label showing.

    c.   Press the button again to close the CD-ROM disk holder. Do not push the holder in by hand.

    Note: If the CD-ROM is not in the CD-ROM drive, the installation will not continue. Insert the CD-ROM to continue.

3   Place the CP PII Install floppy disk into the IODU/C floppy drive.

    Note: If a problem is detected during the system verification, Install stops, prints an error message, and aborts the installation. If the verification is not successful, do not continue; contact your technical support organization.

4   Press the manual RESET button on the CP card faceplate.

5   Select yes or (no) when asked if a Signaling Server is connected:

```
 System Date and Time now is:

      Day-Month-Year, Hour:Min:Sec

      Succession Enterprise Software/Database/BOOTROM
CDROM INSTALL Tool

      Does this System have a Signaling Server.....? (Default - No)

      Please enter:

<CR> -> <n> - No

      <y> - Yes

      Enter Choice>
```

6   The system then enters the Main Menu for keycode authorization. Remove the CP PII Install Program diskette and insert the Keycode diskette.

M A I N   M E N U

The Software Installation Tool will install or upgrade Succession Enterprise System Software, Database and the CP-BOOTROM. You will be prompted throughout the installation and given the opportunity to quit at any time.

Please enter:

<CR> -> <u> - To Install menu

<t> - To Tools menu.

<q> - Quit.

Enter Choice> **<CR>**

>Validating Keycode

The provided keycode authorizes the install of X210300 software

(all subissues) for machine type XXXX

(XXX processor on XXXX System)

IMPORTANT!

Remove keycode floppy disk at this time and insert the database backup disk.

7   The screen displays the Install Menu. Confirm that the keycode matches the CD-ROM release:

 Please confirm that this keycode matches the CDROM Release

   Please enter:

<CR> -> <y> - Yes, the keycode matches. Go on to Install Menu.

   <n> - No, the keycode does not match. Try another keycode diskette.

   Enter Choice> **<CR>**

   >Obtain database file names

---

8   Enter **b** to install the Software, Database and CP-BOOTROM:

            I N S T A L L   M E N U

   The Software Installation Tool will install or upgrade Succession Enterprise System Software, Database and the CP-BOOTROM. You will be prompted throughout the installation and given the opportunity to quit at any time.

   Please enter:

<CR> -> <a> - To install Software, CP-BOOTROM.

   <b> - To install Software, Database, CP-BOOTROM.

   <c> - To install Database only.

   <d> - To install CP-BOOTROM only.

   <t> - To go to the Tools menu.

   <k> - To install Keycode only.

      For Feature Expansion, use OVL143.

   <p> - To install 3900 set Languages.

   <q> - Quit.

   Enter Choice> **b**

---

9   Verify the CD-ROM version:

Please insert the installation CDROM into the drive on Core X.

The labeled side of the CDROM should be side up in the CDROM tray.

Please enter:

<CR> -> <a> - CDROM is now in drive. Continue with s/w checking.

<q> - Quit.

Enter Choice> **<CR>**

The installation CDROM contains version X210300_K.

Please enter:

<CR> -> <y> - Yes, this is the correct version. Continue.

<n> - No, this is not the correct version. Try another CDROM.

or keycode disk

Enter Choice> **<CR>**

>copying direct.rec from /cd0/0300_KMR.N33/target/p/sl1/ direct.rec to /u/direct.rec

>Updating /u/direct.rec

>Processing the Install Control file

>Installing release 0300K

---

10 Confirm all options before installing the software:

```
                    INSTALLATION STATUS SUMMARY

              --------------------------------------------

      ============+========+========+=============
   |    Option    |   Choice   | Status |   Comment         |
      ================+========+========+=========
   | SW: CD to disk |     yes     |         | install for rel 0300K |
      ============+========+========+=============
   |    Option    |   Choice   | Status |   Comment         |
      ================+========+========+=========
   |   Database   |    yes     |     |     |                 |

   |    Option    |   Choice   | Status |   Comment         |
      ================+========+========+=========
   | CP-BOOTROM |     no     |     |     |                 |


        Please enter:<CR> -> <y> - Yes, start Installation.

        <n> - No, stop Installation. Return to the Main Menu.
```

Enter Choice> **<CR>**

>Checking System Configuration

You selected to upgrade the system from release: XXXX to release: 0300K.

This will erase all old system files.

Database files will NOT be erased. You may continue installing the software or quit now and leave your system unchanged.

Please enter:

<CR> -> <a> - Continue with Upgrade.

<q> - Quit.

Enter Choice> **<CR>**

>Starting Software Install

>Upgrading from release XXXX to release 0300K

11   After a number of files are copied over, select a PSDL file to install. The PSDL file contains the loadware for all downloadable cards in the system and loadware for M3900 series sets.

Select one of the six PSDL files

<1>   Global 10 Languages

<2>   Western Europe 10 Languages

<3>   Eastern Europe 10 Languages

<4>   North America 6 Languages

<5>   Spare Group A

<6>   Spare Group B

The languages contained in each selection are outlined as follows:

- 1 – Global 10 Languages (Release 3) English, French, German, Spanish, Swedish, Italian, Norwegian, Brazilian Portuguese, Finnish, Japanese Katakana.

- 2 – Western Europe 10 Languages (Release 3) English, French, German, Spanish, Swedish, Italian, Norwegian, Brazilian Portuguese, Finnish, Danish.

- 3 – Eastern Europe 10 Languages (Release 3) English, French, German, Dutch, Polish, Czech, Hungarian, Russian, Latvian, Turkish.

- 4 – North America six Languages (Release 3) English, French, German, Spanish, Brazilian Portuguese, Japanese Katakana.

- 5 – Spare Group A.

- 6 – Spare Group B.

12 Continue with upgrade when prompted. Select a database to install:

> Software release 0300K was installed successfully on Core X.
>
> > All files were copied from CDROM to the hard disk.
> >
> > Please press <CR> when ready... **<CR>**
>
> Enter Choice> **<CR>**

13 Confirm database transfer:

> You selected to transfer the database from the floppy disk - release: XXXX to the hard disk on Core X. release: XXXX.
>
> This will erase the database on the hard disk.
>
> The database diskette has been inserted into the floppy disk drive.
>
> > If you quit now, the database will be left unchanged.
> >
> > Please enter:
>
> <CR> -> <a> - Continue with Database Install.
>
> <q> - Quit.
>
> Enter Choice> **<CR>**

14 Enter **q** to quit:

I N S T A L L   M E N U

The Software Installation Tool will install or upgrade Succession Enterprise System Software, Database and the CP-BOOTROM. You will be prompted throughout the installation and given the opportunity to quit at any time.

Please enter:

<CR> -> <a> - To install Software, CP-BOOTROM.

<b> - To install Software, Database, CP-BOOTROM.

<c> - To install Database only.

<d> - To install CP-BOOTROM only.

<t> - To go to the Tools menu.

<k> - To install Keycode only.

For Feature Expansion, use OVL143.

<p> - To install 3900 set Languages.

<q> - Quit.

Enter Choice> **q**

---

15 The system then prompts you to confirm and reboot:

> You selected to Quit the Software Installation Tool.
>
> You may reboot the system or return to the Main Menu.
>
> Before rebooting the system, remove Install diskette from the floppy drive(s).
>
>
> -----------------------------
>
> DO NOT REBOOT USING BUTTON!!
>
>
> -----------------------------
>
>
> Please enter:
>
> <CR> -> <a> - Reboot the system.
>
> <m> - Return to the Main menu.
>
> Enter Choice> **<CR>**
>
> >Removing temporary files
>
>
> >Remove /u/diskXXXX.sys
>
>
>
> >Quit Install. Reboot system...

—————————— **End of Procedure** ——————————

Exiting split mode

Follow the steps in Procedure 143 to exit the split mode.

Procedure 143
Exiting the split mode

1   Connect CPSI port or maintenance SDI port.

2   Enable the CNI cards by setting the ENB/DIS faceplate switch to ENB in Core/Net 0.

3   Perform the following in uninterrupted sequence:

- Press and release the MAN RST button in Core/Net 0.

- When SYS700 messages appears on the LCD display on Core/Net 0, set the MAINT/NORM switch to NORM in Core/Net 0.

In 60 seconds, the LCD lights and confirms the processes with:

RUNNING ROM OS

ENTERING CP VOTE

An HWI534 message indicates the start of memory synchronization. In 10 minutes, an HWI533 message on Core/Net 1 CSPI or SDI terminal indicates the memory synchronization is complete.

4   In Core/Net 1, set the MAINT/NORM switch on the CP card to NORM.

———————————— **End of Procedure** ————————————

Test Core/Net 1 and Core/Net 0

Follow the steps in Procedure 144 to test Core/Net 0 and Core/Net 1.

Procedure 144
Testing Core/Net 0 and Core/Net 1

1   Perform a redundancy sanity test using the following sequence:

   LD 135

   STAT CNI   Get status of CNI cards

   STAT CPU   Get status of CPU and memory

   TEST CPU   Test the inactive Core/Net/Net

   TEST CNI c s   Test each inactive CNI card

2   Switch Core/Nets and test the other side (Core/Net 0)

   SCPU   Switch Core/Nets

   TEST CPU   Test the inactive Core/Net/Net

   TEST CNI c s   Test each inactive CNI card

   Note: Testing the Call Processor and CNI cards and synchronizing
   memory can take up to 20 minutes for each test. When the Call Processor
   test is complete, the Call Processor the memory is automatically
   synchronized.

3   Clear the display and minor alarms on both Core/Nets.

   CDSP   Clear the displays on the Core/Nets

   CMAJ   Clear major alarms

   CMIN ALL   Clear minor alarms

4   Get the status of the Core/Nets, CNIs, and memory.

>   **STAT CPU**   Get the status of both Core/Nets
>
>   **STAT CNI**   Get the status of all configured CNIs and memory

Note: You may need to execute the STAT CNI command twice before receiving a response from the system.

>   ********   Exit program

————————   **End of Procedure**   ————————

Switch the Clocks

Procedure 145
Switching the Clocks

1   Verify that the clock controller is assigned to the *active* Core.

>   **LD 60**   Load program
>
>   **SSCK** *x*   Get the status of the clock controllers (*x* is "0" or "1" for Clock 0 or Clock 1
>
>   **SWCK**   Switch the Clock (if necessary)
>
>   ********   Exit program

2   Verify that the Clock Controllers are switching correctly:.

>   **SWCK**   Switch the Clock
>
>   **SWCK**   Switch the Clock again

————————   **End of Procedure**   ————————

If equipped, stat the FIJI rings

Procedure 146
Stat the rings

1   Check the status of Ring 0 and Ring 0.

LD 39	Load program
STAT RING 0	Get the status of Ring 0 (Ring state should be HALF/HALF)

2   Check the status of Ring 0 and Ring 1.

LD 39	Load program
STAT RING 1	Get the status of Ring 0 (Ring state should be HALF/HALF)

——————————   **End of Procedure**   ——————————

Synchronize the hard disks

Procedure 147
Synchronizing the hard disks

1   Access LD 137 and synchronize the hard disks. Synchronization can take
     up to 50 minutes. To ensure that the contents of IODU/C 1 are copied to
     IODU/C 0, verify that IODU/C 0 is disabled.

LD 137	Load program
STAT	Get the status of the IODU/C and redundancy
SYNC	Enter "Yes" to synchronize disks (Wait until the memory synchronization successfully completes before continuing)
TEST CMDU	Perform hard and floppy disk test

2   Get the status of the CMDU's and be sure CMDU 0 is active. Switch if
     necessary.

STAT	Get the status of IODU/C and redundancy
SWAP	Switch CMDU (if necessary)
STAT CMDU	Get the status of the IODU/Cs (Be sure the same IODU/C and CPU are active)
****	Exit program

Perform a data dump

Procedure 148
Performing a data dump

1   Load the Equipment Data Dump Program (LD 43). At the prompt, enter:

   LD 43   Load program

2   When "EDD000" appears on the terminal, enter:

   EDD   Begin the data dump

3   When "DATABASE BACKUP COMPLETE" or "DATADUMP
      COMPLETE" appears on the terminal, enter the following:

   ****   Exit program

———————————   **End of Procedure**   ———————————

> The Parallel Reload process is complete. The system is
> now running on the upgraded CP card.
>
> System is now in redundant mode.

Installing a Call Processor card on Options 61C CP PII, 81C CP PII

CAUTION WITH ESD DEVICES

To avoid damaging equipment from electrostatic discharge, wear a properly connected anti-static wrist strap when working on or near Meridian 1 equipment.

WARNING

Use the procedures in this section if the system is equipped with NT4N43 CP PII Multi-Media Disk Unit (CP PII MMDU). If the system is not equipped with the CP PII MMDU, do not use these procedures

The NT4N43 CP PII MMDU is located in the extreme right hand slot next to the CP PII card. The CP PII MMDU contains the hard drive, floppy drive and CD-ROM drive.

Perform a parallel reload in Meridian 1 Option 61C CP PII and Meridian 1 Option 81C CP PII

Software must be installed on both Core hard drives. Follow the procedures in this section to complete the installation.

Note: To complete these procedures, the system must be working and connected to a terminal.

Prepare for installation

This document implements a source to target approach to performing an upgrade. It is important to correctly identify the source platform, target platform and maintenance window required to perform the upgrade.

Each chapter features check boxes indicating what condition the system should be in at that stage of the upgrade. If the system is not in the proper condition steps should be taken to correct this.

Each section is written to maintain Dial Tone where possible and limit service interruptions.

Before attempting any software or hardware upgrade field personnel should follow the steps in Table 33 below:

Table 33
Prepare for upgrade steps

Procedure Step	Page
Planning	456
Upgrade Checklists	457
Preparing	457
Identifying the proper procedure	458
Connect a terminal	458
Print Site Data	459
Perform a template audit	461
Back up the database (data dump and ABKO)	462
Convert the 4 MB database media to 2 MB database media	465
Identify two unique IP addresses	465

Planning

Planning for an upgrade involves the following tasks:

- Conduct a site inspection to determine proper power and grounding.

- Review the site profile to determine proper foot space if adding new columns or modules.

- Ensure sufficient power for new columns/modules or applications.

- Identify all applications (Call Pilot, SCCS, IP, Meridian Mail etc.) that are currently installed on the source platform.

- Identify and correct outstanding service problems.

- Verify the site log is updated with current trunking, call routing, application notes, and site contact information.

- Review all product bulletins and Nortel Alerts that impact the site.

- Determine if software can be converted on site or must be sent to Nortel Networks.

- Prepare a contingency plan for backing out of the upgrade.

Upgrade Checklists

Upgrade checklists can be found in the "Upgrade checklists" chapter on 707. Engineers may print this section in order to facilitate the upgrade.

Preparing

Preparing for an upgrade involves the following tasks:

- Identify and become familiar with all procedures.

- Verify that all installed applications meet the minimum software requirements for the target platform (see Table 4 on page 28 of Book 1).

- Verify proper cable lengths for the target platform.

- Verify card vintage requirements of the target platform.

- Determine the current patch or Dep lists installed at the source platform.

- Determine the required patch or Dep lists at the target platform.

- Determine and communicate the required maintenance window, contingency plan and the impact to the customer to complete the procedure.

- Perform an inventory on required software and hardware.

- Secure the source software and key code.

- Secure the target software and key code.

- Verify the new key code using the DKA program.

- Print site data.

Identifying the proper procedure

Each procedure has been written in a source to target format. Each procedure features warning boxes and check boxes placed at critical points. Changing the procedure or ignoring the warning boxes could cause longer service interruptions.

> ### IMPORTANT!
> Database backup information should be preserved for a minimum of 5 days.

Connect a terminal

Procedure 149
Connecting a terminal

A maintenance terminal is required to access the Core or Core/Net modules during the upgrade procedure.

1   Connect a terminal to the J25 port on the I/0 panel in the *inactive* Core or Core/Net module.

2   The settings for the terminal are:

    a.   9600 Baud

    b.   7 data

    c.   space parity

    d.   1 stop bit

    e.   full duplex

    f.   XOFF

3   If only one terminal is used for both Core or Core/Net modules, the terminal must be connected from side-to-side to access each module. An "A/B" switch box can also be installed to switch the terminal from side to side.

─────────── **End of Procedure** ───────────

Print Site Data

Print site data to preserve a record of the system configuration (Table 34 on page 459). Verify that all information is correct. Make corrections as necessary.

Note: Items marked with an asterisk (*) are required. Other items are recommended for a total system status.

Table 34
Print site data (Part 1 of 3)

Site data	Print command	
Terminal blocks for all TNs	LD 20	
	REQ	PRT
	TYPE	TNB
	CUST	<cr>
Directory Numbers	LD 20	
	REQ	PRT
	TYPE	DNB
	CUST	<cr>
Attendant Console data block for all customers	LD 20	LD 20
	REQ	PRT
	TYPE	ATT, 2250
	CUST	<cr>
*Customer data block for all customers	LD 21	LD 21
	REQ	PRT
	TYPE	CDB
	CUST	<cr>

Table 34
Print site data (Part 2 of 3)

Site data	Print command	
Route data block for all customers	LD 21	
	REQ	PRT
	TYPE	RDB
	CUST	Customer number
	ROUT	<cr>
	ACOD	<cr>
*Configuration Record	LD 22	
	REQ	PRT
	TYPE	CFN
*Software packages	LD 22	
	REQ	PRT
	TYPE	PKG
*Software issue, ROM and tape ID	LD 22	
	REQ	ISS
	REQ	ROM
	REQ	TID
* Peripheral software versions	LD 22	
	REQ	PRT
	TYPE	PSWV
ACD data block for all customers	LD 23	
	REQ	PRT
	TYPE	ACD
	CUST	Customer Number
	ACDN	ACD DN (or <CR>)
Superloop card IDs and software version (peripheral controller, superloop network and controller cards)	LD 32	
		IDC loop

Table 34
Print site data (Part 3 of 3)

Site data	Print command	
Multi-purpose ISDN Signaling Processor (MISP) card	LD 27	
	REQ	PRT
	TYPE	MISP
	LOOP	loop number (0-158)
	APPL	<cr>
	PH	<cr>
DTI/PRI data block for all customers	LD 73	
	REQ	PRT
	TYPE	DDB
Note: Items marked with asterisks (*) are required printout for conversion. Other items are recommended for a total system status.		

Perform a template audit

A template audit (LD 01) reviews the templates in your system. Corrupted and duplicate templates are cleaned up. An example of the information generated during the audit is listed below.

Note: The template audit may take an extended period of time on large systems. Run the audit during a low traffic period.

> **CAUTION**
>
> **Loss of Data**
>
> Do not abort this overlay until the audit is complete. If the overlay is interrupted, data will be corrupted.

LD 01   The audit begins as soon as LD 01 is entered.

TEMPLATE AUDIT

STARTING PBX TEMPLATE SCAN

TEMPLATE 0001 USER COUNT LOW	**CHECKSUM OK**
TEMPLATE 0002 USER COUNT HIGH	**CHECKSUM OK**
TEMPLATE 0003 NO USERS FOUND	
STARTING SL1 TEMPLATE SCAN	
TEMPLATE 0001 USER COUNT OK	**CHECKSUM OK**
•	
•	
TEMPLATE 0120 USER COUNT OK	**CHECKSUM OK**
TEMPLATE AUDIT COMPLETE	

Back up the database (data dump and ABKO)

To back up system data, complete the following two procedures.

1   Perform a data dump to save all system memory to the hard disk.

2   Perform a ABKO (attended backup) to save the database to a spare set of floppy disks.

Procedure 150
Performing a data dump

1   Log into the system.

2   Load the Equipment Data Dump Program (LD 43). At the prompt, enter:

   LD 43   Load program

3   When "EDD000" appears on the terminal, enter:

   EDD   Begin the data dump

> **CAUTION**
>
> **Loss of Data**
>
> If the data dump does not succeed, do not continue. Contact your technical support organization. You must correct a data dump problem before the system can be upgraded.

4   The messages "DATADUMP COMPLETE" and "DATABASE BACKUP COMPLETE" will appear once the data dump is complete.

    ****   Exit program

--------------------- **End of Procedure** ---------------------

Procedure 151
Performing an ABKO (save the database to floppies)

1   Insert floppy diskettes into BOTH floppy disk drives in each Core IODU/C or MMDU.

Note: If the file is too large to fit on a single floppy disk, the ABKO command will compress the data. If the compressed data is still too large to fit on a single disk, both floppy disks in the two IODU/C drives will be used. Be sure to insert floppy disks into BOTH IODU/C drives before the ABKO backup is begun.

2   Load the Customer Configuration Backup and Restore (LD 143). At the prompt, enter:

    LD 143   Load program

3   Run the ABKO backup (LD 143).

    ABKO   Run the backup

Result: If the backup is successful, the system displays a message that states that the database backup is complete and generates a report that indicates which floppy drives were used.

4   If there are validation errors, repeat the procedure.

CAUTION

Loss of Data

If the backup is not successful, do not continue;
contact your technical support organization. Any
backup problems must be corrected before the
system is upgraded to CP PII.

5   Once the backup is complete, type:

    ****   Exit program

———————— **End of Procedure** ————————

Convert the 4 MB database media to 2 MB database media

> ⚠ **IMPORTANT!**
>
> Database conversion for Meridian 1 Options 21E, 51, 61,71, STE, NT and XT must be completed by Nortel Networks Software Conversion Lab. Consult the current Nortel Networks price book for cost and contact information.
>
> If the system is equipped with IOP/CMDU cards the database must be converted with the Database Transfer utility. See "Database transfer" on page 179.
>
> If the system is equipped with IODUC cards, the database should be data dumped (EDD) to a blank 2 MB floppy.
>
> All systems can be converted by Nortel Networks in the software conversion lab.

If the system is equipped with IOP/CMDU cards the database must be converted with the Database Transfer utility. See "Database transfer" on page 179.

If the system is equipped with IODUC cards, the database should be data dumped (EDD) to a blank 2 MB floppy.

Identify two unique IP addresses

Each CP PII system must be configured with two unique IP addresses for LAN identification and communication. One IP address is defined for the *active* Core. The second IP address is defined for the *inactive* Core. In this configuration, the *active* Core (either Core 0 or Core 1) that handles call processing is always identified by the same IP address.

- Contact your systems administrator to identify two unique IP addresses before the upgrade.

- For instructions to configure these IP numbers, see "Configuring IP addresses" on page 667 of Book 1.

Perform installation

Verify memory

Succession 3.0 Software

Table 35 lists the memory requirements of Succession 3.0 Software.

Table 35
Succession 3.0 Software memory requirements

Minimum memory requirement			
System type	**Flash memory requirement**	**DRAM memory requirement**	**Total memory requirement**
Meridian 1 Option 51C/61C	32 MB	48 MB	128 MB
Meridian 1 Option 61C CP PII	64 MB	64 MB	256 MB
Meridian 1 Option 81/81C	32 MB	64 MB	96 MB
• Meridian 1 Option 81/81C systems operating on Call Processor 68060 or 68060E with five or fewer network groups (including Fiber Network Fabric systems)	32 MB	64 MB	96 MB
• any Meridian 1 Option 81/81C systems operating on Call Processor 68040	32 MB	64 MB	96 MB
Meridian 1 Option 81/81C Meridian 1 Option 81/81C systems operating on Call Processor 68060 or 68060E with six or more network groups	64 MB	96 MB	160 MB
Meridian 1 Option 81C CP PII	128 MB	128 MB	256 MB

Perform data dump

Procedure 152
Backing up the current data

1   Load the Equipment Data Dump Program (LD 43). At the prompt, enter:

    LD 43   Load program

2   When "EDD000" appears on the terminal, enter:

    EDD   Begin data dump

3   When "DATABASE BACKUP COMPLETE" or "DATADUMP COMPLETE" appears on the terminal, enter

    ****   Exit program

> **CAUTION**
>
> **Loss of Data**
>
> If the data dump is not successful, do not continue. Contact the technical support organization. Correct any data dump problem before continuing.

> **IMPORTANT!**
>
> Database backup information should be preserved for a minimum of 5 days.

———— **End of Procedure** ————

Check the status of the hardware

Procedure 153
Determining hardware status

1   Load LD 137 to check the status of the hard disks.

LD 137	Load program
STAT	Get the status of the hard disks
TEST CMDU	Perform hard and floppy disk test

2   Load LD 135 and check the status of the CPs, CNIs and memories.

LD 135	Load program
STAT CPU	Get the status of both CPs and memory
STAT CNI	Get the status of all configured CNIs

——————————— **End of Procedure** ———————————

Check that Core 0 is active

Check that Core 0 is active. If Core 1 is active, make Core 0 active:

LD 135	Load program
STAT CPU	Get the status of the CPUs
SCPU	Switch to Core 0 (if necessary)

Split the Cores

From the active side, split the cores:

LD 135	Load program
SPLIT	Enter Split on the active core
****	Exit program

✔️ The system is now in split mode with Core/Net 0 active and Clock Controller 0 active.

Upgrade Core/Net 1 hardware

Procedure 154
Upgrading Core/Net 1 hardware

1   Tag all faceplate cables on the CP card in Core/Net 1.

2   Disconnect all faceplate cables on the CP card in Core/Net 1

3   Remove the CP card from the system in Core/Net 1

4   Install the replacement CP card in Core/Net 1.

Reconnect all faceplate cables.

———————————— **End of Procedure** ————————————

Install the software on Core/Net

Procedure 155
Installing the software on Core/Net 1

1   Install the CD-ROM into the CD-ROM drive in the CP PII MMDU:

    a.   Press the button on the CD-ROM drive to open the CD-ROM disk holder.

    b.   Place the CD-ROM disk into the holder with the disk label facing up. Use the four tabs to secure the CD-ROM drive.

    c.   Press the button to close the CD-ROM disk holder.
    Do not push the holder in by hand.

    Note: If the CD-ROM is not in the CD-ROM drive, the installation will not continue. Insert the CD-ROM to continue.

2   Place the CP PII Install floppy disk into the CP PII MMDU floppy drive.

    Note: If a problem is detected during the system verification, the install stops, prints an error message, and aborts the installation.
    If the verification is not successful, do not continue; contact the technical support organization.

3   Press the manual RESET button on the CP PII card faceplate.

Before the install runs, the system validates hard disk partitioning which takes about five minutes. The screen displays:

Testing partition 0

0 percent done...1 percent done......99 percent done....100 percent done

Testing partition 1

0 percent done...1 percent done......99 percent done....100 percent done

Testing partition 2

0 percent done...1 percent done......99 percent done....100 percent completed!

Disk physical checking is completed!

Validate hard drive partition number and size...

There are 3 partitions in disk 0:
The size of partition 0 of disk 0 is XX Mbyte
The size of partition 0 of disk 0 is XX Mbyte
The size of partition 0 of disk 0 is XX Mbyte

Disk partitions and sectors checking is completed!

The system then checks the partitions for any errors. The screen displays the following for each partition:

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ver: 2.6 FCS

Disk Check In Progress...

       total disk space (bytes): XX

       bytes in each allocation unit: XX

       total allocation units on disk: XX

       bad allocation units: XX

       available bytes on disk: XX

       available clusters on disk: XX

       maximum available contiguous chain (bytes): XX

       available space fragmentation (%): XX

       clusters allocated: XX

       Done Checking Disk.

          chkdsk for PART_X OK!

          pmDosFsCheck is completed!

4   Select yes or (no) when asked if a Signaling Server is connected:

System Date and Time now is:

Day-Month-Year, Hour:Min:Sec

Succession Enterprise Software/Database/BOOTROM CDROM INSTALL Tool

Does this System have a Signaling Server.....? (Default - No)

Please enter:

<CR> -> <n> - No

<y> - Yes

Enter Choice>

5   The system then enters the Main Menu for keycode authorization. Remove the CP PII Install Program diskette and insert the Keycode diskette.

M A I N   M E N U

The Software Installation Tool will install or upgrade Succession Enterprise System Software, Database and the CP-BOOTROM. You will be prompted throughout the installation and given the opportunity to quit at any time.

Please enter:

<CR> -> <u> - To Install menu

<t> - To Tools menu.

<q> - Quit.

Enter Choice> **<CR>**

>Validating Keycode

The provided keycode authorizes the install of X210300 software

(all subissues) for machine type XXXX

(XXX processor on XXXX System)

> **IMPORTANT!**
>
> Remove keycode floppy disk at this time and insert the database backup disk.

6   The screen displays the Install Menu. Confirm that the keycode matches the CD-ROM release:

 Please confirm that this keycode matches the CDROM Release

        Please enter:

<CR> -> <y> - Yes, the keycode matches. Go on to Install Menu.

        <n> - No, the keycode does not match. Try another keycode diskette.

        Enter Choice> **<CR>**

        >Obtain database file names

7   Enter **a** to install the Software and CP-BOOTROM:

I N S T A L L   M E N U

The Software Installation Tool will install or upgrade Succession Enterprise System Software, Database and the CP-BOOTROM. You will be prompted throughout the installation and given the opportunity to quit at any time.

Please enter:

<CR> -> <a> - To install Software, CP-BOOTROM.

<b> - To install Software, Database, CP-BOOTROM.

<c> - To install Database only.

<d> - To install CP-BOOTROM only.

<t> - To go to the Tools menu.

<k> - To install Keycode only.

For Feature Expansion, use OVL143.

<p> - To install 3900 set Languages.

<q> - Quit.

Enter Choice> **a**

---

8   Verify the CD-ROM version:

Please insert the installation CDROM into the drive on Core X.

The labeled side of the CDROM should be side up in the CDROM tray.

Please enter:

<CR> -> <a> - CDROM is now in drive. Continue with s/w checking.

<q> - Quit.

Enter Choice> **<CR>**

The installation CDROM contains version X210300_K.

Please enter:

<CR> -> <y> - Yes, this is the correct version. Continue.

<n> - No, this is not the correct version. Try another CDROM.

or keycode disk

Enter Choice> **<CR>**

>copying direct.rec from /cd0/0300_KMR.N33/target/p/sl1/ direct.rec to /u/direct.rec

>Updating /u/direct.rec

>Processing the Install Control file

>Installing release 0300K

---

9   Confirm all options before installing the software:

```
                    INSTALLATION STATUS SUMMARY

                 ---------------------------------------------

        ============+========+========+============
     |     Option      |     Choice     | Status |    Comment         |
        ================+========+========+=========
     | SW: CD to disk  |      yes       |        | install for rel 0300K |
        ============+========+========+=============
     |     Option      |     Choice     | Status |    Comment         |
        ================+========+========+=========
     |    Database     |      no        |        |                    |

     |     Option      |     Choice     | Status |    Comment         |
        ================+========+========+=========
     | CP-BOOTROM  |      yes       |        |                    |


         Please enter:<CR> -> <y> - Yes, start Installation.

           <n> - No, stop Installation. Return to the Main Menu.

 Enter Choice> <CR>

 >Checking System Configuration

 You selected to upgrade the system from release: XXXX to release:
 0300K.

 This will erase all old system files.
```

> Database files will NOT be erased. You may continue installing the software or quit now and leave your system unchanged.
>
> Please enter:
>
> <CR> -> <a> - Continue with Upgrade.
>
> <q> - Quit.
>
> Enter Choice> **<CR>**
>
> >Starting Software Install
>
>   >Upgrading from release XXXX to release 0300K

10 After a number of files are copied over, select a PSDL file to install. The PSDL file contains the loadware for all downloadable cards in the system and loadware for M3900 series sets.

Select one of the six PSDL files

<1> Global 10 Languages

<2> Western Europe 10 Languages

<3> Eastern Europe 10 Languages

<4> North America 6 Languages

<5> Spare Group A

<6> Spare Group B

The languages contained in each selection are outlined as follows:

- 1 – Global 10 Languages (Release 3) English, French, German, Spanish, Swedish, Italian, Norwegian, Brazilian Portuguese, Finnish, Japanese Katakana.

- 2 – Western Europe 10 Languages (Release 3) English, French, German, Spanish, Swedish, Italian, Norwegian, Brazilian Portuguese, Finnish, Danish.

- 3 – Eastern Europe 10 Languages (Release 3) English, French, German, Dutch, Polish, Czech, Hungarian, Russian, Latvian, Turkish.

- 4 – North America six Languages (Release 3) English, French, German, Spanish, Brazilian Portuguese, Japanese Katakana.

- 5 – Spare Group A.

- 6 – Spare Group B.

11 Continue with upgrade when prompted. Select a database to install:

Software release 0300K was installed successfully on Core X.

   All files were copied from CDROM to the hard disk.

   Please press <CR> when ready... **<CR>**

12 Enter **q** to quit:

I N S T A L L   M E N U

    The Software Installation Tool will install or upgrade Succession Enterprise System Software, Database and the CP-BOOTROM. You will be prompted throughout the installation and given the opportunity to quit at any time.

    Please enter:

<CR> -> <a> - To install Software, CP-BOOTROM.

    <b> - To install Software, Database, CP-BOOTROM.

    <c> - To install Database only.

    <d> - To install CP-BOOTROM only.

    <t> - To go to the Tools menu.

    <k> - To install Keycode only.

      For Feature Expansion, use OVL143.

    <p> - To install 3900 set Languages.

    <q> - Quit.

    Enter Choice> **q**

13 The system then prompts you to confirm and reboot:

You selected to Quit the Software Installation Tool.

You may reboot the system or return to the Main Menu.

Before rebooting the system, remove Install diskette from the floppy drive(s).

DO NOT REBOOT USING BUTTON!!

Please enter:

<CR> -> <a> - Reboot the system.

<m> - Return to the Main menu.

Enter Choice> **<CR>**

>Removing temporary files

>Remove /u/diskXXXX.sys

>Quit Install. Reboot system...

—————————— **End of Procedure** ——————————

Check for peripheral software download

Access LD 22 and print the Target peripheral software version. (The Source peripheral software version was printed during the pre-conversion procedure.)

If there is a difference between the Source and Target peripheral software version, a forced download occurs during initialization when coming out of parallel reload. System initialization takes longer and established calls on IPE are dropped.

LD 22	Load program.
REQ	Print.
TYPE	PSWV.
ISS	Print issue and release.
TID	Print Tape/Aux ID.
ISSP	Print System and patch information.
****	Exit program.

Transfer call processing from Core/Net 0 to Core/Net 1

CAUTION

Service Interruption

Call Processing will be interrupted! Perform these next steps carefully. This is the point at which service is interrupted. Calls in process are interrupted, especially if Peripheral Software Download takes place. Some calls might be dropped.

WARNING

System initialization may take up to 15 minutes or longer.

Follow the steps in Procedure 108 on to transfer call processing from Core/Net 0 to Core/Net 1.

IMPORTANT!

Power up all applications (Meridian Mail, Call Pilot, Symposium).

Procedure 156
Transferring call processing from Core/Net 0 to Core/Net 1

1   From Core/Net 0, the active side, transfer call processing to Core/Net 1:

   LD 135   Load program

   CUTOVR   The inactive CP become active

> **IMPORTANT!**
>
> Power down all applications (Meridian Mail, Call
> Pilot, Symposium).

─────── **End of Procedure** ───────

Test Core/Net 1

Procedure 157
Testing call processing on Core/Net 1

1   Check for dial tone.

2   Make internal, external, and network calls.

3   Check attendant console activity.

4   Check DID trunks.

5   Check any auxiliary processors.

─────── **End of Procedure** ───────

> Core/Net 1 is active, Clock Controller 1 is active, and the
> system is in split mode. From this point forward, Core/
> Net 0 is being upgraded with new software.

Upgrade Core/Net 0 hardware

Procedure 158
Upgrading Core/Net 0 hardware

1   Tag all faceplate cables on the CP card in Core/Net 0.

2   Disconnect all faceplate cables on the CP card in Core/Net 0.

3   Remove the CP card from the system in Core/Net 0.

4   Install the replacement CP card in Core/Net 0.

──────────   **End of Procedure**   ──────────

Install software on Core/Net 0

Procedure 159
Installing the software and converting the database

1   Check that a terminal is connected to J25 on Core/Net 0.

2   In Core/Net 0, install the CD-ROM into the CD-ROM drive in the MMDU:

   a.   Press the button on the CD-ROM drive to open the CD-ROM disk holder.

   b.   Place the CD-ROM disk into the holder with the disk label showing.

   c.   Press the button again to close the CD-ROM disk holder.
        Do not push the holder in by hand.

   Note: If the CD-ROM is not in the CD-ROM drive, the installation will not continue. Insert the CD-ROM to continue.

3   Place the CP PII Install floppy disk into the MMDU floppy drive.

   Note: If a problem is detected during the system verification, Install stops, prints an error message, and aborts the installation. If the verification is not successful, do not continue; contact your technical support organization.

4   Press the manual RESET button on the CP PII card faceplate.

Before the install runs, the system validates hard disk partitioning which takes about five minutes. The screen displays:

Testing partition 0

       0 percent done...1 percent done......99 percent done....100 percent done

Testing partition 1

       0 percent done...1 percent done......99 percent done....100 percent done

Testing partition 2

       0 percent done...1 percent done......99 percent done....100 percent completed!

Disk physical checking is completed!

Validate hard drive partition number and size...

There are 3 partitions in disk 0:
The size of partition 0 of disk 0 is XX Mbyte
The size of partition 0 of disk 0 is XX Mbyte
The size of partition 0 of disk 0 is XX Mbyte

Disk partitions and sectors checking is competed!

The system then checks the partitions for any errors. The screen displays the following for each partition:

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Disk Check In Progress...

      total disk space (bytes): XX

      bytes in each allocation unit: XX

      total allocation units on disk: XX

      bad allocation units: XX

      available bytes on disk: XX

      available clusters on disk: XX

      maximum available contiguous chain (bytes): XX

      available space fragmentation (%): XX

      clusters allocated: XX

Done Checking Disk.

      chkdsk for PART_X OK!

      pmDosFsCheck is completed!

5 Select yes or (no) when asked if a Signaling Server is connected:

> System Date and Time now is:
>
> Day-Month-Year, Hour:Min:Sec
>
> Succession Enterprise Software/Database/BOOTROM CDROM INSTALL Tool
>
> Does this System have a Signaling Server.....? (Default - No)
>
> Please enter:
>
> <CR> -> <n> - No
>
> <y> - Yes
>
> Enter Choice>

6 The system then enters the Main Menu for keycode authorization. Remove the CP PII Install Program diskette and insert the Keycode diskette.

> M A I N   M E N U
>
> The Software Installation Tool will install or upgrade Succession Enterprise System Software, Database and the CP-BOOTROM. You will be prompted throughout the installation and given the opportunity to quit at any time.
>
> Please enter:
>
> <CR> -> <u> - To Install menu
>
> <t> - To Tools menu.
>
> <q> - Quit.
>
> Enter Choice> **<CR>**
>
> >Validating Keycode
>
> The provided keycode authorizes the install of X210300 software
>
> (all subissues) for machine type XXXX
>
> (XXX processor on XXXX System)

> **IMPORTANT!**
>
> Remove keycode floppy disk at this time and insert the database backup disk.

7   The screen displays the Install Menu. Confirm that the keycode matches the CD-ROM release:

Please confirm that this keycode matches the CDROM Release

    Please enter:

<CR> -> <y> - Yes, the keycode matches. Go on to Install Menu.

    <n> - No, the keycode does not match. Try another keycode diskette.

    Enter Choice> **<CR>**

    >Obtain database file names

8   Enter **a** to install the Software CP-BOOTROM:

```
              I N S T A L L   M E N U

      The Software Installation Tool will install or upgrade
Succession Enterprise System Software, Database and the CP-
BOOTROM. You will be prompted throughout the installation and
given the opportunity to quit at any time.

      Please enter:

<CR> -> <a> - To install Software, CP-BOOTROM.

      <b> - To install Software, Database, CP-BOOTROM.

      <c> - To install Database only.

      <d> - To install CP-BOOTROM only.

      <t> - To go to the Tools menu.

      <k> - To install Keycode only.

          For Feature Expansion, use OVL143.

      <p> - To install 3900 set Languages.

      <q> - Quit.

      Enter Choice> b
```

9   Verify the CD-ROM version:

Please insert the installation CDROM into the drive on Core X.

The labeled side of the CDROM should be side up in the CDROM tray.

Please enter:

<CR> -> <a> - CDROM is now in drive. Continue with s/w checking.

<q> - Quit.

Enter Choice> **<CR>**

The installation CDROM contains version X210300_K.

Please enter:

<CR> -> <y> - Yes, this is the correct version. Continue.

<n> - No, this is not the correct version. Try another CDROM.

or keycode disk

Enter Choice> **<CR>**

>copying direct.rec from /cd0/0300_KMR.N33/target/p/sl1/ direct.rec to /u/direct.rec

>Updating /u/direct.rec

>Processing the Install Control file

>Installing release 0300K

---

10 Confirm all options before installing the software:

```
                    INSTALLATION STATUS SUMMARY

                  ---------------------------------------

     ============+=======+=======+============
    |   Option    |   Choice   | Status |   Comment      |
    ================+=======+=======+=========
   | SW: CD to disk |    yes     |       | install for rel 0300K |
     ============+========+========+=============
    |   Option    |   Choice   | Status |   Comment      |
    ================+=======+=======+=========
   |   Database   |    no      |       |                |

    |   Option    |   Choice   | Status |   Comment      |
    ================+=======+=======+=========
   | CP-BOOTROM |    yes      |       |                |


      Please enter:<CR> -> <y> - Yes, start Installation.

       <n> - No, stop Installation. Return to the Main Menu.
```

Enter Choice> **<CR>**

>Checking System Configuration

You selected to upgrade the system from release: XXXX to release: 0300K.

This will erase all old system files.

Database files will NOT be erased. You may continue installing the software or quit now and leave your system unchanged.

Please enter:

<CR> -> <a> - Continue with Upgrade.

<q> - Quit.

Enter Choice> **<CR>**

>Starting Software Install

>Upgrading from release XXXX to release 0300K

11 After a number of files are copied over, select a PSDL file to install. The PSDL file contains the loadware for all downloadable cards in the system and loadware for M3900 series sets.

Select one of the six PSDL files

<1> Global 10 Languages

<2> Western Europe 10 Languages

<3> Eastern Europe 10 Languages

<4> North America 6 Languages

<5> Spare Group A

<6> Spare Group B

The languages contained in each selection are outlined as follows:

- 1 – Global 10 Languages (Release 3) English, French, German, Spanish, Swedish, Italian, Norwegian, Brazilian Portuguese, Finnish, Japanese Katakana.

- 2 – Western Europe 10 Languages (Release 3) English, French, German, Spanish, Swedish, Italian, Norwegian, Brazilian Portuguese, Finnish, Danish.

- 3 – Eastern Europe 10 Languages (Release 3) English, French, German, Dutch, Polish, Czech, Hungarian, Russian, Latvian, Turkish.

- 4 – North America six Languages (Release 3) English, French, German, Spanish, Brazilian Portuguese, Japanese Katakana.

- 5 – Spare Group A.

- 6 – Spare Group B.

12 Continue with upgrade when prompted. Select a database to install:

> Software release 0300K was installed successfully on Core X.
>
> All files were copied from CDROM to the hard disk.
>
> Please press <CR> when ready... **<CR>**
>
> Enter Choice> **<CR>**

13 Enter **<CR>** when prompted, returning the system to the Install Menu.

14 Enter **q** to quit:

```
                    I N S T A L L   M E N U

        The Software Installation Tool will install or upgrade
    Succession Enterprise System Software, Database and the CP-
    BOOTROM. You will be prompted throughout the installation and
    given the opportunity to quit at any time.

        Please enter:

    <CR> -> <a> - To install Software, CP-BOOTROM.

        <b> - To install Software, Database, CP-BOOTROM.

        <c> - To install Database only.

        <d> - To install CP-BOOTROM only.

        <t> - To go to the Tools menu.

        <k> - To install Keycode only.

            For Feature Expansion, use OVL143.

        <p> - To install 3900 set Languages.

        <q> - Quit.

        Enter Choice> q
```

15 The system then prompts you to confirm and reboot:

You selected to Quit the Software Installation Tool.

You may reboot the system or return to the Main Menu.

Before rebooting the system, remove Install diskette from the floppy drive(s).

DO NOT REBOOT USING BUTTON!!

Please enter:

<CR> -> <a> - Reboot the system.

<m> - Return to the Main menu.

Enter Choice> **<CR>**

>Removing temporary files

>Remove /u/diskXXXX.sys

>Quit Install. Reboot system...

End of Procedure

Enable system redundancy

Procedure 160
Enabling system redundancy

1   From the active CPU, Core/Net 1, enable redundancy:

   LD 135   Load program

   JOIN   Synchronize the memory and drives

─────────────────── **End of Procedure** ───────────────────

> Core/Net 1 is active, Clock Controller 1 is active, and the
> system is in redundant mode. Core/Net 0 is inactive,
> Clock Controller 0 is inactive.

Test Core/Net 1 and Core/Net 0

Procedure 161
Testing Core/Net 1 and Core/Net 0

From the active CPU, Core/Net 1, perform these tests:

1   Perform a redundancy sanity test using the following sequence.

LD 135	Load program
STAT CNI c s	Get status of cCNI cards
STAT CPU	Get status of CPU and memory
TEST CPU	Test the CP PII card in both Core/Nets
TEST CNI c s	Test each cCNI card (core, slot)
STAT SUTL	Get status of System Utility (main and Transition) cards
TEST SUTL	Test the System Utility (main and Transition) cards
TEST IPB	Test the Inter Processor Bus
TEST LCD	Test LCDs
TEST LED	Test LEDs

2   Test system redundancy:

LD 137	Load program
TEST RDUN	Test redundancy
DATA RDUN	
TEST CMDU	Test the CP PII MMDU card

3 Switch Cores and test the other side (Core/Net 0).

LD 135	Load program
SCPU	Switch cores
TEST CPU	Test the inactive Core/Net
STAT CNI c s	Get status of cCNI (both main and Transition) cards
TEST CNI c s	Test cCNI (both main and Transition) cards
STAT SUTL	Get status of System Utility card
TEST SUTL	Test System Util card
TEST IPB	Test Inter Processor Bus
TEST LCD	Test LCDs
TEST LED	Test LEDs

4 Clear the display and minor alarms on both Cores.

CDSP	Clear the displays on the Cores
CMAJ	Clear major alarms
CMIN ALL	Clear minor alarms

5 Get the status of the Cores, CNIs, and memory.

STAT CPU	Get the status of both Cores and redundancy
STAT CNI c s	Get the status of all configured cCNIs (both main and Transition) cards
****	Exit program

———————————————— **End of Procedure** ————————————————

Perform a data dump

Procedure 162
Performing a data dump

1   Load the LD 43. At the prompt, enter:

    LD 43   Load program

2   Insert a floppy disk into the CP PII MMDU to capture the backup.

3   When "EDD000" appears on the terminal, enter:

    EDD   Begin the data dump

4   When "DATABASE BACKUP COMPLETE" or "DATADUMP
    COMPLETE" appears on the terminal, enter:

    ****   Exit program

	CAUTION
⚠	**Loss of Data** If the data dump is not successful, do not continue. Contact the technical support organization. Correct any data dump problem before continuing.

———————— **End of Procedure** ————————

Note: Proceed to Procedure on .

✔	The parallel reload procedure is complete.

Installing an IODU/C on Meridian 1 Options 61C, 81, 81C

CAUTION WITH ESD DEVICES

To avoid damaging equipment from electrostatic discharge, wear a properly connected anti-static wrist strap when working on or near Meridian 1 equipment.

WARNING

Use the procedures in this section if the system is equipped with NT5D61 Input Output Disk Unit with CD-ROM (IODU/C) card(s). If the system is not equipped with the IODU/C card, do not use these procedures

This procedure is used to upgrade CP1, CP2, CP3 and CP4 systems with IOP/CMDU to IODUC cards.

To better understand the process, read through the entire procedure before beginning the conversion.

Prepare for installation

This document implements a source to target approach to performing an upgrade. It is important to correctly identify the source platform, target platform and maintenance window required to perform the upgrade.

Each chapter features check boxes indicating what condition the system should be in at that stage of the upgrade. If the system is not in the proper condition steps should be taken to correct this.

Each section is written to maintain Dial Tone where possible and limit service interruptions.

Before attempting any software or hardware upgrade field personnel should follow the steps in Table 36:

Table 36
Prepare for upgrade steps

Procedure Step	Page
Planning	501
Upgrade Checklists	502
Preparing	502
Identifying the proper procedure	503
Connect a terminal	503
Print Site Data	504
Perform a template audit	506
Back up the database (data dump and ABKO)	507
Convert the 4 MB database media to 2 MB database media	510
Identify two unique IP addresses	510

Planning

Planning for an upgrade involves the following tasks:

- Conduct a site inspection to determine proper power and grounding.

- Review the site profile to determine proper foot space if adding new columns or modules.

- Ensure sufficient power for new columns/modules or applications.

- Identify all applications (Call Pilot, SCCS, IP, Meridian Mail etc.) that are currently installed on the source platform.

- Identify and correct outstanding service problems.

- Verify the site log is updated with current trunking, call routing, application notes, and site contact information.

- Review all product bulletins and Nortel Alerts that impact the site.

- Determine if software can be converted on site or must be sent to Nortel Networks.

- Prepare a contingency plan for backing out of the upgrade.

Upgrade Checklists

Upgrade checklists can be found in the "Upgrade checklists" chapter on . Engineers may print this section in order to facilitate the upgrade.

Preparing

Preparing for an upgrade involves the following tasks:

- Identify and become familiar with all procedures.

- Verify that all installed applications meet the minimum software requirements for the target platform (see Table 4 on of Book 1).

- Verify proper cable lengths for the target platform.

- Verify card vintage requirements of the target platform.

- Determine the current patch or Dep lists installed at the source platform.

- Determine the required patch or Dep lists at the target platform.

- Determine and communicate the required maintenance window, contingency plan and the impact to the customer to complete the procedure.

- Perform an inventory on required software and hardware.

- Secure the source software and key code.

- Secure the target software and key code.

- Verify the new key code using the DKA program.

- Print site data.

Identifying the proper procedure

Each procedure has been written in a source to target format. Each procedure features warning boxes and check boxes placed at critical points. Changing the procedure or ignoring the warning boxes could cause longer service interruptions.

> ### IMPORTANT!
>
> Database backup information should be preserved for a minimum of 5 days.

Connect a terminal

Procedure 163
Connecting a terminal

A maintenance terminal is required to access the Core or Core/Net modules during the upgrade procedure.

1 Connect a terminal to the J25 port on the I/0 panel in the *inactive* Core or Core/Net module.

2 The settings for the terminal are:

   a. 9600 Baud

   b. 7 data

   c. space parity

   d. 1 stop bit

   e. full duplex

   f. XOFF

3 If only one terminal is used for both Core or Core/Net modules, the terminal must be connected from side-to-side to access each module. An "A/B" switch box can also be installed to switch the terminal from side to side.

───────────── **End of Procedure** ─────────────

Print Site Data

Print site data to preserve a record of the system configuration (Table 37 on page 504). Verify that all information is correct. Make corrections as necessary.

Note: Items marked with an asterisk (*) are required. Other items are recommended for a total system status.

Table 37
Print site data (Part 1 of 3)

Site data	Print command	
Terminal blocks for all TNs	LD 20	
	REQ	PRT
	TYPE	TNB
	CUST	<cr>
Directory Numbers	LD 20	
	REQ	PRT
	TYPE	DNB
	CUST	<cr>
Attendant Console data block for all customers	LD 20	LD 20
	REQ	PRT
	TYPE	ATT, 2250
	CUST	<cr>
*Customer data block for all customers	LD 21	LD 21
	REQ	PRT
	TYPE	CDB
	CUST	<cr>

Table 37
Print site data (Part 2 of 3)

Site data	Print command	
Route data block for all customers	LD 21	
	REQ	PRT
	TYPE	RDB
	CUST	Customer number
	ROUT	<cr>
	ACOD	<cr>
*Configuration Record	LD 22	
	REQ	PRT
	TYPE	CFN
*Software packages	LD 22	
	REQ	PRT
	TYPE	PKG
*Software issue, ROM and tape ID	LD 22	
	REQ	ISS
	REQ	ROM
	REQ	TID
* Peripheral software versions	LD 22	
	REQ	PRT
	TYPE	PSWV
ACD data block for all customers	LD 23	
	REQ	PRT
	TYPE	ACD
	CUST	Customer Number
	ACDN	ACD DN (or <CR>)
Superloop card IDs and software version (peripheral controller, superloop network and controller cards)	LD 32	
		IDC loop

Table 37
Print site data (Part 3 of 3)

Site data	Print command	
Multi-purpose ISDN Signaling Processor (MISP) card	LD 27	
	REQ	PRT
	TYPE	MISP
	LOOP	loop number (0-158)
	APPL	<cr>
	PH	<cr>
DTI/PRI data block for all customers	LD 73	
	REQ	PRT
	TYPE	DDB
Note: Items marked with asterisks (*) are required printout for conversion. Other items are recommended for a total system status.		

Perform a template audit

A template audit (LD 01) reviews the templates in your system. Corrupted and duplicate templates are cleaned up. An example of the information generated during the audit is listed below.

Note: The template audit may take an extended period of time on large systems. Run the audit during a low traffic period.

⚠	**CAUTION**
	Loss of Data
	Do not abort this overlay until the audit is complete. If the overlay is interrupted, data will be corrupted.

LD 01   The audit begins as soon as LD 01 is entered.

TEMPLATE AUDIT

STARTING PBX TEMPLATE SCAN

TEMPLATE 0001 USER COUNT LOW	**CHECKSUM OK**
TEMPLATE 0002 USER COUNT HIGH	**CHECKSUM OK**
TEMPLATE 0003 NO USERS FOUND	
STARTING SL1 TEMPLATE SCAN	
TEMPLATE 0001 USER COUNT OK	**CHECKSUM OK**
•	
•	
TEMPLATE 0120 USER COUNT OK	**CHECKSUM OK**
TEMPLATE AUDIT COMPLETE	

Back up the database (data dump and ABKO)

To back up system data, complete the following two procedures.

1   Perform a data dump to save all system memory to the hard disk.

2   Perform a ABKO (attended backup) to save the database to a spare set of floppy disks.

Procedure 164
Performing a data dump

1   Log into the system.

2   Load the Equipment Data Dump Program (LD 43). At the prompt, enter:

    LD 43   Load program

3   When "EDD000" appears on the terminal, enter:

    EDD   Begin the data dump

> **CAUTION**
>
> **Loss of Data**
>
> If the data dump does not succeed, do not continue. Contact your technical support organization. You must correct a data dump problem before the system can be upgraded.

4   The messages "DATADUMP COMPLETE" and "DATABASE BACKUP COMPLETE" will appear once the data dump is complete.

    ****   Exit program

--------- **End of Procedure** ---------

Procedure 165
Performing an ABKO (save the database to floppies)

1   Insert floppy diskettes into BOTH floppy disk drives in each Core IODU/C or MMDU.

Note: If the file is too large to fit on a single floppy disk, the ABKO command will compress the data. If the compressed data is still too large to fit on a single disk, both floppy disks in the two IODU/C drives will be used. Be sure to insert floppy disks into BOTH IODU/C drives before the ABKO backup is begun.

2   Load the Customer Configuration Backup and Restore (LD 143). At the prompt, enter:

    LD 143   Load program

3   Run the ABKO backup (LD 143).

    ABKO   Run the backup

Result: If the backup is successful, the system displays a message that states that the database backup is complete and generates a report that indicates which floppy drives were used.

4   If there are validation errors, repeat the procedure.

CAUTION

Loss of Data

If the backup is not successful, do not continue; contact your technical support organization. Any backup problems must be corrected before the system is upgraded to CP PII.

---

5   Once the backup is complete, type:

    ****   Exit program

———————————— **End of Procedure** ————————————

Convert the 4 MB database media to 2 MB database media

> **IMPORTANT!**
>
> Database conversion for Meridian 1 Options 21E, 51, 61,71, STE, NT and XT must be completed by Nortel Networks Software Conversion Lab. Consult the current Nortel Networks price book for cost and contact information.
>
> If the system is equipped with IOP/CMDU cards the database must be converted with the Database Transfer utility. See "Database transfer" on page 179.
>
> If the system is equipped with IODUC cards, the database should be data dumped (EDD) to a blank 2 MB floppy.
>
> All systems can be converted by Nortel Networks in the software conversion lab.

If the system is equipped with IOP/CMDU cards the database must be converted with the Database Transfer utility. See "Database transfer" on page 179.

If the system is equipped with IODUC cards, the database should be data dumped (EDD) to a blank 2 MB floppy.

Identify two unique IP addresses

Each CP PII system must be configured with two unique IP addresses for LAN identification and communication. One IP address is defined for the *active* Core. The second IP address is defined for the *inactive* Core. In this

configuration, the *active* Core (either Core 0 or Core 1) that handles call processing is always identified by the same IP address.

- Contact your systems administrator to identify two unique IP addresses before the upgrade.

- For instructions to configure these IP numbers, see "Configuring IP addresses" on page 667of Book 1.

Perform installation

Parallel reload the Meridian 1 Option 61C and Meridian 1 81/81C CP3 CP4

Use the parallel reload procedures to convert from one software release to a later release or to up-issue software within the same software release. These parallel reload procedures are for software conversions only. Do *not* use this procedure for any other purpose. Parallel reloads can be done from either CPU. For the purposes of this document, the parallel reload begins with CPU 0.

If during the software conversion a problem is detected and it is determined that the system should revert back to the source release follow the "Parallel reload procedures" on page 226.

Verify memory

Determine whether the system requires additional memory. Refer to "Installing IODU/C cards, CP cards, CP memory" on page 305 for memory requirements and upgrade procedures.

──────────── **End of Procedure** ────────────

Determine status (STAT) of the hardware

Procedure 166
Obtaining hardware status

1   Load LD 137 and get status of the hard disks.

   Note: Be sure the hard disks are synchronized. If not, synchronize before proceeding.

LD 137	Load program
STAT	Get the status of the hard disks
SYNC	Synchronize hard disks if necessary (Synchronization may take up to 50 minutes)
TEST CMDU	Performs hard and floppy disk test
****	Exit program

2   Load LD 135 and determine the status of the CPs, CNIs and memory.

LD 135	Load program
STAT CPU	Get the status of both CPs and memory
STAT CNI	Get the status of all configured CNIs

3   Test the standby (inactive) CP. Then switch CPs, and test again.

TEST CPU	Test standby (inactive) CP

   Wait until the terminal returns a complete test message. The message "HWI533 or HWI534" does not mean the test has completed!

SCPU	Switch CPs
TEST CPU	Test the standby (inactive) CP

   Note: Testing the CPs can take up to 20 minutes for each test. When the test is complete, the memories are automatically synchronized.

——————— **End of Procedure** ———————

Split the Core processors

Procedure 167
Splitting the Core processors

1   Be sure CP 0 is active and CP1 is standby. If necessary, switch CPs
     again:

    STAT CPU

    SCPU   Switch CPs if necessary

    ****   Exit program

2   Verify that IODU/C 0 is active. If necessary, switch IODU/Cs.

    LD 137

    STAT   Get the status of IODU/C

    SWAP   Switch IODU/Cs (if necessary)

    ****   Exit program

3   Connect a terminal from the CPSI port in Core/Net 1 to J25 of the I/O
     panel at the back of the Core/Net. Be sure it is configured as follows. The
     recommended baud rate is 9600, to be the same as the CPSI port.

      7 data bits, 1 stop bit, Space parity, Full-duplex, XON protocol

4   Place CP 0 in Maintenance by setting the MAINT/NORM switch to
     MAINT.

5   In Core/Net 1, disable the CNI cards by setting the ENB/DIS faceplate
     switches to DIS.

6   Place CP1 in Maintenance by setting the MAINT/NORM switch to MAINT.

Note: Core 1 will now sysload. Allow the system to complete the sysload and INI. Review any sysload errors and correct before proceeding.

> ✔ System is now is split mode, Core 0 active, Clock Controller 0 is active if equipped with FNF. Rings are in half/half mode.

———— **End of Procedure** ————

Upgrade Core/Net 1 Hardware

Procedure 168
Upgrading hardware

1   Remove IOP/CMDU if replacing or upgrading to IODUC.

2   Install new CP cards in Core/Net 1.

3   Install new IODUC card in Core/Net 1.

Note: Ensure the provided security device is installed.

Install software on Core/Net 1

Procedure 169
Installing the system software on Core/Net 1

1   Place the CP Install disk that corresponds with the installed CP card type into the IODU/C in Core/Net 1.

2   Install the CD-ROM into the CD drive:

  a.   Press the button on the CD-ROM drive to open the CD-ROM disk holder.

  b.   Place the CD-ROM disk into the holder with the disk label showing.

  c.   Use the four tabs to secure the CD-ROM drive.

  d.   Press the button again to close the CD-ROM disk holder. Don't push the holder in by hand.

3   In Core/Net 1, perform the following three steps in uninterrupted sequence:

    a.   In Core/Net 1 press and release the MAN RST button on the CP card.

    b.   Set the MAINT/NORM switch on the CP card to MAINT.

    c.   Release the MAN RST button.

A Sysload begins (cold start). Wait for the Main Menu to appear on the terminal before proceeding.

Note 1: If the CD-ROM is not in the CD drive of the IODU/C, the installation procedure will not continue. Insert the CD-ROM into the drive to continue.

Note 2: If a problem is detected during the system verification, the Install process stops, prints an error message, and aborts the installation. If the verification is not successful, do not continue. Contact the technical support organization.

4   Press <CR> to continue.

5   Log into the system. Enter the time and date, when prompted.

6   Select yes or (no) when asked if a Signaling Server is connected:

```
System Date and Time now is:

     Day-Month-Year, Hour:Min:Sec

     Succession Enterprise Software/Database/BOOTROM
CDROM INSTALL Tool

     Does this System have a Signaling Server.....? (Default - No)

     Please enter:
<CR> -> <n> - No

     <y> - Yes

     Enter Choice>
```

7   The system then enters the Main Menu for keycode authorization. Remove the CP PII Install Program diskette and insert the Keycode diskette.

M A I N   M E N U

The Software Installation Tool will install or upgrade Succession Enterprise System Software, Database and the CP-BOOTROM. You will be prompted throughout the installation and given the opportunity to quit at any time.

Please enter:

<CR> -> <u> - To Install menu

<t> - To Tools menu.

<q> - Quit.

Enter Choice> **<CR>**

>Validating Keycode

The provided keycode authorizes the install of X210300 software

(all subissues) for machine type XXXX

(XXX processor on XXXX System)

IMPORTANT!

Remove keycode floppy disk at this time and insert the database backup disk.

8   The screen displays the Install Menu. Confirm that the keycode matches the CD-ROM release:

> Please confirm that this keycode matches the CDROM Release
>
> Please enter:
>
> <CR> -> <y> - Yes, the keycode matches. Go on to Install Menu.
>
> <n> - No, the keycode does not match. Try another keycode diskette.
>
> Enter Choice> **<CR>**
>
> >Obtain database file names

9   Enter **b** to install the Software, Database and CP-BOOTROM:

> I N S T A L L   M E N U
>
> The Software Installation Tool will install or upgrade Succession Enterprise System Software, Database and the CP-BOOTROM. You will be prompted throughout the installation and given the opportunity to quit at any time.
>
> Please enter:
>
> <CR> -> <a> - To install Software, CP-BOOTROM.
>
> <b> - To install Software, Database, CP-BOOTROM.
>
> <c> - To install Database only.
>
> <d> - To install CP-BOOTROM only.
>
> <t> - To go to the Tools menu.
>
> <k> - To install Keycode only.
>
> For Feature Expansion, use OVL143.
>
> <p> - To install 3900 set Languages.
>
> <q> - Quit.
>
> Enter Choice> **b**

10   Verify the CD-ROM version:

Please insert the installation CDROM into the drive on Core X.

The labeled side of the CDROM should be side up in the CDROM tray.

Please enter:

<CR> -> <a> - CDROM is now in drive. Continue with s/w checking.

<q> - Quit.

Enter Choice> **<CR>**

The installation CDROM contains version X210300_K.

Please enter:

<CR> -> <y> - Yes, this is the correct version. Continue.

<n> - No, this is not the correct version. Try another CDROM.

or keycode disk

Enter Choice> **<CR>**

>copying direct.rec from /cd0/0300_KMR.N33/target/p/sl1/ direct.rec to /u/direct.rec

>Updating /u/direct.rec

>Processing the Install Control file

>Installing release 0300K

---

11 Confirm all options before installing the software:

```
                INSTALLATION STATUS SUMMARY

              ----------------------------------------

     ============+=======+=======+============
     |   Option   |  Choice  | Status |  Comment        |
     ================+=======+=======+=========
     | SW: CD to disk |   yes    |        | install for rel 0300K |
       ============+========+========+=============
     |   Option   |  Choice  | Status |  Comment        |
     ================+=======+=======+=========
     |  Database  |   yes    |    |    |            |

     |   Option   |  Choice  | Status |  Comment        |
     ================+=======+=======+=========
     | CP-BOOTROM |   yes    |    |    |            |


      Please enter:<CR> -> <y> - Yes, start Installation.

       <n> - No, stop Installation. Return to the Main Menu.
```

Enter Choice> **<CR>**

>Checking System Configuration

You selected to upgrade the system from release: XXXX to release: 0300K.

This will erase all old system files.

Database files will NOT be erased. You may continue installing the software or quit now and leave your system unchanged.

Please enter:

<CR> -> <a> - Continue with Upgrade.

<q> - Quit.

Enter Choice> **<CR>**

>Starting Software Install

>Upgrading from release XXXX to release 0300K

12 After a number of files are copied over, select a PSDL file to install. The PSDL file contains the loadware for all downloadable cards in the system and loadware for M3900 series sets.

Select one of the six PSDL files

<1>   Global 10 Languages

<2>   Western Europe 10 Languages

<3>   Eastern Europe 10 Languages

<4>   North America 6 Languages

<5>   Spare Group A

<6>   Spare Group B

The languages contained in each selection are outlined as follows:

- 1 – Global 10 Languages (Release 3) English, French, German, Spanish, Swedish, Italian, Norwegian, Brazilian Portuguese, Finnish, Japanese Katakana.

- 2 – Western Europe 10 Languages (Release 3) English, French, German, Spanish, Swedish, Italian, Norwegian, Brazilian Portuguese, Finnish, Danish.

- 3 – Eastern Europe 10 Languages (Release 3) English, French, German, Dutch, Polish, Czech, Hungarian, Russian, Latvian, Turkish.

- 4 – North America six Languages (Release 3) English, French, German, Spanish, Brazilian Portuguese, Japanese Katakana.

- 5 – Spare Group A.

- 6 – Spare Group B.

13 Continue with upgrade when prompted. Select a database to install:

Software release 0300K was installed successfully on Core X.

All files were copied from CDROM to the hard disk.

Please press <CR> when ready... **<CR>**

You will now perform the database installation.

Note: If you are installing the Database from a floppy disk, please insert the correct disk now.

Please enter:

<CR> -> <a> - Install CUSTOMER Database

(the customer database diskette must be in the Core X disk drive).

<b> - Install DEFAULT Database

(the installation CDROM must be in the Core X disk drive).

<c> - Transfer the previous system Database.

<e> - Check the Database that exists on the hard disk.

<q> - Quit.

Enter Choice> **<CR>**

---

14 Confirm database transfer:

You selected to transfer the database from the floppy disk - release: XXXX to the hard disk on Core X. release: XXXX.

This will erase the database on the hard disk.

The database diskette has been inserted into the floppy disk drive.

If you quit now, the database will be left unchanged.

Please enter:

<CR> -> <a> - Continue with Database Install.

<q> - Quit.

Enter Choice> **<CR>**

The system then informs you of the database details and prompts you to confirm:

```
You have chosen to restore database dated: Jul 07 14:10:00 2003

    Please confirm.

    Please enter:

<CR> -> <y> - Yes, load.

    <n> - No, DO NOT load.

    Enter Choice> <CR>
```

15 The system restores the database and provides a status summary.

Note: The hard drive on a new system displays an error message that no database is found on hard drive. This message can be ignored.

16 Enter **<CR>** when prompted, returning the system to the Install Menu.

17   Enter **q** to quit:

I N S T A L L   M E N U

The Software Installation Tool will install or upgrade Succession Enterprise System Software, Database and the CP-BOOTROM. You will be prompted throughout the installation and given the opportunity to quit at any time.

Please enter:

<CR> -> <a> - To install Software, CP-BOOTROM.

<b> - To install Software, Database, CP-BOOTROM.

<c> - To install Database only.

<d> - To install CP-BOOTROM only.

<t> - To go to the Tools menu.

<k> - To install Keycode only.

For Feature Expansion, use OVL143.

<p> - To install 3900 set Languages.

<q> - Quit.

Enter Choice> **q**

---

18 The system then prompts you to confirm and reboot:

You selected to Quit the Software Installation Tool.

You may reboot the system or return to the Main Menu.

Before rebooting the system, remove Install diskette from the floppy drive(s).

DO NOT REBOOT USING BUTTON!!

Please enter:

<CR> -> <a> - Reboot the system.

<m> - Return to the Main menu.

Enter Choice> **<CR>**

>Removing temporary files

>Remove /u/diskXXXX.sys

>Quit Install. Reboot system...

———————————— **End of Procedure** ————————————

Note: If the system fails to load, or system messages indicate data corruption, back out of the parallel reload process by performing the steps in "Back out of the parallel reload and re-install old software" on page 151.

Determine peripheral software version

Procedure 170
Checking peripheral software versions

1   Load LD 22 and print Target peripheral software version. The Source
peripheral software version was printed during the pre-conversion
procedure. If there is a difference between the Source and Target
peripheral software version, a forced download will occur during
initialization when coming out of parallel reload. System initialization will
take longer and established calls on IPE will be dropped.

LD 22	Load program
REQ	PRT
TYPE	PSWV
****	Exit program

Switch call processing to Core/Net 1

CAUTION

Service Interruption

Call Processing will be interrupted! Perform these
next steps carefully. This is the point at which service
is interrupted. Calls in process are interrupted,
especially if Peripheral Software Download takes
place. Some calls might be dropped.

WARNING

System initialization may take up to 15 minutes or
longer.

> **IMPORTANT!**
>
> Power down all applications (Meridian Mail, Call Pilot, Symposium).

Procedure 171
Switching call processing from Core/Net 0 to Core/Net 1

1   In Core/Net 0, disable the CNI cards by setting the ENB/DIS faceplate switches to DIS.

2   In Core/Net 0, set the DIS/ENB faceplate switch on the IODU/C card to DIS and unseat it.

3   In Core/Net 1, enable the CNI cards by setting the ENB/DIS faceplate to ENB.

4   In Core/Net 1, press the MAN INT button.

Note: On FNF based systems after the INI:
A FIJI download will occur if the FIJI firmware on Bank 1 of the FIJI card is different from the firmware on the system hard drive (PSDL file). This is automatic and no attempt should be made to prevent the download. The system will switch full to one ring, download up to 4 FIJI cards on the opposite ring at a time. This process continues on both rings until all Fiji's have been downloaded. The rings will then reset and come into service with the highest firmware available. This process is not service affecting. Depending on the number of groups installed, this process may take up to 20 minutes per ring.

> **CAUTION**
>
> **Service Interruption**
>
> The INI may take up to15 minutes to complete.

> CP1 is active, Clock 1 is active, IODU/C is active. If equipped, the FIJI ring is in half/half mode. Call processing is now switched from Core/Net 0 to Core/Net 1.

> **IMPORTANT!**
>
> Power up all applications (Meridian Mail, Call Pilot, Symposium).

Procedure 172
Testing Core/Net 1

From Core/Net 1, perform these tests:

1   Check dial tone.

2   Make internal, external and network calls.

3   Check attendant console activity.

4   Check DID trunks.

5   Check applications (Call Pilot, Symposium, Meridian Mail, etc.).

———————————— **End of Procedure** ————————————

Upgrade Core/Net 0 Hardware

Procedure 173
Upgrading Core/Net 0 hardware

1   Remove IOP/CMDU if replacing or upgrading to IODUC.

2   Install new CP cards in Core/Net 0.

3   Install new IODUC card in Core/Net 0.

———————————— **End of Procedure** ————————————

Install new software on Core/Net 0

Procedure 174
Installing the software and converting the database

1 Check that a terminal is connected to J25 on Core/Net 0.

2 In Core/Net 0, install the CD-ROM into the CD-ROM drive in the MMDU:

   a. Press the button on the CD-ROM drive to open the CD-ROM disk holder.

   b. Place the CD-ROM disk into the holder with the disk label showing.

   c. Press the button again to close the CD-ROM disk holder.
       Do not push the holder in by hand.

   Note: If the CD-ROM is not in the CD-ROM drive, the installation will not continue. Insert the CD-ROM to continue.

3 Place the CP PII Install floppy disk into the IODU/C floppy drive.

   Note: If a problem is detected during the system verification, Install stops, prints an error message, and aborts the installation. If the verification is not successful, do not continue; contact your technical support organization.

4 Press the manual RESET button on the CP card faceplate.

5 Select yes or (no) when asked if a Signaling Server is connected:

System Date and Time now is:

   Day-Month-Year, Hour:Min:Sec

   Succession Enterprise Software/Database/BOOTROM
CDROM INSTALL Tool

   Does this System have a Signaling Server.....? (Default - No)

   Please enter:

<CR> -> <n> - No

   <y> - Yes

   Enter Choice>

---

6   The system then enters the Main Menu for keycode authorization. Remove the CP PII Install Program diskette and insert the Keycode diskette.

M A I N   M E N U

The Software Installation Tool will install or upgrade Succession Enterprise System Software, Database and the CP-BOOTROM. You will be prompted throughout the installation and given the opportunity to quit at any time.

Please enter:

<CR> -> <u> - To Install menu

<t> - To Tools menu.

<q> - Quit.

Enter Choice> **<CR>**

>Validating Keycode

The provided keycode authorizes the install of X210300 software

(all subissues) for machine type XXXX

(XXX processor on XXXX System)

IMPORTANT!

Remove keycode floppy disk at this time and insert the database backup disk.

---

7   The screen displays the Install Menu. Confirm that the keycode matches the CD-ROM release:

> Please confirm that this keycode matches the CDROM Release
>
> Please enter:
>
> <CR> -> <y> - Yes, the keycode matches. Go on to Install Menu.
>
> <n> - No, the keycode does not match. Try another keycode diskette.
>
> Enter Choice> **<CR>**
>
> >Obtain database file names

8   Enter **b** to install the Software, Database and CP-BOOTROM:

> I N S T A L L   M E N U
>
> The Software Installation Tool will install or upgrade Succession Enterprise System Software, Database and the CP-BOOTROM. You will be prompted throughout the installation and given the opportunity to quit at any time.
>
> Please enter:
>
> <CR> -> <a> - To install Software, CP-BOOTROM.
>
> <b> - To install Software, Database, CP-BOOTROM.
>
> <c> - To install Database only.
>
> <d> - To install CP-BOOTROM only.
>
> <t> - To go to the Tools menu.
>
> <k> - To install Keycode only.
>
> For Feature Expansion, use OVL143.
>
> <p> - To install 3900 set Languages.
>
> <q> - Quit.
>
> Enter Choice> **b**

9   Verify the CD-ROM version:

Please insert the installation CDROM into the drive on Core X.

The labeled side of the CDROM should be side up in the CDROM tray.

Please enter:

<CR> -> <a> - CDROM is now in drive. Continue with s/w checking.

<q> - Quit.

Enter Choice> **<CR>**

The installation CDROM contains version X210300_K.

Please enter:

<CR> -> <y> - Yes, this is the correct version. Continue.

<n> - No, this is not the correct version. Try another CDROM.

or keycode disk

Enter Choice> **<CR>**

>copying direct.rec from /cd0/0300_KMR.N33/target/p/sl1/ direct.rec to /u/direct.rec

>Updating /u/direct.rec

>Processing the Install Control file

>Installing release 0300K

---

10 Confirm all options before installing the software:

```
                    INSTALLATION STATUS SUMMARY

               --------------------------------------------

        ============+=======+=======+============
        |   Option    |   Choice    | Status |   Comment        |

        ================+=======+=======+=========
        | SW: CD to disk  |     yes     |        | install for rel 0300K |

        ============+========+========+==============
        |   Option    |   Choice    | Status |   Comment        |

        ================+=======+=======+=========
        |   Database    |     yes     |     |      |              |


        |   Option    |   Choice    | Status |   Comment        |

        ================+=======+=======+=========
        | CP-BOOTROM |     yes     |     |      |              |


          Please enter:<CR> -> <y> - Yes, start Installation.

            <n> - No, stop Installation. Return to the Main Menu.
```

Enter Choice> **<CR>**

>Checking System Configuration

You selected to upgrade the system from release: XXXX to release: 0300K.

This will erase all old system files.

Database files will NOT be erased. You may continue installing the software or quit now and leave your system unchanged.

Please enter:

<CR> -> <a> - Continue with Upgrade.

<q> - Quit.

Enter Choice> **<CR>**

>Starting Software Install

>Upgrading from release XXXX to release 0300K

11 After a number of files are copied over, select a PSDL file to install. The PSDL file contains the loadware for all downloadable cards in the system and loadware for M3900 series sets.

Select one of the six PSDL files

<1> Global 10 Languages

<2> Western Europe 10 Languages

<3> Eastern Europe 10 Languages

<4> North America 6 Languages

<5> Spare Group A

<6> Spare Group B

The languages contained in each selection are outlined as follows:

- 1 – Global 10 Languages (Release 3) English, French, German, Spanish, Swedish, Italian, Norwegian, Brazilian Portuguese, Finnish, Japanese Katakana.

- 2 – Western Europe 10 Languages (Release 3) English, French, German, Spanish, Swedish, Italian, Norwegian, Brazilian Portuguese, Finnish, Danish.

- 3 – Eastern Europe 10 Languages (Release 3) English, French, German, Dutch, Polish, Czech, Hungarian, Russian, Latvian, Turkish.

- 4 – North America six Languages (Release 3) English, French, German, Spanish, Brazilian Portuguese, Japanese Katakana.

- 5 – Spare Group A.

- 6 – Spare Group B.

12   Continue with upgrade when prompted. Select a database to install:

Software release 0300K was installed successfully on Core X.

All files were copied from CDROM to the hard disk.

Please press <CR> when ready... **<CR>**

You will now perform the database installation.

Note: If you are installing the Database from a floppy disk, please insert the correct disk now.

Please enter:

<CR> -> <a> - Install CUSTOMER Database

(the customer database diskette must be in the Core X disk drive).

<b> - Install DEFAULT Database

(the installation CDROM must be in the Core X disk drive).

<c> - Transfer the previous system Database.

<e> - Check the Database that exists on the hard disk.

<q> - Quit.

Enter Choice> **<CR>**

---

13   Confirm database transfer:

You selected to transfer the database from the floppy disk - release: XXXX to the hard disk on Core X. release: XXXX.

This will erase the database on the hard disk.

The database diskette has been inserted into the floppy disk drive.

If you quit now, the database will be left unchanged.

Please enter:

<CR> -> <a> - Continue with Database Install.

<q> - Quit.

Enter Choice> **<CR>**

The system then informs you of the database details and prompts you to confirm:

You have chosen to restore database dated: Jul 07 14:10:00 2003

Please confirm.

Please enter:

<CR> -> <y> - Yes, load.

<n> - No, DO NOT load.

Enter Choice> **<CR>**

14 The system restores the database and provides a status summary.

Note: The hard drive on a new system displays an error message that no database is found on hard drive. This message can be ignored.

15 Enter **<CR>** when prompted, returning the system to the Install Menu.

16 Enter **q** to quit:

I N S T A L L   M E N U

The Software Installation Tool will install or upgrade Succession Enterprise System Software, Database and the CP-BOOTROM. You will be prompted throughout the installation and given the opportunity to quit at any time.

Please enter:

<CR> -> <a> - To install Software, CP-BOOTROM.

    <b> - To install Software, Database, CP-BOOTROM.

    <c> - To install Database only.

    <d> - To install CP-BOOTROM only.

    <t> - To go to the Tools menu.

    <k> - To install Keycode only.

      For Feature Expansion, use OVL143.

    <p> - To install 3900 set Languages.

    <q> - Quit.

Enter Choice> **q**

---

17 The system then prompts you to confirm and reboot:

You selected to Quit the Software Installation Tool.

You may reboot the system or return to the Main Menu.

Before rebooting the system, remove Install diskette from the floppy drive(s).

DO NOT REBOOT USING BUTTON!!

Please enter:

<CR> -> <a> - Reboot the system.

<m> - Return to the Main menu.

Enter Choice> **<CR>**

>Removing temporary files

>Remove /u/diskXXXX.sys

>Quit Install. Reboot system...

End of Procedure

Exit split mode

Procedure 175
Exiting the split mode

1   Connect CPSI port or maintenance SDI port.

2   Enable the CNI cards by setting the ENB/DIS faceplate switch to ENB in Core/Net 0.

3   Perform the following in uninterrupted sequence:

  •   Press and release the MAN RST button in Core/Net 0.

  •   When SYS700 messages appears on the LCD display on Core/ Net 0, set the MAINT/NORM switch to NORM in Core/Net 0.

    In 60 seconds, the LCD lights and confirms the processes with:

    RUNNING ROM OS

    ENTERING CP VOTE

    An HWI534 message indicates the start of memory synchronization. In 10 minutes, an HWI533 message on Core/Net 1 CSPI or SDI terminal indicates the memory synchronization is complete.

4   In Core/Net 1, set the MAINT/NORM switch on the CP card to NORM.

─────────────── **End of Procedure** ───────────────

Test Core/Net 1 and Core/Net 0

Procedure 176
Testing Core/Net 0 and Core/Net 1

1 Perform a redundancy sanity test using the following sequence:

LD 135

STAT CNI   Get status of CNI cards

STAT CPU   Get status of CPU and memory

TEST CPU   Test the inactive Core/Net/Net

TEST CNI c s   Test each inactive CNI card

2 Switch Core/Nets and test the other side (Core/Net 0)

SCPU   Switch Core/Nets

TEST CPU   Test the inactive Core/Net/Net

TEST CNI c s   Test each inactive CNI card

Note: Testing the Call Processor and CNI cards and synchronizing memory can take up to 20 minutes for each test. When the Call Processor test is complete, the Call Processor the memory is automatically synchronized.

3 Clear the display and minor alarms on both Core/Nets.

CDSP   Clear the displays on the Core/Nets

CMAJ   Clear major alarms

CMIN ALL   Clear minor alarms

4   Get the status of the Core/Nets, CNIs, and memory.

> **STAT CPU**   Get the status of both Core/Nets
>
> **STAT CNI**   Get the status of all configured CNIs and memory

> *Note:* You may need to execute the STAT CNI command twice before receiving a response from the system.

> ********   Exit program

─────────── **End of Procedure** ───────────

Switch the Clocks

Procedure 177
Switching the Clocks

1   Verify that the clock controller is assigned to the *active* Core.

> **LD 60**   Load the program
>
> **SSCK *x***   Get the status of the clock controllers (*x* is "0" or "1" for Clock 0 or Clock 1
>
> **SWCK**   Switch the Clock (if necessary)
>
> ********   Exit program

2   Verify that the Clock Controllers are switching correctly:.

> **SWCK**   Switch the Clock
>
> **SWCK**   Switch the Clock again

─────────── **End of Procedure** ───────────

If equipped, stat the FIJI rings

Procedure 178
Stat the rings

1   Check the status of Ring 0 and Ring 0.

    LD 39   Load the program

    STAT RING   Get the status of Ring 0
    0   (Ring state should be HALF/HALF)

2   Check the status of Ring 0 and Ring 1.

    LD 39   Load the program

    STAT RING   Get the status of Ring 0
    1   (Ring state should be HALF/HALF)

———————————————— **End of Procedure** ————————————————

Synchronize the hard disks

Procedure 179
Synchronizing the hard disks

1   Access LD 137 and synchronize the hard disks. Synchronization can take up to 50 minutes. To ensure that the contents of IODU/C 1 are copied to IODU/C 0, verify that IODU/C 0 is disabled.

   LD 137   Load program

   STAT   Get the status of the IODU/C and redundancy

   SYNC   Enter "Yes" to synchronize disks
                    (Wait until the memory synchronization
                    successfully completes before continuing)

   TEST CMDU   Perform hard and floppy disk test

2   Get the status of the CMDU's and be sure CMDU 0 is active. Switch if necessary.

   STAT   Get the status of IODU/C and redundancy

   SWAP   Switch CMDU if necessary

   STAT CMDU   Get the status of the IODU/Cs. Be sure the same
                    IODU/C and CPU are active

   ****   Exit program

Perform a data dump

Procedure 180
Performing a data dump

1   Load the Equipment Data Dump Program (LD 43). At the prompt, enter:

LD 43   Load program

2   When "EDD000" appears on the terminal, enter:

EDD   Begin the data dump

3   When "DATABASE BACKUP COMPLETE" or "DATADUMP
COMPLETE" appears on the terminal, enter the following:

****   Exit program

> ✔ The Parallel Reload process is complete. The system is
> now running on the new IODUC.
>
> System is now in redundant mode.

────── **End of Procedure** ──────

Note: Proceed to "Post-conversion procedure" on .

Installing a Call Processor card on Option 51C

This procedure is for systems equipped with IODU/C cards only. If your system is equipped with an IOP/CMDU or IOP and CMDU cards, refer to page 546.

<table>
<tr>
<td></td>
<td>

CAUTION

Service Interruption

Installing the NT5D10 Call Processor card in the Meridian 1 Option 51C will require system downtime. Schedule for this when planning the system upgrade.

</td>
</tr>
</table>

The Call Processor card must be removed from the system to perform this upgrade. This will cause loss of service to the whole telephone system. Plan the upgrade for a time when the impact to the telephone users will be minimal.

Installing an NT5D10 or NT5D03 Call Processor card in a Meridian 1 Option 51C system consists of:

• installing a new Call Processor card in the Core module.

• upgrading the system software and Call Processor ROMs.

Prepare for installation

This document implements a source to target approach to performing an upgrade. It is important to correctly identify the source platform, target platform and maintenance window required to perform the upgrade.

Each chapter features check boxes indicating what condition the system should be in at that stage of the upgrade. If the system is not in the proper condition steps should be taken to correct this.

Each section is written to maintain Dial Tone where possible and limit service interruptions.

Before attempting any software or hardware upgrade field personnel should follow the steps in Table 38 below:

Table 38
Prepare for upgrade steps

Procedure Step	Page
Planning	547
Upgrade Checklists	548
Preparing	548
Identifying the proper procedure	549
Connect a terminal	549
Print Site Data	550
Perform a template audit	552
Back up the database (data dump and ABKO)	553
Identify two unique IP addresses	556
Complete the upgrade	560

Planning

Planning for an upgrade involves the following tasks:

- Conduct a site inspection to determine proper power and grounding.

- Review the site profile to determine proper foot space if adding new columns or modules.

- Ensure sufficient power for new columns/modules or applications.

- Identify all applications (Call Pilot, SCCS, IP, Meridian Mail etc.) that are currently installed on the source platform.

- Identify and correct outstanding service problems.

- Verify the site log is updated with current trunking, call routing, application notes, and site contact information.

- Review all product bulletins and Nortel Alerts that impact the site.

- Determine if software can be converted on site or must be sent to Nortel Networks.

- Prepare a contingency plan for backing out of the upgrade.

Upgrade Checklists

Upgrade checklists can be found in the "Upgrade checklists" chapter on 707. Engineers may print this section in order to facilitate the upgrade.

Preparing

Preparing for an upgrade involves the following tasks:

- Identify and become familiar with all procedures.

- Verify that all installed applications meet the minimum software requirements for the target platform (see Table 4 on page 28 of Book 1).

- Verify proper cable lengths for the target platform.

- Verify card vintage requirements of the target platform.

- Determine the current patch or Dep lists installed at the source platform.

- Determine the required patch or Dep lists at the target platform.

- Determine and communicate the required maintenance window, contingency plan and the impact to the customer to complete the procedure.

- Perform an inventory on required software and hardware.

- Secure the source software and key code.

- Secure the target software and key code.

- Verify the new key code using the DKA program.

- Print site data.

Identifying the proper procedure

Each procedure has been written in a source to target format. Each procedure features warning boxes and check boxes placed at critical points. Changing the procedure or ignoring the warning boxes could cause longer service interruptions.

> **IMPORTANT!**
>
> Database backup information should be preserved for a minimum of 5 days.

Connect a terminal

Procedure 181
Connecting a terminal

A maintenance terminal is required to access the Core or Core/Net modules during the upgrade procedure.

1 Connect a terminal to the J25 port on the I/0 panel in the *inactive* Core or Core/Net module.

2 The settings for the terminal are:

    a. 9600 Baud

    b. 7 data

    c. space parity

    d. 1 stop bit

    e. full duplex

    f. XOFF

3 If only one terminal is used for both Core or Core/Net modules, the terminal must be connected from side-to-side to access each module. An "A/B" switch box can also be installed to switch the terminal from side to side.

Print side data

End of Procedure

Print Site Data

Print site data to preserve a record of the system configuration (Table 39 below). Verify that all information is correct. Make corrections as necessary.

Note: Items marked with an asterisk (*) are required. Other items are recommended for a total system status.

Table 39
Print site data (Part 1 of 3)

Site data	Print command	
Terminal blocks for all TNs	LD 20	
	REQ	PRT
	TYPE	TNB
	CUST	<cr>
Directory Numbers	LD 20	
	REQ	PRT
	TYPE	DNB
	CUST	<cr>
Attendant Console data block for all customers	LD 20	LD 20
	REQ	PRT
	TYPE	ATT, 2250
	CUST	<cr>
*Customer data block for all customers	LD 21	LD 21
	REQ	PRT
	TYPE	CDB
	CUST	<cr>
Route data block for all customers	LD 21	
	REQ	PRT
	TYPE	RDB
	CUST	Customer number
	ROUT	<cr>
	ACOD	<cr>

Table 39
Print site data (Part 2 of 3)

Site data	Print command	
*Configuration Record	LD 22	
	REQ TYPE	PRT CFN
*Software packages	LD 22	
	REQ TYPE	PRT PKG
*Software issue, ROM and tape ID	LD 22	
	REQ REQ REQ	ISS ROM TID
* Peripheral software versions	LD 22	
	REQ TYPE	PRT PSWV
ACD data block for all customers	LD 23	
	REQ TYPE CUST ACDN	PRT ACD Customer Number ACD DN (or <CR>)
Superloop card IDs and software version (peripheral controller, superloop network and controller cards)	LD 32	IDC loop
Multi-purpose ISDN Signaling Processor (MISP) card	LD 27	
	REQ TYPE LOOP APPL PH	PRT MISP loop number (0-158) <cr> <cr>

Table 39
Print site data (Part 3 of 3)

Site data	Print command	
DTI/PRI data block for all customers	LD 73	
	REQ	PRT
	TYPE	DDB
Note: Items marked with asterisks (*) are required printout for conversion. Other items are recommended for a total system status.		

Perform a template audit

A template audit (LD 01) reviews the templates in your system. Corrupted and duplicate templates are cleaned up. An example of the information generated during the audit is listed below.

Note: The template audit may take an extended period of time on large systems. Run the audit during a low traffic period.

⚠ **CAUTION**

Loss of Data

Do not abort this overlay until the audit is complete. If the overlay is interrupted, data will be corrupted.

LD 01   The audit begins as soon as LD 01 is entered.

TEMPLATE AUDIT

STARTING PBX TEMPLATE SCAN

TEMPLATE 0001 USER COUNT LOW	**CHECKSUM OK**
TEMPLATE 0002 USER COUNT HIGH	**CHECKSUM OK**

TEMPLATE 0003 NO USERS FOUND

STARTING SL1 TEMPLATE SCAN

TEMPLATE 0001 USER COUNT OK   CHECKSUM OK

•

•

TEMPLATE 0120 USER COUNT OK   CHECKSUM OK

TEMPLATE AUDIT COMPLETE

Back up the database (data dump and ABKO)

To back up system data, complete the following two procedures.

1 Perform a data dump to save all system memory to the hard disk.

2 Perform a ABKO (attended backup) to save the database to a spare set of floppy disks.

Procedure 182
Performing a data dump

1 Log into the system.

2 Load the Equipment Data Dump Program (LD 43). At the prompt, enter:

LD 43   Load program

3 When "EDD000" appears on the terminal, enter:

EDD   Begin the data dump

> **CAUTION**
>
> **Loss of Data**
>
> If the data dump does not succeed, do not continue. Contact your technical support organization. You must correct a data dump problem before the system can be upgraded.

4 The messages "DATADUMP COMPLETE" and "DATABASE BACKUP COMPLETE" will appear once the data dump is complete.

    ****   Exit program

─────── **End of Procedure** ───────

Procedure 183
Performing an ABKO (save the database to floppies)

1 Insert floppy diskettes into BOTH floppy disk drives in each Core IODU/C or MMDU.

Note: If the file is too large to fit on a single floppy disk, the ABKO command will compress the data. If the compressed data is still too large to fit on a single disk, both floppy disks in the two IODU/C drives will be used. Be sure to insert floppy disks into BOTH IODU/C drives before the ABKO backup is begun.

2 Load the Customer Configuration Backup and Restore (LD 143). At the prompt, enter:

    LD 143   Load program

3 Run the ABKO backup (LD 143).

    ABKO   Run the backup

Result: If the backup is successful, the system displays a message that states that the database backup is complete and generates a report that indicates which floppy drives were used.

4   If there are validation errors, repeat the procedure.

CAUTION

Loss of Data

If the backup is not successful, do not continue; contact your technical support organization. Any backup problems must be corrected before the system is upgraded to CP PII.

5   Once the backup is complete, type:

****   Exit program

────────────   **End of Procedure**   ────────────

Procedure 184
Converting the 4 MB database media to 2 MB database media

IMPORTANT!

Database conversion for Meridian 1 Options 21E, 51, 61,71, STE, NT and XT must be completed by Nortel Networks Software Conversion Lab. Consult the current Nortel Networks price book for cost and contact information.

If the system is equipped with IOP/CMDU cards the database must be converted with the Database Transfer utility. See "Database transfer" on .

If the system is equipped with IODUC cards, the database should be data dumped (EDD) to a blank 2 MB floppy.

All systems can be converted by Nortel Networks in the software conversion lab.

If the system is equipped with IOP/CMDU cards the database must be converted with the Database Transfer utility. See "Database transfer" on page 179.

If the system is equipped with IODUC cards, the database should be data dumped (EDD) to a blank 2 MB floppy.

Identify two unique IP addresses

Each CP PII system must be configured with two unique IP addresses for LAN identification and communication. One IP address is defined for the *active* Core. The second IP address is defined for the *inactive* Core. In this configuration, the *active* Core (either Core 0 or Core 1) that handles call processing is always identified by the same IP address.

- Contact your systems administrator to identify two unique IP addresses before the upgrade.

- For instructions to configure these IP numbers, see "Configuring IP addresses" on page 667 of Book 1.

Perform installation

Procedure 185
Installing the new Call Processor card and Succession 3.0 software

> ⚠️ **IMPORTANT!**
>
> Power down all applications (Meridian Mail, Call Pilot, Symposium).

At this time you will install the new Call Processor card and Succession 3.0 system software if it is not already installed on the hard drive.

1   Connect a terminal to the CPSI port in the Core module to J25 of the I/O panel at the back of the core. Be sure it is configured as follows. The recommended baud rate is 9600, to be the same as the CPSI port.

2   7 data bits

3   1 stop bit

4 Space parity

5 Full duplex

6 XON protocol

7 Set the NORM/MAINT switch to MAINT, disengage the lock latches and remove the Call Processor card from the Core module.

8 Insert the Install diskette that corresponds to the Call Processor card you will be installing into the IODU/C.

9 Install the CD-ROM disk into the CD-ROM drive. To install the CD-ROM:

10 press the button on the CD-ROM drive to open the CD-ROM disk holder

11 place the CD-ROM disk into the holder with the disk label showing

12 press the button again to close the CD-ROM disk holder (don't push the holder in by hand)

13 Verify that the MAINT/NORM switch on the NT5D10 Call Processor card is set to NORM.

14 Verify that the ENB/DIS switch on the CNI card is set to ENB.

15 Insert the new Call Processor card in the same slot in the Core module and secure the lock latches.

16 The system will automatically load the software install program.

17 When the NT Logo Screen appears on the terminal, the Software Installation Tool has loaded. Press **<CR>** to go to the Install Main Menu.

18 Set the system date and time. When prompted to enter the time and date, enter it in the following format. A space or dash can be used to separate the items.

19 dd mm yyyy
hh mm ss
or
dd-mm-yyyy
hh-mm-ss

20   At the Main menu select **<u>** to go to the Install menu.

Nortel Meridian - 1 Software/Database/PEROM CDROM INSTALL Tool (x11)
— —
M A I N   M E N U

The Software Installation Tool will install or upgrade Meridian-1
System Software, Database and the PE-ROM (both CP and IOP ROM).
You will be prompted throughout the installation and given the
opportunity to quit at any time.

Please enter:

<CR>-->   <u> - To Install menu.

<t> - To Tools menu.

<q> - Quit.

Enter choice > **u**   553-7780

21   Insert the Keycode diskette when prompted and select **<a>** to continue
with the keycode validation.

Nortel Meridian - 1 Software/Database/PEROM CDROM INSTALL Tool (x11)
— —

The Software Installation Tool will install or upgrade
Succession Enterprise System Software, Database and the CP-BOOTROM.
You will be prompted throughout the installation and given the
opportunity to quit at any time.
Please enter:

<CR> -> <u> - To Install menu

<t> - To Tools menu.   553-7729

<q> - Quit.

Enter Choice>

>Validating Keycode

Once the keycode is validated against the Security Device, the Install menu is
displayed.

22 When the Install menu appears, select the following options in sequence when you are prompted to do so:

<a>   to install software, CP-BOOT ROM and IOP-ROM

<y>   to start installation

<a>   to continue with the upgrade

23 Following the software installation, install the CP-BOOT and IOP-ROMs. From the menu select the following:

<a>   to continue with ROM upgrade

<a>   to continue with ROM upgrade (CP-BOOT ROM)

<y>   to start installation

<a>   to continue with ROM upgrade (IOP-ROM)

24 Remove the diskette from the IODU/C.

25 Select the following options to quit and reload the system:

<q>   to quit

<yes>   to confirm quit

<a>   to reboot the system

The system will automatically perform a sysload and system initialization during which several messages will appear on the system terminal. Wait until initialization has finished (INI messages are no longer displayed on the system terminal) before continuing.

Note 1: SYS4695 is not an error message. This message is cleared when you perform a data dump.

Note 2: If you are converting from a Release prior to Succession 3.0 Software, the following message appears on the system terminal:

DATA CONVERSION

RELEASE xx.xx TO RELEASE xx.xx

26 Verify that the "DONE" message appears on the system terminal.

Note: The SYSTEM INI message may take 70 seconds or more to appear.

IMPORTANT!

Power up all applications (Meridian Mail, Call Pilot, Symposium).

Complete the upgrade

Procedure 186
Completing the upgrade

To complete the Call Processor card upgrade, verify CPU and CNI status.

1 Verify CPU and CNI functionality:

   LD 135   Load the overlay

   STAT CPU   Check the CPU status

   STAT CNI   Verify CNI functionality

   ****   Exit program

2 Backup the customer database to 2mb diskettes:

3 Load the Equipment Data Dump Program (LD 43). At the prompt, enter

   LD 43   Load program

4 When "EDD000" appears on the terminal, enter

   EDD   Begin the data dump

CAUTION

Loss of Data

If the data dump is not successful, do not continue; contact your technical support organization. A data dump problem must be corrected before proceeding.

---

5 When "DATADUMP COMPLETE" and "DATABASE BACKUP
COMPLETE" appear on the terminal, enter:

    ****   Exit program

6 Evaluate the number of call registers and telephone buffers that are
configured for the system. Refer to *Large System: Planning and
Engineering* (553-3021-120).

✔   The Call Processor card upgrade is complete.

———————————————————— **End of Procedure** ————————————

Note: Proceed to "Post-conversion procedure" on .

Installing IODU/C on Meridian 1 Option 51C

CAUTION WITH ESD DEVICES

To avoid damaging equipment from electrostatic discharge, wear a properly connected anti-static wrist strap when working on or near Meridian 1 equipment.

WARNING

Use the procedures in this section if the system is equipped with IOP/CMDU cards. If the system is not equipped with the IOP/CMDU card, do not use these procedures.

This procedure is used to upgrade CP1, CP2, CP3 and CP4 systems with IOP/CMDU to IODUC cards.

To better understand the process, read through the entire procedure before beginning the conversion.

"Database transfer" on must be completed before proceeding.

Prepare for installation

This document implements a source to target approach to performing an upgrade. It is important to correctly identify the source platform, target platform and maintenance window required to perform the upgrade.

Each chapter features check boxes indicating what condition the system should be in at that stage of the upgrade. If the system is not in the proper condition steps should be taken to correct this.

Each section is written to maintain Dial Tone where possible and limit service interruptions.

Before attempting any software or hardware upgrade field personnel should follow the steps in Table 40 below:

Table 40
Prepare for upgrade steps

Procedure Step	Page
Planning	563
Upgrade Checklists	564
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Planning

Planning for an upgrade involves the following tasks:

- Conduct a site inspection to determine proper power and grounding.

- Review the site profile to determine proper foot space if adding new columns or modules.

- Ensure sufficient power for new columns/modules or applications.

- Identify all applications (Call Pilot, SCCS, IP, Meridian Mail etc.) that are currently installed on the source platform.

- Identify and correct outstanding service problems.

- Verify the site log is updated with current trunking, call routing, application notes, and site contact information.

- Review all product bulletins and Nortel Alerts that impact the site.

- Determine if software can be converted on site or must be sent to Nortel Networks.

- Prepare a contingency plan for backing out of the upgrade.

Upgrade Checklists

Upgrade checklists can be found in the"Upgrade checklists" chapter on . Engineers may print this section in order to facilitate the upgrade.

Preparing

Preparing for an upgrade involves the following tasks:

- Identify and become familiar with all procedures.

- Verify that all installed applications meet the minimum software requirements for the target platform (see Table 4 on of Book 1).

- Verify proper cable lengths for the target platform.

- Verify card vintage requirements of the target platform.

- Determine current patch or Dep lists installed at the source platform.

- Determine the required patch or Dep lists at the target platform.

- Determine and communicate the required maintenance window, contingency plan and the impact to the customer to complete the procedure.

- Perform an inventory on required software and hardware.

- Secure the source software and key code.

- Secure the target software and key code.

- Verify the new key code using the DKA program.

- Print site data.

Identifying the proper procedure

Each procedure has been written in a source to target format. Each procedure features warning boxes and check boxes placed at critical points. Changing the procedure or ignoring the warning boxes could cause longer service interruptions.

> ### IMPORTANT!
>
> Database backup information should be preserved for a minimum of 5 days.

Connect a terminal

Procedure 187
Connecting a terminal

A maintenance terminal is required to access the Core or Core/Net modules during the upgrade procedure.

1 Connect a terminal to the J25 port on the I/0 panel in the *inactive* Core or Core/Net module.

2 The settings for the terminal are:

    a. 9600 Baud

    b. 7 data

    c. space parity

    d. 1 stop bit

    e. full duplex

    f. XOFF

3 If only one terminal is used for both Core or Core/Net modules, the terminal must be connected from side-to-side to access each module. An "A/B" switch box can also be installed to switch the terminal from side to side.

Print side data

End of Procedure

Print Site Data

Print site data to preserve a record of the system configuration (Table 41 below). Verify that all information is correct. Make corrections as necessary.

Note: Items marked with an asterisk (*) are required. Other items are recommended for a total system status.

Table 41
Print site data (Part 1 of 3)

Site data	Print command	
Terminal blocks for all TNs	LD 20	
	REQ	PRT
	TYPE	TNB
	CUST	<cr>
Directory Numbers	LD 20	
	REQ	PRT
	TYPE	DNB
	CUST	<cr>
Attendant Console data block for all customers	LD 20	LD 20
	REQ	PRT
	TYPE	ATT, 2250
	CUST	<cr>
*Customer data block for all customers	LD 21	LD 21
	REQ	PRT
	TYPE	CDB
	CUST	<cr>
Route data block for all customers	LD 21	
	REQ	PRT
	TYPE	RDB
	CUST	Customer number
	ROUT	<cr>
	ACOD	<cr>

Table 41
Print site data (Part 2 of 3)

Site data	Print command	
*Configuration Record	LD 22	
	REQ	PRT
	TYPE	CFN
*Software packages	LD 22	
	REQ	PRT
	TYPE	PKG
*Software issue, ROM and tape ID	LD 22	
	REQ	ISS
	REQ	ROM
	REQ	TID
* Peripheral software versions	LD 22	
	REQ	PRT
	TYPE	PSWV
ACD data block for all customers	LD 23	
	REQ	PRT
	TYPE	ACD
	CUST	Customer Number
	ACDN	ACD DN (or <CR>)
Superloop card IDs and software version (peripheral controller, superloop network and controller cards)	LD 32	IDC loop
Multi-purpose ISDN Signaling Processor (MISP) card	LD 27	
	REQ	PRT
	TYPE	MISP
	LOOP	loop number (0-158)
	APPL	<cr>
	PH	<cr>

Table 41
Print site data (Part 3 of 3)

Site data	Print command	
DTI/PRI data block for all customers	LD 73	
	REQ	PRT
	TYPE	DDB
Note: Items marked with asterisks (*) are required printout for conversion. Other items are recommended for a total system status.		

Perform a template audit

A template audit (LD 01) reviews the templates in your system. Corrupted and duplicate templates are cleaned up. An example of the information generated during the audit is listed below.

Note: The template audit may take an extended period of time on large systems. Run the audit during a low traffic period.

> **CAUTION**
>
> **Loss of Data**
>
> Do not abort this overlay until the audit is complete. If the overlay is interrupted, data will be corrupted.

LD 01   The audit begins as soon as LD 01 is entered.

TEMPLATE AUDIT

STARTING PBX TEMPLATE SCAN

TEMPLATE 0001 USER COUNT LOW	**CHECKSUM OK**
TEMPLATE 0002 USER COUNT HIGH	**CHECKSUM OK**

TEMPLATE 0003 NO USERS FOUND

STARTING SL1 TEMPLATE SCAN

TEMPLATE 0001 USER COUNT OK   CHECKSUM OK

•

•

TEMPLATE 0120 USER COUNT OK   CHECKSUM OK

TEMPLATE AUDIT COMPLETE

Back up the database (data dump and ABKO)

To back up system data, complete the following two procedures.

1   Perform a data dump to save all system memory to the hard disk.

2   Perform a ABKO (attended backup) to save the database to a spare set of floppy disks.

Procedure 188
Performing a data dump

1   Log into the system.

2   Load the Equipment Data Dump Program (LD 43). At the prompt, enter:

   LD 43   Load program

3   When "EDD000" appears on the terminal, enter:

   EDD   Begin the data dump

CAUTION

Loss of Data

If the data dump does not succeed, do not continue. Contact your technical support organization. You must correct a data dump problem before the system can be upgraded.

4   The messages "DATADUMP COMPLETE" and "DATABASE BACKUP COMPLETE" will appear once the data dump is complete.

    ****   Exit program

———————— **End of Procedure** ————————

Procedure 189
Performing an ABKO (save the database to floppies)

1   Insert floppy diskettes into BOTH floppy disk drives in each Core IODU/C or MMDU.

Note: If the file is too large to fit on a single floppy disk, the ABKO command will compress the data. If the compressed data is still too large to fit on a single disk, both floppy disks in the two IODU/C drives will be used. Be sure to insert floppy disks into BOTH IODU/C drives before the ABKO backup is begun.

2   Load the Customer Configuration Backup and Restore (LD 143). At the prompt, enter:

    LD 143   Load program

3   Run the ABKO backup (LD 143).

    ABKO   Run the backup

Result: If the backup is successful, the system displays a message that states that the database backup is complete and generates a report that indicates which floppy drives were used.

4 If there are validation errors, repeat the procedure.

CAUTION

Loss of Data

If the backup is not successful, do not continue; contact your technical support organization. Any backup problems must be corrected before the system is upgraded to CP PII.

---

5 Once the backup is complete, type:

****   Exit program

--- **End of Procedure** ---

Convert the 4 MB database media to 2 MB database media

IMPORTANT!

If the system is equipped with IOP/CMDU cards the database must be converted with the Database Transfer utility.

If the system is equipped with IOP/CMDU cards the database must be converted with the Database Transfer utility.

All systems can be converted by Nortel Networks in the software conversion lab.

Identify two unique IP addresses

Each CP PII system must be configured with two unique IP addresses for LAN identification and communication. One IP address is defined for the *active* Core. The second IP address is defined for the *inactive* Core. In this

configuration, the *active* Core (either Core 0 or Core 1) that handles call processing is always identified by the same IP address.

• Contact your systems administrator to identify two unique IP addresses before the upgrade.

• For instructions to configure these IP numbers, see "Configuring IP addresses" on of Book 1.

Perform installation

Verify memory

Determine whether the system requires additional memory. Refer to Table 42 on for memory requirement.

Table 42
Supported memory upgrade configurations (Part 1 of 2)

Total Memory	Total FLASH	Total DRAM	Call Processor		Slot 0	Slot 1	Slot 2	Slot 3
			68060	68060E	X5	X6	X7	X8
48	32	16	NT5D10AA	NT5D03AA	16	0	0	0
64	32	32	NT5D10CA	NT5D03BA	16	16	0	0
					32	0	0	0
80	32	48	NT5D10EA	NT5D03CA	16	16	16	0
					16	32	0	0
96	32	64	NT5D10TA	NT5D03TA	16	16	16	16
					16	16	32	0
					32	32	0	0
112*	32	80	NT5D10UA	NT5D03UA	16	16	16	32
					16	32	32	0
128*	32	96	NT5D10VA	NT5D03VA	16	16	32	32
					32	32	32	0
96	64	32	N/A	N/A	16	16	0	0
					32	0	0	0
112	64	48	NT5D10JA	NT5D03EA	16	16	16	0
					16	32	0	0
128	64	64	N/A	NT5D03FA	16	16	16	16
128	64	64	NT5D10FB	NT5D03FB	16	16	16	16

* This configuration requires Release 24 or later.

** The 68040 CP card is available in A and B vintages. When labeling the CP card, use the appropriate vintage suffix.

Table 42
Supported memory upgrade configurations (Part 2 of 2)

Total Memory	Total FLASH	Total DRAM	Call Processor		Slot 0	Slot 1	Slot 2	Slot 3
			68060	**68060E**	**X5**	**X6**	**X7**	**X8**
					16	16	32	0
					32	32	0	0
144*	64	80	NT5D10NA	NT5D03NA	16	16	16	32
					16	32	32	0
160*	64	96	NT5D10PB	NT5D03PB	16	16	32	32
					32	32	32	0

* This configuration requires Release 24 or later.

** The 68040 CP card is available in A and B vintages. When labeling the CP card, use the appropriate vintage suffix.

Succession 3.0 Software

Table 43 lists the memory requirements of Succession 3.0 Software.

Table 43
Succession 3.0 Software minimum memory requirements

System type	Flash memory requirement	DRAM memory requirement	Total memory requirement
Meridian 1 Option 51C/61C	32 MB	48 MB	128 MB
Meridian 1 Option 61C CP PII	64 MB	64 MB	256 MB
Meridian 1 Option 81/81C	32 MB	64 MB	96 MB
• Meridian 1 Option 81/81C systems operating on Call Processor 68060 or 68060E with five or fewer network groups (including Fiber Network Fabric systems)	32 MB	64 MB	96 MB
• any Meridian 1 Option 81/81C systems operating on Call Processor 68040	32 MB	64 MB	96 MB
Meridian 1 Option 81/81C Meridian 1 Option 81/81C systems operating on Call Processor 68060 or 68060E with six or more network groups	64 MB	96 MB	160 MB
Meridian 1 Option 81C CP PII	128 MB	128 MB	256 MB

STAT the hardware on the Meridian 1 Option 51C

Procedure 190
Determining the hardware status on the Meridian 1 Option 51C

1   Access LD 137 and get the status of the hard disk.

> **LD 137**   Load program
>
> **STAT**   Get the status of the hard disks

2   Access LD 135 and get status of the CP, CNI and memory.

> **LD 135**   Load program
>
> **STAT CPU**   Get the status of the CP and memory
>
> **STAT CNI**   Get the status of the CNI

———————— **End of Procedure** ————————

Use the Database Transfer Utility

Procedure 191
Using the Database Transfer Utility

1   Place the database transfer utility disk that matches your system type into the floppy drive of Core/Net 1.

2   Press the manual reset button on the CP card in Core/Net 1.

3   When the Nortel Networks Logo Screen appears on the terminal, the Database Transfer Utility has loaded. Press **<CR>** to continue.

⚠	**CAUTION** **Loss of Data** When using the Database Transfer Utility, do not select options other than those specified by this procedure. Selecting any other options can result in operating system corruption.

4   When the Main Menu appears, select **<d>** *To install Database only.*

5   Select **<c>** *to transfer the previous system database (DBMT).* Follow all on-screen instructions. When DBMT is complete, press **<CR>** to return to the Main Menu.

6   Select **<t>** to go to the Tools Menu

    <s>   to archive existing database

    <a>   to continue with archive (insert 2.0 Mbyte diskette into the floppy drive in Core 1)

    <a>   diskette is now in floppy drive in side 1

The message "Database backup complete!" is displayed and the Tool menu reappears after the backup is successfully completed.

7   Remove the 2.0 Mbyte diskette containing the customer database from the IOP/CMDU floppy drive.

IMPORTANT!

Database backup information should be preserved for a minimum of 5 days.

---

8   When the database is converted to 2.0 Mbyte, place it in a safe place for use after the IOP/CMDU card is replaced with an IODU/C card, and continue with the system upgrade.

———— **End of Procedure** ————

Upgrade Core/Net 1 Hardware

Procedure 192
Upgrading Core/Net 1 hardware

1   Remove IOP/CMDU if replacing or upgrading to IODUC.

2   Install new CP cards in Core/Net 1.

3 Install new IODUC card in Core/Net 1.

Note: Ensure the provided security device is installed (see Figure 29 on).

Figure 29
Security Device holder
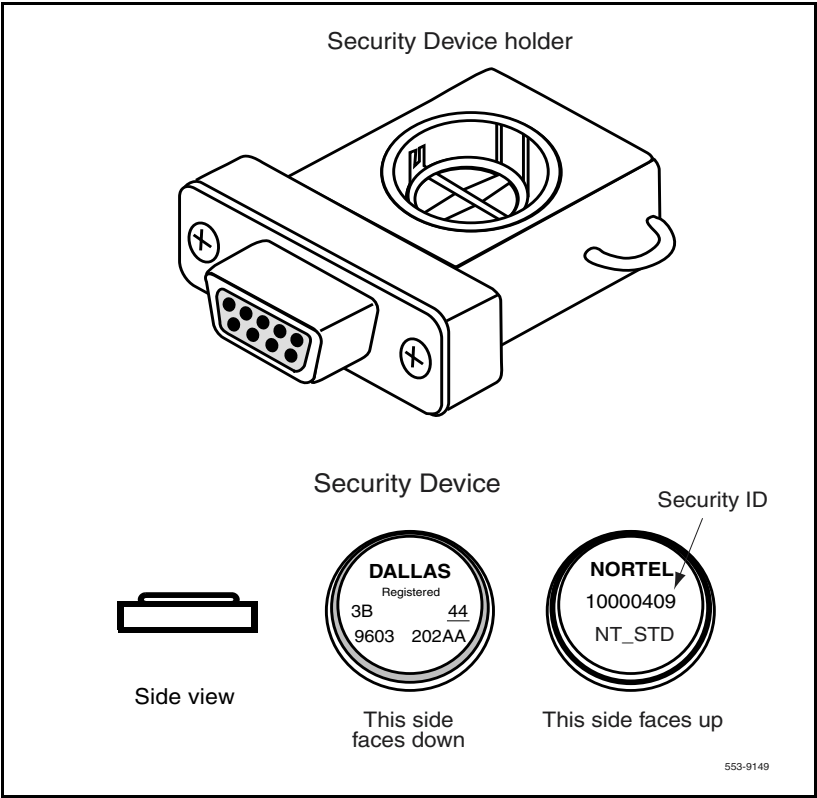
------ **End of Procedure** ------

> **IMPORTANT!**
>
> Power down all applications (Meridian Mail, Call Pilot, Symposium).

Install new software on Meridian 1 Option 51C

Procedure 193
Installing the software and converting the database

1 Install the CD-ROM into the CD-ROM drive in the MMDU:

    a. Press the button on the CD-ROM drive to open the CD-ROM disk holder.

    b. Place the CD-ROM disk into the holder with the disk label showing.

    c. Press the button again to close the CD-ROM disk holder. Do not push the holder in by hand.

Note: If the CD-ROM is not in the CD-ROM drive, the installation will not continue. Insert the CD-ROM to continue.

2 Place the Install floppy disk into the MMDU floppy drive.

Note: If a problem is detected during the system verification, Install stops, prints an error message, and aborts the installation. If the verification is not successful, do not continue; contact your technical support organization.

3 Press the manual RESET button on the CP card faceplate.

4   Select yes or (no) when asked if a Signaling Server is connected:

> System Date and Time now is:
>
>   Day-Month-Year, Hour:Min:Sec
>
>   Succession Enterprise Software/Database/BOOTROM CDROM INSTALL Tool
>
>   Does this System have a Signaling Server.....? (Default - No)
>
>   Please enter:
>
> <CR> -> <n> - No
>
>   <y> - Yes
>
>   Enter Choice>

5   The system then enters the Main Menu for keycode authorization. Remove the CP PII Install Program diskette and insert the Keycode diskette .

> M A I N   M E N U
>
>   The Software Installation Tool will install or upgrade Succession Enterprise System Software, Database and the CP-BOOTROM. You will be prompted throughout the installation and given the opportunity to quit at any time.
>
>   Please enter:
>
> <CR> -> <u> - To Install menu
>
>   <t> - To Tools menu.
>
>   <q> - Quit.
>
>   Enter Choice> **<CR>**
>
>   >Validating Keycode
>
> The provided keycode authorizes the install of X210300 software
>
> (all subissues) for machine type XXXX
>
> (XXX processor on XXXX System)

IMPORTANT!

Remove keycode floppy disk at this time and insert the
database backup disk.

6 The screen displays the Install Menu. Confirm that the keycode matches
the CD-ROM release:

Please confirm that this keycode matches the CDROM Release

Please enter:

<CR> -> <y> - Yes, the keycode matches. Go on to Install Menu.

<n> - No, the keycode does not match. Try another keycode
diskette.

Enter Choice> **<CR>**

>Obtain database file names

7 Enter **b** to install the Software, Database and CP-BOOTROM:

I N S T A L L   M E N U

The Software Installation Tool will install or upgrade Succession Enterprise System Software, Database and the CP-BOOTROM. You will be prompted throughout the installation and given the opportunity to quit at any time.

Please enter:

<CR> -> <a> - To install Software, CP-BOOTROM.

    <b> - To install Software, Database, CP-BOOTROM.

    <c> - To install Database only.

    <d> - To install CP-BOOTROM only.

    <t> - To go to the Tools menu.

    <k> - To install Keycode only.

      For Feature Expansion, use OVL143.

    <p> - To install 3900 set Languages.

    <q> - Quit.

Enter Choice> **b**

---

8   Verify the CD-ROM version:

Please insert the installation CDROM into the drive on Core X.

The labeled side of the CDROM should be side up in the CDROM tray.

Please enter:

<CR> -> <a> - CDROM is now in drive. Continue with s/w checking.

<q> - Quit.

Enter Choice> **<CR>**

The installation CDROM contains version X210300_K.

Please enter:

<CR> -> <y> - Yes, this is the correct version. Continue.

<n> - No, this is not the correct version. Try another CDROM.

or keycode disk

Enter Choice> **<CR>**

>copying direct.rec from /cd0/0300_KMR.N33/target/p/sl1/ direct.rec to /u/direct.rec

>Updating /u/direct.rec

>Processing the Install Control file

>Installing release 0300K

---

9   Confirm all options before installing the software:

```
                    INSTALLATION STATUS SUMMARY

                ---------------------------------------------

        ============+========+========+=============
        |    Option    |    Choice    | Status |    Comment        |
        ================+========+========+=========
        | SW: CD to disk |      yes      |      | install for rel 0300K |
        ============+========+========+=============
        |    Option    |    Choice    | Status |    Comment        |
        ================+========+========+=========
        |   Database   |     yes      |      |      |      |
        |    Option    |    Choice    | Status |    Comment        |
        ================+========+========+=========
        | CP-BOOTROM |     yes      |      |      |      |

            Please enter:<CR> -> <y> - Yes, start Installation.

            <n> - No, stop Installation. Return to the Main Menu.
```

Enter Choice> **<CR>**

>Checking System Configuration

You selected to upgrade the system from release: XXXX to release: 0300K.

This will erase all old system files.

Database files will NOT be erased. You may continue installing the software or quit now and leave your system unchanged.

Please enter:

<CR> -> <a> - Continue with Upgrade.

<q> - Quit.

Enter Choice> **<CR>**

>Starting Software Install

>Upgrading from release XXXX to release 0300K

10 After a number of files are copied over, select a PSDL file to install. The PSDL file contains the loadware for all downloadable cards in the system and loadware for M3900 series sets.

Select one of the six PSDL files

<1>   Global 10 Languages

<2>   Western Europe 10 Languages

<3>   Eastern Europe 10 Languages

<4>   North America 6 Languages

<5>   Spare Group A

<6>   Spare Group B

The languages contained in each selection are outlined as follows:

- 1 – Global 10 Languages (Release 3) English, French, German, Spanish, Swedish, Italian, Norwegian, Brazilian Portuguese, Finnish, Japanese Katakana.

- 2 – Western Europe 10 Languages (Release 3) English, French, German, Spanish, Swedish, Italian, Norwegian, Brazilian Portuguese, Finnish, Danish.

- 3 – Eastern Europe 10 Languages (Release 3) English, French, German, Dutch, Polish, Czech, Hungarian, Russian, Latvian, Turkish.

- 4 – North America six Languages (Release 3) English, French, German, Spanish, Brazilian Portuguese, Japanese Katakana.

- 5 – Spare Group A.

- 6 – Spare Group B.

11 Continue with upgrade when prompted. Select a database to install:

Software release 0300K was installed successfully on Core X.

All files were copied from CDROM to the hard disk.

Please press <CR> when ready... **<CR>**

You will now perform the database installation.

Note: If you are installing the Database from a floppy disk, please insert the correct disk now.

Please enter:

<CR> -> <a> - Install CUSTOMER Database

(the customer database diskette must be in the Core X disk drive).

<b> - Install DEFAULT Database

(the installation CDROM must be in the Core X disk drive).

<c> - Transfer the previous system Database.

<e> - Check the Database that exists on the hard disk.

<q> - Quit.

Enter Choice> **<CR>**

12 Confirm database transfer:

You selected to transfer the database from the floppy disk - release: XXXX to the hard disk on Core X. release: XXXX.

This will erase the database on the hard disk.

The database diskette has been inserted into the floppy disk drive.

If you quit now, the database will be left unchanged.

Please enter:

<CR> -> <a> - Continue with Database Install.

<q> - Quit.

Enter Choice> **<CR>**

The system then informs you of the database details and prompts you to confirm:

> You have chosen to restore database dated: Jul 07 14:10:00 2003
>
> Please confirm.
>
> Please enter:
>
> <CR> -> <y> - Yes, load.
>
> <n> - No, DO NOT load.
>
> Enter Choice> **<CR>**

13 The system restores the database and provides a status summary.

Note: The hard drive on a new system displays an error message that no database is found on hard drive. This message can be ignored.

14 Enter **<CR>** when prompted, returning the system to the Install Menu.

15 Enter **q** to quit:

I N S T A L L   M E N U

The Software Installation Tool will install or upgrade Succession Enterprise System Software, Database and the CP-BOOTROM. You will be prompted throughout the installation and given the opportunity to quit at any time.

Please enter:

<CR> -> <a> - To install Software, CP-BOOTROM.

<b> - To install Software, Database, CP-BOOTROM.

<c> - To install Database only.

<d> - To install CP-BOOTROM only.

<t> - To go to the Tools menu.

<k> - To install Keycode only.

For Feature Expansion, use OVL143.

<p> - To install 3900 set Languages.

<q> - Quit.

Enter Choice> **q**

---

16 The system then prompts you to confirm and reboot:

You selected to Quit the Software Installation Tool.

You may reboot the system or return to the Main Menu.

Before rebooting the system, remove Install diskette from the floppy drive(s).

DO NOT REBOOT USING BUTTON!!

Please enter:

<CR> -> <a> - Reboot the system.

<m> - Return to the Main menu.

Enter Choice> **<CR>**

>Removing temporary files

>Remove /u/diskXXXX.sys

>Quit Install. Reboot system...

Note: Before completing the next procedure, wait the Core/Net to INI.

──────────────── **End of Procedure** ────────────────

IMPORTANT!

Power up all applications (Meridian Mail, Call Pilot, Symposium).

Complete the upgrade

Procedure 194
Completing the upgrade

1   Perform a redundancy sanity test using the following sequence:

    LD 135   Load program

    STAT CNI   Get status of CNI card

    STAT CPU   Get status of CPU and memory

2   Clear the display and minor alarms.

    CDSP   Clear the displays on the Cores

    CMAJ   Clear major alarms

    CMIN ALL   Clear minor alarms

    ****   Exit program

3   Check dial tone.

4   Make internal, external and network calls.

5   Check attendant console activity.

6   Check DID trunks.

> *Note:* Proceed to "Post-conversion procedure" on .

———————— **End of Procedure** ————————

Installing a Call Processor on Options 61C, 81, 81C

CAUTION WITH ESD DEVICES

To avoid damaging equipment from electrostatic discharge, wear a properly connected anti-static wrist strap when working on or near Meridian 1 equipment.

WARNING

Use the procedures in this section if the system is equipped with NT5D61 Input Output Disk Unit with CD-ROM (IODU/C) card(s). If the system is not equipped with the IODU/C card, do not use these procedures.

WARNING

Service Interruption

The Call Processor card must be removed from the system to perform this upgrade, causing loss of service to the entire telephone system. Plan to perform the upgrade when impact to telephone users is minimal.

This procedure is for systems equipped with IODU/C cards only. If your system is equipped with an IOP/CMDU or IOP and CMDU cards, they must be upgraded first.

Installing an NT5D10 or NT5D03 Call Processor card in a Meridian 1 Option 51C system consists of:

- Installing a new Call Processor card in the Core module.

- Upgrading the system software and Call Processor ROMs.

Prepare for installation

This document implements a source to target approach to performing an upgrade. It is important to correctly identify the source platform, target platform and maintenance window required to perform the upgrade.

Each chapter features check boxes indicating what condition the system should be in at that stage of the upgrade. If the system is not in the proper condition steps should be taken to correct this.

Each section is written to maintain Dial Tone where possible and limit service interruptions.

Before attempting any software or hardware upgrade field personnel should follow the steps in Table 44 below:

Table 44
Prepare for upgrade steps

Procedure Step	Page
Planning	593
Upgrade Checklists	594
Preparing	594
Identifying the proper procedure	595
Connect a terminal	595
Print Site Data	596
Perform a template audit	598
Back up the database (data dump and ABKO)	599
Convert the 4 MB database media to 2 MB database media	602
Identify two unique IP addresses	602

Planning

Planning for an upgrade involves the following tasks:

- Conduct a site inspection to determine proper power and grounding.

- Review the site profile to determine proper foot space if adding new columns or modules.

- Ensure sufficient power for new columns/modules or applications.

- Identify all applications (Call Pilot, SCCS, IP, Meridian Mail etc.) that are currently installed on the source platform.

- Identify and correct outstanding service problems.

- Verify the site log is updated with current trunking, call routing, application notes, and site contact information.

- Review all product bulletins and Nortel Alerts that impact the site.

- Determine if software can be converted on site or must be sent to Nortel Networks.

- Prepare a contingency plan for backing out of the upgrade.

Upgrade Checklists

Upgrade checklists can be found in the "Upgrade checklists" chapter on . Engineers may print this section in order to facilitate the upgrade.

Preparing

Preparing for an upgrade involves the following tasks:

- Identify and become familiar with all procedures.

- Verify that all installed applications meet the minimum software requirements for the target platform (see Table 4 on of Book 1).

- Verify proper cable lengths for the target platform.

- Verify card vintage requirements of the target platform.

- Determine the current patch or Dep lists installed at the source platform.

- Determine the required patch or Dep lists at the target platform.

- Determine and communicate the required maintenance window, contingency plan and the impact to the customer to complete the procedure.

- Perform an inventory on required software and hardware.

- Secure the source software and key code.

- Secure the target software and key code.

- Verify the new key code using the DKA program.

- Print site data.

Identifying the proper procedure

Each procedure has been written in a source to target format. Each procedure features warning boxes and check boxes placed at critical points. Changing the procedure or ignoring the warning boxes could cause longer service interruptions.

> **IMPORTANT!**
>
> Database backup information should be preserved for a minimum of 5 days.

Connect a terminal

Procedure 195
Connecting a terminal

A maintenance terminal is required to access the Core or Core/Net modules during the upgrade procedure.

1 Connect a terminal to the J25 port on the I/0 panel in the *inactive* Core or Core/Net module.

2 The settings for the terminal are:

    a. 9600 Baud

    b. 7 data

    c. space parity

    d. 1 stop bit

    e. full duplex

    f. XOFF

3 If only one terminal is used for both Core or Core/Net modules, the terminal must be connected from side-to-side to access each module. An "A/B" switch box can also be installed to switch the terminal from side to side.

Print site data

────── **End of Procedure** ──────

Print Site Data

Print site data to preserve a record of the system configuration (Table 45 below). Verify that all information is correct. Make corrections as necessary.

Note: Items marked with an asterisk (*) are required. Other items are recommended for a total system status.

Table 45
Print site data (Part 1 of 3)

Site data	Print command	
Terminal blocks for all TNs	LD 20	
	REQ	PRT
	TYPE	TNB
	CUST	<cr>
Directory Numbers	LD 20	
	REQ	PRT
	TYPE	DNB
	CUST	<cr>
Attendant Console data block for all customers	LD 20	LD 20
	REQ	PRT
	TYPE	ATT, 2250
	CUST	<cr>
*Customer data block for all customers	LD 21	LD 21
	REQ	PRT
	TYPE	CDB
	CUST	<cr>

Table 45
Print site data (Part 2 of 3)

Site data	Print command	
Route data block for all customers	LD 21	
	REQ	PRT
	TYPE	RDB
	CUST	Customer number
	ROUT	<cr>
	ACOD	<cr>
*Configuration Record	LD 22	
	REQ	PRT
	TYPE	CFN
*Software packages	LD 22	
	REQ	PRT
	TYPE	PKG
*Software issue, ROM and tape ID	LD 22	
	REQ	ISS
	REQ	ROM
	REQ	TID
* Peripheral software versions	LD 22	
	REQ	PRT
	TYPE	PSWV
ACD data block for all customers	LD 23	
	REQ	PRT
	TYPE	ACD
	CUST	Customer Number
	ACDN	ACD DN (or <CR>)
Superloop card IDs and software version (peripheral controller, superloop network and controller cards)	LD 32	
		IDC loop

Table 45
Print site data (Part 3 of 3)

Site data	Print command	
Multi-purpose ISDN Signaling Processor (MISP) card	LD 27	
	REQ	PRT
	TYPE	MISP
	LOOP	loop number (0-158)
	APPL	<cr>
	PH	<cr>
DTI/PRI data block for all customers	LD 73	
	REQ	PRT
	TYPE	DDB
Note: Items marked with asterisks (*) are required printout for conversion. Other items are recommended for a total system status.		

Perform a template audit

A template audit (LD 01) reviews the templates in your system. Corrupted and duplicate templates are cleaned up. An example of the information generated during the audit is listed below.

Note: The template audit may take an extended period of time on large systems. Run the audit during a low traffic period.

CAUTION

Loss of Data

Do not abort this overlay until the audit is complete. If the overlay is interrupted, data will be corrupted.

LD 01   The audit begins as soon as LD 01 is entered.

TEMPLATE AUDIT

STARTING PBX TEMPLATE SCAN

TEMPLATE 0001 USER COUNT LOW	**CHECKSUM OK**
TEMPLATE 0002 USER COUNT HIGH	**CHECKSUM OK**
TEMPLATE 0003 NO USERS FOUND	
STARTING SL1 TEMPLATE SCAN	
TEMPLATE 0001 USER COUNT OK	**CHECKSUM OK**
•	
•	
TEMPLATE 0120 USER COUNT OK	**CHECKSUM OK**
TEMPLATE AUDIT COMPLETE	

Back up the database (data dump and ABKO)

To back up system data, complete the following two procedures.

1 Perform a data dump to save all system memory to the hard disk.

2 Perform a ABKO (attended backup) to save the database to a spare set of floppy disks.

Procedure 196
Performing a data dump

1 Log into the system.

2 Load the Equipment Data Dump Program (LD 43). At the prompt, enter:

LD 43   Load program

3 When "EDD000" appears on the terminal, enter:

EDD   Begin the data dump

> **CAUTION**
>
> **Loss of Data**
>
> If the data dump does not succeed, do not continue. Contact your technical support organization. You must correct a data dump problem before the system can be upgraded.

4 The messages "DATADUMP COMPLETE" and "DATABASE BACKUP COMPLETE" will appear once the data dump is complete.

    ****   Exit program

──────── **End of Procedure** ────────

Procedure 197
Performing an ABKO (save the database to floppies)

1 Insert floppy diskettes into BOTH floppy disk drives in each Core IODU/C or MMDU.

Note: If the file is too large to fit on a single floppy disk, the ABKO command will compress the data. If the compressed data is still too large to fit on a single disk, both floppy disks in the two IODU/C drives will be used. Be sure to insert floppy disks into BOTH IODU/C drives before the ABKO backup is begun.

2 Load the Customer Configuration Backup and Restore (LD 143). At the prompt, enter:

    LD 143   Load program

3 Run the ABKO backup (LD 143).

    ABKO   Run the backup

Result: If the backup is successful, the system displays a message that states that the database backup is complete and generates a report that indicates which floppy drives were used.

4   If there are validation errors, repeat the procedure.

> **CAUTION**
>
> **Loss of Data**
>
> If the backup is not successful, do not continue; contact your technical support organization. Any backup problems must be corrected before the system is upgraded to CP PII.

5   Once the backup is complete, type:

    ****   Exit program

―――――――――   **End of Procedure**   ―――――――――

Convert the 4 MB database media to 2 MB database media

> **IMPORTANT!**
>
> Database conversion for Meridian 1 Options 21E, 51, 61,71, STE, NT and XT must be completed by Nortel Networks Software Conversion Lab. Consult the current Nortel Networks price book for cost and contact information.
>
> If the system is equipped with IOP/CMDU cards the database must be converted with the Database Transfer utility. See "Database transfer" on page 179.
>
> If the system is equipped with IODUC cards, the database should be data dumped (EDD) to a blank 2 MB floppy.
>
> All systems can be converted by Nortel Networks in the software conversion lab.

If the system is equipped with IOP/CMDU cards the database must be converted with the Database Transfer utility. See "Database transfer" on page 179.

If the system is equipped with IODUC cards, the database should be data dumped (EDD) to a blank 2 MB floppy.

Identify two unique IP addresses

Each CP PII system must be configured with two unique IP addresses for LAN identification and communication. One IP address is defined for the *active* Core. The second IP address is defined for the *inactive* Core. In this

configuration, the *active* Core (either Core 0 or Core 1) that handles call processing is always identified by the same IP address.

- Contact your systems administrator to identify two unique IP addresses before the upgrade.

- For instructions to configure these IP numbers, see "Configuring IP addresses" on page 667 of Book 1.

Perform installation

Parallel reload the Meridian 1 Option 61C and Meridian 1 81/81C CP3 CP4

> *Note:* This procedure does not include instructions for installing new IODU/C cards or CP cards. If required, refer to "Installing a Call Processor card on Options 61C CP PII, 81C CP PII" on page 455 and "Installing a Call Processor card on Option 51C" on page 546.

Parallel reloads can be done from either CPU. For the purposes of this document, the parallel reload begins with CPU 0.

If during the software conversion a problem is detected and it is determined that the system should revert back to the source release follow the "Parallel reload procedures" on page 226.

Verify memory

Determine whether the system requires additional memory. Refer to "Installing IODU/C cards, CP cards, CP memory" on page 305 for memory requirements and upgrade procedures.

Determine status (STAT) of the hardware

Procedure 198
Obtaining hardware status

1   Load LD 137 and get status of the hard disks.

Note: Be sure the hard disks are synchronized. If not, synchronize before proceeding.

LD 137	Load program
STAT	Get the status of the hard disks
SYNC	Synchronize hard disks if necessary (Synchronization may take up to 50 minutes)
TEST CMDU	Performs hard and floppy disk test
****	Exit program

2   Load LD 135 and determine the status of the CPs, CNIs and memory.

LD 135	Load program
STAT CPU	Get the status of both CPs and memory
STAT CNI	Get the status of all configured CNIs

3   Test the standby (inactive) CP. Then switch CPs, and test again.

TEST CPU	Test standby (inactive) CP

Wait until the terminal returns a complete test message. The message "HWI533 or HWI534" does not mean the test has completed!

SCPU	Switch CPs
TEST CPU	Test the standby (inactive) CP

4   Check total memory allocation before the upgrade.

LD 10	Load program

When the header for LD 10 is displayed, note the value associated with Total Memory. After the upgrade, compare Total Memory before and after the upgrade. Total Memory should be greater after the upgrade.

Exit the program:

****   Exit program

Note: Testing the CPs can take up to 20 minutes for each test. When the test is complete, the memories are automatically synchronized.

———————— **End of Procedure** ————————

Split the Core processors

Procedure 199
Splitting the Core processors

1   Be sure CP 0 is active and CP1 is standby. If necessary, switch CPs again:

STAT CPU

SCPU   Switch CPs if necessary

****   Exit program

2   Verify that IODU/C 0 is active. If necessary, switch IODU/Cs.

LD 137

STAT   Get the status of IODU/C

SWAP   Switch IODU/Cs (if necessary)

****   Exit program

3   Connect a terminal from the CPSI port in Core/Net 1 to J25 of the I/O panel at the back of the Core/Net. Be sure it is configured as follows. The recommended baud rate is 9600, to be the same as the CPSI port.

   7 data bits, 1 stop bit, Space parity, Full-duplex, XON protocol

4   Place CP 0 in Maintenance by setting the MAINT/NORM switch to MAINT.

5 In Core/Net 1, disable the CNI cards by setting the ENB/DIS faceplate switches to DIS.

6 Place CP1 in Maintenance by setting the MAINT/NORM switch to MAINT.

Note: Core 1 will now sysload. Allow the system to complete the sysload and INI. Review any sysload errors and correct before proceeding.

System is now is split mode, Core 0 active, Clock Controller 0 is active if equipped with FNF. Rings are in half/half mode.

———— **End of Procedure** ————

Upgrade Core/Net 1 hardware

**Procedure 200
Upgrading Core/Net 1 hardware**

1 Tag all faceplate cables on the CP card in Core/Net 1.

2 Disconnect all faceplate cables on the CP card in Core/Net 1

3 Remove the CP card from the system in Core/Net 1

4 Install the replacement CP card in Core/Net 1.

Reconnect all faceplate cables.

———— **End of Procedure** ————

Install software on Core/Net 1

**Procedure 201
Installing the system software on Core/Net 1**

1 Place the CP Install disk that corresponds with the installed CP card type into the IODU/C in Core/Net 1.

2 Install the CD-ROM into the CD drive:

    a.   Press the button on the CD-ROM drive to open the CD-ROM disk holder.

    b.   Place the CD-ROM disk into the holder with the disk label showing.

    c.   Use the four tabs to secure the CD-ROM drive.

    d.   Press the button again to close the CD-ROM disk holder. Don't push the holder in by hand.

3   In Core/Net 1, perform the following three steps in uninterrupted sequence:

    a.   In Core/Net 1 press and release the MAN RST button on the CP card.

    b.   Set the MAINT/NORM switch on the CP card to MAINT.

    c.   Release the MAN RST button.

A Sysload begins (cold start). Wait for the Main Menu to appear on the terminal before proceeding.

Note 1: If the CD-ROM is not in the CD drive of the IODU/C, the installation procedure will not continue. Insert the CD-ROM into the drive to continue.

Note 2: If a problem is detected during the system verification, the Install process stops, prints an error message, and aborts the installation. If the verification is not successful, do not continue. Contact the technical support organization.

4   Press <CR> to continue.

5   Log into the system. Enter the time and date, when prompted.

6   Select yes or (no) when asked if a Signaling Server is connected:

System Date and Time now is:

> Day-Month-Year, Hour:Min:Sec

> Succession Enterprise Software/Database/BOOTROM
CDROM INSTALL Tool

> Does this System have a Signaling Server.....? (Default - No)

> Please enter:

<CR> -> <n> - No

> <y> - Yes

> Enter Choice>

---

7   The system then enters the Main Menu for keycode authorization.
Remove the CP PII Install Program diskette and insert the Keycode
diskette.

M A I N   M E N U

> The Software Installation Tool will install or upgrade
Succession Enterprise System Software, Database and the CP-
BOOTROM. You will be prompted throughout the installation and
given the opportunity to quit at any time.

> Please enter:

<CR> -> <u> - To Install menu.

> <t> - To Tools menu.

> <q> - Quit.

> Enter Choice> **<CR>**

> >Validating Keycode

The provided keycode authorizes the install of X210300
software

(all subissues) for machine type XXXX

(XXX processor on XXXX System)

> **IMPORTANT!**
>
> Remove keycode floppy disk at this time and insert the database backup disk.

8   The screen displays the Install Menu. Confirm that the keycode matches the CD-ROM release:

> Please confirm that this keycode matches the CDROM Release
>
> Please enter:
>
> <CR> -> <y> - Yes, the keycode matches. Go on to Install Menu.
>
> <n> - No, the keycode does not match. Try another keycode diskette.
>
> Enter Choice> **<CR>**
>
> >Obtain database file names

9   Enter **a** to install the Software and CP-BOOTROM:

I N S T A L L   M E N U

The Software Installation Tool will install or upgrade Succession Enterprise System Software, Database and the CP-BOOTROM. You will be prompted throughout the installation and given the opportunity to quit at any time.

Please enter:

<CR> -> <a> - To install Software, CP-BOOTROM.

    <b> - To install Software, Database, CP-BOOTROM.

    <c> - To install Database only.

    <d> - To install CP-BOOTROM only.

    <t> - To go to the Tools menu.

    <k> - To install Keycode only.

      For Feature Expansion, use OVL143.

    <p> - To install 3900 set Languages.

    <q> - Quit.

Enter Choice> **b**

---

10 Verify the CD-ROM version:

> Please insert the installation CDROM into the drive on Core X.
>
> The labeled side of the CDROM should be side up in the CDROM tray.
>
> Please enter:
>
> <CR> -> <a> - CDROM is now in drive. Continue with s/w checking.
>
> <q> - Quit.
>
> Enter Choice> **<CR>**
>
> The installation CDROM contains version X210300_K.
>
> Please enter:
>
> <CR> -> <y> - Yes, this is the correct version. Continue.
>
> <n> - No, this is not the correct version. Try another CDROM.
>
> or keycode disk
>
> Enter Choice> **<CR>**
>
> >copying direct.rec from /cd0/0300_KMR.N33/target/p/sl1/ direct.rec to /u/direct.rec
>
> >Updating /u/direct.rec
>
> >Processing the Install Control file
>
> >Installing release 0300K

11 Confirm all options before installing the software:

```
                    INSTALLATION STATUS SUMMARY

                ---------------------------------------------

        ============+========+========+=============
        |   Option     |    Choice    | Status |   Comment          |
        ================+========+========+=========
        | SW: CD to disk |     yes      |        | install for rel 0300K |
            ============+========+========+=============
        |   Option     |    Choice    | Status |   Comment          |
        ================+========+========+=========
        |   Database   |    no     |     |         |
                                
        |   Option     |    Choice    | Status |   Comment          |
        ================+========+========+=========
        | CP-BOOTROM |     yes      |     |      |               |


            Please enter:<CR> -> <y> - Yes, start Installation.

            <n> - No, stop Installation. Return to the Main Menu.

    Enter Choice> <CR>

    >Checking System Configuration

    You selected to upgrade the system from release: XXXX to release:
    0300K.

    This will erase all old system files.
```

> Database files will NOT be erased. You may continue installing the software or quit now and leave your system unchanged.
>
> Please enter:
>
> <CR> -> <a> - Continue with Upgrade.
>
> <q> - Quit.
>
> Enter Choice> **<CR>**
>
> >Starting Software Install
>
>   >Upgrading from release XXXX to release 0300K

12 After a number of files are copied over, select a PSDL file to install. The PSDL file contains the loadware for all downloadable cards in the system and loadware for M3900 series sets.

Select one of the six PSDL files

<1>   Global 10 Languages

<2>   Western Europe 10 Languages

<3>   Eastern Europe 10 Languages

<4>   North America 6 Languages

<5>   Spare Group A

<6>   Spare Group B

The languages contained in each selection are outlined as follows:

- 1 – Global 10 Languages (Release 3) English, French, German, Spanish, Swedish, Italian, Norwegian, Brazilian Portuguese, Finnish, Japanese Katakana.

- 2 – Western Europe 10 Languages (Release 3) English, French, German, Spanish, Swedish, Italian, Norwegian, Brazilian Portuguese, Finnish, Danish.

- 3 – Eastern Europe 10 Languages (Release 3) English, French, German, Dutch, Polish, Czech, Hungarian, Russian, Latvian, Turkish.

- 4 – North America six Languages (Release 3) English, French, German, Spanish, Brazilian Portuguese, Japanese Katakana.

- 5 – Spare Group A.

- 6 – Spare Group B.

13 Continue with upgrade when prompted. Select a database to install:

Software release 0300K was installed successfully on Core X.

   All files were copied from CDROM to the hard disk.

   Please press <CR> when ready... **<CR>**

Enter Choice> **<CR>**

---

14 Enter **q** to quit:

I N S T A L L   M E N U

The Software Installation Tool will install or upgrade Succession Enterprise System Software, Database and the CP-BOOTROM. You will be prompted throughout the installation and given the opportunity to quit at any time.

Please enter:

<CR> -> <a> - To install Software, CP-BOOTROM.

<b> - To install Software, Database, CP-BOOTROM.

<c> - To install Database only.

<d> - To install CP-BOOTROM only.

<t> - To go to the Tools menu.

<k> - To install Keycode only.

For Feature Expansion, use OVL143.

<p> - To install 3900 set Languages.

<q> - Quit.

Enter Choice> **q**

---

15 The system then prompts you to confirm and reboot:

You selected to Quit the Software Installation Tool.

You may reboot the system or return to the Main Menu.

Before rebooting the system, remove Install diskette from the floppy drive(s).

    DO NOT REBOOT USING BUTTON!!

    Please enter:

<CR> -> <a> - Reboot the system.

    <m> - Return to the Main menu.

    Enter Choice> **<CR>**

    >Removing temporary files

    >Remove /u/diskXXXX.sys

    >Quit Install. Reboot system...

──────── **End of Procedure** ────────

Determine peripheral software version

Procedure 202
Checking peripheral software versions

1   Load LD 22 and print Target peripheral software version. The Source
     peripheral software version was printed during the pre-conversion
     procedure. If there is a difference between the Source and Target
     peripheral software version, a forced download will occur during
     initialization when coming out of parallel reload. System initialization will
     take longer and established calls on IPE will be dropped.

LD 22	Load program
REQ	PRT
TYPE	PSWV
****	Exit program

Switch call processing to Core/Net 1

> **CAUTION**
>
> **Service Interruption**
>
> Call Processing will be interrupted! Perform these next
> steps carefully. This is the point at which service is
> interrupted. Calls in process are interrupted, especially if
> Peripheral Software Download takes place. Some calls
> might be dropped.

> **WARNING**
>
> System initialization may take up to 15 minutes or longer.

IMPORTANT!

Power down all applications (Meridian Mail, Call Pilot, Symposium).

Procedure 203
Switching call processing from Core/Net 0 to Core/Net 1

1   In Core/Net 0, disable the CNI cards by setting the ENB/DIS faceplate switches to DIS.

2   In Core/Net 0, set the DIS/ENB faceplate switch on the IODU/C card to DIS and unseat it.

3   In Core/Net 1, enable the CNI cards by setting the ENB/DIS faceplate to ENB.

4   In Core/Net 1, press the MAN INT button.

✔   Call processing is now switched from Core/Net 0 to Core/Net 1.

CAUTION

Service Interruption

The INI may take up to15 minutes to complete.

IMPORTANT!

Power up all applications (Meridian Mail, Call Pilot, Symposium).

End of Procedure

Test Core/Net 1

Procedure 204
Testing Core/Net 1

From Core/Net 1, perform these tests:

1 Check dial tone.

2 Make internal, external and network calls.

3 Check attendant console activity.

4 Check DID trunks.

5 Check applications (Call Pilot, Symposium, Meridian Mail, etc.).

> ✔ CP1 is active, Clock 1 is active, IODU/C is active. If equipped, the FIJI ring is in half/half mode.

────── **End of Procedure** ──────

Upgrade Core/Net 0 hardware

Procedure 205
Upgrading Core/Net 0 hardware

1 Tag all faceplate cables on the CP card in Core/Net 0.

2 Disconnect all faceplate cables on the CP card in Core/Net 0.

3 Remove the CP card from the system in Core/Net 0.

4 Install the replacement CP card in Core/Net 0.

────── **End of Procedure** ──────

Install new software on Core/Net 0

Procedure 206
Installing the software and converting the database

1   Check that a terminal is connected to J25 on Core/Net 0.

2   In Core/Net 0, install the CD-ROM into the CD-ROM drive in the MMDU:

   a.   Press the button on the CD-ROM drive to open the CD-ROM disk holder.

   b.   Place the CD-ROM disk into the holder with the disk label showing.

   c.   Press the button again to close the CD-ROM disk holder.
   Do not push the holder in by hand.

   Note: If the CD-ROM is not in the CD-ROM drive, the installation will not continue. Insert the CD-ROM to continue.

3   Place the CP PII Install floppy disk into the IODU/C floppy drive.

   Note: If a problem is detected during the system verification, Install stops, prints an error message, and aborts the installation. If the verification is not successful, do not continue; contact your technical support organization.

4   Press the manual RESET button on the CP card faceplate.

5   Select yes or (no) when asked if a Signaling Server is connected:

   ```
    System Date and Time now is:

         Day-Month-Year, Hour:Min:Sec

         Succession Enterprise Software/Database/BOOTROM
   CDROM INSTALL Tool

         Does this System have a Signaling Server.....? (Default - No)

         Please enter:

   <CR> -> <n> - No

         <y> - Yes

         Enter Choice>
   ```

6   The system then enters the Main Menu for keycode authorization. Remove the CP PII Install Program diskette and insert the Keycode diskette.

M A I N   M E N U

The Software Installation Tool will install or upgrade Succession Enterprise System Software, Database and the CP-BOOTROM. You will be prompted throughout the installation and given the opportunity to quit at any time.

Please enter:

<CR> -> <u> - To Install menu

<t> - To Tools menu.

<q> - Quit.

Enter Choice> **<CR>**

>Validating Keycode

The provided keycode authorizes the install of X210300 software

(all subissues) for machine type XXXX

(XXX processor on XXXX System)

IMPORTANT!

Remove keycode floppy disk at this time and insert the database backup disk.

7   The screen displays the Install Menu. Confirm that the keycode matches the CD-ROM release:

```
 Please confirm that this keycode matches the CDROM Release

        Please enter:

 <CR> -> <y> - Yes, the keycode matches. Go on to Install Menu.

        <n> - No, the keycode does not match. Try another keycode
 diskette.

        Enter Choice> <CR>

        >Obtain database file names
```

8   Enter **b** to install the Software, Database and CP-BOOTROM:

```
                 I N S T A L L   M E N U

        The Software Installation Tool will install or upgrade
 Succession Enterprise System Software, Database and the CP-
 BOOTROM. You will be prompted throughout the installation and
 given the opportunity to quit at any time.

        Please enter:

 <CR> -> <a> - To install Software, CP-BOOTROM.

        <b> - To install Software, Database, CP-BOOTROM.

        <c> - To install Database only.

        <d> - To install CP-BOOTROM only.

        <t> - To go to the Tools menu.

        <k> - To install Keycode only.

            For Feature Expansion, use OVL143.

        <p> - To install 3900 set Languages.

        <q> - Quit.

        Enter Choice> b
```

9 Verify the CD-ROM version:

Please insert the installation CDROM into the drive on Core X.

The labeled side of the CDROM should be side up in the CDROM tray.

Please enter:

<CR> -> <a> - CDROM is now in drive. Continue with s/w checking.

<q> - Quit.

Enter Choice> **<CR>**

The installation CDROM contains version X210300_K.

Please enter:

<CR> -> <y> - Yes, this is the correct version. Continue.

<n> - No, this is not the correct version. Try another CDROM.

or keycode disk

Enter Choice> **<CR>**

>copying direct.rec from /cd0/0300_KMR.N33/target/p/sl1/ direct.rec to /u/direct.rec

>Updating /u/direct.rec

>Processing the Install Control file

>Installing release 0300K

10 Confirm all options before installing the software:

```
                    INSTALLATION STATUS SUMMARY

                  --------------------------------------------

        ============+========+========+============
    |    Option    |   Choice   | Status |  Comment        |

        ================+========+========+=========
    | SW: CD to disk |    yes    |       | install for rel 0300K |

        ============+========+========+============
    |    Option    |   Choice   | Status |  Comment        |

        ================+========+========+=========
    |   Database   |    yes    |       |       |        |


    |    Option    |   Choice   | Status |  Comment        |

        ================+========+========+=========
    | CP-BOOTROM |    no     |       |       |        |


        Please enter:<CR> -> <y> - Yes, start Installation.

        <n> - No, stop Installation. Return to the Main Menu.
```

Enter Choice> **<CR>**

>Checking System Configuration

You selected to upgrade the system from release: XXXX to release: 0300K.

This will erase all old system files.

Database files will NOT be erased. You may continue installing the software or quit now and leave your system unchanged.

Please enter:

<CR> -> <a> - Continue with Upgrade.

<q> - Quit.

Enter Choice> **<CR>**

>Starting Software Install

>Upgrading from release XXXX to release 0300K

11 After a number of files are copied over, select a PSDL file to install. The PSDL file contains the loadware for all downloadable cards in the system and loadware for M3900 series sets.

Select one of the six PSDL files

<1> Global 10 Languages

<2> Western Europe 10 Languages

<3> Eastern Europe 10 Languages

<4> North America 6 Languages

<5> Spare Group A

<6> Spare Group B

The languages contained in each selection are outlined as follows:

- 1 – Global 10 Languages (Release 3) English, French, German, Spanish, Swedish, Italian, Norwegian, Brazilian Portuguese, Finnish, Japanese Katakana.

- 2 – Western Europe 10 Languages (Release 3) English, French, German, Spanish, Swedish, Italian, Norwegian, Brazilian Portuguese, Finnish, Danish.

- 3 – Eastern Europe 10 Languages (Release 3) English, French, German, Dutch, Polish, Czech, Hungarian, Russian, Latvian, Turkish.

- 4 – North America six Languages (Release 3) English, French, German, Spanish, Brazilian Portuguese, Japanese Katakana.

- 5 – Spare Group A.

- 6 – Spare Group B.

12 Continue with upgrade when prompted. Select a database to install:

> Software release 0300K was installed successfully on Core X.
>
> > All files were copied from CDROM to the hard disk.
> >
> > Please press <CR> when ready... **<CR>**
>
> Enter Choice> **<CR>**

13 Confirm database transfer:

> You selected to transfer the database from the floppy disk - release: XXXX to the hard disk on Core X. release: XXXX.
>
> This will erase the database on the hard disk.
>
> The database diskette has been inserted into the floppy disk drive.
>
> > If you quit now, the database will be left unchanged.
> >
> > Please enter:
>
> <CR> -> <a> - Continue with Database Install.
>
> <q> - Quit.
>
> Enter Choice> **<CR>**

14 Enter **q** to quit:

INSTALL   MENU

The Software Installation Tool will install or upgrade Succession Enterprise System Software, Database and the CP-BOOTROM. You will be prompted throughout the installation and given the opportunity to quit at any time.

Please enter:

<CR> -> <a> - To install Software, CP-BOOTROM.

<b> - To install Software, Database, CP-BOOTROM.

<c> - To install Database only.

<d> - To install CP-BOOTROM only.

<t> - To go to the Tools menu.

<k> - To install Keycode only.

For Feature Expansion, use OVL143.

<p> - To install 3900 set Languages.

<q> - Quit.

Enter Choice> **q**

---

15 The system then prompts you to confirm and reboot:

You selected to Quit the Software Installation Tool.

You may reboot the system or return to the Main Menu.

Before rebooting the system, remove Install diskette from the floppy drive(s).

DO NOT REBOOT USING BUTTON!!

Please enter:

<CR> -> <a> - Reboot the system.

<m> - Return to the Main menu.

Enter Choice> **<CR>**

>Removing temporary files

>Remove /u/diskXXXX.sys

>Quit Install. Reboot system...

———————— **End of Procedure** ————————

Exit split mode

Procedure 207
Exiting split mode

1   Connect CPSI port or maintenance SDI port.

2   Enable the CNI cards by setting the ENB/DIS faceplate switch to ENB in Core/Net 0.

3   Perform the following in uninterrupted sequence:

   •   Press and release the MAN RST button in Core/Net 0.

   •   When SYS700 messages appears on the LCD display on Core/Net 0, set the MAINT/NORM switch to NORM in Core/Net 0.

   In 60 seconds, the LCD lights and confirms the processes with:

   RUNNING ROM OS

   ENTERING CP VOTE

   An HWI534 message indicates the start of memory synchronization. In 10 minutes, an HWI533 message on Core/Net 1 CSPI or SDI terminal indicates the memory synchronization is complete.

4   In Core/Net 1, set the MAINT/NORM switch on the CP card to NORM.

———————————— **End of Procedure** ————————————

Test Core/Net 1 and Core/Net 0

Procedure 208
Testing Core/Net 0 and Core/Net 1

1   Perform a redundancy sanity test using the following sequence:

   LD 135

   STAT CNI   Get status of CNI cards

   STAT CPU   Get status of CPU and memory

   TEST CPU   Test the inactive Core/Net/Net

   TEST CNI c s   Test each inactive CNI card

2   Switch Core/Nets and test the other side (Core/Net 0)

   SCPU   Switch Core/Nets

   TEST CPU   Test the inactive Core/Net/Net

   TEST CNI c s   Test each inactive CNI card

   Note: Testing the Call Processor and CNI cards and synchronizing
   memory can take up to 20 minutes for each test. When the Call Processor
   test is complete, the Call Processor the memory is automatically
   synchronized.

3   Clear the display and minor alarms on both Core/Nets.

   CDSP   Clear the displays on the Core/Nets

   CMAJ   Clear major alarms

   CMIN ALL   Clear minor alarms

4   Get the status of the Core/Nets, CNIs, and memory.

   STAT CPU   Get the status of both Core/Nets

   STAT CNI   Get the status of all configured CNIs and memory

5   Check for dial tone.

6   Make internal, external, and network calls.

7   Check attendant console activity.

8   Check DID trunks.

9   Check any auxiliary processors.

Note: You may need to execute the STAT CNI command twice before receiving a response from the system.

****   Exit program

——————————— **End of Procedure** ———————————

Switch the Clocks

Procedure 209
Switching the Clocks

1   Verify that the clock controller is assigned to the *active* Core.

LD 60	Load program
SSCK *x*	Get the status of the clock controllers (*x* is "0" or "1" for Clock 0 or Clock 1
SWCK	Switch the Clock (if necessary)
****	Exit program

2   Verify that the Clock Controllers are switching correctly:.

SWCK	Switch the Clock
SWCK	Switch the Clock again

——————————— **End of Procedure** ———————————

If equipped, stat the FIJI rings

Procedure 210
Stat the rings

1   Check the status of Ring 0 and Ring 0.

LD 39	Load program
STAT RING 0	Get the status of Ring 0 (Ring state should be HALF/HALF)

2   Check the status of Ring 0 and Ring 1.

LD 39	Load program
STAT RING 1	Get the status of Ring 0 (Ring state should be HALF/HALF)

—————————— **End of Procedure** ——————————

Synchronize the hard disks

Procedure 211
Synchronizing the hard disks

1   Access LD 137 and synchronize the hard disks. Synchronization can take up to 50 minutes. To ensure that the contents of IODU/C 1 are copied to IODU/C 0, verify that IODU/C 0 is disabled.

LD 137	Load program
STAT	Get the status of the IODU/C and redundancy
SYNC	Enter "Yes" to synchronize disks (Wait until the memory synchronization successfully completes before continuing)
TEST CMDU	Perform hard and floppy disk test

2   Get the status of the CMDU's and be sure CMDU 0 is active. Switch if necessary.

STAT	Get the status of IODU/C and redundancy
SWAP	Switch CMDU (if necessary)
STAT CMDU	Get the status of the IODU/Cs (Be sure the same IODU/C and CPU are active)
****	Exit program

———————— **End of Procedure** ————————

Perform a data dump

Procedure 212
Performing a data dump

1   Load the Equipment Data Dump Program (LD 43). At the prompt, enter:

    LD 43   Load program

2   When "EDD000" appears on the terminal, enter:

    EDD   Begin the data dump

3   When "DATABASE BACKUP COMPLETE" or "DATADUMP
    COMPLETE" appears on the terminal, enter the following:

    ****   Exit program

─────────────── **End of Procedure** ───────────────

Proceed to "Post-conversion procedure" on .

> The Parallel Reload process is complete. The system is now running on the upgraded CP card.
>
> System is now in redundant mode.

Upgrade to an NTRB53 Clock Controller

Note: The NTRB53 Clock Controller cannot be combined with a QPC775 or a QPC471 card.

Procedure 213
Upgrading to an NTRB53 Clock Controller on Large Multi-group
Systems

1   Remove old equipment.

> **CAUTION**
>
> Never connect Clock-to-Clock cable J3 between the old
> clock (QPC471 or QPC775) and the new clock
> (NTRB53).

2   For dual core systems, ensure the clock controller card being removed is
       on the inactive core. If you need to switch cores, go to LD 135 and enter:

       LD 135
       SCPU   Switch cores
       ****   Exit the overlay

3   Disable the QPC775 or QPC471 Clock Controller card. At the prompt,
       enter:

       LD 60   Load program
       SSCK x   Get status of system clock where x = 0 or 1

4   If the clock is active, switch clocks. At the prompt, enter:

       SWCK   Switch system clock from active to standby
       SSCK x   Get status of system clock where x = 0 or 1

5   Ensure the other clock controller is active and in the free run mode. At the
       prompt, enter:

       SSCK x   Get status of system clock where x = 0 or 1
       TRCK FRUN   Set clock controller tracking to free run

> **CAUTION**
>
> When the system is equipped with PRI and tracks to an
> external source, the T1 spans see slips and can exceed
> the thresholds. Voice quality over PRI can start to hear
> degradation.

6 Disable the clock controller card you are removing. At the prompt, enter:

DIS CC x   Disable system clock controller where x = 0 or 1

7 Set the ENL/DIS switch to DIS on the card being removed.

Note: Disabling the clock causes the system message FIJI0022 to display.

8 Tag and disconnect the cables to the card being removing.

9 Unhook the locking devices on the card.

10 Pull the card out of the card cage.

———————— **End of Procedure** ————————

Install new equipment

Procedure 214
Installing new equipment

1 Set the ENB/DIS switch to DIS on the replacement card.

2 Set the option switches on the replacement card (NTRB53). Refer to Table 8, "Clock Controller switch settings for NTRB53", on page 102 in What's New for Meridian 1 (Release 25.4).

3 Insert the replacement card into the vacated slot and hook the locking devices.

> ⚠ **CAUTION**
>
> Never connect the Clock-to-Clock cable J3 between the old clock (QPC471 or QPC775) and the new clock (NTRB53)

4 Connect the reference cables (J1 and J2) to the replacement card.

Note: Do not connect J3.

5 Set the ENB/DIS switch to ENB on the replacement card.

6 Software enable the card. At the prompt, enter:

LD 60
ENL CC x   Enable clock controller card, where x = 0 or 1

7 Verify that the card is active. At the prompt, enter:

SSCK x   Get status of system clock where x = 0 or 1
****   Exit the overlay

Note: Enabling the new clock card can initiate a F/W download.The card resets and executes a self test. This is recognized by the 2 faceplate LEDs flashing 3 times, indicating a pass. The completion of the download is indicated on the system terminal.

Note: Wait one minute before proceeding to the next step.

8 Switch to the core with the new clock. At the prompt, enter:

LD 135
SCPU   Switch CPU

<table>
<tr><td>⚠</td><td>

CAUTION

Noise is experienced over local and trunk calls. System FIJI alarms are also displayed. The noise and alarms are resolved after the new clock begins tracking to the selected reference.
</td></tr>
</table>

9 Faceplate-disable the old clock controller to force the newly installed clock controller to activate.

10 Connect the Clock-to-Clock faceplate cable to J3 of the new clock controller card in the active CPU side. This provides system clocking through this cable.

Note: The old and new clocks are cabled together. This is acceptable because the old clock was faceplate disabled in the previous step.

11 Verify that the clock controller is active. At the prompt, enter:

LD 60
SSCK   Get status of the new system clock, where x = 0 or
                  1.
TRCK PCK   Track primary clock, where x = 0 or 1.
RCNT   Resets all alarm counters of all digital cards.
****   Exit the overlay.

Note: Replacing the clock controller generates errors on the network equipment. It is recommended that all counters be reset.

> **IMPORTANT!**
>
> Perform the following steps in rapid succession to minimize potential slips on the PRI.

12 To replace the remaining QPC775 or QPC471 clock controller card, tag and disconnect the cables to the card being removed.

13 Unhook the locking devices on the card.

14 Pull the card out of the card cage.

15 Set the ENB/DIS switch to DIS on the replacement card.

16 Set the option switches on the replacement card (NTRB53). Refer to Table 8, "Clock Controller switch settings for NTRB53", on page 102 in the What's New for Meridian 1 (Release 25.40).

17 Insert the replacement card into the selected slot and hook the locking devices.

18 Connect the reference cables (J1 and J2) and the clock-to-clock cable (J3) to the replacement card.

19 Set the ENB/DIS switch to ENB on the replacement card.

20 Software disable and enable the card. At the prompt, enter:

LD 60
DIS CC x   Disable clock controller card, where x=0 or 1
ENL CC x   Enable clock controller card, where x=0 or 1

Note: If necessary, the clock card can download F/W.

21   Verify that the card is enabled. At the prompt, enter:

SSCK x   Get status of system clock, where x=0 or 1
****   Exit the overlay

Note: Wait two minutes before proceeding to next step.

22   Activate the new card and verify that it is active. At the prompt enter:

LD60
SWCK   Switch system clock from active to standby
SSCK x   Get status of system clock, where x = 0 or 1

TRCK PCK   Track primary clock, where x = 0 or 1
RCNT   Reset alarm counters of all digital cards
****   Exit overlay

23   Set the clock source to the status it was in before the replacement procedure.

Note: Wait one minute between clock switch.

24   Verify clock switch-over and tracking. At the prompt, enter:

SWCK   Switch system clock from active to standby
SSCK x   Get status of system clock, where x = 0 or 1
****   Exit overlay

—————————   **End of Procedure**   —————————

Upgrades on the web

The Multi Media Disk Unit (MMDU) upgrade on the Meridian 1 Option 61C CP PII and Meridian 1 Option 81C CP PII will be made available online.

To access this documentation online, click the **Technical Documentation** link under **Support** on the Nortel Networks home page:

http://www.nortelnetworks.com/

Terminal and modem connections

Contents

This section contains information on the following topics:

Introduction

During the system upgrade, a terminal must be connected to a serial data interface (SDI) port to provide an I/O interface to the system. When the upgrade is complete, a terminal (for local access) or a modem (for remote access) must remain permanently connected to an SDI port to provide a constant I/O interface to the system (see Figure 30 on).

When upgrading a dual CPU system, you may want to temporarily install additional terminals for split mode monitoring, or programming, or both.

Note: In Meridian 1 Option 61 and Meridian 1 Option 71, SDI cards can be temporarily installed in CPU slots during a software conversion. In Meridian 1 Option 61C CP PII and Meridian 1 Option 81C CP PII, I/O ports on the call processing (Call Processor) cards, can be used to monitor CPU operations. On the Meridian 1 Option 81C CP PII, COM 1 port on the call processing (CP PII) cards, can be used to monitor CPU operations. These configurations should not be used as the permanent I/O connection for the system because the port is only active when the associated CPU, or CPU, is active.

Figure 30
Terminal connection diagram
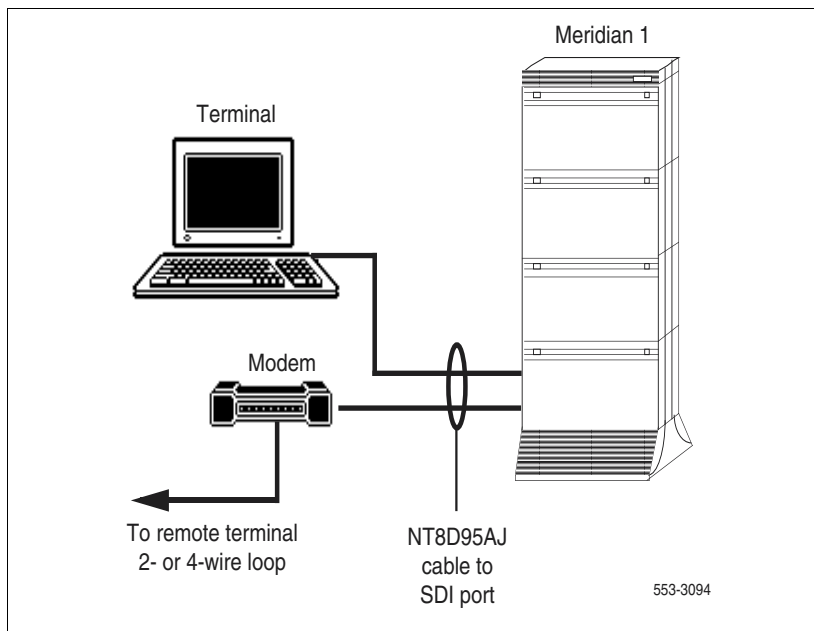
For a modem connection to the Meridian 1, Bell 103/212 compatible dumb modems are recommended for all systems, except Meridian 1 Option 61C CP PII and Meridian 1 Option 81C CP PII.

CAUTION

Service Interruption

If a Hayes command-set compatible (smart) modem is used at the Meridian 1 end, you *must* select the dumb mode of operation, Command Recognition OFF and Command Echo OFF, before connecting the modem to the SDI port. Refer to the modem instructions to set the mode of operation.

If a printer is connected to an SDI port (locally or remotely), you must disable XON/XOFF flow control, so no characters or signals are sent to the port, to avoid a "ping-pong" effect.

Note: For information specific to Meridian 1 Option 61C CP PII and Meridian 1 Option 81C CP PII, see "Meridian 1 Option 61C CP PII and Meridian 1 Option 81C CP PII terminal and modem connections" on .

Configure the system

Procedure 215
Configuring the system

1 Install and cable a system terminal or a modem:

   a. Unpack the terminal/modem and place it in its assigned location.

   b. Install the terminal/modem according to the manufacturer's instructions.

   c. Connect an NT8D95AJ cable to a matching connector on the terminal/modem.

   Note: At a remote location, install and connect a compatible modem and terminal. Connect the NT8D95AJ cable to the modem.

2 Install and cable the SDI card:

   a. Set the Enb/Dis switch to Dis (down).

   b. See *Circuit Card: Description and Installation* (553-3001-211) to set the option switches for each port.

   c. See Figure 31 for switch locations on an NT8D41 SDI Paddle Board. (The paddle board cannot be used in Meridian 1 Option 71 and Meridian 1 Option 81C CP PII.)

   d. See Figure 32 for switch locations on an NTND02 MSPS Card. (The MSPS card is used in Option 21E only.)

   e. Insert the SDI card into its assigned slot.

   f. Cable the SDI card:

   g. See Figure 33 to cable the NT8D41 SDI Paddle Board. (There is no faceplate on the paddle board; Figure 33 identifies the ports.)

   h. See Figure 33 on page 647 to cable an NTND02 MSPS Card.

      i.   See Figure 34 to cable a QPC841 Four-Port SDI Card.

      j.   Set the Enb/Dis switch to Enb (up).

3   Software enable the SDI card:

      a.   Define each SDI port in the Configuration Record (LD 17).

      b.   Enable each SDI port using the appropriate software program for the port application. Typical SDI applications and associated programs include:

Terminal and printer ports	LD 37
Call Detail Recording (CDR) ports	LD 42
Automatic Call Distribution (ACD) ports	LD 48

4   Connect an NT8D95AJ cable from the terminal, or modem, to the assigned SDI port.

Figure 31
Ports and switches on the NT8D41 SDI Paddle Board
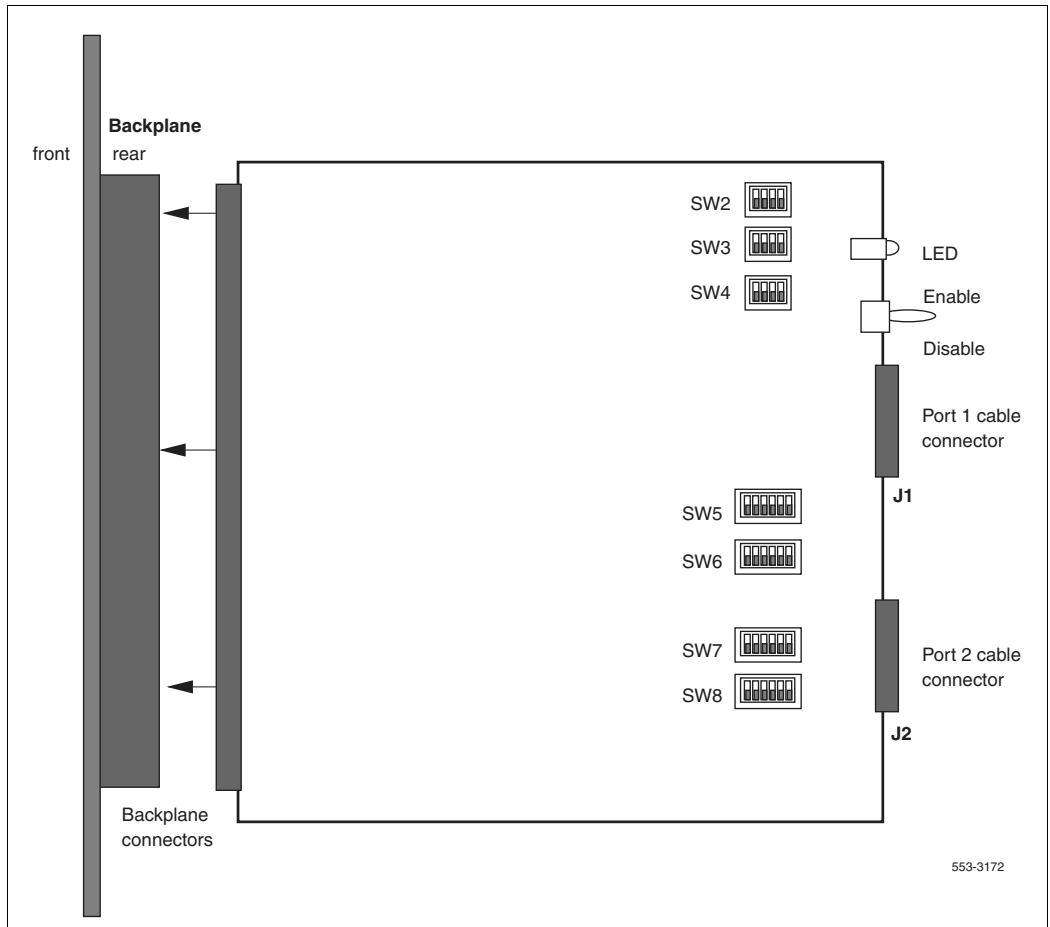
End of Procedure

Figure 32
Switch locations on the NTND02 MSPS Card
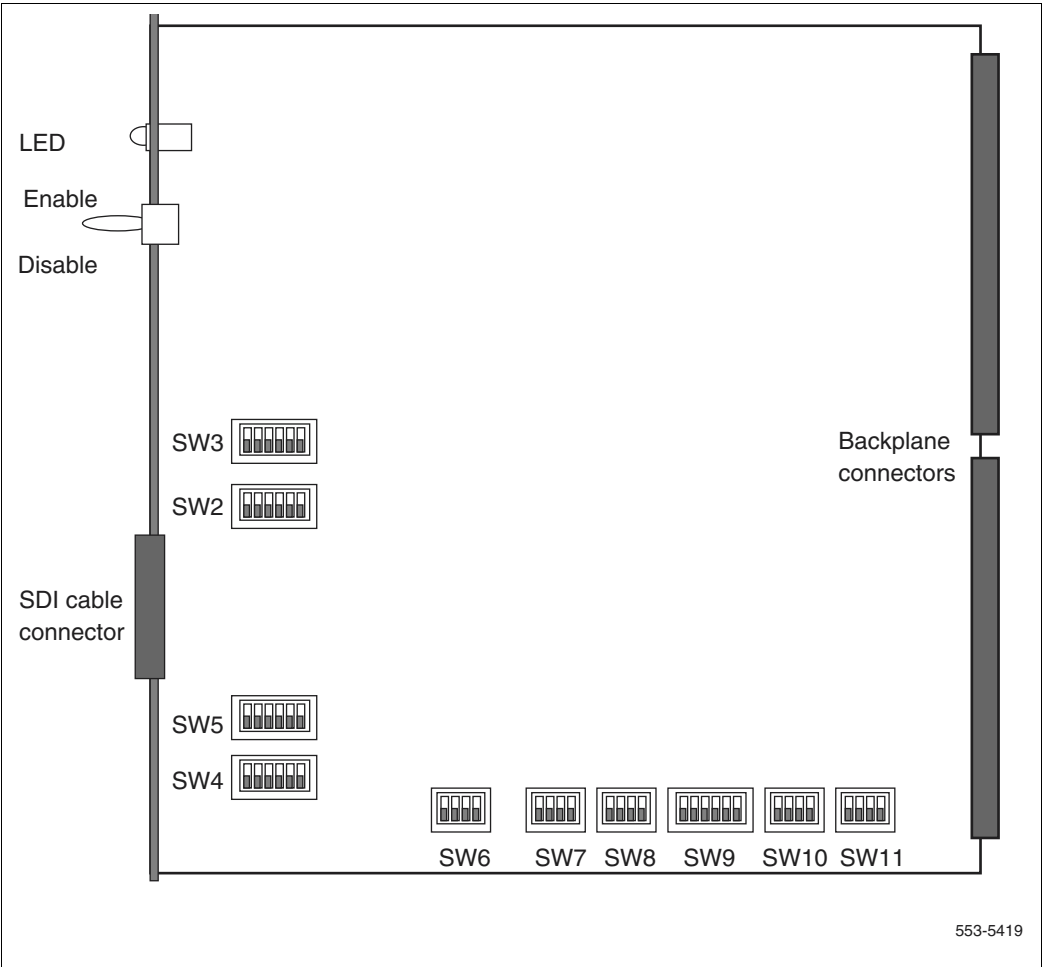
Figure 33
Cabling diagram for the NT8D41 SDI Paddle Board

553-5381
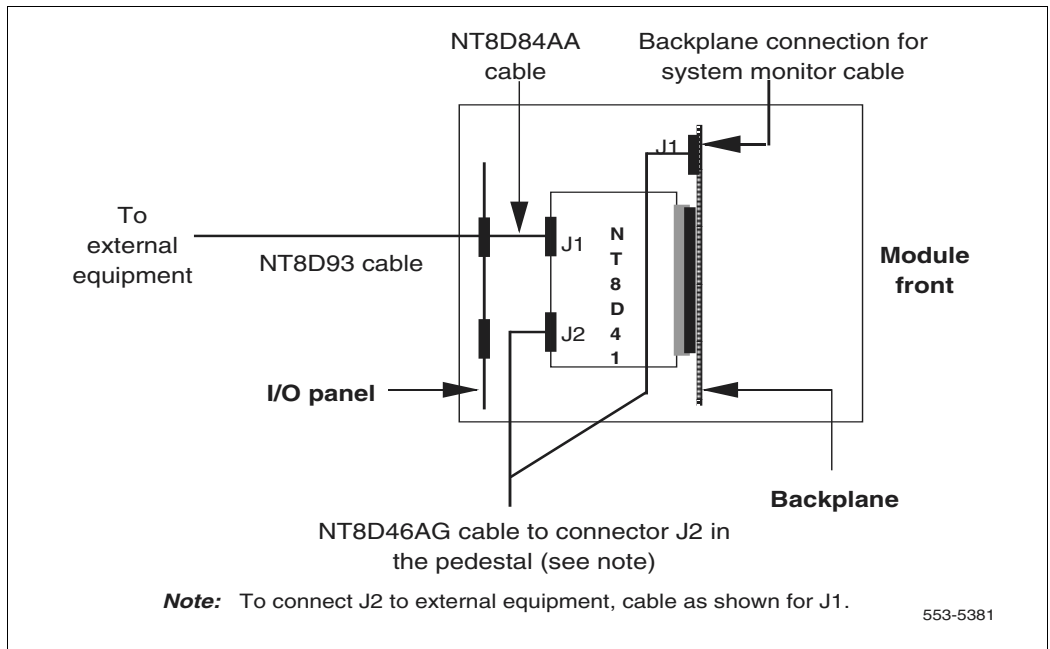
Figure 34
Cabling diagram for the QPC841 Four-Port SDI Card
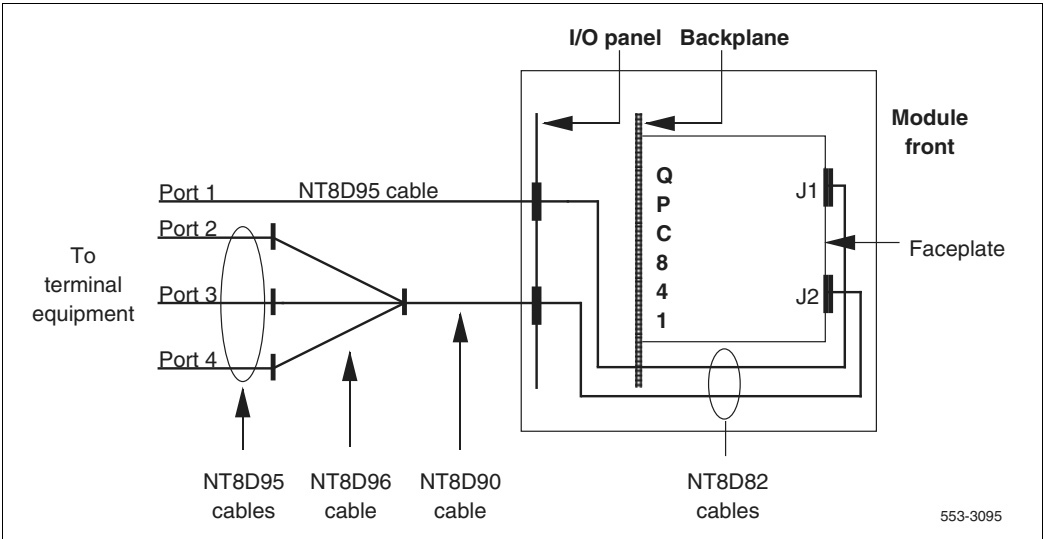
Meridian 1 Option 61C CP PII and Meridian 1 Option 81C CP PII terminal and modem connections

During the system upgrade and for continuing system operation, a terminal must be connected to an SDI port in a network slot to provide an I/O interface to the active CPU in the system.

In addition, a data terminal equipment (DTE) port and a data communication equipment (DCE) port on each NT4N64AA Call Processor Card can be used for direct access to the Core or Core/Network Module that houses the card.

The designations DTE and DCE refer to the function of the port, not the type of device that connects to the port. Therefore, a modem (which is DCE) connects to the DTE port at J21, and a terminal (which is DTE) connects to the DCE port at J25. Typically, the CPSI ports are preconfigured on I/O addresses four and five.

The data terminal equipment (DTE) port, COM 1 and a data communication equipment (DCE) port, COM 2 on each NT4N64 CP PII can be used for direct access to the Core or Core/Network Module that houses the card.

The Call Processor card ports (CPSI/COM1 COM2 ports) are active only when the CPU associated with the Call Processor card is active. Therefore, the CPSI/COM1 COM2 ports should not be used as the only I/O connection for the system.

When the upgrade is complete, you must leave a terminal or a modem connected to the system. One SDI port in a network slot must be permanently connected to a terminal or modem.

On the CPSI ports you can:

- disconnect the ports

- leave terminals connected for local monitoring

- connect modems for remote monitoring

The Black Box ABCDE-Switch, which provides up to four-to-one switching, is available from Nortel Networks as part number A0377992. The switch box can be used to connect the SDI and CPSI/COM1 COM2 ports to a terminal

or a modem. If used, one switch box must be used for terminals and one for modems.

Meridian 1 Option 61C CP PII and Meridian 1 Option 81C CP PII terminal guidelines

During an upgrade, you can connect terminals to the CPSI/COM1 ports for split mode monitoring, or programming, or both. (Due to the speed of the system messages displayed, personal computers are useful for file capture and review.) Terminals connected to the CPSI/COM1 ports can be installed as follows:

- One terminal connects to a CPSI/COM1 port in one CPU (the cable is switched from module to module as needed); one terminal is required in addition to the terminal for the SDI port connection (see Figure 35 on page 651).

- One terminal connects to a switch box that connects to a CPSI/COM1 port in each CPU: one terminal and a switch box are required in addition to the terminal for the SDI port connection (see Figure 36 on page 653).

- One terminal connects to a switch box that connects to an SDI port and to a CPSI/COM1 port in each CPU: one terminal and a switch box are required (see Figure 37 on page 654).

The Meridian 1 Option 51C has only one CPU module and requires only one CPSI terminal connection and one SDI port connection. A single terminal with a switch box can be used.

Connect a terminal to a CPSI port

**Procedure 216
Connecting a terminal to a CPSI port**

Use the following procedure to connect a CPSI/COM1 port directly (no switch box) to a terminal (see Figure 35):

1   Set the terminal to 9600 baud, 7 data, space parity, one stop bit, full duplex, XON.

2   Connect an NT8D95 cable to a matching connector on the terminal.

3   Connect the NT8D95 cable to J25 on the I/O panel in the rear of the Core or Core/Network Module.

4   If you are using only one terminal for both CPSI/COM1 ports, switch the cable as needed. The terminal connected to the SDI port will always communicate with whichever CPU is active.

Figure 35
One terminal for the CPSI ports

Rear View   553-5643
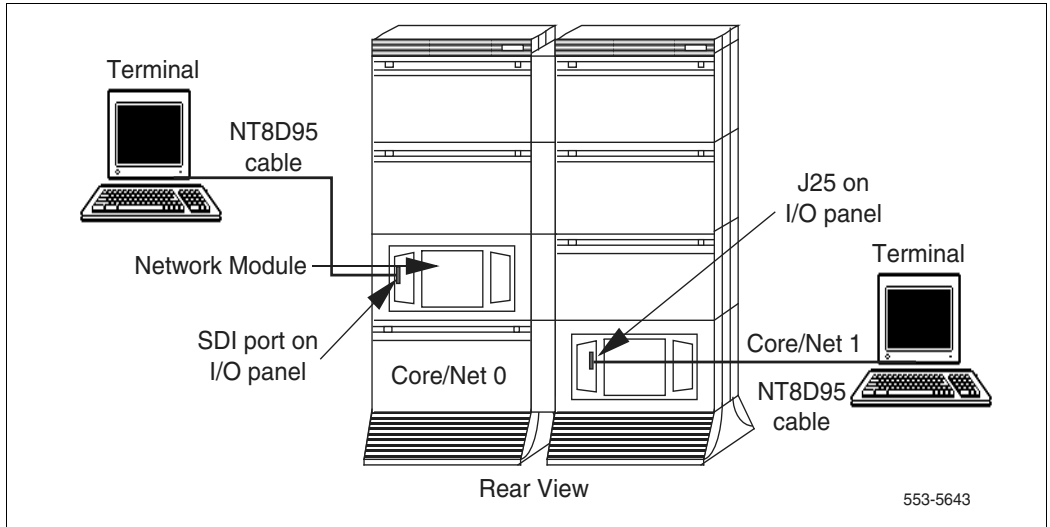
────────   **End of Procedure**   ────────

Connect a switch box and terminal to CPSI ports

Procedure 217
Connecting a switch box and terminal to CPSI ports

Use the following procedure to connect CPSI/COM 1 ports to a switch box and a terminal (see Figure 36):

1   Set the terminal to 9600 baud, 7 data, space parity, one stop bit, full duplex, XON.

2   Connect an NT8D95 cable to the terminal and to the switch box.

3   Connect NT8D95 cables to a matching connector on the switch box.

4   If you are using an A0377992 ABCDE box, connect cables as follows:

5   Connect CPU 0 to connector A.

6   Connect CPU 1 to connector B.

7   Connect the NT8D95 cables from the switch box to J25 on the I/O panel in the rear of the Core/Network Modules.

8   To communicate directly with a CPSI/COM 1 port, switch the cable as needed. The terminal connected to the SDI port will always communicate with whichever CPU is active.

———————————————— **End of Procedure** ————————————————

Connect a switch box and terminal to the SDI and CPSI ports

Procedure 218
Connecting a switch box and terminal to the SDI and CPSI ports

Use the following procedure to connect CPSI/COM 1 ports to a switch box and a terminal (see Figure 36 and Figure 37):

1   Set the terminal to 9600 baud, 7 data, space parity, one stop bit, full duplex, XON.

2   Connect an NT8D95 cable to the terminal and to the switch box.

3   Connect NT8D95 cables to a matching connector on the switch box.

4   If you are using an A0377992 ABCDE box, connect cables as follows:

    a.   Connect CPU 0 to connector A.

    b.   Connect CPU 1 to connector B.

    c.   Connect the SDI port to connector D (connector C is common).

5   Connect NT8D95 cables from the switch box to J25 on the I/O panel in the rear of each Core or Core/Network Module.

6   Connect an NT8D95 cable from the switch box to the I/O panel slot for the SDI card.

7   To communicate with the system in general, set the switch box to the SDI port. To communicate directly with a CPSI/COM 1 port, switch the cable as needed.

———————————————— **End of Procedure** ————————————————

Figure 36
One terminal and a switch box to two CPSI ports

Note: The A0377992 switch box can be used in this configuration.

553-5644
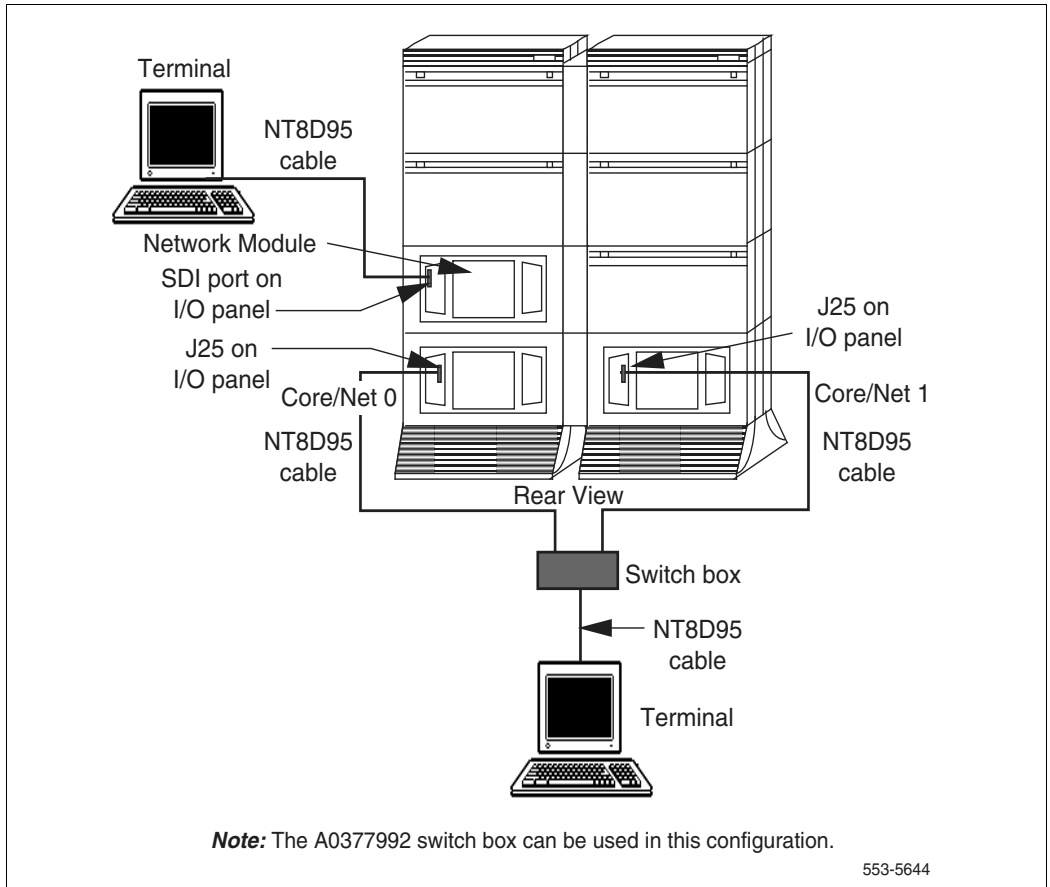
Meridian 1 Option 61C CP PII and Meridian 1 Option 81C CP PII modem guidelines

You can connect a modem to an SDI port to remotely monitor general system operation. Or you can connect a modem to the CPSI/COM2 ports for debugging and patch downloading (through your Nortel Networks representative). Or you may want a remote connection to both the SDI and CPSI ports.

Figure 37
One terminal and a switch box to the SDI and CPSI ports

Network
Module

SDI port on
I/O panel

J25 on
I/O panel

J25 on
I/O panel

Core/Net 0

Core/Net 1

NT8D95
cables

NT8D95
cable

Rear View

Switch box

NT8D95
cable

Terminal

Note: The A0377992 switch box can be used in this configuration.

553-5654
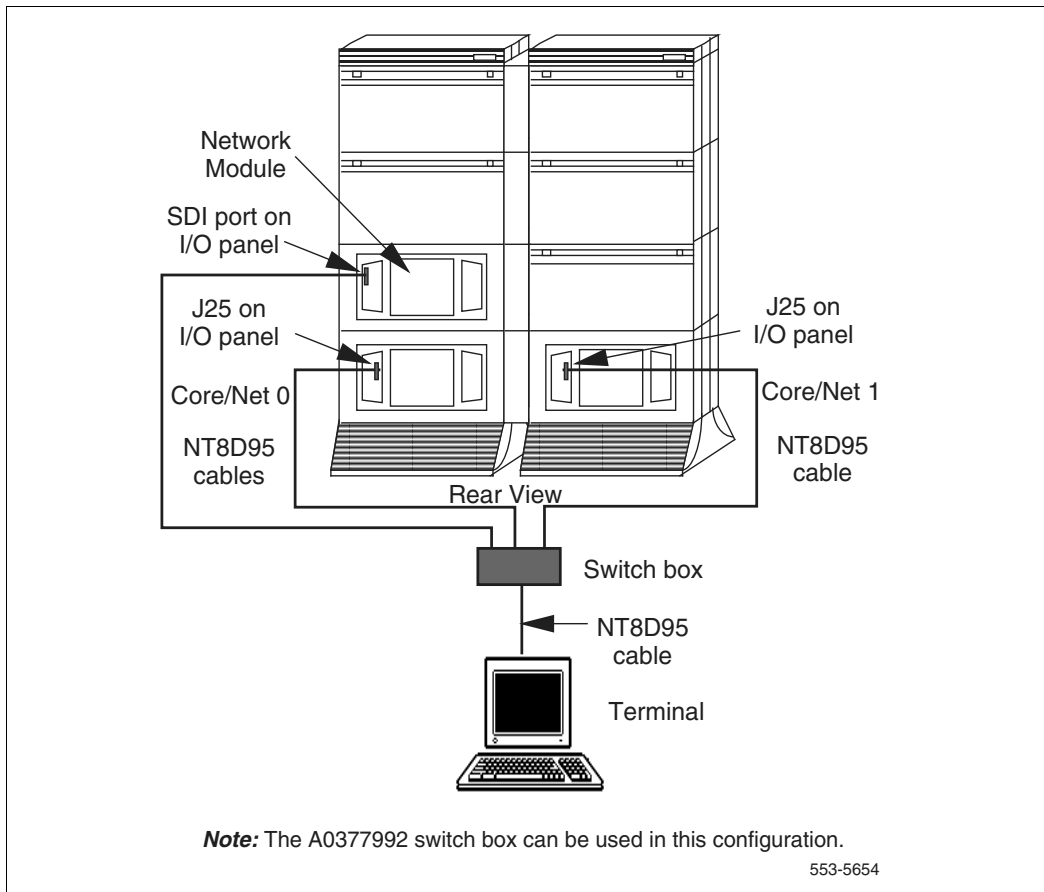
At the Meridian 1 end (the local end), modems must be set to dumb mode (command recognition OFF, command echo OFF). Modems at the local end can be connected as follows:

- One modem connects to the SDI port and the cable is switched to each CPSI/COM2 port as needed (see Figure 38 on page 664).

- One modem connects to a switch box that connects to the SDI and CPSI/ COM2 ports (see Figure 39 on page 667).

Note: The second method listed here is preferred. Other configurations, such as a separate modem for each port, are possible.

At the remote end, at least one modem (which can be set to smart mode), one terminal, and one RS-232 cable are required in all modem configurations.

Modems at the local end must meet the following required specifications to be compatible with Meridian 1 Option 61C CP PII and Meridian 1 Option 81C CP PII. Modems that meet the following recommended specifications must also meet the required specifications.

- required*:* true, not buffered, 9600 baud support (required for remote Nortel Networks technical support)

- required*:* CCITT V.32 or V.32bis compliance

- recommended: the ability to adjust to lower and higher speeds, depending on line quality, while maintaining 9600 baud at local DTE

- recommended: V.42 error correction

- recommended: V.42 bis data compression

A dispatch or call back modem, normally connected to the SDI port, can be used if it meets the requirements. If you want to use a modem of this type that does not meet the requirements, the modem can only be used in addition to a modem that does meet specifications.

Existing modems on upgraded systems

Any modem that meets the required specifications should be compatible with Meridian 1 Option 61C CP PII and Meridian 1 Option 81C CP PII.

The following modems listed below, are no longer available. However, if your system uses these modems now, they will work with the upgraded system:

- Hayes V-series ULTRA Smartmodem 9600

- UDS FastTalk V.32/42b

- US Robotics Courier HST Dual Standard V.32bis

- Motorola 28.8 Data/Fax

Available modem for an upgraded system

The US Robotics, Sportster External 33.5 Data/Fax modem model is tested and verified as compatible. The US Robotics, Sportster External 33.5 Data/Fax modem is available through Nortel Networks as part number A0663901.

Configure the US Robotics 33.5 Data/Fax modem

Procedure 219
Configuring the US Robotics 33.5 Data/Fax modem

Use the following procedure to configure a US Robotics, Sportster External 33.5 Data/Fax modem for operation with Meridian 1 Option 61C CP PII and Meridian 1 Option 81C CP PII. This procedure must be done before you connect the modem to the Meridian 1 system. You need a terminal such as a PC computer, to configure the modem.

1   Turn the modem off.

2   Set the modem DIP switches as follows:

   • DIP switches 1, 3, 7, and 8 to ON (down).

   • DIP switches 2, 4, 5, and 6 to OFF (up).

3   Connect an RS-232 cable to the modem and to a terminal.

4   Set the terminal with the following values:

   • 9600 baud

   • 8 bits

   • 1 stop bit

   • no parity

5   Turn the modem on and enter each command listed below with a carriage return (press Enter or Return key):

- AT&FLoad active profile

- AT&H0Flow control disabled

- AT&D3Resets on receipt of DTR

- AT&S1Modem controls DSR

- ATS0=1Answer after 1 ring

- ATS2=128Escape character = ASCII 128

- ATS7=60Pause 1s for carrier detection

- ATQ1Quiet mode

- AT&WStore active profile

The modem responds **OK** to every command (except for the last two commands ATQ1 and AT&W).

6   Disconnect the power cord and serial from the modem.

7   Set DIP switches 1 and 4 to ON (down) and the remaining switches OFF (up).

──────── **End of Procedure** ────────

Configuring an A0638930 Motorola 28.8 Data/Fax Modem

Use the following procedure to configure a Motorola 28.8 Data/Fax Model 3400 modem for operation with Meridian 1 Option 61C CP PII and Meridian 1 Option 81C CP PII.

The modem can be configured:

- for local mode of operation

- for remote mode of operation

Note: After the modem is configured, power down of the modem will not result in loss of the configuration settings. However, by pushing the RESET button on the modem and holding it down until the "MR" light flashes 5 only, and by releasing the RESET button before the next 5 flashes start, will reset the modem to its factory default settings. It will then be necessary to reconfigure the modem to the settings required for operation with Meridian 1 systems.

Procedure 220
Installing the modem

1   Unpack the modem and read the installation instructions included with the modem.

2   Position the modem in its designated space, install its power cord, and plug it into the power receptacle.

3   Connect a 25-pin RS-232 cable to the modem and to a terminal.

   i.   For Local configuration

   a.   Set the terminal with these parameters:

      — 9600 baud

      — 8 data bits

      — 1 stop bit

      — no parity

   b.   Install the communication utility program shipped with the modem or use an appropriate alternate communication utility program such as Procomm, Telix, SmartCom, Bitcom, or CrossTalk.

   c.   Enter the following command string in one line, followed by the carriage return <cr>:

      AT&F \Q0 &S1 S0=1 S7=60 S2=128 Q1 E0 &W &W1 <cr>

   d.   After you press the carriage return <cr>, the modem will appear to have stopped functioning. This is normal.

   e.   Power off the modem and connect it to a Call Processor CPSI or CP PII COM2 port in the Meridian 1 system. To do this:

      — Set the power switch to OFF.

— Connect the NT8D95 cable between the modem and the J25 on the I/O panel at the rear of the Core/Network module.

— Connect the modem to the telephone jack (RJ11) using the RJ11 telephone cord. If the cord is not supplied, use the NT8D46 cable.

— Turn the power switch on the modem to ON.

The modem is now configured for local communication with the Meridian 1 system.

ii.   For Remote configuration

To configure a modem in the remote mode, connect the modem as described above in "Local configuration procedure" and proceed as follows:

a.   To place the modem in the remote configuration mode:

b.   Press and hold the RESET button until the "MR" light flashes 10 times. There is a 3 second pause before each set of five flashes are received. The "AA" light comes on at the beginning of the last five flashes and remains on.

c.   Do not release the RESET button until you receive all 10 flashes, the "MR", and the "AA" lights are on. The modem is now placed in the remote mode.

d.   Dial up the modem at 9600 bps.

e.   Dialing up the modem at a baud rate other than 9600 bps will result in configuration errors.

f.   Enter five equal signs (= = = = =) after you received the connection message.

g.   Press carriage return <cr> after the PASSWORD prompt appears.

      h. RC ESTABLISHED prompt will appear. Now you can enter the following commands, each followed by the carriage return <cr>:

AT\Q0	<cr>	Disable Computer Flow Control
AT&S1	<cr>	DSR on when ready to accept data
ATS0=1	<cr>	Answer on the first ring
ATS7=60	<cr>	How long to wait for carrier
ATS2=128	<cr>	Escape sequence character
AT*NT	<cr>	Turn AT command set OFF (very important)
ATQ1	<cr>	Response display OFF
AT&W	<cr>	Write to first profile
AT&W1	<cr>	Write to second profile
AT*RQ	<cr>	End remote configuration and save changes

> ✔ The modem is now configured for remote communication with the Meridian 1 system.

─────────────── **End of Procedure** ───────────────

Configure an A0381391 UDS FastTalk modem

Use the following procedure to configure a UDS FastTalk modem for operation with Meridian 1 Option 61C CP PII and Meridian 1 Option 81/81C CP PII.

Procedure 221
Configuring an A0381391 UDS FastTalk modem

Note: With the exception of the smart/dumb mode jumper setting, configuration changes to the modem are made through software. The modem must remain in smart mode (as shipped) until the software configuration is complete.

- ATE   turn off local character echo

- ATS0=2   enable autoanswer on second ring

- ATDT   set for tone dialing (default is pulse dialing)

- AT&W   store changes in profile 0

- AT&Y   use profile 0 at power up

1   Disconnect the power cord, RS-232 cable, and any other cables from the modem.

2   Remove the top cover on the modem.

3   Stand the unit on its side.

4   Using a medium-size flat screwdriver, lightly pry the four lock tabs off the locks (located on the bottom of the case) and pull the cover away from the modem as the locks release.

5   Set the modem to smart mode.

6   Locate the option jumper. The jumper is located just to the left of the speaker (when viewed from the front of the modem).

7   Place the jumper on the two pins farthest from the speaker.

8   Connect a 25-pin RS-232 cable to the modem and to a terminal.

9   Set the terminal with these parameters:

    — 9600 baud (no other speeds will work)

    — 8 data bits

    — 1 stop bit

    — no parity

Note: The modem will communicate at 9600 bps *only;* the terminal or computer must be set to 9600 bps also.

10 Enter the following commands to set compatible parameters. Follow each command with a carriage return (press the "Return" or "Enter" key):

    AT&F   load active profile containing factory settings

    AT\N0   select normal mode, error control disabled

    AT\Q0   set serial port flow control

    ATV3   form-of-response message = DTE

    AT&D2   modem disconnects when DTR signal is lost

    AT&S1   select DSR control

    ATS0=1   answer after 1 ring

    ATS2=128   escape character = ascii 128

    ATS7=60   pause 1 second for carrier detection

    ATQ1

11 After you enter this last command (ATQ1), the modem no longer responds with "OK". Enter the next command:

    AT&W   store active profile

12 The modem should respond to every command (except the last two commands) with "OK". If you do not get this response, turn the modem off and on and try again.

13 Disconnect the power cord and serial cable.

14 Set the modem to dumb mode:

15 Locate the option jumper. The jumper is located just to the left of the speaker (when viewed from the front of the modem).

16 Place the jumper on the two pins closest to the speaker.

17 Replace the cover on the modem.

18 Align the tabs, locks, and rear guide grooves.

19 Press the cover into place until the locks and the tabs snap together.

20   Reconnect the power cord and any other cables that will be used.

———————— **End of Procedure** ————————

Connect a modem to an SDI port

Use the following procedure to connect an SDI port directly (no switch box) to a modem (see Figure 38 on):

Procedure 222
Connecting a modem to an SDI port

1   At the remote end, connect an RS-232 cable to the terminal and to the modem.

2   At the remote end, connect the cable from the modem to an RJ11 telephone jack. (If a cable is required, connect an NT8D46 cable to the modem and to the RJ11 jack.)

3   At the local end, configure the modem:

    a.   If you are using a Motorola 28.8 Data/Fax modem, follow the instructions in this document. (See "Configuring an A0638930 Motorola 28.8 Data/Fax Modem" on .)

    b.   If you are using an UDS FastTalk modem, follow the instructions in this document. (See "Configure an A0381391 UDS FastTalk modem" on .)

    c.   If you are using a different type of modem, follow the manufacturer's instructions to set the modem for 9600 baud, auto answer, dumb mode, command recognition OFF, command echo OFF.

4   At the local end, connect an NT8D95 cable to the SDI port on the I/O panel in the rear of the module and to the modem.

5   At the local end, connect the cable from the modem to an RJ11 telephone jack. (If a cable is required, connect an NT8D46 cable to the modem and to the RJ11 jack.)

6   To communicate with a CPSI/COM2 port, switch the cable from the modem to the port as needed:

a. For debugging or monitoring, connect the cable to the *active* CPU at J21 on the I/O panel in the rear of the Core/Network Module.

b. For patch downloading, connect the cable to the *inactive* CPU at J21 on the I/O panel in the rear of the Core or Core/Network Module.

Figure 38
Modem to SDI port

Note: The A0381391 modem can be used in this configuration.

553-5808
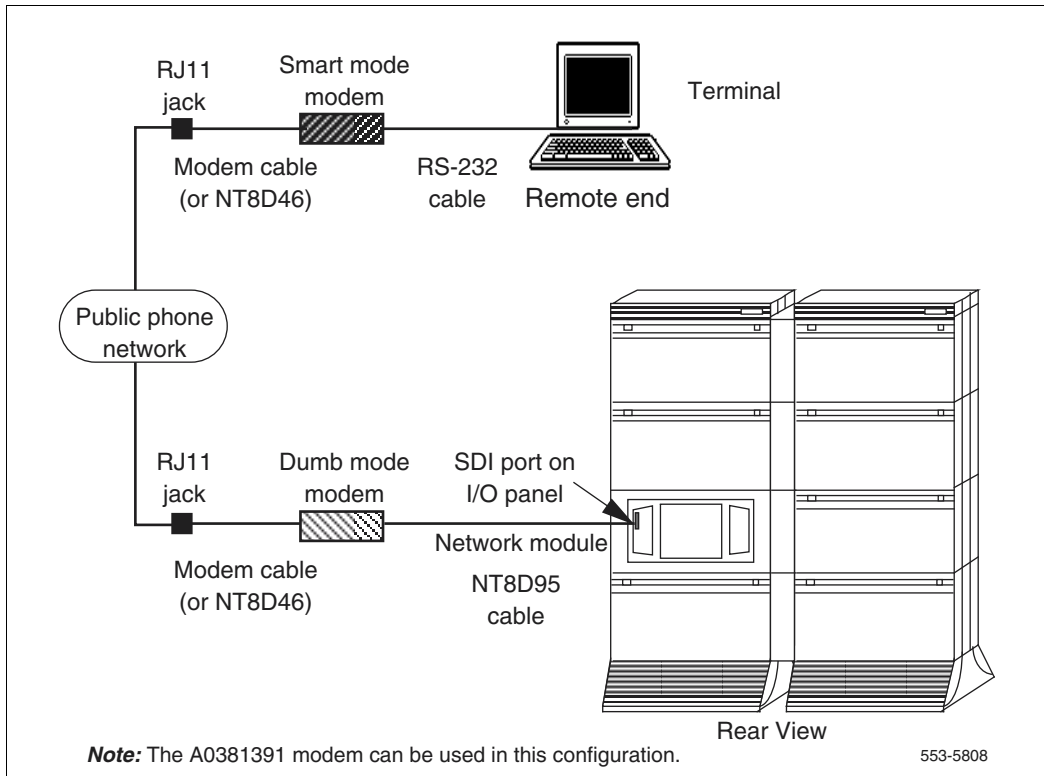
─────── **End of Procedure** ───────

Connecting a modem to a switch box and CPSI and SDI ports

Procedure 223
Connecting a modem to a switch box and CPSI and SDI ports

Use the following procedure to connect SDI and CPSI ports to a switch box
and a modem (see Figure 39 on and Figure 40 on):

1   At the remote end, connect an RS-232 cable to the terminal and to the
modem.

2   At the remote end, connect the cable from the modem to an RJ11
telephone jack. (If a cable is required, connect an NT8D46 cable to the
modem and to the RJ11 jack.)

3   At the local end, configure the modem:

   a.   If you are using a Motorola 28.8 Data/Fax modem, follow the
instructions in this document. (See "Configuring an A0638930
Motorola 28.8 Data/Fax Modem" on .)

   b.   If you are using an UDS FastTalk modem, follow the instructions in
this document. (See "Configure an A0381391 UDS FastTalk modem"
on .)

   c.   If you are using a different modem, follow the manufacturer's
instructions to set the modem for 9600 baud, autoanswer, dumb
mode, command recognition OFF, command echo OFF.

4   At the local end, connect NT8D95 cables to

   a.   J21 on the I/O panel in the rear of the Core or Core/Network Modules

   b.   the SDI port on the I/O panel in the rear of the Network module

5   At the local end, connect NT8D84 cables to the SDI Paddle Board at the
Core/Network backplane to the I/O panel in the rear of the Core/Network
Module.

6   At the local end, connect NT8D95 cables from the I/O panels to a
matching connector on the switch box.

If you are using an A0377992 ABCDE box, connect cables as follows:

   a.   Connect CPU 0 to connector A.

   b.   Connect CPU 1 to connector B.

   c.   Connect the SDI port to connector D (connector C is common).

7   At the local end, connect an NT8D95 cable from the switch box to the modem.

8   At the local end, connect the cable from the modem to an RJ11 telephone jack. (If a cable is required, connect an NT8D46 cable to the modem and to the RJ11 jack.)

9   At the local end, set the switch box as needed to communicate with the CPSI ports:

    a.   During normal operation, set the switch to the SDI port.

    b.   For debugging, set the switch to the *active* CPU.

10   For patch downloading, set the switch to the *inactive* CPU.

————————————— **End of Procedure** —————————————

Figure 39
Modem to a switch box and SDI and CPSI ports (dual-column systems)

Note: The A0377992 switch box and A0381391 modem can be used in this configuration.

553-5809
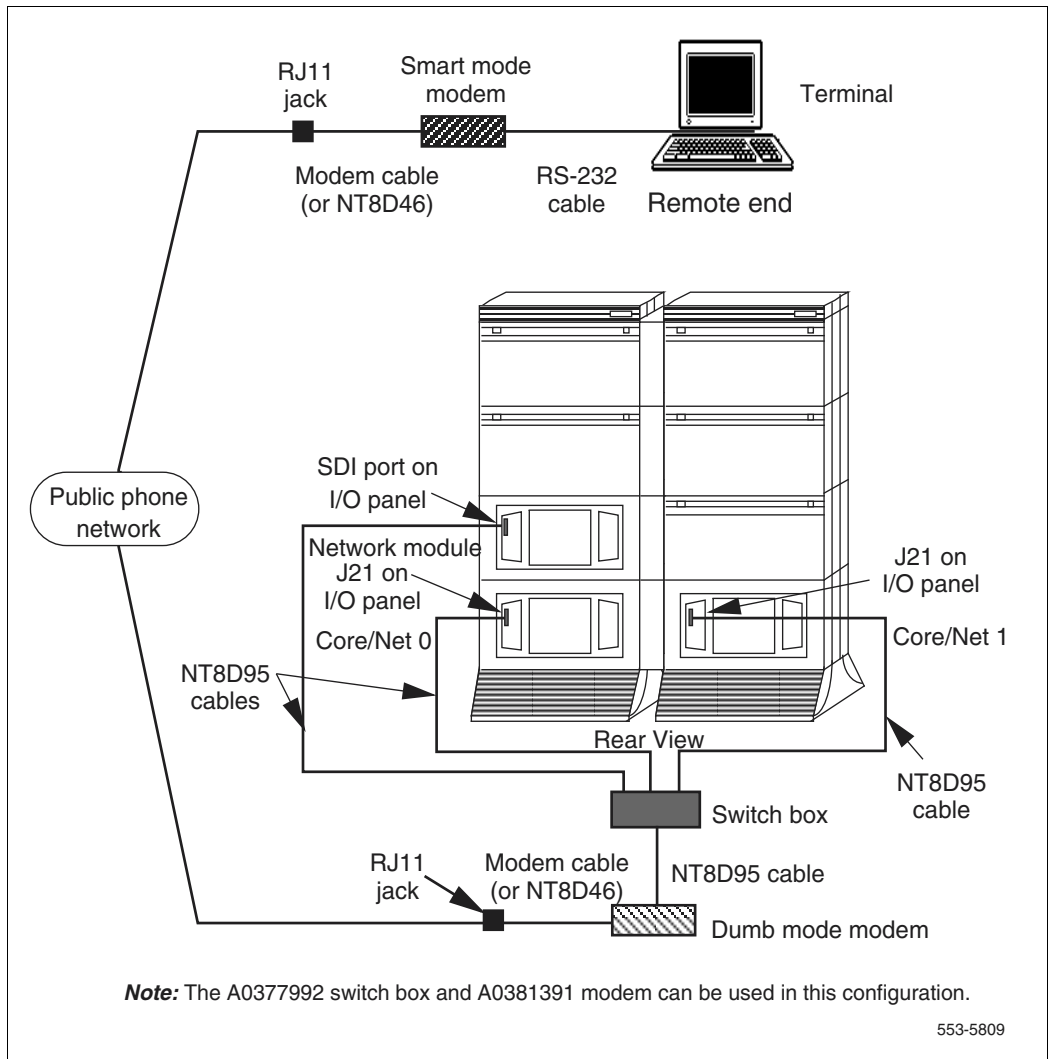
Figure 40
Modem to a switch box and SDI and CPSI ports (single-column systems)
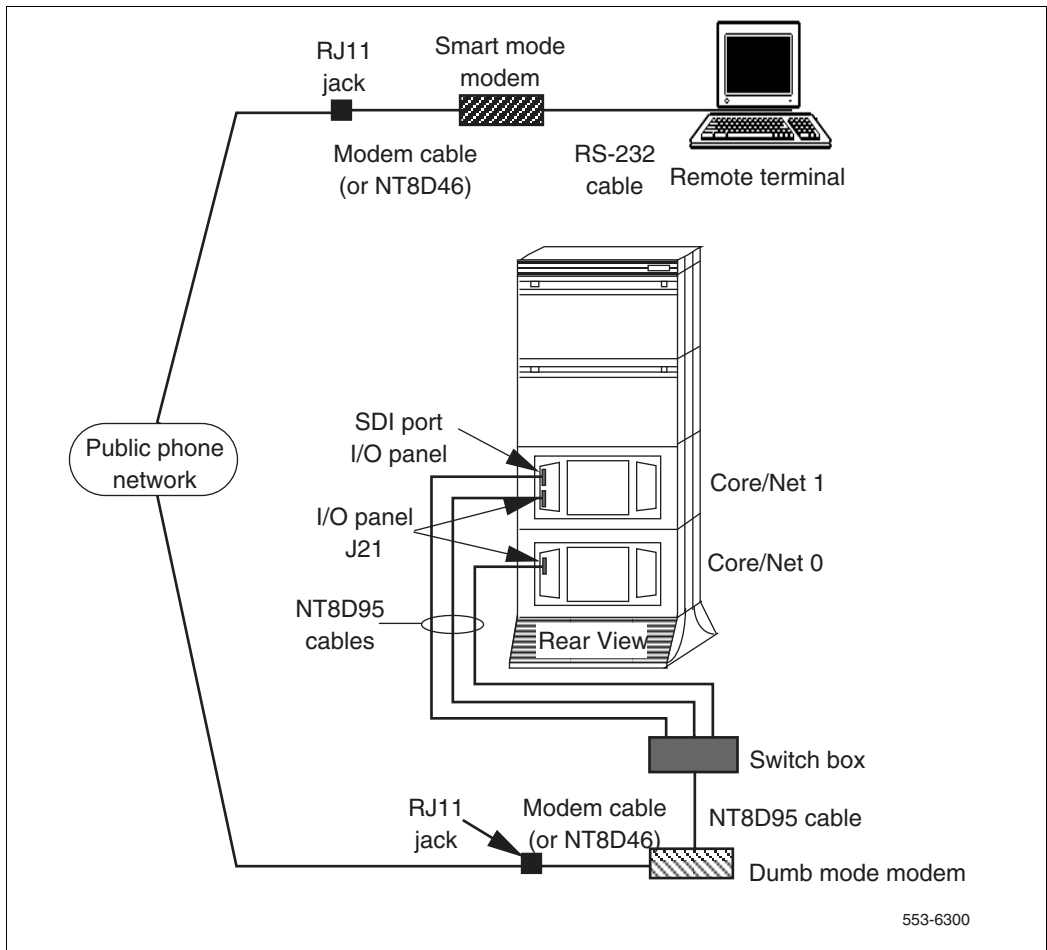
Upgrade troubleshooting

Contents

This section contains information on the following topics:

Introduction

This appendix contains procedures that you can perform if you experience trouble after upgrading a system to a Meridian 1 Option 61C CP PII or Meridian 1 Option 81C CP PII. Look up all messages displayed on the terminal in the *Software Input/Output: System Messages* (553-3001-411).

Troubleshooting procedures

Find the symptom listed below, and perform the appropriate corrective procedure.

Procedure 224
If the NT5D20 IOP/CMDU, NT5D61 IODU/C, or NT4N43 MMDU card fails the self-test

1   Replace the card with a spare IOP/CMDU, IODU/C, or MMDU card.

2   Look for bent pins on the backplane connectors.

3   Replace the card cage.

———————— **End of Procedure** ————————

Procedure 225
If the CP/CP PII Card or card fails the self-test

1   Replace the card with a spare CP/CP PII card.

2   Look for bent pins on the backplane connectors.

3   Replace the card cage.

Note: Contact you Nortel Networks representative for card or card cage replacement information.

———————————— **End of Procedure** ————————————

Procedure 226
If "IOP Out of Service" appears on the Call Processor card LCD

1   Check the cable connections on the rear of the backplane. Make sure backplane connector positions are correct (and no connectors are in row B or E).

2   Look for bent pins on the backplane connectors.

3   Replace the IOP/CMDU or IODU/C card with a spare card and make sure it completes its power-up tests successfully. Reset the Call Processor card to force it to rehunt the IOP or IOP/CMDU card.

4   If the Call Processor card finds the IOP/CMDU or IODU/C card, the original IOP/CMDU or IODU/C card is defective.

5   If the Call Processor card still fails to find the IOP/CMDU or IODU/C card, replace the card cage.

———————————— **End of Procedure** ————————————

Procedure 227
If the system points to file corruption (such as "Error in file diskos" type messages) while the software was loading

1   Place the A1 disk (IOP/CMDU) or the Install Program disk (IODU/C) in the floppy drive and reload (sysload) the system. The system will boot from the floppy, which contains the operating system software, and invoke the installation program. When the program installs the software on the hard drive, file-level corruption problems should be eliminated.

2   If the failure persists, because of a hard drive failure for example, replace the IOP/CMDU or IODU/C card with a spare card and try to load the software.

   Note: If the database conversion or the data dump failed, contact your Nortel Networks support representative.

──────────────── **End of Procedure** ────────────────

Using the Distributor Keycode Application

Contents

This section contains information on the following topics:

Introduction

The Distributor Keycode Application (DKA) is a Windows-based utility program which enables distributors to download keycodes from a remote server (known as Keycode Delivery Server (KDS). DKA makes use of a standard Wizard Windows interface to guide the user's operation.

> *Note:* Electronic retrieval of keycodes via DKA is not supported in European markets. If downloading keycodes from Europe, please refer to "Using the Keycode Retrieval Utility" on page 695.

This section contains the following procedures:

• "Install DKA" on page 674

- "Adding the KDS network client in Dial-up Networking" on

- "Downloading from KDS" on

- "Reading from a File" on

- "Manually enter a keycode" on

    Note: The "Installing DKA" and "Adding the KDS connection in Dial-Up Networking ®" procedures must be completed before the "Downloading from KDS" procedure can be performed.

Hardware and Software Requirements

To install and use the DKA program, certain requirements must be met:

- A PC or compatible computer with a Pentium or compatible Intel processor running the Windows 95 or Windows 95B operating system.

- A modem that supports 14.4kbps or less must be installed and configured on the PC. To ensure that a modem is configured correctly under Windows 95, configure a modem through the Control Panel (using 8 data bits, Parity None, Stop Bits 1). Additionally, the modem must be configured with the correct Dial Prefix (Access Code) used by the telephone system to access an outside line. This modem must access a standard analog telephone line.

- Approximately 5 MB free hard drive space for installation of the DKA program and, if desired, storage of keycodes.

- Microsoft Dial-up Networking software must be installed on the PC (provided with Windows 95)

- The following procedures must be performed before downloading keycodes: "Installing DKA." and "Adding the KDS connection in Dial-Up Networking ®."

Install DKA

Once it is determined that the PC and modem meet the system requirements listed above, the DKA program can be installed on the PC. Once the program is installed, make a Shortcut to the program to appear on the Windows desktop. Double-clicking this Shortcut provides easy access to the program.

Procedure 228
Installing the DKA program

1 Locate the DKA Installation diskette.

2 Insert the diskette, label facing upwards, into the floppy drive on the PC.

3 Run the Windows Explorer ® application by clicking **Start** | **Program Files** | **Windows Explorer**.

4 In the **Windows Explorer** application, click the 3.5" Floppy drive (A:) from the left side of the window.

5 In the right side of the window, double-click the **Setup.exe** file (which has a computer icon to the left of it).

Wait for the **Setup** program to prepare for installation.

The Identification Screen is displayed.

6 Enter the requested information in the **Name** and **Company** fields. See Figure 41 below.

Figure 41
Identification screen
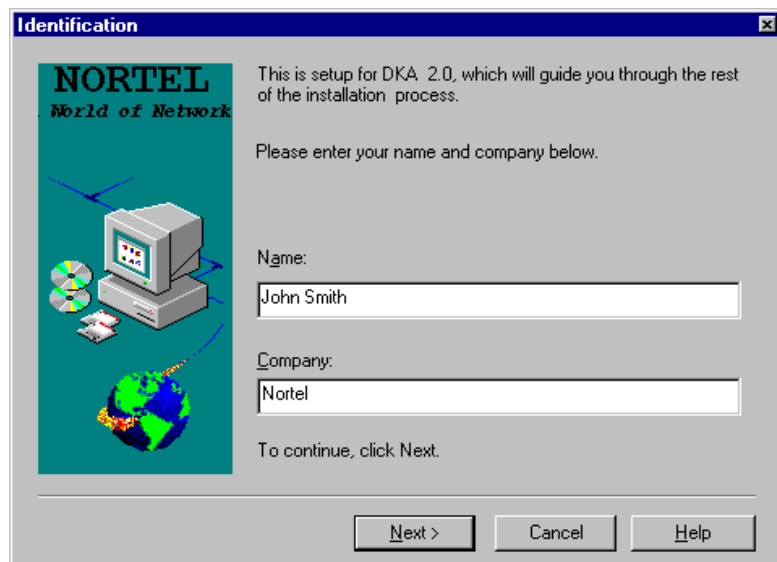
7   Click **Next** or press return.

The Software License screen is displayed. This screen contains a scrollable text box that contains the legal agreement governing the use of the DKA software. See Figure 42 below.

Figure 42
License agreement screen
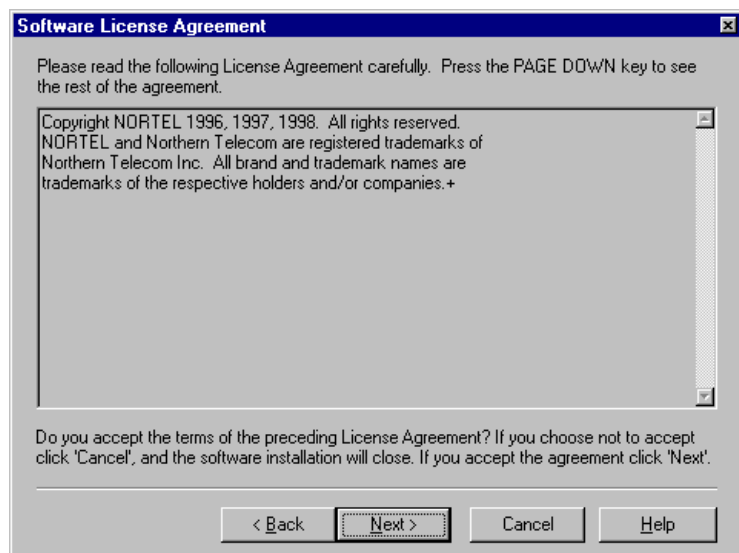
8   If accepting the terms of the license agreement, click the **Next** button. If not accepting the terms, click **Cancel** and the program installation is stopped.

The Destination Directory screen appears. This screen indicates that the DKA program will be installed on the hard drive in a folder called DKA. See Figure 43 on .

Figure 43
Destination directory
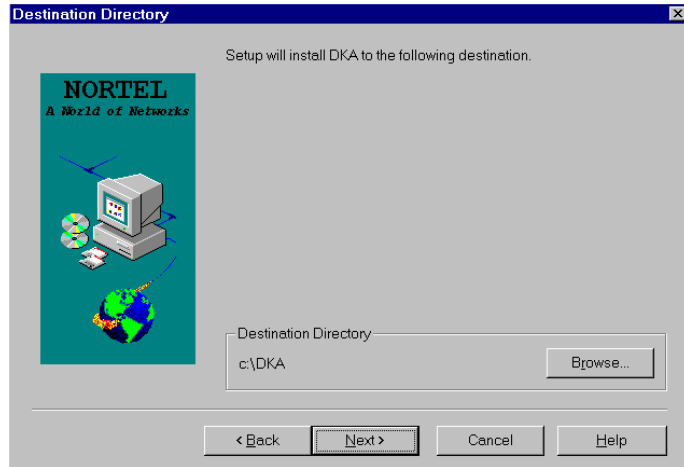
9   Click **Next** or press return.

10   The Read Note screen appears. This screen is used to read any Read me files for the DKA program. See Figure 44 on .

Figure 44
Read note screen.
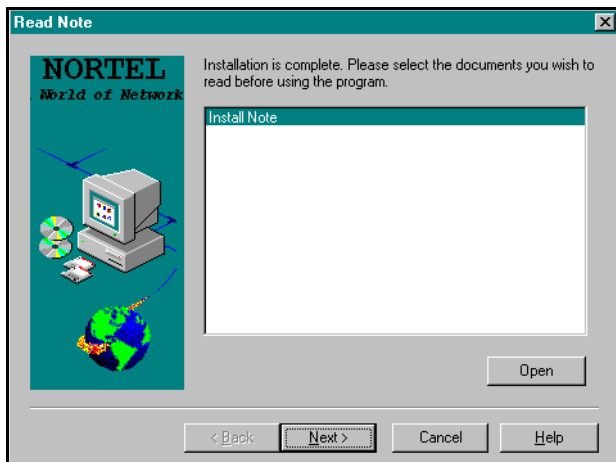
11 Read the contents of the Read Me files: Select the desired file, then click
    Open.

12 Click **Next** or press return.
    The Install Completed screen appears. This screen indicates that the
    Distributor Keycode Application has been successfully installed on
    the PC. See Figure 45 on .

Figure 45
Install Completed screen
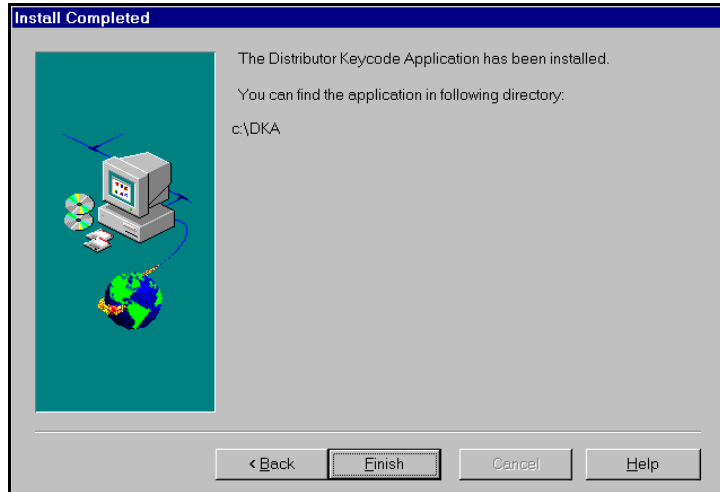
13   Click the **Finish** button to close the setup program.

—————————   **End of Procedure**   —————————

Create a Shortcut

Procedure 229
Creating a shortcut

1   Select the **dka.exe** file located in the DKA folder on the (C:) drive.

2   Click on the **File** menu and drag down to **Create Shortcut**.

A file called **Shortcut to dka.exe** appears in the DKA folder.

3   Click and drag the **Shortcut to dka.exe** file to a convenient location on the desktop and release.

—————————   **End of Procedure**   —————————

Now the Distributor Keycode Application can be accessed easily by double-clicking on the **Shortcut to dka.exe** file on the desktop.

Adding the KDS network client in Dial-up Networking

Before keycodes can be downloaded, it is necessary to configure the Dial-up Networking KDS client. Dial-up Networking stores and manages all communication parameters (such as phone number, dial prefixes, user name, password) necessary for connecting to the Keycode Download Server.

Procedure 230
Configuring Dial-up Networking

1   Click the **Start** button on the lower left corner of the PC desktop and drag to **Programs|Accessories|Dial-up Networking**.

2   Double-click the **Make a New Connection** icon in the Dial-Up Networking window and enter the following:

Type a name for the computer you are dialing:
Richardson KCD Server 1 (example)

3 Select a modem:
The modem must support 14.4 kbps or less with the following configuration:
Data Bits 8, Parity None, Stop Bits 1
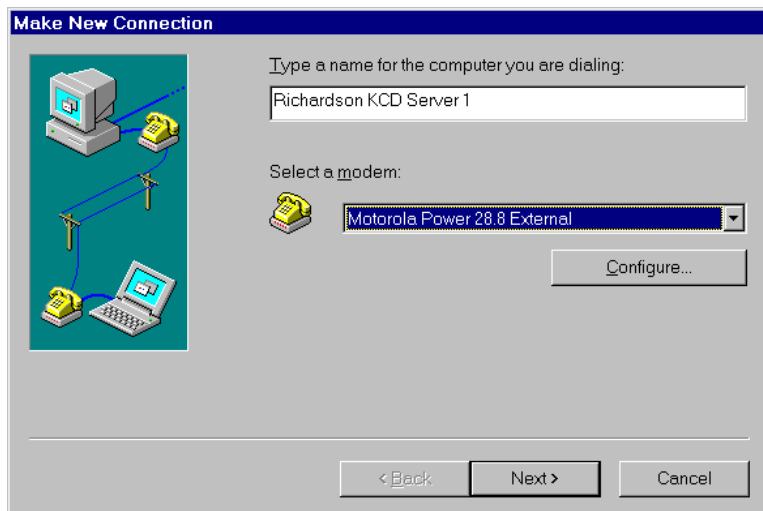
4 Click **Next**. The telephone number entry screen appears. See Figure 46 on . Enter the following for regions where the 888 Area Code is available:

Enter the Area Code as follows: 888
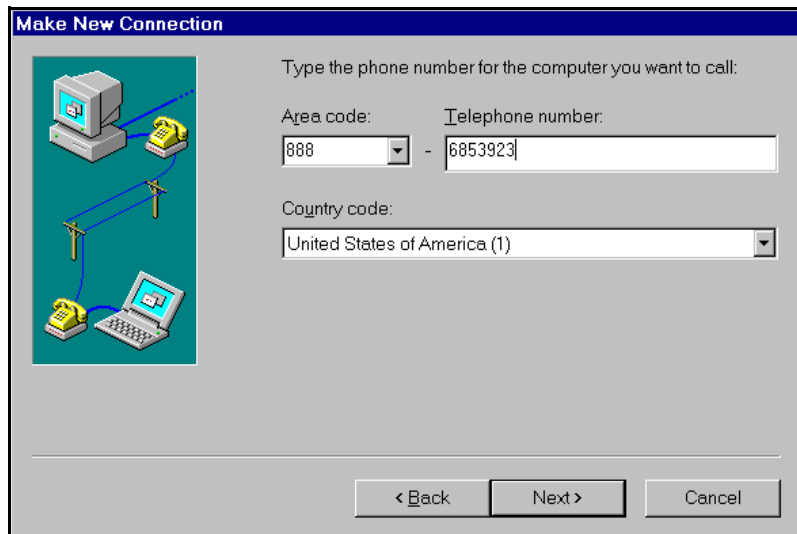
Telephone Number: 685-3923

Country code: United States of America

Note 1: The information entered in the Make New Connection window must match this information. If using DKA in a market other than the United States of America, ensure that the Area Code, Telephone Number, Dial Prefix, and Country code are configured correctly.

Note 2: In regions where the 888 Area Code is not applicable, the number which must be substituted is: **(972) 685-1764**. This number must be configured in Dial-Up Networking.

Figure 46
Make New Connection screen – telephone numbers.

5   Click **Next**.

     A message Is received that states a new Dial-Up Networking connection
     has been successfully completed.

6   Click **Finish** or press return to complete the procedure.

—————————————— **End of Procedure** ——————————————

Configure the Type of Dial-Up Server

Procedure 231
Configuring the Type of Dial-Up Server

1   Click the **Start** button on the lower left corner of the PC desktop and drag to **Programs|Accessories|Dial-up Networking**.

2   Click on **Richardson KCD Server 1.**
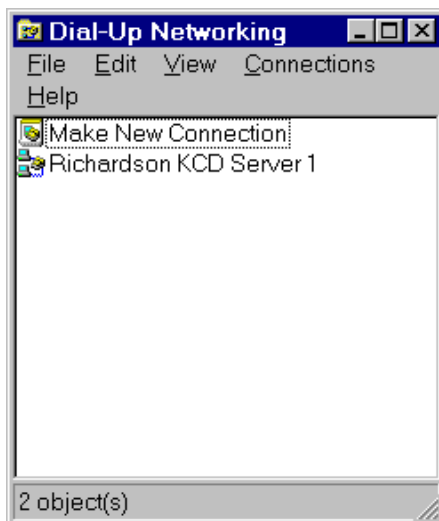
3   Select the **File menu** and choose **Properties**.

4   Click **Server Type...** to continue.

5   Configure the **Server Type** window with the following information:

   Type of Dial-Up Server: PPP Windows 95 Windows NT 3.5 Internet

   Advanced's: Enable software compression

   Advanced network protocols: TCP/IP

   TCP/IP Settings....: *use the default settings*

6   Click **OK** or press return.

7   Click **OK** again to return to the Dial-Up Networking window**.**

––––––––––––   **End of Procedure**   ––––––––––––
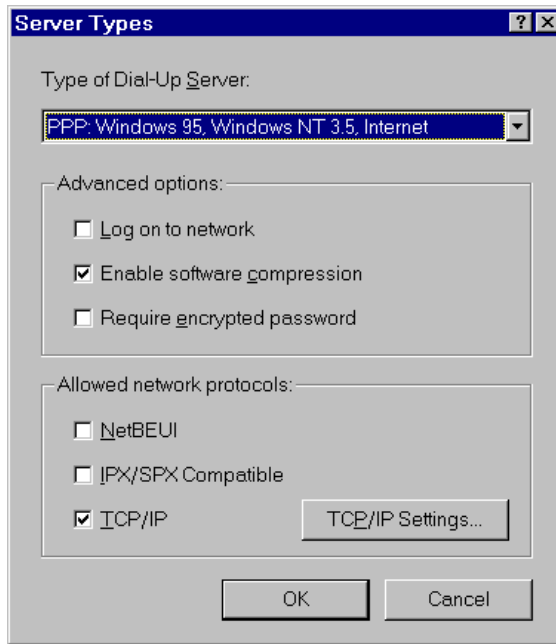
Downloading from KDS

The following procedure is used to request and receive keycodes from a remote server, known as KDS (Keycode Delivery Server). This procedure assumes that you have already installed the DKA program as described in "Install DKA" on page 674, and have added and configured the Dial-up Networking client as described in "Adding the KDS network client in Dial-up Networking" on page 680.

Procedure 232
Establishing the PPP connection to the KDS server via
Dial-up Networking

1   Double click on the Richardson KCD Server 1 Dial-Up Networking client.
Enter user name "nortel-keycode" and password "97enable." Click the
Connect button and verify that the modem dials a call and the Dial-Up
Networking client successfully connects to the Richardson KCD Server 1.

Once the Dial-up Networking PPP connection has been established,
continue with the download by starting the DKA application:

2   Double-click on the **Shortcut to DKA** icon on the PC desktop.

A gray screen appears that includes four menus and a Toolbar with
buttons for essential commands.

Open   Print   Download   Manual   Help   About
                Keycodes   Entry   DKA

3   Click on the **Tools** menu and select **Download Keycodes.**

The KDS Welcome screen appears.

4   Click **Next** or return to download a keycode from KDS.

The Build a Request List screen is displayed. This screen has four information fields which must be completed for each keycode request that is submitted.
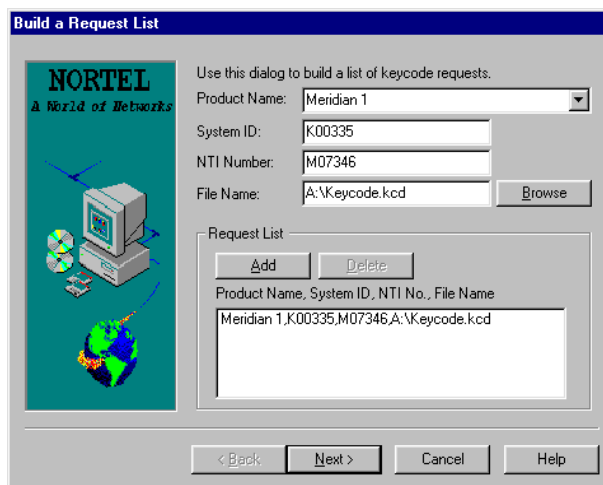
5   Enter the information into the four fields as described in Table 46 below.

Table 46
"Build a Request List" fields

Name of field	How the information is entered in the field
Product Name	Select the product family of the system for which you are requesting a keycode.
System ID	Enter the System ID for the system for which you are requesting a keycode.
NTI Number	Click in the field and type in the NTI Number for the system for which you are requesting a keycode (the NTI Number is the same as the NT order number).
File Name	Enter a file name for the keycode you will be downloading.
	If the keycode will be downloaded to the hard drive ((C:) drive), use the following file naming convention: c:\DKA\<System ID>\NTI Number>. When you click <u>A</u>dd, a.kcd file extension is added to the file name.
	If the keycode will be downloaded to a floppy diskette in the 3.5" Floppy drive (A:), the file name must be named "keycode" so the Meridian 1 can recognize the file. When you click <u>A</u>dd, a.kcd file extension is added to the file name.

6   Click **Add** to continue. The request will appear in the Request List scroll box.

When a request is added to the list, another request may be added by filling out the fields with information for another keycode, and again clicking the Add button.

To remove a request from the list, select the request in the Request List scroll box and click the Delete button.

7   Click the <u>**Next**</u> or press return.

The KDS Billing Notice screen is displayed

8 Enter the information in Table 47 below into the KDS Billing Notice screen.

Table 47
Fields on the KDS Billing Notice screen

Name of field	How the information is entered in the field
Distributor Name	Enter the name of the Distributor who is requesting the keycode(s).
User Name	Enter the name of the person requesting the keycode(s).
Telephone Number	Enter the telephone number that can be used to contact the individual who is requesting the keycode(s). For example: (408) 555-1212.

9 Click the **Next** button or press return.

10 Click **Next** or press return.

The KDS Download screen is displayed.

Note: The Dial-up Networking connection must have been established, as described in "Establishing the PPP connection to the KDS server via Dial-up Networking" on .

11 Click **Start** to begin downloading the keycode(s).

Note: This starts the keycode download process. A socket connection is established over the existing PPP connection. Next, the provided login information is sent to the Keycode Delivery Server and verified. Then the requested keycodes are downloaded to your PC in the location you specified in the Build a Request List window. Status is displayed in the Download Status box.
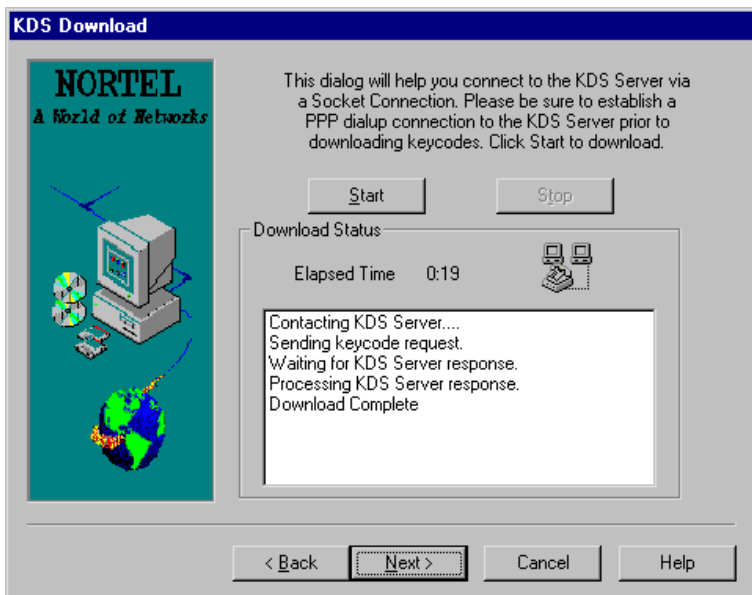
12   Click **Next** to receive the "KDS Download Results" screen, summarizing the results of the download.
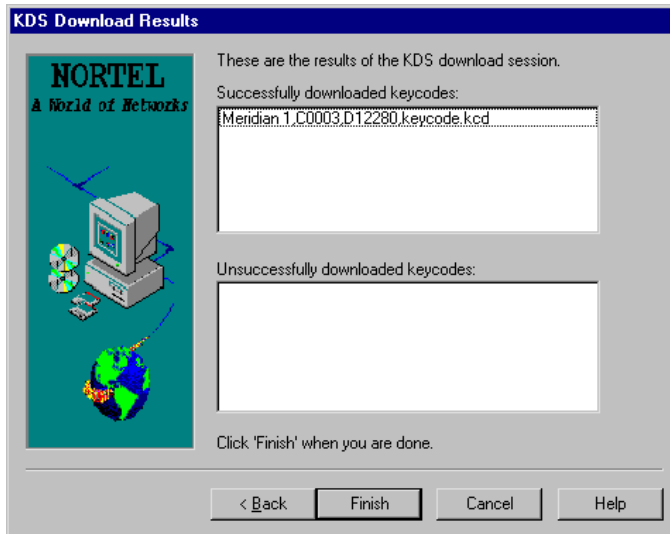
13   Double-click the network icon in the lower right corner of the screen.
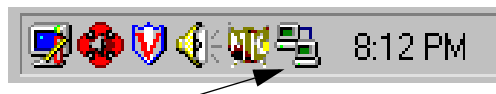
14   The Dial-up Networking status window appears. Click the **Disconnect** button to end the connection to the network.

The "Download from KDS" procedure is complete. Refer to "Keycode Management, LD 143" in this document for keycode installation instructions.

If there was a problem downloading keycodes, the problem keycodes are listed in the "Unsuccessfully downloaded keycodes" scroll box.

Note: If the download was unsuccessful, verify that the correct telephone number and Dial Prefix are configured in Dial-up Networking.

When the requested keycode is downloaded from the Keycode Delivery System to your PC, refer to "Adding features and ISM limits" on for keycode installation procedures.

——————— **End of Procedure** ———————

Reading from a File

Procedure 233
Reading from a File

The following procedure is used to learn information about the properties of an existing keycode, or a keycode that was just downloaded from KDS. In this procedure you will specify a keycode file in a location on your hard drive or on a floppy diskette that is inserted in your floppy disk drive.

You will also specify a "Product type" to examine within the keycode file, in case there are multiple keycodes within the keycode file being examined.

This procedure assumes that you have already installed the DKA program as described in "Install DKA" on .

1   Double-click on the **Shortcut to DKA** icon on the PC desktop.

2   Select **Open** from the **File** menu.

     A navigation dialog box appears. In the navigation dialog box, locate the keycode. For a keycode residing on a floppy drive, this is the 3.5" Floppy drive (A:); for a keycode residing on the hard drive, this is most likely the C: drive.

3   Click **OK**.

The Keycode file is displayed in a format similar to the hardcopy Keycode Acknowledgment sent to a customer. The Keycode itself is displayed at the bottom of the file, in 21 rows of 16 characters each.
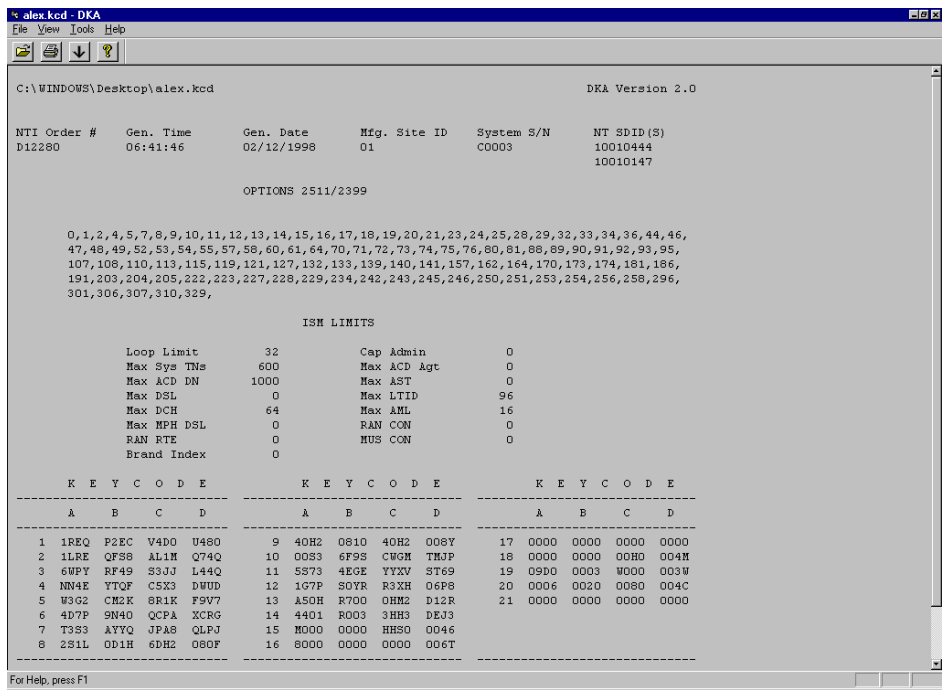
The "Reading from a File" procedure is complete.

--- **End of Procedure** ---

Manually enter a keycode

Procedure 234
Manually entering a keycode

The following procedure is used to manually enter a keycode for the purpose of creating and storing a keycode file.

This procedure assumes that you have already installed the DKA program as described in "Install DKA" on page 674.

1   Double-click on the **Shortcut to DKA** icon on the PC desktop.

2   Select **Manual Entry** from the **Tools** menu.

The Keycode Entry screen is displayed. This screen consists of rows and four columns (A-D) into which the keycode is entered four characters at a time. When 16 characters (four cells) are entered in a row, the program tries to validate that row. If the row does not validate, a red X appears to the left of that row to indicate invalidity.

The Clear All... button is used to erase all characters in the cells that have been entered on the Keycode Entry screen. A dialog box will prompt "Are you sure you want to clear the Keycode characters?" when this button is selected. Confirming the dialog erases all characters in all cells.

3   When the entire keycode has been entered, click the <u>**Save...**</u> button.

If the keycode is valid, the Save As screen is displayed. This screen allows you to specify the file name your keycode will be saved as and the directory where it will be saved.

Save As		? ✕
Save in:	▭ 3½ Floppy (A:) ▾	🔼 📑 ▦ ▥
File name:	keycode.kcd	Save
Save as type:	Keycode File (*.kcd) ▾	Cancel

4   From the **Save in** pull-down menu, select the drive location where you want to save the keycode.

5   In the **File Name** field, type the name you want your keycode file to be saved as. Note that the.kcd extension will be appended to that filename.

To save the keycode file nested within folders, double-click on the folder in which the keycode file will ultimately be saved. When you have navigated to the folder where you would like to save the keycode file, click the **Save** button.

6   Click **Save** or press return.

The keycode file has been saved as specified.

———————   **End of Procedure**   ———————

Using the Keycode Retrieval Utility

Contents

This section contains information on the following topics:

Introduction

The Keycode Retrieval Utility is a Nortel Networks Customer Support service feature available to registered customers. The Keycode Retrieval Utility provides a full suite of online tools, services, resources and interactive capabilities.

The Keycode Retrieval Utility provides a tool for distributors to browse and retrieve keycodes. A distributor is considered to "own" a keycode once it has been manufactured and its associated order invoiced.

If access cannot be made to the Keycode Retrieval System (KRS) web site, it is necessary to apply (register) for access, and wait one to two business days for the account to be activated, before accessing the "Downloading keycodes" procedure.

Applying for access

If access cannot be made to the KRS web site, use the following procedure to register.

Procedure 235
Applying for access to the KRS web site

1   Start web browser software.

2   Enter the URL **"http://www.nortelnetworks.co**m" in the Address or Net Site bar and press Return or Enter.

3   Click on the Customer Support menu, then choose Register.

4   Under the Products and Services banner, click on the "Register for Customer Support Products" bar.

5   Follow the Registration instructions provided.

——————————— **End of Procedure** ———————————

Access Keycode Retrieval System application

Follow the steps in this procedure only after completing the Registration procedure, and the User Name and Password are activated.

Procedure 236
Accessing the Keycode Retrieval System

1   Start the web browser software.

2   Enter the URL **"http://www.nortelnetworks.co**m" in the Address or Net Site bar and press **Return** or **Ente**r.

3   Select Customer Support on the left side of the Nortel Networks home page. See Figure 47 on .

Figure 47
Nortel Networks home page

4   Select Keycode Retrieval System.

Figure 48
Customer Support
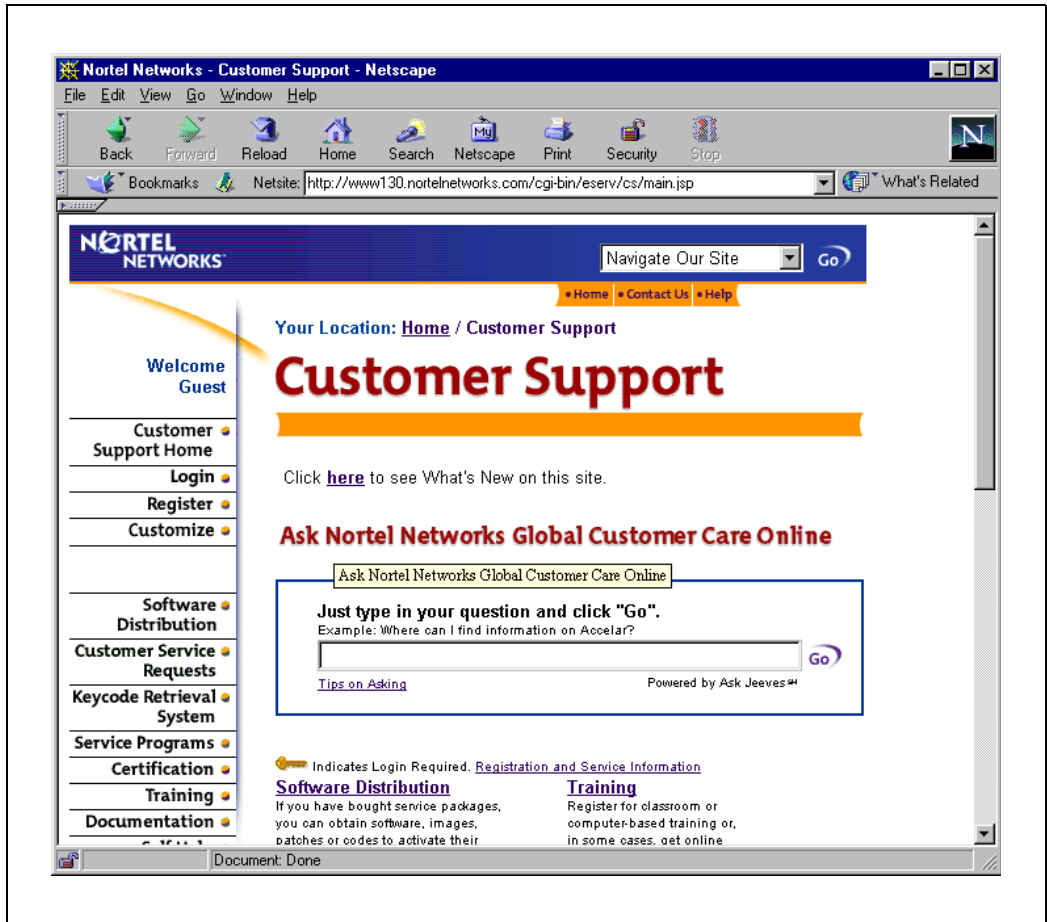
5   On the Banner Page, choose an option:

a.   register for access to the KRS

b.   if an account already exists, select the login type

See Figure 49.

6   In Step 1 of the Banner Page, choose a login location.

See Figure 50 on for an example of Step 1 of the Banner Page.

7   In Step 2 of the Banner Page, select the product family for the keycode access.

See Figure 51 on for an example of Step 2 of the Banner Page.

Figure 49
Banner page
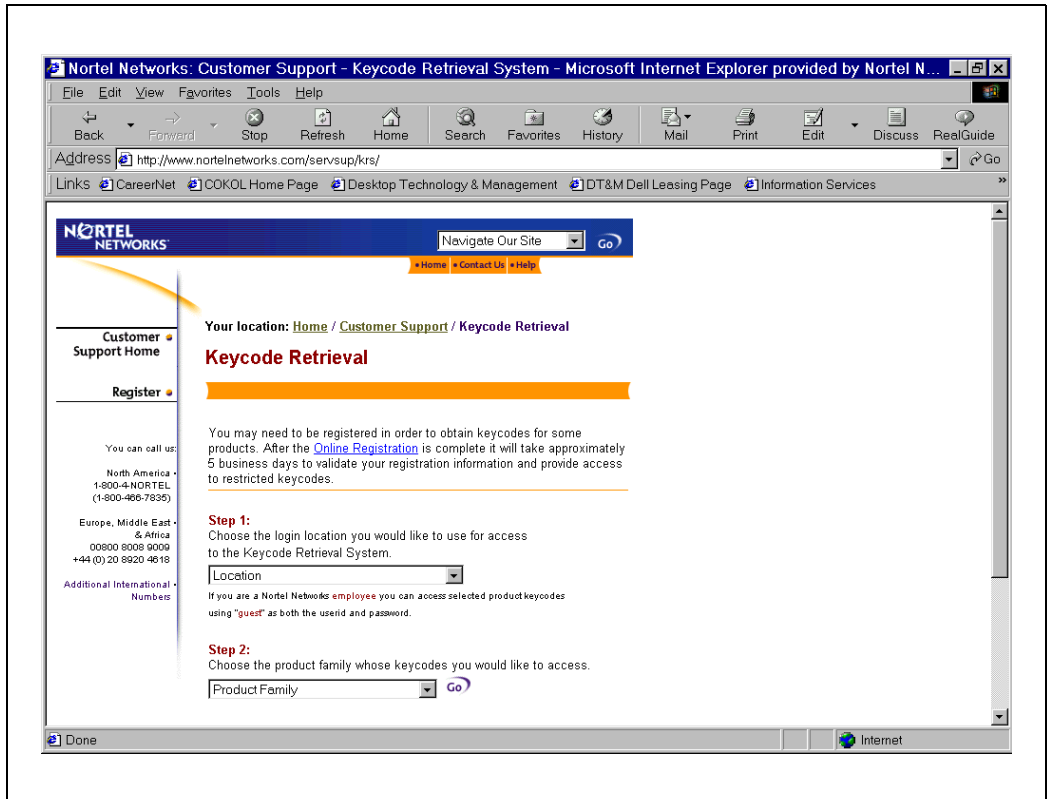
Figure 50
Step 1 pull-down
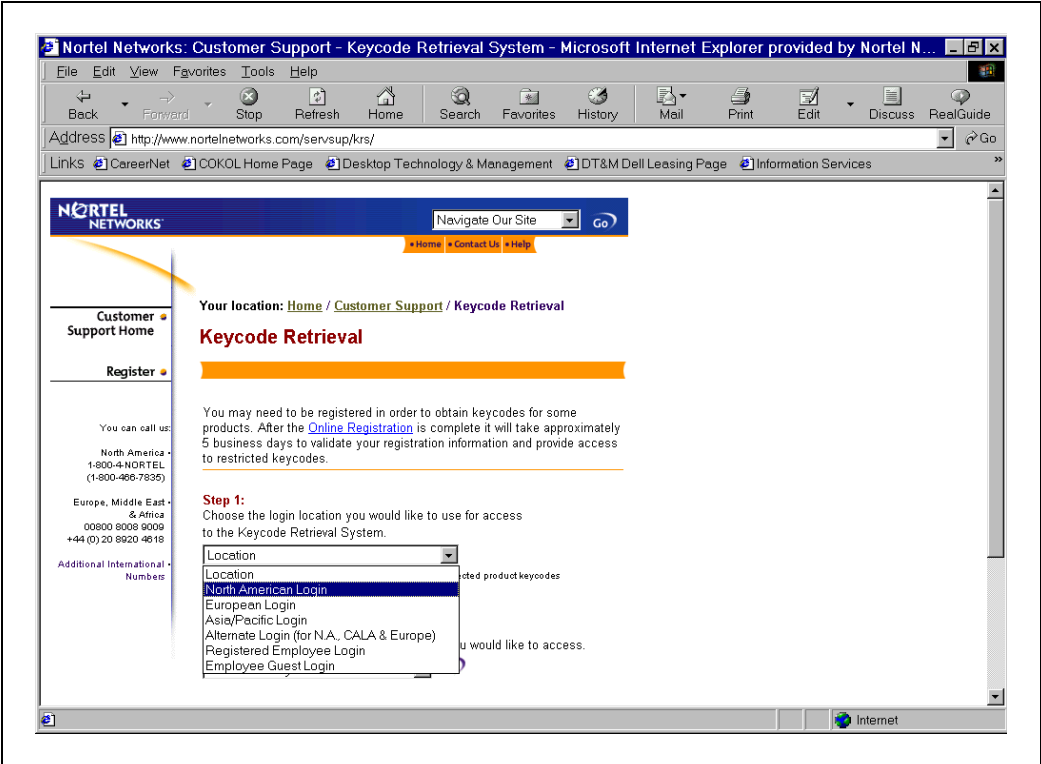
Figure 51
Step 2 pull down
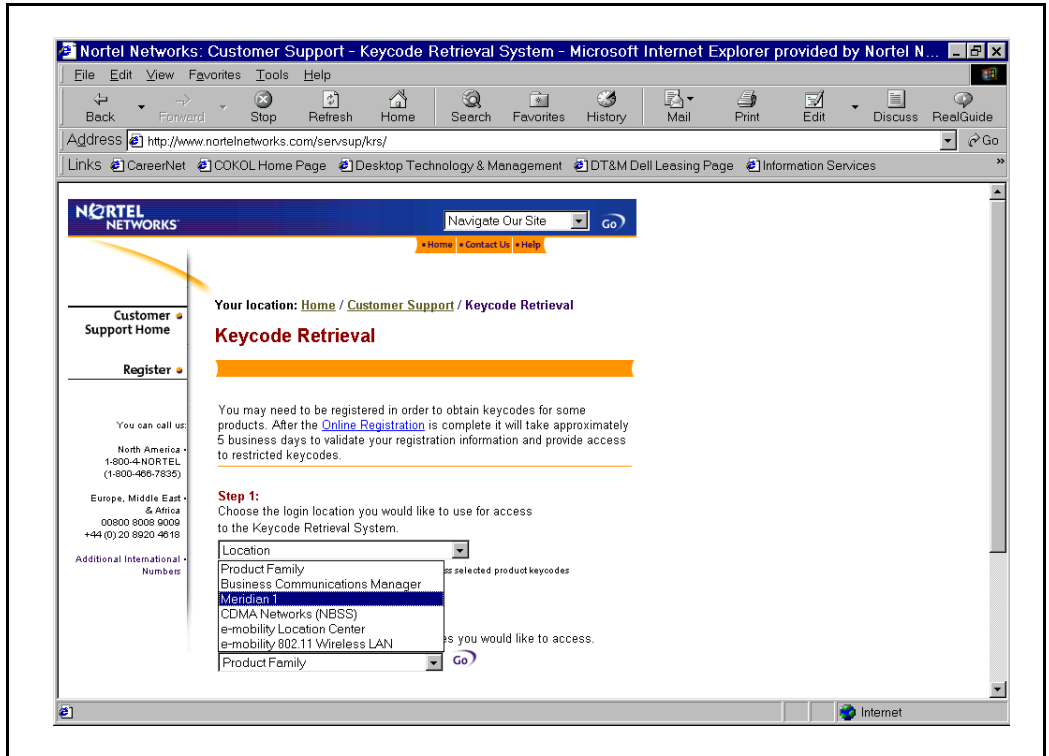
8 Click **Go.**

The Keycode Retrieval System window opens.

See Figure 52 on page 702.

Meridian 1 Keycode Retrieval System

Use the Keycode Retrieval System window to access the keycode application for the Meridian product line.

Note: A registered user has access to all keycode applications for the various product lines displayed.

Figure 52
Keycode Retrieval System
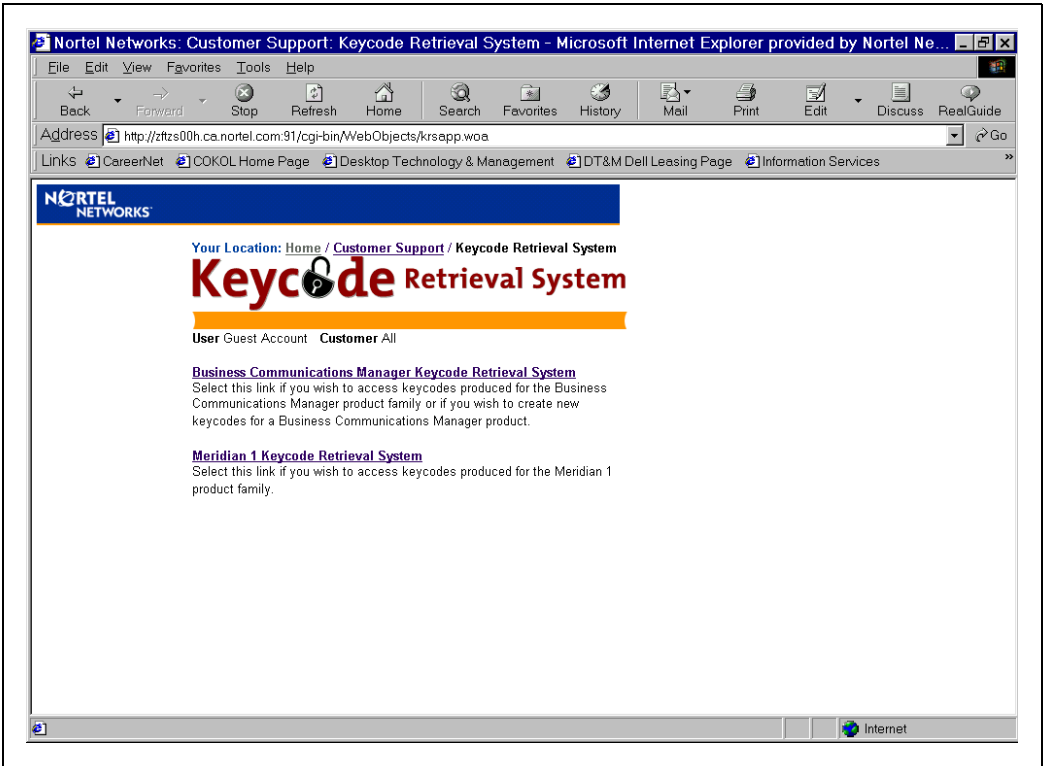
Figure 53
View or Download Keycode
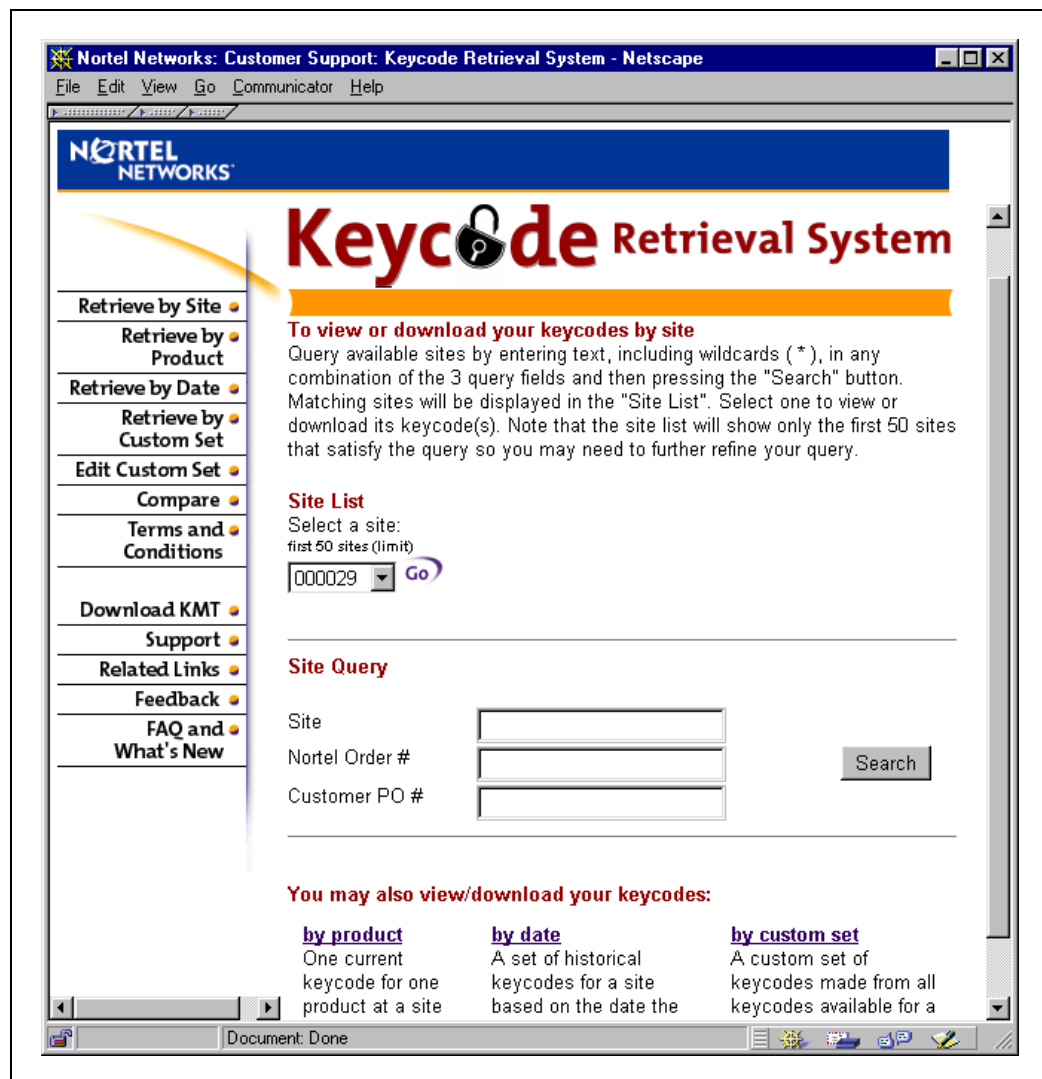
The following is a list of the Quick Links on the left of the Keycode Retrieval System window screen:

- **Retrieve by Site**. To specify a site ID and retrieve all keycodes for products associated with the entered site ID.

- **Retrieve by Product**. To view Site I.D.'s sorted by product type.

- **Retrieve by Date**. To retrieve all historic (previously produced) keycodes for a particular site ID.

- **Retrieve by Custom Set**. To retrieve previously "grouped" keycodes by a custom label created by the customer.

- **Edit Custom Set**. To edit (add or delete) the contents of a custom set of keycodes.

- **Compare**. To compare two keycodes of the same product type.

- **Terms and Conditions**. Legal disclaimers

- **Download KMT**. Links to a site where the latest version of the KMT can be downloaded to a PC desktop to manage keycodes. This client side application is only necessary for viewing downloaded keycodes when not connected to the web site.

- **Support**. Provides the phone numbers or e-mail address for support.

- **Related Links**. Links to additional Nortel Networks keycode related sites.

- **Feedback**. Pops up an e-mail reply to provide comments and suggestions back to the business owners of the KRS web site.

- FAQ and What's New.

Keycode Management Tool

The Keycode Management Tool (KMT) application is used to view and compare keycode files that have been downloaded from the KRS web site. See Figure 54 on .

Figure 54
Keycode Management Tool
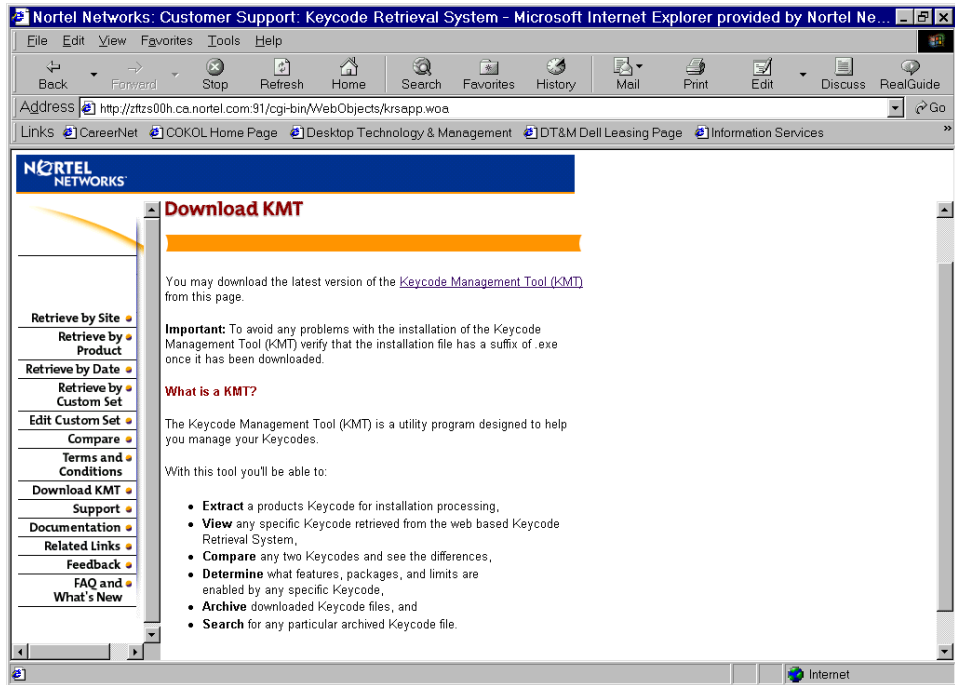
Upgrade checklists

Contents

This section contains information on the following topics:

Introduction

The following section provides Large System upgrade checklists.

Technical Support

Nortel Networks can provide an Installation and Upgrade Support team to assist with PBX upgrades on a scheduled bases. This service is billable and a purchase order is required. Please refer to current price book for rates.

Note: This service requires that a service request be opened in advance of the upgrade.

Site details

Table 48
Site Details

Customer Name	
Tape ID (LD 22)	
Modem Number (Core)	
Switch Room Telephone	
Baud Rate	
Modem Password	
PBX Password	
System Type	
Software Generic	

Upgrade details

Table 49
Upgrade details

Current Software - Generic	
Target Software - Generic	
Hardware being added	
Feature Upgrade	
ISM Upgrade	

Pre-upgrade checklists

Software Upgrade

Software audit

Table 50
Software audit

Software Audit		
Perform the software audit prior to the scheduled upgrade.		
Take corrective action if answer is no		
	Yes	No
Software CD Ready		
Keycode Disk Ready		
Install Disk Ready		
DEP Patch Disk Ready		
Review Keycode Data Sheet - (SDID,PKGS,ISM,TID)		
Review Site Specific Patches - (Non MDCS)		
Read GRB for target Release – (Verify Memory Requirements)		

ISM Upgrade

Table 51
Keycode audit

Keycode Audit		
Perform the keycode Audit prior to the scheduled upgrade.		
Take corrective action if answer is no		
	Yes	No
Keycode Disk Ready		
Keycode Data Sheet Ready		
SDID Matches System		
TID Matches System		
Perform a KDIFF in LD 143 to compare keycodes		

Conversion Required

Table 52
Conversion Procedures

Conversion Procedures	
Upgrades between different machine types require some type of conversion.	
If the disk media is changing the database must be physically transferred	
between storage devices. Please select source and target media.	

Table 53
Typical Storage Media Changes Between machine Types (Part 1 of 2)

Typical Storage Media Changes Between machine Types		
Source	Target	Procedure Required
Omega	IODUC	Direct cable transfer

Table 53
Typical Storage Media Changes Between machine Types (Part 2 of 2)

Omega	MMDU	Nortel Internal
CMDU	IODUC	4M - 2M media transfer
IODUC	MMDU	Disk to new Drive both use 2M Floppy Drives
MMDU	MMDU	Disk to new Drive

Hardware Upgrade

Hardware audit

Table 54
Hardware audit

Hardware Audit		
Perform the Hardware Audit prior to the scheduled upgrade.		
	Yes	No
Verify Shipping List - Complete and Accurate		
Audit Site for new hardware locations		
Pre Run Cables if possible		
Review All switch settings for new cards		
Read all applicable NTP Procedures completely		

Pre-conversion steps

Table 55
Pre-conversion steps (Part 1 of 2)

Pre Conversion Steps
A capture file should be made of the following information using a PC or Printer.
Perform an overall system check:
LD 135 SCPU (ensure that the system is redundant)
LD 137 STAT/TEST CMDU
LD 96 STAT DCH
LD 48 STAT AML
LD 32 STAT
LD 60 STAT

Table 55
Pre-conversion steps (Part 2 of 2)

LD 30 LDIS (Verify what Is disabled if any)
Get Software Information from LD 22
ISSP - Patches in service - Future Reference if required
TID/SLT - ISM Parameters - To compare with converted database
LD 21 - PRT CFN
LD 97 - PRT SUPL/XPEC
Run a Template Audit
LD 1 - Auto Run
Perform a Datadump
Backup at least two copies of the current database, retain the copies.
Print History File or System Event Log
Ld 22 - Print AHST - Capture Systems Events to compare will new software if required
Ld 117 - PRT SEL 500 - Same as above

Post-conversion checks

Table 56
Post-conversion checks

Post Conversion Checks
Perform these checks after a successful INI.
Test for dial tone
Stat D Channels for proper operation
Ensure that all XPEC's are in service via visual inspection
Ensure that all AUX applications are working
LD 30 LDIS (Verify that output is the same prior to upgrade)

Quick reference

IGS Cabling Chart - MultiGroup PBX - Opt 81/81C/CPP (5 Groups Maximum)

Table 57
IGS cabling chart (Part 1 of 2)

Net Group	Net Shelf	IGS Connector	IGS Net	Slot	Net	DIGS	Slot Connector	Intergroup connector	I G S	Clock
0	0	0	3	8	2	9	BOTTOM	J1	0	
0	0	1	2	9	2	9	TOP	J6	2	0
0	1	1	2	9	2	9	TOP	J17	3	1
0	1	0	3	8	2	9	BOTTOM	J22	1	
1	0	0	3	8	2	9	BOTTOM	J2	4	

Table 57
IGS cabling chart (Part 2 of 2)

1	0	1	2	9	2	9	TOP	J7	6	0
1	1	1	2	9	2	9	TOP	J16	7	1
1	1	0	3	8	2	9	BOTTOM	J21	5	
2	0	0	3	8	2	9	BOTTOM	J3	8	
2	0	1	2	9	2	9	TOP	J8	1 0	0
2	1	1	2	9	2	9	TOP	J15	1 1	1
2	1	0	3	8	2	9	BOTTOM	J20	9	
3	0	0	3	8	2	9	BOTTOM	J4	1 2	
3	0	1	2	9	2	9	TOP	J9	1 4	0
3	1	1	2	9	2	9	TOP	J14	1 5	1
3	1	0	3	8	2	9	BOTTOM	J19	1 3	
4	0	0	3	8	2	9	BOTTOM	J5	1 6	
4	0	1	2	9	2	9	TOP	J10	1 8	0
4	1	1	2	9	2	9	TOP	J14	1 9	1
4	1	0	3	8	2	9	BOTTOM	J18	1 7	

Note: A DIGS Card is located in the card slot position for IGS 1 in all network shelves. The IGS 1 slot detects the clock signals from the active clock controller and distributes the clock to the entire group. Three out four IGS cards can be disabled at any given time via LD 39, the IGS 1 that is associated with the active clock cannot be disabled via software, e.g. if clock 1 is active then IGS's 3,7,11,15 and 19 can never be disabled as they are providing clock for their respective network groups.

Group/Loop/PS/FIJI/3PE Switch Settings

Table 58
Switch settings (Part 1 of 2)

Group	Shelf	P S	Loops	FIJI*	3PE NT8D35 Net**	3PE NT5D21 Core Net**
0	0	0	0-16	0 0	off on on on on on on on	off on on off on on on on
0	1	1	16-31	0 1	off on on on on on on off	off on on off on on on off
1	0	2	32-47	1 0	off on on on on on off on	off on on off on on off on
1	1	3	48-63	1 1	off on on on on on off off	off on on off on on off off
2	0	4	64-79	2 0	off on on on on off on on	off on on off on off on on
2	1	5	80-95	2 1	off on on on on off on off	off on on off on off on off
3	0	6	96-111	3 0	off on on on on off off on	off on on off on off off on
3	1	7	112-127	3 1	off on on on on off off off	off on on off on off off off
4	0	8	128-143	4 0	off on on on off on on on	off on on off off on on on
4	1	9	144-159	4 1	off on on on off on on off	off on on off off on on off
5	0	1 0	160-175	5 0	off on on on off on off on	off on on off off on off on
5	1	1 1	176-191	5 1	off on on on off on off off	off on on off off on off off
6	0	1 2	192-207	6 0	off on on on off off on on	off on on off off off on on
6	1	1 3	208-233	6 1	off on on on off off on off	off on on off off off on off

Table 58
Switch settings (Part 2 of 2)

7	0	1 4	224-239	7 0	off on on on off off off on	off on on off off off off on
7	1	1 5	240-255	7 1	off on on on off off off off	off on on off off off off off

Software generic by machine type

Table 59
Software generic by machine type

System Type	Generic	System Type	Generic	Processors
ST	1011	Option 61	1111	CP1 - NT6D66 - 68030
STE	1511	Option 61 CP1	1811	CP2 - NT9D19 - 68040
NT	1111	Option 61 CP2	2311	CP3 - NT5D10 - 68060
XT	1211	Option 61 CP3	2511	CP4 - NT5D03 - 68060E
RT	1311	Option 61 CP4	2911	CPP - INTEL PII
Option 11	1411	Option 71	1211	CNI'S
Option 11	1411	Option 81 CP1	1611	Opt 81 - 8,9,10
Option 11C	2111	Option 81 CP2	1911	Opt 81C - 12,13,14
Compact	X27	Option 81 CP3	2611	CPP - c9,c10,c11,c12
Option 21	1011	Option 81 CP4	3011	Key Packages
Option21E	1511	Option 81C CP1	1611	Opt 81 - PKG 298
Option 51	1111	Option 81C CP2	1911	Opt 81C - PKG 299
Option 51 CP1	1711	Option 81C CP3	2611	CPP - PKG 299,368
Option 51 CP2	2211	Option 81C CP4	3011	FIJI - PKG 365
Option 51 CP3	2411	Option CP PII	3311	
Option 51 CP4	2811			

Appendix A: Software Installation Tool

This appendix details the screen displays and options of the CD-ROM Software Installation Tool (referred to as "Software Installation Tool") that is compatible on Meridian 1 Option 51C, Meridian 1 Option 61C and Meridian 1 Options 81/81C equipped with the NT5D61 Input/Output Disk Unit with CD-ROM (IODU/C).

This tool is based on the existing Software Installation Tool, but has notable differences in menus, as well as new functionality to support installation of software from CD-ROM, copying of system software from Core to Core, copying of database from Core to Core, and Keycode installation.

The IODU/C card uses both a Security Device and an electronic keycode file. This keycode file is stored on a 2MB diskette and must be inserted into the IODU/C floppy drive and authenticated each time the Software Installation Tool is loaded and the Install Menu is accessed.

On systems equipped with an IODU/C, the database is stored on 2MB diskettes, not 4MB diskettes. A Database Transfer Utility diskette, specific to Call Processor type, is available to convert a 4MB database to a 2MB database. Refer to "Database transfer" on . For procedures on upgrading from systems equipped with IOP and CMDU or IOP/CMDU cards to IODU/C, see *Large System: Maintenance* (553-3021-500)

The Tools Menu has options for finding the CD-ROM status (option <g>), printing the Keycode (option <h>), printing information about the Security Device (option <i>), checking the customer-specific CD-ROM data (<j>),

manually creating a Keycode diskette (<k>), and archiving the database
(<s>).

> **WARNING**
>
> Do not turn off the system during the installation process.
> If you need to quit the installation process, do so from
> within the Software Installation Tool before powering off
> the system.

Read and understand the entire procedure before attempting to perform an
installation.

Before the Software Installation Tool is activated, verify that the system is in
split mode (not applicable for Meridian 1 Option 51C) and that a terminal is
connected to CPSI port J25 on the I/O panel (in the inactive Core for dual
CPU systems). Meridian 1 Option 51C systems will be taken out of service.

To activate the Software Installation Tool, insert the Install diskette specific
to the Call Processor type and the CD-ROM containing system software (if
installing that component). Press the MAN RST button on the CP card in the
same Core.

The IODU/C Software Installation Tool requires the following items:

- 2MB diskettes (used to store, backup, and restore the database)
- an Install diskette specific to the system's Call Processor card
- a Keycode diskette
- a CD-ROM containing system software

Note: If installing system software from CD-ROM (options <a>, <b>, or <c> from the Install Menu), insert the CD into the CD-ROM drive before loading the Software Installation Tool.

CAUTION — Service Interruption

Loss of Data

The screens shown in this procedure are examples. They are not intended to exactly represent the displays that will appear for the system, nor do the choices entered represent those to choose. Be sure to watch the terminal display, and follow the on-screen instructions.

Pay close attention to the menus when they appear; they display the options available at any given stage.

Status Summary Charts

Status Summary Charts are displayed for the purpose of informing the user about what items will be installed or have been installed. This example is shown when option <b> (all components) is chosen from the Install Menu.

Figure 55
Status Summary screen example.

```
   Nortel Meridian - 1  Software/Database/PEROM CDROM INSTALL Tool (x11)
   — — — — — — — — — — — — — — — — — — — — — — — — — —
   — — — — — — — — — — — — — — — — — — — — — — — — — —


        The Software Installation Tool will install or upgrade
        Succession Enterprise System Software, Database and the CP-BOOTROM.
        You will be prompted throughout  the installation and given the
        opportunity to quit at any time.
           Please enter:

    <CR> -> <u> - To Install menu

        <t> - To Tools menu.                                553-7729

        <q> - Quit.


        Enter Choice>

        >Validating Keycode
```

Note: The screen might differ from this example.

The possible values and meanings for each column are defined below.

- Choice
  — **yes** indicates the item will be installed
  — **no** indicates the item was not selected, and will not be updated.
- Status
  — **quit** indicates the quit option was used, and the process was exited.
  — **ok** indicates the choice was installed successfully.

— **error** indicates the installation was not successful. A system message is given when the Software Installation Tool encounters a problem. Follow the actions required by the message.

— **ignore** applies to the CP ROM and IOP-ROM upgrade only. This appears when the process was exited when asked to replace a release and issue with the same release and issue.

— **blank** indicates the status is not yet determined if Choice = Yes. If Choice = No, the field remains blank.

• Comment

— **from rel <number> to rel <number>** gives the Source and Target release and issue numbers.

Messages

When the Software Installation Tool encounters a problem, a system message appears on the terminal display. These messages fall into two categories:

• warning

• non-warning

Warning messages are not critical errors. The Software Installation Tool proceeds with the installation following the appearance of this message. Refer to *Software Input/Output: Administration* (553-3001-311) for details regarding these messages.

Non-warning messages appear when a critical problem is encountered. The Software Installation Tool stops the process, and an action is recommended. When the action is complete, the Software Installation Tool can be restarted. In some cases, the tool allows the process to restart by pressing the carriage return <CR>.

Introductory Screen

The first screen that appears after loading the NT5D61 Software Installation Tool is the Nortel Networks Logo Screen shown in Figure 56 on .

Figure 56
Nortel Networks logo screen

```
Succession Enterprise Software/Database/BOOTROM CDROM INSTALL Tool
═ ═ ═ ═ ═ ═ ═ ═ ═ ═ ═ ═ ═ ═ ═ ═ ═ ═ ═ ═ ═ ═ ═ ═
                              * *
                             * * *
* * * *           * *         * * * *
* * * *       * * * * *       * * * * * * * * * *
* * * *     * * * * * * *     * * * * * * * * * * *    NORTEL NETWORKS
* * * * * * * * * * * * * * * * * * * * * * * * *
* * * *         * * * *        * * * *
* * * *         * * * *        * * * *              Succession Enterprise Software
* * * *         * * * *        * * * *
* * * *         * * * *        * * * *
* * * *       * * * * * * * * * * * * * * * *       Install Tool Version 05
* * * *         * * * * * *       * * * * * *
* * * *            * * *            * * *

                                                    Copyright 1992-2003
  Please press <CR> when ready . . .                  553-7728
```
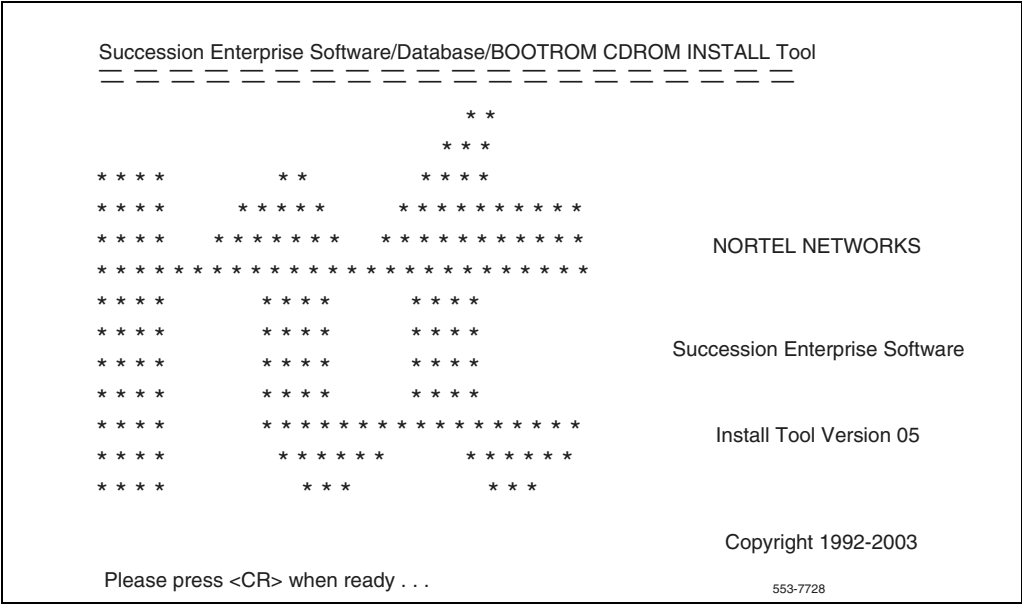
The Main menu screen seen in Figure 57, is displayed after <CR> is pressed from the NT Logo Screen. From this screen, select option <u> to go to the Install Menu, <t> to go to the Tools Menu, or option <q> to quit.

Figure 57
Main Menu screen

```
Nortel Meridian - 1  Software/Database/PEROM CDROM INSTALL Tool (x11)
— — — — — — — — — — — — — — — — — — — — — — — — — —
— — — — — — — — — — — — — — — — — — — — — — — — — —


     The Software Installation Tool will install or upgrade
     Succession Enterprise System Software, Database and the CP-BOOTROM.
     You will be prompted throughout  the installation and given the
     opportunity to quit at any time.
        Please enter:

  <CR> -> <u> - To Install menu

       <t> - To Tools menu.                        553-7729

       <q> - Quit.


       Enter Choice>

       >Validating Keycode
```

Install Menu

> *Note:* A Keycode diskette is required before accessing the Install Menu.

Before the Install Menu screen is displayed, two intermediary screens, as seen in Figure 58 on and Figure 59 on , prompt for the Keycode diskette to be inserted for validation against the Security Device.

Figure 58
Request for keycode validation

```
Nortel Meridian - 1  Software/Database/PEROM CDROM INSTALL Tool (x11)
— — — — — — — — — — — — — — — — — — — — — — — — — — —

        The Software Installation Tool will install or upgrade
        Succession Enterprise System Software, Database and the CP-BOOTROM.
        You will be prompted throughout  the installation and given the
        opportunity to quit at any time.
            Please enter:

     <CR> -> <u> - To Install menu

        <t> - To Tools menu.                          553-7729

        <q> - Quit.

        Enter Choice>

        >Validating Keycode
```

Figure 59
Keycode confirmation

```
        Nortel Meridian - 1  Software/Database/PEROM CDROM INSTALL Tool (x11)
        — — — — — — — — — — — — — — — — — — — — — — — — —

        Please confirm that this keycode matches the CDROM Release

        Please enter:
  <CR>-->  <y> - Yes, the keycode matches. Go on to Install Menu.
         <n> - No, the keycode does not match. Try another keycode diskette.

        Enter Choice > y                      553-8365
```
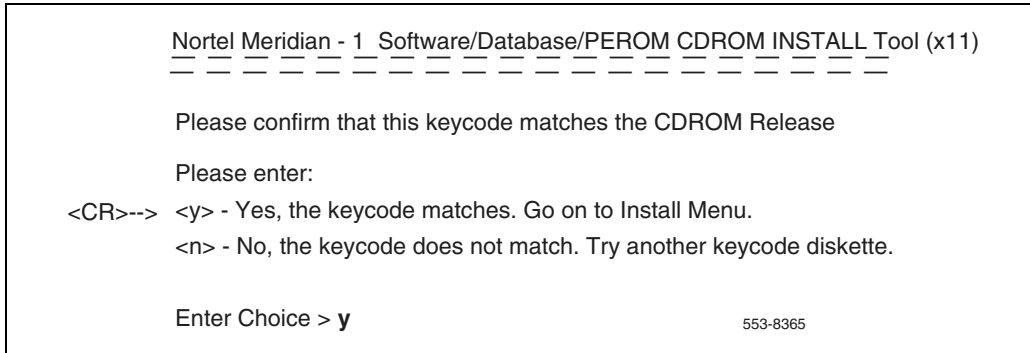
Following successful Keycode validation, the Install Menu screen is displayed, as seen in Figure 60.

Note: If the Software Installation Tool is loaded on a Core equipped with an NT5D61BA IODU/C (which lacks a CD-ROM drive), options <a>, <b>, and <c> do not appear.

Figure 60
Install Menu screen

```
         Nortel Meridian - 1  Software/Database/PEROM CDROM INSTALL Tool (x11)
         ─ ── ── ── ── ── ── ── ── ── ── ── ── ── ── ── ── ── ── ── ── ── ─
                         I N S T A L L   M E N U
         The Software Installation Tool will install or upgrade Meridian-1
         System Software, Database and the PE-ROM (both CP and IOP ROM).
         You will beprompted throughout the installation and given the
         opportunity to quit at any time.

         Please enter:
<CR>-->  <a> - To install Software, CP-BOOTROM, IOP-ROM.
         <b> - To install Software, Database, CP-BOOTROM, IOP-ROM.
         <c> - To install Software only.
         <d> - To install Database only.
         <e> - To install CP-BOOTROM only.
         <f> - To install IOP-ROM only.
         <g> - To reinstall CP-Software.
         <o> - To copy System Software from the other Core.
         <t> - To go to the Tools menu.
         <k> - To install Keycode only.
                 For Feature Expansion, use OVL143.
         <q> - Quit.

         Enter Choice >                                  553-7789
```

Each option from the Install Menu is described in the following pages.

Installing Software, CP-BOOT ROM, and IOP-ROM

> *Note:* For dual-CPU systems, verify that the system is operating in split mode before activating the Software Installation Tool.

This option, option <a>, is selected for the sequential installation of software, CP-BOOTROM, and IOP-ROM. Option <a> differs from option <b> in that the database is not installed. Use option <a> when going to a later software release or for a software upissue.

Installing Software, Database, CP-BOOT ROM, and IOP-ROM

> *Note:* For dual-CPU systems, verify that the system is operating in split mode before activating the Software Installation Tool.

Option <b> is selected to sequentially install all components – software, database, CP-BOOTROM, and IOP-ROM.

Option <b> is used during the upgrade procedures from NT5D20 IOP/CMDU, NT6D63 IOP and NT6D64 CMDU to NT5D61 IODU/C cards or NT4N43CA CPP PII MMDU card.

Installing Software only

> *Note:* For dual-CPU systems, verify that the system is operating in split mode before activating the Software Installation Tool.

Option <c> is selected to install system software from the CD-ROM to the hard drive. When selecting option <c>, IOP-ROM and CP-BOOTROM are not installed.

Installing Database only

> *Note:* For dual-CPU systems, verify that the system is operating in split mode before activating the Software Installation Tool.

The Database Menu (see Figure 61) of the Software Installation Tool is accessed by the <d> option on the Install Menu.

Figure 61
Database Installation options screen adjust font

```
              Nortel Meridian - 1  Software/Database/PEROM CDROM INSTALL Tool (x11)
              — — — — — — — — — — — — — — — — — — — — — — — — — —

              You will now perform the database installation.

              Note: If you are installing the Database from a floppy disk,
                    please insert the correct disk now.


              Please enter:
  <CR>--> <a> - Install CUSTOMER Database
                 (the customer database diskette must be in the Core 1 disk drive).
              <b> - Install DEFAULT Database
                  (the installation CDROM must be in the Core 1 disk drive).
              <d> - Copy Database from the redundant disk.
              <e> - Check the Database that exists on the hard disk.
              <q> - Quit.

              Enter Choice > a                              553-7779
```

The following options are available for installing a database:

- Option <a> is to install the backup customer database from one or more 2MB diskettes.

- Option <b> allows installation from the CD-ROM containing the default database. This option is used on new systems which have no existing database.

- Option <d> copies the existing database from the redundant Core. This option is used when the database has already been installed on one Core. Use this option when upgrading from IOP/CMDU to IODU/C cards.

- Option <e> displays the version and issue of the current database residing on the Core. If database files are missing, error messages are printed.

> **CAUTION — Service Interruption**
>
> **Loss of Data**
>
> Before upgrading the system database, be sure a backup of the previous (source) database is on hand. Should any problems arise, it might be necessary to return to the previous database.

Installing CP-BOOT ROM

For dual-CPU systems, verify that the system is operating in split mode before activating the Software Installation Tool.

Option <e> is for installing new CP-BOOTROM. This option is used to install CP-BOOTROM while on Core 0 in a software upgrade, when software has already been installed using options <a> or <b> on Core 1, and software has already been copied onto Core 0 using option <o>.

When option <e> is selected, the next screen displayed shows the version of CP-BOOTROM being replaced and the version being installed, and the card slot where the CP-BOOTROM is being installed. When prompted, select <a> to continue with the CP-BOOTROM upgrade.

Installing IOP-ROM

Note: For dual-CPU systems, verify that the system is operating in split mode before activating the Software Installation Tool.

Option <f> is for installing new IOP-ROM. This option is used to install IOP-ROM while on Core 0 in a software upgrade, when software has already been installed using options <a> or <b> on Core 1, and software has already been

copied onto Core 0 using option <o>, and CP-BOOTROM has been installed using option <e>.

When option <f> is selected, the next screen displayed prompts to choose whether to install the IOP-ROM from the hard disk (option <a>), or from CD-ROM (option <b>). If software has just been installed successfully, select option <a>. However, if software was not installed, select option <b> to install from CD-ROM.

after When option <f> is selected, the next screen displayed shows the version of IOP-ROM being replaced and version being installed, and the card slot where the IOP-ROM is being installed. When prompted. select <a> to continue with the IOP-ROM upgrade.

Reinstalling CP-Software

Note: For dual-CPU systems, verify that the system is operating in split mode before activating the Software Installation Tool.

This option is used if a flash programming error occurs during software installation through options <a>, <b>, or <c>. Option <g>, which assumes that software files have already been installed on the hard disk, copies these files from the hard disk to the Flash EEPROM.

To copy system software from the other Core

Note: For dual-CPU systems, verify that the system is operating in split mode before activating the Software Installation Tool.

Option <o> is used during a software upgrade when software has already been installed on Core 1, and the Software Installation Tool has been loaded on Core 0.

Note: This option does not perform the installation of CP-BOOTROM (option <e>) or IOP-ROM (option <f>).

To go to the Tools Menu

Option <t> displays the Tools Menu and its options, which are described beginning on .

To Install Keycode only

Option <k> is used to replace an existing Keycode.

To quit

Note: For dual-CPU systems, verify that the system is operating in split mode before activating the Software Installation Tool.

Throughout the installation process, the option to quit is always available. Quitting with the Software Installation Tool quit commands is preferable to pressing the MAN RST button on the CP card, since quitting from the tool erases unneeded temporary files.

When done using the NT5D61 Software Install Tool, remove the diskette from the IODU/C and select option <q> to quit from the Installation menu. The terminal displays a confirmation to quit. Pressing <y> confirms the quit. See Figure 62.

Figure 62
Quit option – Installation Menu

```
          Nortel Meridian - 1  Software/Database/PEROM CDROM INSTALL Tool (x11)
          — — — — — — — — — — — — — — — — — — — — — — — — — —

          You selected to Quit. Please confirm.

          Please enter:
<CR>-->   <y> - Yes, Quit.
          <n> - No, DO NOT Quit.


          Enter choice > y                                        553-7751
```

The final screen displayed before quitting is a reminder to remove the Install diskette from the IODU/C floppy drive before pressing <a> to reboot the system. See Figure 63 below.

The system automatically performs a Sysload, during which several messages appear on the system terminal. Wait for "DONE" and then "INI" messages to be displayed before continuing.

Figure 63
Reminder – Quit screen.

```
Nortel Meridian - 1  Software/Database/PEROM CDROM INSTALL Tool (x11)
══ ══ ══ ══ ══ ══ ══ ══ ══ ══ ══ ══ ══ ══ ══ ══ ══ ══ ══ ══ ══ ══ ══

You have selected to Quit the Software Installation Tool
You may reboot the system or return to the Main Menu.
Before rebooting the system, remove Install diskette from the floppy drive.


------------------------------------------------
DO NOT REBOOT USING BUTTON!!
------------------------------------------------

Please enter:

<a> - Reboot the system.

<CR>-->  <m> - Return to the Main menu.


Enter Choice > a                                    553-7752
```

Tools Menu

To load the Software Installation Tool which contains the Tools Menu, insert the Install diskette which is compatible with the Call Processor card. Press the MAN RST button on the CP card to load the tool.

The first screen that appears after loading the NT5D61 Software Installation Tool is the Nortel Networks Logo Screen shown in Figure 64.

Figure 64
Nortel Networks logo screen new one from eric replace all

```
Nortel Meridian - 1   Software/Database/PEROM CDROM INSTALL Tool  (x11)
— — — — — — — — — — — — — — — — — — — — — — —
                                    * *
                                  * * *
* * * *              * *         * * * *
* * * *        * * * * *       * * * * * * * * *
* * * *      * * * * * * *     * * * * * * * * * *
* * * * * * * * * * * * * * * * * * * * * * * * * *
* * * *            * * * *       * * * *
* * * *            * * * *       * * * *       Nortel — Meridian 1
* * * *            * * * *       * * * *          Install Tool (x11)
* * * *            * * * *       * * * *
* * * *        * * * * * * * * * * * * * * * *
* * * *          * * * * *         * * * * * *
* * * *            * * *             * * *

              Copyright 1992 - 1997 Nortel, Inc.

  Please press <CR> when ready . . .                  553-7728
```
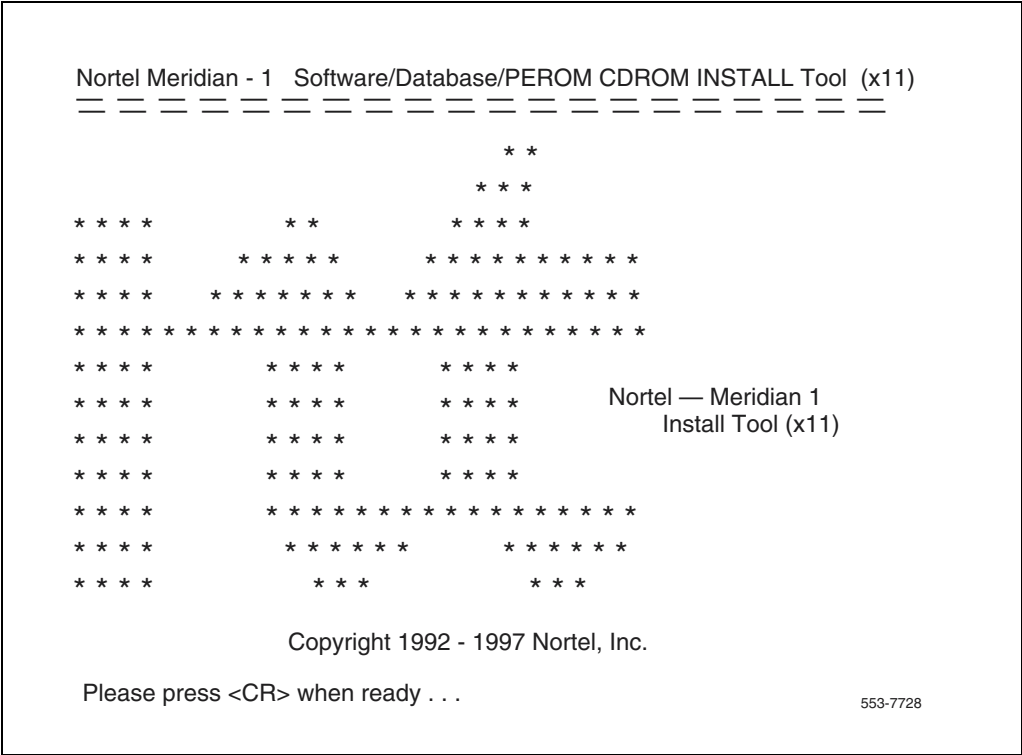
The screen seen in Figure 65 on is displayed after <CR> is pressed from the Nortel Networks Logo Screen. From this screen, select option <t> to go to the Tools Menu

Figure 65
Main menu installation new from eric replace all

```
    Nortel Meridian - 1  Software/Database/PEROM CDROM INSTALL Tool (x11)
    ── ── ── ── ── ── ── ── ── ── ── ── ── ── ── ── ── ── ── ── ── ── ── ──
                          M A I N   M E N U

    The Software Installation Tool will install or upgrade Meridian-1
    System Software, Database and the PE-ROM (both CP and IOP ROM).
    You will be prompted throughout the installation and given the
    opportunity to quit at any time.

    Please enter:
<CR>-->  <u> - To Install menu.

         <t> - To Tools menu.

         <q> - Quit.

         Enter choice > t                                   553-7797
```

Note: Insertion of the Keycode diskette is not required for accessing the Tools Menu.

The Tools Menu has new options for finding the CD-ROM status (option <g>), printing the Keycode (option <h>), printing information about the Security Device (option <i>), checking the customer-specific CD-ROM data (<j>), manually creating a Keycode diskette (<k>), and archiving the database (<s>).

The Tools Menu is displayed in Figure 65.

Figure 66
Tools menu new from eric replace all

```
        Nortel Meridian - 1  Software/Database/PEROM CDROM INSTALL Tool (x11)
       —  —  —  —  —  —  —  —  —  —  —  —  —  —  —  —  —  —  —  —  —
                            T O O L S   M E N U

        This is the Tools Menu for Install. You can select the tool that
        is appropriate. Please select one of the options below.

        Please enter:
 <CR>-->  <a> - To set the system date and time.
          <b> - To partition the hard disk.
          <c> - To display the partition size of hard disk.
          <d> - To regenerate PDT Password.
          <g> - To print CDROM content.
          <h> - To print Keycode content.
          <i> - To print Security Device content.
          <j> - To Check the customer specific part of CDROM.
          <k> - To manually create Keycode floppy diskette.
          <r> - To install Keycode only.
          <s> - To archive existing database.
          <z> - To check MDU connection.
          <m> - To return to the Main Menu
                                                      553-7796

        Enter choice >
```

Each option from the Tools Menu is described in the following pages.

Setting the system date and time

This option is used to change the system date and time for the system's internal clock. The correct date and time will ensure that files are time-stamped accurately.

> ⚠️ **WARNING**
>
> **Time and Date**
>
> Time and date must be set at time of installation to prevent problems on AUX products.

Figure 67
Set date and time screen new from eric

```
Nortel Meridian - 1  Software/Database/PEROM CDROM INSTALL Tool (x11)
— — — — — — — — — — — — — — — — — — — — — — — — — —


You have selected the option to set the system date and time.
This will change the internal clock of your system to a new data
and time.

The system date and time are also used by Install to time-stamp the new files
created.

Pressing the carriage return at the prompt below will leave the
system date or time unchanged.

Please enter the new date or time.


Current date is: Tuesday 04-29-1997
Enter new date (dd mm yyyy) ? 30 4 1997
Date is set to: Wednesday 04-30-1997

Current time is: 15:52:00
Enter new time (hh mm ss) ? 15 05 45
Time is set to: 15 05 45

System Date and Time now is:
Wednesday 04-30-1997, 15:05:46                          553-7743
```

Partitioning the hard disk

> *Note:* Option <b> requires a password, and should only be performed by Nortel Networks support personnel.

> **CAUTION — Service Interruption**
>
> **Loss of Data**
>
> Partitioning a disk erases all files from it.

Displaying the hard disk partition size

Option <c> displays the partition sizes of the hard disk. The manufacturer and model number of the hard disk are also displayed. See Figure 68.

Figure 68
Partition information this may change from eric

```
IODU 0
Hard Disk from: MAXTOR:7120SCS, Size:124MB,Sectors:248502
Unprotected      Part Size:30MB,  Sectors: 60000
Spare            Part Size:30MB,  Sectors: 60000
CardId           Part Size:1MB,  Sectors: 2000
Protected        Part Size:60MB,  Sectors: 120000
                                                     553-7742
```

Regenerate the PDT password

Option <d> requires a password, and should only be performed by Nortel Networks support personnel.

To print the CD-ROM content

Option <g> is used to determine whether a CD-ROM exists on each IODU/C, and whether its sectors are readable. After selecting <g>, three options are available:

- **Fast** readability test, which takes about 17 seconds for each CD-ROM and reads 1/30th of the CD-ROM sectors.

- **Extensive** readability test, which takes about 3 minutes for each CD-ROM and reads 1/4th of the CD-ROM sectors.

- **Total** readability test, which takes about 6 minutes for each CD-ROM and reads all sectors of the CD-ROMs.

Note: The failure of a CD-ROM drive to read a known good CD-ROM can indicate a problem with the CD-ROM drive.

To print the Keycode content

Use option <h> to display the information contained in the current Keycode. The information displayed includes machine type, software version, ISM limits, and which feature packages are enabled.

See Figure 69 on .

Figure 69
Current keycode information new from eric

```
System Serial Number        :   46379
Software Version            :   1811
System Type                 :   Option 61C
Call Processor              :   CP68030
Release                     :   23
Issue                       :   30G
NTI Order Number            :   000000000000
NT SDID - 1                 :   00000000
NT SDID - 2                 :   00000000
Date and Time of Manufacture :   06/03/1998 - 14:53:38

Note:   ( ) indicates that information is not available

ISM Limits:
   Loop Limit        :   32
   Sys TNs Limit     :   32767
   ACD Agt Limit     :   32767
   ACD DNs Limit     :   24000
   AST Limit         :   32767
   DSL Limit         :   100
   LTID Limit        :   100
   DCH Limit         :   64
   AML Limit         :   16
   MPH DSL Limit     :   100
   RAN CON Limit     :   32767
   RAN RTE Limit     :   512
   MUS CON Limit     :   1000
   Brand Index       :   1

Options Packages:
   0-2 4-5 7-25 28-29 232-55 57-65
   67 70-77 79-81 84 86 88-93
   95 98-105 107-109 111 113-121 125
   127 129 132-134 136 139-140 145-151
   153-155 157-160 162 164 170 172-175
   178-181 186 191-192 196 202-212 214-216
   218-219 222-225 227-229 231 233-235 240
   242-243 245-248 250-251 253-256 258-259 262-263
   286 290-293 296-297 301-303 305-310 313-316
   321 323-324 327-335
```
553-7745

To print the Security Device content

Option <i> displays specific information about the Security Device, such as Serial Number. This enables the user to find information about the Security Device without removing the NT5D61 IODU/C card. See Figure 70.

Figure 70
Security device information

```
Engineering Code (Side x)  :NT5D61AA
Card Serial Number         :06NNTM1831RRC3 IOP
NT SDID                    :20000080
Security Device Type       :NT_TCH
System Serial Number       :46379        553-7746
```

To check the customer-specific part of the CD-ROM

Use option <j> to check the readability of the Keycode-specified system software on the CD-ROM drive. Once all files have been checked successfully, the message
Checking directory /cdx/xxxx_DMR.Nxx ended successfully
is displayed to indicate completion.

To manually create a Keycode diskette

Use option <k> to manually type in a keycode and save it to a 2MB diskette. Upon selecting this option, enter the characters into 21 Keycode entry lines of 16 characters each, which compose the Keycode file to be saved on a 2MB diskette in the floppy drive.

Characters can be entered on the Keycode entry lines in one of two ways:

- manually entering each 16-character line followed by a **<CR>**

- "pasting" each individual 16-character line, then pressing **<CR>** (available on a PC running Windows®, using the Copy command (Control-C) to copy a line of characters from a keycode file, positioning the cursor on the current Keycode entry line, and using the Paste command (Control-V) to paste the line).

If a line is entered which does not have 16 characters, a message is displayed requiring the line to be entered correctly.

To install Keycode only

Use option <r> to replace an existing Keycode.

To archive the existing database

Option <s> is one methods (the ABKO and BKO commands from LD 143 are other methods) available to backup the customer database to 2MB diskettes. The size of the backup files and the estimated number of 2MB diskettes required to store the database is displayed.

To check MDU connection

Select option <z> to test the connection between a connected MDU and IODU/C.

To return to the Main Menu

Select Option <m> to return from the Tools Menu to the Main Menu, to select to quit (<q>) or go to the Install Menu (<u>).

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Succession 1000M
Large System
Upgrade Procedures
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