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**Meridian 1**  
**Succession 1000M**

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# **Large System**

## **Upgrade Procedures**

### **Book 1 of 3**

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## Revision history

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### 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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## About this document

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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**

<b>This Meridian 1 system...</b>	<b>Maps to this Succession 1000M system</b>
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](mailto: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.



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# General hardware upgrade information

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## Contents

This section contains information on the following topics:

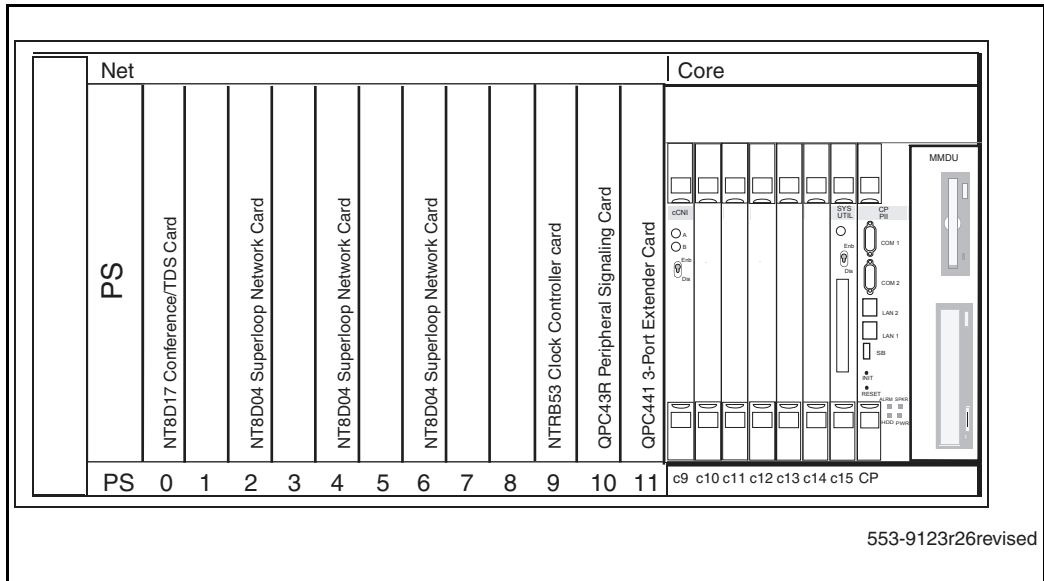
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## NT4N40 Core/Net module

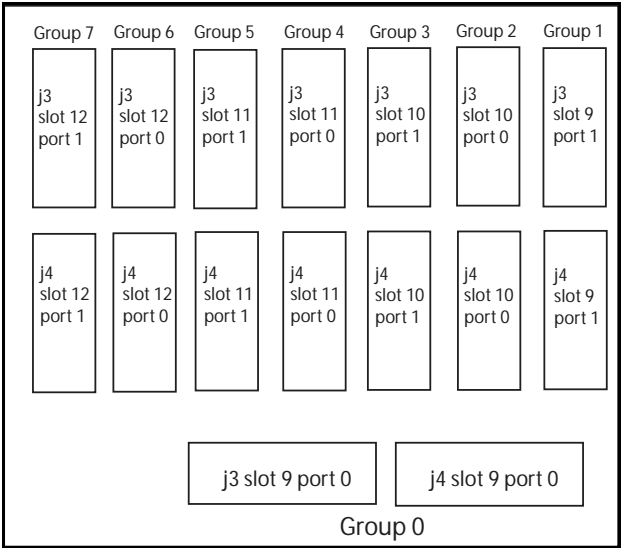
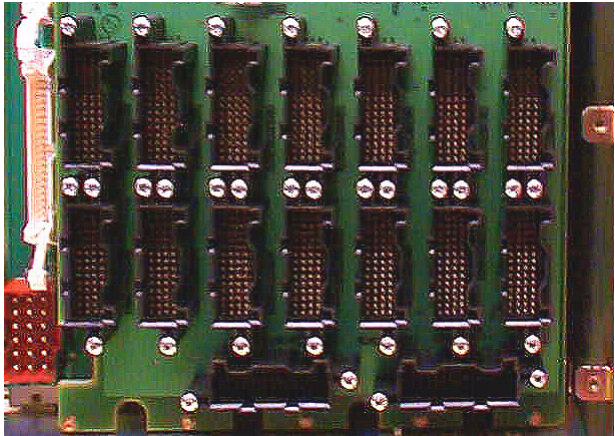
The Meridian 1 Option 61C CP PII and Meridian 1 Option 81C CP PII feature an updated NT4N40 Core/Net (see Figure 1 on [page 18](#) below), allowing Succession 3.0 Software to support a unified hardware platform for both single group and multi-group configurations for CP PII systems. This platform allows:

- One generic CD-ROM for all CP PII systems
- Upgrades from single group to multi-group configurations (requiring a new keycode file and any additional hardware necessary for a multi-group system)

**Figure 1**  
**NT4N40 Core/Net shelf (Meridian 1 Option 61C CP PII example)**



**Figure 2**  
**Fanout panel (backplane)**



The NT4N40 Core/Net shelf is identical for Meridian 1 Option 61C CP PII and Meridian 1 Option 81C CP PII, with the following exceptions for Meridian 1 Option 61C CP PII:

- Only one cCNI card is required. This card must be installed in slot c9 in the Core/Net shelf and configured as group 0.
- Only one connection is required between the cCNI and the 3PE for group 0 using cable NT4N29.
- IGS/FNF cards and associated cables are not required.
- The Clock Controller card occupies card slot 9 in group 0.

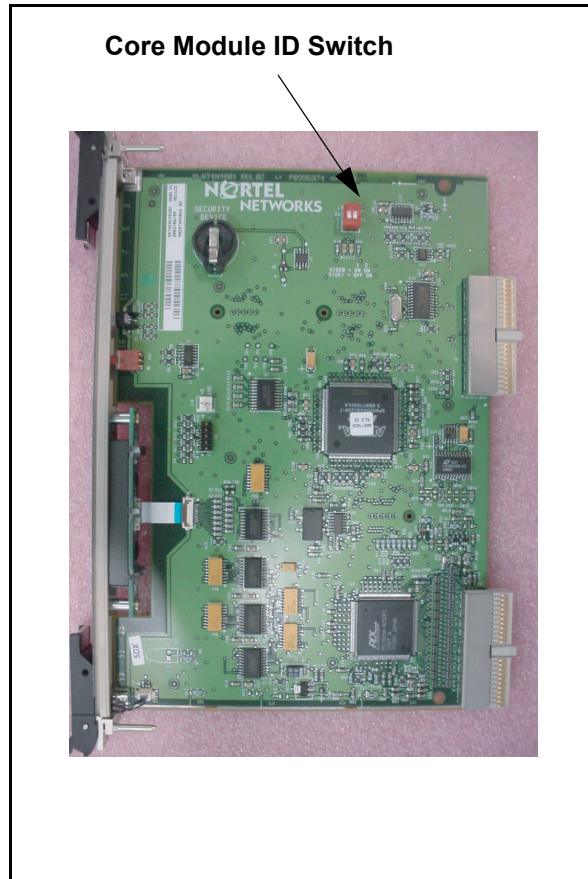
## System Utility card

The NT4N48AA System Utility card is located in slot c15 of the Core/Net module (see Figure 4 on [page 22](#)).

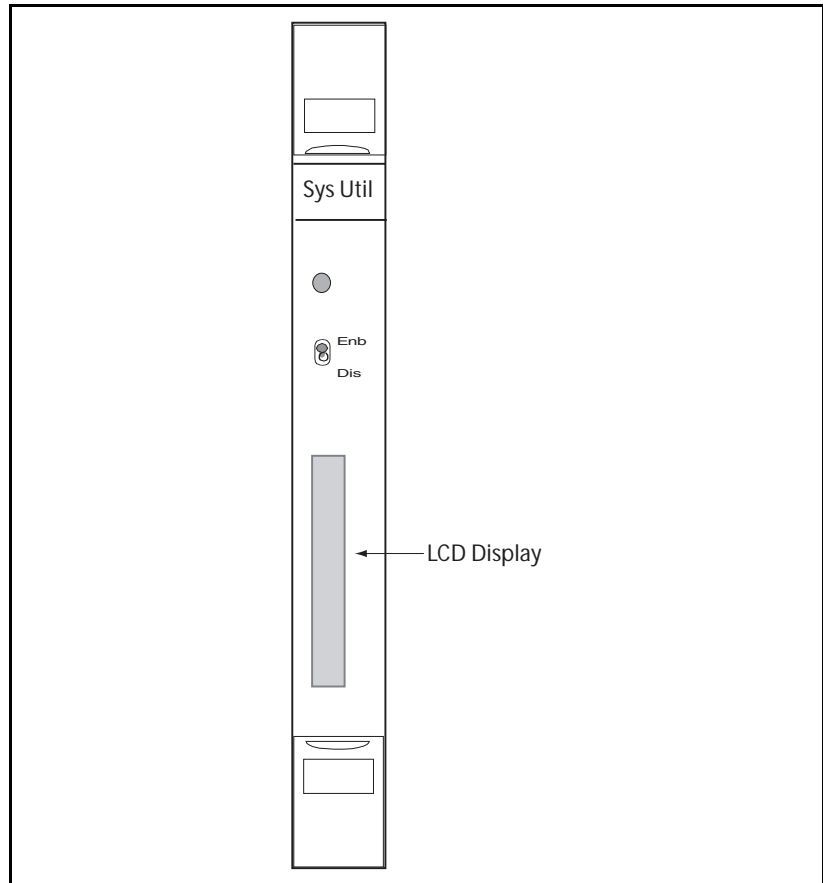
The Core ID switch is now located on the system utility card (see Figure 3 on [page 21](#)).



**Figure 3**  
**Core Module ID switch**



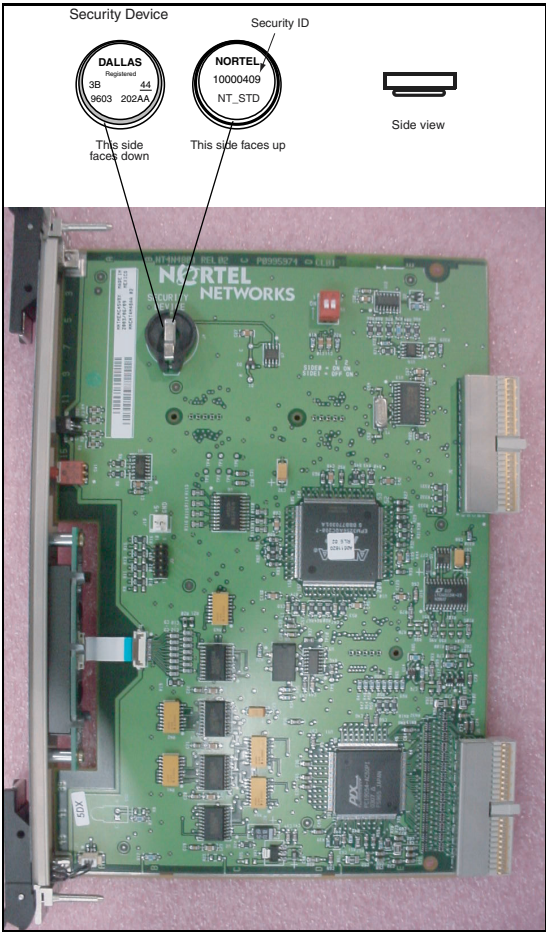
**Figure 4**  
**NT4N48AA System Utility card**



## Security Device

The Security Device Holder has been replaced. The Security Device now fits into the NT4N48AA System Utility card (see Figure 5 on [page 23](#)).

**Figure 5**  
**System Utility card Security Device**



## Upgrade strategy

Succession 3.0 Software supports Automatic Inline Conversion from Release 19 and later in Meridian 1 Option 51C, Meridian 1 Option 61C CP PII, and Meridian 1 Option 81C CP PII.

When upgrading your system, the hardware upgrade and software conversion path you follow depends on the system type you are upgrading from and its current Release.

The hardware upgrade to Meridian 1 Option 61C CP PII is performed as part of the software upgrade to Succession 3.0 Software. This eliminates the requirement of interim hardware.



### **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.

## Security device and keycode

The security device and keycode are used together to customize software installation for a specific system. The keycode can only be validated and “unlocked” by the security devices for which it was made. Security devices are produced as part of each software order. One security device is mounted onto each IODU/C card on the Meridian 1 Option 51C and Meridian 1 Option 61C.

The security device on a Meridian 1 Option 61C CP PII is mounted onto each System Utility card (see Figure 5 on [page 23](#)). For the Meridian 1 Option 81C CP PII, the security device is mounted on the System Utility Card in the NT4N40 shelf or in the Security Device Holder for a NT4N46 Shelf.

A keycode is also generated as part of the customer software order. The keycode is customized based on the following parameters:

- a specific release and issue of software

- a specific software generic (representing the combination of the system type and Call Processor type)
- a specific set of feature packages and ISM limits
- a specific set of security devices

A new keycode is required whenever any of these parameters are changed.

Each software order contains the Security Device Kit. The contents of the Security Device Kit are listed in Table 2.

**Table 2**  
**Contents of the Security Device Kit**

Item	Quantity	Description
Keycode diskette (2 MB media)	1	A 2 MB diskette containing the keycode file.
Keycode acknowledgment	1	A hard-copy printout of the keycode file, including a listing of the parameters for which the keycode was created.
Security devices		The number of security devices provided is determined based on the type order and the number of security devices previously provisioned:
	0	When security devices have already been provisioned
	1	For single CPU systems
	1	For upgrades from single CPU to dual CPU systems
	1	For replacing single, lost, or damaged security devices
	2	For dual CPU systems
	2	For replacing two lost or damaged security devices
Database diskettes (2 MB media)	2	One 2 MB diskette containing the CE database and one 2 MB diskette containing CE/PE database.

## Tools

Table 3 lists the tools required to upgrade a Nortel Networks system. Special tools required in a procedure are listed with that procedure.

**Table 3**  
**List of recommended tools**

- |  |
|--|
| <ul style="list-style-type: none"><li>— Digital Multimeter (DMM)</li><li>— Pliers, needlenose</li><li>— Pliers, standard</li><li>— Screwdriver, 3/16" flat blade</li><li>— Screwdriver, #2 Phillips</li><li>— Wire cutters</li><li>— Electrical insulation tape</li><li>— 5/16" socket wrench</li><li>— Electric drill and drill bits</li><li>— Hammer and sheet metal center punch</li><li>— 1/4" socket wrench</li><li>— 3/8" socket wrench</li><li>— 1/4" nut driver</li><li>— 7/16" socket driver</li><li>— 11/32 Deep Socket</li><li>— Flashlight</li></ul> |
|--|

## Upgrade preparation

Before beginning an upgrade, read the important information on the next few pages pertaining to connection of a system monitor or modem, and backplane connections. Then perform a thorough audit of the system you are upgrading:

- Verify the suitability of the upgrade package you are considering.
- Resolve any existing operational problems, error messages, or other problems.
- Check for minimum vintage requirements on all circuit cards that will remain in the system. A table is provided in each upgrade section. For more information see *Product Compatibility* (553-3001-156).
- Verify that all equipment needed for the upgrade has been identified.
- Identify the target platform.
- Identify the source platform.
- Check for minimum software requirements on each application. See Table 4 on [page 28](#).
- Check current installed patches and Dep lists.
- Check required Dep list for the target platform and applications.

**Table 4**  
**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
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)
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



**Table 4**  
**Succession 3.0 Software Compatibility (Part 2 of 13)**

<b>Auxiliary Processor</b>	<b>Compatibility (Release)</b>		
	<b>Meridian 1 Options 51C, 61C, 81, 81C; Succession 1000M Half Group, Single Group, Multi Group</b>	<b>Succession 1000</b>	<b>Branch Office</b>
Meridian Mail	12.xx -13.xx	Not supported directly (can network back to MMail on a Meridian 1 through NMS)	Not supported
Meridian Mail Card Option	12.xx -13.xx	Not supported	Not supported
Meridian Mail reporter	2.xa	Not supported	Not supported
<b>Companion</b>			
Companion	3.xx -7.xx (7.xx required for Enhanced Capacity)	Not supported	Not supported
<b>Voice over Internet Protocol</b>			
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

**Table 4**  
**Succession 3.0 Software Compatibility (Part 3 of 13)**

<b>Auxiliary Processor</b>	<b>Compatibility (Release)</b>		
	<b>Meridian 1 Options 51C, 61C, 81, 81C; Succession 1000M Half Group, Single Group, Multi Group</b>	<b>Succession 1000</b>	<b>Branch Office</b>
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
Internet Telephone – i2004 (Software Telephone)	Minimum FW version – 1.39	Minimum FW version – 1.39	Minimum FW version – 1.39
<b>Remote Office Portfolio</b>			
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

**Table 4**  
**Succession 3.0 Software Compatibility (Part 4 of 13)**

<b>Auxiliary Processor</b>	<b>Compatibility (Release)</b>		
	<b>Meridian 1 Options 51C, 61C, 81, 81C; Succession 1000M Half Group, Single Group, Multi Group</b>	<b>Succession 1000</b>	<b>Branch Office</b>
Carrier Remote	Supported	Not supported	Not supported
Fiber I	Supported	Not supported	Not supported
Fiber II	Supported	Not supported	Not supported
RPE (Remote Peripheral Equipment)	Not supported	Not supported	Not supported
<b>Retired Call Center Applications</b>			
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 provides the functionality of MCRR)	3B, 3C a	Not supported	Not supported

**Table 4**  
**Succession 3.0 Software Compatibility (Part 5 of 13)**

<b>Auxiliary Processor</b>	<b>Compatibility (Release)</b>		
	<b>Meridian 1 Options 51C, 61C, 81, 81C; Succession 1000M Half Group, Single Group, Multi Group</b>	<b>Succession 1000</b>	<b>Branch Office</b>
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
Meridian Link & MCCR Co-residency	6.0, 6.4	Not supported	Not supported
<b>Symposium Call Center and CTI Applications</b>			
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

**Table 4**  
**Succession 3.0 Software Compatibility (Part 6 of 13)**

<b>Auxiliary Processor</b>	<b>Compatibility (Release)</b>		
	<b>Meridian 1 Options 51C, 61C, 81, 81C; Succession 1000M Half Group, Single Group, Multi Group</b>	<b>Succession 1000</b>	<b>Branch Office</b>
Symposium Desktop TAPI Service Provider for MCA (Meridian Communicator Adapter)	1.x - 2.x	Not supported	Not supported
Symposium Fast Call / Fast View (Windows Only)	Not supported - Replaced by Symposium Agent	Not supported	Not supported

**Table 4**  
**Succession 3.0 Software Compatibility (Part 7 of 13)**

<b>Auxiliary Processor</b>	<b>Compatibility (Release)</b>		
	<b>Meridian 1 Options 51C, 61C, 81, 81C; Succession 1000M Half Group, Single Group, Multi Group</b>	<b>Succession 1000</b>	<b>Branch Office</b>
Meridian Link Services [MLS] (i.e., SCCS 4.x sold with 1 Agent)	<p>SCCS 4.2 is supported with Succession 3.0 in general. If using the Call Centre Transfer Connect (UUI) feature, the following are required:</p> <ul style="list-style-type: none"> <li>Meridian 1 with Core Succession 3.0; connected to any switch by ESS4 or ESS5 interface (NI-1 only); subscription and connection to AT&amp;T Transfer Connect Services</li> <li>SCCS Release 4.2 SU 09 or later (GA Q3 2003)</li> <li>Symposium TAPI server 3.0 or 3rd party CTI application licensed to work with S MLS</li> </ul>	<p>SCCS 4.2 is supported with Succession 3.0 in general. If using the Call Centre Transfer Connect (UUI) feature, the following are required:</p> <ul style="list-style-type: none"> <li>Meridian 1 with Core Succession 3.0; connected to any switch by ESS4 or ESS5 interface (NI-1 only); subscription and connection to AT&amp;T Transfer Connect Services</li> <li>SCCS Release 4.2 SU 09 or later (GA Q3 2003)</li> <li>Symposium TAPI server 3.0 or 3rd party CTI application licensed to work with S MLS</li> </ul>	<p>Not supported</p> <p>Not supported</p> <p>Not supported</p> <p>Not supported</p>

**Table 4**  
**Succession 3.0 Software Compatibility (Part 8 of 13)**

<b>Auxiliary Processor</b>	<b>Compatibility (Release)</b>		
	<b>Meridian 1 Options 51C, 61C, 81, 81C; Succession 1000M Half Group, Single Group, Multi Group</b>	<b>Succession 1000</b>	<b>Branch Office</b>
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 4**  
**Succession 3.0 Software Compatibility (Part 9 of 13)**

<b>Auxiliary Processor</b>	<b>Compatibility (Release)</b>		
	<b>Meridian 1 Options 51C, 61C, 81, 81C; Succession 1000M Half Group, Single Group, Multi Group</b>	<b>Succession 1000</b>	<b>Branch Office</b>
Symposium Call Center Server [SCCS]	<p>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:</p> <ul style="list-style-type: none"> <li>• Meridian 1 with Core Succession 3.0; connected to any switch by ESS4 or ESS5 interface (NI-1 only); subscription and connection to AT&amp;T Transfer Connect Services</li> <li>• SCCS rls 4.2 SU 09 or higher (GA Q3 2003)</li> <li>• Symposium TAPI server 3.0 or 3rd party CTI application licensed to work with S MLS</li> </ul>	<p>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:</p> <ul style="list-style-type: none"> <li>• Meridian 1 with Core Succession 3.0; connected to any switch by ESS4 or ESS5 interface (NI-1 only); subscription and connection to AT&amp;T Transfer Connect Services</li> <li>• SCCS rls 4.2 SU 09 or higher (GA Q3 2003)</li> <li>• Symposium TAPI server 3.0 or 3rd party CTI application licensed to work with S MLS</li> </ul>	<p>Not supported</p> <p>Not supported</p> <p>Not supported</p>
Symposium Web Centre Portal [SWCP]	4.0	4.0	Not supported



**Table 4**  
**Succession 3.0 Software Compatibility (Part 10 of 13)**

<b>Auxiliary Processor</b>	<b>Compatibility (Release)</b>		
	<b>Meridian 1 Options 51C, 61C, 81, 81C; Succession 1000M Half Group, Single Group, Multi Group</b>	<b>Succession 1000</b>	<b>Branch Office</b>
Symposium Web Client	4.5	4.5	Not supported
<b>IVR Applications</b>			
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 4**  
**Succession 3.0 Software Compatibility (Part 11 of 13)**

<b>Auxiliary Processor</b>	<b>Compatibility (Release)</b>		
	<b>Meridian 1 Options 51C, 61C, 81, 81C; Succession 1000M Half Group, Single Group, Multi Group</b>	<b>Succession 1000</b>	<b>Branch Office</b>
Periphonics Multimedia Processing Server (MPS) 500	2.1	Not supported	Not supported
<b>Business Communication Manager</b>			
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
<b>MIXX Portfolio</b>			
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 4**  
**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
<b>MCS 5100 (formally Succession MX)</b>			
MCS 5100	1.1	1.1	Not supported
<b>Note 1:</b> 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 <i>Product Compatibility</i> (553-3001-156)			
<b>Note 2:</b> a = No Core Software dependency			

**Table 4**  
**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
<p><b>Note 3:</b> 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.</p>			
<p><b>Note 4:</b> Call Server and Succession Signaling Server software releases on both the Main Office and at the Branch Offices, should be congruent at all times.</p>			
<p><b>Note 5:</b> 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.</p>			

## Terminal and modem connections

During an upgrade, and for continuing system operation, connect a terminal to an SDI port in a network slot to provide an I/O interface to the active CPU in the system. Connect another terminal or a modem (for remote access) to either the DTE port or the DCE port on the Core/Net module backplane to provide communication with the Call Processor card (Meridian 1 Option 51C) or CP PII card (Meridian 1 Option 61C CP PII and Meridian 1 Option

81C CP PII) in the system. The terminals must be RS-232 and capable of 9600 baud.

The Call Processor card serial interface ports (CPSI ports) or CP PII card COM ports are active only when the Core/Net associated with the CP/CP PII card is active. Therefore, the CPSI/COM ports should not be used as the only I/O connection for the system.

**Note:** When transferring call processing to a Core/Net module during an upgrade, one I/O address is required for a CPSI/COM port. If there is no address available, a SYS4532 error displays. You must make available one port assignment for a CPSI/COM port.

When the upgrade is complete, leave a terminal and/or modem connected to the system. One SDI port in a network slot must be permanently connected to a terminal or modem. On the CPSI/COM ports you can do one of the following:

- disconnect the ports
- leave terminals connected for local monitoring
- connect modems for remote monitoring

Refer to “Terminal and modem connections” on [page 641](#) of Book 3 for instructions on connecting terminals and modems to the system.

## **Meridian 1 Options 61C CP PII/81C CP PII and Meridian 1 Options 51C, 61C, 81C, and 81 shelf backplane connections**

The following backplanes have a primary side and a secondary side:

- NT4N40 backplanes on Meridian 1 Options 61C CP PII/81C CP PII
- NT5D21 backplanes used on Meridian 1 Options 51C, 61C and 81C
- NT6D60 backplanes on the Meridian 1 Option 81

The primary side (the side that faces the front of the shelf) contains the primary shrouds that provide mechanical guidance for the pins of the card edge connectors. The secondary side of the backplane (the side that faces the

rear of the shelf) contains the secondary shrouds that provide mechanical guidance for cable connectors.

Before you connect cables to the backplane, visually inspect the secondary shroud connectors to make sure there are no bent pins. To connect cables, do the following:

- 1    Hold the cable so that the connector is perpendicular to the backplane, with the cable extending down at a 45-degree angle.
- 2    Partially insert the cable connector so its guides mate to the corresponding backplane connector.
- 3    Apply a small amount of pressure to push the cable connector straight into the backplane connector. You will feel a distinct click when the connector seats.



**CAUTION**

**Damage to Equipment**

Do not push the connector in any further after you hear the click. Pins may be bent or broken if you force the cable connector or insert it at an angle.

**Using the cable extraction tool on NT4N40, NT5D21, NT6D60, and NT9D11 equipped systems**

To disconnect cables from the Core/Network module backplane, you will be required to use the extraction tool provided, located in the rear of the module (behind the I/O safety panel).



**CAUTION**

**Damage to Equipment**

You must use the extraction tool to disconnect cables from the backplane in modules to avoid bending or breaking backplane pins. Do not improvise with common hand tools.

**WARNING****Damage to Equipment**

Do not pry against the connector with the extraction tool. Simply inserting the tool between the connector and the securing clip is sufficient to unlock the connector. Prying may cause damage to the connector or the backplane pins.

**Procedure 1**  
**Removing cable connectors**

Follow the steps below to remove cable connectors from the backplane. Use extreme caution to avoid bending or breaking backplane pins. Do not insert the extraction tool unless the cable connector is locked into the securing clip; a gentle tug on the cable will allow you to determine whether or not the connector is secured. Do not force the extraction tool deeper than the tab on side of the cable connector hood, and do not pry with the tool.

- 1** Grasp the cable just behind the connector hood.
- 2** Center the long flat edge at the angled end of the tool between the cable connector hood and the securing clip.
- 3** There are two versions of the extractor tool. If the straight end of the tool is notched, use that end if the connector can be accessed straight-on. If you must approach the connector from any angle at all, use the angled end.
- 4** Gently insert the extraction tool and gradually apply pressure in the direction directly toward the backplane while gently pulling the cable away from the backplane. A gentle side-to-side rocking motion may be used on the cable if needed.
- 5** Stop applying pressure as soon as the cable connector comes loose from the backplane.
- 6** Slowly remove the extraction tool and the cable connector.

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**End of Procedure**

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# General software conversion information

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## Contents

This section contains information on the following topics:

<a href="#">Introduction . . . . .</a>	<a href="#">45</a>
<a href="#">Conversion media . . . . .</a>	<a href="#">46</a>
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## Introduction

Conversion procedures vary with the system type and software release.



**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.

Table 5 shows the software releases supported by Automatic Inline Conversion.

**Table 5**  
**Automatic Inline Conversion**

From (minimum) Source release/issue	Directly to Target release
19.xx	22, 23, 24, 25, Succession 3.0
21.xx	22, 23, 24, 25, Succession 3.0
22.xx	23, 24, 25, Succession 3.0
23.xx	24, 25, Succession 3.0
24.xx	25, Succession 3.0
25.xx	Succession 3.0

*Note:* Automatic Inline Conversion is only supported from C processors.

## Conversion media

For Release 24 and later systems, the following media is required for new software installations:

- CD-ROM – a generic CD-ROM that contains all software generics.
- Security device– provides a unique program for each system. The device does not contain feature or software release-specific information.
- Install diskette – activates the Software Installation Tool. The Software Installation Kit contains three Install diskettes to support each Call Processor card. Use the Install diskette that corresponds with the CP card type.
- 2 MB customer database diskettes – a blank DOS formatted disk for archiving the customer database.

- Database Transfer Utility diskette – supports the transfer of 4 MB databases to 2 MB.
- Keycode diskette – consists of “keycodes” that contain software feature data. The keycodes must validate against the security device. In addition to receiving a keycode diskette from Nortel Networks, a keycode diskette can be created on site using the following methods:
  - Downloading a keycode from the Nortel Networks Keycode Distributor Server to a PC and creating a diskette. See “Using the Distributor Keycode Application” on [page 673](#) of Book 3 for more information.
  - Entering a keycode manually using the commands in LD 143. Using this method, the keycode is entered as 21 lines of 16 characters. The keycode file is then saved to a 2 MB diskette in the floppy drive.
  - Entering a keycode manually in the Meridian 1 Software Installation Tool. Using this method, the keycode is entered as 21 lines of 16 characters. The keycode file is then saved to a 2 MB diskette in the floppy drive.

All keycode files must be named keycode with no extension. When the keycode diskette is created, the keycode is entered into the system by:

- the KNEW command in LD 143
- the Software Installation Tool

The keycode is automatically activated on the next system Sysload.

The keycode contains the system software release information. For new features or Incremental Software Management (ISM) limits, a new keycode is required. A new CD-ROM, security device, or Install diskette is not required.

## Software packaging

Verify the system packages prior to conversion. Be sure the Target software contains all the packages required to support system operation.

## Succession 3.0 Software Compatibility

Consult Table 6 for Succession 3.0 Software Compatibility.

**Table 6**  
**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
<b>Attendant Console</b>			
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)
M2250 Attendant Console	Supported	Supported	Supported
<b>System Management</b>			
Meridian Administration Tools (MAT)	Not supported	Not supported	Not supported
Optivity Telephony Manager (OTM)	OTM 2.1	OTM 2.1	OTM 2.1

**Table 6**  
**Succession 3.0 Software Compatibility (Part 2 of 13)**

<b>Auxiliary Processor</b>	<b>Compatibility (Release)</b>		
	<b>Meridian 1 Options 51C, 61C, 81, 81C; Succession 1000M Half Group, Single Group, Multi Group</b>	<b>Succession 1000</b>	<b>Branch Office</b>
<b>Messaging</b>			
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
Meridian Mail reporter	2.xa	Not supported	Not supported
<b>Companion</b>			
Companion	3.xx -7.xx (7.xx required for Enhanced Capacity)	Not supported	Not supported

**Table 6**  
**Succession 3.0 Software Compatibility (Part 3 of 13)**

<b>Auxiliary Processor</b>	<b>Compatibility (Release)</b>		
	<b>Meridian 1 Options 51C, 61C, 81, 81C; Succession 1000M Half Group, Single Group, Multi Group</b>	<b>Succession 1000</b>	<b>Branch Office</b>
<b>Voice over Internet Protocol</b>			
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
Internet Telephone – i2004 (Software Telephone)	Minimum FW version – 1.39	Minimum FW version – 1.39	Minimum FW version – 1.39

**Table 6**  
**Succession 3.0 Software Compatibility (Part 4 of 13)**

<b>Auxiliary Processor</b>	<b>Compatibility (Release)</b>		
	<b>Meridian 1 Options 51C, 61C, 81, 81C; Succession 1000M Half Group, Single Group, Multi Group</b>	<b>Succession 1000</b>	<b>Branch Office</b>
<b>Remote Office Portfolio</b>			
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
RPE (Remote Peripheral Equipment)	Not supported	Not supported	Not supported

**Table 6**  
**Succession 3.0 Software Compatibility (Part 5 of 13)**

<b>Auxiliary Processor</b>	<b>Compatibility (Release)</b>		
	<b>Meridian 1 Options 51C, 61C, 81, 81C; Succession 1000M Half Group, Single Group, Multi Group</b>	<b>Succession 1000</b>	<b>Branch Office</b>
<b>Retired Call Center Applications</b>			
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 offers 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
Meridian Link & MCCR Co-residency	6.0, 6.4	Not supported	Not supported



**Table 6**  
**Succession 3.0 Software Compatibility (Part 6 of 13)**

<b>Auxiliary Processor</b>	<b>Compatibility (Release)</b>		
	<b>Meridian 1 Options 51C, 61C, 81, 81C; Succession 1000M Half Group, Single Group, Multi Group</b>	<b>Succession 1000</b>	<b>Branch Office</b>
<b>Symposium Call Center and CTI Applications</b>			
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 6**  
**Succession 3.0 Software Compatibility (Part 7 of 13)**

<b>Auxiliary Processor</b>	<b>Compatibility (Release)</b>		
	<b>Meridian 1 Options 51C, 61C, 81, 81C; Succession 1000M Half Group, Single Group, Multi Group</b>	<b>Succession 1000</b>	<b>Branch Office</b>
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)	<p>SCCS 4.2 is supported with Succession 3.0 in general. If using the Call Centre Transfer Connect (UUI) feature, the following are required:</p> <ul style="list-style-type: none"> <li>• Meridian 1 with Core Succession 3.0; connected to any switch by ESS4 or ESS5 interface (NI-1 only); subscription and connection to AT&amp;T Transfer Connect Services</li> <li>• SCCS Release 4.2 SU 09 or later (GA Q3 2003)</li> <li>• Symposium TAPI server 3.0 or 3rd party CTI application licensed to work with S MLS</li> </ul>	<p>SCCS 4.2 is supported with Succession 3.0 in general. If using the Call Centre Transfer Connect (UUI) feature, the following are required:</p> <ul style="list-style-type: none"> <li>• Meridian 1 with Core Succession 3.0; connected to any switch by ESS4 or ESS5 interface (NI-1 only); subscription and connection to AT&amp;T Transfer Connect Services</li> <li>• SCCS Release 4.2 SU 09 or later (GA Q3 2003)</li> <li>• Symposium TAPI server 3.0 or 3rd party CTI application licensed to work with S MLS</li> </ul>	<p>Not supported</p> <p>Not supported</p> <p>Not supported</p>

**Table 6**  
**Succession 3.0 Software Compatibility (Part 8 of 13)**

<b>Auxiliary Processor</b>	<b>Compatibility (Release)</b>		
	<b>Meridian 1 Options 51C, 61C, 81, 81C; Succession 1000M Half Group, Single Group, Multi Group</b>	<b>Succession 1000</b>	<b>Branch Office</b>
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 6**  
**Succession 3.0 Software Compatibility (Part 9 of 13)**

<b>Auxiliary Processor</b>	<b>Compatibility (Release)</b>		
	<b>Meridian 1 Options 51C, 61C, 81, 81C; Succession 1000M Half Group, Single Group, Multi Group</b>	<b>Succession 1000</b>	<b>Branch Office</b>
Symposium Call Center Server [SCCS]	<p>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:</p> <ul style="list-style-type: none"> <li>• Meridian 1 with Core Succession 3.0; connected to any switch by ESS4 or ESS5 interface (NI-1 only); subscription and connection to AT&amp;T Transfer Connect Services</li> <li>• SCCS rls 4.2 SU 09 or higher (GA Q3 2003)</li> <li>• Symposium TAPI server 3.0 or 3rd party CTI application licensed to work with S MLS</li> </ul>	<p>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:</p> <ul style="list-style-type: none"> <li>• Meridian 1 with Core Succession 3.0; connected to any switch by ESS4 or ESS5 interface (NI-1 only); subscription and connection to AT&amp;T Transfer Connect Services</li> <li>• SCCS rls 4.2 SU 09 or higher (GA Q3 2003)</li> <li>• Symposium TAPI server 3.0 or 3rd party CTI application licensed to work with S MLS</li> </ul>	<p>Not supported</p> <p>Not supported</p> <p>Not supported</p>
Symposium Web Centre Portal [SWCP]	4.0	4.0	Not supported

**Table 6**  
**Succession 3.0 Software Compatibility (Part 10 of 13)**

<b>Auxiliary Processor</b>	<b>Compatibility (Release)</b>		
	<b>Meridian 1 Options 51C, 61C, 81, 81C; Succession 1000M Half Group, Single Group, Multi Group</b>	<b>Succession 1000</b>	<b>Branch Office</b>
Symposium Web Client	4.5	4.5	Not supported
<b>IVR Applications</b>			
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 6**  
**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 6**  
**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
<b>MCS 5100 (formally Succession MX)</b>			
MCS 5100	1.1	1.1	Not supported
<b>Note 1:</b> 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 <i>Product Compatibility</i> (553-3001-156)			
<b>Note 2:</b> a = No Core Software dependency			

**Table 6**  
**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
<p><b>Note 3:</b> 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.</p>			
<p><b>Note 4:</b> Call Server and Succession Signaling Server software releases on both the Main Office and at the Branch Office, should be congruent at all times.</p>			
<p><b>Note 5:</b> 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.</p>			



## 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 7 lists the contents of the Software Install Kit.

**Table 7**  
**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 MB media)	3	Used to launch the Install Program and to download software from the CD-ROM. Each 2 MB diskette supports one processor type (68060 or 68060E).
Database Transfer Utility diskettes (4 MB media)	3	Used to transfer the customer database from an IOP/CMDU drive onto 2 MB diskettes that can be ready by the IODU/C. Each 4 MB diskette supports one processor type (68060 or 68060E).
Distributor Keycode Application diskette (2 MB media)	1	A Windows 95 utility that supports download of keycodes from a keycode server.
Database diskettes (blank, 2 MB media)	2	Blank 2 MB diskettes that can be used to archive the customer database.
Keycode diskette (blank, 2 MB media)	1	A blank 2 MB diskette that can be used to store a back-up copy of the keycode file.

## General conversion information

This document supports conversions for Meridian 1 Options 51C, 61C/61C CP PII and Meridian 1 Options 81/81C/81C CP PII systems only.



### 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.

**Note:** Conversion from X37 to Succession 3.0 Software is not supported.

Be sure the system has enough memory to complete the conversion. If there is not enough memory, refer to “Installing IODU/C cards, CP cards, CP memory” on [page 305](#) of Book 3 **before beginning the conversion**. Refer to Table 8 on [page 66](#) for details concerning Succession 3.0 system capacity requirements.

In systems equipped with Superloops, calls drop during initialization when Peripheral Software Download (PSDL) occurs. The Superloop Network card (NT8D04) and Controller card (NT8D01) download peripheral software prior to initialization completion. This can increase the time required for system initialization when completing a conversion.

If a Force Download occurs during a parallel reload, initialization can take up to 15 minutes. Calls in process are interrupted.

When a software upgrade is performed to add new feature packages, perform a Sysload or parallel reload to enable the new software.

**CAUTION****Loss of Data**

Do not attempt backward data dumping between software versions, upissues, or releases. This corrupts the data.

## Patches

### Software patches

For Meridian 1 Options 51C, Meridian 1 Options 61C/61C CP PII and Meridian 1 Option 81/ 81C/81C CP PII systems, software patches are deleted when converting to a new software release, or when performing a software upissue. Software patches are not deleted when the same software release is re-installed in the system, however you must manually activate them.

If a software patch is included in the software, a plus sign (+) appears next to the software issue number in LD 22.

### Loadware patches using DPSDL

For Meridian 1 Option 51C, Meridian 1 Options 61C/61C CP PII and Meridian 1 Options 81/81C/81C CP PII systems, loadware patches are deleted when converting to a new software release, or when performing a software upissue. Loadware patches are also deleted when the same software release is re-installed in the system.

If there are one or more loadware patches fully installed in the software, a plus sign (+) prints next to the PSWV version and the modified loadware issue number in LD 22.

Loadware patches are only fully installed once the psdl.rec successfully rebuilds and the system initializes (INI) and reboots.

## 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.

Normal message output appears on the active side.

From the SL1 side:

```
NEW STATE RING 0 : NONE
RING 1 : FULL
FIJI061 RING 0 : STARTING AUTOMATIC DOWNLOAD
FIJI062 FIJI 0 0 : ENABLING FIJI CARD
FIJI062 FIJI 1 0 : ENABLING FIJI CARD
etc.
COMPLETE
FIJI063 FIJI 1 0 : DOWNLOAD DONE. TESTING CARD
COMPLETE
FIJI063 FIJI 3 0 : DOWNLOAD DONE. TESTING CARD
etc.
FIJI064 FIJI 1 0 : SELFTEST DONE
FIJI064 FIJI 3 0 : SELFTEST DONE
FIJI055 [Clock switch]
FIJI007 [Ring state change. Change to none/full.]
FIJI061 RING 1 : STARTING AUTOMATIC DOWNLOAD
```

```
FIJI062 FIJI 0 1 : ENABLING FIJI CARD
FIJI062 FIJI 1 1 : ENABLING FIJI CARD
etc.
COMPLETE
FIJI063 FIJI 0 1 : DOWNLOAD DONE. TESTING CARD
COMPLETE
FIJI063 FIJI 1 1 : DOWNLOAD DONE. TESTING CARD
etc.
FIJI064 FIJI 0 1 : SELFTEST DONE
FIJI064 FIJI 1 1 : SELFTEST DONE
```

## Succession 3.0 Software

Succession 3.0 Software supports Automatic Inline Conversion from Release 19, 20, 21, 22, 23, 24 in Meridian 1 Option 51C, Meridian 1 Options 61C/61C CP PII and Meridian 1 Options 81/81C/81C CP PII systems. Software installation and conversion is supported on CD-ROM using an IODU/C or MMDU drive.

### Fiber Network Fabric

Fiber Network allows the expansion of Meridian 1 Option 81/81C/81C CP PII systems from five to eight Network groups. The Intergroup cards and module in current Meridian 1 systems are replaced by a Dual Ring fiber optic network. This Fiber Network provides complete non-blocking communication between the network groups, which eliminates the incidence of busy signals for calls switched between groups. Fiber Network Fabric is supported in release 25 or higher.

With Succession 3.0 Software, Meridian 1 Option 51C, Meridian 1 Option 61C, and Meridian 1 Option 81/81C systems can use any of the following processors:

- 68060E NT5D03 CP card
- 68060 NT5D10 CP card

With Succession 3.0 Software, Meridian 1 Option 61C CP PII and Meridian 1 Option 81C CP PII must use the NT4N64 CP PII processor card.



### IMPORTANT!

Release 25 introduced new Flash and DRAM memory requirements. Call Processor cards that meet the “total” memory requirement might not meet the individual Flash and DRAM memory requirement. Refer to Table 8 for Release 25 and Succession 3.0 Software flash and DRAM memory requirements

**Table 8**  
**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
<ul style="list-style-type: none"> <li>Meridian 1 Option 81/81C systems operating on Call Processor 68060 or 68060E with five or fewer network groups (including Fiber Network Fabric systems)</li> </ul>	32 MB	64 MB	96 MB
<ul style="list-style-type: none"> <li>Meridian 1 Option 81/81C systems operating on Call Processor 68040</li> </ul>	32 MB	64 MB	96 MB
Meridian 1 Option 81/81C	64 MB	96 MB	160 MB
Meridian 1 Option 81/81C systems operating on Call Processor 68060 or 68060E with six or more network groups			
Meridian 1 Option 81C CP PII	128 MB	128 MB	256 MB

## Software release supported by machine type

Table 9 below shows the software release associated with each system and its available release levels. The last two digits in the “software system number” column indicate the software generic; the first one or two digits indicate the system type. For example, the system number for Meridian 1 Option 81C is 1911.

**Table 9**  
**Software generic by machine type (Part 1 of 2)**

<b>System type</b>	<b>Software system number</b>	<b>Lowest supported release</b>	<b>Highest supported release</b>
STE	1511	18	21
NT	1111	8	21
XT	1211	8	21
RT	1311	12	21
Option 21E	1511	18	21
Meridian 1 Option 51	1111	15	21
Meridian 1 Option 51C equipped with NT5D10 CP card	2421	23	Succession 3.0 2421
Meridian 1 Option 51C equipped with NT5D03 CP card	2821	23.5X	Succession 3.0 2821
Meridian 1 Option 61	1111	15	21
Meridian 1 Option 61C equipped with NT5D10 CP card	2521	23	Succession 3.0 2521
Meridian 1 Option 61C equipped with NT5D03 CP card	2921	23.5X	Succession 3.0 2921
Meridian 1 Option 61C CP PII equipped with NT4N64 CP PII card***	3221	Succession 3.0 Software	Succession 3.0 3221

**Table 9**  
**Software generic by machine type (Part 2 of 2)**

System type	Software system number	Lowest supported release	Highest supported release
Option 71	1211	15	21
Meridian 1 Option 81 equipped with NT5D10 CP card*	2611	23	25
Meridian 1 Option 81 equipped with NT5D03 CP card*	3011	23.5X	25
Meridian 1 Option 81 equipped with NT5D10 CP card*	2621	23	Succession 3.0 2621
Meridian 1 Option 81 equipped with NT5D03 CP card*	3021	23.5X	Succession 3.0 3021
Meridian 1 Option 81C equipped with NT5D10 CP card**	2621	23	Succession 3.0 2621
Meridian 1 Option 81C equipped with NT5D03 CP card**	3021	23.5X	Succession 3.0 3021
Meridian 1 Option 81C CP PII equipped with A0810496 CP PII card***	3311	25.xx	25.40b
Meridian 1 Option 81C CP PII equipped with NT4N64 CP PII card***	3321	25.xx	Succession 3.0 3321
<p><b>Note 1:</b> *Meridian 1 Option 81 systems require Package 298.</p> <p><b>Note 2:</b> **Meridian 1 Option 81C systems require Package 299.</p> <p><b>Note 3:</b> *** Meridian 1 Option 61C CP PII and Option 81C CP PII systems require Package 368.</p>			



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# Overview of upgrading to Meridian 1 Internet-enabled systems

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## Contents

This section contains information on the following topics:

<a href="#">Introduction</a> . . . . .	69
<a href="#">Choosing a scenario</a> . . . . .	80
<a href="#">Upgrade scenarios</a> . . . . .	86

## Introduction

The focus of the “Meridian 1 Internet-enabled systems upgrade procedures” on [page 91](#) is upgrading Meridian 1 Internet-enabled systems. (See “Terminology” on [page 72](#) for an explanation of “Internet-enabled”). The scenarios and procedures described in this chapter and in “Meridian 1 Internet-enabled systems upgrade procedures” on [page 91](#) do not apply for upgrades to Meridian 1 systems that are not Internet-enabled to any degree.

If your system is not already “Internet-enabled” to any degree, then upgrading to Succession 3.0 Software is no different from any other update to a new release of software. Refer to the appropriate scenario in this NTP.

In order to enable your system for IP telephony, you must equip it with Voice Gateway Media Cards and their associated applications. Refer to the following NTPs for more information:

- *IP Line: Description, Installation, and Operation* (553-3001-365)
- *IP Trunk: Description, Installation, and Operation* (553-3001-363)
- *IP Peer Networking* (553-3001-213)

To upgrade your Meridian 1 Large System to a Succession 1000M Large System, install a Succession Signaling Server. For more information, refer to *Signaling Server: Installation and Configuration* (553-3001-212).

If your system is already equipped with IP Line, IP Trunk, or both, then upgrading to Succession 3.0 Software involves more than simply updating to a new software release. Similarly, upgrading to a Succession 1000M Large System involves more than simply installing a Succession Signaling Server: it involves migrating the network from a node-based dialing plan to a Gatekeeper-resolved Network Numbering Plan, as well as reconfiguring and cutting over the upgraded system to use IP Peer Virtual Trunks. The scope of the upgrade will depend on the configuration and complexity of the existing network.

If your system is already equipped with IP Line, IP Trunk, or both, make sure that you read and fully understand this chapter. Then, after you have identified the upgrade scenario that best suits your circumstances, follow the procedures for that scenario in “Meridian 1 Internet-enabled systems upgrade procedures” on [page 91](#).

In general, there are three types of upgrade that can be performed on Meridian 1 Internet-enabled systems:

- 1 Software and system
- 2 Software only
- 3 System only

Table 10 shows how the upgrade types related to current and desired configurations.

**Table 10**  
**Upgrade types for Meridian 1 Internet-enabled systems**

	Upgrade from this configuration...		To this configuration	
Type	System	Software	System	Software
Software and system	Meridian 1	X11 25.40 or earlier	Succession 1000M	Succession 3.0
Software only	Meridian 1	X11 25.40 or earlier	No change	Succession 3.0
System only	Meridian 1	Succession 3.0	Succession 1000M	No change
<p><b>Note 1:</b> Within the upgrade scenarios, some procedures apply to Meridian 1 systems with IP Line, others to IP Trunk.</p> <p><b>Note 2:</b> To complete a system-only upgrade, you must first complete a software-only upgrade.</p> <p><b>Note 3:</b> Meridian 1 systems without IP Line or IP Trunk should be treated as software-only upgrades. In these cases, a subsequent system-only upgrade should be treated as a new installation of IP Line and IP Peer Networking.</p>				

There are many scenarios for each type of upgrade. This chapter first presents important information on terminology and specifications, and then proceeds to describe and compare the scenarios in terms of overall approach. The detailed procedures for each scenario are presented in the next chapter.

**IMPORTANT!**

- The scenarios contain many of the same procedures, but the task sequence is different. It is very important to follow the order of the steps provided in the respective scenarios.
- The decision about which type of upgrade to perform and which scenario to follow depends on a number of considerations. Make sure that you read this entire chapter and fully understand it before you decide on an upgrade scenario.

## Terminology

The following terms are used in this document:

- **Internet-enabled.** Refers to a Meridian 1 system that is equipped with:
  - IP Line only
  - IP Trunk only
  - both IP Line and IP Trunk

*Note:* The system is not equipped with a Succession Signaling Server.

- **System upgrade.** Refers to upgrading a Meridian 1 Internet-enabled system (Option 61C CP PII, 81C CP PII) to Succession 3.0 Software with a Succession Signaling Server (Succession 1000M Half Group, Succession 1000M Single Group, Succession 1000M Multi Group).
- **Software upgrade.** Refers to any of the following:
  - upgrading any Meridian 1 system to Succession 3.0 Software
  - upgrading the ITG Trunk 2.xx application software (also known as loadware) to IP Trunk 3.01
  - upgrading the IP Line 2.20 or 3.00 software (also known as loadware) to IP Line 3.10
- **Network upgrade.** Refers to upgrading systems and software across a private IP Telephony network in a coordinated way to minimize cost, service interruption, or both. In general, this must be done gradually, system by system.

- **Migration.** Refers to migrating IP Trunk 3.0 nodes from a node-based dialing plan that is managed through Optivity Telephony Manager (OTM) to a Gatekeeper-resolved Network Numbering Plan that is centrally managed through Element Manager. Migration denotes a gradual, low-risk, system-by-system reconfiguration and testing of the UDP and CDP dialing plans, Network Numbering Plan, and network routing.
- **Cutover.** Refers to reconfiguring and cutting over an upgraded Succession 1000M system from using IP Trunks to using IP Peer Virtual Trunks. If a large IP Trunk 3.0 network has been completely migrated to using the Gatekeeper-resolved Network Numbering Plan, then cutover to using IP Peer Virtual Trunks can proceed gradually, system by system, with low risk of service interruption.
- **Coordinated cutover.** For small networks (for example, 2 to 4 systems) it may be practical to coordinate the simultaneous cutover of all systems from using IP Trunks with node-based dialing plans to using the IP Peer Virtual Trunks and Gatekeeper-resolved Network Numbering Plan *in the same maintenance window*. In this case the IP Trunk migration procedures are eliminated.
- **Conversion.** Refers to converting unused IP Trunk cards to Voice Gateway Media Cards.
- **IP Line.** Refers to a software application that allows an Internet Telephone to be connected to a Meridian 1, Succession 1000, or Succession 1000M. It also provides echo cancellation, and compresses and packetizes voice for transmission over an IP data network. The IP Line application runs on the Meridian 1 and Succession Call Server, Succession Signaling Server, and Voice Gateway Media Cards. On the Voice Gateway Media Card, it provides two independent services:
  - UNISim Line Terminal Proxy Server (LTPS) at system level
  - Voice Gateway (VGW) media ports at customer level

- **IP Trunk.** Refers to the ISDN-Signaling IP Trunk 3.01 application that enables calls in a private telephony network to travel over the converged enterprise IP network. The IP Trunk application runs on Succession Media Cards or ITG-Pentium (ITG-P) cards that are grouped in IP Trunk nodes hosted by Meridian 1 Internet-enabled or upgraded Succession 1000M systems.

The IP Trunks appear to the Succession Call Server as ISDN Signaling Link (ISL) trunks. MCDN features are supported over IP Trunks, but the Call Servers do not process the H.323 network signaling protocol directly and do not interact with the control signaling for the IP telephony media path. IP Trunk cards have dedicated media ports that are used for all calls.

- **IP Peer Virtual Trunk.** Refers to a software application that supports virtual IP trunks. On Succession 1000M and Succession 1000 systems, IP Peer Virtual Trunk software runs on the Succession Call Server and Signaling Server.

The IP Peer Virtual Trunks appear to the Call Server as an H.323 protocol trunk route. The Succession Call Server supports MCDN features and the H.323 protocol over IP Peer Virtual Trunks, including control signaling for the IP telephony media path. This enables end-to-end direct media path connections between Internet Telephones and Voice Gateway media ports over IP Peer Virtual Trunks.

IP Peer Virtual Trunks are called “virtual” because Voice Gateway (VGW) media ports, located on Voice Gateway Media Cards, are allocated to IP Peer Virtual Trunks per call as needed. VGW media ports are customer-level resources that are shared by IP Lines and IP Peer Virtual Trunks.

## Hardware and software specifications

Table 11 lists the software components required to upgrade to Succession 3.0 Software.

**Note:** The information in Table 11 was valid as of date of publication. However, before you begin the upgrade, check the latest General Release Bulletin, Product Bulletins, and the Nortel Networks Software Download web site to confirm that you have the latest versions. In particular, if your upgrade package was shipped some weeks before you begin to perform the upgrade, check the Nortel Networks Software Download web site, in case there has been a maintenance up-issue in the interim.

**Table 11**  
**Succession 3.0 Software (Part 1 of 2)**

Item	Version
Succession Call Server	X21 Release 3.00V
Succession Signaling Server (see note below)	SSE 2.10.80
IP Line application (see note below)	IPL 3.10.80
IP Trunk application	IPT 3.01
Optivity Telephony Manager	OTM 2.10
Voice Gateway Media Card firmware (8051XA Controller)	6.7 for Succession Media Card 5.7 for ITG-P card
i2002 Internet Telephone firmware (see note below)	1.59

**Table 11**  
**Succession 3.0 Software (Part 2 of 2)**

Item	Version
i2004 Internet Telephone firmware (see note below)	1.59
i2050 Software Telephone	v338
Web browser	Microsoft Internet Explorer v.6.0.2600 or later  Other web browsers (such as Netscape Navigator) are <i>not supported</i> .
<b>Note:</b> The Succession Signaling Server IP Line Terminal Proxy Server (LTPS), Gatekeeper, H.323 Gateway, Element Manager, IP Line loadware, and Internet Telephone firmware are contained on the Succession Signaling Server CD-ROM.	

### Stand-alone Gatekeepers

You can install stand-alone Succession 1000 Gatekeepers for Network Numbering Plan resolution to simplify network management for IP Trunk 3.00 and BCM 3.01 networking in large, complex networks.

You can order duplicate sets of the NTDU27CB Succession Signaling Server hardware/software package and power cord prior to upgrading any Meridian 1 Internet-enabled system to Succession 3.0 Software with IP Peer Networking. This package is required to install a Primary and an Alternate stand-alone Gatekeeper for centralized management of the Network Numbering Plan for the IP Trunk 3.00 and BCM 3.01 network.

Collocated stand-alone Gatekeepers can be configured later as Succession Signaling Servers when the systems are upgraded to Succession 3.0 Software, with co-resident Gatekeeper, IP Peer Virtual Trunks, and LTPS for IP Line 3.10.

### Trunk Route Optimization and Trunk Anti-Tromboning

Prior to Succession 3.0 Software, network call modification and redirection (such as call transfer and call forwarding) caused tandem IP Trunk 3.01 connections that degraded voice quality. Succession 3.0 Software introduces important improvements to Trunk Route Optimization (TRO) and Trunk



Anti-Tromboning (TAT) that avoids tandem IP Trunk connections. IP Trunk 3.01 complements the operation of TRO to further reduce voice quality degradation due to tandem IP Trunk 3.01 connections.

### Surplus equipment

The D-Channel PC Card from the IP Trunk node and its cabling is not required after IP Trunk cards have been converted to Voice Gateway Media cards. This may be kept as a spare for nodes still running IP Trunk or ITG Trunk applications.

The MSDL card D-Channel port is no longer used.

## Technical support

If you purchased a service contract for your Nortel Networks product from a distributor or authorized reseller, contact the technical support staff for that distributor or reseller for assistance.

If you purchased a Nortel Networks service program, contact one of the following Nortel Networks Technical Solutions Centers:

**Table 12**  
**Customer Technical Services (CTS) (Part 1 of 3)**

Location	Contact
Nortel Networks Global Networks Technical Support (GNTS) PO Box 833858 2370 Performance Drive Richardson, TX 75083 USA	North America  Telephone: 1 800 4NORTEL
Nortel Networks Corp. (CTS North America) P.O. Box 4000 250 Sydney Street Belleville, Ontario K8N 5B7 Canada	North America  Telephone: 1 800 4NORTEL

**Table 12**  
**Customer Technical Services (CTS) (Part 2 of 3)**

Location	Contact
Nortel Service Center - EMEA	EMEA Telephone: 00 800 8008 9009 or +44 (0)870 907 9009 E-mail: emeahelp@nortelnetworks.com
Nortel Networks 1500 Concord Terrace Sunrise, Florida 33323 USA	Brazil Telephone: 5519 3705 7600 E-mail: entcts@nortelnetworks.com  English Caribbean Telephone: 1 800 4NORTEL  Spanish Caribbean Telephone: 1 954 858 7777  Latin America Telephone: 5255 5480 2170

**Table 12**  
**Customer Technical Services (CTS) (Part 3 of 3)**

Location	Contact
Network Technical Support (NTS)	<p>Asia Pacific  Telephone: +61 28 870 8800</p> <p>Australia  Telephone: 1800NORTEL (1800 667835) or +61 2 8870 8800  E-mail: asia_support@nortelnetworks.com</p> <p>People's Republic of China  Telephone: 800 810 5000  E-mail: chinatsc@nortelnetworks.com</p> <p>Japan  Telephone: 010 6510 7770  E-mail: supportj@nortelnetworks.com</p> <p>Hong Kong  Telephone: 800 96 4199  E-mail: chinatsc@nortelnetworks.com</p> <p>Taiwan  Telephone: 0800 810 500  E-mail: chinatsc@nortelnetworks.com</p> <p>Indonesia  Telephone: 0018 036 1004</p> <p>Malaysia  Telephone: 1 800 805 380</p> <p>New Zealand  Telephone: 0 800 449 716</p> <p>Philippines  Telephone: 1 800 1611 0063 or 632 917 4420</p> <p>Singapore  Telephone: 800 616 2004</p> <p>South Korea  Telephone: 0079 8611 2001</p> <p>Thailand:  Telephone: 001 800 611 3007</p>

## Choosing a scenario

The decision as to which scenario to follow will depend on your system and circumstances. The primary difference between the scenarios is whether and when:

- you migrate the IP Trunk nodes to a Gatekeeper-resolved Network Numbering Plan
- you cut over the upgraded system from using IP Trunks to IP Peer Virtual Trunks

After considering the information provided in “Migration and cutover options” on [page 80](#) and “Additional considerations” on [page 83](#), choose the upgrade scenario that best suits your organization.

The scenarios presented in these two chapters are not exhaustive. They are intended to cover the most common situations and the most likely desired configurations. After studying the scenarios, you may decide to contact Nortel Networks for assistance with the upgrade, migration, and conversion procedures. See “Technical support” on [page 77](#).

## Migration and cutover options

There are three ways to approach migrating the IP Trunks and cutting over to IP Peer Virtual Trunks:

- pre-upgrade migration followed by gradual cutover
- post-upgrade migration followed by gradual cutover
- coordinated cutover without migration

Table 13 describes the three methods and explains the differences between them.

**Table 13**  
**Comparison of upgrade, migration, and cutover methods (Part 1 of 2)**

Pre-upgrade migration	Post-upgrade migration	Coordinated cutover
You can migrate a large Meridian 1 Internet-enabled IP Trunk 3.01 network to use Succession Signaling Servers configured as stand-alone Gatekeepers in order to take advantage of a simplified, centrally managed Network Numbering Plan in advance of the first Meridian 1 Internet-enabled system upgrade to Succession 1000M.	<p>You can begin to upgrade Meridian 1 Internet-enabled systems one by one to Succession 1000M in a large IP Trunk 3.0 network that is still using the IP Trunk node-based dialing plans.</p> <p><b>Note:</b> Upgraded systems must continue to use the IP Trunks until you have migrated the IP Trunk 3.01 network to use co-resident or stand-alone Gatekeepers.</p>	For a small network of Meridian 1 Internet-enabled systems with IP Trunk (for example, 2–4 systems), and with sufficient planning, technician resources, and length of maintenance window for IP Trunk service interruption, you may choose to skip the procedures to migrate the IP Trunk network. (You will still need to transfer or duplicate the IP Trunk node-based dialing plans to the Gatekeeper-resolved Network Numbering Plan, but you don't migrate the IP Trunks to actually use that numbering plan.)

**Table 13**  
**Comparison of upgrade, migration, and cutover methods (Part 2 of 2)**

Pre-upgrade migration	Post-upgrade migration	Coordinated cutover
<p>After the IP Trunk 3.01 network migration is complete, you can upgrade the Meridian 1 Internet-enabled systems one by one to Succession 1000M and immediately reconfigure and cut over each upgraded system to use the IP Peer Virtual Trunks and Gatekeeper-resolved Network Numbering Plan.</p> <p>The Succession Signaling Servers configured as stand-alone Gatekeepers can be reconfigured as co-resident Gatekeepers for upgraded Succession 1000M systems.</p>	<p>After you have upgraded the first two Meridian 1 Internet-enabled systems to Succession 1000M with Primary and Alternate Gatekeepers, you can start to migrate a large IP Trunk 3.01 network to use the Succession Signaling Server Gatekeepers to resolve the Network Numbering Plan. However, <i>only after the IP Trunk 3.01 network migration is complete</i> can you begin to reconfigure and cut over the systems one by one to use the IP Peer Virtual Trunks.</p>	<p>Upgrade the Meridian 1 Internet-enabled systems one by one to Succession 1000M. Continue to use IP Trunks with node-based dialing plans. Configure Primary and Alternate Gatekeepers with IP Peer Gateway endpoints and Network Numbering Plan. Verify registration of all IP Peer Trunk Gateways with the Gatekeeper. Finally, in a single maintenance window, simultaneously reconfigure and cut over all the upgraded Succession 1000M systems to use the IP Peer Virtual Trunks and Gatekeeper-resolved Network Numbering Plan. Thoroughly test the UDP and CDP dialing plans and Gatekeeper-resolved Network Numbering Plan.</p>
<p>You can immediately convert the unused IP Trunk cards in the upgraded systems to Voice Gateway Media Cards.</p>	<p>You must wait to convert the unused IP Trunk cards to Voice Gateway Media Cards until you have completed the IP Trunk 3.01 network migration and reconfigured the upgraded system to use the IP Peer Virtual Trunks.</p>	<p>You can immediately convert the unused IP Trunk cards in the upgraded systems to Voice Gateway Media Cards.</p>

## Additional considerations

A critical consideration is whether the IP Trunk nodes use local node-based dialing plans or whether the entire IP Trunk network was initially configured, or has been migrated, to use a Succession Signaling Server Gatekeeper to resolve the Network Numbering Plan into Call Signaling IP addresses for the H.323 endpoints, including IP Trunk and BCM.

When planning upgrades to Succession 1000M for an existing network of Meridian 1 Internet-enabled systems that are networked using IP Trunk (that is, ISDN-signaling IP trunks), you must consider:

- the size of the network
- the complexity of the dialing plan
- the complexity of the Network Numbering Plan
- the complexity of the public and private trunk routing
- IP Trunk interoperation with BCM systems in the network

You must also consider:

- schedule and budget
- tolerance for temporary service interruption of the IP Trunk network
- the logistics and availability of technicians to simultaneously reconfigure and cut over multiple upgraded systems to use a Gatekeeper-resolved Network Numbering Plan

If it is not practical to reconfigure and cut over all the upgraded systems simultaneously to use IP Peer Virtual Trunks, choose either a pre- or post-upgrade migration scenario. Separating the migration, upgrade, and cutover elements of the process allows you to adopt a phased approach that maintains uninterrupted service of the IP Trunk network while the Meridian 1 Internet-enabled systems are gradually upgraded to Succession 1000M systems.

For a smaller network of Meridian 1 Internet-enabled systems (for example, 2 to 4 systems) using the node-based IP Trunk dialing plans, it may be practical to upgrade all systems, one by one, to Succession 1000M with IP Trunk, and then simultaneously reconfigure and cut over all the upgraded systems to use IP Peer Networking Virtual IP Trunks within a single

maintenance window. In this case you can choose a coordinated cutover scenario.

If you have already completed the migration of a large network of IP Trunk 3.0 and BCM 3.01 nodes (using any of the migration scenarios), you no longer need to consider migration when upgrading any additional Meridian 1 Internet-enabled systems to Succession 1000M. In these post-migration cases, you can choose a gradual, system-by-system cutover scenario, to immediately reconfigure and cut over each upgraded system to use the IP Peer Virtual Trunks and Gatekeeper-resolved Network Numbering Plan.



**WARNING**

- 1** Succession 3.0 Software (Call Server 3.00V, Signaling Server 2.10.80, IP Line 3.10.80) is not backwards compatible with Meridian 1 X11 Release 25.40 and IP Line 3.0 within a single system.
- 2** Prior to cutting over any upgraded Succession 1000M system belonging to a large IP Trunk network to use IP Peer Virtual Trunks:
  - a.** All ITG Trunk nodes in the network must be upgraded to run IP Trunk release 3.01 and migrated to use the Gatekeeper-resolved Network Numbering Plan.
  - b.** BCM systems using IP trunks must be upgraded to Release 3.01 and migrated to use the Gatekeeper-resolved Network Numbering Plan.

Failure to upgrade and migrate all nodes to IP Trunk 3.01 and BCM Release 3.01 using the Gatekeeper will isolate the non-upgraded nodes in the network from the nodes using Gatekeeper for Network Numbering Plan resolution.
- 3** Software releases prior to IP Trunk 3.00 and BCM 3.01 do not interoperate with the Succession 3.0 Gatekeeper and therefore cannot support calls to and from the Succession 3.0 system using the IP Peer Virtual IP trunks.
- 4** IP Trunk 3.00 interoperates with the Succession 3.0 Gatekeeper and IP Peer Virtual IP trunk Gateways, and also with the ITG Trunk 2.xx and BCM 2.50 and 3.00 nodes in the network, because IP Trunk 3.xx supports dual methods of resolving destinations by:
  - a.** node-based dialing plan resolution for interoperation with ITG Trunk 2.xx nodes, BCM 2.50 and 3.00, and IP Trunk 3.00 nodes (if desired — for example, for Network QoS Fallback to PSTN)
  - b.** the Succession 3.0 Gatekeeper Network Numbering Plan resolution for interoperation with IP Peer Gateways, IP Trunk 3.00, and BCM 3.01.

## Upgrade scenarios

Table 14 lists the upgrade scenarios. See “Meridian 1 Internet-enabled systems upgrade procedures” on [page 91](#) for details about the tasks and procedures for each scenario.

**Table 14**  
**Upgrade scenarios (Part 1 of 4)**

Scenario	Description	General tasks
<b>Software and system upgrades</b>		
1	<p>Software and system upgrade using the pre-upgrade migration method.</p> <p>Refer to “Scenario 1: Software and system (pre-upgrade migration)” on <a href="#">page 94</a> for the detailed list of tasks and procedures.</p>	<p><b>1</b>    Install the stand-alone Succession Signaling Server at two sites and configure Primary and Alternate Gatekeepers to avoid a single point of failure.</p> <p><b>2</b>    Migrate the entire IP Trunk 3.0 network and an associated BCM network to use the Gatekeeper-resolved Network Numbering Plan.</p> <p><b>3</b>    Later, upgrade the Succession Call Server to Succession 3.0 Software, and simultaneously upgrade IP Line node to IP Line 3.1.</p> <p><b>4</b>    Cut over the upgraded Succession 1000M system to use IP Peer Virtual Trunks.</p>

**Table 14**  
**Upgrade scenarios (Part 2 of 4)**

Scenario	Description	General tasks
2	<p>Software and system upgrade using the post-upgrade migration method.</p> <p>Refer to “Scenario 2: Software and system (post-upgrade migration)” on <a href="#">page 95</a> for the detailed list of tasks and procedures.</p>	<ol style="list-style-type: none"> <li>1 Upgrade two or more Meridian 1 Internet-enabled systems to Succession 1000M systems and simultaneously upgrade IP Line node to IP Line 3.10. Continue to use IP Trunks with local node-based dialing plan.</li> <li>2 Configure Primary and Alternate Gatekeepers to avoid a single point of failure.</li> <li>3 Migrate the entire IP Trunk 3.01 network to use the Gatekeeper-resolved Network Numbering Plan.</li> <li>4 Cut over the upgraded Succession 1000M systems to use IP Peer Virtual Trunks.</li> </ol>
3	<p>Software and system upgrade using the coordinated cutover method.</p> <p>Refer to “Scenario 3: Software and system (coordinated cutover)” on <a href="#">page 96</a> for the detailed list of tasks and procedures.</p>	<ol style="list-style-type: none"> <li>1 Upgrade all Meridian 1 Internet-enabled systems to Succession 1000M. Continue to use IP Trunks with local node-based dialing plan.</li> <li>2 Coordinate the simultaneous cutover of all the upgraded Succession 1000M systems to use IP Peer Virtual Trunks and the Gatekeeper-resolved Network Numbering Plan.</li> </ol>
4	<p>Software and system upgrade of Meridian 1 systems equipped with IP Line only.</p> <p>Refer to “Scenario 4: Software and system (IP Line only)” on <a href="#">page 97</a> for the detailed list of tasks and procedures.</p>	<ol style="list-style-type: none"> <li>1 Upgrade the Meridian 1 Internet-enabled system to Succession 1000M system and simultaneously upgrade IP Line node to IP Line 3.10.</li> </ol>

**Table 14**  
**Upgrade scenarios (Part 3 of 4)**

Scenario	Description	General tasks
<b>Software-only upgrades</b>		
5	<p>Software-only upgrade to Succession 3.0 Software.</p> <p>Refer to “Scenario 5: Software only” on <a href="#">page 97</a> for the detailed list of tasks and procedures.</p>	<ol style="list-style-type: none"> <li>1 Upgrade the OTM application.</li> <li>2 Upgrade the IP Line application.</li> <li>3 Upgrade the system software to Succession 3.0 Software.</li> <li>4 Configure IP Telephony Node.</li> <li>5 Upgrade the IP Trunk application.</li> </ol>
<b>System-only upgrades</b>		
6	<p>System-only upgrade of a system whose IP Trunk 3.01 network has previously been migrated.</p> <p>Refer to “Scenario 6: System only (post-migration)” on <a href="#">page 98</a> for the detailed list of tasks and procedures.</p>	<ol style="list-style-type: none"> <li>1 Install Succession Signaling Servers on the Succession 3.0 system that is being upgraded to Succession 1000M.</li> <li>2 Perform keycode expansion on the Succession Call Server to expand the system limit for IP Peer Virtual Trunks.</li> <li>3 Cut over the upgraded Succession 1000M system to use IP Peer Virtual Trunks.</li> </ol>
7	<p>System-only upgrade using the post-upgrade migration method.</p> <p>Refer to “Scenario 7: System only (post-upgrade migration)” on <a href="#">page 98</a> for the detailed list of tasks and procedures.</p>	<ol style="list-style-type: none"> <li>1 Upgrade one or more Meridian 1 Succession 3.0 Software systems to Succession 1000M by adding one or more Succession Signaling Servers.</li> <li>2 Perform keycode expansion on the Succession Call Server to expand the system limit for IP Peer Virtual Trunks.</li> <li>3 Migrate the entire IP Trunk 3.0 network to use the Gatekeeper-resolved Network Numbering Plan.</li> <li>4 Cut over the upgraded Succession 1000M system to use IP Peer Virtual Trunks.</li> </ol>

**Table 14**  
**Upgrade scenarios (Part 4 of 4)**

Scenario	Description	General tasks
8	<p>System-only upgrade using the coordinated cutover method.</p> <p>Refer to “Scenario 8: System only (coordinated cutover)” on <a href="#">page 99</a> for the detailed list of tasks and procedures.</p>	<p><b>1</b> Upgrade one or more Meridian 1 Succession 3.0 Software systems to Succession 1000M by adding one or more Succession Signaling Servers.</p> <p><b>2</b> Configure the upgraded Succession 1000M systems to use IP Peer Virtual Trunks and Gatekeeper-resolved Network Numbering Plan.</p>
9	<p>System-only upgrade of Meridian 1 systems equipped with IP Line only.</p> <p>Refer to “Scenario 4: Software and system (IP Line only)” on <a href="#">page 97</a> for the detailed list of tasks and procedures.</p>	<p><b>1</b> Upgrade one or more Meridian 1 Succession 3.0 Software systems to Succession 1000M by adding one or more Succession Signaling Servers.</p>



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# Meridian 1 Internet-enabled systems upgrade procedures

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## Upgrade scenarios

The sequence in which the procedures must be performed depends on the upgrade scenario you are following. Refer to “Overview of upgrading to Meridian 1 Internet-enabled systems” on [page 69](#) for important information you must consider before choosing a scenario.



Table 15 lists the upgrade scenarios.

**Table 15**  
**Upgrade scenarios**

Scenario	Description
1	Software and system upgrade using the pre-upgrade migration method. Refer to “Scenario 1: Software and system (pre-upgrade migration)” on <a href="#">page 94</a> for the detailed list of tasks and procedures.
2	Software and system upgrade using the post-upgrade migration method. Refer to “Scenario 2: Software and system (post-upgrade migration)” on <a href="#">page 95</a> for the detailed list of tasks and procedures.
3	Software and system upgrade using the coordinated cutover method. Refer to “Scenario 3: Software and system (coordinated cutover)” on <a href="#">page 96</a> for the detailed list of tasks and procedures.
4	Software and system upgrade of Meridian 1 systems equipped with IP Line only. Refer to “Scenario 4: Software and system (IP Line only)” on <a href="#">page 97</a> for the detailed list of tasks and procedures.
5	Software-only upgrade to Succession 3.0 Software. Refer to “Scenario 5: Software only” on <a href="#">page 97</a> for the detailed list of tasks and procedures.
6	System-only upgrade of a Succession 3.0 Software system whose IP Trunk 3.01 network has previously been migrated. Refer to “Scenario 6: System only (post-migration)” on <a href="#">page 98</a> for the detailed list of tasks and procedures.
7	System-only upgrade using the post-upgrade migration method. Refer to “Scenario 7: System only (post-upgrade migration)” on <a href="#">page 98</a> for the detailed list of tasks and procedures.
8	System-only upgrade using the coordinated cutover method. Refer to “Scenario 8: System only (coordinated cutover)” on <a href="#">page 99</a> for the detailed list of tasks and procedures.
9	System-only upgrade of Meridian 1 systems equipped with IP Line only. Refer to “Scenario 9: System only (IP Line only)” on <a href="#">page 100</a> for the detailed list of tasks and procedures.

## List of procedures

This section provides a list of the procedures for each scenario. The procedures must be performed in the order given.

### Scenario 1: Software and system (pre-upgrade migration)

To upgrade a Meridian 1 Internet-enabled system to Succession 1000M using the pre-upgrade migration method, perform the following procedures in the order given:

- 1 “Installing and configuring the Succession Signaling Server” on [page 103](#)
- 2 “Configuring H323-ID endpoints for IP Trunk 3.01 and BCM 3.01 on the Gatekeeper” on [page 127](#)
- 3 “Configuring the Network Numbering Plan for IP Trunk 3.01 and BCM 3.01 on the Gatekeeper” on [page 132](#)
- 4 “Configuring IP Trunk Network to register with Gatekeeper and to use Gatekeeper Numbering Plan” on [page 137](#)
- 5 “Upgrading OTM 1.20 and OTM 2.00 to OTM 2.10” on [page 102](#)
- 6 “Upgrading existing IP Line 3.00 node to IP Line 3.10 loadware” on [page 106](#)
- 7 “Configuring the Succession Call Server to enable Element Manager” on [page 109](#)
- 8 “Upgrading the Succession Call Server and rebooting the system to run Succession 3.0 Software” on [page 110](#)
- 9 “Upgrading the firmware on Voice Gateway Media Cards” on [page 111](#)
- 10 “Creating the IP Telephony node in Element Manager” on [page 115](#)
- 11 “Configuring OTM to launch Element Manager” on [page 121](#)
- 12 “Configuring IP Peer Virtual Trunks on the Succession Call Server” on [page 123](#)
- 13 “Configuring and cutting over an upgraded Succession 1000M system to use IP Peer Virtual Trunks” on [page 144](#)

- 14 “Converting unused IP Trunk cards to Voice Gateway Media cards” on [page 151](#)
- 15 “Configuring/importing converted Voice Gateway Media cards into an IP Telephony node using Element Manager” on [page 156](#)

## **Scenario 2: Software and system (post-upgrade migration)**

To upgrade a Meridian 1 Internet-enabled system to Succession 1000M using the post-upgrade migration method, perform the following procedures in the order given:

- 1 “Upgrading OTM 1.20 and OTM 2.00 to OTM 2.10” on [page 102](#)
- 2 “Installing and configuring the Succession Signaling Server” on [page 103](#)
- 3 “Upgrading existing IP Line 3.00 node to IP Line 3.10 loadware” on [page 106](#)
- 4 “Configuring the Succession Call Server to enable Element Manager” on [page 109](#)
- 5 “Upgrading the Succession Call Server and rebooting the system to run Succession 3.0 Software” on [page 110](#)
- 6 “Upgrading the firmware on Voice Gateway Media Cards” on [page 111](#)
- 7 “Creating the IP Telephony node in Element Manager” on [page 115](#)
- 8 “Configuring OTM to launch Element Manager” on [page 121](#)
- 9 “Configuring IP Peer Virtual Trunks on the Succession Call Server” on [page 123](#)
- 10 “Configuring H323-ID endpoints for IP Trunk 3.01 and BCM 3.01 on the Gatekeeper” on [page 127](#)
- 11 “Configuring the Network Numbering Plan for IP Trunk 3.01 and BCM 3.01 on the Gatekeeper” on [page 132](#)
- 12 “Configuring IP Trunk Network to register with Gatekeeper and to use Gatekeeper Numbering Plan” on [page 137](#)
- 13 “Configuring and cutting over an upgraded Succession 1000M system to use IP Peer Virtual Trunks” on [page 144](#)

- 14 “Converting unused IP Trunk cards to Voice Gateway Media cards” on [page 151](#)
- 15 “Configuring/importing converted Voice Gateway Media cards into an IP Telephony node using Element Manager” on [page 156](#)

### Scenario 3: Software and system (coordinated cutover)

To upgrade a Meridian 1 Internet-enabled system to Succession 1000M using the coordinated cutover method, perform the following procedures in the order given:

- 1 “Upgrading OTM 1.20 and OTM 2.00 to OTM 2.10” on [page 102](#)
- 2 “Installing and configuring the Succession Signaling Server” on [page 103](#)
- 3 “Upgrading existing IP Line 3.00 node to IP Line 3.10 loadware” on [page 106](#)
- 4 “Configuring the Succession Call Server to enable Element Manager” on [page 109](#)
- 5 “Upgrading the Succession Call Server and rebooting the system to run Succession 3.0 Software” on [page 110](#)
- 6 “Upgrading the firmware on Voice Gateway Media Cards” on [page 111](#)
- 7 “Creating the IP Telephony node in Element Manager” on [page 115](#)
- 8 “Configuring OTM to launch Element Manager” on [page 121](#)
- 9 “Configuring IP Peer Virtual Trunks on the Succession Call Server” on [page 123](#)
- 10 “Configuring and cutting over an upgraded Succession 1000M system to use IP Peer Virtual Trunks” on [page 144](#)
- 11 “Converting unused IP Trunk cards to Voice Gateway Media cards” on [page 151](#)
- 12 “Configuring/importing converted Voice Gateway Media cards into an IP Telephony node using Element Manager” on [page 156](#)

## Scenario 4: Software and system (IP Line only)

To upgrade a Meridian 1 Internet-enabled system equipped with IP Line only to Succession 1000M, perform the following procedures in the order given:

- 1 “Upgrading OTM 1.20 and OTM 2.00 to OTM 2.10” on [page 102](#)
- 2 “Installing and configuring the Succession Signaling Server” on [page 103](#)
- 3 “Upgrading existing IP Line 3.00 node to IP Line 3.10 loadware” on [page 106](#)
- 4 “Configuring the Succession Call Server to enable Element Manager” on [page 109](#)
- 5 “Upgrading the Succession Call Server and rebooting the system to run Succession 3.0 Software” on [page 110](#)
- 6 “Upgrading the firmware on Voice Gateway Media Cards” on [page 111](#)
- 7 “Creating the IP Telephony node in Element Manager” on [page 115](#)
- 8 “Configuring OTM to launch Element Manager” on [page 121](#)

## Scenario 5: Software only

To upgrade a Meridian 1 Internet-enabled system to Succession 3.0 Software, perform the following procedures in the order given:

- 1 “Upgrading OTM 1.20 and OTM 2.00 to OTM 2.10” on [page 102](#)
- 2 “Upgrading existing IP Line 3.00 node to IP Line 3.10 loadware” on [page 106](#)
- 3 “Configuring the Succession Call Server to enable Element Manager” on [page 109](#)
- 4 “Upgrading the Succession Call Server and rebooting the system to run Succession 3.0 Software” on [page 110](#)
- 5 “Upgrading the firmware on Voice Gateway Media Cards” on [page 111](#)
- 6 “Configuring IP Telephony node using OTM 2.10” on [page 114](#)
- 7 “Upgrading ITG Trunk 2.xx and IP Trunk 3.00 nodes to IP Trunk 3.01 using OTM 2.10” on [page 114](#)

## Scenario 6: System only (post-migration)

To upgrade a previously migrated Meridian 1 Succession 3.0 system to Succession 1000M, perform the following procedures in the order given:

- 1 “Installing and configuring the Succession Signaling Server” on [page 103](#)
- 2 “Performing keycode expansion on the Succession Call Server to enable IP Peer Virtual Trunks” on [page 115](#)
- 3 “Creating the IP Telephony node in Element Manager” on [page 115](#)
- 4 “Configuring OTM to launch Element Manager” on [page 121](#)
- 5 “Configuring IP Peer Virtual Trunks on the Succession Call Server” on [page 123](#)
- 6 “Configuring and cutting over an upgraded Succession 1000M system to use IP Peer Virtual Trunks” on [page 144](#)
- 7 “Converting unused IP Trunk cards to Voice Gateway Media cards” on [page 151](#)
- 8 “Configuring/importing converted Voice Gateway Media cards into an IP Telephony node using Element Manager” on [page 156](#)

## Scenario 7: System only (post-upgrade migration)

To upgrade a Meridian 1 Succession 3.0 system to Succession 1000M using the post-upgrade migration method, perform the following procedures in the order given:

- 1 “Installing and configuring the Succession Signaling Server” on [page 103](#)
- 2 “Performing keycode expansion on the Succession Call Server to enable IP Peer Virtual Trunks” on [page 115](#)
- 3 “Creating the IP Telephony node in Element Manager” on [page 115](#)
- 4 “Configuring OTM to launch Element Manager” on [page 121](#)
- 5 “Configuring IP Peer Virtual Trunks on the Succession Call Server” on [page 123](#)

- 6 “Configuring H323-ID endpoints for IP Trunk 3.01 and BCM 3.01 on the Gatekeeper” on [page 127](#)
- 7 “Configuring the Network Numbering Plan for IP Trunk 3.01 and BCM 3.01 on the Gatekeeper” on [page 132](#)
- 8 “Configuring IP Trunk Network to register with Gatekeeper and to use Gatekeeper Numbering Plan” on [page 137](#)
- 9 “Configuring and cutting over an upgraded Succession 1000M system to use IP Peer Virtual Trunks” on [page 144](#)
- 10 “Converting unused IP Trunk cards to Voice Gateway Media cards” on [page 151](#)
- 11 “Configuring/importing converted Voice Gateway Media cards into an IP Telephony node using Element Manager” on [page 156](#)

## Scenario 8: System only (coordinated cutover)

To upgrade a Meridian 1 Succession 3.0 system to Succession 1000M using the coordinated cutover method, perform the following procedures in the order given:

- 1 “Installing and configuring the Succession Signaling Server” on [page 103](#)
- 2 “Performing keycode expansion on the Succession Call Server to enable IP Peer Virtual Trunks” on [page 115](#)
- 3 “Creating the IP Telephony node in Element Manager” on [page 115](#)
- 4 “Configuring OTM to launch Element Manager” on [page 121](#)
- 5 “Configuring IP Peer Virtual Trunks on the Succession Call Server” on [page 123](#)
- 6 “Configuring and cutting over an upgraded Succession 1000M system to use IP Peer Virtual Trunks” on [page 144](#)
- 7 “Converting unused IP Trunk cards to Voice Gateway Media cards” on [page 151](#)
- 8 “Configuring/importing converted Voice Gateway Media cards into an IP Telephony node using Element Manager” on [page 156](#)

## Scenario 9: System only (IP Line only)

To upgrade a Meridian 1 Succession 3.0 system equipped with IP Line only to Succession 1000M, perform the following procedures in the order given:

- 1 “Installing and configuring the Succession Signaling Server” on [page 103](#)
- 2 “Creating the IP Telephony node in Element Manager” on [page 115](#)
- 3 “Configuring OTM to launch Element Manager” on [page 121](#)

## Summary of scenarios

Table 16 summarizes the upgrade scenarios, for ease of reference. Table 17 on [page 101](#) summarizes and compares the sequence of procedures for each scenario, by indicating the order in which the procedures are performed.

**Table 16**  
**Summary of upgrade scenarios**

Scenario	Description
1	Software and system upgrade using the pre-upgrade migration method.
2	Software and system upgrade using the post-upgrade migration method.
3	Software and system upgrade using the coordinated cutover method.
4	Software and system upgrade of Meridian 1 systems equipped with IP Line only.
5	Software-only upgrade to Succession 3.0 Software.
6	System-only upgrade of a Succession 3.0 Software system whose IP Trunk 3.01 network has previously been migrated.
7	System-only upgrade using the post-upgrade migration method.
8	System-only upgrade using the coordinated cutover method.
9	System-only upgrade of Meridian 1 systems equipped with IP Line only.
<b>Note:</b> Refer to Table 17 on <a href="#">page 101</a> for a high-level description of the scenarios.	




**Table 17**  
**Order of procedures, by scenario**

Procedure	Scenario/Sequence								
	1	2	3	4	5	6	7	8	9
Upgrading OTM 1.20 and OTM 2.00 to OTM 2.10 ( <a href="#">p. 102</a> )	5	1	1	1	1				
Installing and configuring the Succession Signaling Server ( <a href="#">p. 103</a> )	1	2	2	2		1	1	1	1
Upgrading existing IP Line 3.00 node to IP Line 3.10 loadware ( <a href="#">p. 106</a> )	6	3	3	3	2				
Configuring the Succession Call Server to enable Element Manager ( <a href="#">p. 109</a> )	7	4	4	4	3				
Upgrading the Succession Call Server and rebooting the system to run Succession 3.0 Software ( <a href="#">p. 110</a> )	8	5	5	5	4				
Upgrading the firmware on Voice Gateway Media Cards ( <a href="#">p. 111</a> )	9	6	6	6	5				
Configuring IP Telephony node using OTM 2.10 ( <a href="#">p. 114</a> ) and/or Upgrading ITG Trunk 2.xx and IP Trunk 3.00 nodes to IP Trunk 3.01 using OTM 2.10 ( <a href="#">p. 114</a> )					6				
Performing keycode expansion on the Succession Call Server to enable IP Peer Virtual Trunks ( <a href="#">p. 115</a> )						2	2	2	
Creating the IP Telephony node in Element Manager ( <a href="#">p. 115</a> )	10	7	7	7		3	3	3	2
Configuring OTM to launch Element Manager ( <a href="#">p. 121</a> )	11	8	8	8		4	4	4	3
Configuring IP Peer Virtual Trunks on the Succession Call Server ( <a href="#">p. 123</a> )	12	9	9			5	5	5	
Configuring H323-ID endpoints for IP Trunk 3.01 and BCM 3.01 on the Gatekeeper ( <a href="#">p. 127</a> )	2	10					6		
Configuring the Network Numbering Plan for IP Trunk 3.01 and BCM 3.01 on the Gatekeeper ( <a href="#">p. 132</a> )	3	11					7		
Configuring IP Trunk Network to register with Gatekeeper and to use Gatekeeper Numbering Plan ( <a href="#">p. 137</a> )	4	12					8		
Configuring and cutting over an upgraded Succession 1000M system to use IP Peer Virtual Trunks ( <a href="#">p. 144</a> )	13	13	10			6	9	6	
Converting unused IP Trunk cards to Voice Gateway Media cards ( <a href="#">p. 151</a> )	14	14	11			7	10	7	
Configuring/importing converted Voice Gateway Media cards into an IP Telephony node using Element Manager ( <a href="#">p. 156</a> )	15	15	12			8	11	8	

## Procedures

The following are the procedures required to complete the upgrade scenarios. Not all the procedures are required for each scenario, and the order in which the procedures are performed is critical. Refer to the applicable “List of procedures” or to the “Order of procedures, by scenario” on [page 101](#) for the sequence you must follow.



**WARNING**

Before beginning the system upgrade, ensure that a PWD1 username and password has been configured on the Succession Call Server. If there is no PWD1 username and password, configure them in LD 17. This is necessary to enable login to the Voice Gateway Media Cards and Succession Signaling Server.

### Upgrading OTM 1.20 and OTM 2.00 to OTM 2.10

Refer to *Optivity Telephony Manager: Installation and Configuration* (553-3001-230) to upgrade OTM 1.20 and OTM 2.00 to OTM 2.10.

**Note:** If Optivity Telephony Manager (OTM) has already been upgraded on your network, you do not need to perform this procedure.

#### Next steps

Upon completion of this procedure, choose one of the following:

For this scenario...	Go to...
1    Software and system (pre-upgrade migration)	“Upgrading existing IP Line 3.00 node to IP Line 3.10 loadware” on <a href="#">page 106</a>
2    Software and system (post-upgrade migration)	“Installing and configuring the Succession Signaling Server” on <a href="#">page 103</a>
3    Software and system (coordinated cutover)	“Installing and configuring the Succession Signaling Server” on <a href="#">page 103</a>

For this scenario...	Go to...
4 Software and system (IP Line only)	"Installing and configuring the Succession Signaling Server" on <a href="#">page 103</a>
5 Software only	"Upgrading existing IP Line 3.00 node to IP Line 3.10 loadware" on <a href="#">page 106</a>

## Installing and configuring the Succession Signaling Server

Prior to beginning this procedure, obtain all Signaling Server IP addresses and ELAN and TLAN connection information.

When connecting a Signaling Server Leader to the ELAN and TLAN of a system that has an existing IP Line node, you must take care not to disrupt service on the existing IP Line node. To avoid service interruption you must prevent the new Signaling Server Leader from interacting with the existing IP Line node until the node has been appropriately reconfigured (as outlined in step 3).

### Procedure 2

#### Installing and configuring the Succession Signaling Server (Part 1 of 3)

Step	Action
1	<p>Install the Succession Signaling Servers (hardware) and connect all Signaling Servers to the ELAN and TLAN. Refer to:</p> <ul style="list-style-type: none"><li>• <i>Signaling Server: Installation and Configuration</i> (553-3001-212), section titled "Hardware installation"</li><li>• <i>Succession 1000 System: Installation and Configuration</i> (553-3031-210), section titled "System connections"</li></ul>

## Procedure 2

### Installing and configuring the Succession Signaling Server (Part 2 of 3)

Step	Action
2	<p>Insert the Succession 3.0 Signaling Server software installation CD into the Succession Signaling Server. Refer to <i>Signaling Server: Installation and Configuration</i> (553-3001-212), section titled “<i>Software installation</i>”.</p> <p>In general:</p> <ol style="list-style-type: none"> <li>1 Reset the Succession Signaling Server.</li> <li>2 Follow the online instructions displayed by the Install Tool to prepare the hard disk for installation.</li> <li>3 From the main menu, choose option (a) to perform a complete Succession Signaling Server software installation (includes Voice Gateway Media Card loadware, Internet Telephone firmware, and basic Succession Signaling Server configuration).</li> <li>4 Proceed to step 3 when prompted for Basic Signaling Server Configuration.</li> </ol> <p><b>Note:</b> If this step does not automatically take you into Basic Signaling Server Configuration, then manually choose main menu option (e), Basic Signaling Server Configuration, and proceed to step 3.</p>
3	<p>Configure the first Succession Signaling Server as Leader of the IP Telephony node during the installation. To prevent conflict with the Node ID and Node IP address of an existing IP Line node:</p> <ol style="list-style-type: none"> <li>1 Configure a temporary Node ID (for example, 9999).</li> <li>2 Configure a temporary Node IP address (for example, the same as the Succession Signaling Server Leader TLAN IP address).</li> <li>3 Configure the Primary (active side) Succession Call Server ELAN IP address when prompted. This action is not required for stand-alone Gatekeeper.</li> </ol>
4	<p>Install and configure any additional Succession Signaling Servers as Followers in the IP Telephony node.</p>

**Procedure 2****Installing and configuring the Succession Signaling Server (Part 3 of 3)**

Step	Action
5	<p>Reboot the Succession Signaling Server Leader after the software installation and basic configuration is complete.</p> <p><b>Note:</b> Do not reboot the Succession Signaling Server Followers. They will be rebooted in a later procedure, after they have been manually configured in Element Manager (see “Creating the IP Telephony node in Element Manager” on <a href="#">page 115</a>, step 7).</p>
6	<p>Log in to the Succession Signaling Server from a TTY where:</p> <p>login ID (default) = <b>admin</b> password (default) = <b>cseadmin</b></p> <p><b>Note:</b> You will be prompted to change the Succession Signaling Server password after logging in.</p>
7	<p>Use ping to verify the ELAN and TLAN connection by pinging hosts on the ELAN and TLAN and on other subnets of the Customer Enterprise Network (CLAN).</p> <p>Refer to “Verifying a successful configuration” in <i>Succession 1000 System: Installation and Configuration</i> (553-3031-210), section titled “Verifying a successful configuration”</p>

### Next steps

Upon completion of this procedure, choose one of the following:

For this scenario...	Go to...
1 Software and system (pre-upgrade migration)	“Configuring H323-ID endpoints for IP Trunk 3.01 and BCM 3.01 on the Gatekeeper” on <a href="#">page 127</a>  <b>Note:</b> If IP Trunk migration is already completed, or if there is no existing IP Trunk network, or if the existing IP Trunk network is small, proceed to “Upgrading existing IP Line 3.00 node to IP Line 3.10 loadware” on <a href="#">page 106</a>
2 Software and system (post-upgrade migration)	“Upgrading existing IP Line 3.00 node to IP Line 3.10 loadware” on <a href="#">page 106</a>
3 Software and system (coordinated cutover)	“Upgrading existing IP Line 3.00 node to IP Line 3.10 loadware” on <a href="#">page 106</a>
4 Software and system (IP Line only)	“Upgrading existing IP Line 3.00 node to IP Line 3.10 loadware” on <a href="#">page 106</a>
6 System only (post-migration)	“Performing keycode expansion on the Succession Call Server to enable IP Peer Virtual Trunks” on <a href="#">page 115</a>
7 System only (post-upgrade migration)	“Performing keycode expansion on the Succession Call Server to enable IP Peer Virtual Trunks” on <a href="#">page 115</a>
8 System only (coordinated cutover)	“Performing keycode expansion on the Succession Call Server to enable IP Peer Virtual Trunks” on <a href="#">page 115</a>
9 System only (IP Line only)	“Creating the IP Telephony node in Element Manager” on <a href="#">page 115</a>

## Upgrading existing IP Line 3.00 node to IP Line 3.10 loadware

In general, this procedure describes how to download the IP Line 3.10 application software onto the existing IP Line 3.00 or IP Line 2.2 cards. This upgrade can be achieved by using OTM 2.10 IP Line service that you use to manage the existing IP Line 3.00 or IP Line 2.xx node. For more detailed information, refer to the section on configuring IP telephony nodes using

OTM 2.10 in *IP Line: Description, Installation, and Operation* (553-3001-365), section titled “*Configuration of IP telephony nodes using OTM 2.1.*”

### IMPORTANT!

- The Succession Call Server and IP Line nodes within a single system must be upgraded simultaneously to Succession 3.0.
- Succession 3.0 Software (Call Server X21 Release 3.00V, Signaling Server 2.10.80, IP Line 3.10.80) is not backwards compatible with Meridian 1 X11 Release 25.40 and IP Line 3.00 within a single system.

### Procedure 3

#### Upgrading existing IP Line 3.00 node to IP Line 3.10 software using OTM 2.10 (Part 1 of 2)

Step	Action
1	<p>Download the Succession 3.0 IP Line 3.10 software (IPL310xx.p2 and IPL310xx.sa) by doing one of the following:</p> <ol style="list-style-type: none"> <li>1 Download from the Nortel Networks Software Download web page to the OTM Server. OR</li> <li>2 Place the Succession Signaling Server Succession 3.0 Software CD in the drive of the OTM Server. OR</li> <li>3 Use FTP client on OTM to download the IP Line 3.10 software (located on the Succession Signaling Server in '/u/fw' directory).</li> </ol> <p><b>Note:</b> In the loadware filename, “xx” represents the issue.</p>
2	<p>Do one of the following:</p> <ol style="list-style-type: none"> <li>1 Use OTM IP Line service to select the node. or</li> <li>2 To select all cards in the node of the same host type (e.g., Succession Media Card or ITG-P), right-click the node and choose <b>Synchronize I Transmit</b>, click the appropriate radio buttons for the selected node or selected cards, and check the option box for <b>Card software</b>.</li> </ol>

### Procedure 3

#### Upgrading existing IP Line 3.00 node to IP Line 3.10 software using OTM 2.10 (Part 2 of 2)

Step	Action
3	<p>Browse for the IP Line 3.10 software file for the appropriate host type (Succession Media Card (IPL310xx.sa) or ITG-P (IPL310xx.p2)) and click <b>Open</b>. Click the <b>Start Transmit</b> button on the Transmit Options dialog box to start transmitting.</p> <p><b>Note 1:</b> Monitor progress to ensure the IP Line 3.10 software is successfully transmitted to all selected cards.</p> <p><b>Note 2:</b> In the loadware filename, “xx” represents the issue.</p> <p>Do <b>not</b> reset cards until you are ready to run Succession 3.0 Software on the Succession Call Server. You will be instructed to reset the cards in the next procedure.</p>

### Next steps

Upon completion of this procedure, choose one of the following:

For this scenario...	Go to...
1 Software and system (pre-upgrade migration)	“Configuring the Succession Call Server to enable Element Manager” on <a href="#">page 109</a>
2 Software and system (post-upgrade migration)	“Configuring the Succession Call Server to enable Element Manager” on <a href="#">page 109</a>
3 Software and system (coordinated cutover)	“Configuring the Succession Call Server to enable Element Manager” on <a href="#">page 109</a>
4 Software and system (IP Line only)	“Configuring the Succession Call Server to enable Element Manager” on <a href="#">page 109</a>
5 Software only	“Configuring the Succession Call Server to enable Element Manager” on <a href="#">page 109</a>



## Configuring the Succession Call Server to enable Element Manager

In Succession 3.0 Software, Login Name must be enabled on the call server in order for the Succession Call Server PWD1, PWD2, and PDT2 to synchronize with the Succession Signaling Server and the Voice Gateway Media Cards when the PBX link to each host comes up. Element Manager also depends on this setting.

### Procedure 4

#### Configuring the Succession Call Server to enable operation of Element Manager

Step	Action
1	Configure a minimum of two (preferably four) pseudo TTYs (PTY) on the Succession Call Server in LD 17 using <b>ADAN</b> command.
2	Enable the Login Name feature on the Succession Call Server by configuring <b>LNAME = YES</b> in LD 17 for data block <b>TYPE PWD</b> .
3	Verify the Login Name and Password (in LD 22 using print type <b>PWD</b> ) that you must use for logging into Element Manager. You can use PWD01, PWD02, or LAPW login names and passwords to log in to Element Manager.
4	Verify the Primary (active CP side) IP address and Secondary (inactive CP side) IP address on the Succession Call Server using LD 117 <b>PRT ELNK</b> command or LD 137 <b>STAT ELNK</b> command.
5	Save configuration changes permanently in LD 43 by entering the command: <b>EDD</b>  <b>Note:</b> EDD also synchronizes Call Server PWD01 Login Name and Password with the Succession Signaling Servers and Voice Gateway Media Cards if their pbxLinks to the Succession Call Server are established.

### Next steps

Upon completion of this procedure, choose one of the following:

For this scenario...	Go to...
1 Software and system (pre-upgrade migration)	"Upgrading the Succession Call Server and rebooting the system to run Succession 3.0 Software" on <a href="#">page 110</a>
2 Software and system (post-upgrade migration)	"Upgrading the Succession Call Server and rebooting the system to run Succession 3.0 Software" on <a href="#">page 110</a>
3 Software and system (coordinated cutover)	"Upgrading the Succession Call Server and rebooting the system to run Succession 3.0 Software" on <a href="#">page 110</a>
4 Software and system (IP Line only)	"Upgrading the Succession Call Server and rebooting the system to run Succession 3.0 Software" on <a href="#">page 110</a>
5 Software only	"Upgrading the Succession Call Server and rebooting the system to run Succession 3.0 Software" on <a href="#">page 110</a>

## Upgrading the Succession Call Server and rebooting the system to run Succession 3.0 Software

### IMPORTANT!

The call server and IP Line nodes within a single system must be upgraded simultaneously to Succession 3.0 Software.

**Note:** Succession 3.0 Software (Call Server X21 Release 3.00V, Signaling Server 2.10.80, IP Line 3.10.80) is not backwards compatible with Meridian 1 X11 Release 25.40 and IP Line 3.00 within a single system.

Upgrade the Call Server software to Succession 3.0 Software. Refer to *Large System: Upgrade Procedures* (553-3021-258).

Option 61C and 81C can be upgraded in split mode to minimize service interruption. If upgrading in this mode, do not force the Succession 3.0 CP

side to become active until the existing IP Line 3.00 node has been upgraded to IP Line 3.10 loadware, and the IP Line cards have been reset and are in the process of simultaneously rebooting.

### Next steps

Upon completion of this procedure, choose one of the following:

For this scenario...	Go to...
1 Software and system (pre-upgrade migration)	"Upgrading the firmware on Voice Gateway Media Cards" on <a href="#">page 111</a>
2 Software and system (post-upgrade migration)	"Upgrading the firmware on Voice Gateway Media Cards" on <a href="#">page 111</a>
3 Software and system (coordinated cutover)	"Upgrading the firmware on Voice Gateway Media Cards" on <a href="#">page 111</a>
4 Software and system (IP Line only)	"Upgrading the firmware on Voice Gateway Media Cards" on <a href="#">page 111</a>
5 Software only	"Upgrading the firmware on Voice Gateway Media Cards" on <a href="#">page 111</a>

## Upgrading the firmware on Voice Gateway Media Cards

You may need to upgrade the Succession Media Card or ITG-P card firmware as part of the software upgrade. Use the **IPL>firmwareVersionShow** command, as indicated in the following procedure, to display the firmware version and determine if you must upgrade the firmware.

**Note:** You must upgrade the Succession Media Card or ITG-P card firmware if the following message displays repeatedly on the Command Line Interface (CLI) of the upgraded or converted Voice Gateway Media Card running IP Line 3.10:

```
(A07) Poll message not received from 8051XA
```

**Procedure 5**  
**Upgrading the firmware on Voice Gateway Media Cards (Part 1 of 2)**

Step	Action				
1	<p>Verify the 8051XA firmware version of each Succession Media Card and ITG-P card:</p> <ol style="list-style-type: none"> <li>1 Telnet to each card and log in to <code>IPL&gt;shell</code>.</li> <li>2 Check the firmware version by entering:  <code>IPL&gt;firmwareVersionShow</code></li> </ol>				
2	<p>Upgrade the firmware if necessary.</p> <table> <tr> <th>If...</th><th>Then...</th></tr> <tr> <td>Succession Media Card firmware version is less than 6.7...</td><td> <ol style="list-style-type: none"> <li>1 Access the <a href="http://www.nortelnetworks.com">www.nortelnetworks.com</a> website.</li> <li>2 Select <b>Support   Software Downloads   Product Family   Succession   IP Line</b>.</li> <li>3 Download the "SMC v6.7 Firmware Upgrade" document.</li> <li>4 Download "SMC Release 6.7 Firmware".</li> <li>5 Follow the procedures in the "SMC v6.7 Firmware Upgrade" document to upgrade the 8051XA firmware and reboot the Succession Media Card.</li> </ol> <p><b>Note:</b> Perform this procedure on the IP Line cards one by one. Disable the IP Line card in LD 32 using the <b>DISI</b> command, upgrade the firmware, reboot, and then enable each card before performing the 8051XA firmware upgrade on the next card.</p> </td></tr> </table>	If...	Then...	Succession Media Card firmware version is less than 6.7...	<ol style="list-style-type: none"> <li>1 Access the <a href="http://www.nortelnetworks.com">www.nortelnetworks.com</a> website.</li> <li>2 Select <b>Support   Software Downloads   Product Family   Succession   IP Line</b>.</li> <li>3 Download the "SMC v6.7 Firmware Upgrade" document.</li> <li>4 Download "SMC Release 6.7 Firmware".</li> <li>5 Follow the procedures in the "SMC v6.7 Firmware Upgrade" document to upgrade the 8051XA firmware and reboot the Succession Media Card.</li> </ol> <p><b>Note:</b> Perform this procedure on the IP Line cards one by one. Disable the IP Line card in LD 32 using the <b>DISI</b> command, upgrade the firmware, reboot, and then enable each card before performing the 8051XA firmware upgrade on the next card.</p>
If...	Then...				
Succession Media Card firmware version is less than 6.7...	<ol style="list-style-type: none"> <li>1 Access the <a href="http://www.nortelnetworks.com">www.nortelnetworks.com</a> website.</li> <li>2 Select <b>Support   Software Downloads   Product Family   Succession   IP Line</b>.</li> <li>3 Download the "SMC v6.7 Firmware Upgrade" document.</li> <li>4 Download "SMC Release 6.7 Firmware".</li> <li>5 Follow the procedures in the "SMC v6.7 Firmware Upgrade" document to upgrade the 8051XA firmware and reboot the Succession Media Card.</li> </ol> <p><b>Note:</b> Perform this procedure on the IP Line cards one by one. Disable the IP Line card in LD 32 using the <b>DISI</b> command, upgrade the firmware, reboot, and then enable each card before performing the 8051XA firmware upgrade on the next card.</p>				

**Procedure 5****Upgrading the firmware on Voice Gateway Media Cards (Part 2 of 2)**

Step	Action				
	<table><tr><th>If...</th><th>Then...</th></tr><tr><td>ITG-P card firmware version is less than 5.7...</td><td><ol style="list-style-type: none"><li>1 Access the <a href="http://www.nortelnetworks.com">www.nortelnetworks.com</a> website.</li><li>2 Choose <b>Support   Software Downloads   Product Family   Succession   IP Line</b>.</li><li>3 Download the "ITG-Pentium Rel. 5.7 Firmware Upgrade and Instruction" document.</li><li>4 Download "ITG-Pentium Release 5.7 Firmware".</li></ol><p>Follow the procedures in the "ITG-Pentium Rel. 5.7 Firmware Upgrade and Instruction" document to upgrade the 8051XA firmware and reboot the ITG-P card.</p><p><b>Note:</b> Perform this procedure on the IP Line cards one by one. Disable the IP Line card in LD 32 using the <b>DISI</b> command, upgrade the firmware, reboot, and then enable each card before performing the 8051XA firmware upgrade on the next card.</p></td></tr></table>	If...	Then...	ITG-P card firmware version is less than 5.7...	<ol style="list-style-type: none"><li>1 Access the <a href="http://www.nortelnetworks.com">www.nortelnetworks.com</a> website.</li><li>2 Choose <b>Support   Software Downloads   Product Family   Succession   IP Line</b>.</li><li>3 Download the "ITG-Pentium Rel. 5.7 Firmware Upgrade and Instruction" document.</li><li>4 Download "ITG-Pentium Release 5.7 Firmware".</li></ol> <p>Follow the procedures in the "ITG-Pentium Rel. 5.7 Firmware Upgrade and Instruction" document to upgrade the 8051XA firmware and reboot the ITG-P card.</p> <p><b>Note:</b> Perform this procedure on the IP Line cards one by one. Disable the IP Line card in LD 32 using the <b>DISI</b> command, upgrade the firmware, reboot, and then enable each card before performing the 8051XA firmware upgrade on the next card.</p>
If...	Then...				
ITG-P card firmware version is less than 5.7...	<ol style="list-style-type: none"><li>1 Access the <a href="http://www.nortelnetworks.com">www.nortelnetworks.com</a> website.</li><li>2 Choose <b>Support   Software Downloads   Product Family   Succession   IP Line</b>.</li><li>3 Download the "ITG-Pentium Rel. 5.7 Firmware Upgrade and Instruction" document.</li><li>4 Download "ITG-Pentium Release 5.7 Firmware".</li></ol> <p>Follow the procedures in the "ITG-Pentium Rel. 5.7 Firmware Upgrade and Instruction" document to upgrade the 8051XA firmware and reboot the ITG-P card.</p> <p><b>Note:</b> Perform this procedure on the IP Line cards one by one. Disable the IP Line card in LD 32 using the <b>DISI</b> command, upgrade the firmware, reboot, and then enable each card before performing the 8051XA firmware upgrade on the next card.</p>				

### Next steps

Upon completion of this procedure, choose one of the following:

For this scenario...	Go to...
1 Software and system (pre-upgrade migration)	"Creating the IP Telephony node in Element Manager" on <a href="#">page 115</a>
2 Software and system (post-upgrade migration)	"Creating the IP Telephony node in Element Manager" on <a href="#">page 115</a>
3 Software and system (coordinated cutover)	"Creating the IP Telephony node in Element Manager" on <a href="#">page 115</a>
4 Software and system (IP Line only)	"Creating the IP Telephony node in Element Manager" on <a href="#">page 115</a>
5 Software only	"Configuring IP Telephony node using OTM 2.10" on <a href="#">page 114</a> and/or "Upgrading ITG Trunk 2.xx and IP Trunk 3.00 nodes to IP Trunk 3.01 using OTM 2.10" on <a href="#">page 114</a>

## Configuring IP Telephony node using OTM 2.10

Refer to "Configuration of IP Telephony node using OTM 2.1" in *IP Line: Description, Installation, and Operation* (553-3001-365) to configure IP Telephony node using OTM 2.10.

### Next steps

Upon completion of this procedure, go to "Upgrading ITG Trunk 2.xx and IP Trunk 3.00 nodes to IP Trunk 3.01 using OTM 2.10".

## Upgrading ITG Trunk 2.xx and IP Trunk 3.00 nodes to IP Trunk 3.01 using OTM 2.10

Refer to the procedure "Upgrading IP Trunk 3.0 (and later) software" in *IP Trunk: Description, Installation, and Operation* (553-3001-363) to upgrade all ITG Trunk 2.xx and IP Trunk 3.00 nodes to IP Trunk 3.01 using OTM 2.10.

IP Trunk 3.01 is an important maintenance up-issue that includes improvements to the Trunk Anti-Tromboning (TAT) feature to be fully compatible with the improved TAT feature in Succession 3.0 Software.

Configure Trunk Route Optimization (TRO) and TAT for IP Trunk route to avoid voice quality degradation due to tandem IP Trunk connections.

### **Next steps**

Upon completion of this procedure, Scenario 5 (Software only) is at an end.

## **Performing keycode expansion on the Succession Call Server to enable IP Peer Virtual Trunks**

Refer to the appropriate NTPs listed below to perform keycode expansion on the Succession Call Server to enable IP Peer Virtual Trunks:

- *Large System: Installation and Configuration (553-3021-210)*
- *Small System: Installation and Configuration (553-3011-210)*

### **Next steps**

Upon completion of this procedure, choose one of the following:

For this scenario...	Go to...
6 System only (post-migration)	"Creating the IP Telephony node in Element Manager" on <a href="#">page 115</a>
7 System only (post-upgrade migration)	"Creating the IP Telephony node in Element Manager" on <a href="#">page 115</a>
8 System only (coordinated cutover)	"Creating the IP Telephony node in Element Manager" on <a href="#">page 115</a>

## **Creating the IP Telephony node in Element Manager**

If a large multi-card IP Line node exists, it saves time and minimizes user error to import the IP Line node configuration into the Element Manager IP Telephony node configuration.

Refer to *IP Line: Description, Installation, and Operation* (553-3001-365) and *IP Peer Networking* (553-3001-213) during this procedure.

**Note:** After you have created the IP Telephony node in Element Manager, you must add the configuration data of the Signaling Server Leader and Followers and any new Voice Gateway Media Cards to the IP Telephony node.

**Procedure 6**  
**Creating IP Telephony node in Element Manager (Part 1 of 5)**

Step	Action
1	Open a web browser on the management PC and go to: <b>http://&lt;Signaling Server Leader ELAN or TLAN IP address&gt;</b> <b>Note:</b> Only Microsoft Internet Explorer v.6.0.2600, or later, is supported.
2	Log in to Element Manager via the Signaling Server Leader using the Succession Call Server login name and password for PW01, PW02, or appropriately configured LAPW.
3	Import the IP Line node configuration files from the Leader card of the existing IP Line node by choosing <b>Configuration   IP Telephony</b> from the Navigation Tree and clicking on the <b>Import Node</b> button. Refer to <i>IP Line: Description, Installation, and Operation</i> (553-3001-365), section titled "Import node configuration from an existing node" for more detail.



**Procedure 6****Creating IP Telephony node in Element Manager (Part 2 of 5)**

Step	Action				
4	<p>Edit the node configuration from Element Manager. Refer to <i>IP Line: Description, Installation, and Operation</i> (553-3001-365), section titled “Import node configuration from an existing node.”</p> <ol style="list-style-type: none"> <li>1 Add the Signaling Server Leader to the node and configure the Signaling Server Leader as a Primary, Alternate, or Failsafe Gatekeeper.</li> </ol> <p><b>Note:</b> There is only one Primary Gatekeeper and one Alternate Gatekeeper in the network. All other Signaling Servers are configured as Failsafe Gatekeepers.</p> <ol style="list-style-type: none"> <li>2 Add any additional Signaling Server Followers to the node.</li> <li>3 Enable Line TPS on Signaling Server Leader and Followers.</li> <li>4 Enable IP Peer VTRK Gateway on the Signaling Server Leader and Followers.</li> <li>5 Configure H323-ID for IP Peer VTRK Gateway (for example, “<b>upgraded_system_IPP-GW</b>”).</li> <li>6 Configure Primary and Alternate Gatekeeper IP addresses for IP Peer Virtual Trunks:</li> </ol> <table border="1"> <thead> <tr> <th>If...</th><th>Then...</th></tr> </thead> <tbody> <tr> <td>The local IP Telephony node contains the Primary Gatekeeper for the Gatekeeper zone...</td><td> <ul style="list-style-type: none"> <li>• The Primary Gatekeeper IP address for the IP Peer Gateway must equal the TLAN IP address of the Signaling Server Leader hosting the Primary Gatekeeper in the local IP Telephony node.</li> <li>• The Alternate Gatekeeper IP address for the IP Peer Gateway must equal the TLAN IP address of the remote Signaling Server Leader hosting the Alternate Gatekeeper.</li> </ul> </td></tr> </tbody> </table>	If...	Then...	The local IP Telephony node contains the Primary Gatekeeper for the Gatekeeper zone...	<ul style="list-style-type: none"> <li>• The Primary Gatekeeper IP address for the IP Peer Gateway must equal the TLAN IP address of the Signaling Server Leader hosting the Primary Gatekeeper in the local IP Telephony node.</li> <li>• The Alternate Gatekeeper IP address for the IP Peer Gateway must equal the TLAN IP address of the remote Signaling Server Leader hosting the Alternate Gatekeeper.</li> </ul>
If...	Then...				
The local IP Telephony node contains the Primary Gatekeeper for the Gatekeeper zone...	<ul style="list-style-type: none"> <li>• The Primary Gatekeeper IP address for the IP Peer Gateway must equal the TLAN IP address of the Signaling Server Leader hosting the Primary Gatekeeper in the local IP Telephony node.</li> <li>• The Alternate Gatekeeper IP address for the IP Peer Gateway must equal the TLAN IP address of the remote Signaling Server Leader hosting the Alternate Gatekeeper.</li> </ul>				

## Procedure 6

### Creating IP Telephony node in Element Manager (Part 3 of 5)

Step	Action						
	<p>(Step 4, Action 6 continued...)</p> <table> <tr> <th>If...</th><th>Then...</th></tr> <tr> <td>The local IP Telephony node contains the Alternate Gatekeeper for the Gatekeeper zone...</td><td> <ul style="list-style-type: none"> <li>The Alternate Gatekeeper IP address for the IP Peer Gateway must equal the TLAN IP address of the Signaling Server Leader hosting the Alternate Gatekeeper in the local IP Telephony node.</li> <li>The Primary Gatekeeper IP address for the IP Peer Gateway must equal the TLAN IP address of the remote Signaling Server Leader hosting the Primary Gatekeeper.</li> </ul> </td></tr> <tr> <td>The local IP Telephony node does not contain the Primary or Alternate Gatekeeper for the Gatekeeper zone...</td><td> <ul style="list-style-type: none"> <li>The Primary Gatekeeper IP address for the IP Peer Gateway must equal the TLAN IP address of the remote Signaling Server Leader hosting the Primary Gatekeeper.</li> <li>The Alternate Gatekeeper IP address for the IP Peer Gateway must equal the TLAN IP address of the remote Signaling Server Leader hosting the Alternate Gatekeeper.</li> </ul> </td></tr> </table> <p>7 Add the new Voice Gateway Media Cards to the IP Telephony node (if required by System and Engineering).</p> <p>8 Click the <b>Save/Transfer</b> button to save the configuration to the Succession Call Server and to transfer the configuration to the Succession Signaling Server and cards.</p>	If...	Then...	The local IP Telephony node contains the Alternate Gatekeeper for the Gatekeeper zone...	<ul style="list-style-type: none"> <li>The Alternate Gatekeeper IP address for the IP Peer Gateway must equal the TLAN IP address of the Signaling Server Leader hosting the Alternate Gatekeeper in the local IP Telephony node.</li> <li>The Primary Gatekeeper IP address for the IP Peer Gateway must equal the TLAN IP address of the remote Signaling Server Leader hosting the Primary Gatekeeper.</li> </ul>	The local IP Telephony node does not contain the Primary or Alternate Gatekeeper for the Gatekeeper zone...	<ul style="list-style-type: none"> <li>The Primary Gatekeeper IP address for the IP Peer Gateway must equal the TLAN IP address of the remote Signaling Server Leader hosting the Primary Gatekeeper.</li> <li>The Alternate Gatekeeper IP address for the IP Peer Gateway must equal the TLAN IP address of the remote Signaling Server Leader hosting the Alternate Gatekeeper.</li> </ul>
If...	Then...						
The local IP Telephony node contains the Alternate Gatekeeper for the Gatekeeper zone...	<ul style="list-style-type: none"> <li>The Alternate Gatekeeper IP address for the IP Peer Gateway must equal the TLAN IP address of the Signaling Server Leader hosting the Alternate Gatekeeper in the local IP Telephony node.</li> <li>The Primary Gatekeeper IP address for the IP Peer Gateway must equal the TLAN IP address of the remote Signaling Server Leader hosting the Primary Gatekeeper.</li> </ul>						
The local IP Telephony node does not contain the Primary or Alternate Gatekeeper for the Gatekeeper zone...	<ul style="list-style-type: none"> <li>The Primary Gatekeeper IP address for the IP Peer Gateway must equal the TLAN IP address of the remote Signaling Server Leader hosting the Primary Gatekeeper.</li> <li>The Alternate Gatekeeper IP address for the IP Peer Gateway must equal the TLAN IP address of the remote Signaling Server Leader hosting the Alternate Gatekeeper.</li> </ul>						

**Procedure 6****Creating IP Telephony node in Element Manager (Part 4 of 5)**

Step	Action
5	<p>Configure the new Voice Gateway TNs on the Succession Call Server. Do one of the following:</p> <ol style="list-style-type: none"><li>1 From the Navigation Tree in Element Manager, choose <b>Configuration   IP Telephony</b>.</li></ol> <p><b>Result:</b> Node Summary Page appears.</p> <ol style="list-style-type: none"><li>a. Click on the arrowhead.</li><li>b. Click on the appropriate Voice Gateway Media Card.</li><li>c. Click on <code>ADD VGW CHANNELS</code>.</li></ol> <p><b>Note:</b> If an Alert Box appears, you need to log in to the command line of the call server, and use LD 22 to determine if Package 167 is enabled or restricted:</p> <pre>REQ PRT TYPE: 167</pre> <p>If it is restricted, obtain a new keycode to enable GPRI Package 167.</p> <p>Then, in LD 73 perform:</p> <pre>REQ NEW TYPE: DDB</pre> <p>and carriage return through, accepting all the defaults.</p> <p>or</p> <ol style="list-style-type: none"><li>2 Use LD 14 from the Succession Call Server CLI to configure the new Voice Gateway TNs.</li></ol>

**Procedure 6****Creating IP Telephony node in Element Manager (Part 5 of 5)**

Step	Action
6	<p>Clear Leader information on the former Leader card:</p> <ol style="list-style-type: none"><li>1 Using Telnet or a TTY, log in to the technician level shell (<b>IPL&gt;</b>) of the former Leader card of the imported IP Line node.</li><li>2 Enter the CLI command <b>clearLeader</b> to clear the Leader flag from the card.</li><li>3 Issue <b>disTPS</b> command to gracefully disable the Terminal Proxy Server and allow the Internet Telephones to reregister to another IP Line card when idle. Be sure to monitor the progress by using the <b>tpsShow</b> or <b>isetShow</b> commands.</li><li>4 Use LD 32 <b>DISI</b> command to gracefully disable the Voice Gateway TNs of the card when idle on the Succession Call Server. Be sure to monitor the progress using LD 32 <b>STAT</b> command, or <b>IPT&gt; vgwShow</b> command.</li><li>5 Reset the former Leader card by entering the CLI command <b>cardReset</b> in the <b>IPL&gt;</b> shell.</li></ol>
7	Reboot the Signaling Server Leader and all Signaling Server Followers.
8	Verify that the Signaling Server Leader functions as the new Leader of the IP Telephony upon rebooting (for example, <b>oam&gt;electShow</b> ; <b>censusShow</b> ; <b>tpsShow</b> ).
9	<p>Log in to the Signaling Server Leader and enter:</p> <p><b>oam&gt; loadBalance</b></p> <p><b>Result:</b> All Internet Telephones will be unregistered from the Voice Gateway Media Card and reregistered with the Signaling Server Leader. This may take up to several minutes, resulting in the following message:</p> <p><b>loadbalance has been completed.</b></p>
10	<p>Enable the Voice Gateway TNs of the former Leader card using LD 32. The command is:</p> <p><b>ENLC c</b></p>

## Next steps

Upon completion of this procedure, choose one of the following:

For this scenario...	Go to...
1 Software and system (pre-upgrade migration)	"Scenario 1: Software and system (pre-upgrade migration)" on <a href="#">page 94</a>
2 Software and system (post-upgrade migration)	"Scenario 2: Software and system (post-upgrade migration)" on <a href="#">page 95</a>
3 Software and system (coordinated cutover)	"Scenario 3: Software and system (coordinated cutover)" on <a href="#">page 96</a>
4 Software and system (IP Line only)	"Scenario 4: Software and system (IP Line only)" on <a href="#">page 97</a>
5 Software only	"Scenario 5: Software only" on <a href="#">page 97</a>
6 System only (post-migration)	"Scenario 6: System only (post-migration)" on <a href="#">page 98</a>
7 System only (post-upgrade migration)	"Scenario 7: System only (post-upgrade migration)" on <a href="#">page 98</a>
8 System only (coordinated cutover)	"Scenario 8: System only (coordinated cutover)" on <a href="#">page 99</a>
9 System only (IP Line only)	"Scenario 9: System only (IP Line only)" on <a href="#">page 100</a>

## Configuring OTM to launch Element Manager

For details on how to configure OTM to launch Element Manager, refer to *Optivity Telephony Manager: System Administration* (553-3001-330).

**Note:** When you check the option box in **System Properties** in the OTM 2.10 Navigator to indicate that you have added a Signaling Server to an upgraded Meridian 1 system, OTM shows the System Type as Succession 1000M Multi Group (Option 81C), Single Group (Option 61C), Half Group (Option 51C), Cabinet (Option 11C), or Chassis (Option 11C Mini).

If you attempt to open an IP Line 3.10 node for a Succession 1000M system in OTM 2.10 IP Line management service, OTM will automatically log you into Element Manager and open at the Element Manager **Configuration | IP Telephony | Node Summary** web page, from which you can edit or create IP Telephony nodes. If the node already exists in Element Manager, you can edit the IP Telephony node from this page. If the node does not already exist, you can create the IP Telephony node in Element Manager manually or by importing the node configuration data from an existing IP Line 3.00 node.

When the node configuration is changed by adding or deleting elements, or by changing the ELAN IP addresses, from Element Manager you must go to the OTM IP Line configuration service and retrieve the node properties for that node. (This is required for scheduling the collection of Operational Measurement reports.)

### Next steps

Upon completion of this procedure, choose one of the following:

For this scenario...	Go to...
1 Software and system (pre-upgrade migration)	"Configuring IP Peer Virtual Trunks on the Succession Call Server" on <a href="#">page 123</a>
2 Software and system (post-upgrade migration)	"Configuring IP Peer Virtual Trunks on the Succession Call Server" on <a href="#">page 123</a>
3 Software and system (coordinated cutover)	"Configuring IP Peer Virtual Trunks on the Succession Call Server" on <a href="#">page 123</a>
4 Software and system (IP Line only)	END OF PROCEDURES FOR THIS SCENARIO

For this scenario...	Go to...
6 System only (post-migration)	"Configuring IP Peer Virtual Trunks on the Succession Call Server" on <a href="#">page 123</a>
7 System only (post-upgrade migration)	"Configuring IP Peer Virtual Trunks on the Succession Call Server" on <a href="#">page 123</a>
8 System only (coordinated cutover)	"Configuring IP Peer Virtual Trunks on the Succession Call Server" on <a href="#">page 123</a>
9 System only (IP Line only)	END OF PROCEDURES FOR THIS SCENARIO

## Configuring IP Peer Virtual Trunks on the Succession Call Server

In general, this procedure involves configuring the IP Peer Virtual Trunks (IPP VTRK) as described in *IP Peer Networking* (553-3001-213) and verifying the correct configuration and operational state of the IPP VTRK and the IP Peer H.323 Gateway.

### Procedure 7

#### Configuring IP Peer Virtual Trunks on the Succession Call Server (Part 1 of 4)

Step	Action
1	Configure the IP Peer Virtual Trunk as per <i>IP Peer Networking</i> (553-3001-213), section titled " <i>Configuring IP Peer networking.</i> "
2	Verify the operational state of the IP Peer Virtual Trunk D-Channel in LD 96 using the command:  <b>STAT DCH &lt;DCH No.&gt;</b>

## Procedure 7

### Configuring IP Peer Virtual Trunks on the Succession Call Server (Part 2 of 4)

Step	Action
3	<p>Verify the operational state of the IP Peer Virtual Trunk Route, Members, and D-Channel using LD 32 and the following commands:</p> <ul style="list-style-type: none"><li>on the Succession Call Server: <b>STVT &lt;Cust. No.&gt; &lt;Route No.&gt; &lt;Starting No.&gt;&lt;No.of Members&gt;</b> <b>DSRM &lt;Cust. No.&gt; &lt;Route No.&gt;</b> <b>ENRM &lt;Cust. No.&gt; &lt;Route No.&gt;</b></li><li>on the Succession Signaling Server: <b>oam&gt; vtrkShow</b></li></ul>



**Procedure 7****Configuring IP Peer Virtual Trunks on the Succession Call Server (Part 3 of 4)**

Step	Action				
4	<p>Verify the Gatekeeper registration state of the IP Peer Gateway by doing one of the following:</p> <ol style="list-style-type: none"> <li>1 Use the Succession Signaling Server command <b>oam&gt; npmShow</b>.</li> <li>2 Use the Gatekeeper pages in Element Manager and select <b>GK Active DB Admin   View Endpoints</b> from the Navigation Tree.</li> </ol> <table border="1"> <thead> <tr> <th>If...</th><th>Then...</th></tr> </thead> <tbody> <tr> <td>IP Peer Gateway is not registered with Gatekeeper...</td><td> <ol style="list-style-type: none"> <li>1 Verify that the Gateway H323-ID matches the Gatekeeper H323AliasName using <b>GK Active DB Admin</b>.</li> <li>2 Verify the Primary and Alternate Gatekeeper IP address using Element Manager: <ul style="list-style-type: none"> <li>— Click <b>Configuration   IP Telephony</b> from the Navigation Tree.</li> <li>— Click the <b>Edit</b> button associated with the IP Telephony node. The <b>Edit</b> webpage displays.</li> <li>— Click <b>Gatekeeper</b> to display the Primary Gatekeeper and Alternate Gatekeeper IP addresses.</li> </ul> </li> </ol> <p>The Primary Gatekeeper and Alternate Gatekeeper IP addresses must equal the host Succession Signaling Server's TLAN IP address for each gatekeeper.</p> </td></tr> </tbody> </table>	If...	Then...	IP Peer Gateway is not registered with Gatekeeper...	<ol style="list-style-type: none"> <li>1 Verify that the Gateway H323-ID matches the Gatekeeper H323AliasName using <b>GK Active DB Admin</b>.</li> <li>2 Verify the Primary and Alternate Gatekeeper IP address using Element Manager: <ul style="list-style-type: none"> <li>— Click <b>Configuration   IP Telephony</b> from the Navigation Tree.</li> <li>— Click the <b>Edit</b> button associated with the IP Telephony node. The <b>Edit</b> webpage displays.</li> <li>— Click <b>Gatekeeper</b> to display the Primary Gatekeeper and Alternate Gatekeeper IP addresses.</li> </ul> </li> </ol> <p>The Primary Gatekeeper and Alternate Gatekeeper IP addresses must equal the host Succession Signaling Server's TLAN IP address for each gatekeeper.</p>
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**Procedure 7**  
**Configuring IP Peer Virtual Trunks on the Succession Call Server (Part 4 of 4)**

Step	Action				
	<table> <tr> <th>If...</th><th>Then...</th></tr> <tr> <td>The registration is successful...</td><td> Perform outgoing calls from this node using route ACOD.   <b>Note:</b> Configure <code>RDB ISDN CTYP = CDP or LOC</code>, etc. to match the Type of Number of Gatekeeper Numbering Plan entries for outgoing test calls. </td></tr> </table>	If...	Then...	The registration is successful...	Perform outgoing calls from this node using route ACOD.  <b>Note:</b> Configure <code>RDB ISDN CTYP = CDP or LOC</code> , etc. to match the Type of Number of Gatekeeper Numbering Plan entries for outgoing test calls.
If...	Then...				
The registration is successful...	Perform outgoing calls from this node using route ACOD.  <b>Note:</b> Configure <code>RDB ISDN CTYP = CDP or LOC</code> , etc. to match the Type of Number of Gatekeeper Numbering Plan entries for outgoing test calls.				

### Next steps

Upon completion of this procedure, choose one of the following:

For this scenario...	Go to...
1 Software and system (pre-upgrade migration)	"Configuring and cutting over an upgraded Succession 1000M system to use IP Peer Virtual Trunks" on <a href="#">page 144</a>
2 Software and system (post-upgrade migration)	"Configuring H323-ID endpoints for IP Trunk 3.01 and BCM 3.01 on the Gatekeeper" on <a href="#">page 127</a>
3 Software and system (coordinated cutover)	"Configuring and cutting over an upgraded Succession 1000M system to use IP Peer Virtual Trunks" on <a href="#">page 144</a>
6 System only (post-migration)	"Configuring and cutting over an upgraded Succession 1000M system to use IP Peer Virtual Trunks" on <a href="#">page 144</a>
7 System only (post-upgrade migration)	"Configuring H323-ID endpoints for IP Trunk 3.01 and BCM 3.01 on the Gatekeeper" on <a href="#">page 127</a>
8 System only (coordinated cutover)	"Configuring and cutting over an upgraded Succession 1000M system to use IP Peer Virtual Trunks" on <a href="#">page 144</a>

## Configuring H323-ID endpoints for IP Trunk 3.01 and BCM 3.01 on the Gatekeeper

In general, this procedure, together with the procedures "Configuring the Network Numbering Plan for IP Trunk 3.01 and BCM 3.01 on the Gatekeeper" on [page 132](#) and "Configuring IP Trunk Network to register with Gatekeeper and to use Gatekeeper Numbering Plan" on [page 137](#), migrates a network of IP Trunk 3.01 nodes and Business Communication Manager (BCM) 3.01 systems from using the node-based Dialing Plan resolution to using the Gatekeeper Network Numbering Plan resolution.

The node-based Dialing Plan resolution identifies destination endpoints by statically configured IP addresses, while the Gatekeeper Network Numbering Plan resolution identifies origination and destination endpoints by H323-IDs or H323AliasNames configured in the Gatekeeper.

The Gatekeeper dynamically obtains the call signaling IP address of each endpoint when the endpoint registers with the Gatekeeper using its preconfigured H323-ID.

Currently, migration procedures are not automated. To migrate a network to use the Gatekeeper Network Numbering Plan, do one of the following:

- Inspect and then manually copy and paste the IP Trunk Dialing Plan data from the OTM IP Trunk Service **Properties** sheets to the Gatekeeper endpoint and numbering plan database.
- Use FTP to get the IP Trunk Dialing Plan text file (C:\table\dptable.1) from the IP Trunk card. Inspect and then manually copy and paste the IP Trunk Dialing Plan data from the text file to the Gatekeeper endpoint and numbering plan database. Consult the *IP Trunk 3.0 Expert Guide* to interpret the format of the data in the text file “dptable.1”.

You must create an endpoint H323-ID for the selected IP Trunk node and assign it to the appropriate CDP domain for each Destination Node name that exists in the Dialing Plan for that IP Trunk node.

Keep notes to track your progress. Note any discrepancies, which may include:

- Endpoints whose node capability is not SL1 or SL1ESN5 (for example, H.323V2, ISGF, ESGF, CSE)
- Nodes that have Quality of Service (QoS) Monitoring enabled (QoS Monitoring is not supported by Gatekeeper)

## Procedure 8

### Configuring H323-ID endpoints for IP Trunk 3.01 and BCM 3.01 on the Gatekeeper (Part 1 of 4)

Step	Action
1	Log in to OTM.
2	From the OTM Navigator, choose <b>Services   ITG ISDN Trunk</b> .
3	Select an IP Trunk node that has a typical Dialing Plan for the IP Trunk network that is migrating to a Gatekeeper-based Network Numbering Plan.
4	Open the Dialing Plan for the selected node by choosing <b>Configuration   Node   Dialing Plan</b> (or right-click on the node and choose <b>Dialing Plan</b> ) and sort by node name.
5	Using the same OTM PC, open the web browser.
6	In the browser <b>Address</b> field, enter the ELAN or TLAN IP address, followed by “/gk” to access the Gatekeeper pages in Element Manager, and click <b>Go</b> . For example:  <b>http://&lt;Succession Signaling Server IP address&gt;/gk</b>
7	Log in to the Gatekeeper pages in Element Manager, using:  User = <b>gkadmin</b> Password = <b>gkadmin</b>  A welcome webpage is displayed.

**Procedure 8****Configuring H323-ID endpoints for IP Trunk 3.01 and BCM 3.01 on the Gatekeeper  
(Part 2 of 4)**

Step	Action
8	<p>From the Navigation Tree at the left of the webpage, select <b>GK Standby DB Admin   CDP Domains   Create</b>.</p> <p>The <b>Create CDP domain</b> webpage is displayed.</p> <ol style="list-style-type: none"><li>1 In the <b>CDP Domain Name</b> textbox, enter a CDP domain name that describes the campus or network that shares a Coordinated Dialing Plan.</li><li>2 Click the <b>Create</b> button to save the CDP domain.</li></ol>
9	<p>From the Navigation Tree, select <b>GK Standby DB Admin   H323 Endpoints   Add H323 Endpoint</b>. (This is in preparation for the Copy and Paste steps that follow.)</p> <p>The <b>Create H323 Endpoint</b> webpage is displayed. Keep this page open.</p>
10	<p>In the <b>OTM ITG Dialing Plan</b> window, double-click on the first Destination Node in the dialing plan.</p> <p><b>Result:</b> A <b>Properties</b> sheet for the Destination Node in this dialing plan opens.</p> <ol style="list-style-type: none"><li>1 In the <b>General</b> tab, edit the Node Name to create a consistent format for the H323-IDs so that the type of endpoint is clearly indicated. For example:  <b>Rich_Gal-C_IPT</b> <b>Rich_Gal-C_IPP-GW</b> <b>Rich_Card_BCM</b>  where: Rich = Site Name Gal = System Name IPT (IP Trunk 3.01), IPP-GW (IP Peer VTRK Gateway), BCM (BCM 3.01) = Type of endpoint</li><li>2 Click the <b>Apply</b> button to save the edited node name.</li></ol>
11	<p>Copy the edited node name to the Clipboard and close the Destination Node <b>Properties</b> sheet.</p>

**Procedure 8****Configuring H323-ID endpoints for IP Trunk 3.01 and BCM 3.01 on the Gatekeeper  
(Part 3 of 4)**

Step	Action
12	<p>In the <b>Create H323 Endpoint</b> webpage in Element Manager, paste the edited node name into the <b>H323AliasName</b> field for the IP Trunk 3.01 endpoint that you are adding to the Gatekeeper database.</p> <p><b>Note:</b> If this endpoint uses CDP Steering Codes in the Dialing Plan, then you must select the appropriate CDP domain name from the drop-down list box.</p>
13	<p>Click the <b>Create H323</b> button to save the H323AliasName or H323-ID in the Gatekeeper database.</p>
14	<p>Repeat steps 10–13 to add an endpoint H323-ID for every Destination Node that appears in the Dialing Plan for the selected IP Trunk node.</p>
15	<p>Once you have added an endpoint H323-ID for every Destination Node, you must then add an endpoint H323-ID for the IP Trunk node of the Dialing Plan from which you have been working:</p> <ol style="list-style-type: none"> <li>1 Close the Dialing Plan from which you have been working.</li> <li>2 Select another IP Trunk node that has a typical Dialing Plan and open the Dialing Plan.</li> <li>3 Find the Destination Node name for the node whose Dialing Plan you were previously working from.</li> <li>4 Perform steps 10–13.</li> </ol>
16	<p>Select <b>Gatekeeper Standby DB   H323 Endpoints   View Endpoints</b> from the Navigation Tree to view the newly added endpoints. Note any discrepancies while you inspect and compare the Dialing Plan of at least two typical nodes in OTM.</p> <p>Investigate and resolve any discrepancies. Discrepancies may include:</p> <ul style="list-style-type: none"> <li>• Endpoints whose node capability is not SL1 or SL1ESN5 (e.g., H.323V2, ISGF, ESGF, CSE)</li> <li>• Nodes that have Quality of Service (QoS) Monitoring enabled (QoS Monitoring is not supported by Gatekeeper)</li> </ul> <p><b>Note:</b> Contact Nortel Technical Support (see <a href="#">page 77</a>) if you require assistance to resolve discrepancies.</p>

## Procedure 8

### Configuring H323-ID endpoints for IP Trunk 3.01 and BCM 3.01 on the Gatekeeper (Part 4 of 4)

Step	Action
17	In the Gatekeeper pages of Element Manager, add endpoint H323-IDs for any new Destination Node names not found in the first typical Dialing Plan selected.
18	Verify that you have added an endpoint H323-ID in the Gatekeeper for each Destination Node in the Dialing Plans of the IP Trunk 3.01 network (may include BCM 3.xx destination nodes).

### Next steps

Upon completion of this procedure, choose one of the following:

For this scenario...	Go to...
1 Software and system (pre-upgrade migration)	"Configuring the Network Numbering Plan for IP Trunk 3.01 and BCM 3.01 on the Gatekeeper" on <a href="#">page 132</a>
2 Software and system (post-upgrade migration)	"Configuring the Network Numbering Plan for IP Trunk 3.01 and BCM 3.01 on the Gatekeeper" on <a href="#">page 132</a>
7 System only (post-upgrade migration)	"Configuring the Network Numbering Plan for IP Trunk 3.01 and BCM 3.01 on the Gatekeeper" on <a href="#">page 132</a>

## Configuring the Network Numbering Plan for IP Trunk 3.01 and BCM 3.01 on the Gatekeeper

In general, this procedure details the steps to configure the Network Numbering Plan for existing IP Trunk 3.01 nodes and BCM 3.0x systems in Gatekeeper.



Keep notes to track your progress. Note any discrepancies, which may include:

- Digits deleted and inserted (Gatekeeper does not provide digit manipulation capability)
- NXX Dial Plan entry types (Gatekeeper does not support NXX Dial Plan types)

To work around discrepancies, you must create additional Digit Manipulation Tables and Route List Blocks on the host Meridian 1 system, and modify CDP and UDP network translations. Enter the manipulated number in the Gatekeeper Numbering Plan.

**Procedure 9**  
**Configuring Network Numbering Plan for IP Trunk 3.01 and BCM 3.01 on the Gatekeeper**  
**(Part 1 of 4)**

Step	Action
1	Log in to OTM.
2	From the OTM Navigator, choose <b>Services   ITG ISDN Trunk</b> .
3	Select an IP Trunk node that has a typical Dialing Plan for the IP Trunk network that is migrating to a Gatekeeper-based Network Numbering Plan.  <b>Note:</b> Select the IP Trunk node used in “Configuring H323-ID endpoints for IP Trunk 3.01 and BCM 3.01 on the Gatekeeper” on <a href="#">page 127</a> .
4	Open the Dialing Plan for the selected node by choosing <b>Configuration   Node   Dialing Plan</b> (or right-click on the node and choose <b>Dialing Plan</b> ) and sort by node name.
5	Using the same OTM PC, open the web browser.
6	In the browser <b>Address</b> field, enter the ELAN or TLAN IP address, followed by “/gk” to the Gatekeeper pages in Element Manager, and click <b>Go</b> . For example:  <b>http://&lt;Host Succession Signaling Server IP address&gt;/gk</b>
7	Log in to the Gatekeeper pages in Element Manager, using:  User = <b>gkadmin</b> Password = <b>gkadmin</b>

**Procedure 9**  
**Configuring Network Numbering Plan for IP Trunk 3.01 and BCM 3.01 on the Gatekeeper**  
**(Part 2 of 4)**

Step	Action
8	<p>From the Navigation Tree, select <b>GK Standby DB Admin   Numbering Plan Entries   Create</b>.</p> <p><b>Result:</b> The <b>Select an Endpoint to add an Entry</b> webpage opens. Leave this webpage open in preparation for the Copy and Paste steps that follow.</p>
9	<p>In OTM, double-click the first Destination Node in the Dialing Plan.</p> <p><b>Result:</b> The <b>ITG Dialing Plan - Remote Node Properties</b> sheet opens.</p> <p><b>Note:</b> If you are repeating steps 9–13, double-click the next Destination Node in the Dialing Plan sequence.</p>
10	<p>Click on the <b>Digits Dialed</b> tab located on the <b>ITG Dialing Plan - Remote Node Properties</b> sheet and:</p> <ol style="list-style-type: none"> <li>1 Select the first item in the list of Dialing Plan entries.</li> </ol> <p><b>Note:</b> If you are repeating steps 10–12, select the next Dialing Plan entry in the list.</p> <ol style="list-style-type: none"> <li>2 Copy the Dialing Plan digits to the Clipboard.</li> </ol> <p><b>Note:</b> Take note of the Dialing Plan type. You will use the Dialing Plan type information in the next step.</p> <ol style="list-style-type: none"> <li>3 If there are more Dialing Plan entries, leave the <b>Properties</b> sheet open for later use. Otherwise, click <b>Cancel</b> to close.</li> </ol>

**Procedure 9**  
**Configuring Network Numbering Plan for IP Trunk 3.01 and BCM 3.01 on the Gatekeeper**  
**(Part 3 of 4)**

Step	Action
11	<p>From the Navigation Tree, select <b>GK Standby DB Admin   Numbering Plan Entries   Create</b>. The <b>Select an Endpoint to Add an Entry</b> webpage is displayed.</p> <ol style="list-style-type: none"><li>1 Select the corresponding endpoint from the <b>Endpoint</b> drop-down list box.</li><li>2 Click the <b>Select</b> button.</li></ol> <p><b>Result:</b> The <b>Add Entry</b> page opens.</p> <ol style="list-style-type: none"><li>3 In the <b>Numbering Plan Entries</b> area:<ol style="list-style-type: none"><li>a. Paste the Dialing Plan digits into the <b>Number</b> field.</li><li>b. From the <b>Type</b> drop-down list box, select the type of number that corresponds to the OTM Dialing Plan type.</li></ol></li><li>4 Click the <b>Create</b> button to add the entry to the Gatekeeper Numbering Plan for this endpoint.</li></ol>
12	<p>Repeat steps 10 and 11 until you have copied and pasted all the Dialing Plan entries for that node in the OTM Dialing Plan.</p> <p><b>Note:</b> Remember to take note of the Dialing Plan type for each Dialing Plan entry you are copying.</p>
13	<p>Repeat steps 9–12 until you have copied and pasted all the Dialing Plan entries for all the Destination Nodes in the OTM Dialing Plan.</p>

**Procedure 9**  
**Configuring Network Numbering Plan for IP Trunk 3.01 and BCM 3.01 on the Gatekeeper**  
**(Part 4 of 4)**

Step	Action
14	<p>Once you have added all the Dialing Plan entries for all the Destination Nodes in the typical IP Trunk node's Dialing Plan from which you have been working, you must then add the Dialing Plan entries for that node itself:</p> <ol style="list-style-type: none"> <li>1 Close the Dialing Plan for the node from which you have been working.</li> <li>2 Right-click on another typical node and open its Dialing Plan.</li> <li>3 Find the Destination Node for the typical IP Trunk node from which you were working, and double-click to open its <b>ITG Dialing Plan - Remote Node Properties</b> sheet.</li> <li>4 Perform steps 10–12 until you have copied and pasted all the Dialing Plan entries for the Destination Node of the typical IP Trunk node from which you were working.</li> </ol>
15	<p>From The Navigation tree, select <b>Standby DB Admin   NumberingPlanEntries   View Entries by Endpoint</b>.</p> <p><b>Result:</b> The <b>Select an Endpoint to view Entries on Standby Database</b> webpage displays.</p> <ol style="list-style-type: none"> <li>1 Select an endpoint to view from the <b>Endpoint</b> drop-down list box.</li> <li>2 Click the <b>Select</b> button.</li> </ol> <p><b>Result:</b> The <b>View Standby Database Endpoint Entries</b> webpage displays.</p> <ol style="list-style-type: none"> <li>3 Compare the entries contained on the <b>View Standby Database Endpoint Entries</b> page for the selected endpoint against the ITG Dialing Plan table entry for the corresponding Destination Node.</li> <li>4 Repeat actions 1–3, selecting the next endpoint until you have viewed and compared all the entries for the endpoints and all the Destination Nodes.</li> </ol>
16	<p>From The Navigation tree, select <b>GK Standby DB Admin   Database Actions</b> and click <b>SingleStepCutoverCommit</b>.</p> <p><b>Result:</b> The endpoint and numbering plan database is copied to <b>GK Active DB Admin</b> so that it is used by the Gatekeeper to register endpoints and to resolve the telephone numbers in Admission Request (ARQ) messages from endpoints.</p>

## Next steps

Upon completion of this procedure, choose one of the following:

For this scenario...	Go to...
1 Software and system (pre-upgrade migration)	"Configuring IP Trunk Network to register with Gatekeeper and to use Gatekeeper Numbering Plan" on <a href="#">page 137</a>
2 Software and system (post-upgrade migration)	"Configuring IP Trunk Network to register with Gatekeeper and to use Gatekeeper Numbering Plan" on <a href="#">page 137</a>
7 System only (post-upgrade migration)	"Configuring IP Trunk Network to register with Gatekeeper and to use Gatekeeper Numbering Plan" on <a href="#">page 137</a>

## Configuring IP Trunk Network to register with Gatekeeper and to use Gatekeeper Numbering Plan

The following procedure assumes that the procedures "Configuring H323-ID endpoints for IP Trunk 3.01 and BCM 3.01 on the Gatekeeper" on [page 127](#) and "Configuring the Network Numbering Plan for IP Trunk 3.01 and BCM 3.01 on the Gatekeeper" on [page 132](#) have been completed.

**Note:** A similar procedure must be performed on BCM 3.01 systems. Refer to the appropriate BCM NTPs.



### CAUTION — Service Interruption

To avoid service interruption, do not perform this procedure during high traffic volume.

**Procedure 10**  
**Configuring IP Trunk Network to register with Gatekeeper and to use the Gatekeeper**  
**Numbering Plan (Part 1 of 6)**

Step	Action
1	Log in to OTM.
2	From the OTM Navigator, choose <b>Services   ITG ISDN Trunk</b> .
3	<p>You must disable QOS Fallback to PSTN in the Dialing Plans of all IP Telephony nodes that are being migrated to use the Gatekeeper:</p> <ol style="list-style-type: none"> <li>1 In OTM, open the Dialing Plan for the first IP Telephony node.</li> <li>2 Open each Destination Node in the Dialing Plan of that IP Telephony node, and uncheck the <b>QOS Fallback PSTN</b> feature. Click the <b>OK</b> button to save.</li> <li>3 Repeat actions 1 and 2 for the next IP Telephony node in sequence.</li> <li>4 After you have changed all the Dialing Plans for every node to be migrated, click the <b>Synchronize/Transmit</b> button.</li> </ol>
4	Select the first IP Trunk node to be reconfigured to use the Gatekeeper Numbering Plan.
5	<p>Right-click on the node to be reconfigured and choose <b>Gatekeeper</b>.</p> <p><b>Result:</b> The <b>ITG Node Gatekeeper Properties</b> sheet opens.</p>

**Procedure 10****Configuring IP Trunk Network to register with Gatekeeper and to use the Gatekeeper Numbering Plan (Part 2 of 6)**

Step	Action				
6	<p>Select the appropriate <b>Gatekeeper Option</b> from the drop-down list box.</p> <p><b>Note:</b> If OTM 2.10 Navigator has been configured with Gatekeeper zones, then select <b>Use Gatekeeper Zone information from OTM Navigator</b>. Otherwise, select <b>Use Independent Gatekeeper</b>.</p> <table><tr><th>If...</th><th>Then...</th></tr><tr><td>You chose <b>Use Gatekeeper Zone information from OTM Navigator...</b></td><td><ol style="list-style-type: none"><li>1 Select the <b>Gatekeeper Zone</b> from the drop-down list box.</li><li>2 In the <b>H323-ID</b> field, enter the H323-ID for this IP Trunk 3.01 endpoint. The endpoint H323-ID must match the H323AliasName previously configured on the Gatekeeper for this IP Trunk 3.01 H323 endpoint. For example: "Host Meridian 1 system_IPT".</li><li>3 Click the <b>OK</b> button.</li></ol><p><b>Note:</b> To determine the previously configured H323-ID, log in to the Gatekeeper pages in Element Manager and select <b>GK Standby DB Admin   H323 Endpoints   View Endpoints</b> from the Navigation Tree. Select the endpoint corresponding with the IP Trunk node you are configuring. Click on <b>AliasName</b> then copy and paste into the OTM H323-ID field.</p></td></tr></table>	If...	Then...	You chose <b>Use Gatekeeper Zone information from OTM Navigator...</b>	<ol style="list-style-type: none"><li>1 Select the <b>Gatekeeper Zone</b> from the drop-down list box.</li><li>2 In the <b>H323-ID</b> field, enter the H323-ID for this IP Trunk 3.01 endpoint. The endpoint H323-ID must match the H323AliasName previously configured on the Gatekeeper for this IP Trunk 3.01 H323 endpoint. For example: "Host Meridian 1 system_IPT".</li><li>3 Click the <b>OK</b> button.</li></ol> <p><b>Note:</b> To determine the previously configured H323-ID, log in to the Gatekeeper pages in Element Manager and select <b>GK Standby DB Admin   H323 Endpoints   View Endpoints</b> from the Navigation Tree. Select the endpoint corresponding with the IP Trunk node you are configuring. Click on <b>AliasName</b> then copy and paste into the OTM H323-ID field.</p>
If...	Then...				
You chose <b>Use Gatekeeper Zone information from OTM Navigator...</b>	<ol style="list-style-type: none"><li>1 Select the <b>Gatekeeper Zone</b> from the drop-down list box.</li><li>2 In the <b>H323-ID</b> field, enter the H323-ID for this IP Trunk 3.01 endpoint. The endpoint H323-ID must match the H323AliasName previously configured on the Gatekeeper for this IP Trunk 3.01 H323 endpoint. For example: "Host Meridian 1 system_IPT".</li><li>3 Click the <b>OK</b> button.</li></ol> <p><b>Note:</b> To determine the previously configured H323-ID, log in to the Gatekeeper pages in Element Manager and select <b>GK Standby DB Admin   H323 Endpoints   View Endpoints</b> from the Navigation Tree. Select the endpoint corresponding with the IP Trunk node you are configuring. Click on <b>AliasName</b> then copy and paste into the OTM H323-ID field.</p>				

## Procedure 10

### Configuring IP Trunk Network to register with Gatekeeper and to use the Gatekeeper Numbering Plan (Part 3 of 6)

Step	Action				
	<table> <tr> <th>If...</th><th>Then...</th></tr> <tr> <td>You chose <b>Use Independent Gatekeeper...</b></td><td> <ol style="list-style-type: none"> <li>1 Copy and paste the H323-ID from OTM into the <b>H323-ID</b> field.</li> <li>2 Under <b>Primary Gatekeeper</b>: <ol style="list-style-type: none"> <li>a. Enter the IP address for the Primary Gatekeeper in the <b>Address</b> field.</li> <li>b. From the <b>Type</b> drop-down list box, select Gatekeeper type <b>CSE1000</b>.</li> <li>c. Enter the Site and System name of the Primary Gatekeeper in the <b>Name</b> field.</li> <li>d. Enter the Contact name of the Primary Gatekeeper in the <b>Contact</b> textbox.</li> <li>e. Enter the Location of the Primary Gatekeeper in the <b>Location</b> field.</li> </ol> </li> <li>3 Repeat for the Alternate Gatekeeper.</li> <li>4 Click the <b>OK</b> button.</li> </ol> </td></tr> </table>	If...	Then...	You chose <b>Use Independent Gatekeeper...</b>	<ol style="list-style-type: none"> <li>1 Copy and paste the H323-ID from OTM into the <b>H323-ID</b> field.</li> <li>2 Under <b>Primary Gatekeeper</b>: <ol style="list-style-type: none"> <li>a. Enter the IP address for the Primary Gatekeeper in the <b>Address</b> field.</li> <li>b. From the <b>Type</b> drop-down list box, select Gatekeeper type <b>CSE1000</b>.</li> <li>c. Enter the Site and System name of the Primary Gatekeeper in the <b>Name</b> field.</li> <li>d. Enter the Contact name of the Primary Gatekeeper in the <b>Contact</b> textbox.</li> <li>e. Enter the Location of the Primary Gatekeeper in the <b>Location</b> field.</li> </ol> </li> <li>3 Repeat for the Alternate Gatekeeper.</li> <li>4 Click the <b>OK</b> button.</li> </ol>
If...	Then...				
You chose <b>Use Independent Gatekeeper...</b>	<ol style="list-style-type: none"> <li>1 Copy and paste the H323-ID from OTM into the <b>H323-ID</b> field.</li> <li>2 Under <b>Primary Gatekeeper</b>: <ol style="list-style-type: none"> <li>a. Enter the IP address for the Primary Gatekeeper in the <b>Address</b> field.</li> <li>b. From the <b>Type</b> drop-down list box, select Gatekeeper type <b>CSE1000</b>.</li> <li>c. Enter the Site and System name of the Primary Gatekeeper in the <b>Name</b> field.</li> <li>d. Enter the Contact name of the Primary Gatekeeper in the <b>Contact</b> textbox.</li> <li>e. Enter the Location of the Primary Gatekeeper in the <b>Location</b> field.</li> </ol> </li> <li>3 Repeat for the Alternate Gatekeeper.</li> <li>4 Click the <b>OK</b> button.</li> </ol>				
7	<p>Right-click on the node to be reconfigured and choose <b>Synchronize   Transmit</b>.</p> <p><b>Result:</b> The <b>ITG-Transmit Options</b> window opens.</p> <ol style="list-style-type: none"> <li>1 Click the check box for <b>Dialing Plan</b>.</li> <li>2 Click the <b>Start Transmit</b> button. Monitor the <b>Transmit Control</b> window for successful transmission of the Dialing Plans.</li> </ol>				



**Procedure 10****Configuring IP Trunk Network to register with Gatekeeper and to use the Gatekeeper Numbering Plan (Part 4 of 6)**

<b>Step</b>	<b>Action</b>
8	<p>Verify that the endpoint has registered with Gatekeeper:</p> <ol style="list-style-type: none"><li>1 Do one of the following:<ol style="list-style-type: none"><li>a. From the Navigation Tree in Element Manager, select <b>GK Active DB Admin   View Endpoints</b>. OR</li><li>b. Log in to the ITG shell of the IP Trunk Leader card and enter the <b>gkShow</b> command.</li></ol><p><b>Result:</b> A list of all registered endpoints displays.</p></li><li>2 Verify that the node to be reconfigured appears in the list.</li></ol> <p>If the node does not appear in the list, you may have:</p> <ul style="list-style-type: none"><li>— entered the Alias Name into the OTM <b>H323-ID</b> field incorrectly</li><li>— entered the Primary (or Alternate) Gatekeeper IP address incorrectly</li><li>— been unsuccessful in disabling and transmitting the Dialing Plan</li></ul>

**Procedure 10**  
**Configuring IP Trunk Network to register with Gatekeeper and to use the Gatekeeper**  
**Numbering Plan (Part 5 of 6)**

Step	Action
9	<p><b>1</b> Back up the Dialing Plan file (C:\table\dptable.1) for the IP Trunk node that you are reconfiguring.</p> <p>Use FTP to get the dptable.1 file and copy it to an appropriately named folder on the OTM Server.</p> <p>The default FTP login is:</p> <p>User = <b>itgadmin</b> Password = <b>itgadmin</b></p> <p><b>2</b> If you need to restore the Dialing Plan entries for this node:</p> <ul style="list-style-type: none"><li><b>a.</b> Use FTP to put the file back on the IP Trunk active Leader card.</li><li><b>b.</b> In OTM ITG ISDN Trunk service, right-click on the node and choose <b>Synchronize   Retrieve</b>.</li><li><b>c.</b> Click the check box for <b>Dialing plan</b>, and click the <b>Start retrieve</b> button.</li><li><b>d.</b> After successfully retrieving the Dialing Plan, you must click the <b>Transmit Dialing plan</b> button to restore the original Dialing Plan.</li></ul>

**Procedure 10****Configuring IP Trunk Network to register with Gatekeeper and to use the Gatekeeper Numbering Plan (Part 6 of 6)**

<b>Step</b>	<b>Action</b>
10	<p>In OTM, right-click on the node to be reconfigured then:</p> <ol style="list-style-type: none"><li>1 Choose <b>Dialing Plan</b>.</li></ol> <p><b>Result:</b> The <b>ITG Dialing Plan</b> window opens for the selected node.</p> <ol style="list-style-type: none"><li>2 Choose <b>Edit   Select All</b>.</li><li>3 Repeatedly press the <b>Delete</b> key until all Destination Nodes are deleted from the Dialing Plan.</li><li>4 Close the <b>Dialing Plan</b> window.</li><li>5 Right-click the node and click the <b>Synchronize   Transmit</b> button.</li></ol> <p><b>Result:</b> The <b>ITG - Transmit Options</b> dialog box opens.</p> <ol style="list-style-type: none"><li>6 Click the option for <b>Dialing Plan</b>, then click the <b>Start Transmit</b> button.</li><li>7 Monitor the progress in the <b>Transmit Control</b> window.</li></ol>
11	<p>Verify that the Gatekeeper Dialing Plan is functioning correctly for calls originating from the reconfigured IP Trunk node by placing test calls from the host system to various Destination Nodes using all the Numbering Plan types and numbers configured on the network.</p> <p>If the test calls are successful, then repeat configuration steps 3–10 until all nodes in the ISDN IP Trunk service have been reconfigured, tested, and verified.</p> <p>If the test calls are not successful, use the LD 96 D-channel monitor to determine what dialed digits and call types are being sent to the Succession Call Server. Verify that the dialed digits and call types are present on the Gatekeeper and that the destination endpoint is registered with the Gatekeeper. You may need to configure appropriate digit manipulation and new RLIs on the host system.</p> <p><b>Result:</b> At this point, you have successfully migrated the IP Trunk 3.01 network to the Gatekeeper Numbering Plan.</p> <p><b>Note:</b> A similar procedure must be performed for BCM 3.01 systems.</p>

### Next steps

Upon completion of this procedure, choose one of the following:

For this scenario...	Go to...
1 Software and system (pre-upgrade migration)	"Upgrading OTM 1.20 and OTM 2.00 to OTM 2.10" on <a href="#">page 102</a>
2 Software and system (post-upgrade migration)	"Configuring and cutting over an upgraded Succession 1000M system to use IP Peer Virtual Trunks" on <a href="#">page 144</a>
7 System only (post-upgrade migration)	"Configuring and cutting over an upgraded Succession 1000M system to use IP Peer Virtual Trunks" on <a href="#">page 144</a>

## Configuring and cutting over an upgraded Succession 1000M system to use IP Peer Virtual Trunks

### IMPORTANT!

Regardless of which scenario and method you are following, ensure that you have completed all required preceding procedures prior to beginning this procedure.

<b>If...</b>	<b>Then...</b>
The upgraded Succession 1000M system belongs to a large IP Trunk network...	Ensure that you have completed a Pre- or Post-upgrade migration of the IP Trunk 3.01 and BCM 3.01 network to use the Gatekeeper-resolved Network Numbering Plan.
The upgraded Succession 1000M system belongs to a small IP Trunk network (for example, 2–4 systems), and you have chosen the “Coordinated cutover” method...	Ensure that you have scheduled a sufficient maintenance window and provided for sufficient technician resources to simultaneously reconfigure and cut over all the upgraded Succession 1000M systems in a single maintenance window.

## Procedure 11

### Configuring and cutting over an upgraded Succession 1000M system to use IP Peer Virtual Trunks (Part 1 of 5)

Step	Action				
1	<p>Verify the Gatekeeper registration state of the IP Peer Gateway by doing one of the following:</p> <ol style="list-style-type: none"> <li>1 Use the Succession Signaling Server command <b>oam&gt; npmsShow</b>.</li> <li>2 Use the Gatekeeper pages in Element Manager and select <b>GK Active DB Admin   View Endpoints</b> from the Navigation Tree.</li> </ol> <table border="1"> <thead> <tr> <th>If...</th><th>Then...</th></tr> </thead> <tbody> <tr> <td>IP Peer Gateway is not registered with Gatekeeper...</td><td> <ol style="list-style-type: none"> <li>1 Verify that the Gateway H323-ID matches the Gatekeeper H323AliasName using <b>GK Active DB Admin</b>.</li> <li>2 Verify the Primary and Alternate Gatekeeper IP address using Element Manager: <ul style="list-style-type: none"> <li>— Click <b>Configuration   IP Telephony</b> from the Navigation Tree.</li> <li>— Click the <b>Edit</b> button associated with the IP Telephony node. The <b>Edit</b> webpage displays.</li> <li>— Click <b>Gatekeeper</b> to display the Primary Gatekeeper and Alternate Gatekeeper IP addresses.</li> </ul> </li> </ol> <p>The Primary Gatekeeper and Alternate Gatekeeper IP addresses must equal the host Succession Signaling Server 's TLAN IP address for each gatekeeper.</p> </td></tr> </tbody> </table>	If...	Then...	IP Peer Gateway is not registered with Gatekeeper...	<ol style="list-style-type: none"> <li>1 Verify that the Gateway H323-ID matches the Gatekeeper H323AliasName using <b>GK Active DB Admin</b>.</li> <li>2 Verify the Primary and Alternate Gatekeeper IP address using Element Manager: <ul style="list-style-type: none"> <li>— Click <b>Configuration   IP Telephony</b> from the Navigation Tree.</li> <li>— Click the <b>Edit</b> button associated with the IP Telephony node. The <b>Edit</b> webpage displays.</li> <li>— Click <b>Gatekeeper</b> to display the Primary Gatekeeper and Alternate Gatekeeper IP addresses.</li> </ul> </li> </ol> <p>The Primary Gatekeeper and Alternate Gatekeeper IP addresses must equal the host Succession Signaling Server 's TLAN IP address for each gatekeeper.</p>
If...	Then...				
IP Peer Gateway is not registered with Gatekeeper...	<ol style="list-style-type: none"> <li>1 Verify that the Gateway H323-ID matches the Gatekeeper H323AliasName using <b>GK Active DB Admin</b>.</li> <li>2 Verify the Primary and Alternate Gatekeeper IP address using Element Manager: <ul style="list-style-type: none"> <li>— Click <b>Configuration   IP Telephony</b> from the Navigation Tree.</li> <li>— Click the <b>Edit</b> button associated with the IP Telephony node. The <b>Edit</b> webpage displays.</li> <li>— Click <b>Gatekeeper</b> to display the Primary Gatekeeper and Alternate Gatekeeper IP addresses.</li> </ul> </li> </ol> <p>The Primary Gatekeeper and Alternate Gatekeeper IP addresses must equal the host Succession Signaling Server 's TLAN IP address for each gatekeeper.</p>				

**Procedure 11****Configuring and cutting over an upgraded Succession 1000M system to use IP Peer Virtual Trunks (Part 2 of 5)**

Step	Action				
	<table border="1"> <tr> <th>If...</th><th>Then...</th></tr> <tr> <td>The registration is successful...</td><td>           Perform outgoing calls from this node using route ACOD.   <b>Note:</b> Configure            RDB ISDN CTYP = <b>CDP</b> or <b>LOC</b>, etc. to match the Type of Number of Gatekeeper Numbering Plan entries for outgoing test calls.         </td></tr> </table>	If...	Then...	The registration is successful...	Perform outgoing calls from this node using route ACOD.  <b>Note:</b> Configure RDB ISDN CTYP = <b>CDP</b> or <b>LOC</b> , etc. to match the Type of Number of Gatekeeper Numbering Plan entries for outgoing test calls.
If...	Then...				
The registration is successful...	Perform outgoing calls from this node using route ACOD.  <b>Note:</b> Configure RDB ISDN CTYP = <b>CDP</b> or <b>LOC</b> , etc. to match the Type of Number of Gatekeeper Numbering Plan entries for outgoing test calls.				
2	<p>Identify all Route List Blocks (RLB) that contain an IP Trunk route entry and are currently used by CDP Steering Codes and UDP NARS network translations.</p> <p><b>Note 1:</b> These RLBs must be changed to allow the upgraded Succession 1000M system to use IP Peer Virtual IP Trunk Gateway to make incoming and outgoing Voice-over IP trunk calls with IP Trunk 3.01 and BCM 3.01 nodes.</p> <p><b>Note 2:</b> By changing the RLBs that contain an IP Trunk route entry, you can avoid making extensive changes to the CDP and UDP network translations.</p>				
3	<p>Change the identified RLBs to insert an IP Peer Gateway Virtual IP Trunk route (IPP-GW VTRK) entry before the IP Trunk route entry:</p> <ol style="list-style-type: none"> <li>1 Configure SBOC = <b>RRA</b> for the IPP-GW VTRK entry.</li> <li>2 Configure FRL = <b>7</b> for the IPP-GW VTRK entry if you prefer to make test calls only from terminals with an NCOS containing an FRL = 7. This will prevent normal users from using the IPP-GW VTRK for outgoing calls while you are testing the Network Numbering Plan and routing plan.</li> </ol> <p><b>Note:</b> You can instantly revert to using the IP Trunk route for outgoing calls by removing the IPP-GW VTRK entry from the RLB (<b>REQ CHG... ENTR Xnn</b>).</p>				

### Procedure 11

#### Configuring and cutting over an upgraded Succession 1000M system to use IP Peer Virtual Trunks (Part 3 of 5)

Step	Action
4	<p>Make test calls from the upgraded Succession 1000M system via IPP-GW to endpoints in the IPT 3.01/BCM 3.01/IPP-GW network:</p> <ol style="list-style-type: none"> <li>1 Make outgoing test calls for all ESN Call Types (CTYP) that use the IPP-GW VTRK/IPT 3.01 RLBs.</li> <li>2 Verify that the IPP-GW Route is being used for outgoing calls (On Hold/Off Hold displays Route ACOD).</li> </ol>
5	<p>Make incoming test calls from endpoints in the IPT 3.01/BCM 3.01/IPP-GW network.</p> <p>Use LD 80 to verify that the IP Trunk route is still being used for incoming calls. The LD 80 commands are:  <b>TRAC</b> or <b>TRAK</b></p>
6	<p>Test Non-Call-Associated Signaling (NCAS) features to endpoints in the IPT 3.01/BCM 3.01/IPP-GW network.</p> <p>Use <b>MIK/MCK</b> to turn MWI on/off over the network.</p>
7	<p>Using the Gatekeeper pages in Element Manager, change the Numbering Plan entries for the IP Trunk node on the upgraded Succession 1000M system.</p> <p>For H323AliasName = "upgraded_system_IPT", change  Cost Factor (Entry Cost) = 1  to  Cost Factor (Entry Cost) = 2</p>



**Procedure 11****Configuring and cutting over an upgraded Succession 1000M system to use IP Peer Virtual Trunks (Part 4 of 5)**

Step	Action
8	<p>Using the Gatekeeper pages in Element Manager, duplicate the Numbering Plan entries from the IP Trunk node (H323AliasName = “upgraded_system_IPT”) to the IP Peer Virtual IP Trunk Gateway on the upgraded Succession 1000M system (H323AliasName = “upgraded_system_IPP-GW”) but with Cost Factor (Entry Cost) = 1 for the Numbering Plan entries on H323 endpoint “upgraded_system_IPP-GW”.</p> <ol style="list-style-type: none"> <li>1 From the Gatekeeper Navigation Tree, choose <b>GK Standby DB Admin   Database Actions</b>.</li> <li>2 Click the <b>Cutover</b> button.</li> </ol> <p><b>Result:</b> The Numbering Plan entry changes are copied to <b>GK Active DB Admin</b> and immediately applied to the operation of the Gatekeeper. The Gatekeeper’s first choice for a route for Numbering Plan entries destined for the upgraded Succession 1000M system has now been changed to the H323 endpoint “upgraded_system_IPP-GW”.</p> <ol style="list-style-type: none"> <li>3 Test your changes (as described in steps 9–11). Once you are satisfied that the database is working correctly, click the <b>Commit</b> button.</li> </ol> <p><b>Note:</b> As long as you have not yet clicked the <b>Commit</b> button under <b>GK Standby DB Admin   Database Actions</b>, you can instantly revert to the previous Gatekeeper configuration and stop incoming calls from using the IP Peer Gateway Virtual IP Trunk route.</p>
9	<p>Make incoming test calls from endpoints in the IPT 3.01/BCM 3.01/IPP-GW network.</p> <p>Using the <b>TRAC</b> or <b>TRAK</b> commands in LD 80, verify that the IP Peer Gateway Virtual IP Trunk route is now being used for incoming calls to the upgraded Succession 1000M system.</p>

**Procedure 11**

**Configuring and cutting over an upgraded Succession 1000M system to use IP Peer Virtual Trunks (Part 5 of 5)**

Step	Action
10	<p>Test NCAS features.</p> <p>Use <b>MIK/MCK</b> to turn MWI on/off over the network.</p>
11	<ol style="list-style-type: none"> <li><b>1</b> Disable D-Channel for IPT Route to ensure that all outgoing and incoming calls use the IPP-GW VTRK route.</li> <li><b>2</b> Make incoming and outgoing test calls to all ESN Call Types that are used in the Network Numbering Plan.</li> <li><b>3</b> Test NCAS features.</li> </ol> <p>The IP Trunk 3.01 route is no longer required in the upgraded Succession 1000M system, provided that:</p> <ul style="list-style-type: none"> <li>• all nodes in the network have been upgraded to IP Trunk 3.01, BCM 3.01, and Succession 3.0 Software with IP Peer Networking</li> <li>• all nodes have migrated to the Gatekeeper numbering plan resolution</li> </ul> <p>Unused IP Trunk 3.01 cards can be converted to Voice Gateway Media Cards. Refer to “Converting unused IP Trunk cards to Voice Gateway Media cards” on <a href="#">page 151</a>.</p>

## Next steps

Upon completion of this procedure, choose one of the following:

For this scenario...	Go to...
1 Software and system (pre-upgrade migration)	"Converting unused IP Trunk cards to Voice Gateway Media cards" on <a href="#">page 151</a>
2 Software and system (post-upgrade migration)	"Converting unused IP Trunk cards to Voice Gateway Media cards" on <a href="#">page 151</a>
3 Software and system (coordinated cutover)	"Converting unused IP Trunk cards to Voice Gateway Media cards" on <a href="#">page 151</a>
6 System only (post-migration)	"Converting unused IP Trunk cards to Voice Gateway Media cards" on <a href="#">page 151</a>
7 System only (post-upgrade migration)	"Converting unused IP Trunk cards to Voice Gateway Media cards" on <a href="#">page 151</a>
8 System only (coordinated cutover)	"Converting unused IP Trunk cards to Voice Gateway Media cards" on <a href="#">page 151</a>

## Converting unused IP Trunk cards to Voice Gateway Media cards

This procedure converts IP Trunk 3.01 cards (Succession Media Cards and ITG-P line cards) that are no longer used to Voice Gateway Media Cards running IP Line 3.10 loadware.

The recommended method employs the OTM 2.10 ITG ISDN Trunk service that you use to manage the existing IP Trunk 3.01 or ITG Trunk 2.xx node.

In general, for Succession Media Cards and ITG-P cards, download the IP Line 3.10 application loadware onto the existing IP Trunk or ITG Trunk card.

After the IP Trunk cards have been converted to run the IP Line 3.10 application loadware, you can use Element Manager to do one of the following:

- Manually add the converted cards to an IP Telephony node as Voice Gateway Media Cards and configure the corresponding Voice Gateway TNs on the Succession Call Server. Refer to *IP Line: Description, Installation, and Operation* (553-3001-365).
- Import the node configuration from the former IP Trunk Leader card of the newly converted Voice Gateway Media Cards, and create a new IP Telephony node.

**Note 1:** This procedure assumes that all IP Trunk 3.01 cards have received their IP address configuration data from the Active Leader (Leader 0 or Leader 1) and are functioning in the role of Active Leader, Backup Leader, or Follower.

**Note 2:** ITG Trunk 2.xx nodes containing Succession Media Cards must first be upgraded and rebooted to run IP Trunk 3.01 before OTM 2.10 can transmit IP Line 3.10 loadware to the IP Trunk cards that are being converted to Voice Gateway Media Cards.

**Note 3:** The IP Line 3.10 application will automatically remove unnecessary files and directories that may have been created previously by the IP Trunk or ITG Trunk applications. Therefore, the conversion procedure completes without the need to reformat the C: drive.

## Procedure 12

### Converting unused IP Trunk cards to Voice Gateway Media cards (Part 1 of 4)

Step	Action
1	<p>Download the Succession 3.0 IP Line 3.10 software (IPL310xx.p2 and IPL310xx.sa) from the Nortel Networks Software Download web page to the OTM Server, or place the Signaling Server Succession 3.0 Software CD in the drive of the OTM Server, or use FTP to get the IP Line 3.10 software from the Succession Signaling Server.</p> <p><b>Note:</b> In the loadware filename, “xx” represents the issue.</p>

**Procedure 12****Converting unused IP Trunk cards to Voice Gateway Media cards (Part 2 of 4)**

<b>Step</b>	<b>Action</b>
2	<p>Use OTM ITG ISDN Trunk service to select the node.</p> <p>To select all cards in the node of the same host type (Succession Media Card or ITG-P), right-click on the node and choose <b>Synchronize I Transmit</b>, and click the appropriate radio buttons for selected node or selected cards and for Card software.</p>
3	<p>Browse for the IP Line 3.1 loadware file for the appropriate host type (Succession Media Card or ITG-P), then click <b>Open I Start Transmit</b>.</p> <p><b>Note:</b> Monitor the progress in the <b>Transmit Control</b> window to ensure that the IP Line 3.10 loadware is transmitted successfully to all selected cards.</p>
4	<p>At the Succession Call Server CLI, use the <b>DISI</b> command in LD 32 to disable each IP Trunk card that is being converted.</p>
5	<p>In OTM ITG ISDN Trunk service, double-click on each disabled card that is being converted and then click the <b>Reset</b> button for each card.</p>
6	<p>Verify the 8051XA firmware version of each Succession Media Card and ITG-P card:</p> <ol style="list-style-type: none"><li>1 Telnet to each card and log in to <code>IPL&gt;shell</code>.</li><li>2 Check the firmware version by entering: <code>IPL&gt;firmwareVersionShow</code></li></ol>

## Procedure 12

## Converting unused IP Trunk cards to Voice Gateway Media cards (Part 3 of 4)

Step	Action						
7	<p>Upgrade the firmware if necessary.</p> <table> <tr> <th>If...</th><th>Then...</th></tr> <tr> <td>Succession Media Card firmware version is less than 6.4...</td><td> <ol style="list-style-type: none"> <li>1 Access the <a href="http://www.nortelnetworks.com">www.nortelnetworks.com</a> website.</li> <li>2 Choose <b>Support   Software Downloads   Product Family   Succession   IP Line</b>.</li> <li>3 Download the "SMC v6.6 Firmware Upgrade" document.</li> <li>4 Download "SMC Release 6.6 Firmware". Follow the procedures in the "SMC v6.6 Firmware Upgrade" document to upgrade the 8051XA firmware and reboot the Succession Media Card.</li> </ol> <p><b>Note 1:</b> If the Succession Media Card is running firmware version 6.4 or 6.5, upgrading to version 6.6 is not necessary.</p> <p><b>Note 2:</b> Perform this procedure on the IP Line cards one by one. Disable the IP Line card, upgrade the firmware, reboot, and then enable each card before performing the 8051XA firmware upgrade on the next card.</p> </td></tr> <tr> <td>ITG-P card firmware version is less than 5.7...</td><td> <ol style="list-style-type: none"> <li>1 Access the <a href="http://www.nortelnetworks.com">www.nortelnetworks.com</a> website.</li> <li>2 Choose <b>Support   Software Downloads   Product Family   Succession   IP Line</b>.</li> <li>3 Download the "ITG-Pentium Rel. 5.7 Firmware Upgrade and Instruction" document.</li> <li>4 Download "ITG-Pentium Release 5.7 Firmware". Follow the procedures in the "ITG-Pentium Rel. 5.7 Firmware Upgrade and Instruction" document to upgrade the 8051XA firmware and reboot the ITG-P card.</li> </ol> <p><b>Note:</b> Perform this procedure on the IP Line cards one by one. Disable the IP Line card, upgrade the firmware, reboot, and then enable each card before performing the 8051XA firmware upgrade on the next card.</p> </td></tr> </table>	If...	Then...	Succession Media Card firmware version is less than 6.4...	<ol style="list-style-type: none"> <li>1 Access the <a href="http://www.nortelnetworks.com">www.nortelnetworks.com</a> website.</li> <li>2 Choose <b>Support   Software Downloads   Product Family   Succession   IP Line</b>.</li> <li>3 Download the "SMC v6.6 Firmware Upgrade" document.</li> <li>4 Download "SMC Release 6.6 Firmware". Follow the procedures in the "SMC v6.6 Firmware Upgrade" document to upgrade the 8051XA firmware and reboot the Succession Media Card.</li> </ol> <p><b>Note 1:</b> If the Succession Media Card is running firmware version 6.4 or 6.5, upgrading to version 6.6 is not necessary.</p> <p><b>Note 2:</b> Perform this procedure on the IP Line cards one by one. Disable the IP Line card, upgrade the firmware, reboot, and then enable each card before performing the 8051XA firmware upgrade on the next card.</p>	ITG-P card firmware version is less than 5.7...	<ol style="list-style-type: none"> <li>1 Access the <a href="http://www.nortelnetworks.com">www.nortelnetworks.com</a> website.</li> <li>2 Choose <b>Support   Software Downloads   Product Family   Succession   IP Line</b>.</li> <li>3 Download the "ITG-Pentium Rel. 5.7 Firmware Upgrade and Instruction" document.</li> <li>4 Download "ITG-Pentium Release 5.7 Firmware". Follow the procedures in the "ITG-Pentium Rel. 5.7 Firmware Upgrade and Instruction" document to upgrade the 8051XA firmware and reboot the ITG-P card.</li> </ol> <p><b>Note:</b> Perform this procedure on the IP Line cards one by one. Disable the IP Line card, upgrade the firmware, reboot, and then enable each card before performing the 8051XA firmware upgrade on the next card.</p>
If...	Then...						
Succession Media Card firmware version is less than 6.4...	<ol style="list-style-type: none"> <li>1 Access the <a href="http://www.nortelnetworks.com">www.nortelnetworks.com</a> website.</li> <li>2 Choose <b>Support   Software Downloads   Product Family   Succession   IP Line</b>.</li> <li>3 Download the "SMC v6.6 Firmware Upgrade" document.</li> <li>4 Download "SMC Release 6.6 Firmware". Follow the procedures in the "SMC v6.6 Firmware Upgrade" document to upgrade the 8051XA firmware and reboot the Succession Media Card.</li> </ol> <p><b>Note 1:</b> If the Succession Media Card is running firmware version 6.4 or 6.5, upgrading to version 6.6 is not necessary.</p> <p><b>Note 2:</b> Perform this procedure on the IP Line cards one by one. Disable the IP Line card, upgrade the firmware, reboot, and then enable each card before performing the 8051XA firmware upgrade on the next card.</p>						
ITG-P card firmware version is less than 5.7...	<ol style="list-style-type: none"> <li>1 Access the <a href="http://www.nortelnetworks.com">www.nortelnetworks.com</a> website.</li> <li>2 Choose <b>Support   Software Downloads   Product Family   Succession   IP Line</b>.</li> <li>3 Download the "ITG-Pentium Rel. 5.7 Firmware Upgrade and Instruction" document.</li> <li>4 Download "ITG-Pentium Release 5.7 Firmware". Follow the procedures in the "ITG-Pentium Rel. 5.7 Firmware Upgrade and Instruction" document to upgrade the 8051XA firmware and reboot the ITG-P card.</li> </ol> <p><b>Note:</b> Perform this procedure on the IP Line cards one by one. Disable the IP Line card, upgrade the firmware, reboot, and then enable each card before performing the 8051XA firmware upgrade on the next card.</p>						

**Procedure 12****Converting unused IP Trunk cards to Voice Gateway Media cards (Part 4 of 4)**

Step	Action	
8	<b>If...</b>	<b>Then...</b>
	Part of the IP Trunk node is being retained...	The IP Trunk cards that are being converted must be deleted from the existing IP Trunk node in OTM and the IP Trunk node properties must be transmitted from OTM to the leader of the IP Trunk node.
	None of the IP Trunk node is being retained...	Delete the node from OTM.

### Next steps

Upon completion of this procedure, choose one of the following:

For this scenario...	Go to...
1 Software and system (pre-upgrade migration)	"Configuring/importing converted Voice Gateway Media cards into an IP Telephony node using Element Manager" on <a href="#">page 156</a>
2 Software and system (post-upgrade migration)	"Configuring/importing converted Voice Gateway Media cards into an IP Telephony node using Element Manager" on <a href="#">page 156</a>
3 Software and system (coordinated cutover)	"Configuring/importing converted Voice Gateway Media cards into an IP Telephony node using Element Manager" on <a href="#">page 156</a>
6 System only (post-migration)	"Configuring/importing converted Voice Gateway Media cards into an IP Telephony node using Element Manager" on <a href="#">page 156</a>
7 System only (post-upgrade migration)	"Configuring/importing converted Voice Gateway Media cards into an IP Telephony node using Element Manager" on <a href="#">page 156</a>
8 System only (coordinated cutover)	"Configuring/importing converted Voice Gateway Media cards into an IP Telephony node using Element Manager" on <a href="#">page 156</a>

## Configuring/importing converted Voice Gateway Media cards into an IP Telephony node using Element Manager

**Note:** The converted Voice Gateway Media cards are former IP Trunk cards.

This procedure assumes the following:

- The Succession Signaling Server is functioning properly.
- The ELAN and TLAN connections are properly configured.
- The Succession Signaling Server is configured as the Leader in the node.



- The Succession Call Server software has been upgraded to Succession 3.0 Software.
- All unused IP Trunk TNs have been removed from the Succession Call Server database.
- All IP Trunk cards have been converted to Voice Gateway Media Cards (upgraded to IP Line 3.10 application).
- A PC is connected to the LAN.

Choose one of the following methods:

- 1** Procedure 13, “Manually configuring converted Voice Gateway Media Cards into the existing IP Telephony node” on [page 158](#) or
- 2** Procedure 14, “Importing converted Voice Gateway Media Cards into a new IP Telephony node using Element Manager” on [page 161](#).

**Procedure 13****Manually configuring converted Voice Gateway Media Cards into the existing IP Telephony node (Part 1 of 3)**

Step	Action
1	Using a PC connected to the LAN, open a web browser. <b>Note:</b> Only Microsoft Internet Explorer v.6.0.2600, or later, is supported.
2	In the browser <b>Address</b> field, enter the ELAN or TLAN IP address of the Succession Signaling Server Leader, and click <b>Go</b> . <b>Note:</b> If the Leader is not responding, then enter the address of a Succession Signaling Server Follower.
3	Log in to Element Manager using a valid user ID and password (for example, Admin1, Admin2, or LAPW password).
4	From the Navigation Tree in Element Manager, choose <b>Configuration   IP Telephony</b> . <b>Result:</b> The <b>Node Summary</b> page displays.
5	In the Node Summary, identify the IP Telephony node to which you want to add the converted Voice Gateway Media Cards. (The converted cards will be added as Followers.) Click the <b>Edit</b> button for the IP Telephony node you have chosen. <b>Result:</b> The <b>Edit</b> window opens.
6	Click the <b>Add</b> button next to the <b>Card</b> heading to access the card properties for data entry of a new card. For each card that you are configuring into the system, enter the card's: <ul style="list-style-type: none"><li>• ELAN IP address</li><li>• ELAN MAC address</li><li>• TLAN IP address</li><li>• TLAN gateway IP address</li><li>• TN</li><li>• Card Processor type (Pentium or Voice Gateway Media)</li><li>• Enable set TPS</li></ul>

**Procedure 13****Manually configuring converted Voice Gateway Media Cards into the existing IP Telephony node (Part 2 of 3)**

<b>Step</b>	<b>Action</b>
7	Repeat step 6 for each additional card to be configured into the system.
8	<p>Once all the required card properties have been entered for all the cards you are adding, click the <b>Save and Transfer</b> button to save the configuration changes to the Succession Call Server and to transfer the changes to the Succession Signaling Servers and Voice Gateway Media Cards in the node.</p> <p>Monitor progress in the <b>Transfer Progress</b> window.</p> <p>The BOOTP and CONFIG files are saved on the Succession Call Server and transferred to the Succession Signaling Server Leader. The BootP table is updated so the converted cards can receive their IP address configuration.</p> <p><b>Note:</b> It may be necessary to press the <b>Reset</b> button in the faceplate of the converted Succession Media Cards to trigger a new BootP request. Wait until all converted cards have received their IP address before you reset.</p>
9	Click the <b>Transfer to Failed Elements</b> button to transfer the bootp.tab and config.ini files to the converted Voice Gateway Media Cards.

**Procedure 13**  
**Manually configuring converted Voice Gateway Media Cards into the existing IP Telephony node (Part 3 of 3)**

Step	Action						
10	<p>Configure the new Voice Gateway TNs on the Succession Call Server by using either Element Manager or LD 14. Do one of the following:</p> <ol style="list-style-type: none"> <li>From the Navigation Tree in Element Manager, choose <b>Configuration   IP Telephony</b>.  <b>Result:</b> The <b>Node Summary</b> page displays. <ol style="list-style-type: none"> <li>Click on the arrowhead.</li> <li>Click on the appropriate Voice Gateway Media Card.</li> <li>Click on <b>ADD VGW CHANNELS</b>. <table border="1"> <thead> <tr> <th>If</th><th>Then</th></tr> </thead> <tbody> <tr> <td>An Alert Box appears...</td><td>proceed to sub-action (d).</td></tr> <tr> <td>No Alert Box appears...</td><td>this procedure is at an end.</td></tr> </tbody> </table> </li> </ol> </li> <li>If an Alert Box appears, log in to the CLI of the Succession Call Server. Use LD 22 to determine if Package 167 is enabled or restricted: <pre> REQ PRT TYPE: 167  If Package 167 is restricted, obtain a new keycode to enable GPRI Package 167.  Then, in LD 73 perform:  REQ NEW TYPE: DDB and carriage return through, accepting all the defaults. </pre> <p>or</p> </li> <li>From the CLI of the Succession Call Server, use LD 14 to configure the new Voice Gateway TNs.</li> </ol>	If	Then	An Alert Box appears...	proceed to sub-action (d).	No Alert Box appears...	this procedure is at an end.
If	Then						
An Alert Box appears...	proceed to sub-action (d).						
No Alert Box appears...	this procedure is at an end.						

In general, it is easier to import card configurations than to configure them manually, but the import function is available only for new nodes. Use the following procedure if:

- you want to import the converted Voice Gateway Media Cards into a new, separate node (for example, because you do not require them for LTPS redundancy in the existing node)
- the system is not equipped with IP Line and there is therefore no existing node to which you can add them

#### Procedure 14

#### Importing converted Voice Gateway Media Cards into a new IP Telephony node using Element Manager (Part 1 of 5)

Step	Action
1	Using a PC connected to the LAN, open a web browser. <b>Note:</b> Only Microsoft Internet Explorer v.6.0.2600, or later, is supported.
2	In the browser <b>Address</b> field, enter the ELAN or TLAN IP address of the Succession Signaling Server Leader, and click <b>Go</b> . <b>Note:</b> If the Leader is not responding, then enter the address of a Succession Signaling Server Follower.
3	Log in to Element Manager using a valid user ID and password (e.g., Admin1, Admin2, or LAPW password).
4	From the Navigation Tree in Element Manager, choose <b>Configuration   IP Telephony</b> . <b>Result:</b> The <b>Node Summary</b> page displays.
5	Choose <b>Import Node Files</b> .
6	In the text entry box, enter the ELAN IP address of the former Leader 0 of the IP Trunk node that has been converted to Voice Gateway Media Cards. Click <b>Import</b> . <b>Result:</b> The following message displays: The BOOTP.1 and CONFIG1.INI files were retrieved from Voice Gateway Media Card x.x.x.x.

## Procedure 14

### Importing converted Voice Gateway Media Cards into a new IP Telephony node using Element Manager (Part 2 of 5)

Step	Action
7	<p>Since the BOOTP.1 file does not have a Node ID, enter the Node ID that you want to use for this node, and click <b>Continue</b>.</p> <p><b>Note:</b> If you have already installed a Succession Signaling Server that will be the Leader for this new node, and if you have already configured this node's sets to point to the Succession Signaling Server Node ID or Virtual Trunk route, use that Succession Signaling Server Node ID when you create this new node, and then add the Succession Signaling Server to this new node in step 8.</p> <p>Once the new node has been created with the imported data, the following message displays:</p> <p>Warning: Call Server IP address in CONFIG.INI file is 0.0.0.0. Please edit the node and update it.          BOOTP.TAB and CONFIG.INI files for node yyy were retrieved from Voice Gateway Media Card x.x.x.x, and stored on Call Server z.z.z.z. The new node will appear on the Node Summary page (Configuration &gt; IP Telephony)</p>
8	<ol style="list-style-type: none"> <li>1 On the <b>Node Summary</b> page, click the <b>Edit</b> button for the new node.</li> <li>2 Edit the node's properties as follows:             <ol style="list-style-type: none"> <li>a. Provision the correct IP address for the Succession Call Server.</li> <li>b. Add the Succession Signaling Server if it exists and is not already part of a larger IP Line node.</li> <li>c. Add any additional Voice Gateway Media Cards.</li> </ol> </li> </ol>

**Procedure 14****Importing converted Voice Gateway Media Cards into a new IP Telephony node using Element Manager (Part 3 of 5)**

Step	Action
9	<p>Once all the required card properties have been entered for all the cards you are adding, click the <b>Save and Transfer</b> button to save the configuration changes to the Succession Call Server and to transfer the changes to the Succession Signaling Servers and Voice Gateway Media Cards in the node.</p> <p>Monitor progress in the <b>Transfer Progress</b> window.</p> <p>The BOOTP and CONFIG files are saved on the Succession Call Server and transferred to the Succession Signaling Server Leader. The BootP table is updated so the converted cards can receive their IP address configuration.</p> <p><b>Note:</b> It may be necessary to press the <b>Reset</b> button in the faceplate of the converted Succession Media Cards to trigger a new BootP request. Wait until all converted cards have received their IP address before you reset.</p>
10	<p>Click the <b>Transfer to Failed Elements</b> button to transfer the bootp.tab and config.ini files to the converted Voice Gateway Media Cards.</p>

**Procedure 14**  
**Importing converted Voice Gateway Media Cards into a new IP Telephony node using Element Manager (Part 4 of 5)**

Step	Action						
11	<p>Configure the new Voice Gateway TNs on the Succession Call Server by using either Element Manager or LD 14. Do one of the following:</p> <ol style="list-style-type: none"> <li>From the Navigation Tree in Element Manager, choose <b>Configuration   IP Telephony</b>.  <b>Result:</b> The <b>Node Summary</b> page displays. <ol style="list-style-type: none"> <li>Click on the arrowhead.</li> <li>Click on the appropriate Voice Gateway Media Card.</li> <li>Click on <b>ADD VGW CHANNELS</b>. <table border="1"> <thead> <tr> <th>If</th><th>Then</th></tr> </thead> <tbody> <tr> <td>An Alert Box appears...</td><td>proceed to sub-action (d).</td></tr> <tr> <td>No Alert Box appears...</td><td>this step is at an end.</td></tr> </tbody> </table> </li> </ol> </li> <li>If an Alert Box appears, log in to the CLI of the Succession Call Server. Use LD 22 to determine if Package 167 is enabled or restricted: <pre> REQ PRT TYPE: 167  If Package 167 is restricted, obtain a new keycode to enable GPRI Package 167.  Then, in LD 73 perform:  REQ NEW TYPE: DDB and carriage return through, accepting all the defaults. </pre> <p>or</p> </li> <li>From the CLI of the Succession Call Server, use LD 14 to configure the new Voice Gateway TNs.</li> </ol>	If	Then	An Alert Box appears...	proceed to sub-action (d).	No Alert Box appears...	this step is at an end.
If	Then						
An Alert Box appears...	proceed to sub-action (d).						
No Alert Box appears...	this step is at an end.						



**Procedure 14****Importing converted Voice Gateway Media Cards into a new IP Telephony node using Element Manager (Part 5 of 5)**

<b>Step</b>	<b>Action</b>
12	If you did not add a Succession Signaling Server to the imported node (see step 8), Telnet to the former IP Trunk Leader 1 card and use the <b>clearLeader</b> command to remove the leader flag from Leader 1.

<b>End of procedures</b>
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# Upgrades from Meridian 1 Option 81C

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## Contents

This section contains information on the following topics:

Meridian 1 Option 81C/IGS upgrade to Fibre Network Fabric . . . . .	168
Prepare for upgrade . . . . .	168
Perform upgrade . . . . .	179
Meridian 1 Option 81C/IGS upgrade to Option 81C/IGS CP PII . . . . .	211
Prepare for upgrade . . . . .	211
Perform upgrade . . . . .	226
Meridian 1 Option 81C/IGS upgrade to Option 81C CP PII/FNF . . . . .	329
Prepare for upgrade . . . . .	329
Perform upgrade . . . . .	344
Meridian 1 Option 81C/FNF upgrade to Option 81C CP PII/FNF . . . . .	470
Prepare for upgrade . . . . .	470
Perform upgrade . . . . .	486

## Meridian 1 Option 81C/IGS upgrade to Fibre Network Fabric

The target platform, a Meridian 1 Option 81C/FNF system, must meet the requirements of Product Bulletins P-2002-1658-NA and PAA-2003-0199-NA for firmware 19. Highlights of the bulletins include:

- PB requires NTRB53AA Clock Controller
- Shortest fiber cable should be used
- Cables from Group 0 to Group 1 must be the same length
- Delta between each ring from Group 0 to Group 1 must not exceed 50 ft



### IMPORTANT!

The shortest Fiber Cable must always be used.

The cables from group 0 to group 1 must always be the same length as the cables from the last group back to group 0.

The delta between the lengths of each fiber ring from group 0 to any other group must not exceed 50'. Rings are directional. Ring 0 is ascending and ring 1 is descending.

**Note:** When adding an additional network group, fiber cables must be changed to adhere to the rules above.

To upgrade a Meridian 1 Option 81C/IGS system to a Meridian 1 Option 81C with Fiber Network Fabric:

- Clock Controller cards must be NTRB53AA.
- NTRB33 Fiber Junctor Interface (FIJI) card and the NTRE39 Optical Cable Management Card (OCMC) are added for FNF.

## 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 18 below:

**Table 18**  
**Prepare for upgrade steps**

<b>Procedure Step</b>	<b>Page</b>
Plan upgrade	<a href="#">170</a>
Upgrade checklists	<a href="#">170</a>
Prepare	<a href="#">170</a>
Identify the proper procedure	<a href="#">171</a>
Connect a terminal	<a href="#">171</a>
Print site data	<a href="#">173</a>
Perform a template audit	<a href="#">175</a>
Back up the database (data dump and ABKO)	<a href="#">176</a>
Identify two unique IP addresses	<a href="#">178</a>

## 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 page [707](#) of Book 3. 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](#)).
- Verify proper cable lengths for the target platform.
- Verify card vintage requirements of the target platform.
- Identify and note 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.

## Identify 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 15** **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/O 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.

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**End of Procedure**

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## Print site data

Print site data to preserve a record of the system configuration (Table 19 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 19**  
**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 19**  
**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 19**  
**Print site data (Part 3 of 3)**

Site data	Print command
DTI/PRI data block for all customers	LD 73
	REQ                      PRT
	TYPE                     DDB
<b>Note:</b> The items marked with asterisks (*) are required for conversion and must be printed. 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      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 an ABKO (attended backup) to save the database to a spare set of floppy disks.

### **Procedure 16 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 17****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.

5 Once the backup is complete, type:

\*\*\*\* Exit program



**IMPORTANT!**

Database backup information should be preserved for a minimum of 5 days.

---

**End of Procedure**

---



**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" in Book 3.

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.

## 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 System Administrator to identify two unique IP addresses before the upgrade.
- For instructions to configure these IP numbers, see “Configuring IP addresses” on [page 667](#).

## Perform upgrade

### Verify Core/Net 0 is active

#### Procedure 18

#### Verifying Core/Net 0 is active

- 1 Get the status of the CPUs. Verify that all common equipment is enabled.

**LD 135**            Load program

**STAT CPU**        Get the status of both Core/Nets

- 2 Ensure Core/Net 0 is active.

If Core/Net 1 is active, switch Core/Nets.

**STAT CPU**        Get the status of the Core/Nets

**SCPU**             Switch to Core/Net 0

**\*\*\*\***             Exit program

- 3 Ensure Clock Controller 0 is active and tracking.

**LD 60**            Load program

**SSCK 0**           Get the status of Clock 0

**SSCK 1**           Get the status of Clock 1

**SWCK**            Switch to Clock 0 (if necessary)

---

**End of Procedure**

---

## Split the Core/Nets

### Procedure 19 Splitting the Core/Nets

- 1 Be sure Core/Net 0 is active and Core/Net 1 is standby. You may need to switch Cores:

**STAT**  
**CPU**

\*\*\*\*            Exit program

- 2 Verify that IODU/C 0 is active. You may need to switch IODU/Cs.

**LD 137**

**STAT**            Get the status of IODU/C

**SWAP**           Switch IODU/Cs if necessary

\*\*\*\*            Exit program

- 3 Connect a terminal to 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 Core/Net 0 in Maintenance by setting the MAINT/NORM switch to MAINT.
- 5 In Core/Net 1, disable the NT6D65 Core to Network Interface (CNI) cards by setting the ENB/DIS faceplate switches to DIS.



- 6 Set MAINT/NORM switch on CP card in Core/Net 1 to Maintenance.

**Note:** Core/NET 1 will begin to reload. wait for system messages and INI to complete before proceeding.

---

**End of Procedure**

---



The system is now in split mode with Core/Net 0 active, Clock 0 active, and Side 1 in split mode.

## Upgrade Side 1

Core/Net 1 must be *inactive* to complete these procedures. A terminal must be connected to the J25 connector on Core/Net 1 to complete this procedure. See "Terminal and modem connections" in Book 3.

### Procedure 20

#### Upgrading the Core/Net 1 software

Complete the steps below to install the software in Core/Net 1.

- 1 Place the Call Processor Install disk that corresponds with the installed Call Processor 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).

**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, 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 In Core/Net 1, press the manual reset button on the CP card.  
A sysload will begin (cold start). Wait for the Main Menu to appear on the terminal before proceeding.
- 4 Press <CR> to continue.
- 5 Remove the Call Processor Install Program diskette and insert the Keycode diskette, when prompted.  
  
    <a>    to continue with keycode validation  
  
    <y>    to confirm that the keycode matches the CD-ROM release
- 6 When the Install Menu is displayed, select the following options in sequence when you are prompted to do so  
  
    <a>    to install software, CP-BOOT ROM, and IOP-ROM  
  
    <a>    to verify that the CD-ROM is now in the drive  
  
The Installation Status Summary screen appears that lists the options to be installed.  
  
    <y>    Yes, start Installation  
  
    <a>    Continue with Upgrade

**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 – 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.

- 8 When the ROM installation screen appears, select the following prompts in sequence:

<a> Continue with ROM Upgrade

The following message appears:

Release XXXX was installed successfully on Core 1. All files were copied from CD-ROM to the hard disk.

Please press <CR> to continue when ready...

<a> Continue with ROM upgrade

<a> Yes, start Installation

<a> Continue with ROM upgrade

When the Installation Status Summary screen appears, press <CR> when ready...

<cr> Are you sure you want to continue with IOP ROM

<a> to install the IOP-ROM from hard disk

<y> Yes, start installation

<a> to continue with ROM upgrade

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

<cr> press return to continue

<q> to quit (remove any diskettes from the floppy drive)

<y> Yes, to confirm quit

<a> to reboot the system

The system will automatically perform a sysload during which several messages will appear on the system terminal. Wait for "DONE" and then "INT" messages to be displayed before continuing.

Software installation on Core/Net 1 is complete.

**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 a system software upgrade” in Book 2.

**IMPORTANT!**

The shortest Fiber Cable must always be used.

The cables from group 0 to group 1 must always be the same length as the cables from the last group back to group 0.

The delta between the lengths of each fiber ring from group 0 to any other group must not exceed 50'. Rings are directional. Ring 0 is ascending and ring 1 is descending.

**Note:** When adding an additional network group, fiber cables must be changed to adhere to the rules above.

**CAUTION**

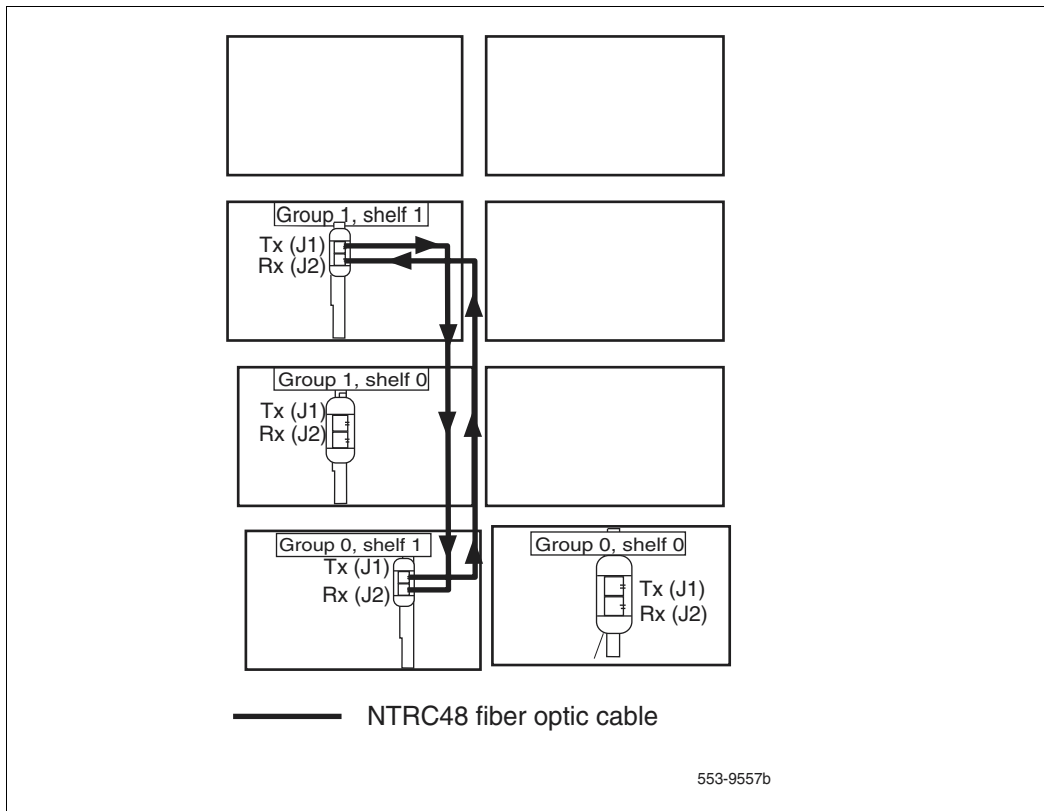
Clock controller cards must be NTRB53 Clock Controller cards.

---

**End of Procedure**

---

**Figure 6**  
**Shelf 1 descending fiber optic Ring (Meridian 1 Option 81C 2 group example)**



### Procedure 21

#### Upgrading Side 1 hardware:

- 1 Software disable the IGS/DIGS cards in Side 1 (IGS/DIGS odd-numbered cards, 1 - 19):

**LD 39** Load program

**DISI IGS xx** xx is the IGS card number 1 - 19

**Note:** See *Software Input/Output: Maintenance* (553-3001-511) for more information on overlay 39 commands.

- 2 Faceplate disable the IGS/DIGS cards in Side 1.
- 3 Tag and disconnect the IGS/DIGS cables.
- 4 Remove the IGS/DIGS cards from Side 1.

**Note:** If you did not check the 3PE switch settings before, check the 3PE switch settings now. See Table 88 on [page 644](#)

- 5 Faceplate enable the FIJI cards.
- 6 Insert the FIJI cards in Side 1. Do not seat the FIJI cards.

**Note:** FIJI cards are installed in slots 2 and 3 of the Network modules, and slots 8 and 9 of the Core/Net modules.

---

**End of Procedure**

---

## Connect the shelf 1 FIJI Ring cables

### Procedure 22

#### Connecting the shelf 1 FIJI Ring cables

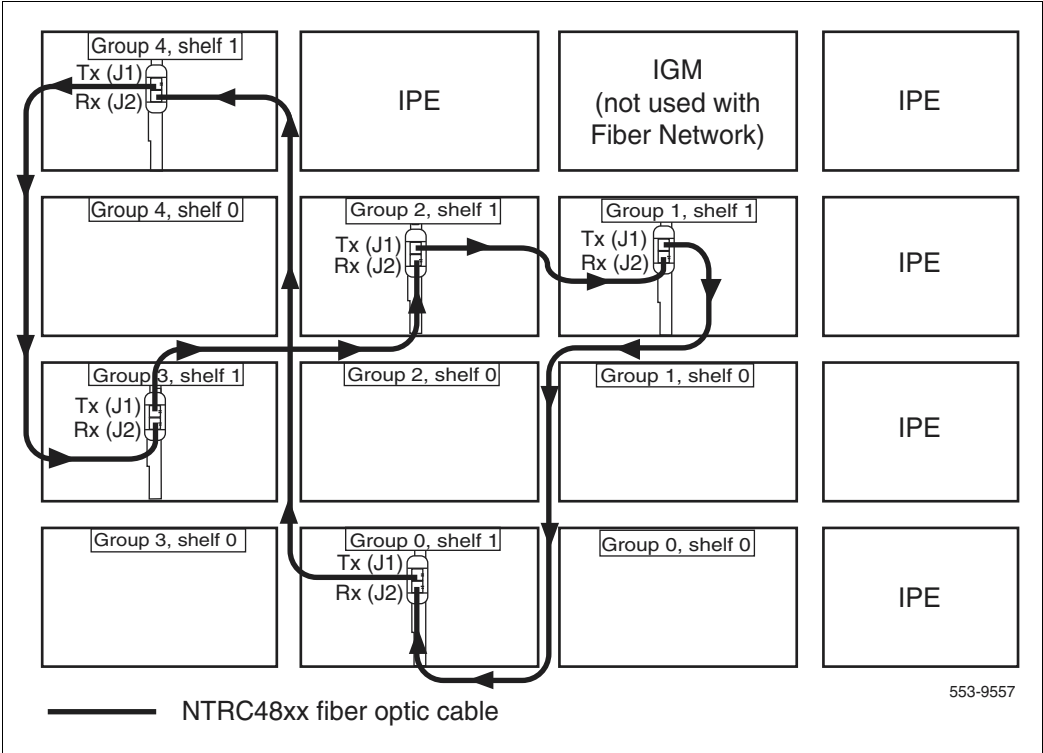
To create the shelf 1 fibre optic loop, connect the FIJI cards in each Network shelf 1 in **descending** order, from Tx to Rx (Figure 7 on [page 188](#) and Table 20 on [page 189](#)).

**Note:** Remove the black cap from the end of each cable before it is connected. Each end of the NTRC48 cable is labeled “Tx” or Rx” in the factory.

- 1 Start with Network Group 0, shelf 1.
- 2 Connect a NTRC48 FIJI Fiber Ring cable of the appropriate length from the Tx (J1) port of the FIJI card in Group 0, shelf 1 to the Rx (J2) port of the FIJI card in the highest Network Group, shelf 1.
- 3 Connect a NTRC48 cable from the Tx (J1) port of the FIJI card from the Tx (J1) port in the highest Network Group, shelf 1 to the Rx (J2) port in the second highest Network Group, shelf 1.
- 4 Continue to connect NTRC48 FIJI Fiber Ring cables of the appropriate length from the Tx (J1) port to the Rx (J2) port in shelf 1 of each Network Group. Connect these cables in descending order of Network Groups.

- 5    To complete the Ring, connect a final cable from Tx in Group 1, shelf 1 to Rx in Group 0, shelf 1.

**Figure 7**  
**Shelf 1 *descending* fiber optic Ring (Meridian 1 Option 81C example)**





**Note:** Connect the Side 1 FIJI Ring cables only.

**Table 20**  
**FIJI Ring 1 connections**

Groups 0 - X are cabled in descending order		
Group/shelf	NTRC48 fiber cable connector	FIJI card connector
0/1	P1	Tx - J1
7/1	P2	Rx - J2
7/1	P1	Tx - J1
6/1	P2	Rx - J2
6/1	P1	Tx - J1
5/1	P2	Rx - J2
5/1	P1	Tx - J1
4/1	P2	Rx - J2
4/1	P1	Tx - J1
3/1	P2	Rx - J2
3/1	P1	Tx - J1
2/1	P2	Rx - J2
2/1	P1	Tx - J1
1/1	P2	Rx - J2
1/1	P1	Tx - J1
0/1	P2	Rx - J2

---

**End of Procedure**

---

## Turn module power off

### Procedure 23 Turning module power off



#### CAUTION

##### Service Interruption

Call processing will be interrupted for approximately 30 minutes while the procedures are completed.



#### 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.

For AC-powered systems: set the MPDU circuit breaker located at the left end of the module to OFF (bottom position).

For DC-powered systems: set the breaker for the Core 1 module in the back of the column pedestal to OFF (down position).

- 1    Power down Core/Net Module 0.
- 2    Power down Core/Net Module 1.

**3** Power down all Network Modules.**IMPORTANT!**

Failure to power down may cause intermittent response problems.

**IMPORTANT!**

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

---

**End of Procedure**

---

## Seat the FIJI cards in Side 1

**Procedure 24****Seating the FIJI cards in Side 1**

The FIJI cards in side 1 can now be seated.

- 1 Push the faceplate latches forward to lock the cards in place.
- 2 Faceplate enable the FIJI cards on Side 1.

---

**End of Procedure**

---

## Upgrade Side 0

**Install Side 0 FIJI cards****Procedure 25****Installing Side 0 FIJI cards**

- 1 Tag and disconnect the IGS/DIGS cables.
- 2 Remove the IGS/DIGs cards from Side 0.
- 3 Insert and seat the FIJI cards in Side 0.

- 4 Faceplate enable the FIJI cards.

---

**End of Procedure**

---

## **Connect the FIJI to FIJI cables**

### **Procedure 26**

#### **Connecting the FIJI to FIJI cables**

- 1 Connect P2 of a NTRC47 FIJI to FIJI cable to J4 of the FIJI cards in each Network shelf 0, except Group 0.
- 2 Connect P1 of a NTRC47 FIJI to FIJI cable to J4 of the FIJI cards in each Network shelf 1, except Group 0.

**Note:** The FIJI cards in Group 0 do not receive a FIJI to FIJI cable.

---

**End of Procedure**

---

## **Connect the shelf 0 FIJI Ring cables**

### **Procedure 27**

#### **Connecting the shelf 0 FIJI Ring cables**

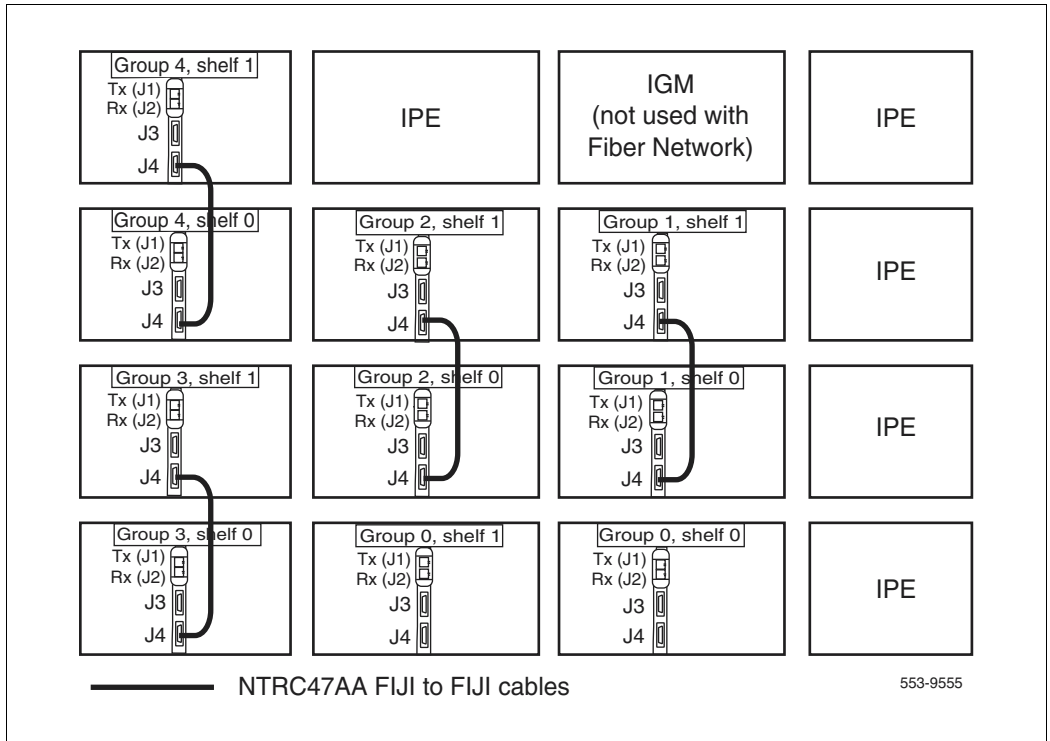
To create the shelf 0 fiber optic loop, connect the FIJI cards in each Network shelf 0 in ascending order, from Tx to Rx ports (Figure 9 on [page 195](#) and Table 21 on [page 193](#)).

Remove the black cap from the end of each cable before it is connected.

**Note:** Each end of the NTRC48 cable is labeled “Tx” or Rx” in the factory.

- 1 Start with Group 0, shelf 0.
- 2 Connect a NTRC48 FIJI Fiber Ring cable of the appropriate length from the Tx (J1) port of the FIJI card in Group 0, shelf 0 to the Rx (J2) port of the FIJI card in Group 1, shelf 0.
- 3 Connect a NTRC48 FIJI Fiber Ring cable of the appropriate length from the Tx (J1) port of the FIJI card in Group 1, shelf 0 to the Rx (J2) port of the FIJI card in Group 2, shelf 0.
- 4 Continue to connect NTRC48 FIJI Fiber Ring cables of the appropriate length from the Tx (J1) port to the Rx (J2) port in shelf 0 of each Network Group. Connect these cables in ascending order of Network Groups.

**Figure 8**  
**FIJI shelf 0 to FIJI shelf 1 connections (Meridian 1 Option 81C example)**



- 5** To complete the Ring, connect a final cable from the Tx (J1) port in the highest number group back to the Rx (J2) port in Group 0, shelf 0.

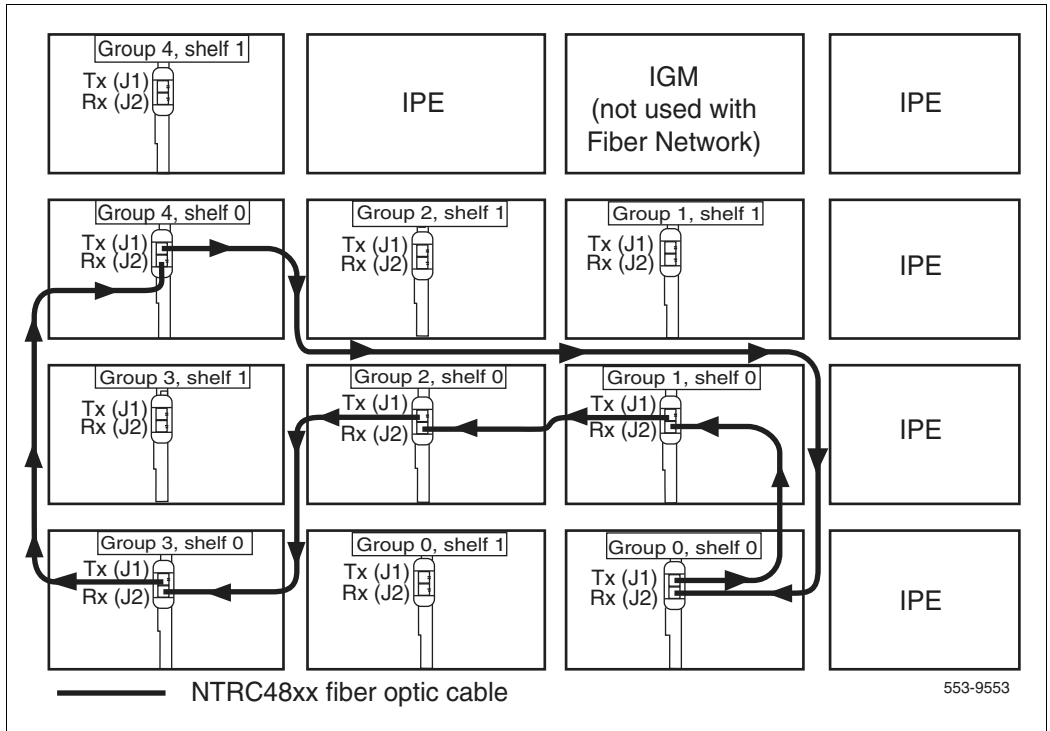
**Table 21**  
**FIJI Ring 0 connections (Part 1 of 2)**

Groups X - 0 are cabled in ascending order		
Group/shelf	NTRC48 fiber cable connector	FIJI card connector
0/0	P1	Tx - J1
1/0	P2	Rx - J2

**Table 21**  
**FIJI Ring 0 connections (Part 2 of 2)**

Groups X - 0 are cabled in ascending order		
Group/shelf	NTRC48 fiber cable connector	FIJI card connector
1/0	P1	Tx - J1
2/0	P2	Rx - J2
2/0	P1	Tx - J1
3/0	P2	Rx - J2
3/0	P1	Tx - J1
4/0	P2	Rx - J2
4/0	P1	Tx - J1
5/0	P2	Rx - J2
5/0	P1	Tx - J1
6/0	P2	Rx - J2
6/0	P1	Tx - J1
7/0	P2	Rx - J2
7/0	P1	Tx - J1
0/0	P2	Rx - J2

**Figure 9**  
**Shelf 0 ascending fiber optic Ring (Meridian 1 Option 81C example)**



## Cable the Clock Controllers

### Procedure 28

#### Cabling the Clock Controllers

Connect the cables to the Clock Controllers as shown in Figure 10 on [page 197](#):

- 1 Connect the Clock to Clock cable:
  - a. Connect P1 of the NTRC49 cable to port J3 of Clock Controller 0.
  - b. Connect P2 of the NTRC49 cable to port J3 of Clock Controller 1.
- 2 Connect the Clock 0 to FIJI cable:

- a.** Connect P1 of the NTRC46 cable from Clock 0 to J4 of the FIJI card in Group 0, shelf 0.
  - b.** Connect P2 of the NTRC46 cable from Clock 0 to J4 of the FIJI card in Group 0, shelf 1.
- 3** Connect a Clock 1 to FIJI cable:
  - a.** Connect P1 of the NTRC46 cable from Clock 1 to J3 of the FIJI card in Group 0, shelf 0.
  - b.** Connect P2 of the NTRC46 cable from Clock 1 to J3 of the FIJI card in Group 0, shelf 1.

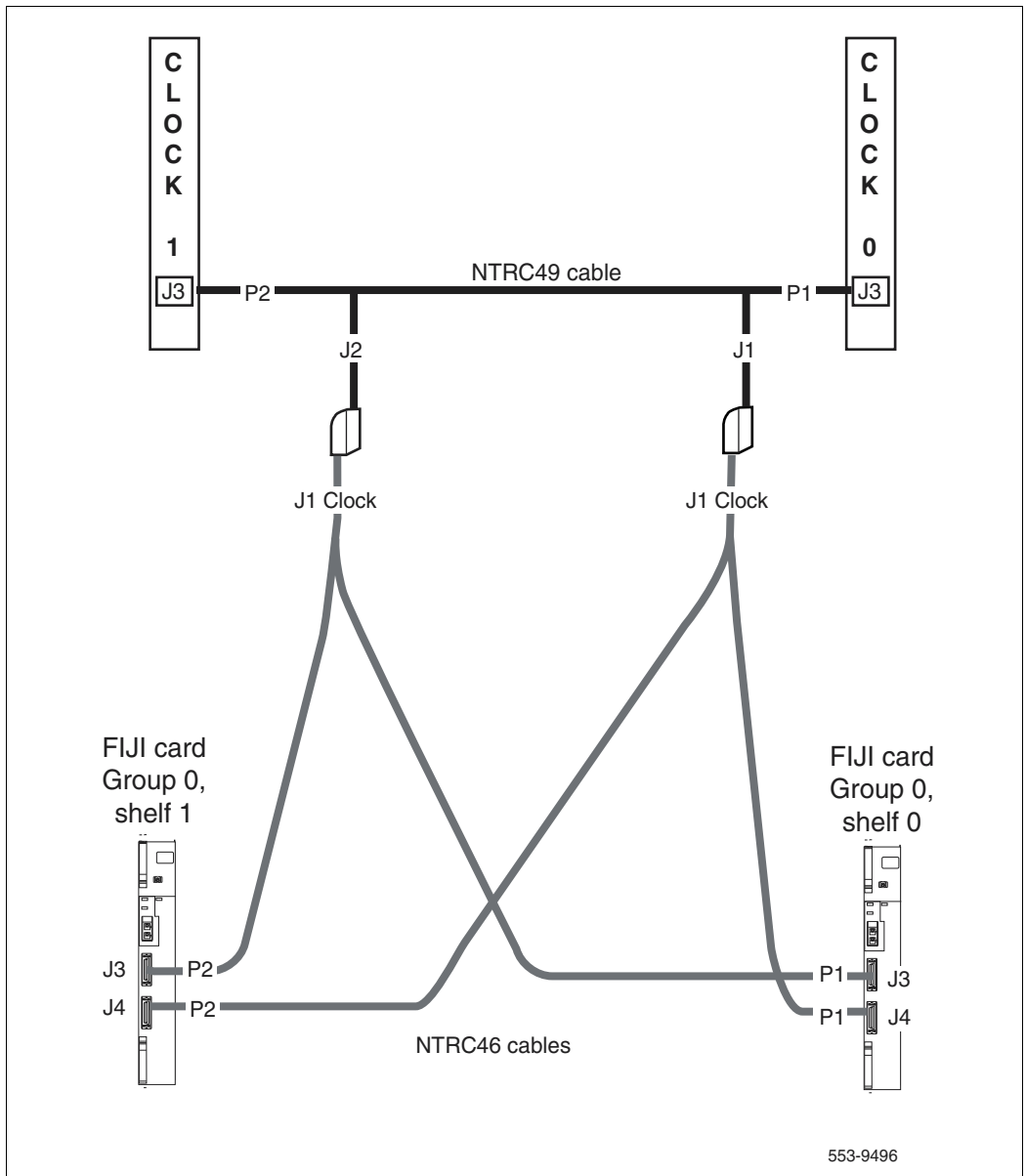
---

**End of Procedure**

---



**Figure 10**  
**Clock Controller cable configuration**



## Prepare Core cards for power-up

### Procedure 29

#### Preparing Core cards for power-up

- 1 Verify that a terminal is connected to the J25 I/O panel connector on Core/Net 1. See "Terminal and modem connections" of Book 3.
- 2 Verify that both Call Processor cards in the Core modules are in MAINT position.
- 3 Unseat the Call Processor card in Core/Net 0.
- 4 Faceplate *disable* the CNI cards in Core/Net 0.
- 5 Faceplate *disable* the IODU/C in Core/Net 0.
- 6 Unseat the IODU/C in Core/Net 0.
- 7 Faceplate *enable* the CNI cards in Core/Net 1.

---

**End of Procedure**

---

## Restore power

### Procedure 30

#### Restoring power

- 1 Restore power to Core/Net 1.
- 2 Restore power to Core/Net 0.
- 3 Restore power to the Network modules.
- 4 Wait for the system to load/init.
- 5 Re-initialize Core/Net 1.

**Note 1:** Re-initializing Core/Net 1 stops the midnight routines from running.

**Note 2:** 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/Net 1 is active, Clock Controller 1 is active, Core/Net 0 disabled. The system is in single mode with fiber ring in half/half mode.



**IMPORTANT!**

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

---

**End of Procedure**

---

## Verify the Fiber Rings

### Procedure 31 Verifying the Fiber Rings

See *Software Input/Output: Maintenance* (553-3001-511) for more information on Overlay 39 commands.

- 1 Check that Fiber Ring 1 operates correctly:
  - LD 39** Load the program
  - STAT RING 1** Check the status of Ring 1 (HALF/HALF)
- 2 Reset the Rings:
  - RSET** Reset the Rings and prepare them for redundancy
  - RSTR** Restore both Rings to HALF state
- 3 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)
- 4 If any Ring problems occur, correct them now.
  - STAT ALRM <X> <Y>** to check the alarm status of individual FIJI cards or all FIJI cards. See *Software Input/Output: Administration* (553-3001-311) for more information.
- 5 Verify that call processing operates including, but is not limited to the following:
  - a. Check for dial tone.
  - b. Make internal, external, and network calls.
  - c. Check attendant console activity.
  - d. Check DID trunks.

- e. Check any auxiliary processors.

---

**End of Procedure**

---

## **Upgrade Core/Net 0 software**

### **Procedure 32**

#### **Upgrading Core/Net 0 software**

- 1** Seat the IODU/C. Verify the status on the display (A1).
- 2** Faceplate enable the IODU/C.
- 3** Insert the Call Processor Install Program diskette into IODU/C floppy drive in Core/Net 0.
- 4** Verify that the Call Processor card in Core/Net 0 is in MAINT mode.
- 5** Seat the Call Processor card.
- 6** Connect a terminal to the J25 port on the I/O panel in Core/Net 0.
- 7** Press the MAN RST button on the Call Processor card in Core/Net 0 to reboot the system and start the Software Installation Tool. (The terminal displays SYSLOAD messages during file loading. When SYSLOAD is completed, the NT logo appears.)
- 8** Initiate the installation by selecting the following prompt from the menu:  
  
    `<cr> <u>`           to Install menu
- 9** Remove the Call Processor Install Program diskette and insert the Keycode diskette, when prompted.  
  
    `<a>`               continue with keycode validation
- 10** Remove the Keycode diskette and re-insert the Call Processor Install Program diskette into the IODU/C floppy drive in Core/Net/Net 0.
- 11** When the main menu appears, select the following option to copy the software from Core/Net 1 to Core/Net 0 and exit the Main Menu:  
  
    `<0>`               to copy system software from the other  
                          Core/Net

**12** When the software is installed successfully, press **<CR>** to install CP-software from the hard disk to Flash EEPROM, and install CP-BOOT ROM. Follow the screen directions until the Main Menu returns.

**13** From the Main Menu, select the prompts in the following sequence to install the IOP-ROM:

- <f>**                      to install IOP-ROM only
- <cr> <a>**                to install the IOP-ROM from hard disk
- <y>**                        Yes, start installation
- <cr> <a>**                to continue with ROM upgrade

Follow the screen directions until the Main Menu returns.

**14** From the Main Menu, select the following options in sequence to copy the customer database from Core/Net/Net 1 to Core/Net/Net 0:

- <d>**                        to go to the Database menu
- <d>**                        to copy the database from Core/Net 1 to Core/Net 0
- <y>**                        to confirm the installation status summary
- <a>**                        to confirm database copy

**15** From the Main Menu, select the following options to quit and reload the system:

- <q>**                        to quit
- <y>**                        to confirm quit

**16** Reboot the Core/Net/Net 0 CPU:

- <a>**                        to reboot the system

Wait for "DONE" and then "INI" messages to be displayed before continuing.

---

**End of Procedure**

---

## Complete the upgrade

Follow the procedures below in sequence. If an error occurs at any time, resolve the problem before continuing.

### Exit split mode

#### Procedure 33

##### Exiting split mode

- 1 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 will display and confirm your processes with:

**RUNNING ROM OS**

**ENTERING Call Processor  
VOTE**

- 2 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.

**Note:** The HWI messages are displayed on the TTY device connected to the active core.

- 3 Once the synchronization is complete, enable the CNI cards in Core/Net 0 (set the ENB/DIS faceplate switch to ENB).



Core/Net 1 is active, Clock Controller 1 is active, Core/Net 0 inactive, Clock Controller 0 is inactive, fiber ring is in half/half mode.

- 4 Check the status of the CPU and CNI cards in Core/Net 1:.

**LD 135**

**STAT CPU**                      Get status of CPU and memory

**STAT CNI**                      Get status of CNI cards

- 5 Enable the CNI ports if necessary:

**ENL CNI *c s p***              Enable CNI on *core, slot, port*

- 6 In Core/Net 1, set the MAINT/NORM switch on the Call Processor card to NORM.

---

**End of Procedure**

---



## **Synchronize the hard disks**

### **Procedure 34**

#### **Synchronizing the hard disks**

- 1 Load LD 137 and synchronize the hard disks. Synchronization may take up to seven minutes. To be sure that the contents of IODU/C 1 are copied to IODU/C 0, 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**                      Performs hard and floppy disk test  
**CMDU**

- 2 Get the status of the IODU/Cs and be sure IODU/C 0 is active. Switch if necessary.

**STAT**                      Get the status of IODU/C and redundancy

**SWAP**                      Switch CMDU if necessary

**STAT**                      Get the status of the IODU/Cs. Be sure the same  
**CMDU**                      IODU/C and CPU are active

**\*\*\*\***                      Exit program

---

**End of Procedure**

---

## Verify Core/Net redundancy

### Procedure 35

#### Verifying Core/Net redundancy

To verify redundancy, switch the active Cores back and forth to verify that both sides operate without problems.

#### LD 135

SCPU                      Switch the active Core/Net

SCPU                      Switch the active Core/Net again

---

**End of Procedure**

---

## Test Core/Net 1 and Core/Net 0

### Procedure 36

#### Testing Core/Net 1 and Core/Net 0

- 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 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 37 Switching the Clocks

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

<b>LD 60</b>	Load program
<b>SSCK <i>x</i></b>	Get the status of the clock controllers ( <i>x</i> is “0” or “1” for Clock 0 or Clock 1)
<b>SWCK</b>	Switch the Clock (if necessary)
<b>****</b>	Exit program

- 2    Verify that the Clock Controllers are switching correctly:

<b>SWCK</b>	Switch the Clock
<b>SWCK</b>	Switch the Clock again

---

**End of Procedure**

---

## Check Fiber Ring status

### Procedure 38 Checking Fiber Ring status

See the *Software Input/Output: Maintenance* (553-3001-511) for more information on overlay 39 commands.

- 1    Check that the Fiber Rings operate correctly:

<b>LD 39</b>	Load the program
<b>STAT RING 0</b>	Check the status of Ring 0 (HALF/HALF)
<b>STAT RING 1</b>	Check the status of Ring 1 (HALF/HALF)

- 2    If necessary, restore the Rings to Normal State:

<b>RSTR</b>	Restore both Rings to (HALF/HALF) state
-------------	---

- 3 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)

- 4 Check the status of the FIJI alarms:

**STAT ALRM** Query the alarm condition for all FIJI cards  
in all Network Groups

---

**End of Procedure**

---

## Backup the database

### Procedure 39

#### Backing up the database

- 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 is not successful, do not continue; contact your technical support organization. A data dump problem must be corrected before proceeding.

- 4 When "DATADUMP COMPLETE" and "DATABASE BACKUP COMPLETE" appear on the terminal, enter:

\*\*\*\* Exit program

---

**End of Procedure**

---

## Removal of unused Intergroup cables and module

Once the system is operating and stable with Fiber Network, the unused Intergroup cables and Intergroup module can be removed if desired. Removal of the Intergroup cables and module is not required. Unused Intergroup equipment can be left in place.



### **CAUTION**

#### **Service Interruption**

If the Intergroup cables and module are removed from the Fiber Network system, be careful not to dislodge or damage any working cables or equipment.

The Intergroup (IGS) module can also be converted into an IPE module with the IPE Expansion kit.

# Meridian 1 Option 81C/IGS upgrade to Option 81C/IGS CP PII

## 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 22 below:

**Table 22**  
**Prepare for upgrade steps**

Procedure Step	Page
Plan upgrade	<a href="#">212</a>
Upgrade Checklists	<a href="#">212</a>
Prepare	<a href="#">212</a>
Identifying the proper procedure	<a href="#">213</a>
Connect a terminal	<a href="#">214</a>
Check the Core ID switches	<a href="#">215</a>
Print site data	<a href="#">217</a>
Perform a template audit	<a href="#">220</a>
Back up the database (data dump and ABKO)	<a href="#">221</a>
Identify two unique IP addresses	<a href="#">225</a>

## 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 in Book 3. 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](#)).
- 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 40

#### 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/O 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 41

#### 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 — Service Interruption**

The CP PII Core/Net card cages **MUST** be installed in the correct Core 0 or Core 1 module.

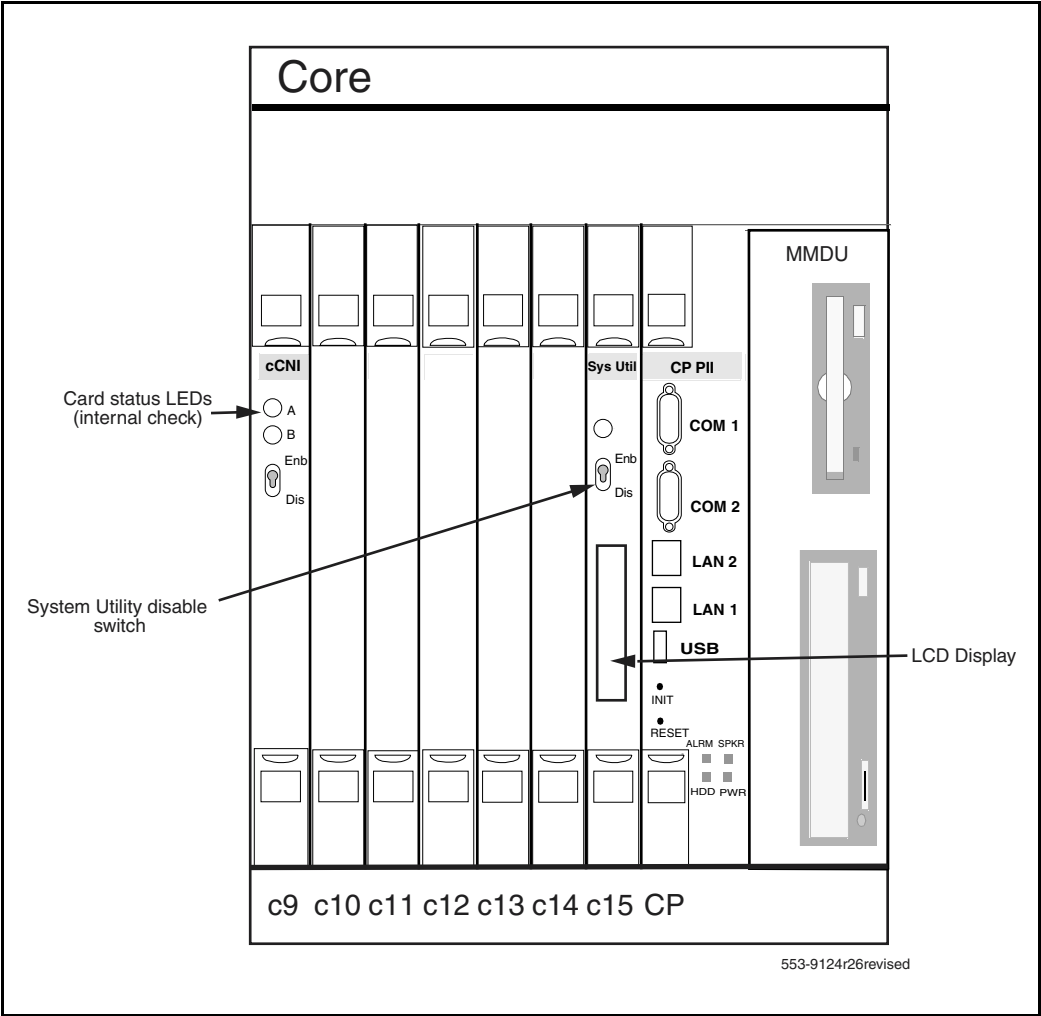
- 1 Pull the System Utility card (NT4N48) far enough out of its slot so you can see the ID switch settings.
- 2 Check and confirm the switch settings according to Table 23 on [page 215](#).
- 3 Reinstall the System Utility card.
  - a. Gently slide the card into the slot until it makes contact with the 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**

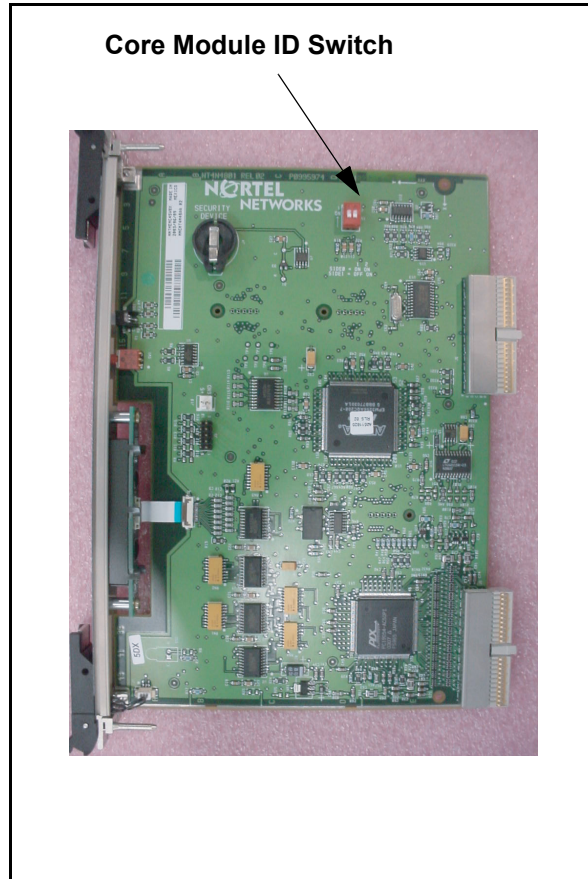
**Table 23**  
**Core module ID switch settings (System Utility card)**

	Position 1	Position 2
Core 0	On	On
Core 1	Off	On

**Figure 11**  
**Core card placement in the NT4N40 Core/Net card cage (front)**



**Figure 12**  
**Core Module ID switch**



## **Print site data**

Print site data to preserve a record of the system configuration (Table 24 on [page 218](#)). 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 24**  
**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>
*Configuration Record	LD 22	
	REQ	PRT
	TYPE	CFN

**Table 24**  
**Print site data (Part 2 of 3)**

Site data	Print command	
*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 24  
Print site data (Part 3 of 3)

Site data	Print command	
DTI/PRI data block for all customers	LD 73	
	REQ	PRT
	TYPE	DDB
<b>Note:</b> 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     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 42 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

### Procedure 43

#### 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 44****Converting 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. See "Database transfer" of Book 3.

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 MB 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 System Administrator to identify two unique IP addresses before the upgrade.
- For instructions to configure these IP numbers, see “Configuring IP addresses” on [page 667](#).

## 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:



### IMPORTANT!

When configuring NTND14 cables, observe the following rules:

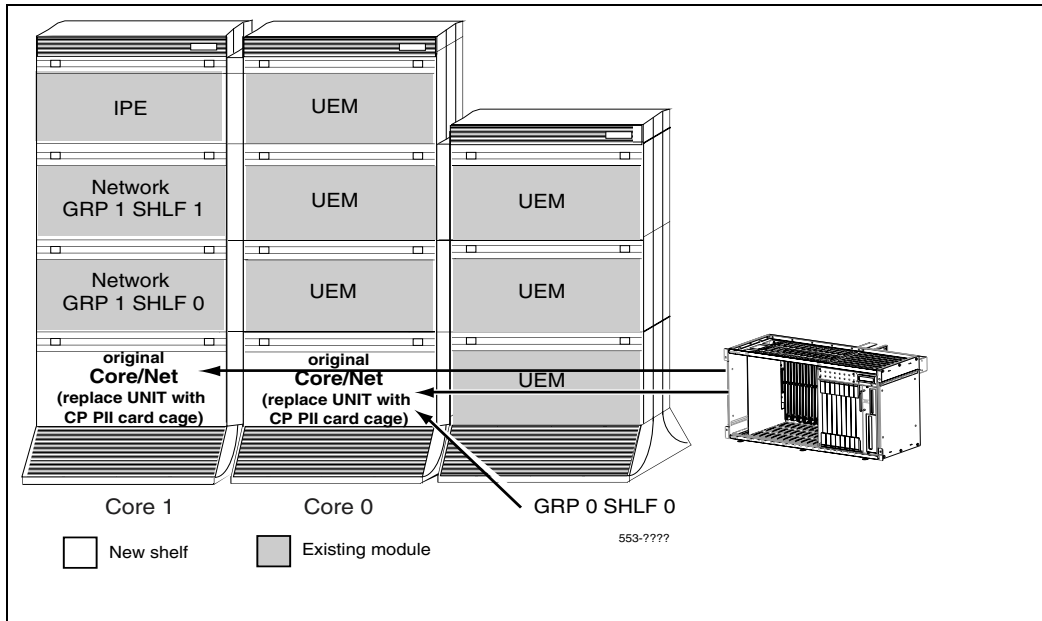
- The shortest NTND14 Cable should always be used.
- A network group requires 4 NTND14 cables, 2 to each half group. Both cables to each half group must be the same length.
- A check should be made on the existing NTND14 cables. Replace any cables that do not meet the above requirement.

**Note:** The NTND14 BX 50' cables are manufacture discontinued.

## Perform upgrade

Figure 13 below shows an upgrade from a Meridian 1 Option 81C/IGS to a Meridian 1 Option 81C/IGS with CP PII.

**Figure 13**  
**Meridian 1 Option 81C/IGS to Meridian 1 Option 81C CP PII/IGS**



### DANGER OF ELECTRIC SHOCK

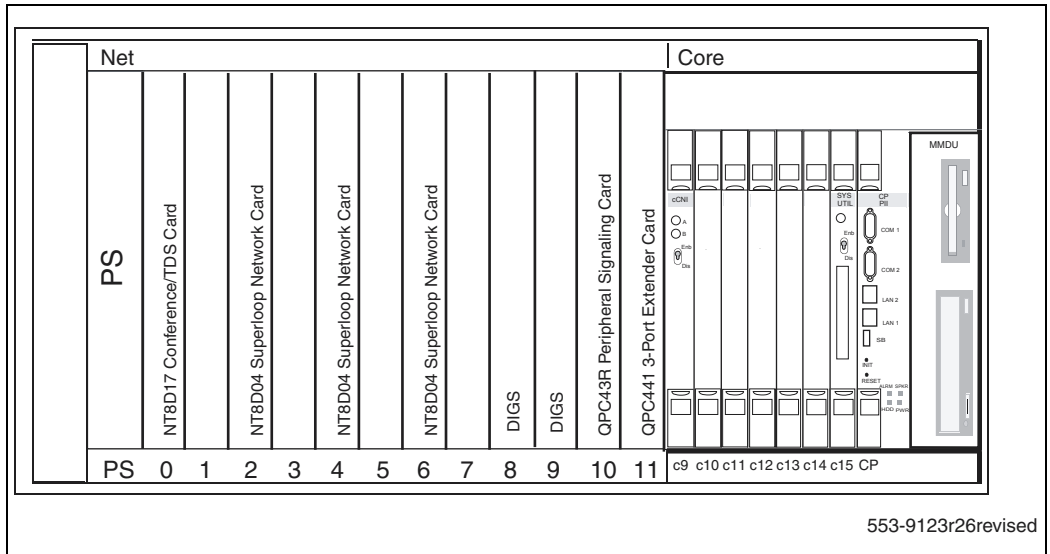
In a DC-powered system, power to the column can remain on during the following procedures. In an AC-powered system, however, power to the entire column *must* be shut down throughout the procedures.

This upgrade takes a Meridian 1 Option 81C/IGS to a Meridian 1 Option 81C/IGS CP PII. Additional groups can be added by following the procedure “Adding a Network Group” on [page 303](#) of Book 3.

To upgrade a Meridian 1 Option 81C/IGS system to a Meridian 1 Option 81C CP PII/IGS:

- Two card cages in the existing Core/Net modules are replaced with two NT4N40 CP PII card cage.
- New CP PII cards are located in the Core/Net modules or card cage.
- Existing network cards are relocated to the CP PII card cages.

**Figure 14**  
**CP PII Core/Net Module**



## Review upgrade requirements

This section describes the **minimum** equipment required for CP PII with IGS. Additional equipment can also be installed during the upgrade. Verify that *all* equipment has been received.

### Check equipment received

Before the upgrade, check that the equipment on the order form is also on the packing slip. Check that all equipment has been received. If any items are missing, contact your supplier for replacements before you begin the upgrade.



#### CAUTION

##### Service Interruption

DO NOT proceed with the upgrade if any of the required equipment is missing. All equipment must be received to complete the upgrade.

### Check required software

The following software packages are required to upgrade a system to Meridian 1 Option 81C with CP PII:

- Succession 3.0 Software
- CPP\_CNI CP Pentium Backplane for Intel Machine Package 368
- CORENET Core Network Module Package 299
- Software Install Kit

### Check vintage requirements for existing hardware

Check the list below to make sure that existing hardware meets the minimum vintage requirements for CP PII.

- The QPC441 3-Port Extender (3PE) cards must be minimum vintage F.
- The QPC43 Peripheral Signaling cards must be minimum vintage R.



If any of the equipment listed does not meet the requirements, replace the equipment before you begin the upgrade.



### CAUTION

#### Service Interruption

Equipment that does not meet the minimum vintage requirements will cause system malfunctions and loss of call processing.

## Check required hardware

Table 25 below describes the *minimum* equipment required to upgrade a system to CP PII. Table 26 and Table 27 on [page 231](#) list the DC and AC power equipment requirements. Additional equipment for increased Network capacity is ordered separately.

**Table 25**  
**Minimum requirements for Meridian 1 Option 81C CP PII/IGS systems (Part 1 of 2)**

Order number	Description	Quantity per system
NT4N64AA	CP PII Call Processor Card (256mb Memory)	2
NT4N43CA	CP PII Multi-Media Disk Unit	2
NT4N40AA	CP PII Core/Network Card Cage AC/DC	2
NT4N65AB	CP PII Core Network Interface Card (2 ports)	2
NT4N48AA	CP PII System Utility Card	2
NT4N88AA	CP PII to I/O Panel DTE Cable (48 in.)	2
NT4N88BA	CP PII to I/O Panel DCE Cable (48 in.)	2
NT4N90BA	CP PII to I/O Panel Ethernet Cable (48 in.)	2
*NT8D01BC	Controller - Four Card	1
*NT8D04BA	Superloop Network Card	
*NT8D17FA	Conference/TDS Card	

Table 25

## Minimum requirements for Meridian 1 Option 81C CP PII/IGS systems (Part 2 of 2)

Order number	Description	Quantity per system
*NT8D22AC	System Monitor	
*NT8D41BA	Quad SDI Paddle Board	1
*NT8D46AD	System Monitor to SDI Cable (60 in.)	1
*NT8D46AL	System Monitor Serial Link Cable (7 ft.)	1
*NT8D46AS	System Monitor InterCPU Cable (30 in.)	1
*NT8D80BZ	CPU Interface Cable (5 ft.)	
*NT8D84AA	SDI Paddleboard to I/O Cable (18 in.)	
*NT8D90AF	SDI Multi-Port Extension Cable (10 ft.)	
*NT8D91AD	Network to Controller Cable (6 ft)	
*NT8D99AB	CPU to Network Cable (2 ft.)	2
*NT8D99AD	CPU to Network Cable (6 ft.)	2
NTRC17BA	CP PII Ethernet to Ethernet Cable (8.5 ft.)	2
*NTRC49AA	Clock - Clock Sync Cable	
NTRE40AA	Dual Ethernet Adapter (RJ45) for I/O Panel	2
*P0745716	Rear I/O Panel	2
P0605337	CP PII Card Slot Filler Panel	10
*NT8D74	Clock Controller cable	2
<b>Note:</b> *Customer supplied from existing system.		

## Check required power equipment

Table 26 below lists the equipment required for DC-powered systems.

Table 27 below lists the equipment required for AC-powered systems.

**Table 26**

**DC power requirements for Meridian 1 Option 81C CP PII/IGS upgrades**

Order number	Description	Quantity per system
NT6D41CA	Core/Network Power Supply DC	2
NT4N97BA	CP PII Upgrade Kit DC (Misc. Card Cage Components)	2

**Table 27**

**AC power requirements for Meridian 1 Option 81C CP PII/IGS upgrades**

Order number	Description	Quantity per system
NT8D29BA	Core/Network Power Supply AC	2
NT4N97AA	CP PII Upgrade Kit AC (Misc. Card Cage Components)	2

## Check required tools

For a list of required tools, see Table 3 on [page 26](#).

## Check personnel requirements

Nortel Networks recommends that a minimum of two people perform the card cage upgrade.

## Database requirements

If the system is running pre-release 19 software or the source platform is a Meridian 1 Option 21E, 51, 61, 71, STE, NT or XT, the database must be sent to Nortel Networks for conversion.

If the source platform is a Meridian 1 Option 51C, 61C, 81, or 81C equipped with IOP/CMDU cards the database must be converted with the Database Transfer utility. See “Meridian 1 Option 81C/IGS upgrade to Option 81C/IGS CP PII” on [page 211](#).

If the source platform is a Meridian 1 Option 51C, 61C, 81, or 81C equipped with IODUC cards, the database should be data dumped (EDD) to a blank 2 MB floppy.

**Note:** All of the above listed system types can be converted by Nortel Networks in the software conversion lab. Please check the current price manual for the requirements of this service.

## Install Core/Net 1 hardware

### Procedure 45

#### Checking main Core card installation

The main Core cards including the MMDU (with the cables for power and data), are installed in the factory as shown in Figure 15 on [page 234](#):

- 1 NT4N65AB CP PII Core Network Interface (cCNI) cards:  
Each system contains 1-4 NT4N65 cCNI card per Core/Net module. The cCNI cards are located in slot c9-c12. If not already installed, install a P0605337 CP PII Card Slot Filler Panel to cover slots which do not contain cCNIs.

**Note:** In the NT4N40 Core/Net card cage, port 0 on the NT4N65 Core to Network Interface (cCNI) Card in slot c9 must be configured as “group 0.” Port 1 on this card must be configured as group 1. The cCNI and 3PE cards for group 0 communicate through the NT4N29 cables. The cCNI to 3PE cables for groups 1 to 7 communicate through the NTND14 cables.

- 2 Slots c13 and c14 are left empty. If not already installed, install a P0605337 CP PII Card Slot Filler Panel in each slot.
- 3 NT4N48AA System Utility (Sys Util) card is located in slot c15.

- a. Check side ID switch settings for SU card in Core/Net 1 according to Table 28 below.

**Table 28**  
**Core module ID switch settings (System Utility card)**

	<b>Position 1</b>	<b>Position 2</b>
Core/Net 0	On	On
Core/Net 1	Off	On

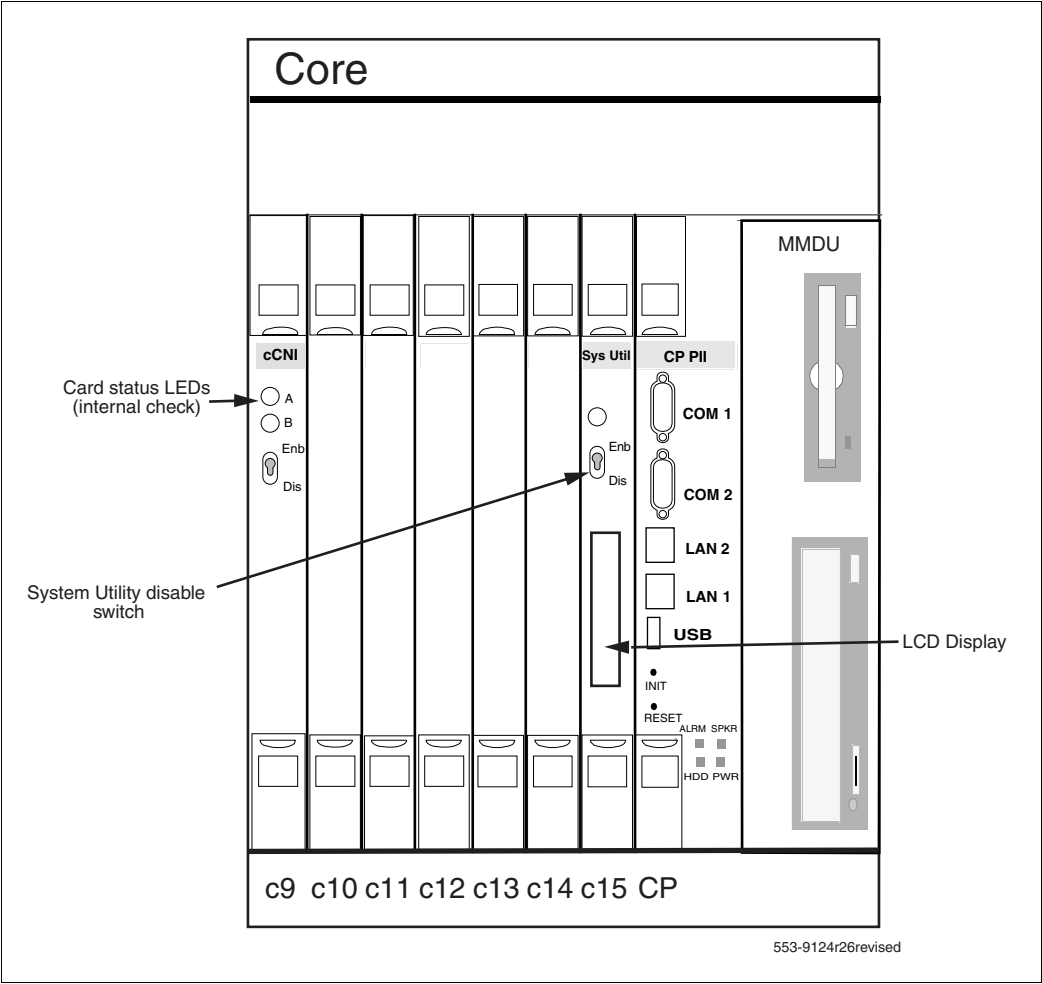
- 4 NT4N64AA CP PII is located in the Call Processor slot.
- 5 The NT4N43CA Multi-Media Disk Unit (MMDU) is located in the extreme right-hand slot next to the CP PII card. The MMDU contains the hard drive, floppy drive and CD-ROM drive.

---

**End of Procedure**

---

**Figure 15**  
**Core card placement in the NT4N41 Core/Net Module (front)**



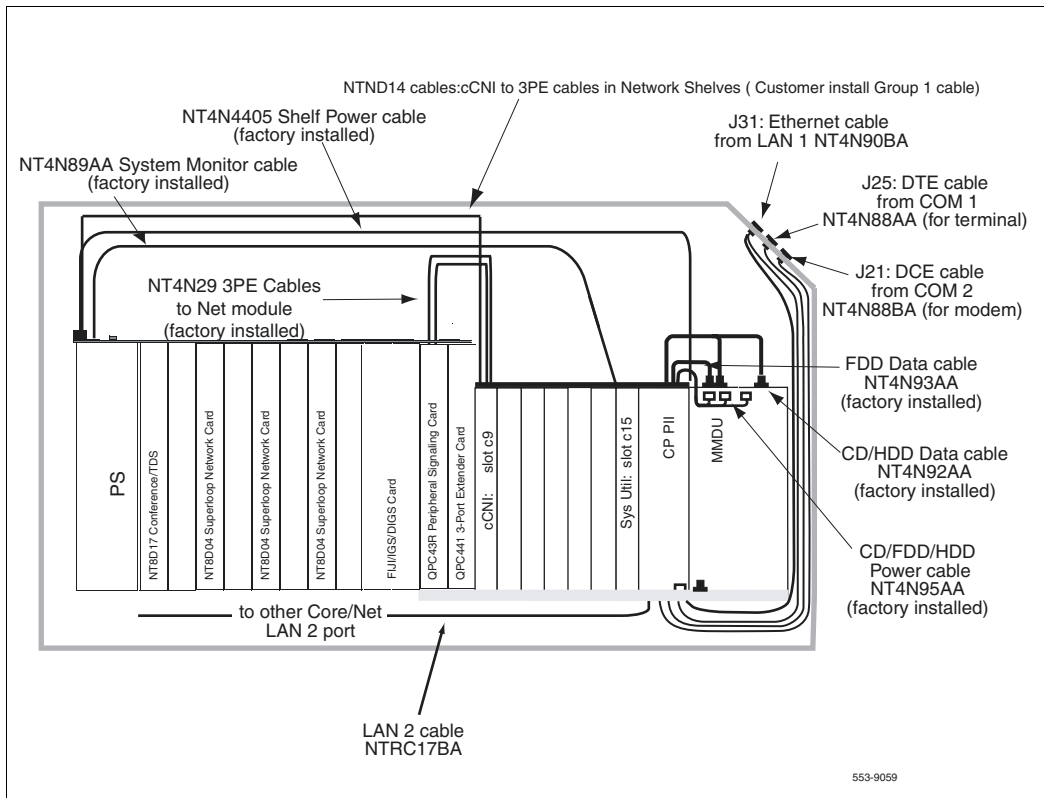
## Check factory-installed cables

Table 29 below lists factory-installed cables. See Figure 16 on [page 236](#).

**Table 29**  
**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

**Figure 16**  
**Core/Net cable connections**





## Disable Core 1

### Check that Core 0 is active

#### Procedure 46

##### Checking that Core 0 is active

To upgrade Core 1, verify that Core 0 is the active side performing call processing:

- 1 Verify that Core 0 is active.

<b>LD 135</b>	Load program
<b>STAT CPU</b>	Get the status of the CPUs

- 2 If Core 1 is active, make Core 0 active:

<b>SCPU</b>	Switch to Core 0 (if necessary)
<b>****</b>	Exit program

### Check that Clock Controller 0 is active

#### Procedure 47

##### Checking that Clock Controller 0 is active

- 1 Check the status of the Clock Controllers:

<b>LD 60</b>	Load program
<b>SSCK 0</b>	Get the status of Clock Controller 0
<b>SSCK 1</b>	Get the status of Clock Controller 1

- 2 If Clock Controller 1 is active, switch to Clock Controller 0.

<b>SWCK</b>	Switch to Clock Controller 0 (if necessary)
<b>DIS CC 1</b>	Disable Clock Controller 1
<b>****</b>	Exit program

**Procedure 48**  
**Disable IGS**

- 1    Disable the IGS/DIGS card located in the network group side of Core/Net 1:

**LD 39**                      Load program

**DIS IGS X**                X = IGS cards located in Core/Net shelf 1

**\*\*\*\***                      Exit program

**Note:** To determine the number of the IGS/DIGS card, refer to Table 30 below.

**Table 30**  
**Shelf 1 IGS/DIGS card locations**

Network Group 0	Shelf 1	IGS/DIGS 1 & 3
Network Group 1	Shelf 1	IGS/DIGS 5 & 7
Network Group 2	Shelf 1	IGS/DIGS 9 & 11
Network Group 3	Shelf 1	IGS/DIGS 13 & 15
Network Group 4	Shelf 1	IGS/DIGS 17 & 19
<b>Note:</b> The DIGS card should be located in slot 9 of the network shelf.		

---

**End of Procedure**

---

## Split the Cores

**Procedure 49**  
**Splitting the Cores**

- 1    In Core 0, set the NORM/MAINT switch on the Call Processor card to MAINT.
- 2    In Core 1, set the ENB/DIS switch on all NT6D65 CNI cards to DIS.

- 3** In Core 1, set the NORM/MAINT switch on the Call Processor card to MAINT.



The system is now in split mode, with call processing on Core 0 with Clock Controller 0 active.

**End of Procedure**

## Software disable Network cards in Core/Net 1 from Core/Net 0



### CAUTION

#### Service Interruption

At this point, the upgrade interrupts service.

### Procedure 50

#### Software disabling cards in network slots of Core/Net 1 from Core/Net 0

- 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 the 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 the ENET, where X= the loop number of the ENET card

**\*\*\*\*** Exit program



## CAUTION

### Service Interruption

If the system terminal is assigned to an SDI port that you are disabling, assign it to another port before you disable the SDI.

- c. In Core/Net 1 only, software disable each port on the SDI cards:

**LD 37**                      Load program

**DIS TTY x**                Disable each port, 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 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 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 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 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 QPC43 card. Table 31 lists Peripheral Signaling Card numbers

**\*\*\*\*** Exit program

**Table 31**  
**Peripheral Signaling Card numbers**

Group/ shelf	Peripheral Signaling Card	Loops disabled/enabled		
0 / 0	0	0	—	15
0 / 1	1	16	—	31
1 / 0	2	32	—	47
1 / 1	3	48	—	63
2 / 0	4	64	—	79
2 / 1	5	80	—	95
3 / 0	6	96	—	111
3 / 1	7	112	—	127
4 / 0	8	128	—	143
4 / 1	9	144	—	159
5 / 0	10	160	—	175
5 / 1	11	176	—	191
6 / 0	12	192	—	207
6 / 1	13	208	—	223
7 / 0	14	224	—	239
7 / 1	15	240	—	255

- 3 In Core/Net 1 only, faceplate disable the 3PE, Per Sig, IGS/DIGS and all network cards.

---

**End of Procedure**

---



**CAUTION**

**Service Interruption**

The system can shut down if the system monitors are not removed. Remove the monitors and keep the cooling fans ON.

**Procedure 51**

**Removing the system monitors from Core 0 and Core 1**

**Note:** This procedure applies to both AC and DC systems.

- 1 In Core 0, software disable the master system monitor (NT8D22):

**LD 37**                      Load program

**DIS TTY #**              Disable master system monitor TTY interface

- 2 Remove J3 and J4 cables on Core 0 and 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 0 and Core 1.



**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.

## Power down Core/Net 1



### CAUTION

#### Service Interruption

Call processing is interrupted for approximately 60 minutes while the procedures are completed.

For AC-powered systems: set the MPDU circuit breaker located at the left end of the module to OFF (down position).

For DC-powered systems: set the breaker for the Core 1 module in the back of the column pedestal to OFF (down position).

### Procedure 52

#### 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 with the cards left installed.

- 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 for use with the CP PII card cage.



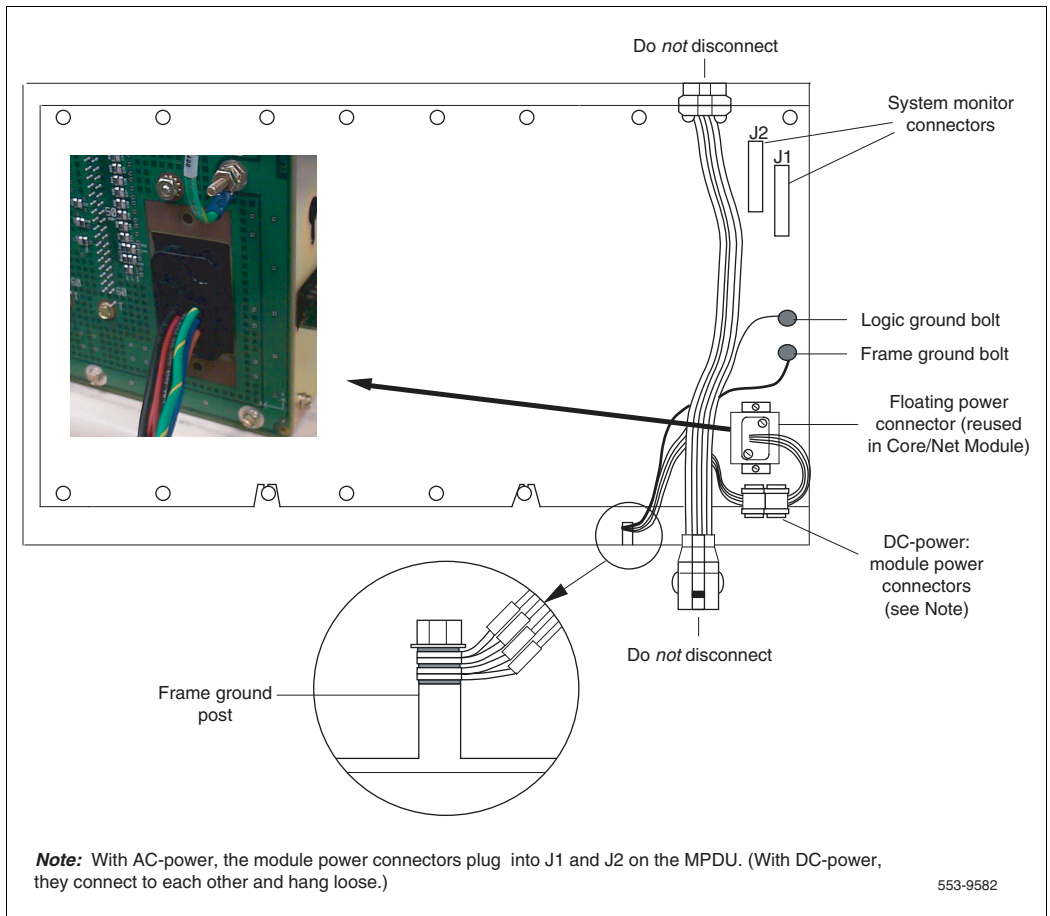
**CAUTION**

Do not drop the mounting screws into the pedestal. Doing so can cause serious damage.

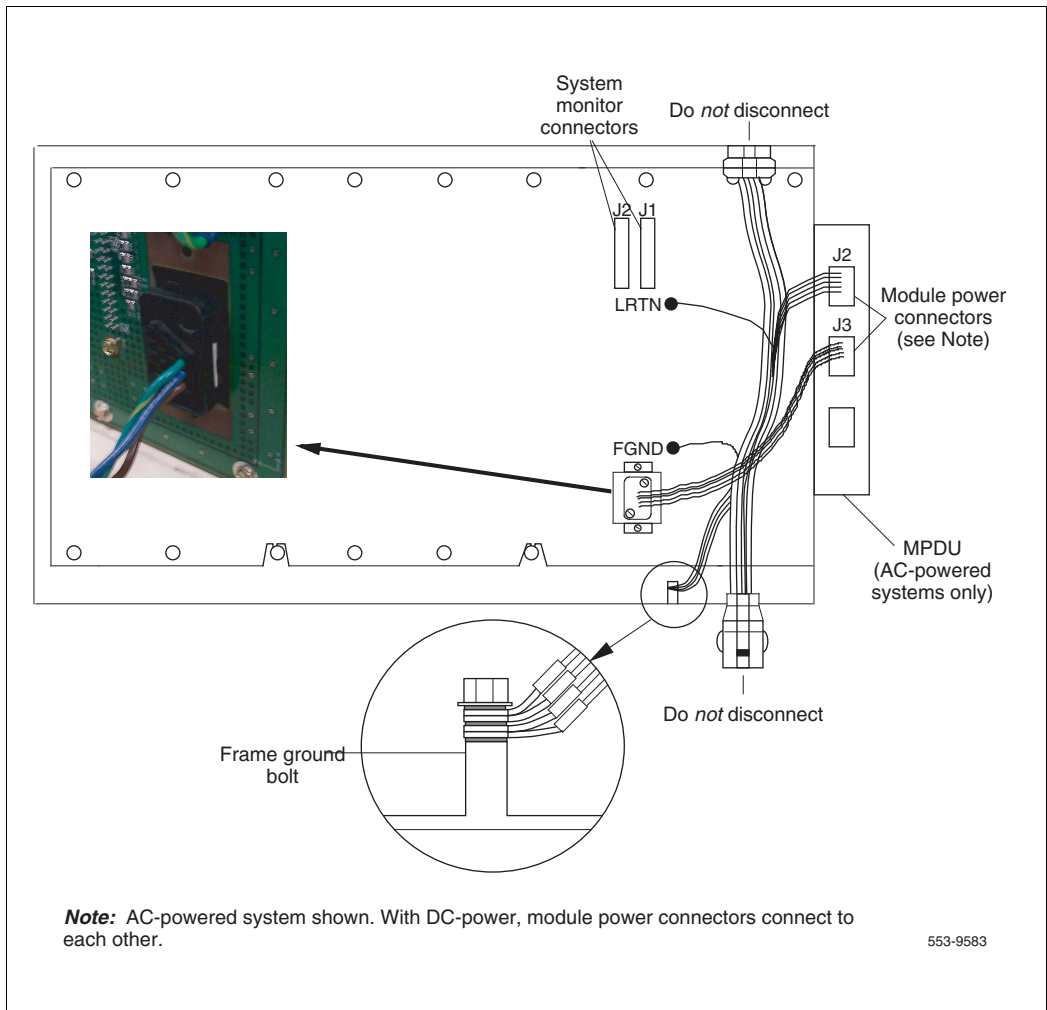
- 8 Remove the front trim panels on both sides of the card cage.
- 9 Remove the three mounting screws that secure the front of the card cage to the bottom of the module. Keep the screws for use with the CP PII card cage.
- 10 Pull the card cage forward until it is halfway out of the module.
- 11 Disconnect 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 17 below for DC power connectors. See Figure 18 on page 246 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.



**Figure 17**  
**DC power connectors on the Core module backplane**



**Figure 18**  
**AC power connectors on the Core module backplane**



- 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 NT8D40.
  - For DC systems, relocate power harness NT7D11.

**CAUTION****Service Interruption**

If you do not tape the EMI shield in position, you will not be able to install the card cage in the module correctly.

- 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****Damage to Equipment**

Check for and remove any debris (such as screws) that fell into the base of the UEM module.

---

**End of Procedure**

---

## Install the CP PII card cage in Core 1

### Procedure 53

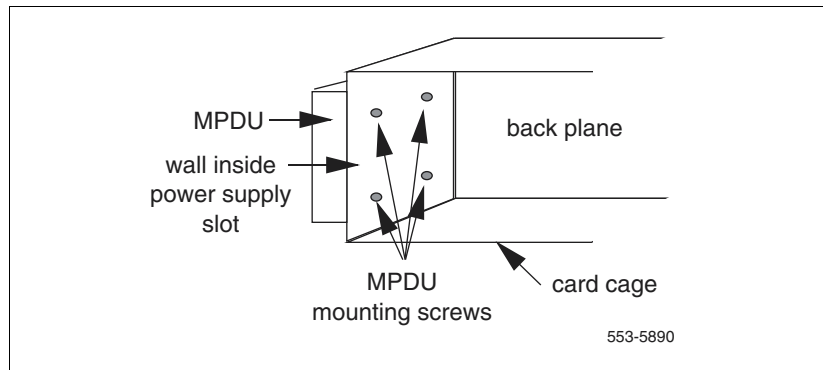
#### Installing the CP PII card cage in Core 1

- 1 Check that the card cage is configured as Core 1. See Table 28 on [page 233](#) for instructions.
- 2 For AC-powered systems only, attach the MPDU, part of the CP PII Upgrade kit, to the side on the NT4N40 card cage. The screws that secure the MPDU are accessible from the power supply slot. See Figure 19 below.

**Note:** Pre-thread 2 bottom mounting screws at the back of the Core/Net shelf.

**Figure 19**

**Location of the screws for the MPDU**



- 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.
- c. Attach the system monitor ribbon cables:
  - i. Connect the ribbon cable that goes down to the column to connector J1 on the backplane.
  - ii. Connect the ribbon cable that goes up the column to J2 on the backplane.
- d. Use a 11/32" socket wrench 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, then tighten down the nut.

**Note:** For all of the wire terminals to fit on the bolt, remove one of the lock washers. Leave a lock washer at the bottom of the bolt and at the top of the bolt. Leave a third lock washer between the second and third, or the third and fourth, wire terminals.

- e. 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 all the way 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.
  - 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 Do not connect the NTRC17BA crossover ethernet cable at this time.

---

**End of Procedure**

---

## **Unpack and install NT6D41CA (DC) or NT8D29BA (AC) Power Supply**

### **Procedure 54 Installing the power supply**

- 1 Unpack the power supply.
- 2 Faceplate disable the power supply.
- 3 Insert power supply into Core/Net module power supply slot.

---

**End of Procedure**

---

### **Procedure 55 Relocating Network cards to CP PII Core/Net 1**

- 1 Remove all remaining network cards from the Meridian 1 Option 81C Core 1 to the same network slots in the CP PII NT4N40 Core/Net 1 card cage.
- 2 Connect the tagged cables to the relocated cards.
- 3 When you move the 3PE card, check the switch settings and jumpers. See Table 32 below.
  - a. All 3PE cards must be vintage F or later.
  - b. Check that the RN27 Jumper is set to "A".

- c. The settings for 3PE cards in Core/Net shelves are different from those in all other shelves: Table 32 below shows the 3PE settings for cards installed in CP PII Core/Net Modules.

**Table 32**  
**QPC441 3PE Card installed in the NT4N40 Module**

<b>Jumper Settings:</b> Set Jumper RN27 at E35 to "A".									
Switch Settings									
Module		D20 switch position							
NT4N40 (Option 81C CP PII)		1	2	3	4	5	6	7	8
Core/Net 0 (Shelf 0)	Group 0	off	on	on	off	on	on	on	on
	Group 1	off	on	on	off	on	on	off	on
	Group 2	off	on	on	off	on	off	on	on
	Group 3	off	on	on	off	on	off	off	on
	Group 4	off	on	on	off	off	on	on	on
	Group 5	off	on	on	off	off	on	off	on
	Group 6	off	on	on	off	off	off	on	on
	Group 7	off	on	on	off	off	off	off	on
Core/Net 1 (Shelf 1)	Group 0	off	on	on	off	on	on	on	off
	Group 1	off	on	on	off	on	on	off	off
	Group 2	off	on	on	off	on	off	on	off
	Group 3	off	on	on	off	on	off	off	off
	Group 4	off	on	on	off	off	on	on	off
	Group 5	off	on	on	off	off	on	off	off
	Group 6	off	on	on	off	off	off	on	off
	Group 7	off	on	on	off	off	off	off	off

## Install the Security Device

### Procedure 56

#### Installing the Security Device

The Security Device fits into the System Utility card (see Figure 20 on [page 253](#)). To install the Security Device, do the following:

- 1 If the original system had an IODU/C, remove the Security Device from the IODU/C for reuse.
  - a. Unlock the latches and remove the IODU/C card.
  - b. Remove the round 1/2" diameter IODU/C Security Device from the round black Security Device holder on the top right corner of the IODU/C card.

OR

If the original system did not have an IODU/C, use the Security Device provided with the CP PII Software kit.

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.

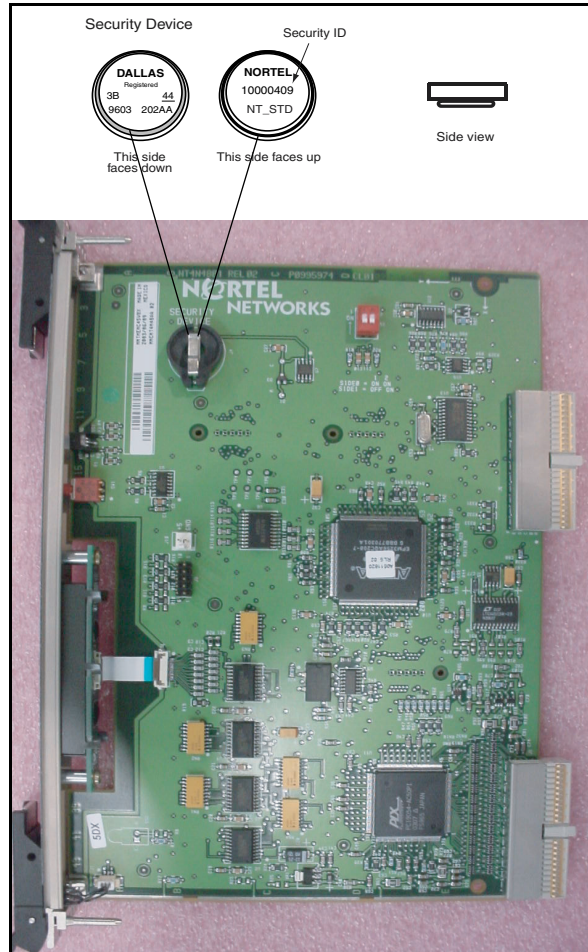
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**End of Procedure**

---



**Figure 20**  
**Security Device**

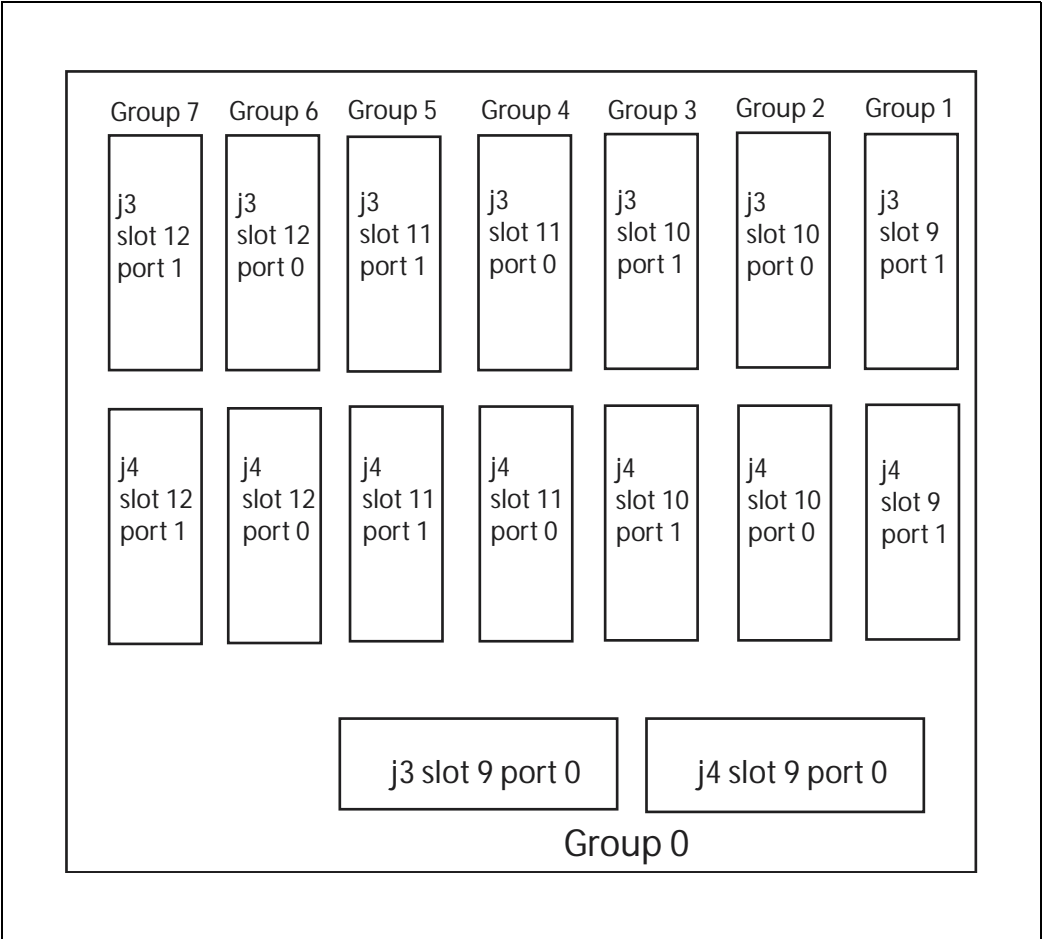


## Cable Core 1

### In Core 1, inspect factory-installed cables

The NT4N29AA cables should be installed for the existing network group in Core/Net 1. If the system has XSDI cards, reinstall the cards and attach the cables. Inspect the system monitor cables (NT4N89).

**Figure 21**  
**Connectors for CNI-3PE cables to the Fanout panel**



**In Core 1, route and connect the cCNI to 3PE (NTND14) cables**

The existing NTND14 cables can be reused for Network groups 1-7. Connect the NTND14 cables to the Fanout Panel in Core/Net 1. See Figure 22 on [page 257](#) and Table 33 on [page 256](#).

When upgrading to CP PII, it is important to know whether Network group 0 will be in the Core/Net module or not. In many installations, Group 0 will be established in a standard Network shelf, and should occupy a higher Network group in the Core/Net.

If Network group 0 will be in the Core/Net, the factory configuration of the new Core/Net modules is correct, and no further action is required.

If Network Group 0 will not be in the Core/Net module, some re-configuration of the processor module is required to allow for concurrent or future use of the Network portion of the Core/Net for a higher Network group.

The NT4N40 shelf is factory-installed with NT4N29 cables and is configured as group 0. If the network portion of the Core/Net shelf is used as a higher network group, use the extraction tool to disconnect the NT4N29 cables from the Core backplane. Once the cables are disconnected, connect them to the appropriate group. For correct connector replacement, see Figure 21 on [page 254](#).

**WARNING****Damage to Equipment**

To unlock the connector, insert the extraction tool between the connector and the securing clip. Do not pry against the connector with the extraction tool. Prying may damage the connector or backplane pins.

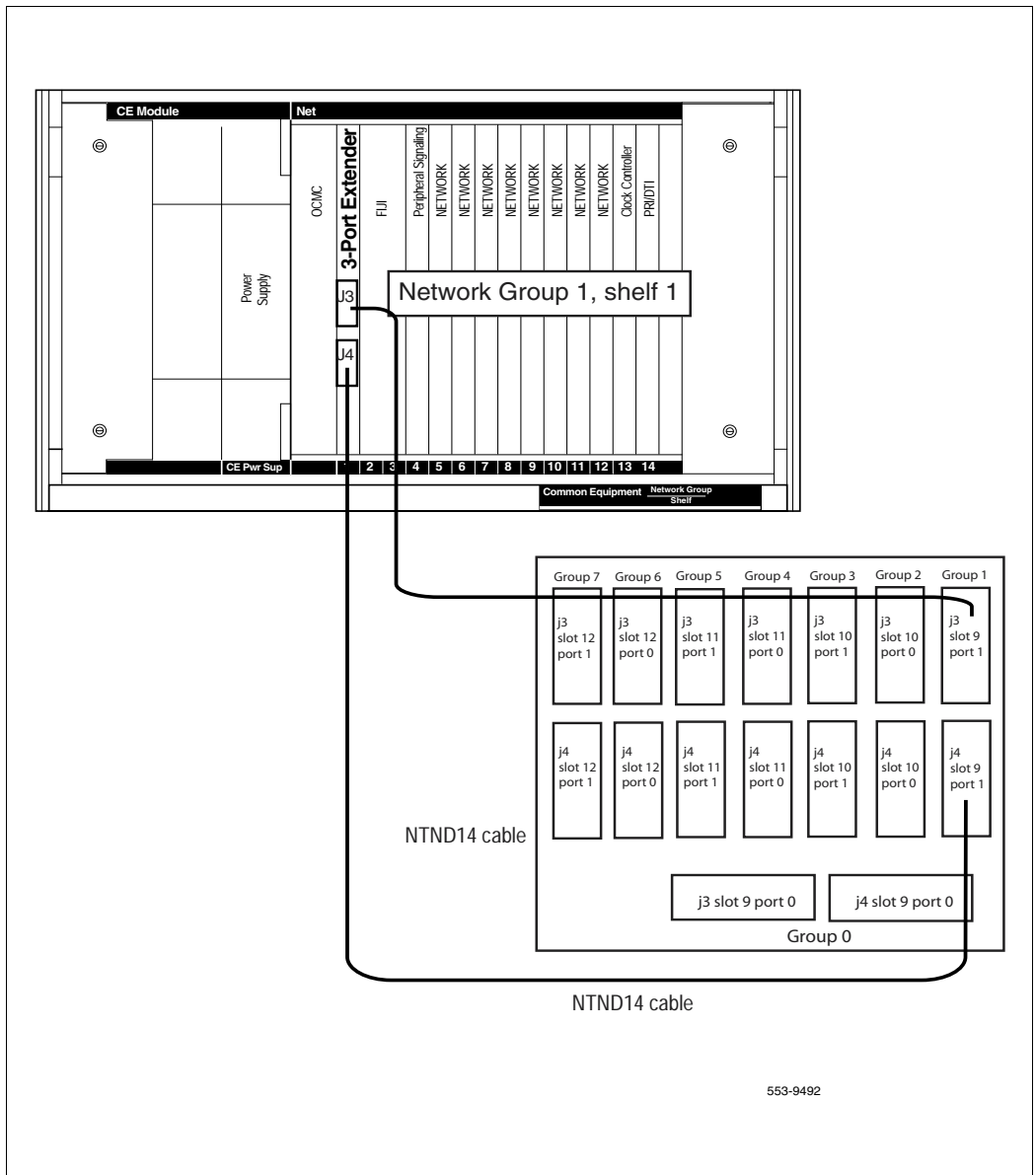
**WARNING**

The NTND14 cable lengths to each shelf (backplane to 3PE) must be the same length. Use cables as short as possible to reach each shelf.

**Table 33**  
**Fanout Panel to 3PE card connectors**

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
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
<p><b>Note 1:</b> Group 0 cables (NT4N29) connect from the Fanout panel directly to the backplane of Core/Net 1. See Figure 22 on <a href="#">page 257</a>.</p> <p><b>Note 2:</b> Group 1 cables (NTND14) connect from the Fanout panel to the faceplate of the 3PE cards of Group 1. See Figure 22 on <a href="#">page 257</a>.</p>		

**Figure 22**  
**3PE Fanout Panel connections**



## Power up Core 1

### Procedure 57

#### 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.

- 2 Connect a terminal to the J25 port on the I/O panel in the *inactive* Core.

- 3 Check the terminal settings as follows:

- 9600 Baud
- 7 data
- space parity 1
- 1 stop bit
- full duplex
- XOFF

**Note:** If only one terminal is used for both Cores, the terminal will have to 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* all core and network cards.
- 5 Faceplate *enable* the power supply.

---

**End of Procedure**

---

## Power up Core cards

### Procedure 58

#### Powering up core cards

- 1 For AC-powered systems: set the MPDU circuit breaker located at the left end of the module to ON (top position).
- 2 For DC-powered systems: set the breaker for the Core 1 module in the back of the column pedestal to ON (top position).

---

**End of Procedure**

---

## Restore power

### Procedure 59

#### Restoring power

- 1 Restore power to Core/Net 1.
- 2 Wait for the system to load/initialize.
- 3 Check that the Network and I/O cards have working power.



System is in split mode, CP 0 is active, clock 0 is active, all network cards in shelf 1 are software disabled.

---

**End of Procedure**

---

## Install software and customer database on Core 1

### Procedure 60

#### Installing the software and converting the database

- 1 Check that a terminal is connected to J25 on Core/Net 1.
- 2 In Core/Net 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.

- 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:

Copyright (c) 1993-1996 RST Software Industries Ltd. All rights 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.

checks 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 install floppy disk at this time and insert the keycode diskette.

- 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 0300x

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: 2540 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 2540 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.  
Confirm database transfer:

You selected to transfer the database from the floppy disk - release: 2540 to the hard disk on Core X. release: 2540.

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**

---

## Configuring IP addresses

### Procedure 61 Configuring the IP addresses

Two unique IP address are required for the CP PII system to communicate with the LAN. One IP address is defined for the *active* Core. The second IP address is defined for the *inactive* Core.

- 1    Use the following to check the status of the system's IP address:

<b>LD 117</b>	Load program
<b>prt host</b>	Print configured host information

If the system returns with host names “active” and “inactive”, go to “Check for Peripheral Software Download to Core 1” on [page 273](#). If the system returns no host names, complete the steps below.

- 2    Contact your System Administrator to identify IP address and subnet mask information.
- 3    Configure the primary (*active*) and secondary (*inactive*) IP addresses:

<b>LD 117</b>	Load program
<b>new host name 1 IP address</b>	Define the first IP address: “name 1” is an alias for the IP address such as “primary” (the IP address is the IP number)
<b>chg elnk active name 1</b>	Assign the “name 1” address to the <i>active</i> Core
<b>new host ‘name 2’ ‘IP address’</b>	Define the second IP address: “name 2” is an alias for the IP address such as “secondary” (the IP address is the IP number)

**chg elnk inactive *name 2*** Assign the “name 2” address to the *inactive* Core

**chg mask xxx.xxx.xxx.xxx** Set the sub-net per local site (this number allows external sub-nets to connect to the system)

**4** Enable the new Ethernet interface.

**LD 137** Load program

**dis elnk** *Disable* the old IP interface values

**enl elnk** *Enable* the new IP interface values

---

**End of Procedure**

---

## Check for Peripheral Software Download to Core 1

Enter LD 22 and print Target peripheral software version. The Source peripheral software version was printed in “Print site data” on [page 217](#). 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.
- The system drops established calls on IPE.

Load LD 22 and print Target peripheral software version.

**LD 22**

**REQ** PRT

**TYPE** PSWV

**ISSP** Print System and Patch Information

<b>SLT</b>	Print System Limits
<b>TID</b>	Print the Tape ID
<b>****</b>	Exit program

## For systems with fewer than eight groups, delete CNIs

### Procedure 62 Deleting CNIs

Software has configured the system for eight groups. If the system has eight groups, skip this procedure. If the system has fewer than eight groups, you must software remove the CNIs not used in the system configuration:

- 1 In Core/Net 1, disable all cCNI cards using LD 135:

<b>LD 135</b>	Load program
<b>STAT CNI</b>	Get the status of all cCNI cards
<b>DIS CNIP x s p</b>	Disable cCNI ports where: x = Core number (0 or 1) s = card slot (9-12) p = port (0 or 1)
<b>DIS CNI x s</b>	Disable cCNI cards where: x = Core number (0 or 1) s = card slot (9-12)
<b>STAT CNI</b>	Confirm that cCNI cards are disabled
<b>****</b>	Exit program

- 2 Use LD 17 to remove the extra cCNI cards.

<b>LD 17</b>	Load program
<b>CHG</b>	CFN
<b>TYPE</b>	CEQU
<b>CEQU</b>	

**carriage return to  
EXTO****EXTO 3PE** Core/Net 0 extended to 3PE**CNI s p x** Out the cCNI card, where:  
s = card slot (9-12)  
p = port (0 or 1)  
x = out network group**EXTI 3PE** Core/Net 1 extended to 3PE**CNI s p x** Out the cCNI card, where:  
s = card slot (9-12)  
p = port (0 or 1)  
x= out network group**carriage return to end  
of program****\*\*\*\*** Exit program**3** Use LD 135 to re-enable cCNI cards:**LD 135** Load program**STAT CNI** Get the status of all cCNI cards**ENL CNI x s** Enable cCNI cards where:  
x= Core number (0,1)  
s = card slot (9-12)**ENL CNIP x s  
p** Enable cCNI ports where:  
x= Core number (0,1)  
s = card slot (9-12)  
p = port (0 or 1)**STAT CNI** Confirm that cCNI cards are enabled**\*\*\*\*** Exit program

---

**End of Procedure**

---

## Reconfigure I/O ports and call registers

### Procedure 63

#### Reconfiguring I/O ports and call registers

- 1 Remap all I/O ports (except CPSI ports) to the proper groups.  
The group number of these ports is determined by the physical location of the card. The configuration information must match the CNI configuration

```
LD 17          Load program
CHG            CFN
TYPE          ADAN CHG AAA X G
carriage
return to end
of program
****          Exit program
```

- 2 Evaluate the number of call registers and 500 telephone buffers that are configured for the system (suggested minimum values are 4500 and 1000 respectively). Refer to *Large System: Planning and Engineering* (553-3021-120). If changes are required, reconfigure the values in LD 17:

```
LD 17          Load program
CHG            CFN
TYPE          PARM
carriage
return to end
of program
****          Exit program
```

- 3 Perform a datadump to save the customer database to the hard drive and floppy drive.



- a. Insert a blank floppy into floppy drive on Core/Net 1 MMDU. This floppy will be re-used when installing software/database on Core/Net 0.
- b. Load the Equipment Data Dump Program (LD 43). At the prompt, enter

**LD 43**                      Load program

- c. When "EDD000" appears on the terminal, enter

**EDD**                      Begin 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.

**CAUTION****Service Interruption**

The INI may take up to 15 minutes to complete.

- 4 When "DATADUMP COMPLETE" and "DATABASE BACKUP COMPLETE" appear on the terminal, enter:

**\*\*\*\***                      Exit program

**CAUTION****Service Interruption**

Call processing is interrupted for approximately 60 minutes while the procedures are completed.

---

**End of Procedure**

---

**Procedure 64**  
**Rebooting Core 1**

Core 0 is now the active call processor. Call processing is now transferred from Core 0 to Core 1. Disable CNI cards in core 0 and perform a sysload in Core/Net 1.

- 1 Faceplate disable CNI in Core 0.
- 2 Faceplate disable IODUC.
- 3 Unseat Core 0 CP card.
- 4 Faceplate disable Clock Controller 0.
- 5 Faceplate disable IGS/DIGS card in Core/Net 0
- 6 Press the RESET button on the CP PII card faceplate to reboot the system.
- 7 Wait for 'Done' and then "INI" messages to display before you continue.



**CAUTION**

**Service Interruption**

Allow the system to recover from all downloads after the INI completes.



Call Processing is now active on Call Processor 1 (except for network cards on Core/Net 0).

---

**End of Procedure**

---

## Disable and remove equipment from Core/Net 0

**Note:** At this point, the active side Core/Net 1 registers all Network cards in Core/Net 0 as disabled.

### Procedure 65

#### Faceplate disabling cards in core and network slots of Core/Net 0:

- 1 Faceplate disable all core and network cards in Core/Net 0.
- 2 Set the ENB/DIS switch on the 3PE card to DIS.

---

End of Procedure

---

## Power down Core/Net 0



### 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.

For AC-powered systems: set the MPDU circuit breaker located at the left end of the module to OFF (down position).

For DC-powered systems: set the breaker for the Core 0 module in the back of the column pedestal to OFF (down position).

### Procedure 66

#### Removing Core 0 cables and card cage

- 1 Label and disconnect all cables to 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 with the cards left installed.

- 7 Use a 1/4" nut driver to remove the two mounting screws at the bottom rear of the card cage that secure the card cage to the module casting. Keep the screws for use with the CP PII card cage.

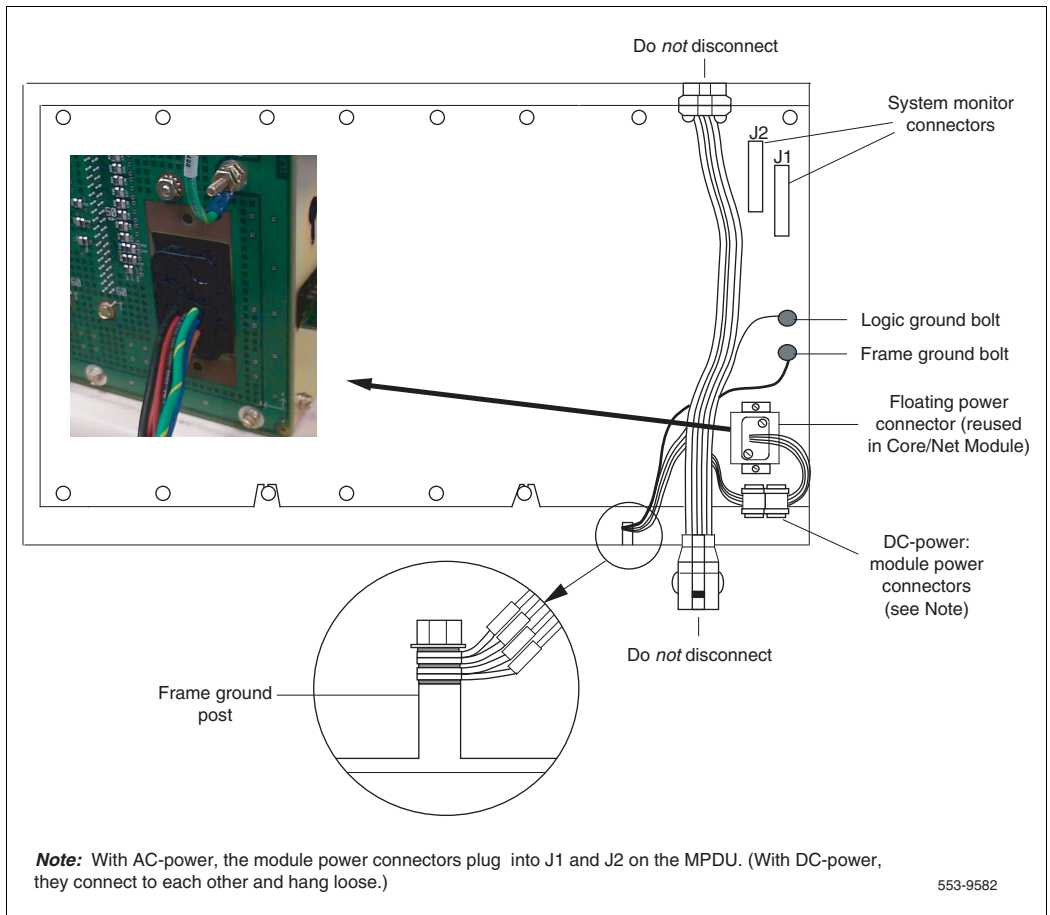


#### CAUTION

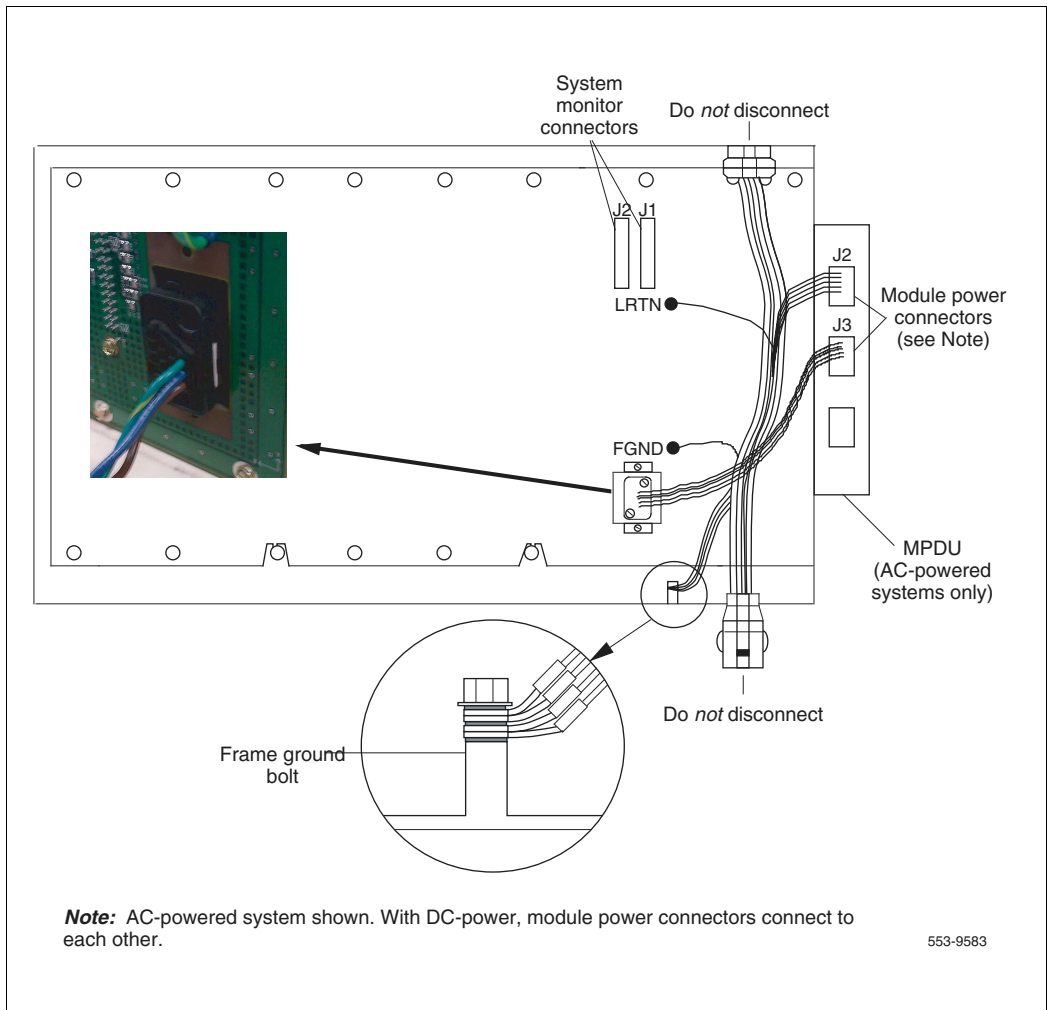
Do not drop the mounting screws into the pedestal. Doing so can cause serious damage.

- 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. Save 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 23 on [page 281](#) for DC power connectors. See Figure 24 on [page 282](#) 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.

**Figure 23**  
**DC power connectors on the Core module backplane**



**Figure 24**  
**AC power connectors on the Core module backplane**



- 17** Remove the power harness and reserve it for reinstallation as part of installing 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 NT8D40.
  - for DC systems, relocate power harness NT7D11.

**CAUTION****Service Interruption**

Be sure to perform the following step. If you do not tape the EMI shield in position, you cannot install the card cage in the module correctly.

- 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****Damage to Equipment**

Check for and remove any debris (such as screws) that fell into the base of the UEM module.

---

**End of Procedure**

---

## Upgrade Core 0 hardware

### Check that the main Core cards (front side) are installed

#### Procedure 67

#### Checking main Core card installation

The main Core cards including the MMDU (with the cables for power and data), are installed in the factory as shown in Figure 25 on [page 285](#).

- 1 NT4N65AB CP PII Core Network Interface (cCNI) cards:  
Each system contains 1-4 NT4N65 cCNI card per Core/Net module. The cCNI cards are located in slot c9-c12. If not already installed, install a P0605337 CP PII Card Slot Filler Panel to cover slots which do not contain cCNIs.

**Note:** In the NT4N40 Core/Net card cage, port 0 on the NT4N65 Core to Network Interface (cCNI) Card in slot c9 must be configured as “group 0.” Port 1 on this card must be configured as group 1. The cCNI and 3PE cards for group 0 communicate through the NT4N29 cables. The cCNI to 3PE cables for groups 1 to 7 communicate through the NTND14 cables.

- 2 Slots c13 and c14 are left empty. If not already installed, install a P0605337 CP PII Card Slot Filler Panel in each slot.
- 3 NT4N48AA System Utility (Sys Util) card is located in slot c15.
  - a. Check side ID switch settings for SU card in Core/Net 0 according to Table 34 below.

**Table 34**  
**Core module ID switch settings (System Utility card)**

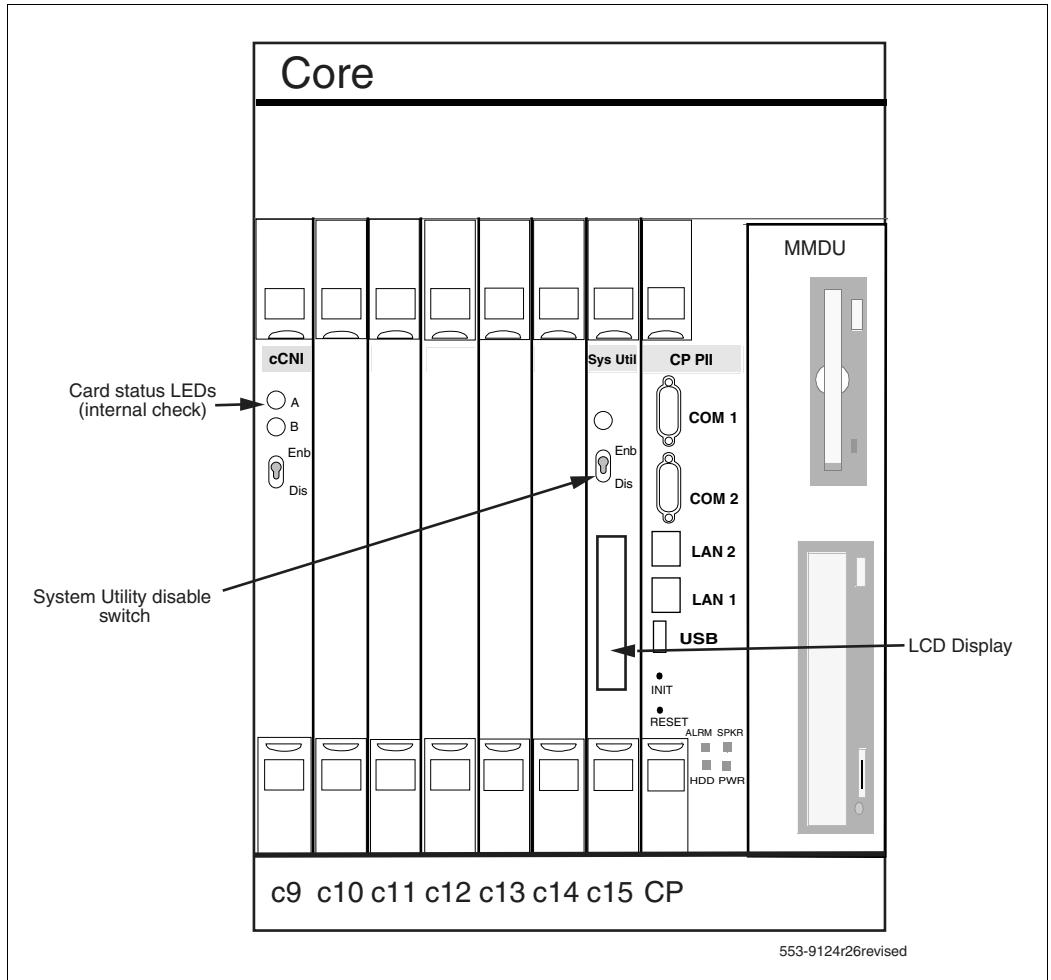
	Position 1	Position 2
Core/Net 0	On	On
Core/Net 1	Off	On

- 4 NT4N64AA CP PII is located in the Call Processor slot.



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

**Figure 25**  
**Core card placement in the NT4N41 Core/Net Module (front)**



**End of Procedure**

## Check factory-installed cables

Table 35 below lists factory-installed cables. See Figure 16 on [page 236](#).

**Table 35**  
**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

## Install the Security Device

### Procedure 68 Installing the Security Device

The Security Device fits into the System Utility card (see Figure 27 on [page 288](#)).

To install the Security Device:

- 1 If the original system had an IODU/C, remove the Security Device from the IODU/C for reuse.
  - a. Unlock the latches and remove the IODU/C card.
  - b. Remove the round 1/2" diameter IODU/C Security Device from the round black Security Device holder on the top right corner of the IODU/C card.

OR

If the original system did not have an IODU/C, use the Security Device provided with the CP PII Software kit.

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.

- 2 Check that the Security Device is securely in place.

---

**End of Procedure**

---

**Figure 26**  
**Core/Net cable connections**

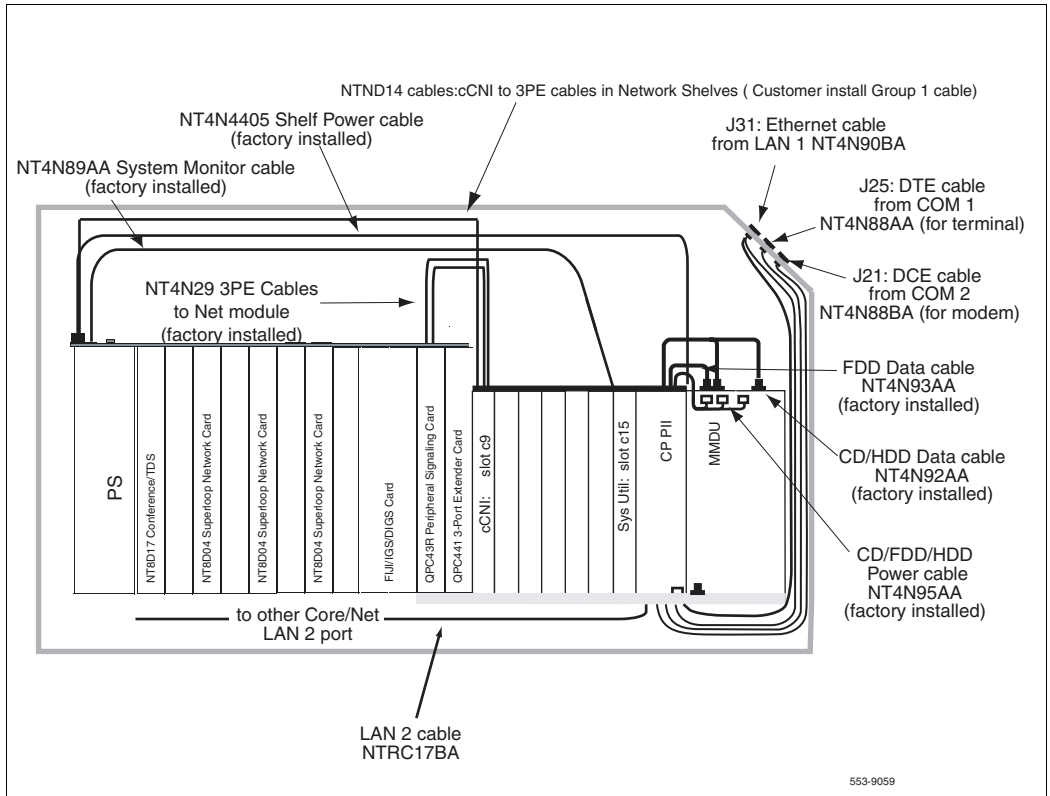
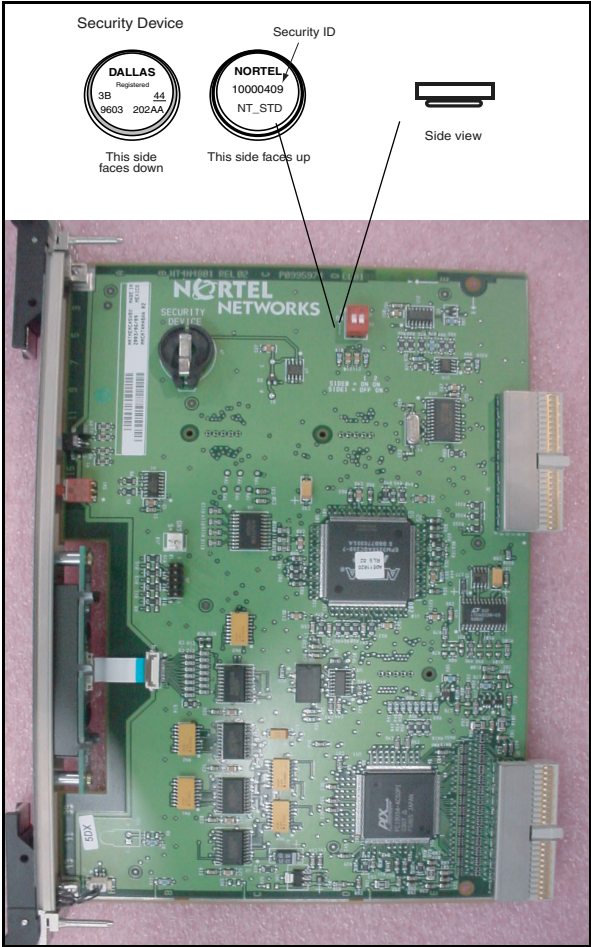


Figure 27  
Security Device



## Install the CP PII card cage in Core 0

### Procedure 69

#### Installing the CP PII card cage in Core 0

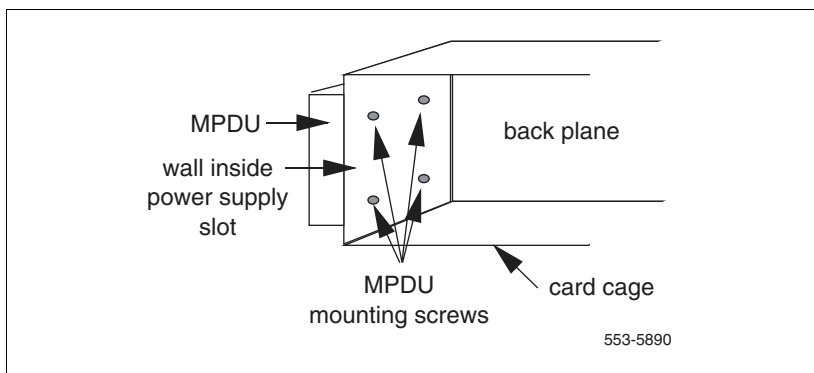
- 1 Check that the card cage is configured as Core 0. See Table 34 on [page 284](#) for instructions.
- 2 For AC-powered systems only, install the new MPDU (part of the CP PII Upgrade kit) to the side on the NT4N40 card cage. The screws that secure the MPDU are accessible from the power supply slot. See Figure 28 on page 289.

**Note:** Pre-thread 2 bottom mounting screws at the back of the Core/Net shelf.

- 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.

**Figure 28**

**Location of the screws for the MPDU**



- 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 fell into the base of the UEM module.

- b. In DC-powered systems, connect the module power connectors to each other.
          - c. Attach the system monitor ribbon cables:
            - i. Connect the ribbon cable that goes down to the pedestal to connector J1 on the backplane.
            - ii. Connect the ribbon cable that goes up the column to J2 on the backplane.
          - d. Attach the green ground wire to the frame ground bolt on the module. (an 11/32" socket wrench is used to attach the wire.) 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, then tighten down the nut.
- Note:** For all of the wire terminals to fit on the bolt, remove one of the lock washers. Leave a lock washer at the bottom of the bolt and at the top of the bolt. Leave a third lock washer between the second and third, or the third and fourth, wire terminals.
- e. 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" or 2/8" socket wrench.)
- 6 Slide the card cage all the way 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.
  - 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 **Do not** Connect the NTRC17BA cross over ethernet cable from LAN 2 on Core/Net 0 faceplate to LAN 2 on Core/Net 1 faceplate.

---

**End of Procedure**

---

## Unpack and install NT6D41CA (DC) or NT8D29BA (AC) Power Supply

### Procedure 70 Installing the power supply

- 1 Unpack the power supply.
- 2 Faceplate disable the power supply.
- 3 Insert power supply into Core/Net module power supply slot.

---

**End of Procedure**

---

### Procedure 71 Relocating Network cards to CP PII Core/Net 0

- 1 Remove all remaining network cards from the Meridian 1 Option 81C Core/Net 0.
- 2 When you move the 3PE card, check the switch settings and jumpers. See Table 36 on [page 292](#).
  - a. All 3PE cards must be vintage F or later.
  - b. Check that the RN27 Jumper is set to "A".

- c. The settings for 3PE cards in Core/Net shelves are different from those in all other shelves: Table 36 below shows the 3PE settings for cards installed in CP PII Core/Net Modules.
- 3 Reinstall each removed card in the same network slot in the CP PII Core/Net 0.
- 4 Connect the tagged cables to the relocated cards.

**Table 36**  
**QPC441 3PE Card installed in the NT4N40 Module**

<b>Jumper Settings:</b> Set Jumper RN27 at E35 to "A".									
Switch Settings									
Module		D20 switch position							
NT4N40 (Option 81C CP PII)		1	2	3	4	5	6	7	8
Core/Net 0 (Shelf 0)	Group 0	off	on	on	off	on	on	on	on
	Group 1	off	on	on	off	on	on	off	on
	Group 2	off	on	on	off	on	off	on	on
	Group 3	off	on	on	off	on	off	off	on
	Group 4	off	on	on	off	off	on	on	on
	Group 5	off	on	on	off	off	on	off	on
	Group 6	off	on	on	off	off	off	on	on
	Group 7	off	on	on	off	off	off	off	on
Core/Net 1 (Shelf 1)	Group 0	off	on	on	off	on	on	on	off
	Group 1	off	on	on	off	on	on	off	off
	Group 2	off	on	on	off	on	off	on	off
	Group 3	off	on	on	off	on	off	off	off
	Group 4	off	on	on	off	off	on	on	off
	Group 5	off	on	on	off	off	on	off	off
	Group 6	off	on	on	off	off	off	on	off
	Group 7	off	on	on	off	off	off	off	off

————— End of Procedure —————



## Cable Core 0



### WARNING

The NTND14 cable lengths to each shelf (backplane to 3PE) must be the same length. Use cables as short as possible to reach each shelf.

**Table 37**  
**Fanout Panel to 3PE card connectors**

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
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 1:** Group 0 cables (NT4N29) connect from the Fanout panel directly to the backplane of Core/Net 1. See Figure 22 on [page 257](#).

**Note 2:** Group 1 cables (NTND14) connect from the Fanout panel to the faceplate of the 3PE cards of Group 1. See Figure 22 on [page 257](#).

**Procedure 72**

**Cabling COM 1 and COM 2 to the I/O panel**

- 1 Connect COM1 on the CP PII faceplate to J25 on the I/O panel with cable NT4N88AA.
- 2 Connect COM2 on the CP PII faceplate to J21 on the back of the I/O panel with cable NT4N88BA.

---

**End of Procedure**

---

**Procedure 73**

**Connecting a terminal and modem to the I/O panel**

- 1 Connect J25 to a terminal for use during the upgrade. Use a separate terminal for each Core if available. J25 can also be connected to an A/B box to share a terminal between both Cores.
- 2 Connect J21 to the device connected in the original system (such as a modem or A/B box).

---

**End of Procedure**

---

**Connect LAN 1**

The LAN 1 port is used to enable redundancy features between the two Core/Net modules. LAN 1 can also be connected to a local area network (LAN) for use with LAN-based administration tools such as OTM. The options for the LAN 1 connections are shown in Figure 29 on [page 295](#).

**Procedure 74**

**If the system will be connected to a LAN**

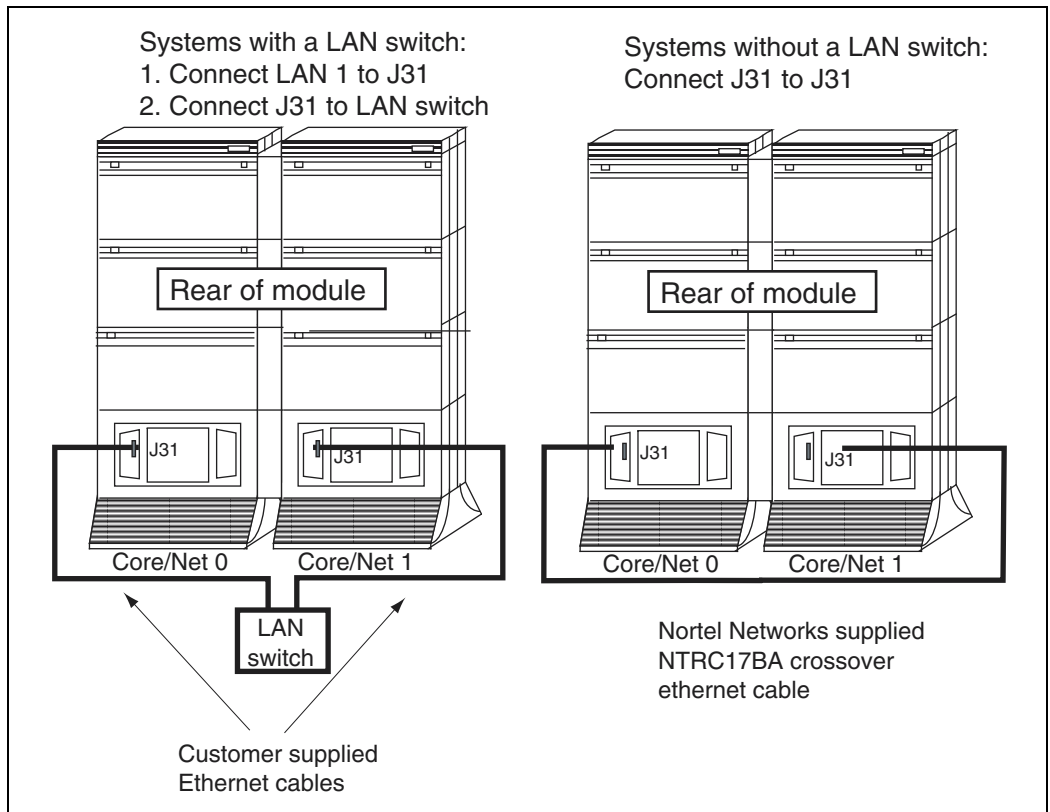
- 1 Connect the "Dual Ethernet Adapter (RJ45) for I/O Panel" (NTRE40AA) to J31. Secure the adapter to J31 with the two screws included in the shipment. Insert the adapter from the inside of the I/O panel.
- 2 Connect LAN 1 (Ethernet) on the CP PII faceplate to J31 (top) of the I/O panel with cable NT4N90BA. This connection can only be made *after* the Dual Ethernet Adapter is installed (see step 1 above).

**3** Connect J31 to a LAN switch.

**Note:** If a LAN switch is not available, connect J31 of Core 0 to J31 of Core 1 by NTRC17BA cable.

**End of Procedure**

**Figure 29**  
**Options for LAN 1 connection**



## **In Core 0, inspect factory-installed cables**

The NT4N29AA cables should be installed for the existing network group in Core/Net 0. If the system has XSDI cards, reinstall the cards and attach the cables. Inspect the system monitor cables (NT4N89).

### **Installing intermodule cables**

#### **Procedure 75**

##### **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 31 on [page 298](#)).
- 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 NT8D80BZ cable between the J4 connectors on the 3PE cards (see Figure 30 on [page 297](#)).
- 4** If the system has XSDI cards, reinstall the cards and attach the cables.

---

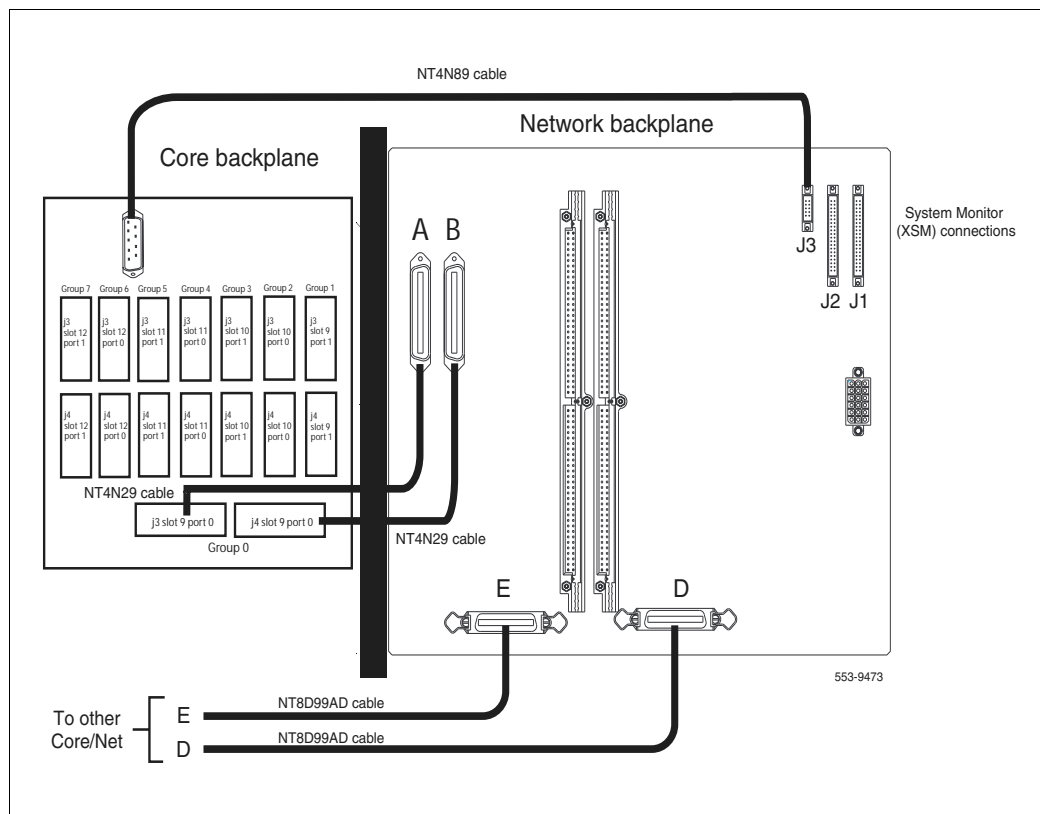
**End of Procedure**

---



**Figure 31**

### Fanout Panel connections on the CP PII Core/Net backplane



### In Core 0, route and connect the cCNI to 3PE (NTND14) cables

The existing NTND14 cables can be reused for Network groups 1-7. Connect the NTND14 cables to the Fanout Panel in Core/Net 0. See Figure 33 on [page 302](#) and Table 38 on [page 300](#).



## WARNING

The NTND14 cable lengths to each shelf (backplane to 3PE) must be the same length. Use cables as short as possible to reach each shelf.

When upgrading to CP PII, it is important to know whether Network group 0 will be in the Core/Net module or not. In many installations, Group 0 will be established in a standard Network shelf, and should occupy a higher Network group in the Core/Net.

If Network group 0 will be in the Core/Net, the factory configuration of the new Core/Net modules is correct, and no further action is required.

If Network Group 0 will not be in the Core/Net module, some re-configuration of the processor module is required to allow for concurrent or future use of the Network portion of the Core/Net for a higher Network group.

The NT4N40 shelf is factory-installed with NT4N29 cables and is configured as group 0. If the network portion of the Core/Net shelf is used as a higher network group, use the extraction tool to disconnect the NT4N29 cables from the Core backplane. Once the cables are disconnected, connect them to the appropriate group. For correct connector replacement, see Figure 34 on [page 334](#).

**WARNING****Damage to Equipment**

Do not pry the connector with the extraction tool. Simply inserting the tool between the connector and the securing clip is sufficient to unlock the connector. Prying may cause damage to the connector or the backplane pins.

**Table 38**  
**Fanout Panel to 3PE card connectors**

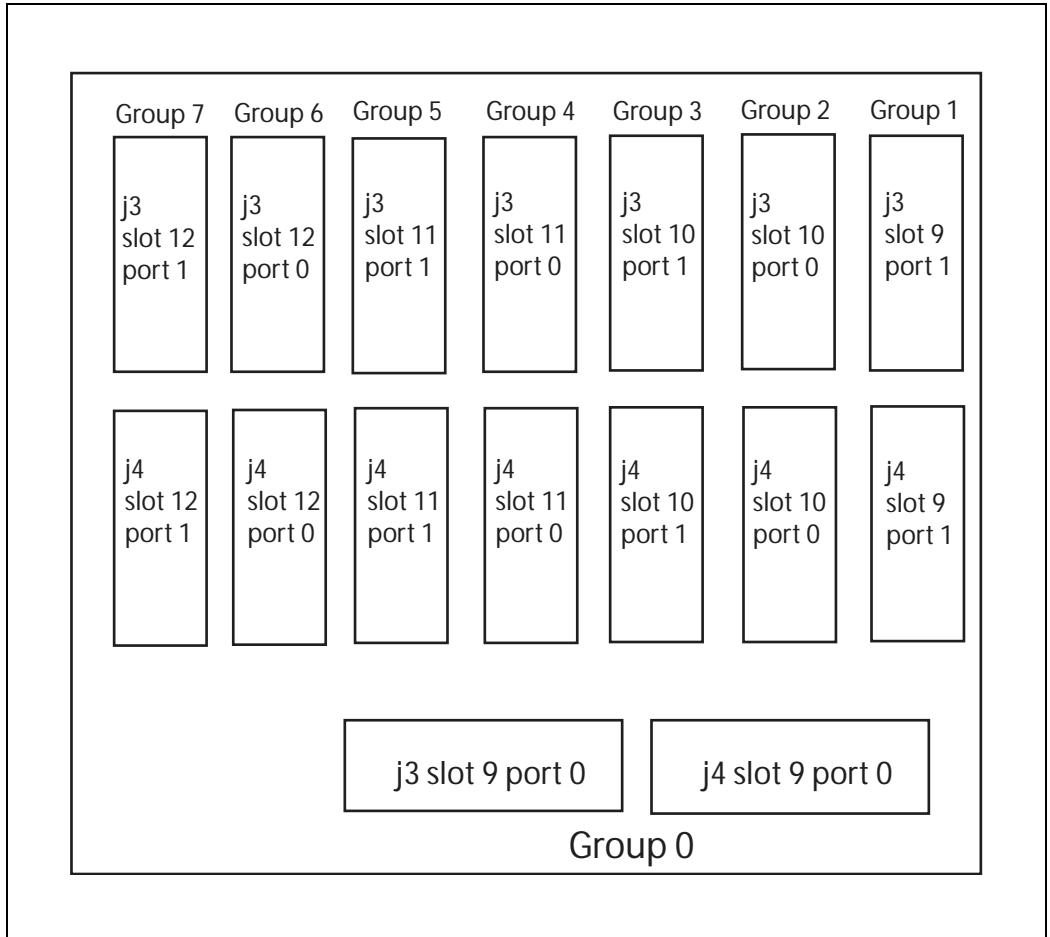
Group Number	Fanout Panel connector	3PE card connector
0	9-0, J3	A
0	9-0, J4	B
1	9-1, J3	J3
1	9-1, J4	J4
2	10-0, J3	J3
2	10-0, J4	J4
3	10-1, J3	J3
3	10-1, J4	J4
4	11-0, J3	J3
4	11-0, J4	J4
5	11-1, J3	J3
5	11-1, J4	J4
6	12-0, J3	J3
6	12-0, J4	J4
7	12-1, J3	J3
7	12-1, J4	J4

**Note 1:** Group 0 cables (NT4N29) connect from the Fanout panel directly to the backplane of Core/Net 1 (see Figure 32 on [page 301](#)).

**Note 2:** Group 1 cables (NTND14) connect from the Fanout panel to the faceplate of the 3PE cards of Group 1 (see Figure 33 on [page 302](#)).

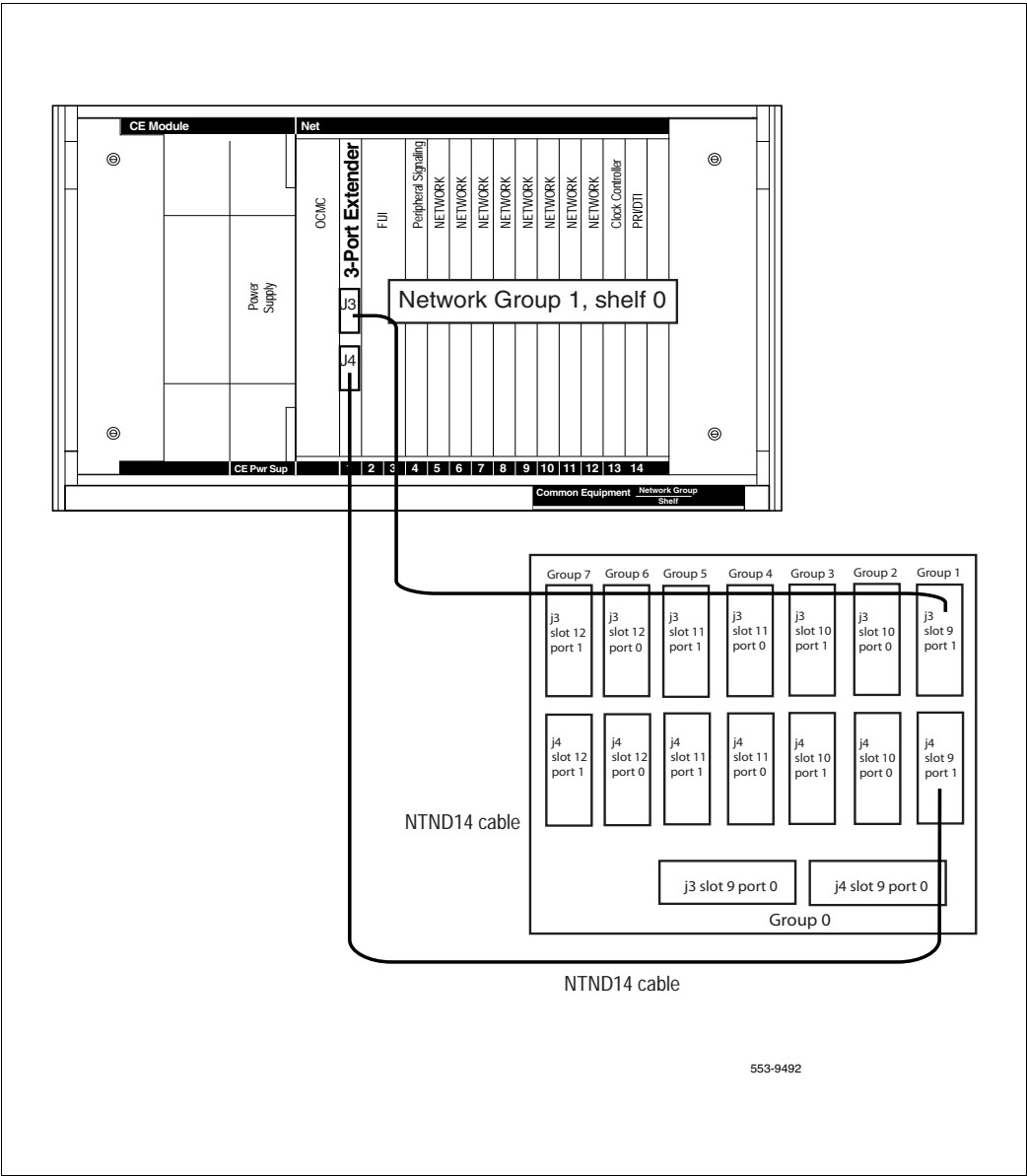


**Figure 32**  
**Fanout panel connectors**



**End of Procedure**

**Figure 33**  
**3PE Fanout Panel connections**



## Restore power to Core/Net 0

### Procedure 76

#### Preparing for power up

- 1 Check that a terminal is connected to the J25 I/O panel connector on Core/Net 0.

**Note:** A maintenance terminal is required to access the Core/Net modules during the upgrade.

- 2 Connect a terminal to the J25 port on the I/O panel in the *inactive* Core.
- 3 Check the terminal settings as follows:
  - 9600 Baud
  - 7 data
  - space parity 1
  - 1 stop bit
  - full duplex
  - XOFF

**Note:** If only one terminal is used for both Cores, the terminal will have to 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* all core and network cards and Clock Controller 0.
- 5 Faceplate *enable* the power supply.

---

**End of Procedure**

---

## Power up Core cards

### Procedure 77

#### Powering up core cards

- 1 For AC-powered systems (NT8D29BA): set the MPDU circuit breaker located at the left end of the module to ON (top position).
- 2 For DC-powered systems (NT6D41CA): set the faceplate enable switch on the power supply to ON and then set the breaker for the Core 1 module in the back of the column pedestal to ON (top position).

- 3    10 seconds after power up of Core/Net 0, press the INI button on Core/Net 1.
- 4    Wait for the system to load and initialize.

---

**End of Procedure**

---

**Procedure 78**  
**Testing Core/Net 1**

- 1    Stat network cards:

<b>LD 32</b>	Load program
<b>STAT x</b>	Stat the network card, where x = loop number
<b>****</b>	Exit program

- 2    Test the clocks:

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

<b>LD 60</b>	Load program
<b>SSCK x</b>	To get the status of the clock controllers (x is "0" or "1" for Clock 0 or Clock 1)
<b>SWCK</b>	To switch the Clock (if necessary)
<b>****</b>	Exit program

- b.    Verify that the clock controllers are switching correctly:.

<b>SWCK</b>	Switch Clock
<b>SWCK</b>	Switch Clock again
<b>****</b>	Exit program

**3 Test the IGS**

**Note:** See the *Software Input/Output: Maintenance* (553-3001-511) for more information on LD 39 commands.

<b>LD 39</b>	Load program
<b>STAT IGS X</b>	Check the status of IGS (X = IGS/DIGS card number; see Table 39)
<b>****</b>	Exit program

**Table 39**  
**Shelf 0 and 1 IGS/DIGS card locations**

Network Group 0	Shelf 0	IGS/DIGS 0 & 2
Network Group 1	Shelf 0	IGS/DIGS 4 & 6
Network Group 2	Shelf 0	IGS/DIGS 8 & 10
Network Group 3	Shelf 0	IGS/DIGS 12 & 14
Network Group 4	Shelf 0	IGS/DIGS 18 & 20
Network Group 0	Shelf 1	IGS/DIGS 1 & 3
Network Group 1	Shelf 1	IGS/DIGS 5 & 7
Network Group 2	Shelf 1	IGS/DIGS 9 & 11
Network Group 3	Shelf 1	IGS/DIGS 13 & 15
Network Group 4	Shelf 1	IGS/DIGS 17 & 19
<b>Note:</b> The DIGS card should be located in slot 9 of the network shelf.		

**4 Label a blank floppy disk as customer database disk and insert into Core/Net 1.**

- 5 Perform data dump in LD 43:
  - a. Load the Equipment Data Dump Program (LD 43). At the prompt, enter:  
  
**LD 43**            Load program
  - b. When "EDD000" appears on the terminal, enter:  
  
**EDD**            Begin 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.

- 6 When "DATADUMP COMPLETE" and "DATABASE BACKUP COMPLETE" appear on the terminal, enter  
  
**\*\*\*\***            Exit program

**Note:** Service is now fully restored with Core/Net 1 as the active call processor.

---

**End of Procedure**

---

## **Install software and customer database on Core 0**

### **Procedure 79**

#### **Installing the software and customer 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 Core/Net 0 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 in Core/Net 0.

Before the install 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!

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:

Copyright (c) 1993-1996 RST Software Industries Ltd. All rights 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 install floppy disk at this time and insert keycode diskette.

- 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: 2540 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 2540 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.

**IMPORTANT!**

Remove keycode floppy disk at this time and insert backup customer database diskette from Step 10 of Procedure 78 on [page 304](#).

**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>**



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:

**IMPORTANT!**

Remove keycode diskette at this time and insert the customer backup database diskette.

You selected to transfer the database from the floppy disk - release: 2540 to the hard disk on Core X. release: 2540.

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**

**Note:** 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 for Core/Net 0 to INI.

---

**End of Procedure**

---

## Make the system redundant

### Procedure 80

#### Enabling system redundancy:

- 1 Connect NTRC17BA from LAN 2 of Core/Net 1 to Lan 2 of Core/Net 0.
- 2 Initialize (INI) Core/Net 0.

**Note:** Once the INI is complete on the *inactive* Core (Core/Net 0), the system will operate in full redundant mode with Core/Net 1 active.

---

**End of Procedure**

---

## Complete the CP PII upgrade

### Procedure 81

#### Testing Core/Net 1

**From Core/Net 1**, perform these tests:

- 1 Perform a redundancy sanity test:

**LD 135**            Load program

**STAT CPU**        Get status of CPU and memory

**TEST CPU**        Test 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**

**3**    Test the System Utility cards and the cCNI cards:

<b>LD 135</b>	Load program
<b>STAT SUTL</b>	Get status of the System Utility (main and Transition) cards
<b>TEST SUTL</b>	Test System Utility (main and Transition) cards
<b>STAT CNI c s</b>	Get status of cCNI cards (core, slot)
<b>TEST CNI c s</b>	Test cCNI (core, slot)

**4**    Test system redundancy:

<b>LD 137</b>	Load program
<b>TEST RDUN</b>	Test redundancy
<b>DATA RDUN</b>	
<b>TEST CMDU</b>	Test MMDU card

**5**    Install the two system monitors. Test that the system monitors are working:

<b>LD 37</b>	Load program
<b>ENL TTY x</b>	Enable the XMS, where x= system XMS
<b>STAT XSM</b>	Check system monitors
<b>****</b>	Exit program

**6**    Clear the display and minor alarms on both Cores:

<b>LD 135</b>	Load program
<b>CDSP</b>	Clear displays on the cores
<b>CMAJ</b>	Clear major alarms
<b>CMIN ALL</b>	Clear minor alarms

**7** Test the clocks:

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

<b>LD 60</b>	Load program
<b>SSCK <i>x</i></b>	To get the status of the clock controllers ( <i>x</i> is “0” or “1” for Clock 0 or Clock 1)
<b>SWCK</b>	Switch the Clock (if necessary)
<b>****</b>	Exit program

- b.** Verify that the Clock Controllers are switching correctly:

<b>SWCK</b>	Switch the Clock
<b>SWCK</b>	Switch the Clock again

**8** Test the IGS:

See the *Software Input/Output: Maintenance* (553-3001-511) for more information on LD 39 commands.

<b>LD 39</b>	Load program
<b>STAT IGS X</b>	Check the status of IGS (X = IGS/DIGS card number. See Table 40 below)
<b>****</b>	Exit program

**Table 40**  
**Shelf 0 and 1 IGS/DIGS card locations**

Network Group 0	Shelf 0	IGS/DIGS 0 & 2
Network Group 1	Shelf 0	IGS/DIGS 4 & 6
Network Group 2	Shelf 0	IGS/DIGS 8 & 10
Network Group 3	Shelf 0	IGS/DIGS 12 & 14
Network Group 4	Shelf 0	IGS/DIGS 18 & 20
Network Group 0	Shelf 1	IGS/DIGS 1 & 3
Network Group 1	Shelf 1	IGS/DIGS 5 & 7
Network Group 2	Shelf 1	IGS/DIGS 9 & 11
Network Group 3	Shelf 1	IGS/DIGS 13 & 15
Network Group 4	Shelf 1	IGS/DIGS 17 & 19
<b>Note:</b> The DIGS card should be located in slot 9 of the network shelf.		

- 9** Check dial tone.
- 10** Make internal, external, and network calls.
- 11** Check attendant console activity.
- 12** Check DID trunks.
- 13** Check applications (Call Pilot, Symposium, Meridian Mail, etc.).

---

**End of Procedure**

---



**Switch call processing****Procedure 82****Switching call processing**

<b>LD 135</b>	Load program
<b>SCPU</b>	Switch call processing from Core/Net 1 to Core/Net 0

Core/Net 1 will INI and Core/Net 0 will become the active call processor.

---

**End of Procedure**

---

**Procedure 83****Testing Core/Net 0**

From Core/Net 0, perform these tests:

**1** Perform a redundancy sanity test:

<b>LD 135</b>	Load program
<b>STAT CPU</b>	Get status of CPU and memory
<b>TEST CPU</b>	Test CPU

**2** Check the LCD states

**a.** Perform a visual check of the LCDs.

**b.** Test LCDs:

<b>LD 135</b>	Load program
<b>TEST LCDs</b>	Test LCDs
<b>DSPL ALL</b>	Display all

**3** Test the System Utility cards and the cCNI cards:

<b>LD 135</b>	Load program
<b>STAT SUTL</b>	Get status of the System Utility (main and Transition) cards

**TEST SUTL**      Test 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**    Test that the system monitors are working:

**LD 37**            Load program

**STAT XSM**      Check system monitors

**\*\*\*\***            Exit program

**6**    Clear the display and minor alarms on both Cores:

**LD 135**

**CDSP**            Clear 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.

<b>LD 60</b>	Load program
<b>SSCK <math>x</math></b>	Get status of the clock controllers ( $x$ is “0” or “1” for Clock 0 or Clock 1)
<b>SWCK</b>	Switch the Clock (if necessary)
<b>****</b>	Exit program

- b.** Verify that the Clock Controllers are switching correctly:

<b>SWCK</b>	Switch Clock
<b>SWCK</b>	Switch Clock again

**8    Test the IGS:**

See the *Software Input/Output: Maintenance* (553-3001-511) for more information on LD 39 commands.

<b>LD 39</b>	Load program
<b>STAT IGS X</b>	Check the status of IGS (X = IGS/DIGS card number; see Table 41).
<b>****</b>	Exit program

**Table 41**  
**Shelf 0 and 1 IGS/DIGS card locations**

Network Group 0	Shelf 0	IGS/DIGS 0 & 2
Network Group 1	Shelf 0	IGS/DIGS 4 & 6
Network Group 2	Shelf 0	IGS/DIGS 8 & 10
Network Group 3	Shelf 0	IGS/DIGS 12 & 14
Network Group 4	Shelf 0	IGS/DIGS 18 & 20
Network Group 0	Shelf 1	IGS/DIGS 1 & 3
Network Group 1	Shelf 1	IGS/DIGS 5 & 7
Network Group 2	Shelf 1	IGS/DIGS 9 & 11
Network Group 3	Shelf 1	IGS/DIGS 13 & 15
Network Group 4	Shelf 1	IGS/DIGS 17 & 19
<b>Note:</b> The DIGS card should be located in slot 9 of the network shelf.		

- 9    Check dial tone.**
- 10   Make internal, external and network calls.**
- 11   Check attendant console activity.**
- 12   Check DID trunks.**
- 13   Check applications (Call Pilot, Symposium, Meridian Mail, etc.).**

---

**End of Procedure**

---

# Meridian 1 Option 81C/IGS upgrade to Option 81C CP PII/FNF

## 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 42 below:

**Table 42**  
**Prepare for upgrade steps (Part 1 of 2)**

Procedure Step	Page
Plan upgrade	<a href="#">330</a>
Upgrade Checklists	<a href="#">331</a>
Prepare	<a href="#">331</a>
Identifying the proper procedure	<a href="#">331</a>
Connect a terminal	<a href="#">332</a>
Check the Core ID switches	<a href="#">333</a>
Print site data	<a href="#">336</a>
Perform a template audit	<a href="#">338</a>
Back up the database (data dump and ABKO)	<a href="#">339</a>

**Table 42**  
**Prepare for upgrade steps (Part 2 of 2)**

Procedure Step	Page
Identify two unique IP addresses	<a href="#">343</a>
Check requirements for cCNI to 3PE cables (NTND14)	<a href="#">343</a>

## 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” of Book 3. 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](#)).
- 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 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 84 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/O 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 85 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 — Service Interruption**

The CP PII Core/Net card cages **MUST** be installed in the correct Core 0 or Core 1 module.

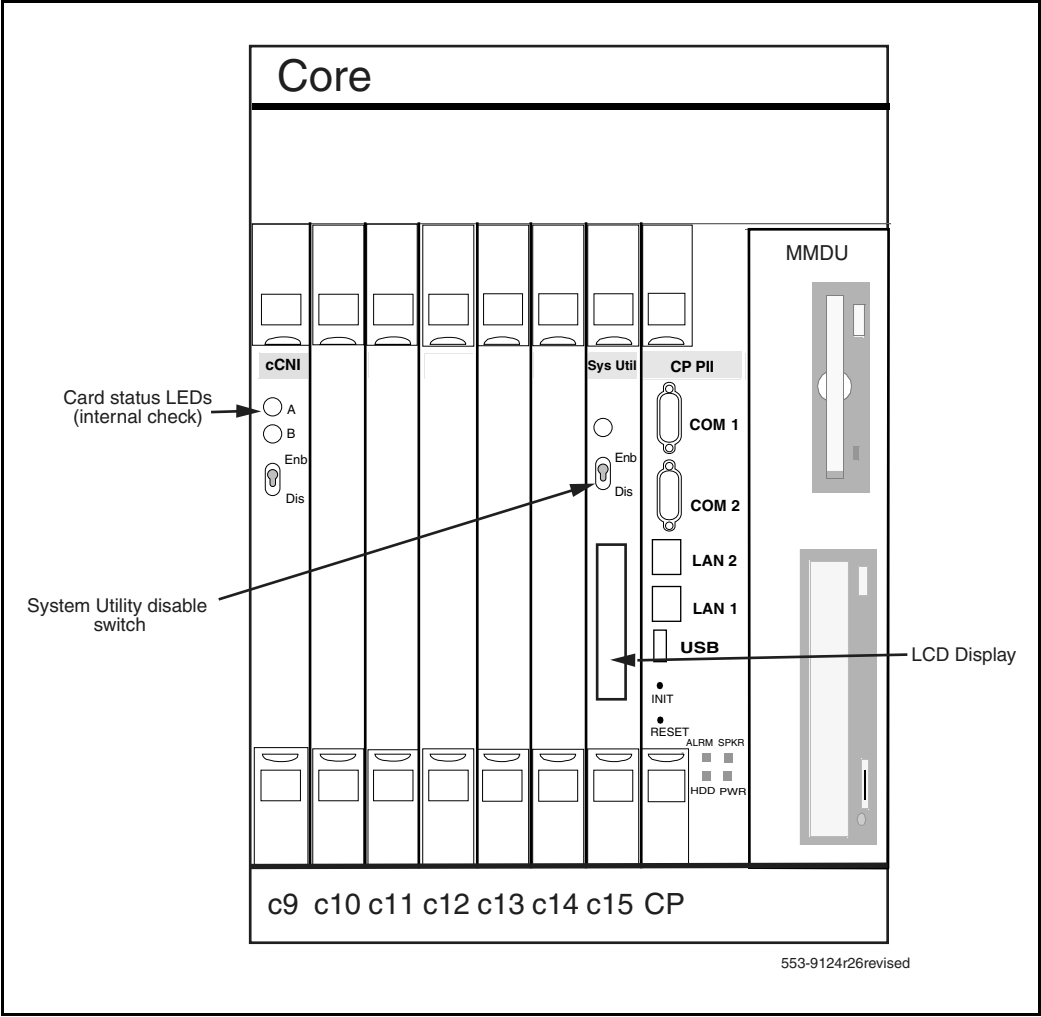
- 1 Pull the System Utility card (NT4N48) far enough out of its slot so you can see the ID switch settings.
- 2 Check and confirm the switch settings according to Table 43 on [page 333](#).
- 3 Reinstall the System Utility card.
  - a. Gently slide the card into the slot until it makes contact with the 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**

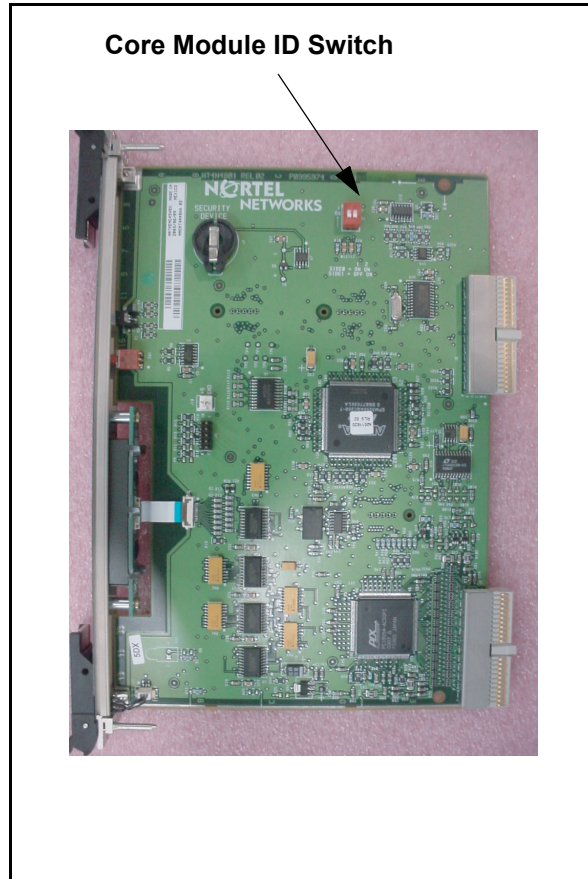
**Table 43**  
**Core module ID switch settings (System Utility card)**

	Position 1	Position 2
Core 0	On	On
Core 1	Off	On

**Figure 34**  
**Core card placement in the NT4N40 Core/Net card cage (front)**



**Figure 35**  
**Core Module ID switch**



### Print site data

Print site data to preserve a record of the system configuration (Table 44 on page 336). 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 44**  
**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 44**  
**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 44**  
**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
<b>Note:</b> 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      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 86 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 87

#### 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 88****Converting 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. See "Database transfer" of Book 3.

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 MB 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 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 System Administrator to identify two unique IP addresses before the upgrade.
- For instructions to configure these IP numbers, see “Configuring IP addresses” on [page 667](#).

## 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:



### 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.

## Perform upgrade

The target upgrade to Meridian 1 Option 81C CP PII with FNF must meet the requirements of Product Bulletins P2002-1658-NA, PAA-2003-0199-NA, and 2000-047 rev1. Highlights include:

- PB requires NTRB53AA Clock Controller
- NT5D12AC, AD, and AG (1.54MB) support
- NT5D97AB, AD (2.0MB) support
- Both NTRC46 cables must be the same length



### IMPORTANT!

The shortest Fiber Cable must always be used.

The cables from group 0 to group 1 must always be the same length as the cables from the last group back to group 0.

The delta between the lengths of each fiber ring from group 0 to any other group must not exceed 50'. Rings are directional. Ring 0 is ascending and ring 1 is descending.

**Note:** When adding an additional network group, fiber cables must be changed to adhere to the rules above.

**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.

**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.

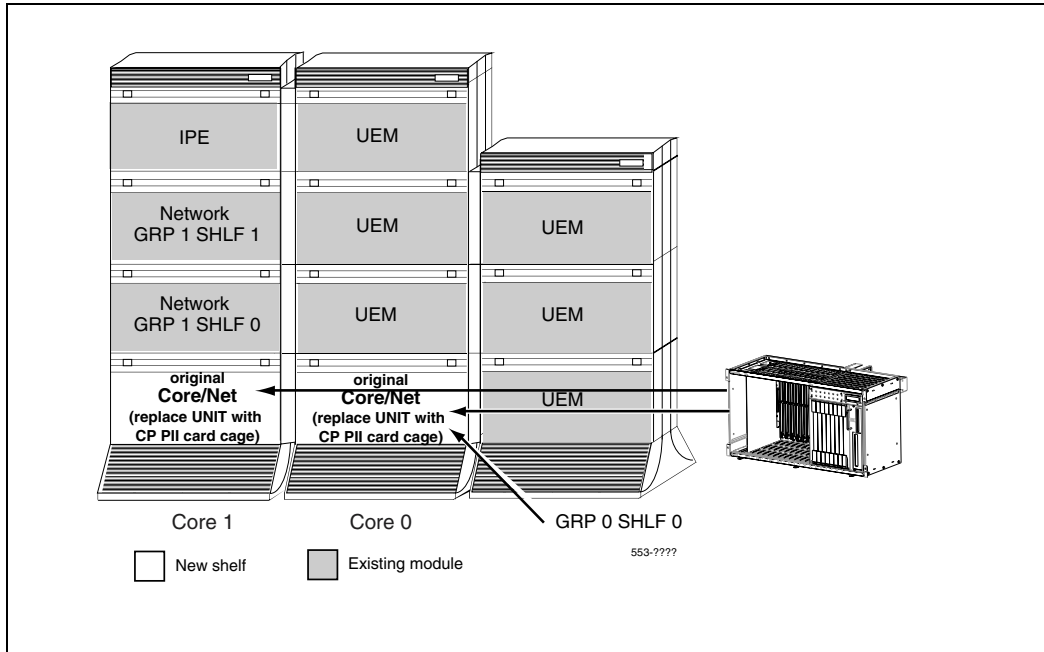
## Meridian Mail Cables

Each shelf containing a Meridian Mail node must be assigned to the same network group and have the same length of cables between the ENET cards and the Meridian Mail Node. Failure to comply may result in intermittent static.

**Note:** Call Pilot's architecture does not have this limitation.

Figure 36 on [page 346](#) shows an upgrade from a Meridian 1 Option 81C/IGS to a Meridian 1 Option 81C with CP PII and Fiber Network Fabric.

**Figure 36**  
**Meridian 1 Option 81C/IGS to Meridian 1 Option 81C CP PII with FNF**

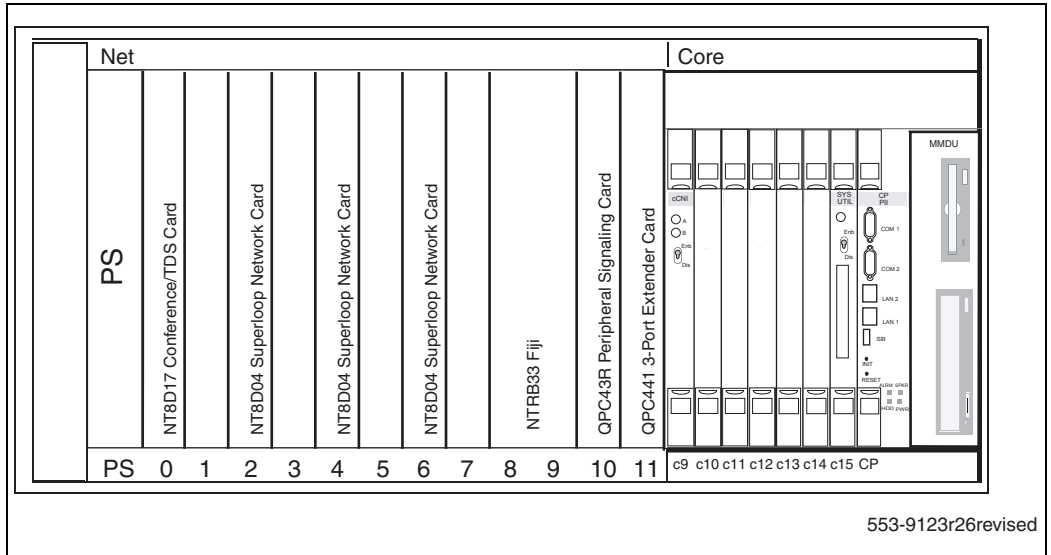


This upgrade takes a Meridian 1 Option 81C/IGS to a Meridian 1 Option 81C CP PII with FNF. Additional groups can be added by following the procedure “Adding a Network Group” of Book 3.

To upgrade a Meridian 1 Option 81C/IGS system to a Meridian 1 Option 81C CP PII with Fiber Network Fabric:

- Two card cages in the existing Core/Net modules are replaced with two NT4N40 CP PII card cage.
- New CP PII cards are located in the Core/Net modules or card cage.
- Existing network cards are relocated to the CP PII card cages.
- Clock Controller cards must be NTRB53AA.
- NTRB33 Fiber Junctor Interface (FIJI) card and the NTRE39 Optical Cable Management Card (OCMC) are added for FNF.

**Figure 37**  
**CP PII Core/Net Module**



553-9123r26revised

## Review upgrade requirements

This section describes the **minimum** equipment required for CP PII with FNF. Additional equipment can also be installed during the upgrade. Verify that *all* equipment has been received.

### Check equipment received

Before the upgrade, check that the equipment on the order form is also on the packing slip. Check that all equipment has been received. If any items are missing, contact your supplier for replacements before you begin the upgrade.



#### CAUTION

##### Service Interruption

DO NOT proceed with the upgrade if any of the required equipment is missing. All equipment must be received to complete the upgrade.

### Check required software

The following software packages are required to upgrade a system to Meridian 1 Option 81C with CP PII:

- Succession 3.0 Software
- CPP\_CNI CP Pentium Backplane for Intel Machine Package 368
- CORENET Core Network Module Package 299
- FIBN Fiber Network Package 365
- Software Install Kit

## Check vintage requirements for existing hardware

Check the list below to make sure that existing hardware meets the minimum vintage requirements for CP PII.

- The QPC441 3-Port Extender (3PE) cards must be minimum vintage F.
- The NTRB53 Clock Controller cards must be minimum vintage A.
- NTRB33 Fiber Junctor Interface (FIJI) Card minimum vintage AC.



- NT5D12AC, AD, and AG (1.54 MB)
- NT5D97AB, AD (2.0 MB)

**Note:** QPC720 PRI cards require NT8D79 cables. NT5D12 Dual PRI/DTI cards require NTCG03 cables.

- The QPC43 Peripheral Signaling cards must be minimum vintage R.

If any of the equipment listed does not meet the requirements, replace the equipment before you begin the upgrade.



### CAUTION

#### Service Interruption

Equipment that does not meet the minimum vintage requirements will cause system malfunctions and loss of call processing.

### Check required hardware

Table 45 below describes the *minimum* equipment required to upgrade a system to CP PII. Table 46 on [page 351](#) and Table 47 on [page 352](#) list the DC and AC power equipment requirements. Additional equipment for increased Network capacity is ordered separately.

**Table 45**  
**Minimum requirements for Meridian 1 Option 81C CP PII with FNF systems (Part 1 of 3)**

Order number	Description	Quantity per system
NT4N64AA	CP PII Call Processor Card (256mb Memory)	2
NT4N43CA	CP PII Multi-Media Disk Unit	2
NT4N40AA	CP PII Core/Network Card Cage AC/DC	2
NT4N65AB	CP PII Core Network Interface Card (2 ports)	2
NT4N48AA	CP PII System Utility Card	2
NT4N88AA	CP PII to I/O Panel DTE Cable (48 in.)	2

**Table 45**  
**Minimum requirements for Meridian 1 Option 81C CP PII with FNF systems (Part 2 of 3)**

Order number	Description	Quantity per system
NT4N88BA	CP PII to I/O Panel DCE Cable (48 in.)	2
NT4N90BA	CP PII to I/O Panel Ethernet Cable (48 in.)	2
*NT8D01BC	Controller - Four Card	1
*NT8D04BA	Superloop Network Card	
*NT8D17FA	Conference/TDS Card	
*NT8D22AC	System Monitor	
*NT8D41BA	Quad SDI Paddle Board	1
*NT8D46AD	System Monitor to SDI Cable (60 in.)	1
*NT8D46AL	System Monitor Serial Link Cable (7 ft)	1
*NT8D46AS	System Monitor InterCPU Cable (30 in.)	1
*NT8D80BZ	CPU Interface Cable (5 ft.)	
*NT8D84AA	SDI Paddleboard to I/O Cable (18 in.)	
*NT8D90AF	SDI Multi-Port Extension Cable (10 ft)	
*NT8D91AD	Network to Controller Cable (6 ft)	
*NT8D99AD	CPU to Network Cable (6 ft)	2
NTRB33	Fiber Junctor Interface (FIJI) Card	Determined by system configuration
NTRC17BA	CP PII Ethernet to Ethernet Cable (8.5 ft)	2
NTRC46BB	Clock - FIJI Cable (1.7M - 2.4M (5.5 ft - 8 ft))	2
NTRC47AA	FIJI - FIJI Sync Cable	Determined by system configuration

**Table 45**  
**Minimum requirements for Meridian 1 Option 81C CP PII with FNF systems (Part 3 of 3)**

Order number	Description	Quantity per system
NTRC48XX	FIJI Fiber Ring Cable (2M (6 ft.))	Determined by system configuration
NTRC49AA	Clock - Clock Sync Cable	1
NTRE39AA	Optical Cable Management Card (OCMC)	Determined by system configuration
NTRE40AA	Dual Ethernet Adapter (RJ45) for I/O Panel	2
*P0745716	Rear I/O Panel	2
P0605337	CP PII Card Slot Filler Panel	Determined by system configuration
<b>Note:</b> *Customer supplied from existing system.		

### Check required power equipment

Table 46 below lists the equipment required for DC-powered systems.

Table 47 on [page 352](#) lists the equipment required for AC-powered systems.

**Table 46**  
**DC power requirements for Meridian 1 Option 81C CP PII with FNF upgrades**

Order number	Description	Quantity per system
NT6D41CA	Core/Network Power Supply DC	2
NT4N97BA	CP PII Upgrade Kit DC (Misc. Card Cage Components)	2

**Table 47**  
**AC power requirements for Meridian 1 Option 81C CP PII with FNF upgrades**

Order number	Description	Quantity per system
NT8D29BA	Core/Network Power Supply AC	2
NT4N97AA	CP PII Upgrade Kit AC (Misc. Card Cage Components)	2

### Check required tools

For a list of required tools, see Table 3 on [page 26](#).

### Check personnel requirements

Nortel Networks recommends that a minimum of two people perform the card cage upgrade.

### Database requirements

If the system is running pre-release 19 software or the source platform is a Meridian 1 Option 21E, 51, 61, 71, STE, NT or XT, the database must be sent to Nortel Networks for conversion.

If the source platform is a Meridian 1 Option 51C, 61C, 81, or 81C equipped with IOP/CMDU cards, the database must be converted with the Database Transfer utility. See “Database transfer” of Book 2.

If the source platform is a Meridian 1 Option 51C, 61C, 81, or 81C equipped with IODUC cards, the database should be data dumped (EDD) to a blank 2 MB floppy.

**Note:** All of the above listed system types can be converted by Nortel Networks in the software conversion lab. Please check the current price manual for the requirements of this service.

## Install Core/Net 1 hardware

### Procedure 89

#### Checking main Core card installation

The main Core cards, including the MMDU (with the cables for power and data), are installed in the factory as shown in Figure 38 on [page 354](#):

- 1 NT4N65AB CP PII Core Network Interface (cCNI) cards:  
Each system contains 1-4 NT4N65 cCNI card per Core/Net module. The cCNI cards are located in slot c9-c12. If not already installed, install a P0605337 CP PII Card Slot Filler Panel to cover slots which do not contain cCNIs.  
  
**Note:** In the NT4N40 Core/Net card cage, port 0 on the NT4N65 Core to Network Interface (cCNI) Card in slot c9 must be configured as “group 0.” Port 1 on this card must be configured as group 1. The cCNI and 3PE cards for group 0 communicate through the NT4N29 cables. The cCNI to 3PE cables for groups 1 to 7 communicate through the NTND14 cables.
- 2 Slots c13 and c14 are left empty. If not already installed, install a P0605337 CP PII Card Slot Filler Panel in each slot.
- 3 NT4N48AA System Utility (Sys Util) card is located in slot c15.
  - a. Check side ID switch settings for SU card in Core/Net 1 according to Table 48 below.

**Table 48**  
**Core module ID switch settings (System Utility card)**

	Position 1	Position 2
Core/Net 0	On	On
Core/Net 1	Off	On

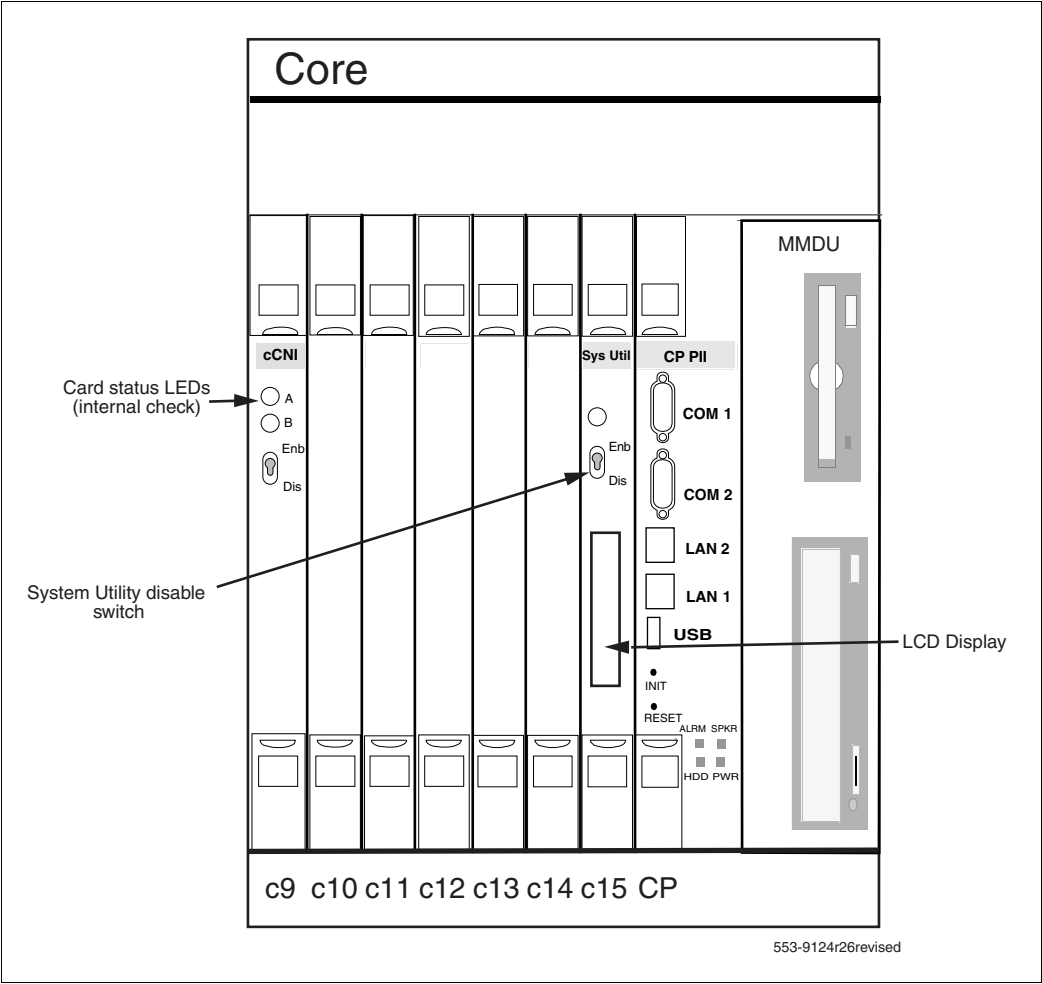
- 4 NT4N64AA CP PII is located in the Call Processor slot.
- 5 The NT4N43CA Multi-Media Disk Unit (MMDU) is located in the extreme right-hand slot next to the CP PII card. The MMDU contains the hard drive, floppy drive and CD-ROM drive.

---

**End of Procedure**

---

**Figure 38**  
**Core card placement in the NT4N41 Core/Net Module (front)**



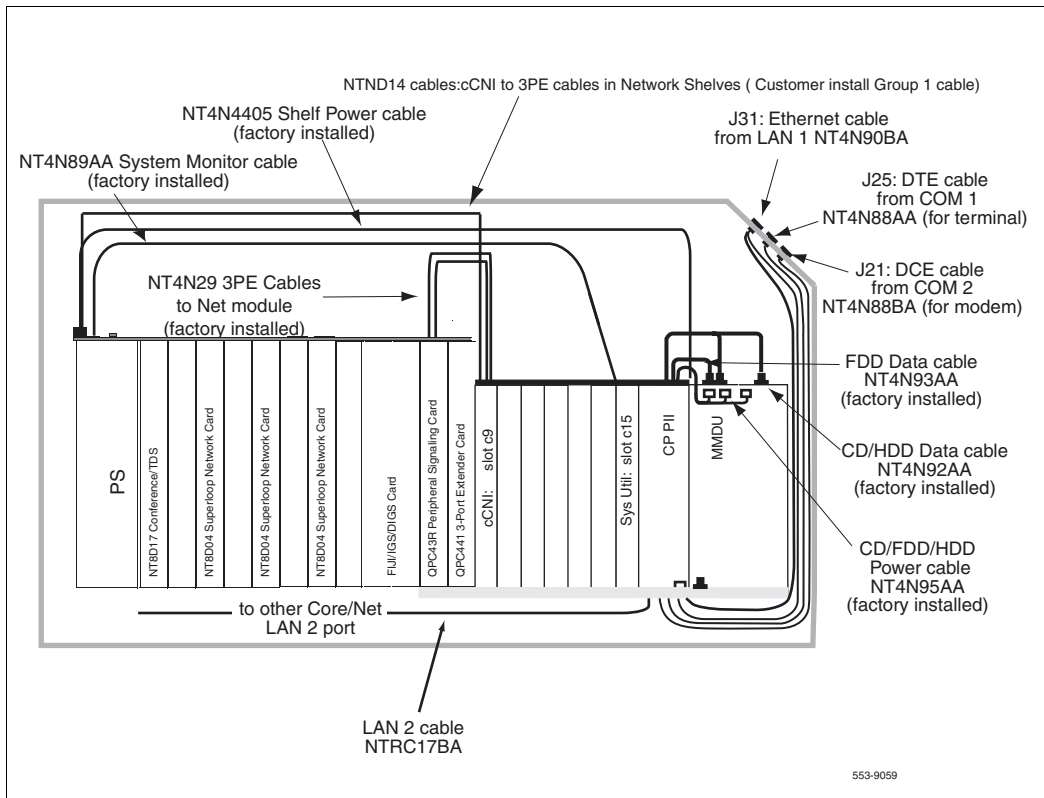
## Check factory-installed cables

Table 49 below lists factory-installed cables. See Figure 16 on page 236.

**Table 49**  
**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

**Figure 39**  
**Core/Net cable connections**





## Disable Core 1

### Procedure 90

#### Checking that Core 0 is active

To upgrade Core 1, verify that Core 0 is the active side performing call processing:

- 1 Verify that Core 0 is active.

**LD 135** Load program

**STAT CPU** Get status of the CPUs

- 2 If Core 1 is active, make Core 0 active:

**SCPU** Switch to Core 0 (if necessary)

**\*\*\*\*** Exit program

---

**End of Procedure**

---

### Procedure 91

#### Checking 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** Switch to Clock Controller 0 (if necessary)

**DIS CC 1** Disable Clock Controller 1

**\*\*\*\*** Exit the program

- 3 Faceplate disable Clock Controller 1.

---

**End of Procedure**

---

# Disable IGS

## Procedure 92 Disable IGS

1    Disable the IGS/DIGS cards located in each network group shelf 1:

- LD 39

Load program
- DIS IGS X

X = IGS cards located in each network group shelf 1
- \*\*\*\*

Exit program

**Note:** To determine the number of the IGS/DIGS card, refer to Table 50 below.

**Table 50**  
**Shelf 1 IGS/DIGS card locations**

Network Group 0	Shelf 1	IGS/DIGS 1 & 3
Network Group 1	Shelf 1	IGS/DIGS 5& 7
Network Group 2	Shelf 1	IGS/DIGS 9 & 11
Network Group 3	Shelf 1	IGS/DIGS 13 & 15
Network Group 4	Shelf 1	IGS/DIGS 17 & 19
<b>Note:</b> The DIGS card should be located in slot 9 of the network shelf.		

**Procedure 93**  
**Moving Clock Controller 1****CAUTION**

Clock controller cards must be NTRB53 Clock Controller cards.

**CAUTION****Service Interruption**

Move only Clock Controller 1 at this point in the upgrade.

Do not move Clock Controller 0 at this time.

If the system has a QPC Clock Controller, replace it with an NTRB53 Clock Controller (to be installed in the same Network Shelf and slot) and verify settings according to Table 51 on [page 360](#).

If the system has an NTRB53 Clock Controller, skip this procedure.

- 1** Label and disconnect the Clock Controller 1.
- 2** Disconnect the cable from the Clock Controller 1 faceplate card.
- 3** If primary and secondary clock reference cables are connected to the Clock Controller 1 faceplate, disconnect them last.
- 4** Remove QPC Clock Controller 1 from the Network Module.
- 5** Set the Clock Controller 1 switch settings according to and Table 51 on [page 360](#).
- 6** Place NTRB53 Clock Controller in the same Network Shelf and slot. DO NOT seat the Clock Controller 1 and DO NOT faceplate enable the card.

# 7    Re-connect all reference cables.

**Note:** The Clock Controllers (0 and 1) must be located in Group1 (in a 2 group system only). If in the future the Meridian 1 Option 81C CP PII is upgraded to more than 2 Network groups, Nortel Networks recommends that Clock Controller 0 and 1 be located in different Network groups.

**Table 51**  
**Clock Controller switch settings for NTRB53**

Multi-group Single group	Machine Type #1	Faceplate Cable Length CC to CC			Side Number	Machine Type #2
1	2	3	4		5	6
Multi-group = Off  Single group = On	21E = Off  51, 61, 51C, 61C 71, 81, 81C = On	Off	Off	0-14 Ft.	Side 0 = On  Side 1 = Off	71,81 = Off  21E, 51, 51C, 61. 61C, 81C = On
		Off	On	4.6–6.1 m (15–20 ft.)		
		On	Off	6.4–10.1 m (21–33 ft.)		
		On	On	10.4–15.2 m (34–50 ft.)		
<b>Note:</b> Switch 7 and 8 are not used.						

## End of Procedure

### Procedure 94 Splitting the Cores

- 1    In Core 0, set the NORM/MAINT switch on the Call Processor card to MAINT.
- 2    In Core 1, set the ENB/DIS switch on all NT6D65 CNI cards to DIS.

- 3 In Core 1, set the NORM/MAINT switch on the Call Processor card to MAINT.



The system is now in split mode, with call processing on Core 0 with Clock Controller 0 active and IGS in Shelf 0 is active.

---

**End of Procedure**

---

### Software disable Network cards in Core/Net 1 from Core/Net 0



#### **CAUTION**

##### **Service Interruption**

At this point, the upgrade interrupts service.

#### **Procedure 95**

#### **Software disabling cards in network slots of Core/Net 1 from Core/Net 0**

- 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 the 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 the ENET, where X= the loop number of the ENET card

\*\*\*\* Exit program



## CAUTION

### Service Interruption

If the system terminal is assigned to an SDI port that you are disabling, assign it to another port before you disable the SDI.

- c. In Core/Net 1 only, software disable each port on the SDI cards:

**LD 37**                      Load program

**DIS TTY x**                Disable each port, 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 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 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 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 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 QPC43 card. Table 52 lists Peripheral Signaling Card numbers

**\*\*\*\*** Exit the program

**Table 52**  
**Peripheral Signaling Card numbers**

Group/ shelf	Peripheral Signaling Card	Loops disabled/enabled		
0 / 0	0	0	—	15
0 / 1	1	16	—	31
1 / 0	2	32	—	47
1 / 1	3	48	—	63
2 / 0	4	64	—	79
2 / 1	5	80	—	95
3 / 0	6	96	—	111
3 / 1	7	112	—	127
4 / 0	8	128	—	143
4 / 1	9	144	—	159
5 / 0	10	160	—	175
5 / 1	11	176	—	191
6 / 0	12	192	—	207
6 / 1	13	208	—	223
7 / 0	14	224	—	239
7 / 1	15	240	—	255

- 3 In Core/Net 1 only, faceplate disable the 3PE, Per Sig and all network cards.
- 4 Faceplate disable all IGS/DIGS cards in each network shelf 1.

---

**End of Procedure**

---



### **CAUTION**

#### **Service Interruption**

The system can shut down if the system monitors are not removed. Remove the monitors and keep the cooling fans ON.

### **Procedure 96**

#### **Removing the system monitors from Core 0 and Core 1**

**Note:** This procedure applies to both AC and DC systems.

- 1 In Core 0, software disable the master system monitor (NT8D22):

**LD 37** Load program

**DIS TTY #** Disable master system monitor TTY interface

- 2 Remove J3 and J4 cables on Core 0 and 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 0 and Core 1.

---

**End of Procedure**

---



### **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.



## Power down Core/Net 1



### CAUTION

#### Service Interruption

Call processing is interrupted for approximately 60 minutes while the procedures are completed.

For AC-powered systems: set the MPDU circuit breaker located at the left end of the module to OFF (down position).

For DC-powered systems: set the breaker for the Core 1 module in the back of the column pedestal to OFF (down position).

### Procedure 97

#### 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 with the cards left installed.

- 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 for use with the CP PII card cage.

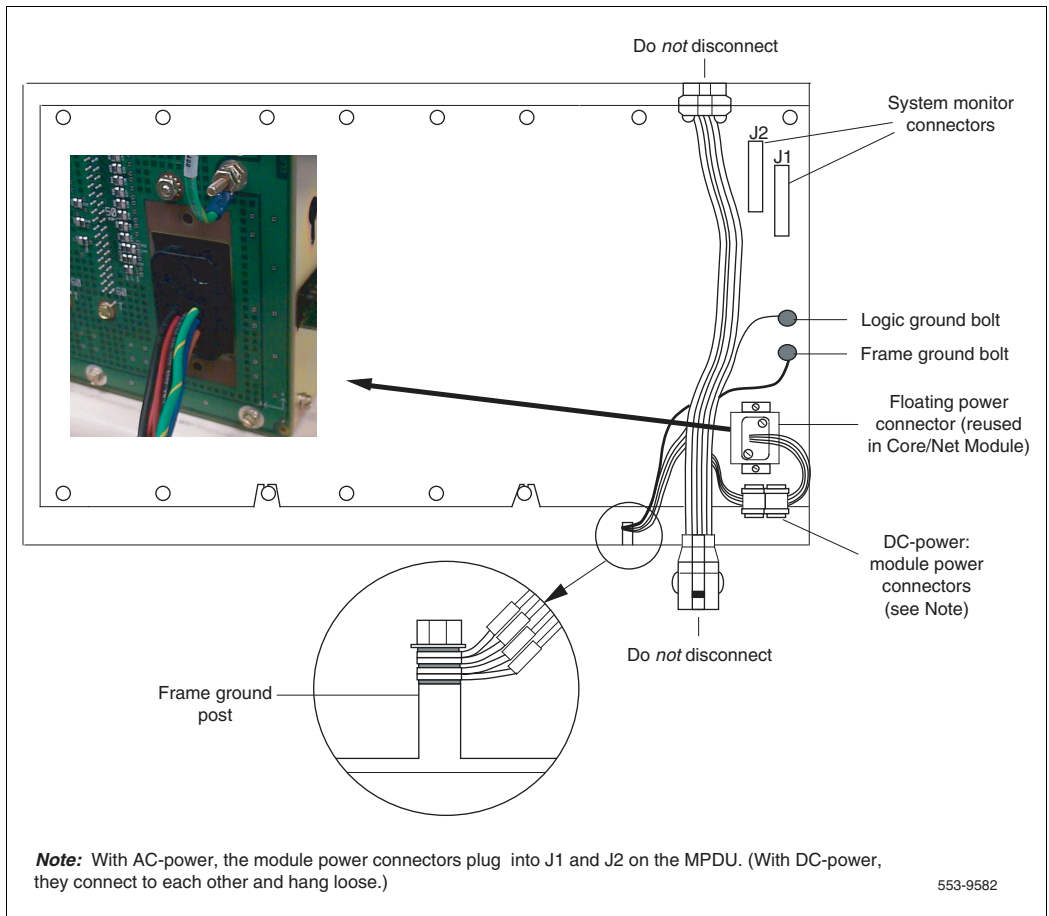


**CAUTION**

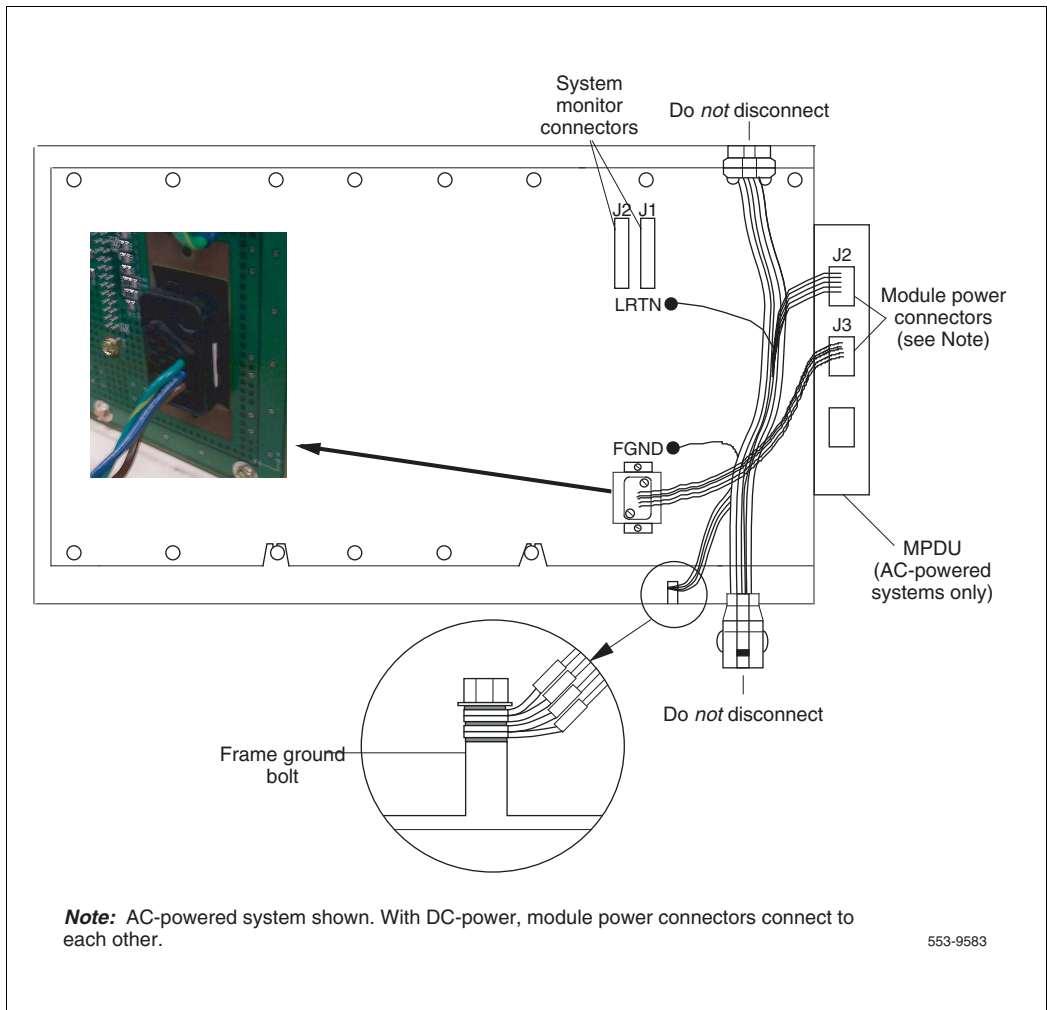
Do not drop the mounting screws into the pedestal. Doing so can cause serious damage.

- 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 not to drop the nut or lock washer into the pedestal. See Figure 17 below for DC power connectors. See Figure 18 on [page 246](#) 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 NT8D40.
  - For DC systems, relocate power harness NT7D11.

**Figure 40**  
**DC power connectors on the Core module backplane**



**Figure 41**  
**AC power connectors on the Core module backplane**



- 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 will not be able to install the card cage in the module correctly.



**CAUTION**

Check for and remove any debris (such as screws) that fell into the base of the UEM module.

---

**End of Procedure**

---

## Install the CP PII card cage in Core 1

### Procedure 98

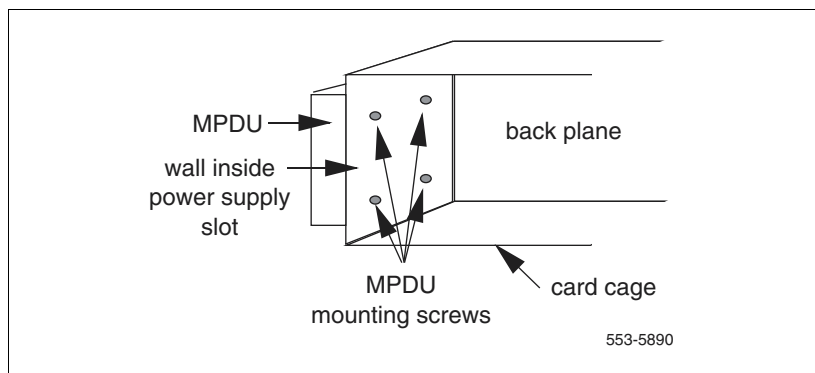
#### Installing the CP PII card cage in Core 1

- 1 Check that the card cage is configured as Core 1. See Table 48 on [page 353](#) for instructions.
- 2 For AC-powered systems only, attach the MPDU, part of the CP PII Upgrade kit, to the side on the NT4N40 card cage. The screws that secure the MPDU are accessible from the power supply slot. See Figure 42 below.

**Note:** Pre-thread 2 bottom mounting screws at the back of the Core/Net shelf.

**Figure 42**

**Location of the screws for the MPDU**



- 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.
- c. Attach the system monitor ribbon cables:
  - i. Connect the ribbon cable that goes down to the column to connector J1 on the backplane.
  - ii. Connect the ribbon cable that goes up the column to J2 on the backplane.
- d. Use a 11/32" socket wrench 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, then tighten down the nut.

**Note:** For all of the wire terminals to fit on the bolt, remove one of the lock washers. Leave a lock washer at the bottom of the bolt and at the top of the bolt. Leave a third lock washer between the second and third, or the third and fourth, wire terminals.

- e. 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 all the way 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.
  - 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 Do not connect the NTRC17BA crossover ethernet cable at this time.

---

**End of Procedure**

---

## Unpack and install NT6D41CA (DC) or NT8D29BA (AC) Power Supply

### Procedure 99 Installing the power supply

- 1 Unpack the power supply.
- 2 Faceplate disable the power supply.
- 3 Insert power supply into Core/Net module power supply slot.

---

**End of Procedure**

---

### Procedure 100 Relocating Network cards to CP PII Core/Net 1

- 1 Remove all remaining network cards from the Meridian 1 Option 81C Core/Net 1 except for the IGS/DIGS cards.
- 2 Connect the tagged cables to the relocated cards.
- 3 When you move the 3PE card, check the switch settings and jumpers. See Table 53 on [page 373](#).
  - a. All 3PE cards must be vintage F or later.
  - b. Check that the RN27 Jumper is set to "A".



- c. The settings for 3PE cards in Core/Net shelves are different from those in all other shelves: Table 53 below shows the 3PE settings for cards installed in CP PII Core/Net Modules.

**Table 53**  
**QPC441 3PE Card installed in the NT4N40 Module**

<b>Jumper Settings:</b> Set Jumper RN27 at E35 to "A".									
Switch Settings									
Module		D20 switch position							
NT4N40 (Option 81C CP PII)		1	2	3	4	5	6	7	8
Core/Net 0 (Shelf 0)	Group 0	off	on	on	off	on	on	on	on
	Group 1	off	on	on	off	on	on	off	on
	Group 2	off	on	on	off	on	off	on	on
	Group 3	off	on	on	off	on	off	off	on
	Group 4	off	on	on	off	off	on	on	on
	Group 5	off	on	on	off	off	on	off	on
	Group 6	off	on	on	off	off	off	on	on
	Group 7	off	on	on	off	off	off	off	on
Core/Net 1 (Shelf 1)	Group 0	off	on	on	off	on	on	on	off
	Group 1	off	on	on	off	on	on	off	off
	Group 2	off	on	on	off	on	off	on	off
	Group 3	off	on	on	off	on	off	off	off
	Group 4	off	on	on	off	off	on	on	off
	Group 5	off	on	on	off	off	on	off	off
	Group 6	off	on	on	off	off	off	on	off
	Group 7	off	on	on	off	off	off	off	off

————— **End of Procedure** —————

**Procedure 101**  
**Installing the Security Device**

The Security Device fits into the System Utility card (see Figure 43 on [page 375](#)). To install the Security Device, do the following.

- 1 If the original system had an IODU/C, remove the Security Device from the IODU/C for reuse.
  - a. Unlock the latches and remove the IODU/C card.
  - b. Remove the round 1/2" diameter IODU/C Security Device from the round black Security Device holder on the top right corner of the IODU/C card.

Or

If the original system did not have an IODU/C, use the Security Device provided with the CP PII Software kit.

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.

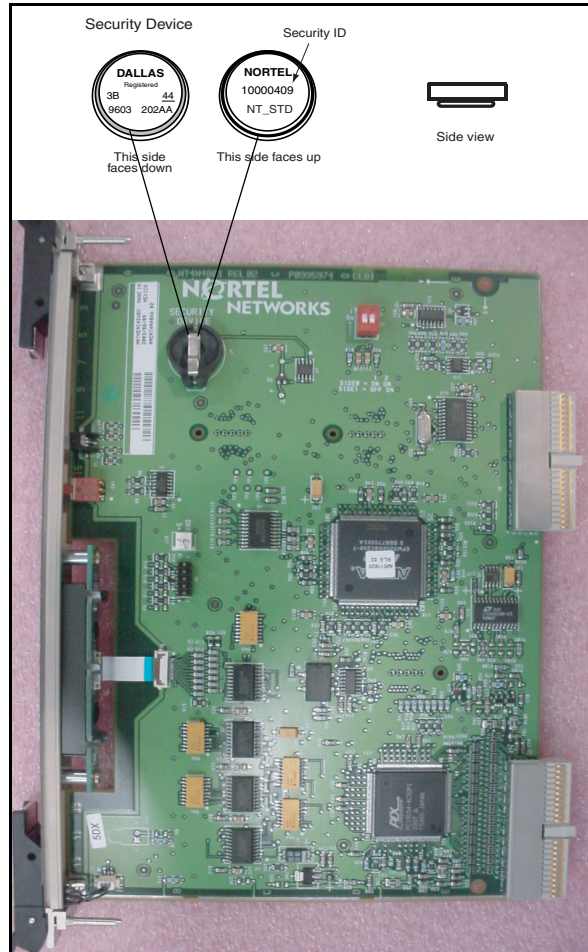
- 2 Check that the Security Device is securely in place.

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**End of Procedure**

---

**Figure 43**  
**Security Device**

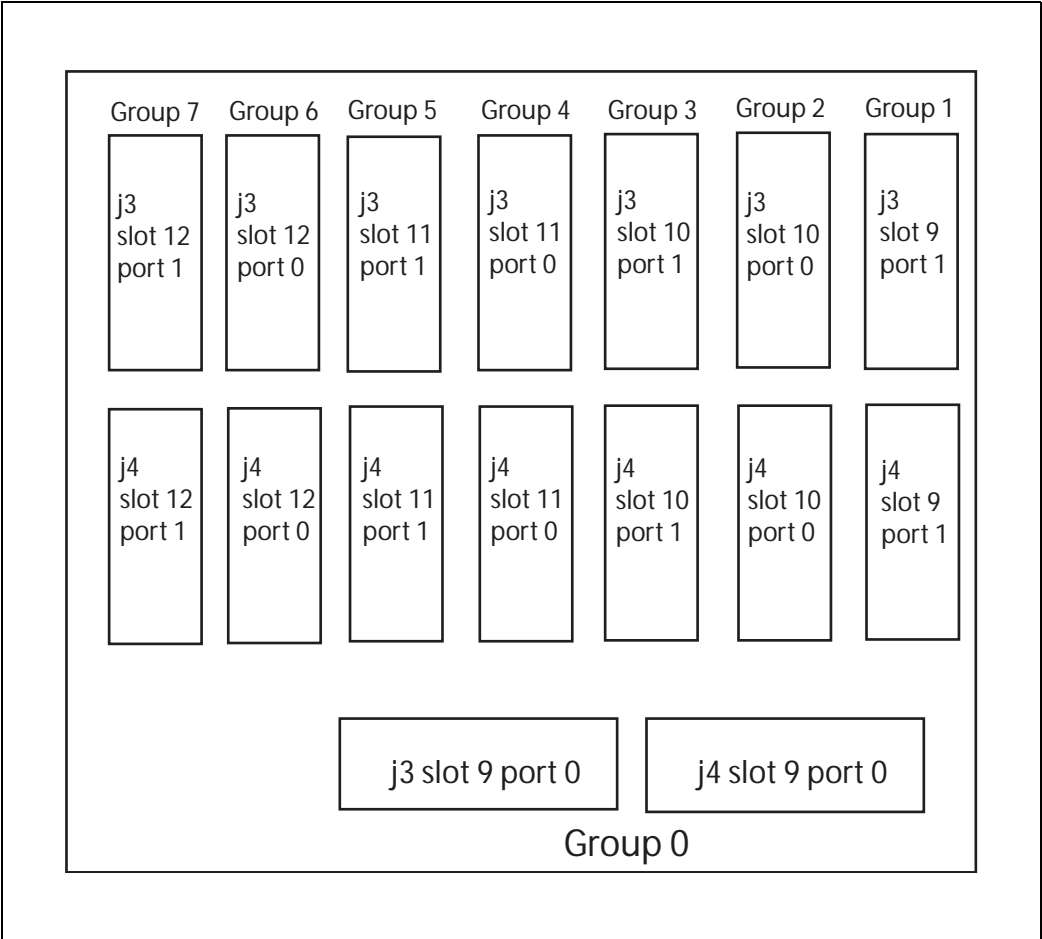


## Cable Core 1

### In Core 1, inspect factory-installed cables

The NT4N29AA cables should be installed for the existing network group in Core/Net 1. If the system has XSDI cards, reinstall the cards and attach the cables. Inspect the system monitor cables (NT4N89).

**Figure 44**  
**Connectors for CNI-3PE cables to the Fanout panel**



### In Core 1, route and connect the cCNI to 3PE (NTND14) cables

The existing NTND14 cables may be reused if they meet the requirements of the Important box on [page 377](#). If it is determined that existing NTND14 cables must be replaced on side 1, remove the existing cables and replace with the correct length cables. Connect the NTND14 cables to the Fanout panel in Core/Net 1 and the 3PE cards in each equipped network group shelf 1. See Table 54 on [page 379](#) and Figure 45 on [page 380](#).



#### 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.

When upgrading to CP PII, it is important to know whether Network group 0 will be in the Core/Net module or not. In many installations, Group 0 will be established in a standard Network shelf, and should occupy a higher Network group in the Core/Net.

If Network group 0 will be in the Core/Net, the factory configuration of the new Core/Net modules is correct, and no further action is required.

If Network Group 0 will not be in the Core/Net module, some re-configuration of the processor module is required to allow for concurrent or future use of the Network portion of the Core/Net for a higher Network group.

The NT4N40 shelf is factory-installed with NT4N29 cables and is configured as group 0. If the network portion of the Core/Net shelf is used as a higher network group, use the extraction tool to disconnect the NT4N29 cables from

the Core backplane. Once the cables are disconnected, connect them to the appropriate group. For correct connector replacement, see Figure 49 on [page 413](#).



**WARNING**

**Damage to Equipment**

Do not pry against the connector with the extraction tool. Simply inserting the tool between the connector and the securing clip is sufficient to unlock the connector. Prying may cause damage to the connector or the backplane pins.

**Table 54**  
**Fanout Panel to 3PE card connectors**

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
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 1:** Group 0 cables (NT4N29) connect from the Fanout panel directly to the backplane of Core/Net 1. See Figure 44 on [page 376](#).

**Note 2:** Group 1 cables (NTND14) connect from the Fanout panel to the faceplate of the 3PE cards of Group 1. See Figure 45 on [page 380](#).

---

**End of Procedure**

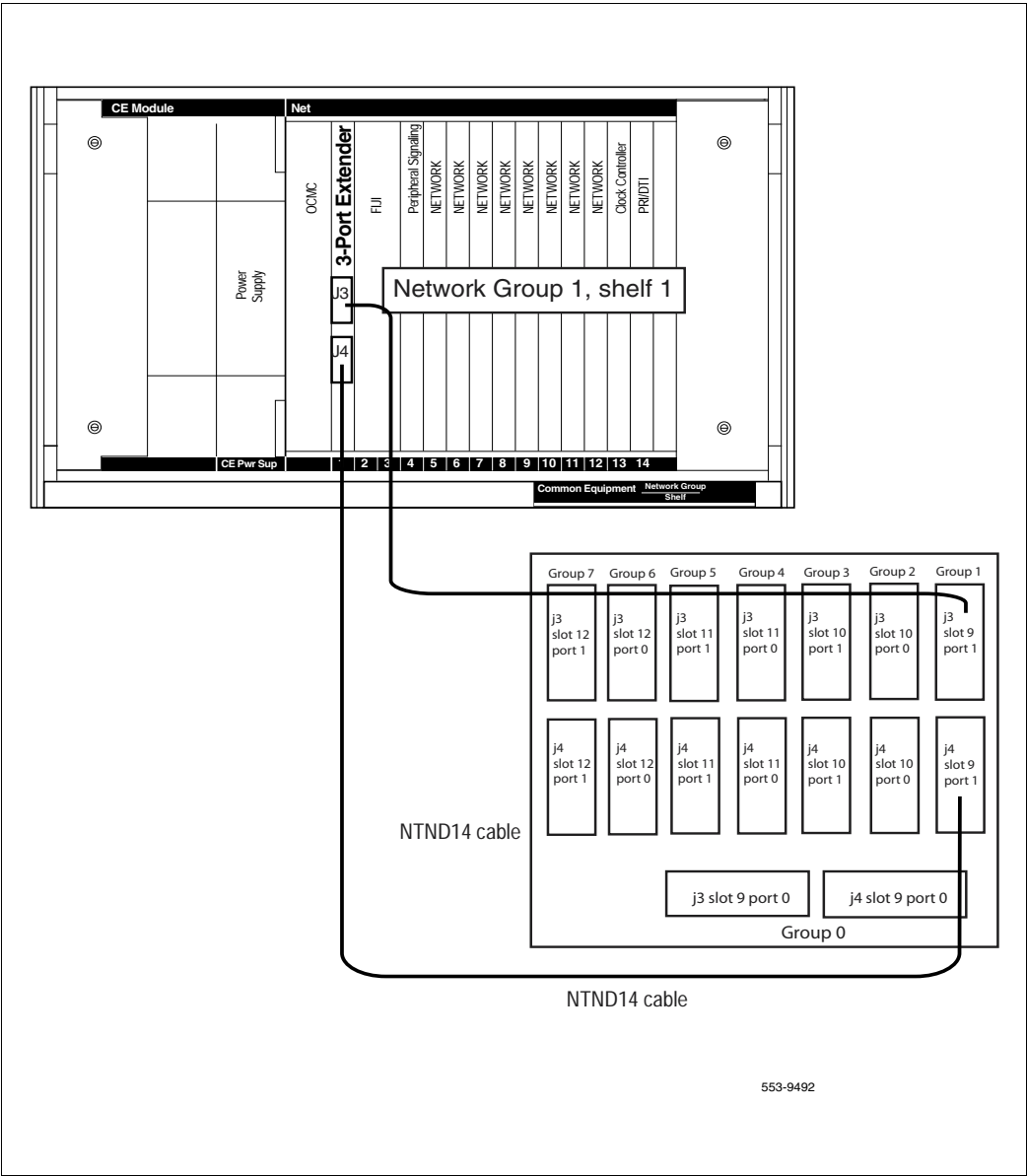
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**Procedure 102**  
**Adding Side 1 FIJI hardware**

Follow the procedures below in sequence:

- 1 Tag and disconnect the IGS/DIGS cables.
- 2 Remove the IGS/DIGs cards from Side 1.
- 3 Faceplate disable the FIJI cards.

**Figure 45**  
**3PE Fanout Panel connections**





- 4 Insert the FIJI cards in Side 1. **DO NOT seat the FIJI cards.**

**Note:** FIJI cards are installed in slots 2 and 3 of the Network modules, and slots 8 and 9 of the Core/Net modules.

---

**End of Procedure**

---

**Procedure 103****Connecting the shelf 1 FIJI Ring cables (descending)****IMPORTANT!**

The shortest Fiber Cable must always be used.

The cables from group 0 to group 1 must always be the same length as the cables from the last group back to group 0.

The delta between the lengths of each fiber ring from group 0 to any other group must not exceed 50'. Rings are directional. Ring 0 is ascending and ring 1 is descending.

**Note:** When adding an additional network group, fiber cables must be changed to adhere to the rules above.

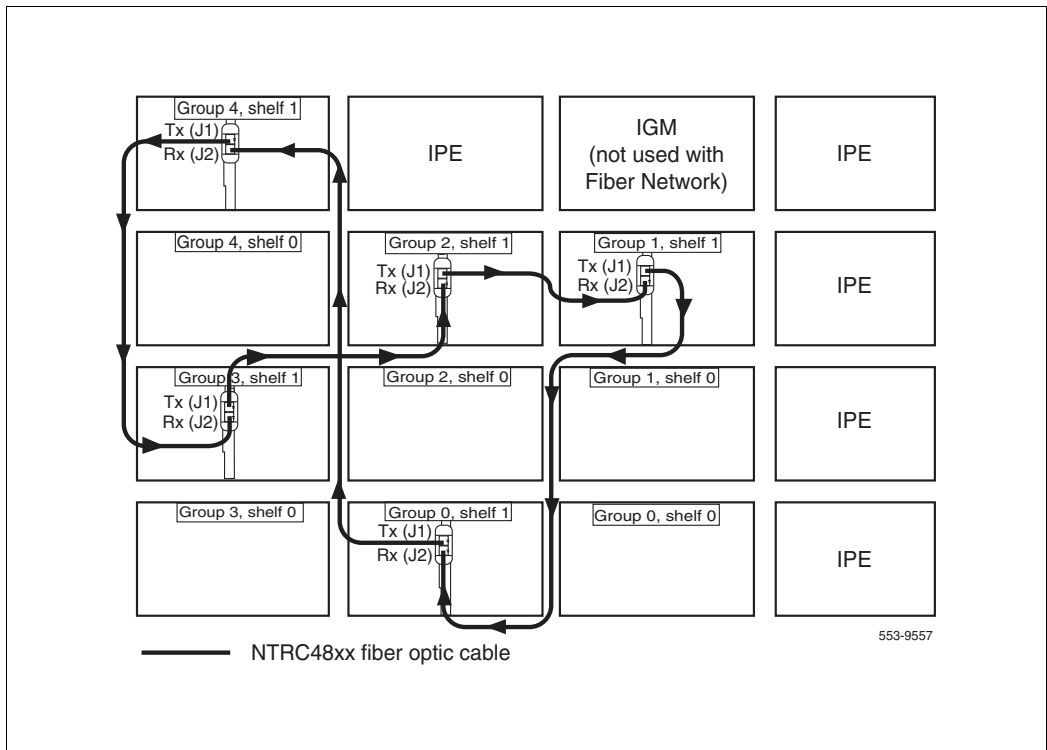
Create Fiber Ring 1. Connect the FIJI cards in all Network shelves 1 in **descending** order, from Tx to Rx (see Figure 46 on [page 382](#) and Table 55 on [page 383](#)).

Remove the black cap from the end of each cable before it is connected.

**Note:** Each end of the NTRC48xx cable is labeled "Tx" or Rx" in the factory.

- 1 Start with Network group 0, shelf 1.
- 2 Connect a NTRC48xx FIJI Fiber Ring cable of the appropriate length from the Tx (J1) port of the FIJI card in **Group 0, shelf 1** to the Rx (J2) port of the FIJI card in the **highest Network group, shelf 1**.
- 3 Connect a NTRC48xx cable from the Tx (J1) port of the FIJI card from the Tx (J1) port in the **highest Network group, shelf 1** to the Rx (J2) port in the **second highest Network group, shelf 1**.

**Figure 46**  
**Shelf 1 *descending* fiber optic Ring (Meridian 1 Option 81C 5 group example)**



- 3 Continue to connect NTRC48xx FIJI Fiber Ring cables of the appropriate length from the Tx (J1) port to the Rx (J2) port in shelf 1 of each Network group. Connect these cables in **descending** order of Network groups.

- 4 To complete the Ring, connect a final cable from Tx in **Group 1, shelf 1** to Rx in Group 0, shelf 1.

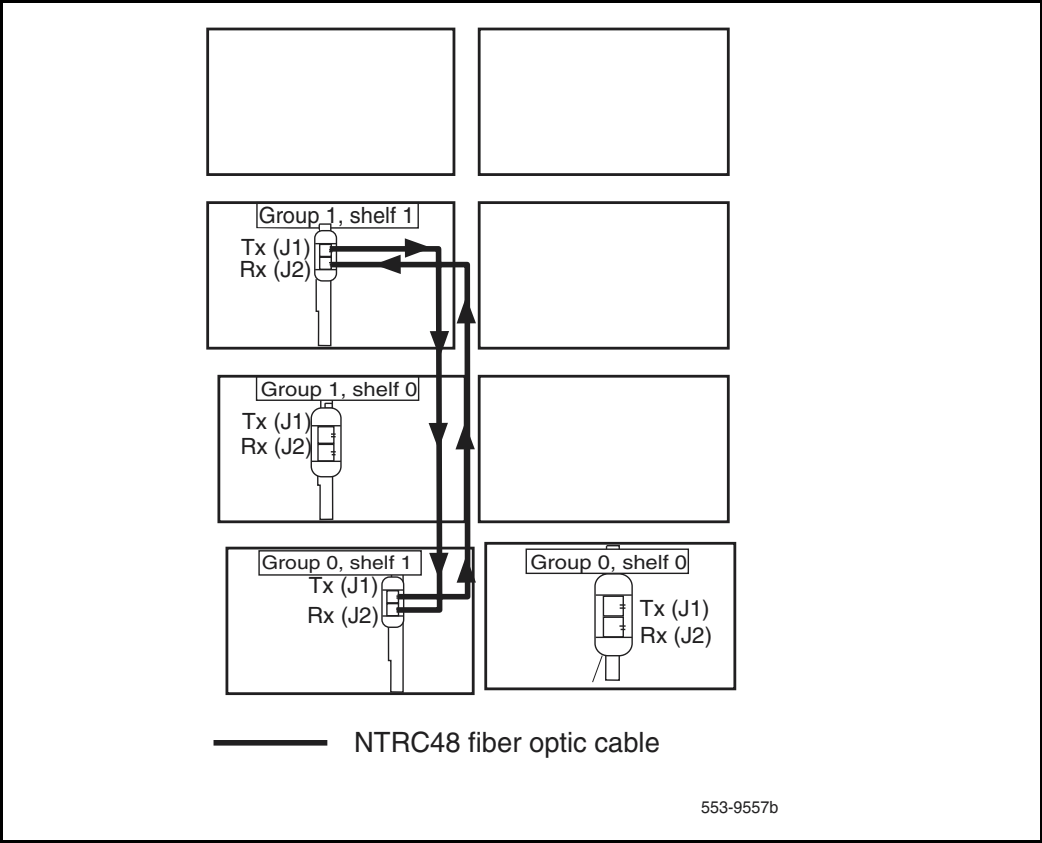
**Note:** Connect the Side 1 FIJI Ring cables only.

**Table 55**  
**FIJI Ring 1 connections**

Groups 0 - X are cabled in descending order		
Group/Shelf	FIJI Connector	Tx/Rx
0/1	P1	Tx
7/1	P2	Rx
7/1	P1	Tx
6/1	P2	Rx
6/1	P1	Tx
5/1	P2	Rx
5/1	P1	Tx
4/1	P2	Rx
4/1	P1	Tx
3/1	P2	Rx
3/1	P1	Tx
2/1	P2	Rx
2/1	P1	Tx
1/1	P2	Rx
1/1	P1	Tx
0/1	P2	Rx

**End of Procedure**

**Figure 47**  
**Shelf 1 descending fiber optic Ring (Meridian 1 Option 81C 2 group example)**



## Cable the Clock Controller 1 to FIJI

### Procedure 104

#### Cabling the Clock Controller 1 to FIJI

Connect the cables to the Clock Controller 1 as shown in Figure 48 on [page 386](#):

- 1 Connect P2 of the NTRC49 cable to port J3 of Clock Controller 1.
- 2 Connect P2 of the NTRC46 cable from Clock 1 to **J3** of the FIJI card in group 0, shelf 1.

---

**End of Procedure**

---

## Power up Core 1

### Procedure 105

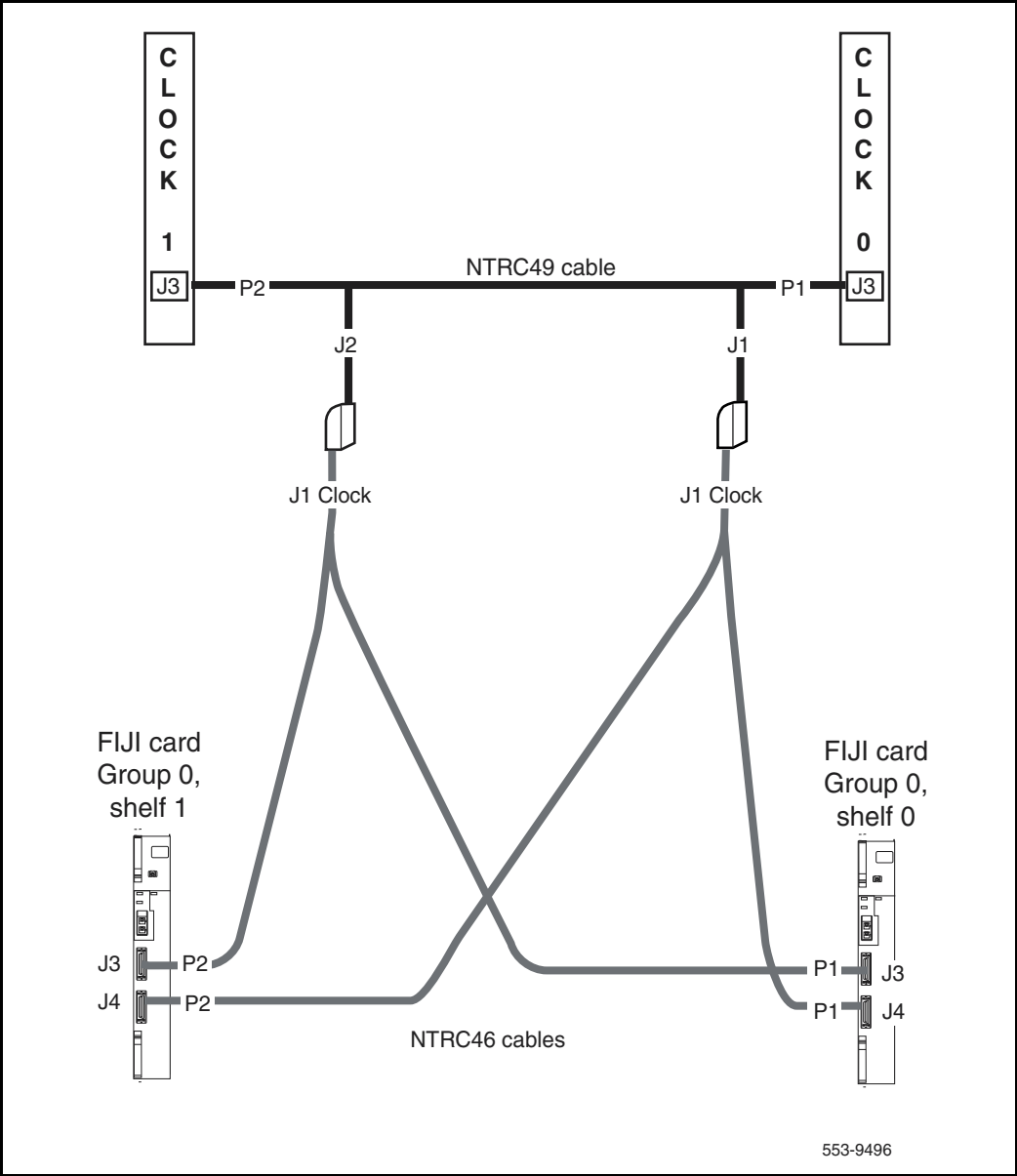
#### Preparing for power up

- 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.
- 2 Connect a terminal to the J25 port on the I/O panel in the *inactive* Core.
- 3 Check the terminal settings as follows:
  - 9600 Baud
  - 7 data
  - space parity 1
  - 1 stop bit
  - full duplex
  - XOFF

**Note:** If only one terminal is used for both Cores, the terminal will have to 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* all core and network cards.

**Figure 48**  
**Clock Controller cable configuration**



- 5 Faceplate *enable* the power supply.

---

**End of Procedure**

---

## Power up Core cards

### Procedure 106

#### Powering up core cards

- 1 For AC-powered systems: set the MPDU circuit breaker located at the left end of the module to ON (top position).
- 2 For DC-powered systems: set the breaker for the Core 1 module in the back of the column pedestal to ON (top position).

---

**End of Procedure**

---

## Restore power

### Procedure 107

#### Restoring power

- 1 Restore power to Core/Net 1.
- 2 Wait for the system to load/initialize.
- 3 Check that the Network and I/O cards have working power.



System is in split mode, CP 0 is active, clock 0 is active, all network cards in shelf 1 are software disabled.

---

**End of Procedure**

---

## Install software and customer database on Core 1

### Procedure 108

#### Installing the software and converting the database

- 1 Check that a terminal is connected to J25 on Core/Net 1.
- 2 In Core/Net 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.

- 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 completed!

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

Copyright (c) 1993-1996 RST Software Industries Ltd. All rights 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)
```

- 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



**IMPORTANT!**

Remove install floppy disk at this time and insert the keycode diskette.

**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: 2540 to release: 0300K.

This will erase all old system files.

---

553-3021-258    Standard 1.00    October 2003

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 2540 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:



**IMPORTANT!**

Remove keycode diskette at this time and insert the customer backup database diskette.

**13** Confirm database transfer:

You selected to transfer the database from the floppy disk - release: 2540 to the hard disk on Core X. release: 2540.

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...

**Note:** Before completing the next procedure, wait for Core/Net 1 to INI.

---

**End of Procedure**

---

## Configuring IP addresses

### Procedure 109

#### Configuring the IP addresses

Two unique IP address are required for the CP PII system to communicate with the LAN. One IP address is defined for the *active* Core. The second IP address is defined for the *inactive* Core.

- 1 Use the following to check the status of the system's IP address:

**LD 117**                      Load program

**PRT HOST**                  Print the configured host information

If the system returns with host names "active" and "inactive", go to "Check for Peripheral Software Download to Core 1" on [page 273](#). If the system returns no host names, complete the steps below.

- 2 Contact your System Administrator to identify IP address and subnet mask information.
- 3 Configure the primary (*active*) and secondary (*inactive*) IP addresses:

**LD 117**    Load program

**NEW HOST NAME 1 IP ADDRESS**                      Define the first IP address:  
"name 1" is an alias for the IP address such as "primary" (The IP address is the IP number)

**CHG ELNK ACTIVE NAME 1**                      Assign the "name 1" address to the *active* Core

**NEW HOST 'NAME 2' 'IP ADDRESS'**                      Define the second IP address:  
"name 2" is an alias for the IP address such as "secondary" (The IP address is the IP number)

**CHG ELNK INACTIVE**  
**NAME 2**

Assign the “name 2” address to the *inactive* Core.

**CHG MASK**  
**XXX.XXX.XXX.XXX**

Set the sub-net per local site (This number allows external sub-nets to connect to the system)

- 4 Enable the new Ethernet interface.

**LD 137**                      Load program

**DIS ELNK**                *Disable* the old IP interface values

**ENL ELNK**                *Enable* the new IP interface values

---

**End of Procedure**

---

## Check for Peripheral Software Download to Core 1

Enter LD 22 and print Target peripheral software version. The Source peripheral software version was printed in “Print site data” on [page 477](#). 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.
- The system drops established calls on IPE.

Load LD 22 and print Target peripheral software version.

**LD 22**

**REQ**                      PRT

**TYPE**                    PSWV

**ISSP**                    Print System and Patch Information

<b>SLT</b>	Print System Limits
<b>TID</b>	Print the Tape ID
<b>****</b>	Exit program

## For systems with fewer than eight groups, delete CNIs

### Procedure 110 Deleting CNIs

Software has configured the system for eight groups. If the system has eight groups, skip this procedure. If the system has fewer than eight groups, you must software remove the CNIs not used in the system configuration:

- 1 In Core/Net 1, disable all cCNI cards using LD 135:

<b>LD 135</b>	Load program
<b>STAT CNI</b>	Get status of all cCNI cards
<b>DIS CNIP x s p</b>	Disable cCNI ports where: x = Core number (0 or 1) s = card slot (9-12) p = port (0 or 1)
<b>DIS CNI x s</b>	Disable cCNI cards where: x = Core number (0 or 1) s = card slot (9-12)
<b>STAT CNI</b>	Confirm that cCNI cards are disabled
<b>****</b>	Exit program

- 2 Use LD 17 to remove the extra cCNI cards.

<b>LD 17</b>	Load program
<b>CHG</b>	CFN
<b>TYPE</b>	CEQU
<b>CEQU</b>	

**carriage return to  
EXT0****EXT0 3PE**

Core/Net 0 extended to 3PE

**CNI s p x**

Out the cCNI card, where:

s = card slot (9-12)

p = port (0 or 1)

x = out network group

**EXTI 3PE**

Core/Net 1 extended to 3PE

**CNI s p x**

Out the cCNI card, where:

s = card slot (9-12)

p = port (0 or 1)

x= out network group

**carriage return to end  
of program****\*\*\*\***

Exit program

3    Use LD 135 to re-enable cCNI cards:

<b>LD 135</b>	Load program
<b>STAT CNI</b>	Get status of all cCNI cards
<b>ENL CNI x s</b>	Enable cCNI cards where: x= Core number (0,1) s = card slot (9-12)
<b>ENL CNIP x s p</b>	Enable cCNI ports where: x= Core number (0,1) s = card slot (9-12) p = port (0 or 1)
<b>STAT CNI</b>	Confirm that cCNI cards are enabled (see note below)
<b>****</b>	Exit program

**Note:** At this point, cCNI cards in Core 1 are controlled by the active call processor in Core 0. Therefore, it remains disabled.

---

**End of Procedure**

---



---

## Reconfigure I/O ports and call registers

### Procedure 111

#### Reconfiguring I/O ports and call registers

- 1 Remap all I/O ports (except CPSI ports) to the proper groups.  
The group number of these ports is determined by the physical location of the card. The configuration information must match the CNI configuration

```
LD 17          Load program
CHG            CFN
TYPE          ADAN CHG AAA X G
carriage
return to end
of program
```

```
****          Exit program
```

- 2 Evaluate the number of call registers and 500 telephone buffers that are configured for the system (suggested minimum values are 4500 and 1000 respectively). Refer to *Large System: Planning and Engineering* (553-3021-120). If changes are required, reconfigure the values in LD 17:

```
LD 17          Load program
CHG            CFN
TYPE          PARM
carriage
return to end
of program
```

```
****          Exit program
```

**3** Perform a data dump to save the customer database to the hard drive and floppy:

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

**LD 43**                      Load program

**b.** When "EDD000" appears on the terminal, enter:

**EDD**                      Begin data dump

**c.** When "DATADUMP COMPLETE" and "DATABASE BACKUP COMPLETE" appear on the terminal, enter

**\*\*\*\***                      Exit program



**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.

---

**End of Procedure**

---

**Procedure 112**  
**Rebooting Core 1****CAUTION****Service Interruption**

The INI may take up to 15 minutes to complete.

**CAUTION****Service Interruption**

Call processing is interrupted for approximately 60 minutes while the procedures are completed.

At this stage, Core 0 is still the active call processor with Clock Controller 0 active. The following procedure will transfer call processing from Core 0 to Core 1, switching Clock Controller from 0 to 1 and switching from IGS/DIGS to FIJI.

- 1** In Core/Net 0 only, faceplate disable the CNI cards.
- 2** In Core/Net 0 only, faceplate disable the IODU/C card.
- 3** In Core/Net 0 only, unseat the Core Processor card.
- 4** Faceplate disable Clock Controller 0 and unseat the card.
- 5** Faceplate disable all IGS/DIGS cards in shelf 0 and unseat the card.
- 6** Seat and faceplate enable Clock Controller 1.
- 7** Seat and faceplate enable all FIJI cards in shelf 1.
- 8** Press the 'RESET' button on the CP PII card faceplate to initialize the system.

- 9    Wait for “DONE” and then “INI” messages to display before you continue.



**CAUTION**

**Service Interruption**

Allow the system to recover from all downloads after the INI completes.

**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; downloading 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.

During INI, FIJI error messages (from Shelf 0) appear on the screen. FIJI card on shelf 1 resets. Upon INI completion, RING 1 is full, FIJI Ring 0 (in Core/Net 0) is disabled, AUTO recovery is on and Clock Controller 1 is active.

Call Processing is now active on Call Processor 1 (except for network cards on Core/Net 0).

---

**End of Procedure**

---

## Disable and remove equipment from Core/Net 0

**Note:** At this point, the active side Core/Net 1 registers all Network cards in Core/Net 0 as disabled.

### Procedure 113

#### Faceplate disabling cards in core and network slots of Core/Net 0:

- 1 In Core/Net 0 only, faceplate disable the 3PE, Per Sig and all network cards.
- 2 Faceplate disable all IGS/DIGS cards in each network shelf 0.

---

**End of Procedure**

---

**Table 56**

**Shelf 0 IGS/DIGS card locations**

Network Group 0	Shelf 0	IGS/DIGS 0 & 2
Network Group 1	Shelf 0	IGS/DIGS 4 & 6
Network Group 2	Shelf 0	IGS/DIGS 8 & 10
Network Group 3	Shelf 0	IGS/DIGS 12 & 14
Network Group 4	Shelf 0	IGS/DIGS 18 & 20
<b>Note:</b> The DIGS card should be located in slot 9 of the network shelf.		

**Procedure 114**  
**Moving Clock Controller 0**



**CAUTION**

Clock controller cards must be NTRB53 Clock Controller cards.



**CAUTION**

**Service Interruption**

Move only Clock Controller 0 at this point in the upgrade.

If the system has a QPC Clock Controller, replace it with an NTRB53 Clock Controller (to be installed in the same Network Shelf and slot) and verify settings according to Table 57 on [page 411](#).

If the system has an NTRB53 Clock Controller, skip this procedure.

- 1 Label and disconnect the Clock Controller 0.
- 2 Disconnect the cable from the Clock Controller 0 faceplate card.
- 3 If primary and secondary clock reference cables are connected to the Clock Controller 0 faceplate, disconnect them last.
- 4 Remove QPC Clock Controller 0 from the Network Module
- 5 Set the Clock Controller 0 switch settings according to and Table 57 on [page 411](#).
- 6 Place NTRB53 Clock Controller in the same Network Shelf and slot. DO NOT seat the Clock Controller 0 and DO NOT faceplate enable the card.

**7** Re-connect all reference cables.

**Note:** The Clock Controllers (0 and 1) must be located in Group 1 (in a 2 group system only). If in the future the Meridian 1 Option 81C CP PII is upgraded to more than two Network groups, Nortel Networks recommends that Clock Controller 0 and 1 be located in different Network groups.

**Table 57**  
**Clock Controller switch settings for NTRB53**

Multi-group Single group	Machine Type #1	Faceplate Cable Length CC to CC			Side Number	Machine Type #2
1	2	3	4		5	6
Multi-group = Off  Single group = On	21E = Off  51, 61, 51C, 61C 71, 81, 81C = On	Off	Off	0-14 Ft.	Side 0 = On  Side 1 = Off	71,81 = Off  21E, 51, 51C, 61. 61C, 81C = On
		Off	On	4.6–6.1 m (15–20 ft)		
		On	Off	6.4–10.1 m (21–33 ft)		
		On	On	10.4–15.2 m (34–50 ft)		
<b>Note:</b> Switch 7 and 8 are not used.						

**End of Procedure**

**Procedure 115**  
**Cabling the Clock Controllers**

**Note:** Earlier in the upgrade, you checked that Clock Controller 1 is installed in Network 1 shelf 1, slot 13; and Clock Controller 0 has been moved to Network group 1 shelf 0, slot 13.

**Note:** Connect the cables to the Clock Controllers as shown in Figure 49 on [page 413](#):

- 1 Connect the Clock to Clock cable:
  - a. Connect J1 of the NTRC49 cable to port J3 of Clock Controller 0.
  - b. Connect J2 of the NTRC49 cable to port J3 of Clock Controller 1.
- 2 Connect a Clock 0 to FIJI cable:
  - a. Connect J2 of the NTRC46 cable from Clock 0 to J4 of the FIJI card in Group 0, shelf 1.

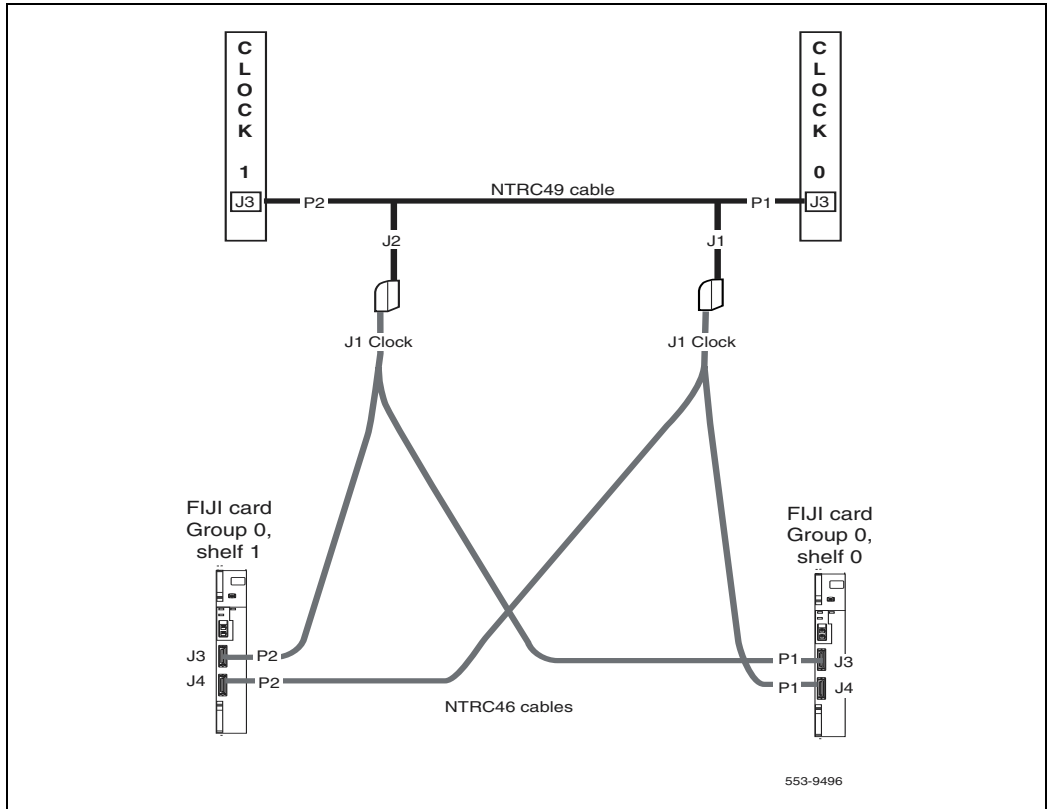
---

**End of Procedure**

---



**Figure 49**  
**Clock Controller cable configuration**



## Power down Core/Net 0



### CAUTION

#### Service Interruption

Call processing is interrupted for approximately 60 minutes while the procedures are completed.



### 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.

For AC-powered systems: set the MPDU circuit breaker located at the left end of the module to OFF (down position).

For DC-powered systems: set the breaker for the Core 0 module in the back of the column pedestal to OFF (down position).

### Procedure 116

#### Removing Core 0 cables and card cage

- 1 Label and disconnect all cables to 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 with the cards left installed.

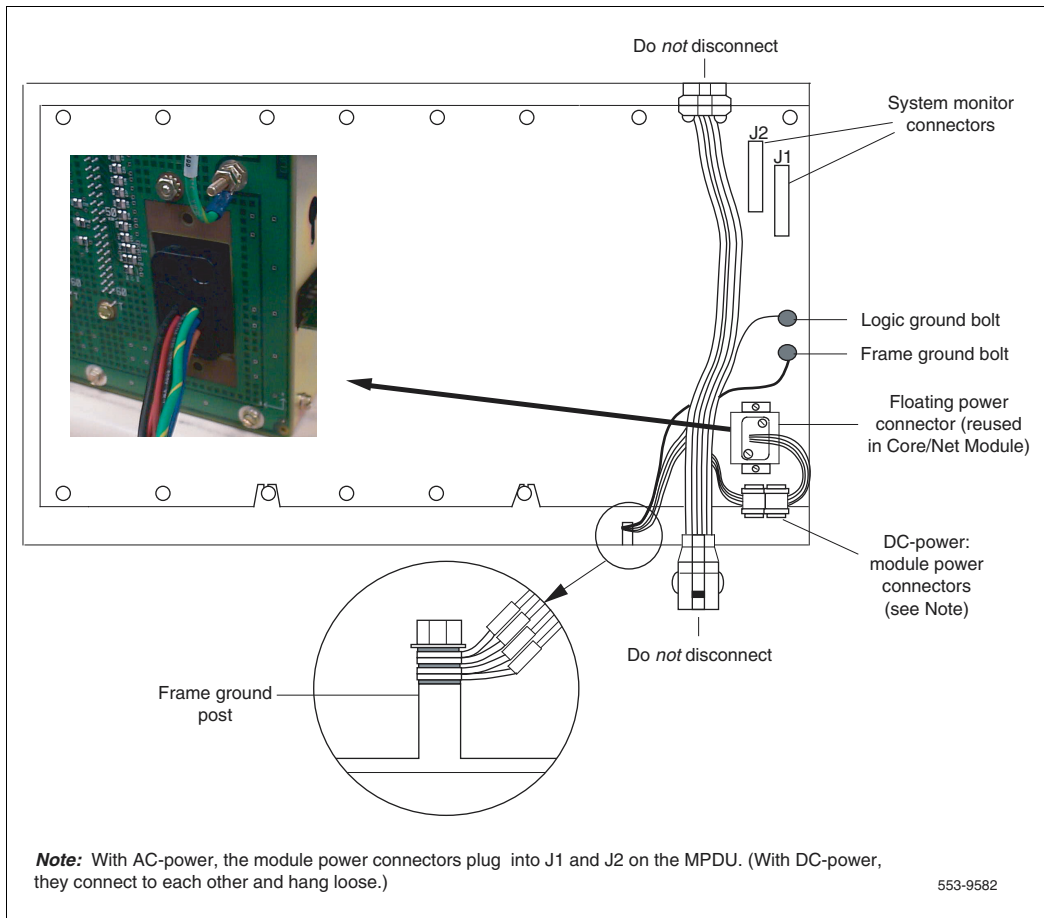
- 7 Use a 1/4" nut driver to remove the two mounting screws at the bottom rear of the card cage that secure the card cage to the module casting. Keep the screws for use with the CP PII card cage.

**CAUTION**

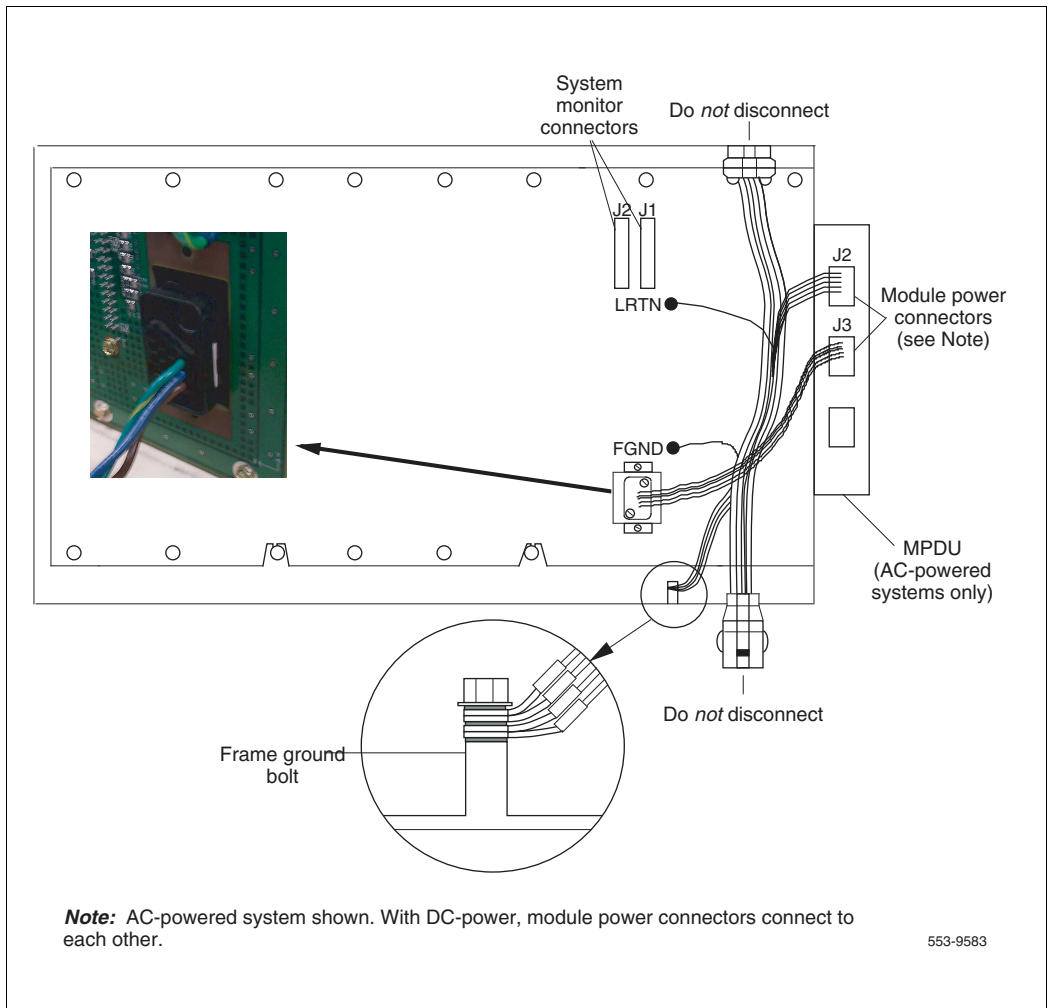
Do not drop the mounting screws into the pedestal. Doing so can cause serious damage.

- 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. Save 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 not to drop the nut or lock washer into the pedestal. See Figure 50 on [page 416](#) for DC power connectors. See Figure 51 on [page 417](#) 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.

**Figure 50**  
**DC power connectors on the Core module backplane**



**Figure 51**  
**AC power connectors on the Core module backplane**



- 17** Remove the power harness and reserve it for reinstallation as part of installing 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 NT8D40.
  - For DC systems, relocate power harness NT7D11.



**CAUTION**

**Service Interruption**

Be sure to perform the following step. If you do not tape the EMI shield in position, you cannot install the card cage in the module correctly.

- 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**

**Damage to Equipment**

Check for and remove any debris (such as screws) that fell into the base of the UEM module.

---

**End of Procedure**

---

## Upgrade Core 0 hardware

### Check that the main Core cards (front side) are installed

#### Procedure 117

#### Checking main Core card installation

The main Core cards including the MMDU (with the cables for power and data), are installed in the factory as shown in Figure 52 on [page 420](#).

- 1 NT4N65AB CP PII Core Network Interface (cCNI) cards:  
Each system contains 1-4 NT4N65 cCNI card per Core/Net module. The cCNI cards are located in slot c9-c12. If not already installed, install a P0605337 CP PII Card Slot Filler Panel to cover slots which do not contain cCNIs.

**Note:** In the NT4N40 Core/Net card cage, port 0 on the NT4N65 Core to Network Interface (cCNI) Card in slot c9 must be configured as “group 0.” Port 1 on this card must be configured as group 1. The cCNI and 3PE cards for group 0 communicate through the NT4N29 cables. The cCNI to 3PE cables for groups 1 to 7 communicate through the NTND14 cables.

- 2 Slots c13 and c14 are left empty. If not already installed, install a P0605337 CP PII Card Slot Filler Panel in each slot.
- 3 NT4N48AA System Utility (Sys Util) card is located in slot c15.
  - a. Check side ID switch settings for SU card in Core/Net 0 according to Table 58 below.

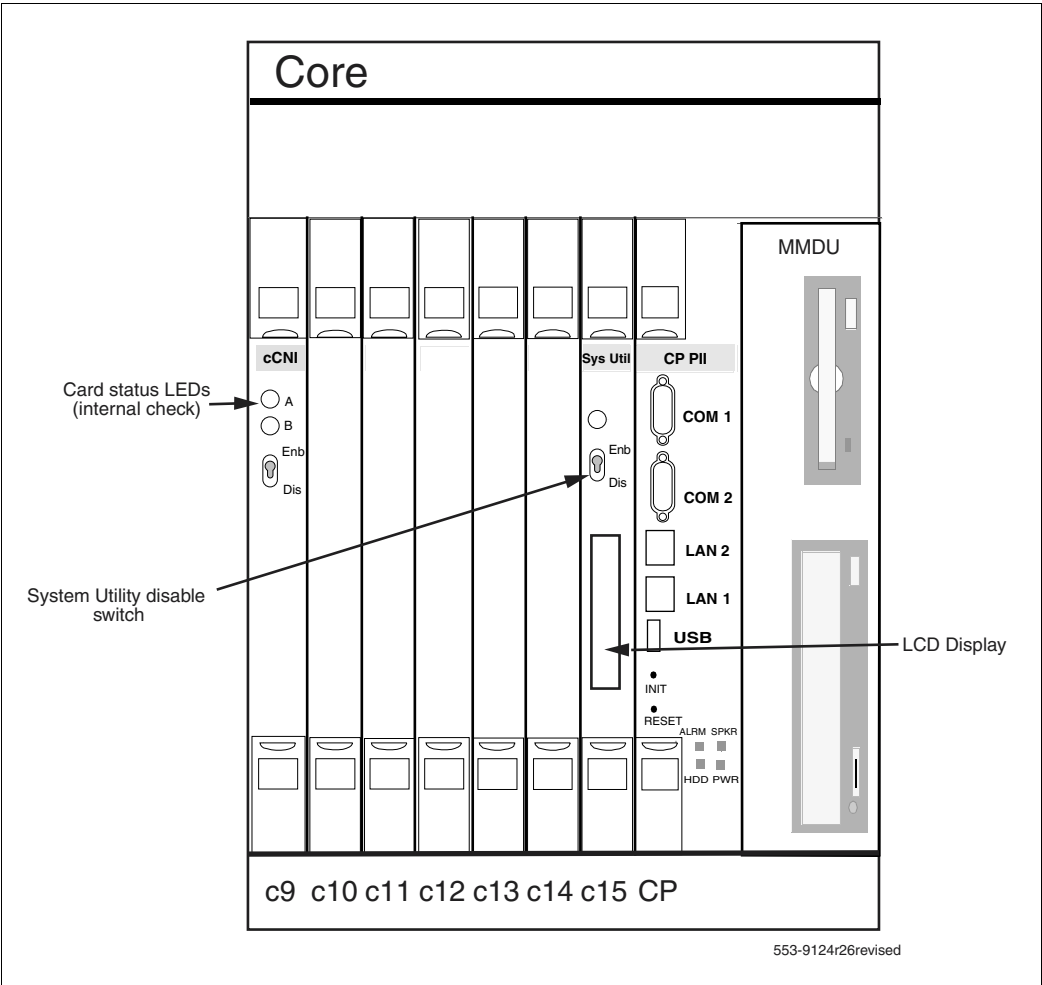
**Table 58**  
**Core module ID switch settings (System Utility card)**

	Position 1	Position 2
Core/Net 0	On	On
Core/Net 1	Off	On

- 4 NT4N64AA CP PII is located in the Call Processor slot.

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

**Figure 52**  
**Core card placement in the NT4N41 Core/Net Module (front)**



End of Procedure



## Check factory-installed cables

Table 59 below lists factory-installed cables. See Figure 16 on [page 236](#).

**Table 59**  
**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

## Install the Security Device

### **Procedure 118** **Installing the Security Device**

The Security Device fits into the System Utility card (see Figure 54 on [page 423](#)).

To install the Security Device:

- 1** If the original system had an IODU/C, remove the Security Device from the IODU/C for reuse.
  - a.** Unlock the latches and remove the IODU/C card.
  - b.** Remove the round 1/2" diameter IODU/C Security Device from the round black Security Device holder on the top right corner of the IODU/C card.

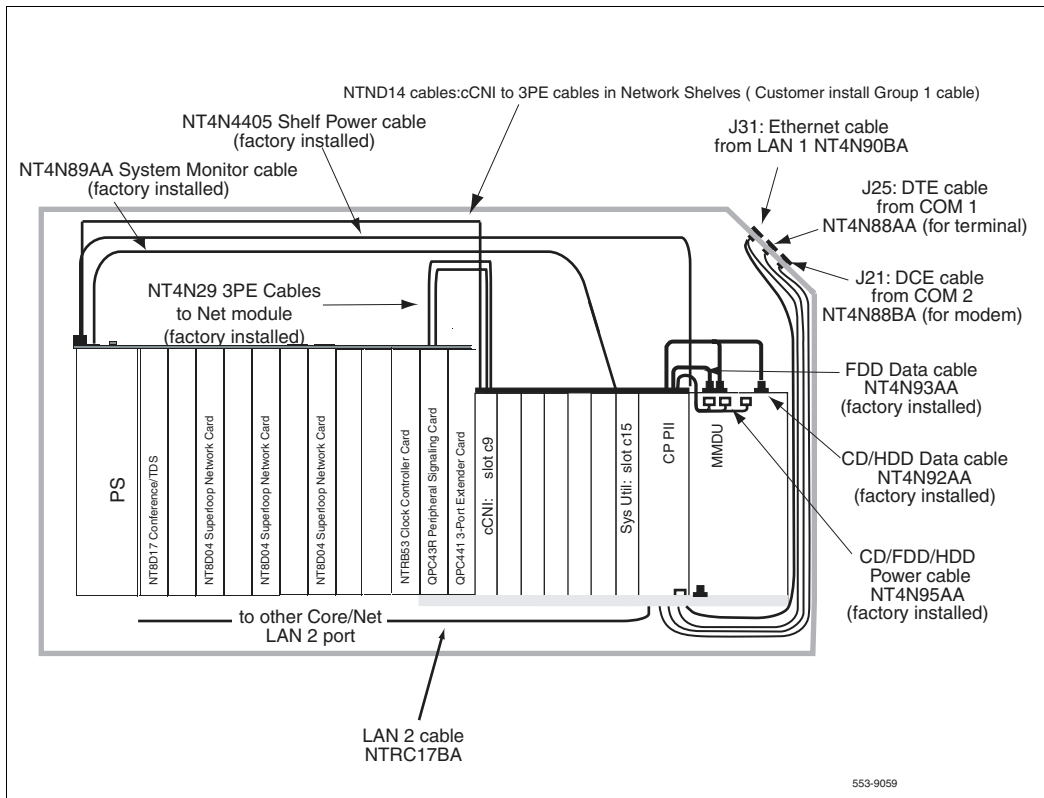
OR

If the original system did not have an IODU/C, use the Security Device provided with the CP PII Software kit.

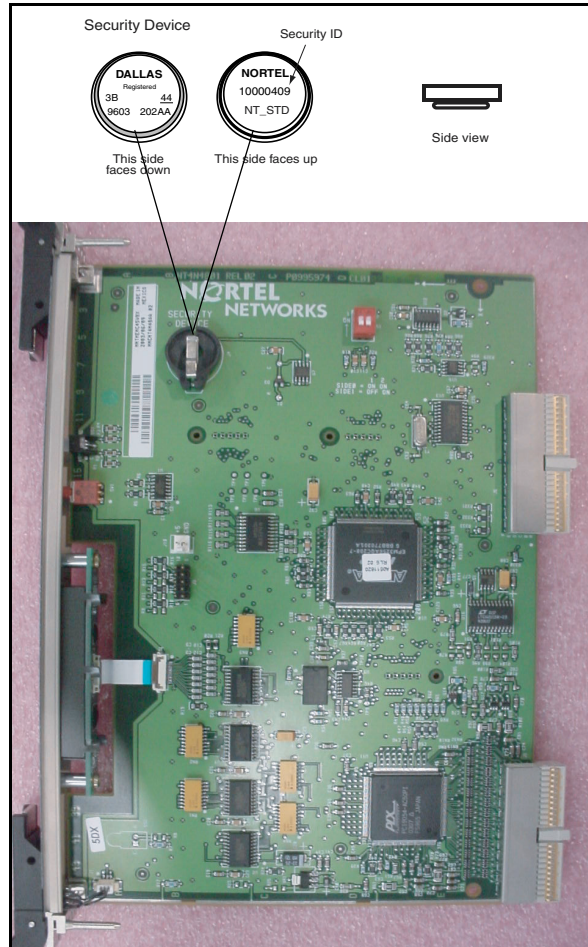
Insert the Security Device into the Security Device holder on the System Utility card with the "Nortel" side facing up. Do not bend the clip more than necessary.

- 2** Check that the Security Device is securely in place.

**Figure 53**  
**Core/Net cable connections**



**Figure 54**  
**Security Device**



## Install the CP PII card cage in Core 0

### Procedure 119

#### Installing the CP PII card cage in Core 0

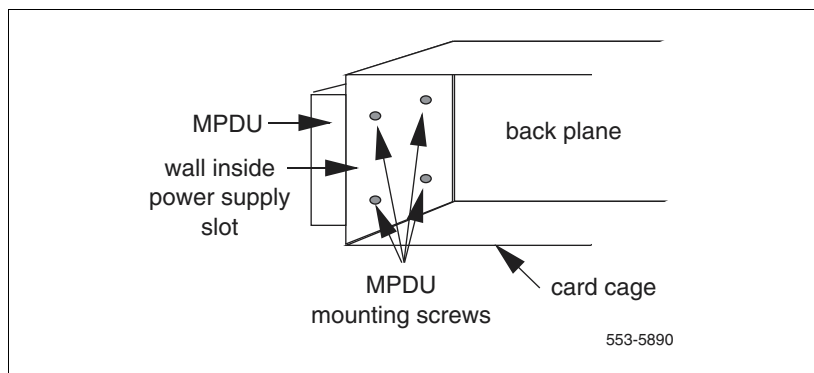
- 1 Check that the card cage is configured as Core 0. See Table 58 on [page 419](#) for instructions.
- 2 For AC-powered systems only, install the new MPDU (part of the CP PII Upgrade kit) to the side on the NT4N40 card cage. The screws that secure the MPDU are accessible from the power supply slot. See Figure 28 on page 289.

**Note:** Pre-thread 2 bottom mounting screws at the back of the Core/Net shelf.

- 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.

**Figure 55**

**Location of the screws for the MPDU**



- 5 Hold the card cage firmly and make the following connections at the rear of the module.
- 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 fell into the base of the UEM module.

- In DC-powered systems, connect the module power connectors to each other.
  - Attach the system monitor ribbon cables:
    - Connect the ribbon cable that goes down to the pedestal to connector J1 on the backplane.
    - Connect the ribbon cable that goes up the column to J2 on the backplane.
  - Attach the green ground wire to the frame ground bolt on the module. (an 11/32" socket wrench is used to attach the wire.) 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, then tighten down the nut.
- Note:** For all of the wire terminals to fit on the bolt, remove one of the lock washers. Leave a lock washer at the bottom of the bolt and at the top of the bolt. Leave a third lock washer between the second and third, or the third and fourth, wire terminals.
- 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" or 2/8" socket wrench.)
- 6 Slide the card cage all the way 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.
  - 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 the NTRC17BA cross over ethernet cable from LAN 2 on Core/Net 0 faceplate to LAN 2 on Core/Net 1 faceplate.

---

**End of Procedure**

---

## Unpack and install NT6D41CA (DC) or NT8D29BA (AC) Power Supply

### Procedure 120

#### Installing the power supply

- 1 Unpack the power supply.
- 2 Faceplate disable the power supply.
- 3 Insert power supply into Core/Net module power supply slot.

---

**End of Procedure**

---

### Procedure 121

#### Relocating Network cards to CP PII Core/Net 0

- 1 Remove all remaining network cards from the Meridian 1 Option 81C Core/Net 0 **except for the IGS/DIGS cards**.
- 2 When you move the 3PE card, check the switch settings and jumpers. See Table 60 on [page 427](#).
  - a. All 3PE cards must be vintage F or later.
  - b. Check that the RN27 Jumper is set to "A".

- c. The settings for 3PE cards in Core/Net shelves are different from those in all other shelves: Table 60 below shows the 3PE settings for cards installed in CP PII Core/Net Modules.
- 3 Reinstall each removed card in the same network slot in the CP PII Core/Net 0.
- 4 Connect the tagged cables to the relocated cards.

**Table 60**  
**QPC441 3PE Card installed in the NT4N40 Module**

<b>Jumper Settings:</b> Set Jumper RN27 at E35 to "A".									
Switch Settings									
Module		D20 switch position							
NT4N40 (Option 81C CP PII)		1	2	3	4	5	6	7	8
Core/Net 0 (Shelf 0)	Group 0	off	on	on	off	on	on	on	on
	Group 1	off	on	on	off	on	on	off	on
	Group 2	off	on	on	off	on	off	on	on
	Group 3	off	on	on	off	on	off	off	on
	Group 4	off	on	on	off	off	on	on	on
	Group 5	off	on	on	off	off	on	off	on
	Group 6	off	on	on	off	off	off	on	on
	Group 7	off	on	on	off	off	off	off	on
Core/Net 1 (Shelf 1)	Group 0	off	on	on	off	on	on	on	off
	Group 1	off	on	on	off	on	on	off	off
	Group 2	off	on	on	off	on	off	on	off
	Group 3	off	on	on	off	on	off	off	off
	Group 4	off	on	on	off	off	on	on	off
	Group 5	off	on	on	off	off	on	off	off
	Group 6	off	on	on	off	off	off	on	off
	Group 7	off	on	on	off	off	off	off	off

————— **End of Procedure** —————

## Cable Core 0

### Cable COM 1 and COM 2 to the I/O panel

- 1 Connect COM1 on the CP PII faceplate to J25 on the I/O panel with cable NT4N88AA.
- 2 Connect COM2 on the CP PII faceplate to J21 on the back of the I/O panel with cable NT4N88BA.

### Connect a terminal and modem to the I/O panel

- 1 Connect J25 to a terminal for use during the upgrade. Use a separate terminal for each Core if available. J25 can also be connected to an A/B box to share a terminal between both Cores.
- 2 Connect J21 to the device connected in the original system (such as a modem or A/B box).

### Connect LAN 1

The LAN 1 port is used to enable redundancy features between the two Core/Net modules. LAN 1 can also be connected to a local area network (LAN) for use with LAN based administration tools such as OTM. The options for the LAN 1 connections are shown in Figure 29 on [page 295](#).

### Procedure 122

#### If the system will be connected to a LAN

- 1 Connect the "Dual Ethernet Adapter (RJ45) for I/O Panel" (NTRE40AA) to J31. Secure the adapter to J31 with the two screws included in the shipment. Insert the adapter from the inside of the I/O panel.
- 2 Connect LAN 1 (Ethernet) on the CP PII faceplate to J31 (top) of the I/O panel with cable NT4N90BA. This connection can only be made *after* the Dual Ethernet Adapter is installed (see step 1 above).
- 3 Connect J31 to a LAN switch.
- 4 If a LAN switch is not available, connect J31 of Core 0 to J31 of Core 1 by NTRC17BA cable.

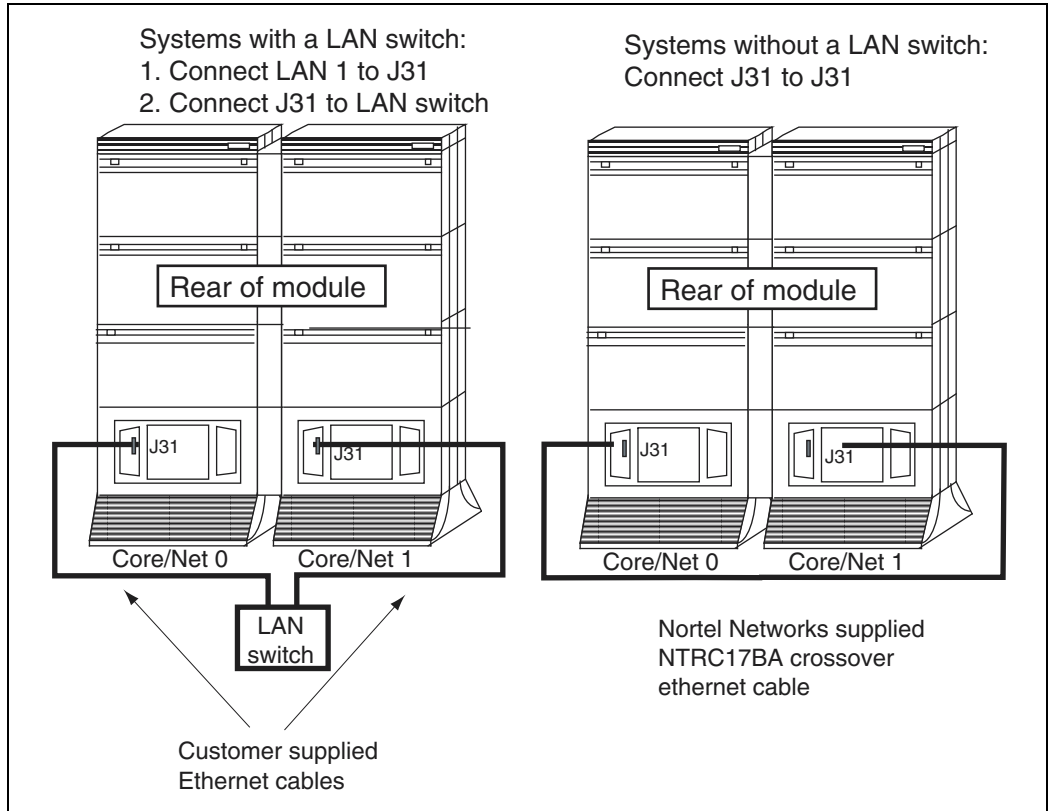
---

**End of Procedure**

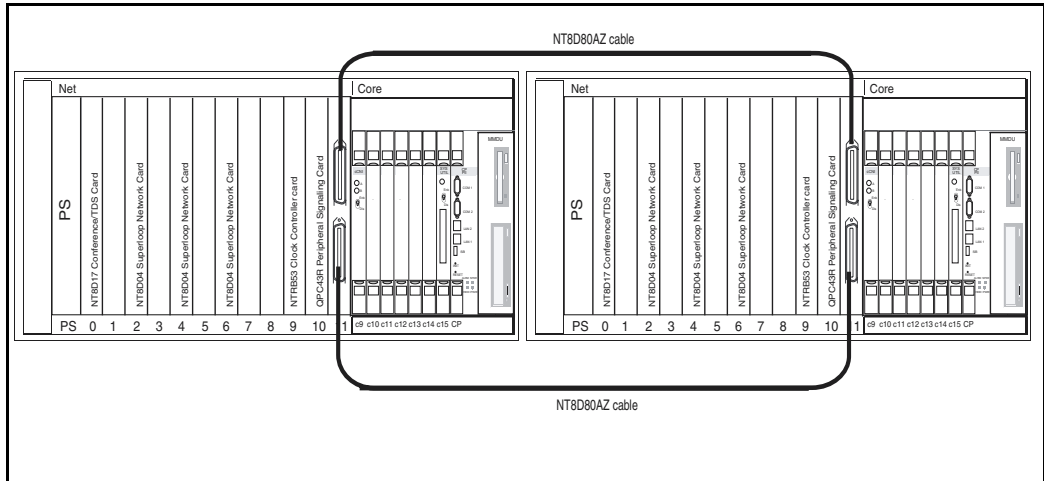
---



**Figure 56**  
**Options for LAN 1 connection**



**Figure 57**  
**3PE card connections**



## In Core 0, inspect factory-installed cables

The NT4N29AA cables should be installed for the existing network group in Core/Net 0. If the system has XSDI cards, reinstall the cards and attach the cables. Inspect the system monitor cables (NT4N89).

## Installing intermodule cables

### Procedure 123

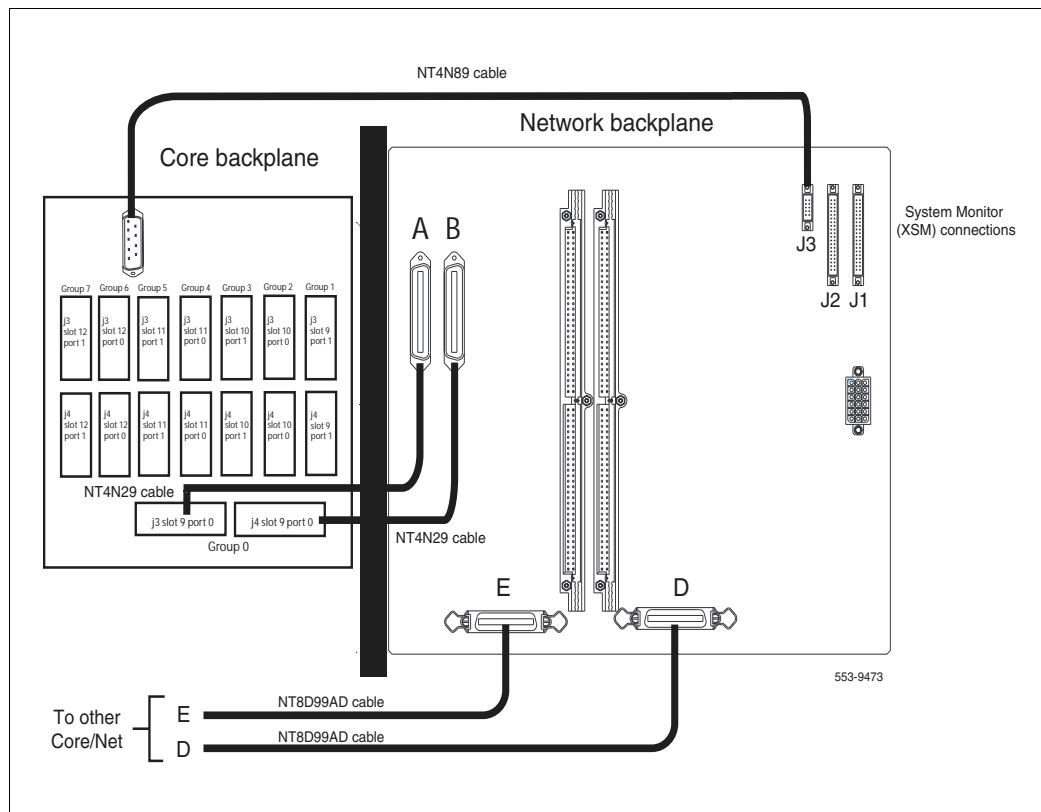
#### Installing intermodule cables

- 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 58 on [page 431](#)).
- 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 57 on [page 430](#)).

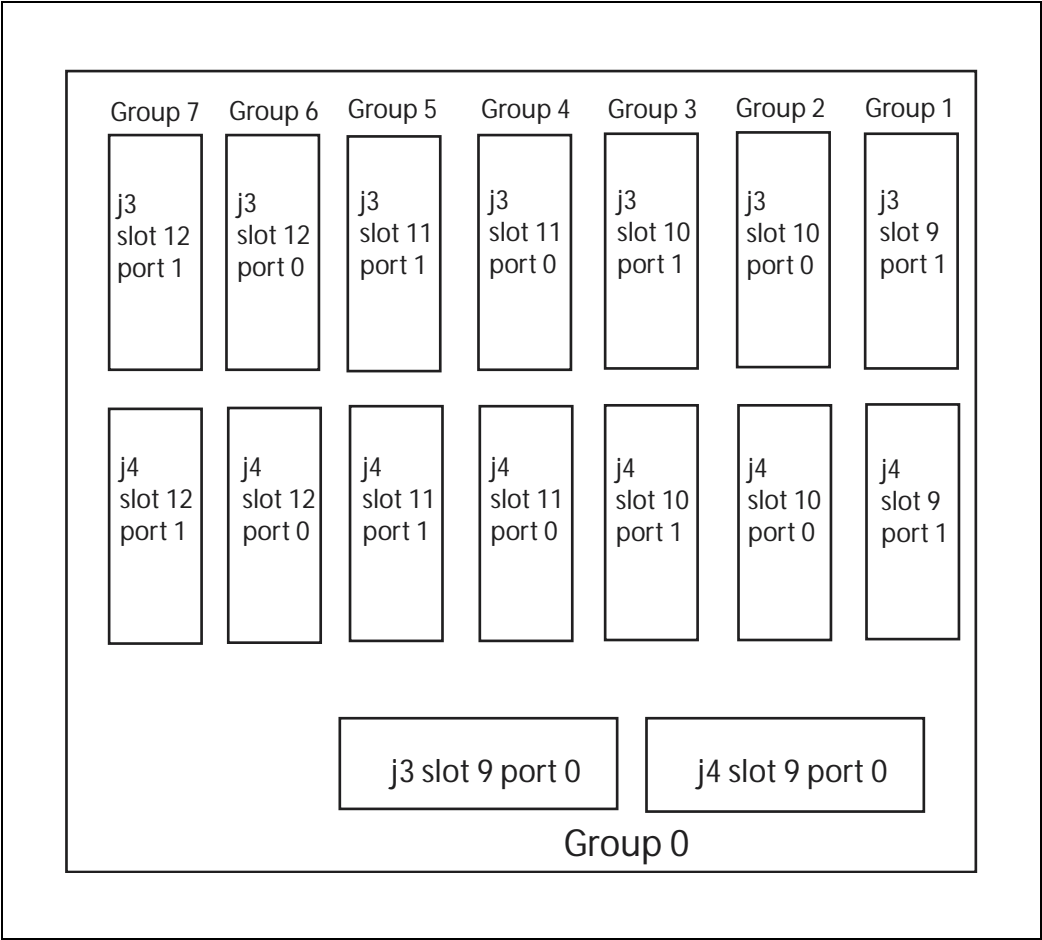
- 4** If the system has XSDI cards, reinstall the cards and attach the cables.

## End of Procedure

**Figure 58**  
**Fanout Panel connections on the CP PII Core/Net backplane**



**Figure 59**  
**Fanout panel connectors**



**In Core 0, route and connect the cCNI to 3PE (NTND14) cables**

The existing NTND14 cables can be reused for Network groups 1-7. Connect the NTND14 cables to the Fanout Panel in Core/Net 0. See Figure 59 on [page 432](#) and Table 61 on [page 435](#).

**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.

When upgrading to CP PII, it is important to know whether Network group 0 will be in the Core/Net module or not. In many installations, Group 0 will be established in a standard Network shelf, and should occupy a higher Network group in the Core/Net.

If Network group 0 will be in the Core/Net, the factory configuration of the new Core/Net modules is correct, and no further action is required.

If Network Group 0 will not be in the Core/Net module, some re-configuration of the processor module is required to allow for concurrent or future use of the Network portion of the Core/Net for a higher Network group.

The NT4N40 shelf is factory-installed with NT4N29 cables and is configured as group 0. If the network portion of the Core/Net shelf is used as a higher network group, use the extraction tool to disconnect the NT4N29 cables from the Core backplane. Once the cables are disconnected, connect them to the

appropriate group. For correct connector replacement, see Figure 59 on [page 432](#).

**WARNING****Damage to Equipment**

Do not pry against the connector with the extraction tool. Simply inserting the tool between the connector and the securing clip is sufficient to unlock the connector. Prying may cause damage to the connector or the backplane pins.

**Table 61**  
**Fanout Panel to 3PE card connectors**

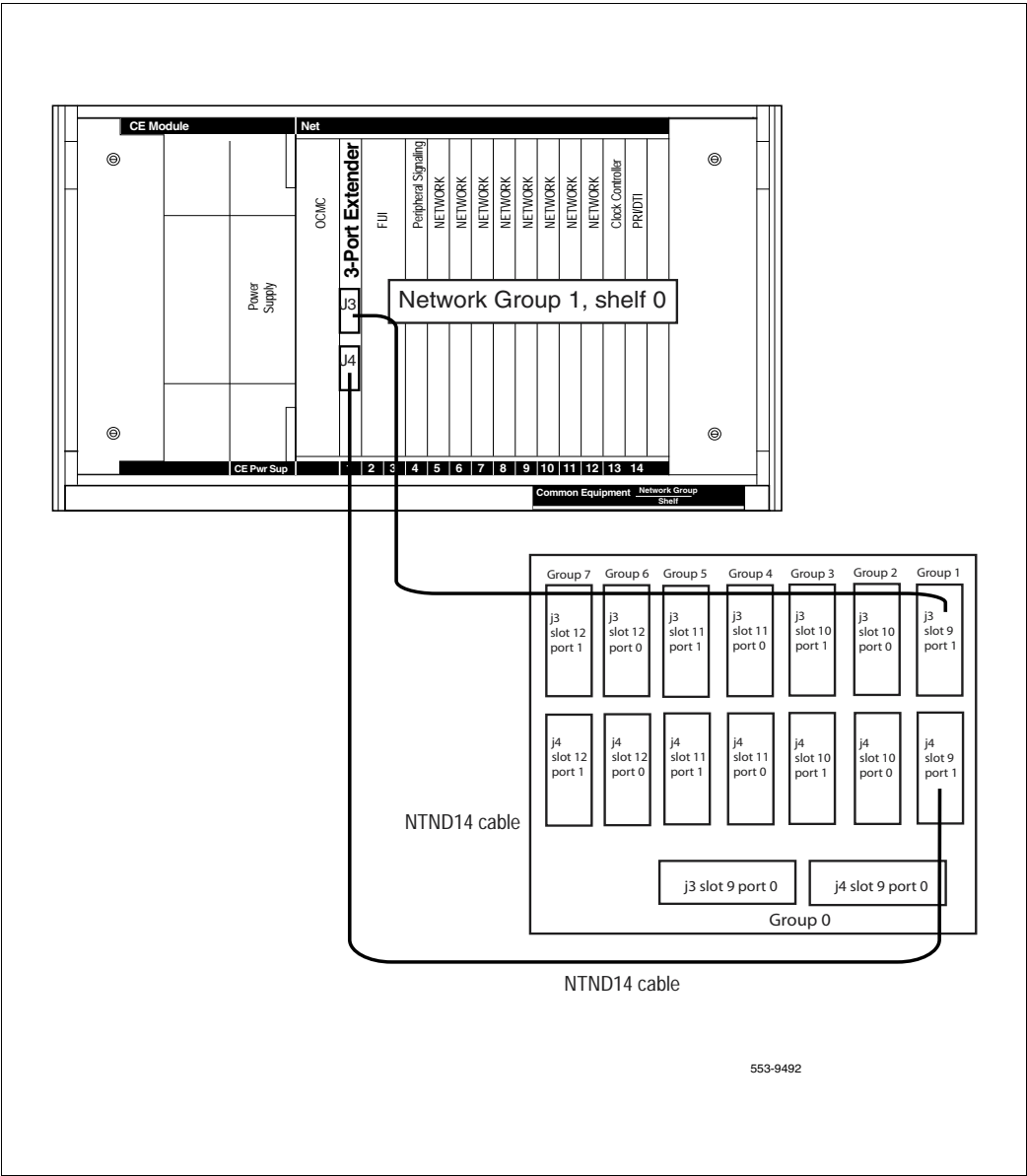
Group Number	Fanout Panel connector	3PE card connector
0	9-0, J3	A
0	9-0, J4	B
1	9-1, J3	J3
1	9-1, J4	J4
2	10-0, J3	J3
2	10-0, J4	J4
3	10-1, J3	J3
3	10-1, J4	J4
4	11-0, J3	J3
4	11-0, J4	J4
5	11-1, J3	J3
5	11-1, J4	J4
6	12-0, J3	J3
6	12-0, J4	J4
7	12-1, J3	J3
7	12-1, J4	J4

**Note 1:** Group 0 cables (NT4N29) connect from the Fanout panel directly to the backplane of Core/Net 1 (see Figure 59 on [page 432](#)).

**Note 2:** Group 1 cables (NTND14) connect from the Fanout panel to the faceplate of the 3PE cards of Group 1 (see Figure 60 on [page 436](#))

**End of Procedure**

**Figure 60**  
**3PE Fanout Panel connections**





## Add Side 0 FIJI hardware

### Procedure 124

#### Install Side 0 FIJI cards

- 1 Tag and disconnect the IGS/DIGS cables.
- 2 Remove the IGS/DIGS cards from Side 0.
- 3 Unpack and install FIJI cards (NTRB33).
- 4 Faceplate disable the NTRB33 cards.
- 5 Insert and the FIJI cards in Side 0.
- 6 Do not seat the FIJI cards at this point.

---

**End of Procedure**

---

### Procedure 125

#### Connect the FIJI to FIJI cables

- 1 Connect P2 of a NTRC47 FIJI to FIJI cable to J4 of the FIJI cards in each Network shelf 0, except group 0.
- 2 Connect P1 of a NTRC47 FIJI to FIJI cable to J4 of the FIJI cards in each Network shelf 1, except group 0.

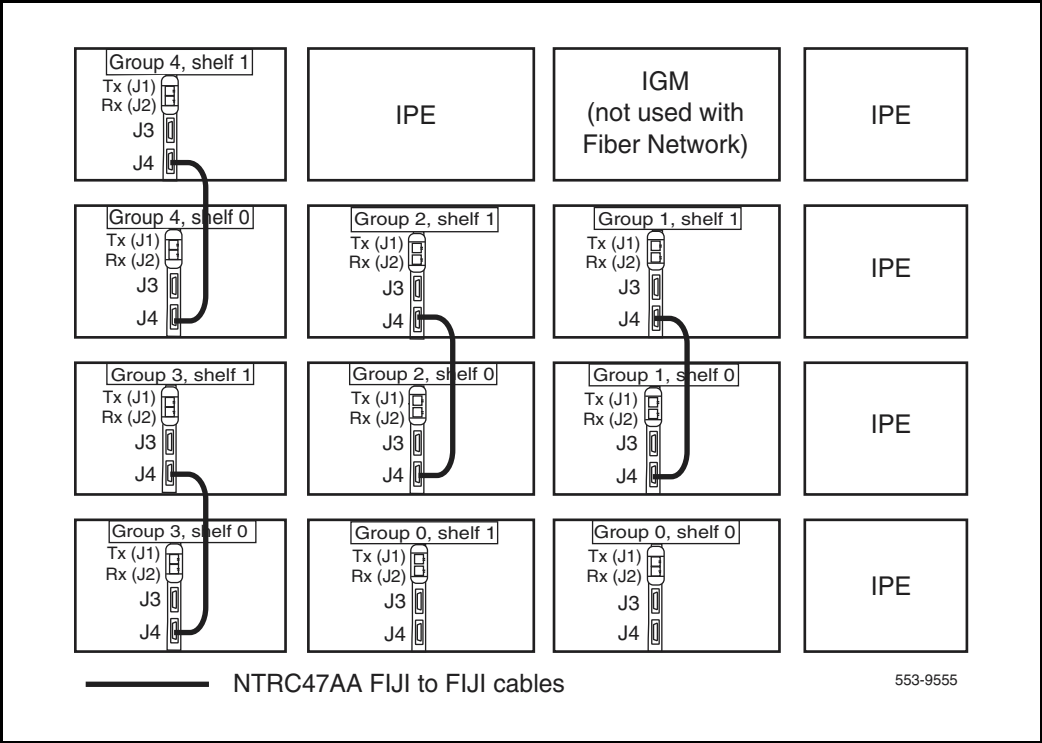
**Note:** The FIJI cards in Group 0 do not receive a FIJI to FIJI cable.

---

**End of Procedure**

---

**Figure 3**  
**FIJI shelf 0 to FIJI shelf 1 connections**



**Procedure 126****Connecting the shelf 0 FIJI Ring cables (ascending)**

Create Fiber Ring 0. Connect the FIJI cards in all Network shelves 0 in **ascending** order, from Tx to Rx ports (see Figure 9 on [page 195](#) and Table 62 on [page 441](#)).

**IMPORTANT!**

The shortest Fiber Cable must always be used.

The cables from group 0 to group 1 must always be the same length as the cables from the last group back to group 0.

The delta between the lengths of each fiber ring from group 0 to any other group must not exceed 50'. Rings are directional. Ring 0 is ascending and ring 1 is descending.

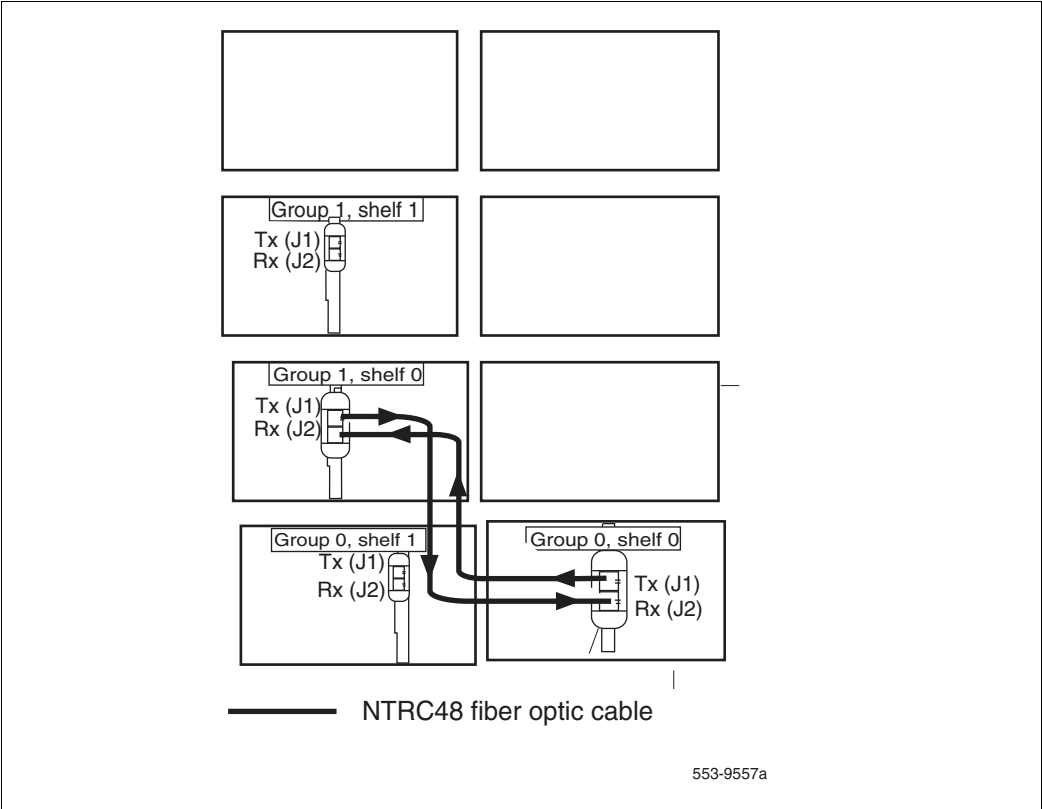
**Note:** When adding an additional network group, fiber cables must be changed to adhere to the rules above.

Remove the black cap from the end of each cable before it is connected.

**Note:** Each end of the NTRC48xx cable is labeled "Tx" or Rx" in the factory.

- 1** Start with group 0, shelf 0.
- 2** Connect a NTRC48xx FIJI Fiber Ring cable of the appropriate length from the Tx (J1) port of the FIJI card in **Group 0, shelf 0** to the Rx (J2) port of the FIJI card in **Group 1, shelf 0**.
- 3** Connect a NTRC48xx FIJI Fiber Ring cable of the appropriate length from the Tx (J1) port of the FIJI card in **Group 1, shelf 0** to the Rx (J2) port of the FIJI card in **Group 2, shelf 0**.
- 4** Continue to connect NTRC48xx FIJI Fiber Ring cables of the appropriate length from the Tx (J1) port to the Rx (J2) port in shelf 0 of each Network group. Connect these cables in **ascending** order of Network groups.

**Figure 61**  
**Shelf 0 ascending fiber optic Ring (Meridian 1 Option 81C 2 group example)**



- 5 To complete the Ring, connect a final cable from the Tx (J1) port in the **highest number group** back to the Rx (J2) port in **Group 0, shelf 0**.

**Table 62**  
**FIJI Ring 0 connections**

<b>Groups X - 0 are cabled in ascending order</b>		
<b>Group/Shelf</b>	<b>FIJI Connector</b>	<b>Tx/Rx</b>
0/0	P1	Tx
1/0	P2	Rx
1/0	P1	Tx
2/0	P2	Rx
2/0	P1	Tx
3/0	P2	Rx
3/0	P1	Tx
4/0	P2	Rx
4/0	P1	Tx
5/0	P2	Rx
5/0	P1	Tx
6/0	P2	Rx
6/0	P1	Tx
7/0	P2	Rx
7/0	P1	Tx
0/0	P2	Rx

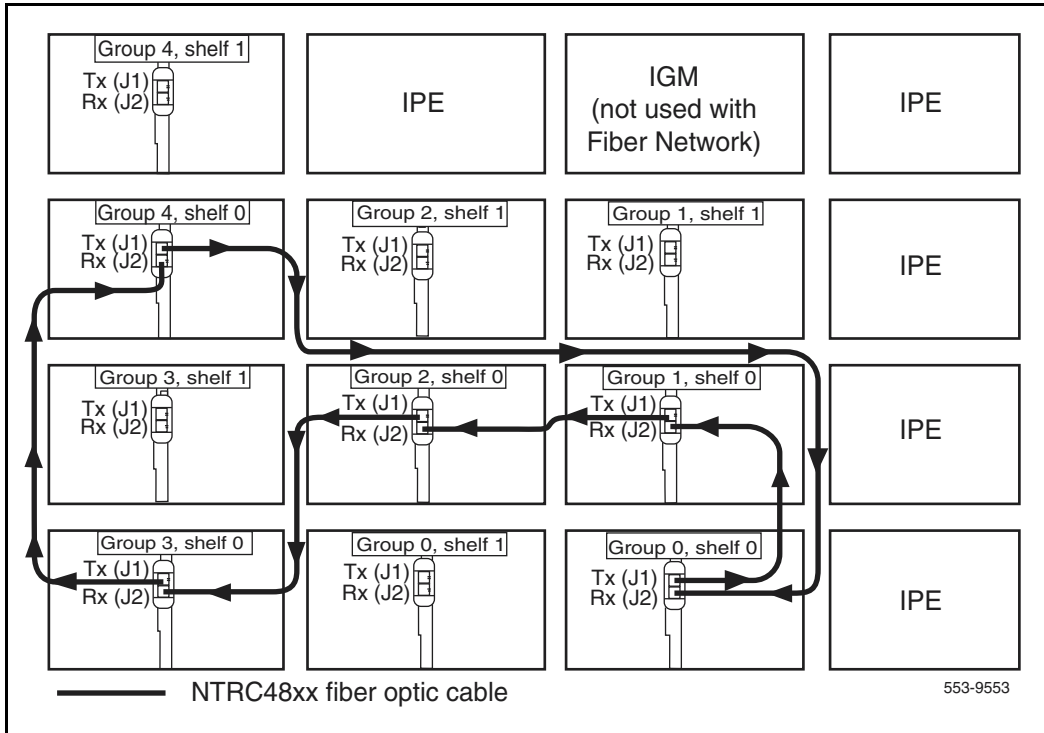
---

**End of Procedure**

---

**Figure 62**

**Shelf 0 ascending fiber optic Ring (Meridian 1 Option 81C 5 group example)**



### Procedure 127

#### Cabling the Clock Controllers to FIJI card

Connect the cables to the Clock Controllers as shown in Figure 63 on [page 444](#):

- 1 Connect the Clock 0 to FIJI cable:
  - a. Connect P1 of the NTRC46 cable from Clock 0 to **J4** of the FIJI card in group 0, **shelf 0**.
- 2 Connect a Clock 1 to FIJI cable:
  - a. Connect P1 of the NTRC46 cable from Clock 1 to **J3** of the FIJI card in group 0, **shelf 0**.

**End of Procedure**

## Power up Core 0

### Procedure 128

#### Preparing for power up

- 1 Confirm that a terminal is connected to the J25 I/O panel connector on Core/Net 0.

**Note:** A maintenance terminal is required to access the Core/Net modules during the upgrade.

- 2 Connect a terminal to the J25 port on the I/O panel in Core 0.
- 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, the terminal will have to 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 Seat and Faceplate enable Clock Controller 0 and ALL FIJI on Shelf 0.
- 5 Faceplate enable all core and network cards.

---

**End of Procedure**

---

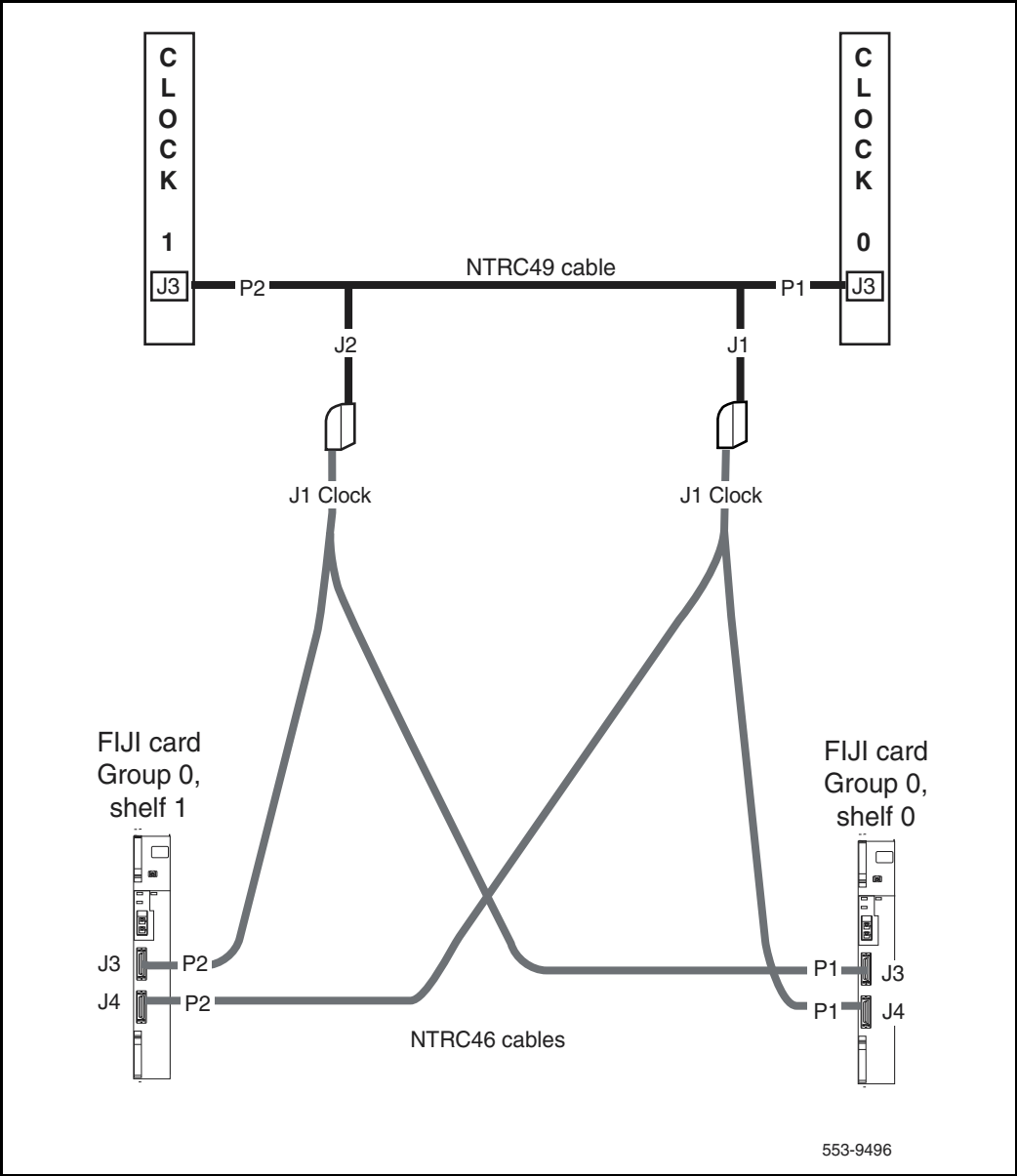
## Power up Core cards

### Procedure 129

#### Powering up core cards

- 1 Disconnect NTRC17BA crossover ethernet cable from the faceplate of CPU 0.
- 2 For AC-powered systems (NT8D29BA): set the MPDU circuit breaker located at the left end of the module to ON (top position).

**Figure 63**  
**Clock Controller cable configuration**





- 3 For DC-powered systems: faceplate enable the NT6D41CA power supply and then set the breaker for the Core 0 module in the back of the column pedestal to ON (top position).
- 4 10 seconds after power up of Core/Net 0, press the INI button on Core/Net 1.
- 5 Wait for the system to load and initialize.



Core/Net 1 is now active. All network cards in Core/Net 0 and Core/Net 1 are enabled. Call processing is resumed.

---

### End of Procedure

---

#### **Procedure 130** **Testing Core/Net 1**

- 1 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:

<b>LD 39</b>	Load program
<b>ENL RING 0</b>	Enable Ring 0
<b>STAT RING 0</b>	Check the status of Ring 0 (HALF/HALF)
<b>STAT RING 1</b>	Check the status of Ring 1 (HALF/HALF)

- b. Restore the Rings to Normal State:

<b>RSET</b>	Reset both Rings
<b>RSTR</b>	Restore both Rings to HALF state
<b>ARCV ON</b>	Turn Auto Recovery on

c. Check that the Rings operate correctly:

**STAT RING 0**     Check status of Ring 0 (HALF/HALF)

**STAT RING 1**     Check status of Ring 1 (HALF/HALF)

\*\*\*\*                Exit program

2 Stat network cards:

**LD 32**             Load program

**STAT x**            Stat the network card, where x = loop number

\*\*\*\*                Exit program

3 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 Clock (if necessary)

\*\*\*\*                Exit program

b. Verify that the clock controllers are switching correctly:

**SWCK**             Switch Clock

**SWCK**             Switch Clock again

\*\*\*\*                Exit program

---

**End of Procedure**

---

## Install software and customer database on Core 0

### Procedure 131

#### Installing the software and customer 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 Core/Net 0 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 in Core/Net 0.

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:

```
Copyright (c) 1993-1996 RST Software Industries Ltd. All rights
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.

#### MAIN 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> -> <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 install floppy disk at this time and insert keycode diskette.

- 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: 2540 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 2540 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.

**IMPORTANT!**

Remove keycode floppy disk at this time and insert backup customer database diskette from Step 10 of Procedure 78 on [page 304](#).

**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: 2540 to the hard disk on Core X. release: 2540.

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**

**Note:** 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 for Core/Net 0 to INI.

---

**End of Procedure**

---

## Check for Peripheral Software Download to Core 0

Load LD 22 and print Target peripheral software version. The Source peripheral software version was printed in “Print site data” on [page 477](#).

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.
- The system drops established calls on IPE.

### LD 22

<b>REQ</b>	PRT
<b>TYPE</b>	PSWV
<b>ISSP</b>	Print System and Patch Information
<b>SLT</b>	Print System Limits
<b>TID</b>	Print the Tape ID
<b>****</b>	Exit program

- 1 Perform a data dump to save the customer database to the hard drive and floppy disk. Insert a blank floppy into the Core/Net 0 MMDU.

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

**LD 43**            Load program

- b. When “EDD000” appears on the terminal, enter:

**EDD**            Begin 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.

- 2** When “DATADUMP COMPLETE” and “DATABASE BACKUP COMPLETE” appear on the terminal, enter:

\*\*\*\*

Exit program

---

**End of Procedure**

---

## Make the system redundant

### Procedure 132

#### Enabling system redundancy:

- 1 Connect NTRC17BA from LAN 2 of Core/Net 1 to Lan 2 of Core/Net 0.
- 2 Initialize (INI) Core/Net 0.



Once the INI is complete on the *inactive* Core (Core/Net 0), the system will operate in full redundant mode with Core/Net 1 active.

#### **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, downloading 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.

---

**End of Procedure**

---

## Complete the CP PII upgrade

### Procedure 133

#### Testing Core/Net 1

From Core/Net 1, perform these tests:

- 1 Perform a redundancy sanity test:

<b>LD 135</b>	Load program
<b>STAT CPU</b>	Get status of CPU and memory
<b>TEST CPU</b>	Test CPU

- 2 Check the LCD states:

- a. Perform a visual check of the LCDs.
- b. Test LCDs:

<b>LD 135</b>	Load program
<b>TEST LCDs</b>	Test LCDs
<b>DSPL ALL</b>	

- 3 Test the System Utility cards and the cCNI cards:

<b>LD 135</b>	Load program
<b>STAT SUTL</b>	Get status of the System Utility (main and Transition) cards
<b>TEST SUTL</b>	Test System Utility (main and Transition) cards
<b>STAT CNI c s</b>	Get status of cCNI cards (core, slot)
<b>TEST CNI c s</b>	Test cCNI (core, slot)

- 4 Test system redundancy:

<b>LD 137</b>	Load program
<b>TEST RDUN</b>	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 XMS, 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 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**           Get 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 Clock

**SWCK**            Switch Clock again

**8 Test the Fiber Rings:**

See *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

**10 Check applications (Call Pilot, Symposium, Meridian Mail, etc.).****11 Check dial tone.**

---

**End of Procedure**

---

## Switch call processing

### Procedure 134 Switching call processing

<b>LD 135</b>	Load program
<b>SCPU</b>	Switch call processing from Core/Net 1 to Core/Net 0

Core/Net 1 will INI and Core/Net 0 will become the active call processor.

### Procedure 135 Testing Core/Net 0

From Core/Net 0, perform these tests:

**1**    Perform a redundancy sanity test:

<b>LD 135</b>	Load program
<b>STAT CPU</b>	Get status of CPU and memory
<b>TEST CPU</b>	Test the CPU

**2**    Check the LCD states:

**a.**    Perform a visual check of the LCDs.

**b.**    Test LCDs:

<b>LD 135</b>	Load program
<b>TEST LCDs</b>	Test LCDs
<b>DSPL ALL</b>	Display all

**3**    Test the System Utility cards and the cCNI cards:

<b>LD 135</b>	Load program
<b>STAT SUTL</b>	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**    Test that the system monitors are working:

**LD 37**            Load program

**STAT XSM**        Check the system monitors

**\*\*\*\***              Exit the program

**6**    Clear the display and minor alarms on both Cores:

**LD 135**

**CDSP**            Clear 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:

<b>LD 60</b>	Load program
<b>SSCK <i>x</i></b>	Get the status of the clock controllers ( <i>x</i> is “0” or “1” for Clock 0 or Clock 1)
<b>SWCK</b>	Switch the Clock (if necessary)
<b>****</b>	Exit program

- b.    Verify that the Clock Controllers are switching correctly:

<b>SWCK</b>	Switch Clock
<b>SWCK</b>	Switch Clock again

8    Test the Fiber Rings:

See *Software Input/Output: Maintenance* (553-3001-511) for more information on LD 39 commands.

- a.    Check that the Fiber Rings operate correctly:

<b>LD 39</b>	Load program
<b>STAT RING 0</b>	Check the status of Ring 0 (HALF/HALF)
<b>STAT RING 1</b>	Check the status of Ring 1 (HALF/HALF)

- b.    If necessary, restore the Rings to Normal State:

<b>RSTR</b>	Restore both Rings to HALF state
-------------	----------------------------------

- c.    Check that the Rings operate correctly:

<b>STAT RING 0</b>	Check the status of Ring 0 (HALF/HALF)
<b>STAT RING 1</b>	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

**10** Check applications (such as Call Pilot and Symposium).

**11** Check dial tone.

---

**End of Procedure**

---

## Meridian 1 Option 81C/FNF upgrade to Option 81C CP PII/FNF

### 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 63:

**Table 63**  
**Prepare for upgrade steps (Part 1 of 2)**

Procedure Step	Page
Plan upgrade	<a href="#">471</a>
Upgrade Checklists	<a href="#">472</a>
Prepare	<a href="#">472</a>
Identifying the proper procedure	<a href="#">472</a>
Connect a terminal	<a href="#">473</a>
Check the Core ID switches	<a href="#">474</a>
Print site data	<a href="#">477</a>
Perform a template audit	<a href="#">479</a>
Back up the database (data dump and ABKO)	<a href="#">480</a>

**Table 63**  
**Prepare for upgrade steps (Part 2 of 2)**

Procedure Step	Page
Identify two unique IP addresses	<a href="#">485</a>
Check requirements for cCNI to 3PE cables (NTND14)	<a href="#">485</a>

## 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” of Book 3. 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](#)).
- 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 136****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/O 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 137**  
**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 — Service Interruption**

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 64 below.
- 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.

---

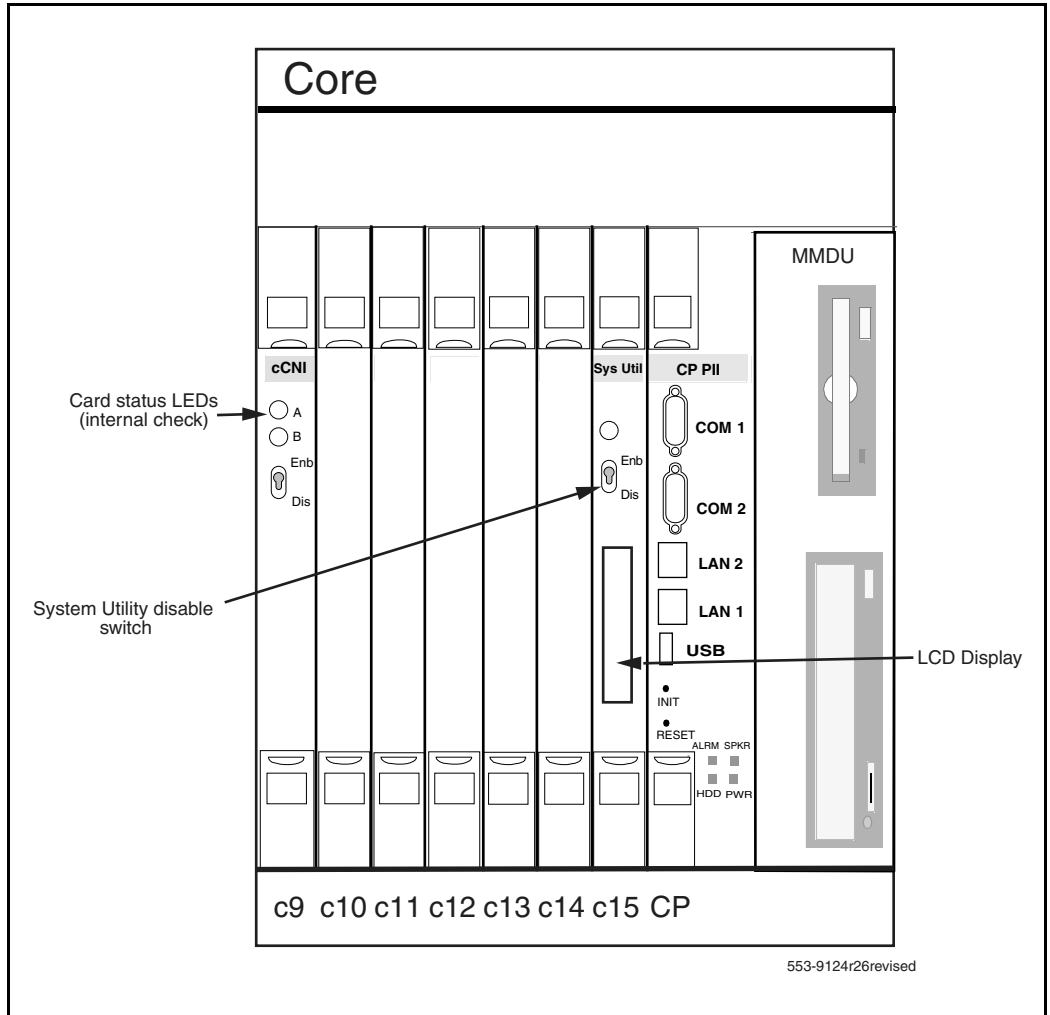
**End of Procedure**

---

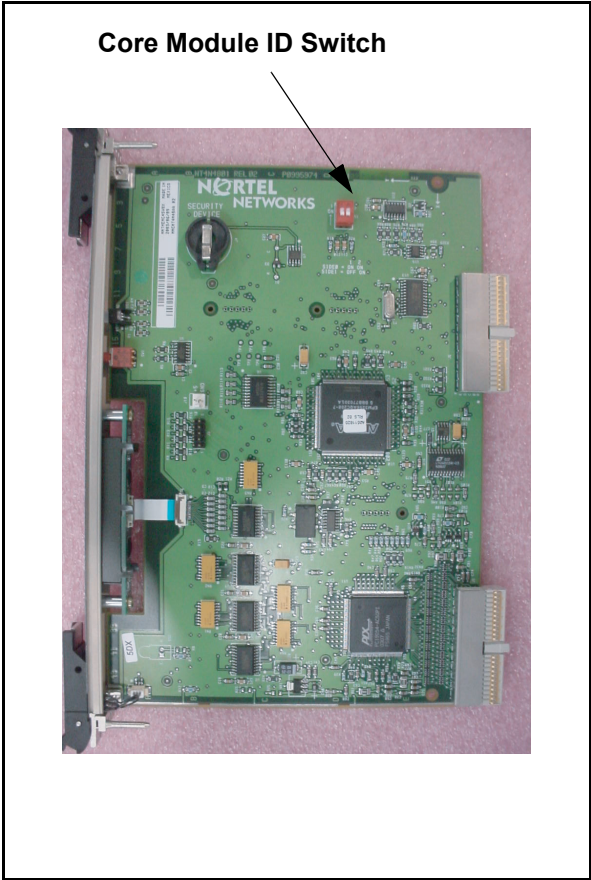
**Table 64**  
**Core module ID switch settings (System Utility card)**

	Position 1	Position 2
Core 0	On	On
Core 1	Off	On

**Figure 64**  
**Core card placement in the NT4N40 Core/Net card cage (front)**



**Figure 65**  
**Core Module ID switch**





## Print site data

Print site data to preserve a record of the system configuration (Table 65). 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 65**  
**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 65**  
**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 65**  
**Print site data (Part 3 of 3)**

Site data	Print command	
DTI/PRI data block for all customers	LD 73	
	REQ	PRT
	TYPE	DDB
<b>Note:</b> 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 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 138 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 139****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 140**  
**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" of Book 3.

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 MB 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 System Administrator to identify two unique IP addresses before the upgrade.
- For instructions to configure these IP numbers, see “Configuring IP addresses” on [page 667](#).

## 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:



### 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.

## Perform upgrade

The target upgrade to Meridian 1 Option 81C CP PII with FNF must meet the requirements of Product Bulletins P2002-1658-NA, PAA-2003-0199-NA, and 2000-047 rev1. Highlights include:

- PB requires NTRB53AA Clock Controller
- NT5D12AC, AD, and AG (1.54MB) support
- NT5D97AB, AD (2.0MB) support
- both NTRC46 cables must be the same length



### IMPORTANT!

The shortest Fiber Cable must always be used.

The cables from group 0 to group 1 must always be the same length as the cables from the last group back to group 0.

The delta between the lengths of each fiber ring from group 0 to any other group must not exceed 50'. Rings are directional. Ring 0 is ascending and ring 1 is descending.

**Note:** When adding an additional network group, fiber cables must be changed to adhere to the rules above.

**IMPORTANT!**

When configuring NTND14 cables, observe the following rules:

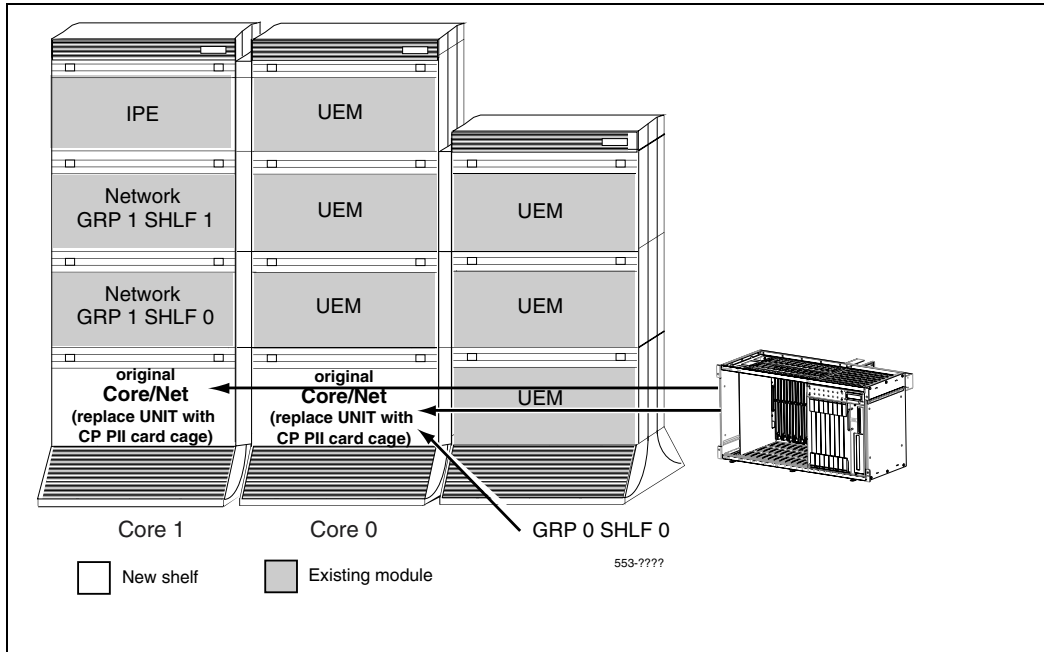
- The shortest NTND14 Cable should always be used.
- A network group requires 4 NTND14 cables, 2 to each half group. Both cables to each half group must be the same length.
- A check should be made on the existing NTND14 cables. Replace any cables that do not meet the above requirement.

**Note:** The NTND14 BX 50' cables are manufacture discontinued.

**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.

**Figure 66**  
**Meridian 1 Option 81C to Meridian 1 Option 81C CP PII with FNF**

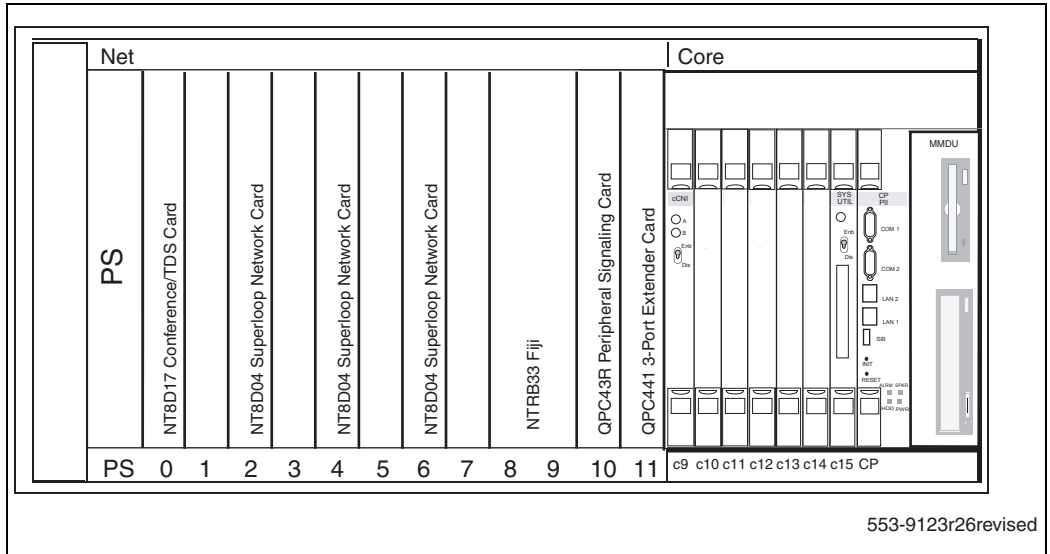


This upgrade takes a Meridian 1 Option 81C with FNF to a Meridian 1 Option 81C CP PII with FNF. Additional groups can be added by following the procedure “Adding a Network Group” of Book 3.

To upgrade a Meridian 1 Option 81C with FNF system to a Meridian 1 Option 81C CP PII with Fiber Network Fabric:

- Two card cages in the existing Core/Net modules are replaced with two NT4N40 CP PII card cage.
- New CP PII cards are located in the Core/Net modules or card cage.
- Existing network cards are relocated to the CP PII card cages.

**Figure 67**  
**CP PII Core/Net Module**



## Review upgrade requirements

This section describes the **minimum** equipment required for CP PII with FNF. Additional equipment can also be installed during the upgrade. Verify that *all* equipment has been received.

### Check equipment received

Before the upgrade, check that the equipment on the order form is also on the packing slip. Check that all equipment has been received. If any items are missing, contact your supplier for replacements before you begin the upgrade.



### CAUTION

#### Service Interruption

DO NOT proceed with the upgrade if any of the required equipment is missing. All equipment must be received to complete the upgrade.

Check required software

The following software packages are required to upgrade a system to Meridian 1 Option 81C with CP PII:


- Succession 3.0 Software
- CPP\_CNI CP Pentium Backplane for Intel Machine Package 368
- CORENET Core Network Module Package 299
- FIBN Fiber Network Package 365
- Software Install Kit

Check vintage requirements for existing hardware

Check the list below to make sure that existing hardware meets the minimum vintage requirements for CP PII.

- The QPC441 3-Port Extender (3PE) cards must be minimum vintage F.
- The NTRB53 Clock Controller cards must be minimum vintage A.  
*Note:* QPC720 PRI cards require NT8D79 cables. NT5D12 Dual PRI/DTI cards require NTCG03 cables.
- The QPC43 Peripheral Signaling cards must be minimum vintage R.

If any of the equipment listed does not meet the requirements, replace the equipment before you begin the upgrade.



**CAUTION**

**Service Interruption**

Equipment that does not meet the minimum vintage requirements will cause system malfunctions and loss of call processing.

Check required hardware

Table 66 describes the *minimum* equipment required to upgrade a system to CP PII. Table 67 and Table 68 on [page 493](#) list the DC and AC power

equipment requirements. Additional equipment for increased Network capacity is ordered separately.

**Table 66**  
**Minimum requirements for Meridian 1 Option 81C CP PII with FNF systems (Part 1 of 2)**

<b>Order number</b>	<b>Description</b>	<b>Quantity per system</b>
NT4N64AA	CP PII Call Processor Card (256mb Memory)	2
NT4N43CA	CP PII Multi-Media Disk Unit	2
NT4N40AA	CP PII Core/Network Card Cage AC/DC	2
NT4N65AB	CP PII Core Network Interface Card (2 ports)	2
NT4N48AA	CP PII System Utility Card	2
NT4N88AA	CP PII to I/O Panel DTE Cable (48 in.)	2
NT4N88BA	CP PII to I/O Panel DCE Cable (48 in.)	2
NT4N90BA	CP PII to I/O Panel Ethernet Cable (48 in.)	2
*NT8D01BC	Controller - Four Card	1
*NT8D04BA	Superloop Network Card	
*NT8D17FA	Conference/TDS Card	
*NT8D22AC	System Monitor	
*NT8D41BA	Quad SDI Paddle Board	1
*NT8D46AD	System Monitor to SDI Cable (60 in.)	1
*NT8D46AL	System Monitor Serial Link Cable (7 ft)	1
*NT8D46AS	System Monitor InterCPU Cable (30 in.)	1
*NT8D80BZ	CPU Interface Cable (5 ft.)	
*NT8D84AA	SDI Paddleboard to I/O Cable (18 in.)	
*NT8D90AF	SDI Multi-Port Extension Cable (10 ft)	
*NT8D91AD	Network to Controller Cable (6 ft)	

**Table 66**  
**Minimum requirements for Meridian 1 Option 81C CP PII with FNF systems (Part 2 of 2)**

Order number	Description	Quantity per system
*NT8D99AB	CPU to Network Cable (2 ft)	2
*NT8D99AD	CPU to Network Cable (6 ft)	2
*NTRB33AA	Fiber Junctor Interface (FIJI) Card	
NTRC17BA	CP PII Ethernet to Ethernet Cable (8.5 ft)	2
*NTRC46BB	Clock - FIJI Cable (1.7M - 2.4M (5.5 ft - 8 ft))	
*NTRC47AA	FIJI - FIJI Sync Cable	
*NTRC48AA	FIJI Fiber Ring Cable (2M (6 ft))	
*NTRC49AA	Clock - Clock Sync Cable	
*NTRE39AA	Optical Cable Management Card (OCMC)	
NTRE40AA	Dual Ethernet Adapter (RJ45) for I/O Panel	2
*P0745716	Rear I/O Panel	2
P0605337	CP PII Card Slot Filler Panel	10
<b>Note:</b> *Customer supplied from existing system.		

### Check required power equipment

Table 67 below lists the equipment required for DC-powered systems.

Table 68 on [page 493](#) lists the equipment required for AC-powered systems.

**Table 67**  
**Dc power requirements for Meridian 1 Option 81C CP PII with FNF upgrades**

Order number	Description	Quantity per system
NT6D41CA	Core/Network Power Supply DC	2
NT4N97BA	CP PII Upgrade Kit DC (Misc. Card Cage Components)	2



**Table 68**  
**AC power requirements for Meridian 1 Option 81C CP PII with FNF upgrades**

Order number	Description	Quantity per system
NT8D29BA	Core/Network Power Supply AC	2
NT4N97AA	CP PII Upgrade Kit AC (Misc. Card Cage Components)	2

## Check required tools

For a list of required tools, see Table 3 on [page 26](#).

## Check personnel requirements

Nortel Networks recommends that a minimum of two people perform the card cage upgrade.

## Database requirements

If the system is running pre-release 19 software or the source platform is a Meridian 1 Option 21E, 51, 61, 71, STE, NT or XT, the database must be sent to Nortel Networks for conversion.

If the source platform is a Meridian 1 Option 51C, 61C, 81, or 81C equipped with IOP/CMDU cards, the database must be converted with the Database Transfer utility. See “Database transfer” of Book 3.

If the source platform is a Meridian 1 Option 51C, 61C, 81, or 81C equipped with IODUC cards, the database should be data dumped (EDD) to a blank 2 MB floppy.

**Note:** All of the above listed system types can be converted by Nortel Networks in the software conversion lab. Please check the current price manual for the requirements of this service.

## Service impact

This upgrade is for a source platform of 81C/FNF to a target platform of 81C CPP II with FNF.

The procedures are written with the intent of maintaining service to the system whenever possible. Those services located in Core/Net shelves are an exception. Critical services in the Core/Net shelves should be identified and moved prior to attempting this upgrade.

Nortel Networks requires complete power removal from AC-powered columns before shelf change out occurs. This impact to service should be considered before and during 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.

## **Install Core/Net 1 hardware**

### **Procedure 141**

#### **Checking main Core card installation**

The main Core cards, including the MMDU (with the cables for power and data), are installed in the factory as shown in Figure 68 on [page 496](#):

- 1 NT4N65AB CP PII Core Network Interface (cCNI) cards: Each system contains 1-4 NT4N65 cCNI card per Core/Net module. The cCNI cards are located in slot c9-c12. If not already installed, install a P0605337 CP PII Card Slot Filler Panel to cover slots which do not contain cCNIs.

**Note:** In the NT4N40 Core/Net card cage, port 0 on the NT4N65 Core to Network Interface (cCNI) Card in slot c9 must be configured as “group 0.” Port 1 on this card must be configured as group 1. The cCNI and 3PE cards for group 0 communicate through the NT4N29 cables. The cCNI to 3PE cables for groups 1 to 7 communicate through the NTND14 cables.

- 2 Slots c13 and c14 are left empty. If not already installed, install a P0605337 CP PII Card Slot Filler Panel in each slot.
- 3 NT4N48AA System Utility (Sys Util) card is located in slot c15.

- a. Check side ID switch settings for SU card in Core/Net 1 according to Table 69 below.

**Table 69**  
**Core module ID switch settings (System Utility card)**

	<b>Position 1</b>	<b>Position 2</b>
Core/Net 0	On	On
Core/Net 1	Off	On

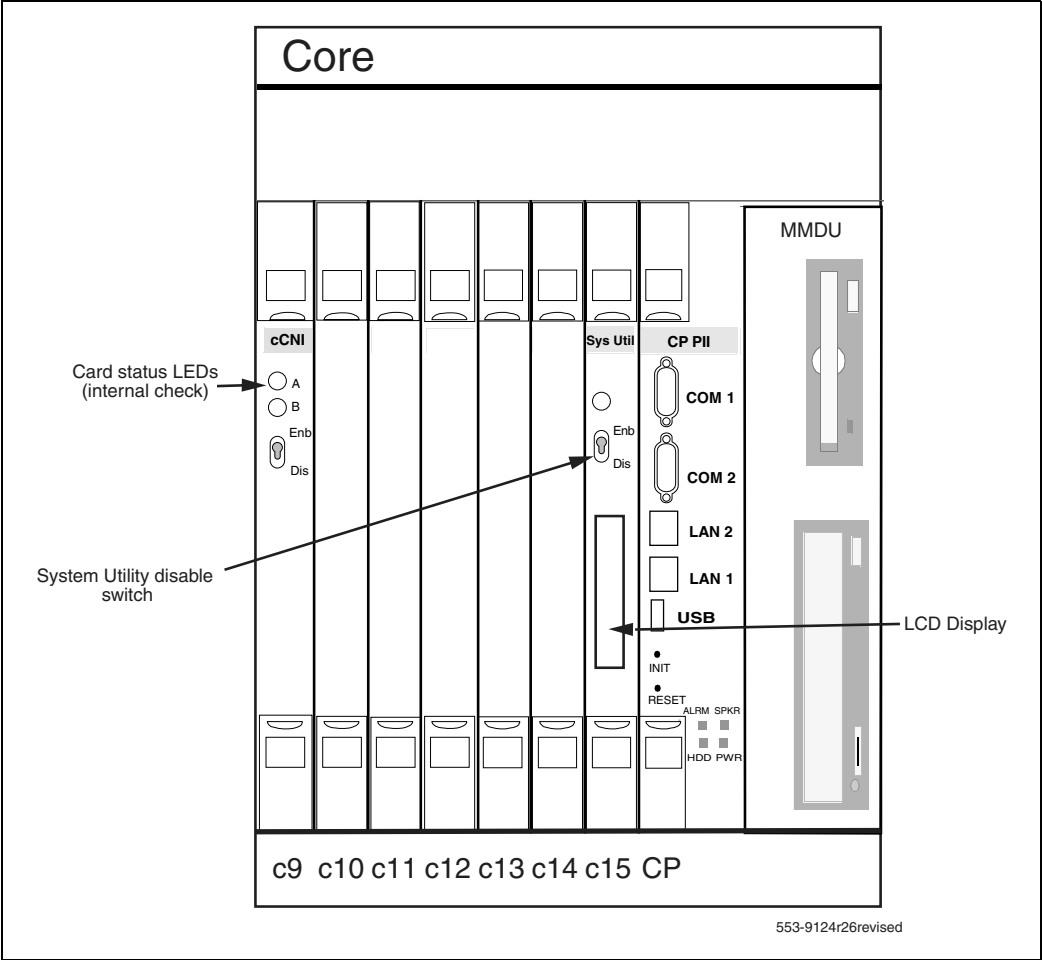
- 4 NT4N64AA CP PII is located in the Call Processor slot.
- 5 The NT4N43CA Multi-Media Disk Unit (MMDU) is located in the extreme right-hand slot next to the CP PII card. The MMDU contains the hard drive, floppy drive and CD-ROM drive.

---

**End of Procedure**

---

**Figure 68**  
**Core card placement in the NT4N41 Core/Net Module (front)**



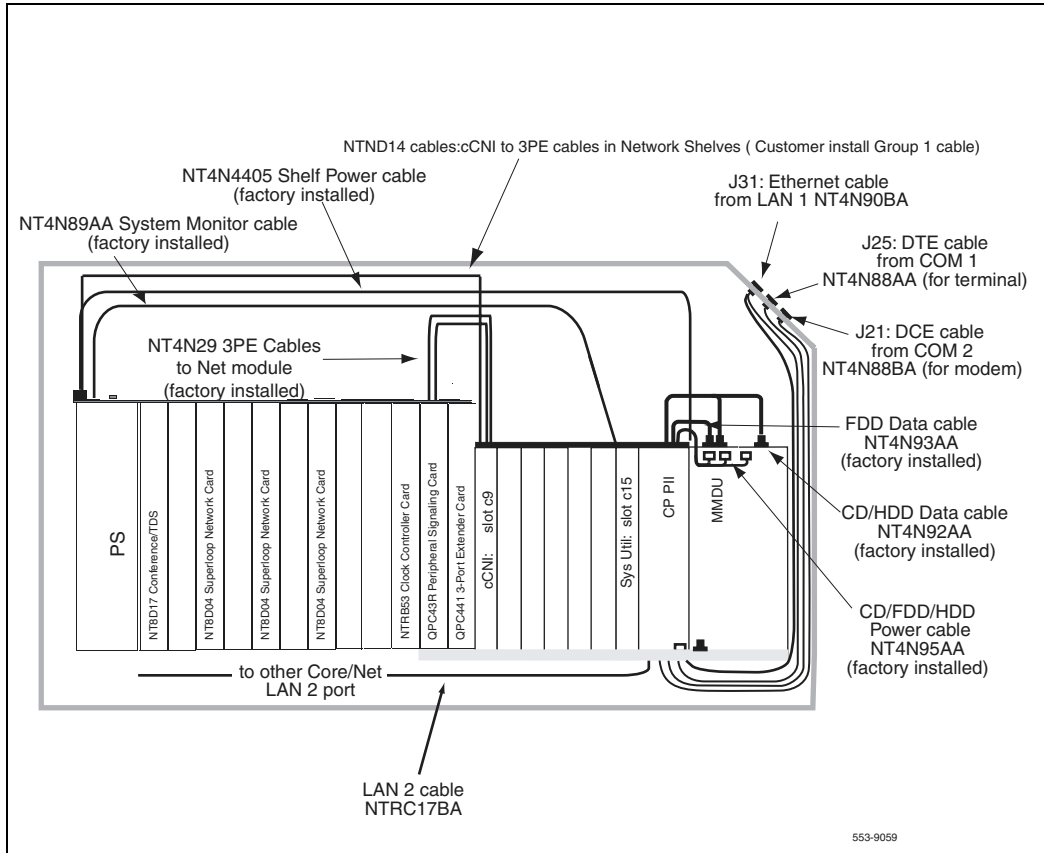
**Check factory-installed cables**

Table 70 below lists factory-installed cables. See Figure 69 on [page 498](#).

**Table 70**  
**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

**Figure 69**  
**Core/Net cable connections**



## Disable Core 1

### Procedure 142

#### Checking that Core 0 is active

To upgrade Core 1, verify that Core 0 is the active side performing call processing:

- 1 Verify that Core 0 is active.

**LD 135**            Load program

**STAT CPU**        Get status of the CPUs

- 2 If Core 1 is active, make Core 0 active:

**SCPU**            Switch to Core 0 (if necessary)

**\*\*\*\***            Exit program

---

**End of Procedure**

---

### Procedure 143

#### Checking 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**            Switch to Clock Controller 0 (if necessary)

**DIS CC 1**        Disable Clock Controller 1

**\*\*\*\***            Exit program

---

**End of Procedure**

---

**Procedure 144**

**Checking that Ring 0 is active**

- 1    Check the status of Ring 0.

**LD 39**            Load program

**STAT RING 0**    Get the status of Ring 0  
                              (Ring state should be HALF/HALF)

- 2    Disable Ring auto recovery.

**LD 39**            Load program

**ARCV OFF**        Set or reset auto-recovery operation for ring

- 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**      Disable all FIJI cards on side 1

---

**End of Procedure**

---

**Procedure 145**

**Splitting the Cores**

- 1    In Core 0, set the NORM/MAINT switch on the Call Processor card to MAINT.
- 2    In Core 1, set the ENB/DIS switch on all NT6D65 CNI cards to DIS.



- 3** In Core 1, set the NORM/MAINT switch on the Call Processor card to MAINT.



The system is now in split mode, with call processing on Core 0 with Clock Controller 0 active and Ring 0 driving Full.

**End of Procedure**

## Software disable Network cards in Core/Net 1 from Core/Net 0



### CAUTION

#### Service Interruption

At this point, the upgrade interrupts service.

### Procedure 146

#### Software disabling cards in network slots of Core/Net 1 from Core/Net 0

- 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 the 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 the ENET, where X= the loop number of the ENET card

**\*\*\*\*** Exit program



## CAUTION

### Service Interruption

If the system terminal is assigned to an SDI port that you are disabling, assign it to another port before you disable the SDI.

- c. In Core/Net 1 only, software disable each port on the SDI cards:

**LD 37**                      Load program

**DIS TTY x**                Disable each port, 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 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 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 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 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 QPC43 card. Table 71 on [page 503](#) lists Peripheral Signaling Card numbers

**\*\*\*\*** Exit program

**Table 71**  
**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, Per Sig and all network cards.

---

**End of Procedure**

---



**CAUTION**

**Service Interruption**

The system can shut down if the system monitors are not removed. Remove the monitors and keep the cooling fans ON.

#### Procedure 147

#### Removing the system monitors from Core 0 and Core 1

**Note:** This procedure applies to both AC and DC systems.

- 1 In Core 0, software disable the master system monitor (NT8D22):

**LD 37** Load program

**DIS TTY #** Disable master system monitor TTY interface

- 2 Remove J3 and J4 cables on Core 0 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 0 and Core 1.

---

**End of Procedure**

---



#### 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.

### Power down Core/Net 1



#### CAUTION

##### Service Interruption

Call processing is interrupted for approximately 60 minutes while the procedures are completed.

For AC-powered systems: set the MPDU circuit breaker located at the left end of the module to OFF (down position).

For DC-powered systems: set the breaker for the Core 1 module in the back of the column pedestal to OFF (down position).

**Procedure 148****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 with the cards left installed.

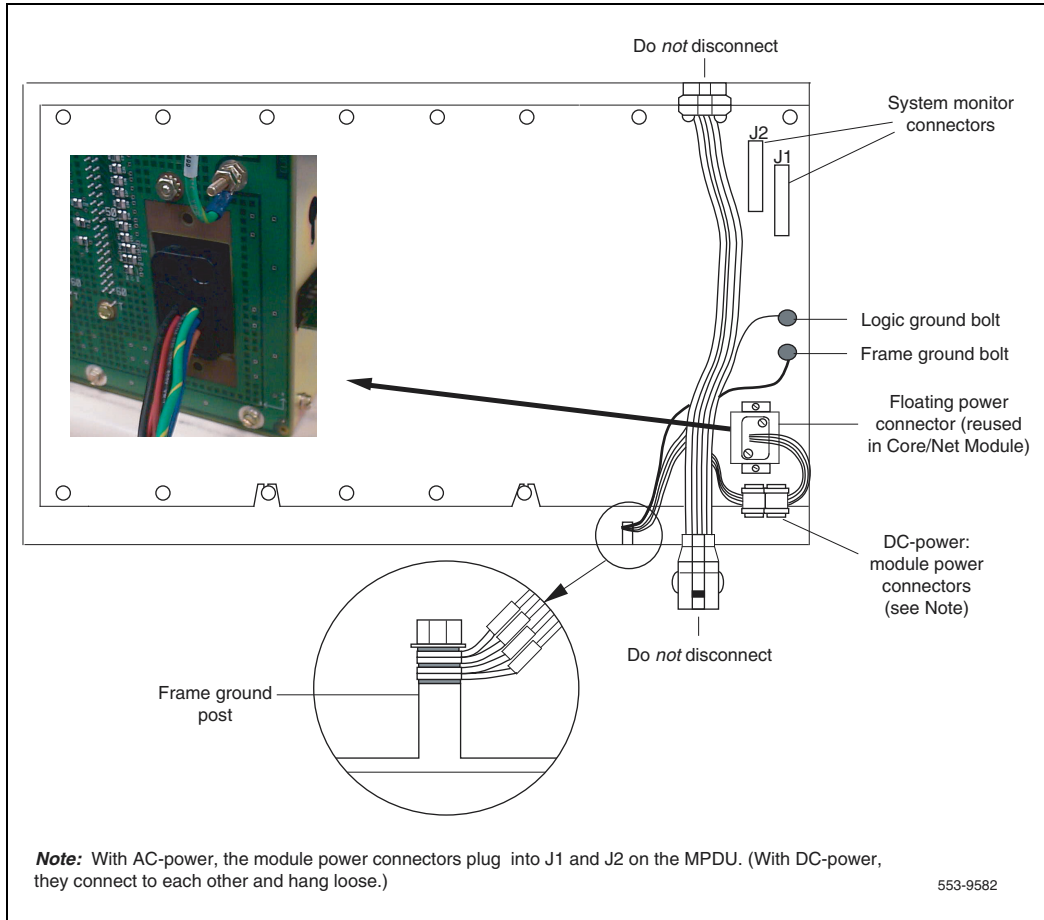
- 7 Use a 1/4" nut driver to remove the two mounting screws at the bottom rear of the card cage. The screws secure the card cage to the module casting. Keep the screws for use with the CP PII card cage.

**CAUTION**

Do not drop the mounting screws into the pedestal. Doing so can cause serious damage.

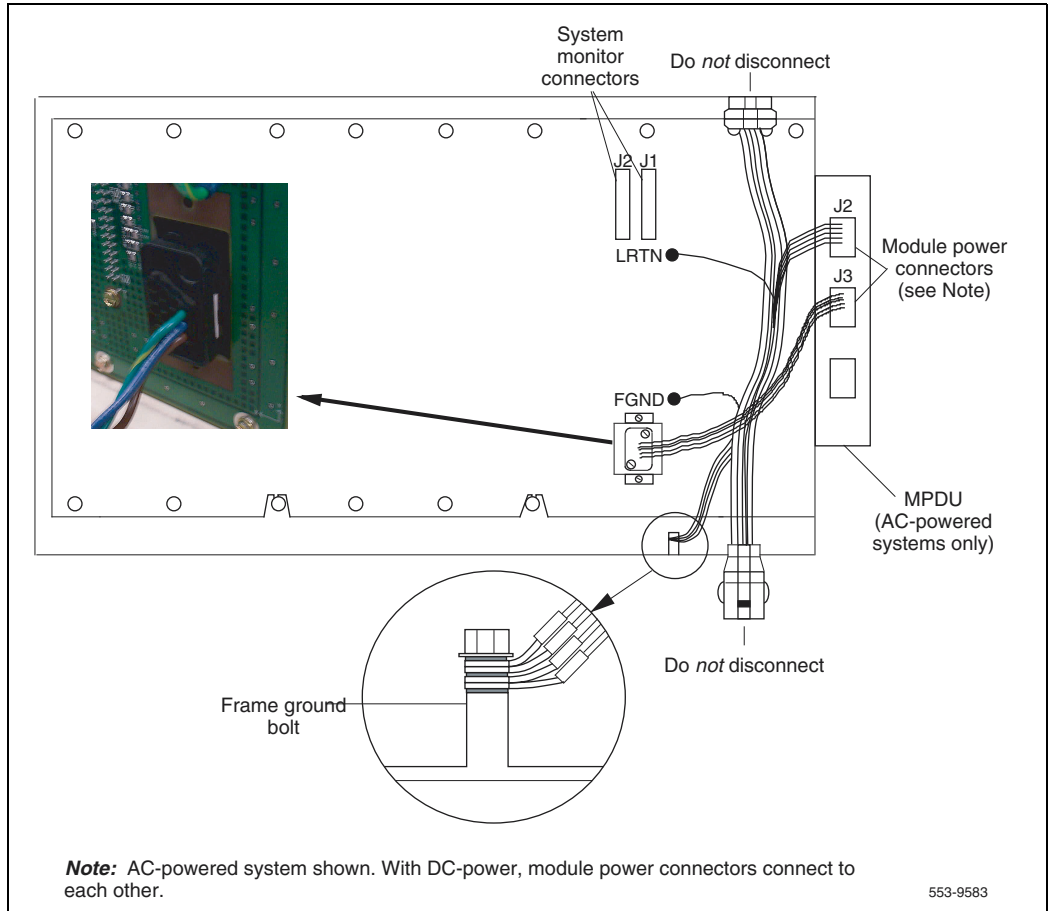
- 8 Remove the front trim panels on both sides of the card cage.
- 9 Remove the three mounting screws that secure the front of the card cage to the bottom of the module. Keep the screws for use with the CP PII card cage.
- 10 Pull the card cage forward until it is halfway out of the module.
- 11 Disconnect 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 69 below for DC power connectors. See Figure 71 on page 507 for AC power connectors.

**Figure 70**  
**DC power connectors on the Core module backplane**



- 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.

**Figure 71**  
**AC power connectors on the Core module backplane**



- 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.

- 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 will not be able to install the card cage in the module correctly.



#### CAUTION

##### Damage to Equipment

Check for and remove any debris (such as screws) that fell into the base of the UEM module.

---

**End of Procedure**

---

## Install the CP PII card cage in Core 1

### Procedure 149

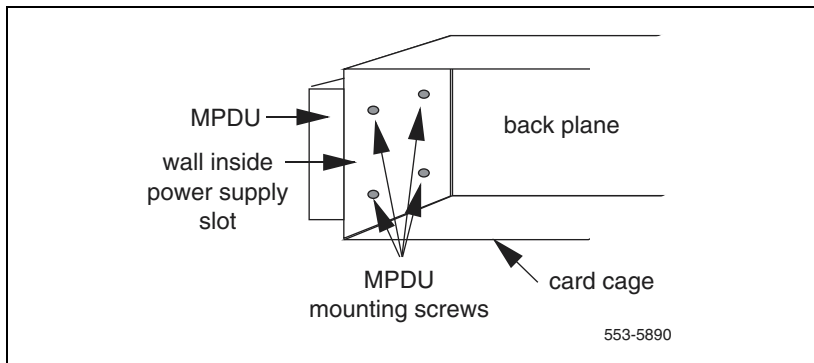
#### Installing the CP PII card cage in Core 1

- 1 Check that the card cage is configured as Core 1. See Table 69 on [page 495](#) for instructions.
- 2 For AC-powered systems only, attach the MPDU, part of the CP PII Upgrade kit, to the side on the NT4N40 card cage. The screws that secure the MPDU are accessible from the power supply slot. See Figure 72 on [page 509](#).

**Note:** Pre-thread 2 bottom mounting screws at the back of the Core/Net shelf.



**Figure 72**  
**Location of the screws for the MPDU**



- 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.
- c. Attach the system monitor ribbon cables:
  - i. Connect the ribbon cable that goes down to the column to connector J1 on the backplane.
  - ii. Connect the ribbon cable that goes up the column to J2 on the backplane.

- d. Use a 11/32" socket wrench 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, then tighten down the nut.

**Note:** For all of the wire terminals to fit on the bolt, remove one of the lock washers. Leave a lock washer at the bottom of the bolt and at the top of the bolt. Leave a third lock washer between the second and third, or the third and fourth, wire terminals.

- e. 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 all the way 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.
  - 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 Do not connect the NTRC17BA crossover ethernet cable at this time.

---

**End of Procedure**

---

## Unpack and install NT6D41CA (DC) or NT8D29BA (AC) Power Supply

### Procedure 150 Installing the power supply

- 1 Unpack the power supply.
- 2 Faceplate disable the power supply.
- 3 Insert power supply into Core/Net module power supply slot.

---

**End of Procedure**

---

### Procedure 151 Relocating Network cards to CP PII Core/Net 1

- 1 Remove all remaining network cards from the Meridian 1 Option 81C Core 1 to the same network slots in the CP PII NT4N40 Core/Net 1 card cage.
- 2 Connect the tagged cables to the relocated cards.
- 3 When you move the 3PE card, check the switch settings and jumpers. See Table 72 on [page 512](#).
  - a. All 3PE cards must be vintage F or later.
  - b. Check that the RN27 Jumper is set to "A".
  - c. The settings for 3PE cards in Core/Net shelves are different from those in all other shelves: Table 72 below shows the 3PE settings for cards installed in CP PII Core/Net Modules.

---

**End of Procedure**

---

**Table 72**  
**QPC441 3PE Card installed in the NT4N40 Module**

<b>Jumper Settings:</b> Set Jumper RN27 at E35 to "A".									
Switch Settings									
Module		D20 switch position							
NT4N40 (Option 81C CP PII)		1	2	3	4	5	6	7	8
Core/Net 0 (Shelf 0)	Group 0	off	on	on	off	on	on	on	on
	Group 1	off	on	on	off	on	on	off	on
	Group 2	off	on	on	off	on	off	on	on
	Group 3	off	on	on	off	on	off	off	on
	Group 4	off	on	on	off	off	on	on	on
	Group 5	off	on	on	off	off	on	off	on
	Group 6	off	on	on	off	off	off	on	on
	Group 7	off	on	on	off	off	off	off	on
Core/Net 1 (Shelf 1)	Group 0	off	on	on	off	on	on	on	off
	Group 1	off	on	on	off	on	on	off	off
	Group 2	off	on	on	off	on	off	on	off
	Group 3	off	on	on	off	on	off	off	off
	Group 4	off	on	on	off	off	on	on	off
	Group 5	off	on	on	off	off	on	off	off
	Group 6	off	on	on	off	off	off	on	off
	Group 7	off	on	on	off	off	off	off	off

## Install the Security Device

### Procedure 152

#### Installing the Security Device

The Security Device fits into the System Utility card (see Figure 73 on [page 514](#)). To install the Security Device, do the following.

- 1 If the original system had an IODU/C, remove the Security Device from the IODU/C for reuse.
  - a. Unlock the latches and remove the IODU/C card.
  - b. Remove the round 1/2" diameter IODU/C Security Device from the round black Security Device holder on the top right corner of the IODU/C card.

Or

If the original system did not have an IODU/C, use the Security Device provided with the CP PII Software kit.

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.

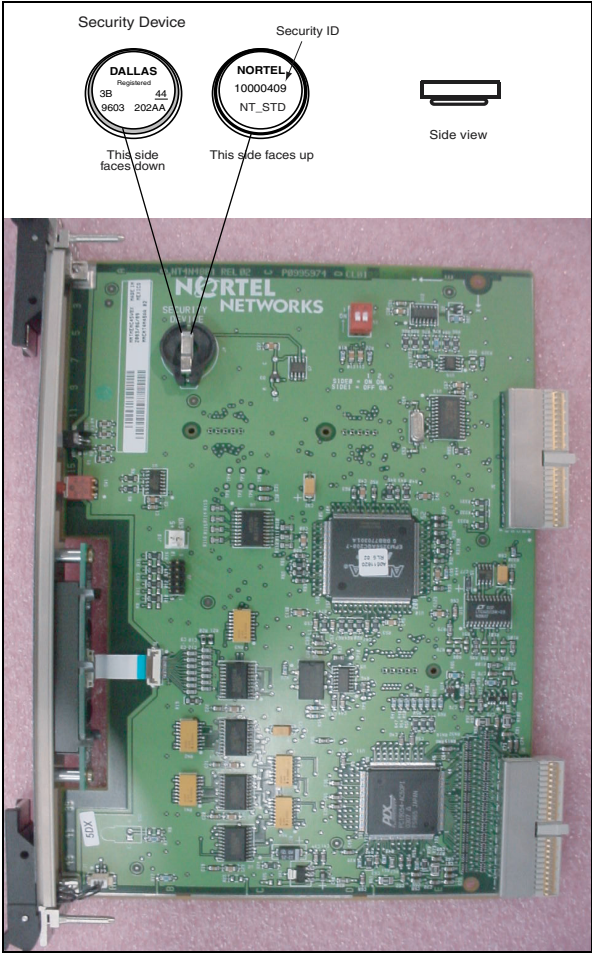
- 2 Check that the Security Device is securely in place.

---

**End of Procedure**

---

Figure 73  
Security Device



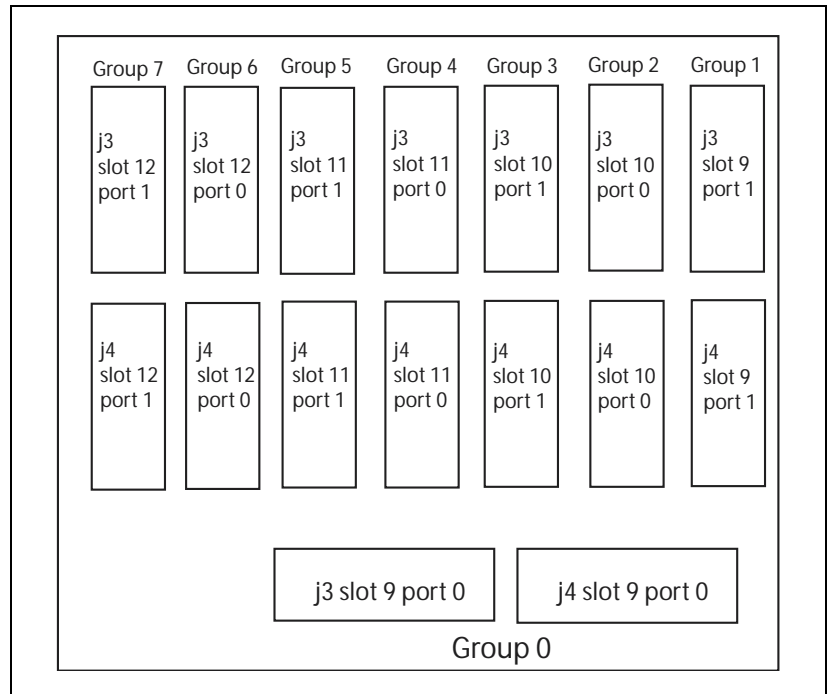
## Cable Core 1

### In Core 1, inspect factory-installed cables

The NT4N29AA cables should be installed for the existing network group in Core/Net 1. If the system has XSDI cards, reinstall the cards and attach the cables. Inspect the system monitor cables (NT4N89).

**Figure 74**

**Connectors for CNI-3PE cables to the Fanout panel**



### In Core 1, route and connect the cCNI to 3PE (NTND14) cables

The existing NTND14 cables can be reused for Network groups 1-7. Connect the NTND14 cables to the Fanout Panel in Core/Net 1. See Figure 75 on [page 518](#) and Table 73 on [page 517](#).



#### CAUTION

##### Damage to Equipment

When using the extraction tool, be careful not to damage the shrouds.

When upgrading to CP PII, it is important to know whether Network group 0 will be in the Core/Net module or not. In many installations, Group 0 will be established in a standard Network shelf, and should occupy a higher Network group in the Core/Net.

If Network group 0 will be in the Core/Net, the factory configuration of the new Core/Net modules is correct, and no further action is required.

If Network Group 0 will not be in the Core/Net module, some re-configuration of the processor module is required to allow for concurrent or future use of the Network portion of the Core/Net for a higher Network group.

The NT4N40 shelf is factory-installed with NT4N29 cables and is configured as group 0. If the network portion of the Core/Net shelf is used as a higher network group, use the extraction tool to disconnect the NT4N29 cables from the Core backplane. Once the cables are disconnected, connect them to the appropriate group. For correct connector replacement, see Table 73 below.



**WARNING****Damage to Equipment**

To unlock the connector, insert the extraction tool between the connector and the securing clip. Do not pry against the connector with the extraction tool. Prying may damage the connector or backplane pins.

**Table 73**  
**Fanout Panel to 3PE card connectors**

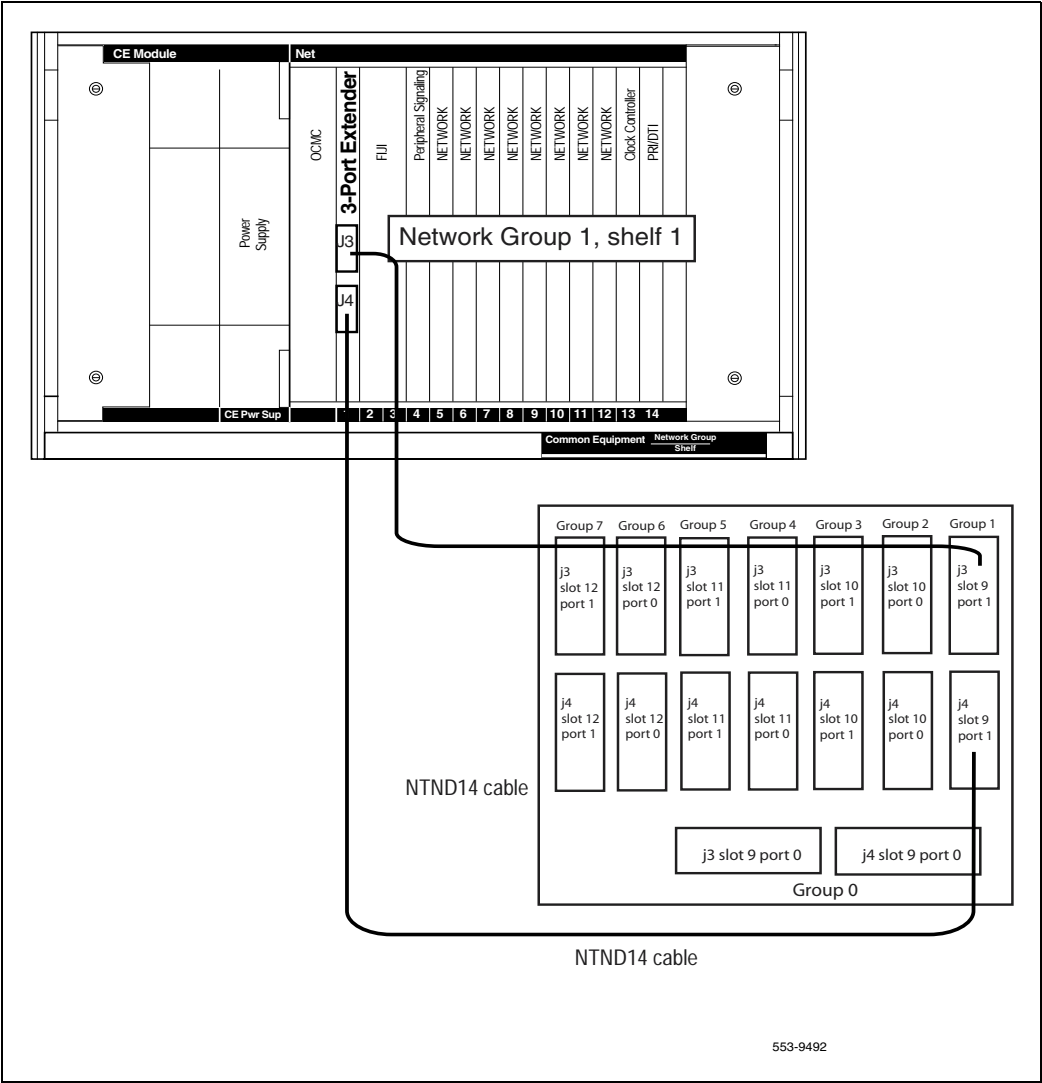
Group Number	Fanout Panel connector	3PE card connector
0	9-0, J3	A
0	9-0, J4	B
1	9-1, J3	J3
1	9-1, J4	J4
2	10-0, J3	J3
2	10-0, J4	J4
3	10-1, J3	J3
3	10-1, J4	J4
4	11-0, J3	J3
4	11-0, J4	J4
5	11-1, J3	J3
5	11-1, J4	J4
6	12-0, J3	J3
6	12-0, J4	J4
7	12-1, J3	J3
7	12-1, J4	J4

**Note 1:** Group 0 cables (NT4N29) connect from the Fanout panel directly to the backplane of Core/Net 1. See Figure 74 on [page 515](#).

**Note 2:** Group 1 cables (NTND14) connect from the Fanout panel to the faceplate of the 3PE cards of Group 1. See Figure 75 on [page 518](#).

**End of Procedure**

**Figure 75**  
**3PE Fanout Panel connections**



## Power up Core 1

### Procedure 153

#### 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.

- 2 Connect a terminal to the J25 port on the I/O panel in the *inactive* Core.
- 3 Check the terminal settings as follows:
  - 9600 Baud
  - 7 data
  - space parity 1
  - 1 stop bit
  - full duplex
  - XOFF

**Note:** If only one terminal is used for both Cores, the terminal will have to 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* all core and network cards.

---

End of Procedure

---

## Power up Core cards

### Procedure 154

#### Powering up core cards

- 1 For AC-powered systems (NT8D29BA): set the MPDU circuit breaker located at the left end of the module to ON (top position).
- 2 For DC-powered systems (NT6D41CA): set the faceplate enable switch on the power supply to ON and then set the breaker for the Core 1 module in the back of the column pedestal to ON (top position).

---

End of Procedure

---

### Restore power

Restore power in the order below:

- 1 Restore power to Core/Net 1.
- 2 Wait for the system to load/initialize.



Network and I/O cards have working power but are software disabled.

---

End of Procedure

---

## Install software and customer database on Core 1

### Procedure 155

#### Installing the software and converting the database

- 1 Check that a terminal is connected to J25 on Core/Net 1.
- 2 In Core/Net 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.

- 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:

Copyright (c) 1993-1996 RST Software Industries Ltd. All rights 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.

#### MAIN 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> -> <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 install floppy disk at this time and insert the keycode diskette.

- 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: 2540 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 2540 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:

**IMPORTANT!**

Remove keycode diskette at this time and insert the customer backup database diskette.

**13** Confirm database transfer:

You selected to transfer the database from the floppy disk - release: 2540 to the hard disk on Core X. release: 2540.

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 ...

**Note:** Before completing the next procedure, wait for Core/Net 0 to INI.

---

**End of Procedure**

---



## Configuring IP addresses

### Procedure 156 Configuring the IP addresses

Two unique IP address are required for the CP PII system to communicate with the LAN. One IP address is defined for the *active* Core. The second IP address is defined for the *inactive* Core.

- 1 Use the following to check the status of the system's IP address:

**LD 117**                      Load program

**prt host**                    Print the configured host information

If the system returns with host names “active” and “inactive”, go to “Check for Peripheral Software Download to Core 1” on [page 273](#). If the system returns no host names, complete the steps below.

- 2 Contact your System Administrator to identify IP address and subnet mask information.
- 3 Configure the primary (*active*) and secondary (*inactive*) IP addresses:

**LD 117**                                      Load program

**NEW HOST NAME 1 IP ADDRESS**                      Define the first IP address:  
“name 1” is an alias for the IP address such as “primary” (The IP address is the IP number)

**CHG ELNK ACTIVE NAME 1**                      Assign the “name 1” address to the *active* Core

**NEW HOST ‘NAME 2’ ‘IP ADDRESS’**                      Define the second IP address:  
“name 2” is an alias for the IP address such as “secondary” (The IP address is the IP number)

<b>CHG ELNK INACTIVE</b> <i>NAME 2</i>	Assign the “name 2” address to the <i>inactive</i> Core
<b>CHG MASK</b> <i>XXX.XXX.XXX.XXX</i>	Set sub-net per local site (This number allows external sub-nets to connect to the system)

- 4    Enable the new Ethernet interface.

<b>LD 137</b>	Load program
<b>DIS ELNK</b>	<i>Disable</i> the old IP interface values
<b>ENL ELNK</b>	<i>Enable</i> the new IP interface values

---

**End of Procedure**

---

## Check for Peripheral Software Download to Core 1

Enter LD 22 and print Target peripheral software version. The Source peripheral software version was printed in “Print site data” on [page 477](#). 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.
- The system drops established calls on IPE.

**Print Target peripheral software version**

<b>LD 22</b>	
<b>REQ</b>	PRT
<b>TYPE</b>	PSWV
<b>ISSP</b>	Print System and Patch Information
<b>SLT</b>	Print System Limits
<b>TID</b>	Print the Tape ID
<b>****</b>	Exit program

**For systems with fewer than eight groups, delete CNIs****Procedure 157  
Deleting CNIs**

Software has configured the system for eight groups. If the system has eight groups, skip this procedure. If the system has fewer than eight groups, you must software remove the CNIs not used in the system configuration:

- 1 In Core/Net 1, disable all cCNI cards using LD 135:

<b>LD 135</b>	Load program
<b>STAT CNI</b>	Get the status of all cCNI cards
<b>DIS CNIP x s p</b>	Disable cCNI ports where: x = Core number (0 or 1) s = card slot (9-12) p = port (0 or 1)
<b>DIS CNI x s</b>	Disable cCNI cards where: x = Core number (0 or 1) s = card slot (9-12)
<b>STAT CNI</b>	Confirm that cCNI cards are disabled
<b>****</b>	Exit program

- 2    Use LD 17 to remove the extra cCNI cards.
- LD 17**                      Load program
- CHG**                      CFN
- TYPE**                    CEQU
- CEQU**
- carriage return to**  
      **EXTO**
- EXTO 3PE**                Core/Net 0 extended to 3PE
- CNI s p x**                Out the cCNI card, where:  
                                      s = card slot (9-12)  
                                      p = port (0 or 1)  
                                      x = out network group
- EXTI 3PE**                Core/Net 1 extended to 3PE
- CNI s p x**                Out the cCNI card, where:  
                                      s = card slot (9-12)  
                                      p = port (0 or 1)  
                                      x= out network group
- carriage return to end**  
      **of program**
- \*\*\*\***                      Exit program

**3** Use LD 135 to re-enable cCNI cards:

<b>LD 135</b>	Load program
<b>STAT CNI</b>	Get status of all cCNI cards
<b>ENL CNI x s</b>	Enable cCNI cards where: x= Core number (0,1) s = card slot (9-12)
<b>ENL CNIP x s p</b>	Enable cCNI ports where: x= Core number (0,1) s = card slot (9-12) p = port (0 or 1)
<b>STAT CNI</b>	Confirm that cCNI cards are enabled
<b>****</b>	Exit program

---

**End of Procedure**

---



At this point, cCNI cards in Core 1 are controlled by the active call processor in Core 0. Therefore, they remain disabled.

## Reconfigure I/O ports and call registers

### Procedure 158

#### Reconfiguring I/O ports and call registers

- 1 Remap all I/O ports (except CPSI ports) to the proper groups.  
The group number of these ports is determined by the physical location of the card. The configuration information must match the CNI configuration.

```
LD 17          Load program
CHG            CFN
TYPE          ADAN CHG AAA X G
carriage
return to end
of program
****          Exit program
```

- 2 Evaluate the number of call registers and 500 telephone buffers that are configured for the system (suggested minimum values are 4500 and 1000 respectively). Refer to *Large System: Planning and Engineering* (553-3021-120). If changes are required, reconfigure the values in LD 17:

```
LD 17          Load program
CHG            CFN
TYPE          PARM
carriage
return to end
of program
****          Exit program
```

**3** Perform a data dump to save the customer database to the hard drive:

- a.** Load the Equipment Data Dump Program (LD 43). At the prompt, enter

**LD 43**                      Load program

- b.** When “EDD000” appears on the terminal, enter

**EDD**                      Begin 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.

**CAUTION****Service Interruption**

The INI may take up to 15 minutes to complete.

**4** When “DATADUMP COMPLETE” and “DATABASE BACKUP COMPLETE” appear on the terminal, enter

**\*\*\*\***                      Exit program

**CAUTION****Service Interruption**

Call processing is interrupted for approximately 60 minutes while the procedures are completed.

————— **End of Procedure** —————

**Procedure 159**  
**Rebooting Core 1**

Core 0 is now the active call processor. Call processing is now transferred from Core 0 to Core 1.

- 1 Faceplate disable CNI card in Core/Net 0.
- 2 Faceplate disable IODUC card.
- 3 Unseat Core 0 CP Card.
- 4 Press RESET button on the CP PII card faceplate to reboot the system.
- 5 Wait for "DONE" and then "INI" messages to display before you continue.



**CAUTION**

**Service Interruption**

Allow the system to recover from all downloads after the INI completes.



**Note 1:** 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, downloading up to 4 FIJI cards on the opposite ring. 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.

**Note 2:** During INI, FIJI error messages (from Shelf 0) appear on the screen. FIJI card on shelf 1 resets.



Upon INI completion, RING 1 is full, FIJI 0 (in Core/Net 0) is disabled, AUTO recovery is on and Clock Controller 1 is active.



Call Processing is now active on Call Processor 1 (except for network cards on Core/Net 0).

---

**End of Procedure**

---

## **Disable and remove equipment from Core/Net 0**

### **Procedure 160**

#### **Faceplate disabling cards in core and network slots of Core/Net 0:**

- 1 Faceplate disable all core and network cards in Core/Net 0.
- 2 Set the ENB/DIS switch on the 3PE card to DIS.

---

**End of Procedure**

---

## Power down Core/Net 0



### CAUTION

#### Service Interruption

Call processing is interrupted for approximately 60 minutes while the procedures are completed.

For AC-powered systems: set the MPDU circuit breaker located at the left end of the module to OFF (down position).

For DC-powered systems: set the breaker for the Core 0 module in the back of the column pedestal to OFF (down position).

### Procedure 161

#### Removing Core 0 cables and card cage

- 1 Label and disconnect all cables to 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 with the cards left installed.

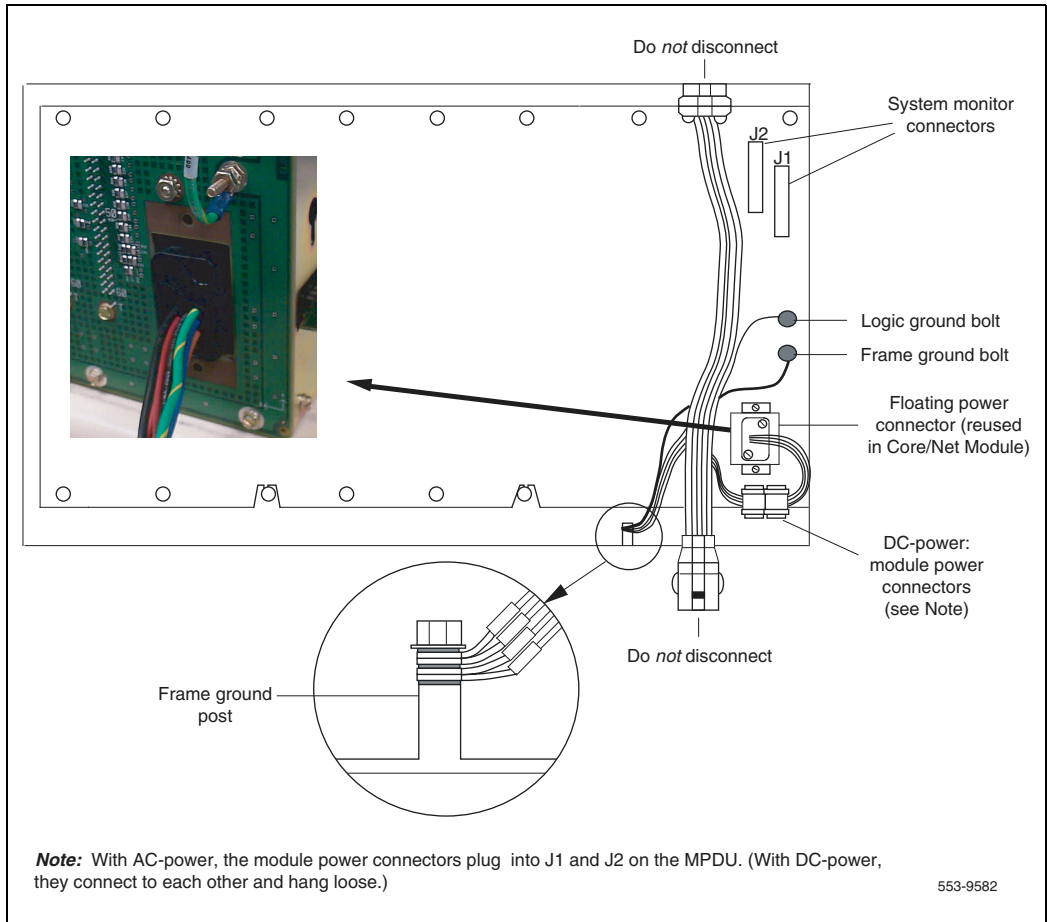
- 7 Use a 1/4" nut driver to remove the two mounting screws at the bottom rear of the card cage that secure the card cage to the module casting. Keep the screws for use with the CP PII card cage.

**CAUTION**

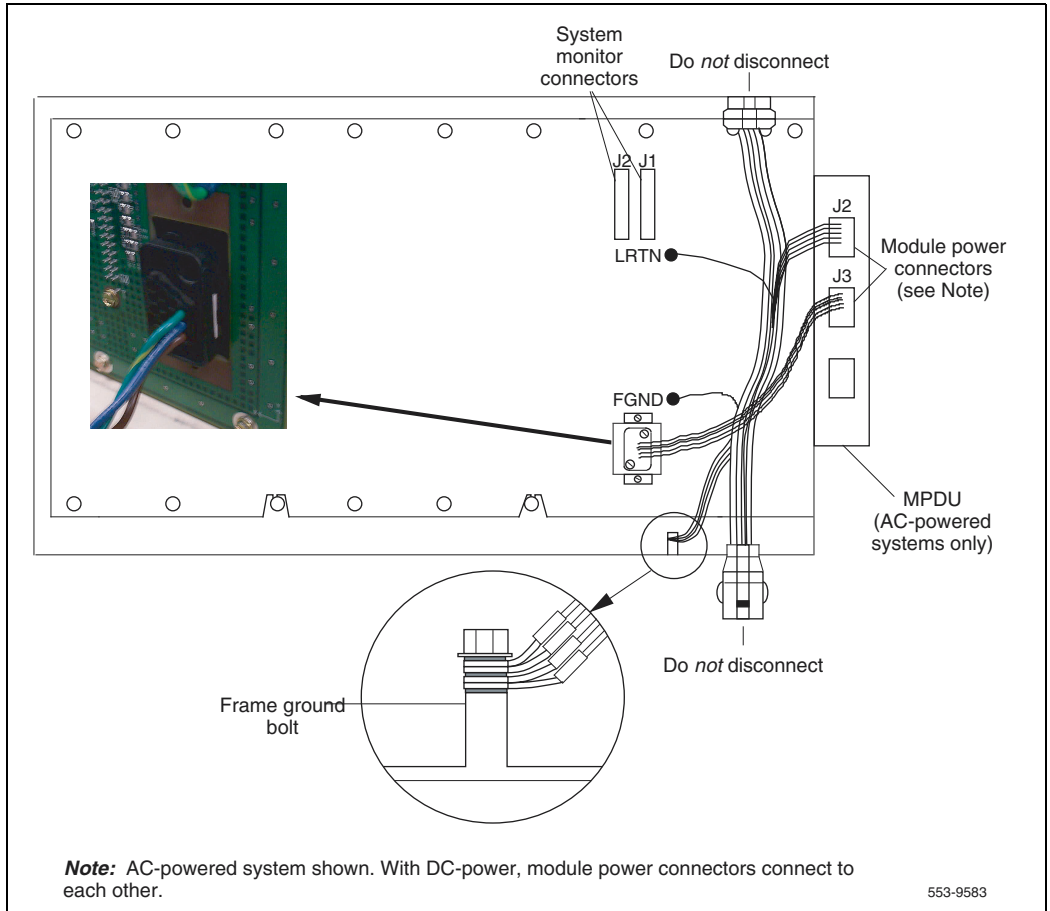
Do not drop the mounting screws into the pedestal. Doing so can cause serious damage.

- 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. Save 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 76 on [page 544](#) for DC power connectors. See Figure 77 on [page 545](#) for AC power connectors.

**Figure 76**  
**DC power connectors on the Core module backplane**



**Figure 77**  
**AC power connectors on the Core module backplane**



- 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 as part of installing 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 NT8D80.
  - For DC systems, relocate power harness NT7D11.



**CAUTION**

**Service Interruption**

Be sure to perform the following step. If you do not tape the EMI shield in position, you cannot install the card cage in the module correctly.

- 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**

**Damage to Equipment**

Check for and remove any debris (such as screws) that fell into the base of the UEM module.

---

**End of Procedure**

---

## Upgrade Core 0 hardware

### Check that the main Core cards (front side) are installed

#### Procedure 162

#### Checking main Core card installation

The main Core cards, including the MMDU (with the cables for power and data), are installed in the factory as shown in Figure 78 on [page 548](#).

- 1 NT4N65AB CP PII Core Network Interface (cCNI) cards:  
Each system contains 1-4 NT4N65 cCNI card per Core/Net module. The cCNI cards are located in slot c9-c12. If not already installed, install a P0605337 CP PII Card Slot Filler Panel to cover slots which do not contain cCNIs.

**Note:** In the NT4N40 Core/Net card cage, port 0 on the NT4N65 Core to Network Interface (cCNI) Card in slot c9 must be configured as “group 0.” Port 1 on this card must be configured as group 1. The cCNI and 3PE cards for group 0 communicate through the NT4N29 cables. The cCNI to 3PE cables for groups 1 to 7 communicate through the NTND14 cables.

- 2 Slots c13 and c14 are left empty. If not already installed, install a P0605337 CP PII Card Slot Filler Panel in each slot.
- 3 NT4N48AA System Utility (Sys Util) card is located in slot c15.
  - a. Check side ID switch settings for SU card in Core/Net 0 according to Table 74 below.

**Table 74**  
**Core module ID switch settings (System Utility card)**

	Position 1	Position 2
Core/Net 0	On	On
Core/Net 1	Off	On

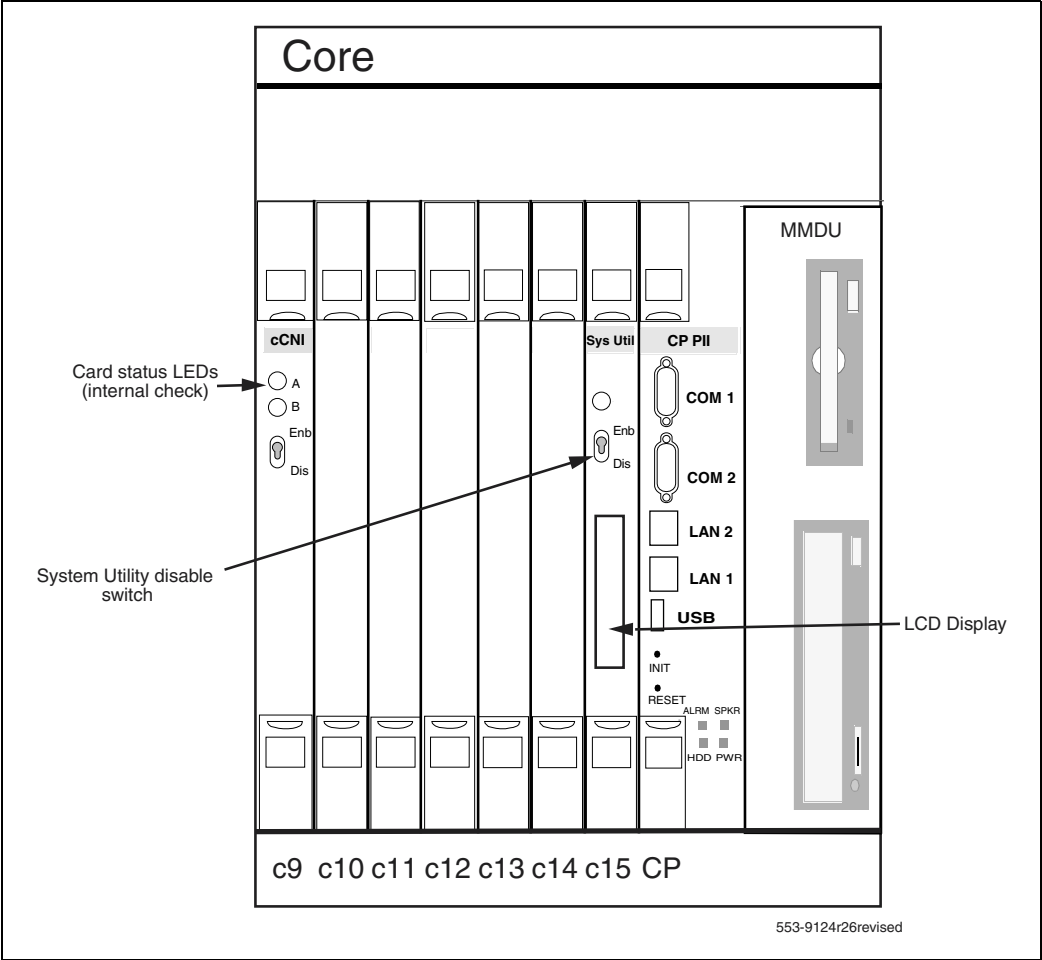
- 4 NT4N64AA CP PII is located in the Call Processor slot.

- 5
- The NT4N43CA Multi-Media Disk Unit (MMDU) is located in the extreme right-hand slot next to the CP PII card. The MMDU contains the hard drive, floppy drive and CD-ROM drive.

End of Procedure

Figure 78

Core card placement in the NT4N41 Core/Net Module (front)





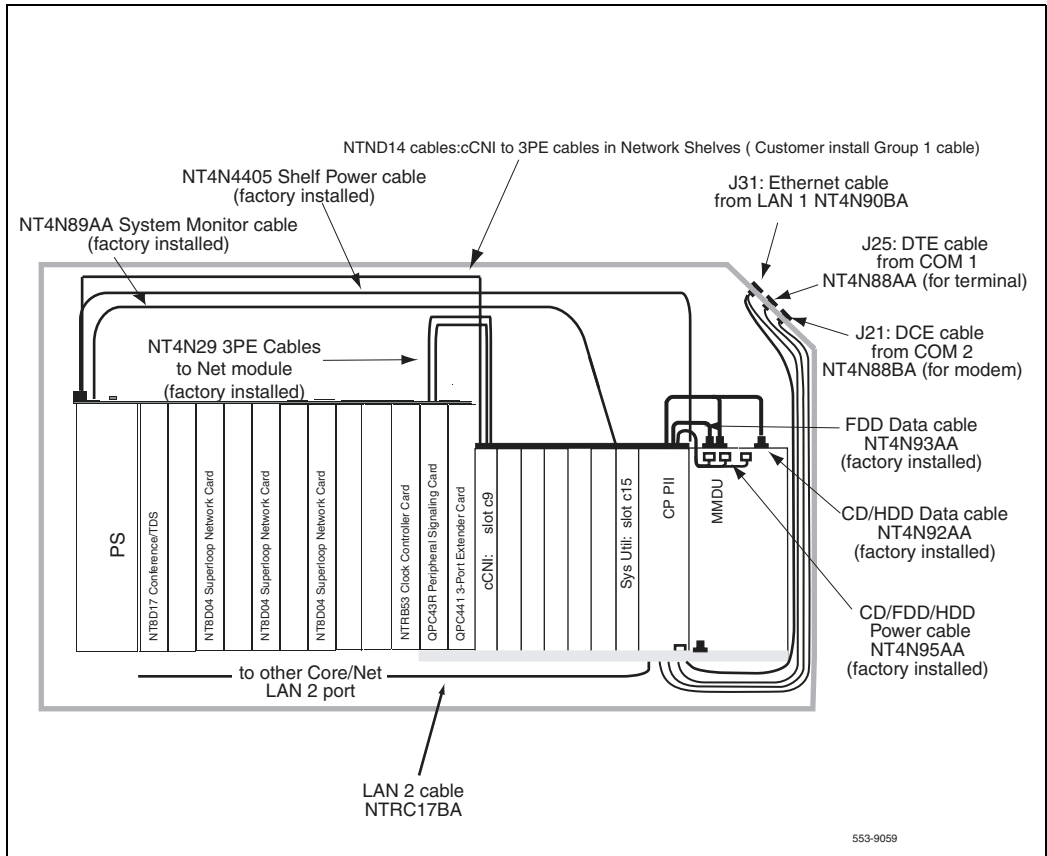
**Check factory-installed cables**

Table 75 below lists factory-installed cables. See Figure 79 on page 550.

**Table 75**  
**Factory-installed cables**

<b>Order Number</b>	<b>Description</b>	<b>Quantity per Core/Net shelf</b>
NT4N4405	Shelf Power Cable	1
NT4N89AA	System Monitor cable	1
NT4N29AA	CNI to 3PE cable	2

**Figure 79**  
**Core/Net cable connections**



## Install the Security Device

### Procedure 163

#### Installing the Security Device

The Security Device fits into the System Utility card (see Figure 80 on [page 552](#)).

To install the Security Device:

- 1** If the original system had an IODU/C, remove the Security Device from the IODU/C for reuse.
  - a.** Unlock the latches and remove the IODU/C card.
  - b.** Remove the round 1/2" diameter IODU/C Security Device from the round black Security Device holder on the top right corner of the IODU/C card.

OR

If the original system did not have an IODU/C, use the Security Device provided with the CP PII Software kit.

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.

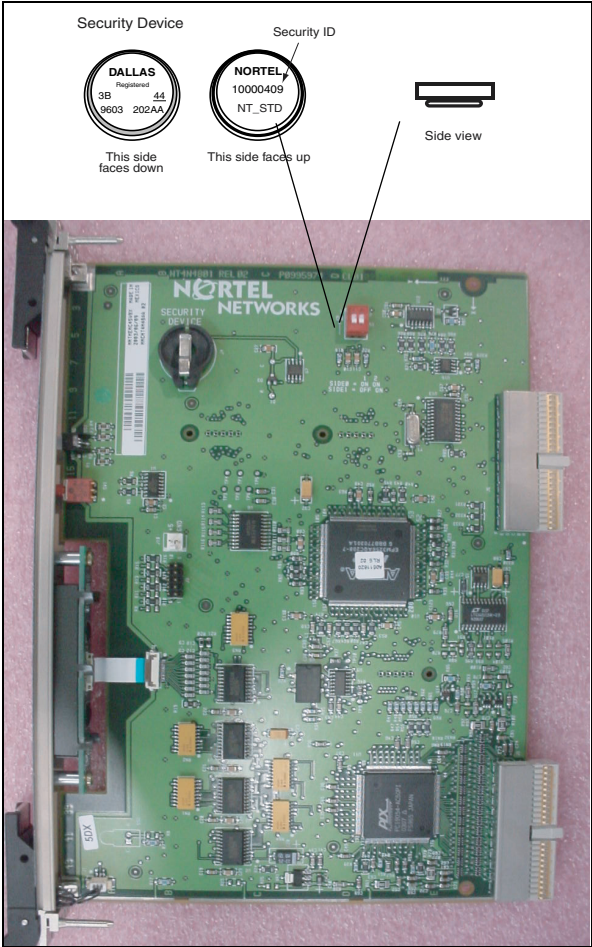
- 2** Check that the Security Device is securely in place.

---

**End of Procedure**

---

Figure 80  
Security Device



## Install the CP PII card cage in Core 0

### Procedure 164

#### Installing the CP PII card cage in Core 0

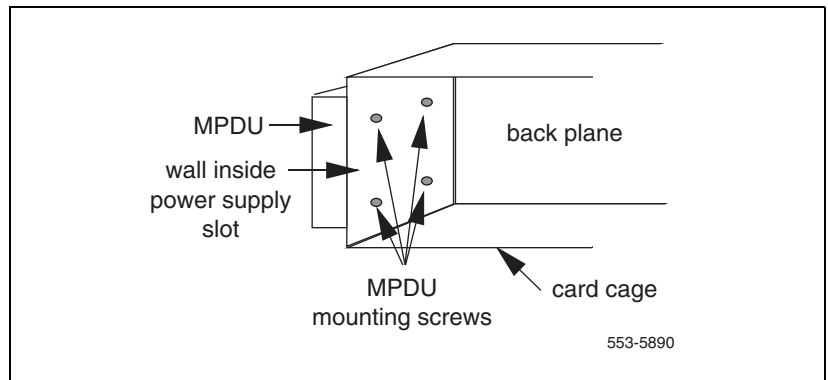
- 1 Check that the card cage is configured as Core 0. See Table 74 on [page 547](#) for instructions.
- 2 For AC-powered systems only, install the new MPDU (part of the CP PII Upgrade kit) to the side on the NT4N40 card cage. The screws that secure the MPDU are accessible from the power supply slot. See Figure 28 on page 289.

**Note:** Pre-thread 2 bottom mounting screws at the back of the Core/Net shelf.

- 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.

**Figure 81**

**Location of the screws for the MPDU**



- 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 fell into the base of the UEM module.

- b. In DC-powered systems, connect the module power connectors to each other.
  - c. Attach the system monitor ribbon cables:
    - i. Connect the ribbon cable that goes down to the pedestal to connector J1 on the backplane.
    - ii. Connect the ribbon cable that goes up the column to J2 on the backplane.
  - d. Attach the green ground wire to the frame ground bolt on the module. (an 11/32" socket wrench is used to attach the wire.) 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, then tighten down the nut.
- Note:** For all of the wire terminals to fit on the bolt, remove one of the lock washers. Leave a lock washer at the bottom of the bolt and at the top of the bolt. Leave a third lock washer between the second and third, or the third and fourth, wire terminals.
- e. 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" or 2/8" socket wrench.)
  - 6 Slide the card cage all the way 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.
  - 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 the NTRC17BA cross over ethernet cable from LAN 2 on Core/Net 0 faceplate to LAN 2 on Core/Net 1 faceplate.

---

**End of Procedure**

---

## **Unpack and install NT6D41CA (DC) or NT8D29BA (AC) Power Supply**

### **Procedure 165**

#### **Installing the power supply**

- 1 Unpack the power supply.
- 2 Faceplate disable the power supply.
- 3 Insert power supply into Core/Net module power supply slot.

---

**End of Procedure**

---

### **Procedure 166**

#### **Relocating Network cards to CP PII Core/Net 0**

- 1 Remove all remaining network cards from the Meridian 1 Option 81C Core/Net 0.
- 2 When you move the 3PE card, check the switch settings and jumpers. See Table 76 on [page 556](#).
  - a. All 3PE cards must be vintage F or later.
  - b. Check that the RN27 Jumper is set to "A".

- c. The settings for 3PE cards in Core/Net shelves are different from those in all other shelves: Table 76 below shows the 3PE settings for cards installed in CP PII Core/Net Modules.
- 3 Reinstall each removed card in the same network slot in the CP PII Core/Net 0.
- 4 Connect the tagged cables to the relocated cards.

---

**End of Procedure**

---

**Table 76**  
**QPC441 3PE Card installed in the NT4N40 Module**

<b>Jumper Settings:</b> Set Jumper RN27 at E35 to "A".									
Switch Settings									
Module		D20 switch position							
NT4N40 (Option 81C CP PII)		1	2	3	4	5	6	7	8
Core/Net 0 (Shelf 0)	Group 0	off	on	on	off	on	on	on	on
	Group 1	off	on	on	off	on	on	off	on
	Group 2	off	on	on	off	on	off	on	on
	Group 3	off	on	on	off	on	off	off	on
	Group 4	off	on	on	off	off	on	on	on
	Group 5	off	on	on	off	off	on	off	on
	Group 6	off	on	on	off	off	off	on	on
	Group 7	off	on	on	off	off	off	off	on
Core/Net 1 (Shelf 1)	Group 0	off	on	on	off	on	on	on	off
	Group 1	off	on	on	off	on	on	off	off
	Group 2	off	on	on	off	on	off	on	off
	Group 3	off	on	on	off	on	off	off	off
	Group 4	off	on	on	off	off	on	on	off
	Group 5	off	on	on	off	off	on	off	off
	Group 6	off	on	on	off	off	off	on	off
	Group 7	off	on	on	off	off	off	off	off



## Cable Core 0

### Procedure 167

#### Cabling COM 1 and COM 2 to the I/O panel

- 1 Connect COM1 on the CP PII faceplate to J25 on the I/O panel with cable NT4N88AA.
- 2 Connect COM2 on the CP PII faceplate to J21 on the back of the I/O panel with cable NT4N88BA.

---

**End of Procedure**

---

### Procedure 168

#### Connecting a terminal and modem to the I/O panel

- 1 Connect J25 to a terminal for use during the upgrade. Use a separate terminal for each Core if available. J25 can also be connected to an A/B box to share a terminal between both Cores.
- 2 Connect J21 to the device connected in the original system (such as a modem or A/B box).

---

**End of Procedure**

---

## Connect LAN 1

The LAN 1 port is used to enable redundancy features between the two Core/Net modules. LAN 1 can also be connected to a local area network (LAN) for use with LAN based administration tools such as OTM. The options for the LAN 1 connections are shown in Figure 29 on page 295.

### Procedure 169

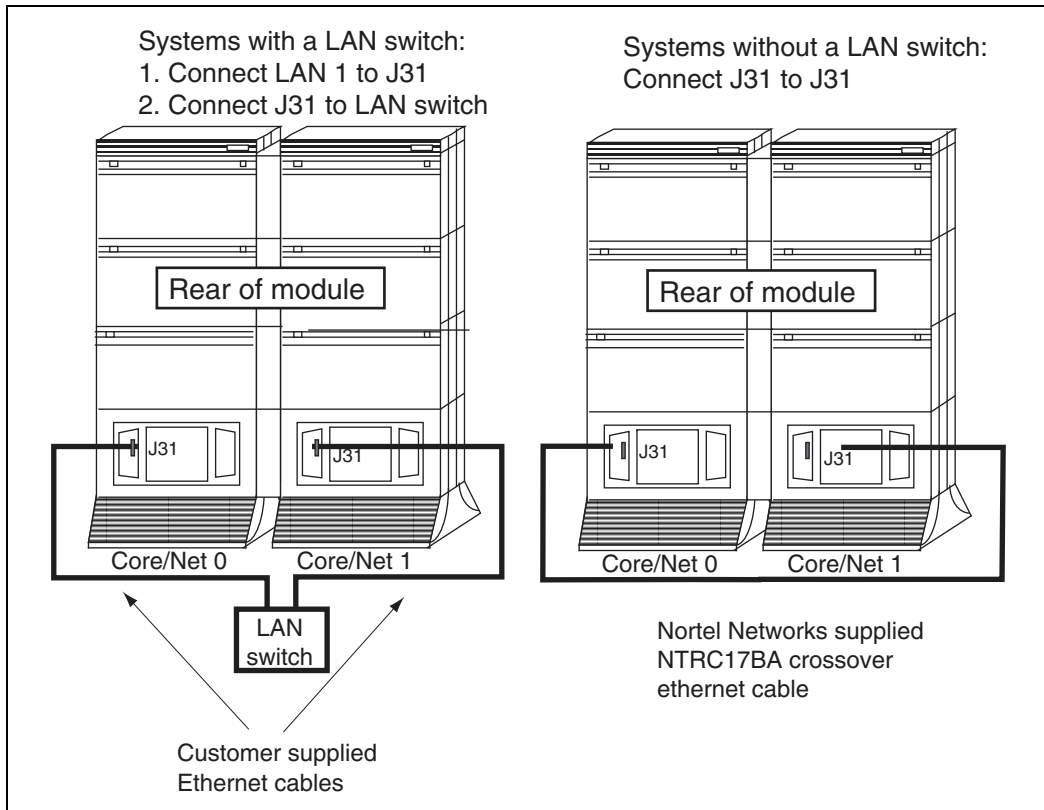
#### If the system will be connected to a LAN

- 1 Connect the "Dual Ethernet Adapter (RJ45) for I/O Panel" (NTRE40AA) to J31. Secure the adapter to J31 with the two screws included in the shipment. Insert the adapter from the inside of the I/O panel.
- 2 Connect LAN 1 (Ethernet) on the CP PII faceplate to J31 (top) of the I/O panel with cable NT4N90BA. This connection can only be made *after* the Dual Ethernet Adapter is installed (see step 1 above).

3 Connect J31 to a LAN switch.

**Note:** If a LAN switch is not available, connect J31 of Core 0 to J31 of Core 1 by NTRC17BA cable.

**Figure 82**  
**Options for LAN 1 connection**



**In Core 0, inspect factory-installed cables**

The NT4N29AA cables should be installed for the existing network group in Core/Net 0. If the system has XSDI cards, reinstall the cards and attach the cables. Inspect the system monitor cables (NT4N89).

## Installing intermodule cables

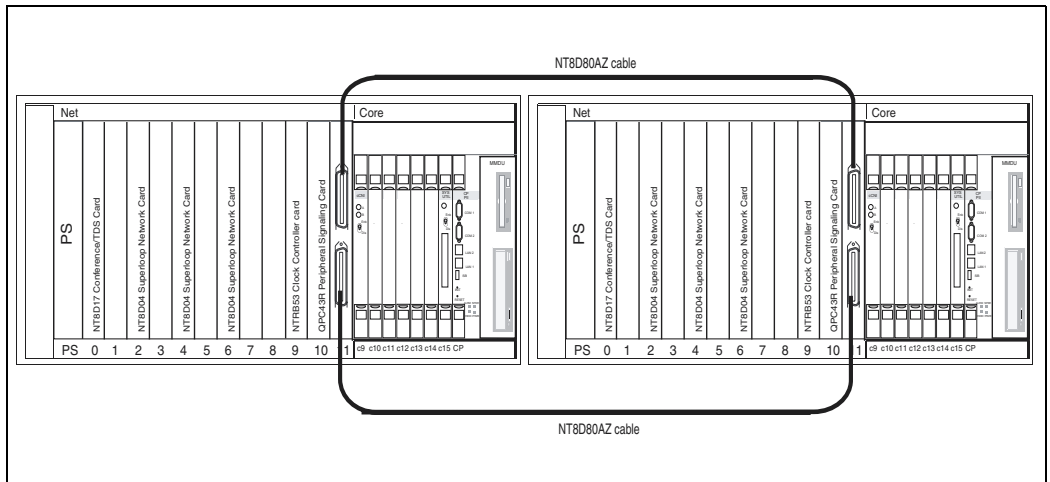
### Procedure 170

#### Installing intermodule cables

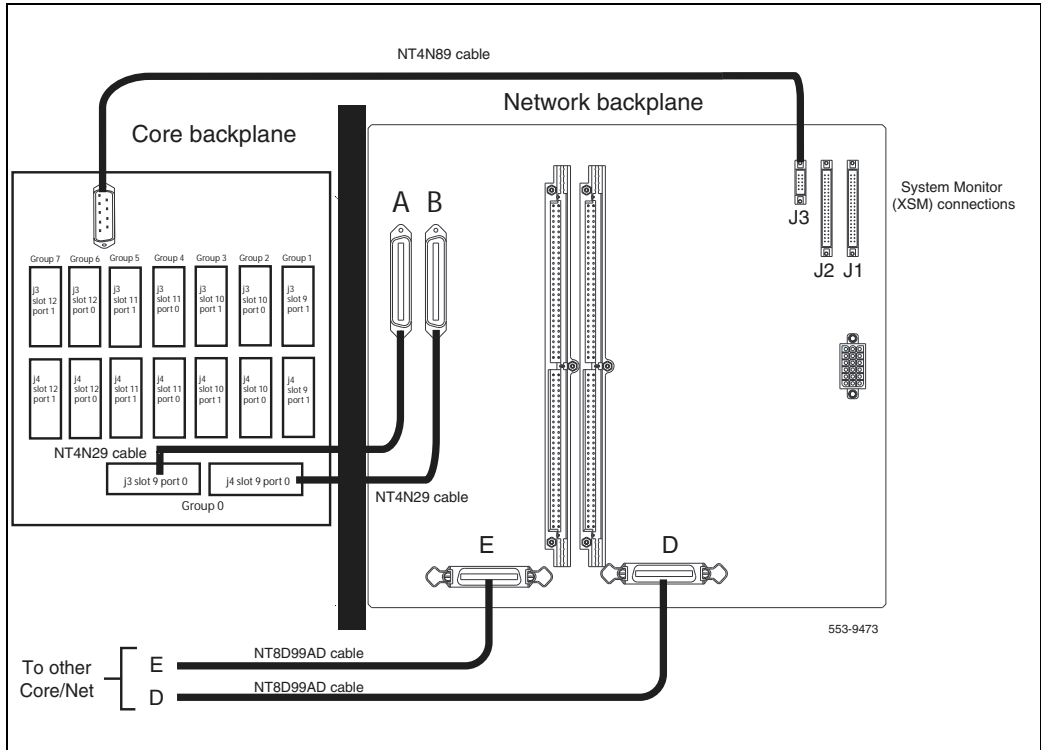
- 1 Connect the NT8D99AD and NT8D80BZ cables.
- 2 Install NT8D99AD cables between the D connectors on the backplane of each Core/Net module. Install another NT8D99AD cable between the E connectors on the backplane of each Core/Net module (see Figure 84 on [page 560](#)).
- 3 Install an NT8D80BZ cable 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 83 on [page 559](#)).
- 4 If the system has XSDI cards, reinstall the cards and attach the cables.

— End of Procedure —

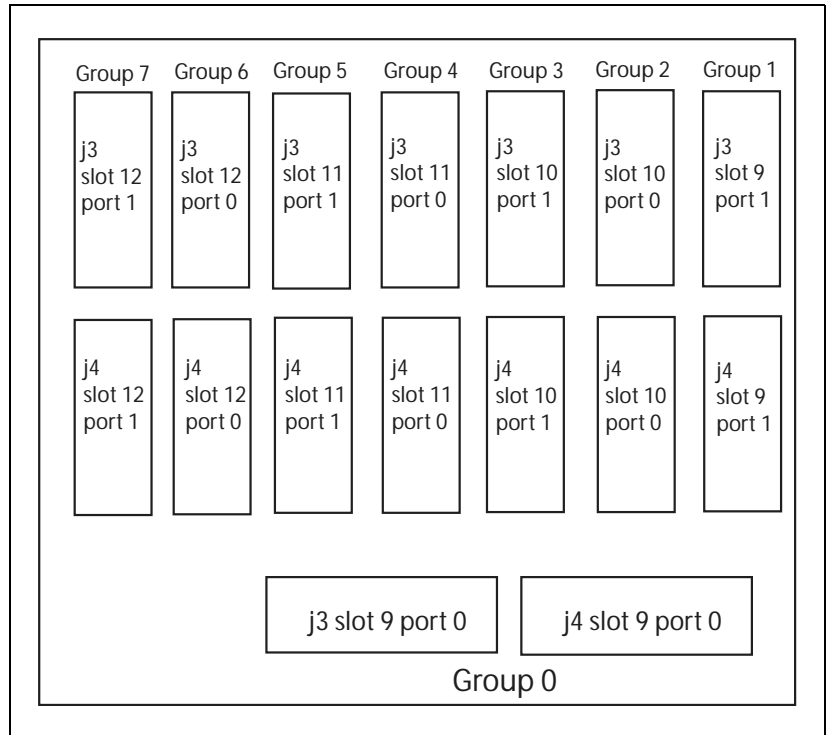
**Figure 83**  
**3PE card connections**



**Figure 84**  
**Fanout Panel connections on the CP PII Core/Net backplane**



**Figure 85**  
**Fanout panel connectors**



**In Core 0, route and connect the cCNI to 3PE (NTND14) cables**

The existing NTND14 cables can be reused for Network groups 1-7. Connect the NTND14 cables to the Fanout Panel in Core/Net 0. See Figure 85 on [page 561](#) and Table 77 on [page 563](#).

When upgrading to CP PII, it is important to know whether Network group 0 will be in the Core/Net module or not. In many installations, Group 0 will be established in a standard Network shelf, and should occupy a higher Network group in the Core/Net.

If Network group 0 will be in the Core/Net, the factory configuration of the new Core/Net modules is correct, and no further action is required.

If Network Group 0 will not be in the Core/Net module, some re-configuration of the processor module is required to allow for concurrent or future use of the Network portion of the Core/Net for a higher Network group.

The NT4N40 shelf is factory-installed with NT4N29 cables and is configured as group 0. If the network portion of the Core/Net shelf is used as a higher network group, use the extraction tool to disconnect the NT4N29 cables from the Core backplane. Once the cables are disconnected, connect them to the appropriate group. For correct connector replacement, see Figure 85 on [page 561](#).



**WARNING**

**Damage to Equipment**

To unlock the connector, insert the extraction tool between the connector and the securing clip. Do not pry against the connector with the extraction tool. Prying may damage the connector or backplane pins.



**CAUTION**

**Damage to Equipment**

When using the extraction tool, be careful not to damage the shrouds.

**Table 77**  
**Fanout Panel to 3PE card connectors**

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
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 1:** Group 0 cables (NT4N29) connect from the Fanout panel directly to the backplane of Core/Net 1 (see Figure 85 on [page 561](#)).

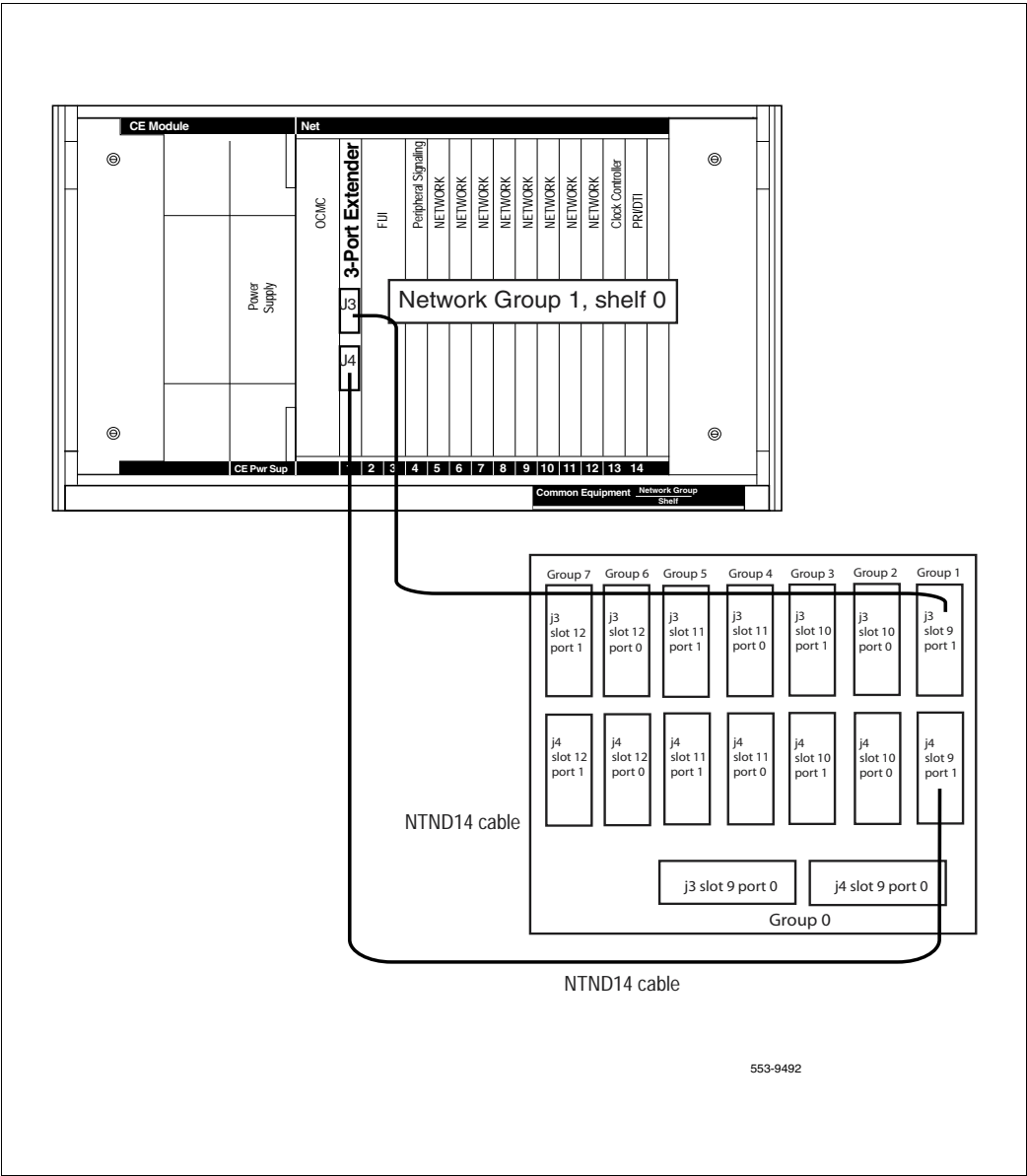
**Note 2:** Group 1 cables (NTND14) connect from the Fanout panel to the faceplate of the 3PE cards of Group 1 (see Figure 86 on [page 564](#)).

---

**End of Procedure**

---

**Figure 86**  
**3PE Fanout Panel connections**





## Restore power to Core/Net 0

### Prepare 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.

- 2 Connect a terminal to the J25 port on the I/O panel in the *inactive* Core.
- 3 Check the terminal settings as follows:
  - 9600 Baud
  - 7 data
  - space parity 1
  - 1 stop bit
  - full duplex
  - XOFF

**Note:** If only one terminal is used for both Cores, the terminal will have to 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* all core and network cards.

---

**End of Procedure**

---

### Power up Core cards

#### Procedure 171

##### Powering up core cards

- 1 Disconnect NTRC17BA crossover ethernet cable from the faceplate of CPU 0.
- 2 For AC-powered systems (NT8D29BA): set the MPDU circuit breaker located at the left end of the module to ON (top position).
- 3 For DC-powered systems (NT6D41CA): faceplate enable the power supply and then set the breaker for Core 0 module in the back of the column pedestal to ON (top position).

- 4    10 seconds after power up of Core/Net 0, press the manual INI button on the CP PII card faceplate in Core/Net 1.
- 5    Wait for the system to load and initialize.



Core/Net 1 is now active. All network cards in Core/Net 0 and 1 are enabled. Call processing is resumed.

---

**End of Procedure**

---

**Procedure 172**  
**Test from Core/Net 1**

- 1    Test the Fiber Rings

*See Software Input/Output: Maintenance (553-3001-511) for more information on LD 39 commands.*

- a.   Check that the Fiber Rings operate correctly:

<b>LD 39</b>	Load program
<b>STAT RING 0</b>	Check status of Ring 0 (HALF/HALF)
<b>STAT RING 1</b>	Check status of Ring 1 (HALF/HALF)

- b.   If necessary, restore the Rings to Normal State:

<b>RSTR</b>	Restore both Rings to HALF state
-------------	----------------------------------

- c.   Check that the Rings operate correctly:

<b>STAT RING 0</b>	Check status of Ring 0 (HALF/HALF)
<b>STAT RING 1</b>	Check status of Ring 1 (HALF/HALF)

****	Exit program
------	--------------

**2** Stat network cards:

<b>LD 32</b>	Load program
<b>STAT x</b>	Stat the network card, where x = loop number
<b>****</b>	Exit program

**3** Test the clocks:**a.** Verify that the clock controller is assigned to the *active* Core.

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

**b.** Verify that the clock controllers are switching correctly.

<b>SWCK</b>	Switch Clock
<b>SWCK</b>	Switch Clock again
<b>****</b>	Exit program

---

**End of Procedure**

---

## **Install software and customer database on Core 0**

**Procedure 173****Installing the software and customer 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 Core/Net 0 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 in Core/Net 0.

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:

Copyright (c) 1993-1996 RST Software Industries Ltd. All rights 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 install floppy disk at this time and insert keycode diskette.

- 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: 2540 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 2540 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.



**IMPORTANT!**

Remove keycode floppy disk at this time and insert backup customer database diskette from Step 10 of Procedure 78 on [page 304](#).

**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: 2540 to the hard disk on Core X. release: 2540.

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**

**Note:** 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 for Core/Net 0 to INI.

---

**End of Procedure**

---



## Make the system redundant

To enable system redundancy:

- 1 Connect NTRC17BA from LAN 2 of Core/Net 1 to Lan 2 of Core/Net 0.
- 2 Initialize (INI) Core/Net 0.

**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, downloading up to 4 FIJI cards on the opposite ring. 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.



Once the INI is complete on the *inactive* Core (Core/Net 0), the system will operate in full redundant mode with Core/Net 1 active.

---

**End of Procedure**

---

## Complete the CP PII upgrade

### Procedure 174

#### Connecting the system monitor to Core/Net 0

- 1 Connect the system monitor to the rear of the pedestal.
- 2 For the Core column, connect J3 and J4 cables to the system monitor.

**Note:** Do *not* turn off the blower units in the front of the pedestals.

---

**End of Procedure**

---

**Procedure 175**  
**Testing Core/Net 1**

**From Core/Net 1**, perform these tests:

- 1**    Perform a redundancy sanity test:

<b>LD 135</b>	Load program
<b>STAT CPU</b>	Get status of CPU and memory
<b>TEST CPU</b>	Test the CPU

- 2**    Check the LCD states:

**a.**    Perform a visual check of the LCDs.

**b.**    Test LCDs:

<b>LD 135</b>	Load program
<b>TEST LCDs</b>	Test LCDs
<b>DSPL ALL</b>	

- 3**    Test the System Utility cards and the cCNI cards:

<b>LD 135</b>	Load program
<b>STAT SUTL</b>	Get the status of the System Utility (main and Transition) cards
<b>TEST SUTL</b>	Test the System Utility (main and Transition) cards
<b>STAT CNI c s</b>	Get status of cCNI cards (core, slot)
<b>TEST CNI c s</b>	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 XMS, where x= system XMS**STAT XSM** Check system monitors**\*\*\*\*** Exit program**6** Clear the display and minor alarms on both Cores:**LD 135** Load program**CDSP** Clear 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.

<b>LD 60</b>	Load program
<b>SSCK <i>x</i></b>	To get the status of the clock controllers ( <i>x</i> is “0” or “1” for Clock 0 or Clock 1)
<b>SWCK</b>	Switch the Clock (if necessary)
<b>****</b>	Exit program

- b.    Verify that the Clock Controllers are switching correctly.

<b>SWCK</b>	Switch Clock
<b>SWCK</b>	Switch Clock again

8    Test the Fiber Rings

See *Software Input/Output: Maintenance* (553-3001-511) for more information on LD 39 commands.

- a.    Check that the Fiber Rings operate correctly:

<b>LD 39</b>	Load program
<b>STAT RING 0</b>	Check the status of Ring 0 (HALF/HALF)
<b>STAT RING 1</b>	Check the status of Ring 1 (HALF/HALF)

- b.    If necessary, restore the Rings to Normal State:

<b>RSTR</b>	Restore both Rings to HALF state
-------------	----------------------------------

- c.    Check that the Rings operate correctly:

<b>STAT RING 0</b>	Check the status of Ring 0 (HALF/HALF)
<b>STAT RING 1</b>	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

**10** Check applications (Call Pilot, Symposium, Meridian Mail, etc.).**11** Check dial tone.

---

**End of Procedure**

---

**Switch call processing****Procedure 176****Switching call processing**

**LD 135**            Load program

**SCPU**             Switch call processing from Core/Net 1 to  
Core/Net 0.

Core/Net 1 will INI and Core/Net 0 will become the active call processor.

**Procedure 177**  
**Testing Core/Net 0**

**From Core/Net 0**, perform these tests:

- 1**    Perform a redundancy sanity test:

<b>LD 135</b>	Load program
<b>STAT CPU</b>	Get status of CPU and memory
<b>TEST CPU</b>	Test the CPU

- 2**    Check the LCD states

- a.**    Perform a visual check of the LCDs.

- b.**    Test LCDs:

<b>LD 135</b>	Load program
<b>TEST LCDs</b>	Test LCDs
<b>DSPL ALL</b>	Display all

- 3**    Test the System Utility cards and the cCNI cards:

<b>LD 135</b>	Load program
<b>STAT SUTL</b>	Get the status of the System Utility (main and Transition) cards
<b>TEST SUTL</b>	Test the System Utility (main and Transition) cards
<b>STAT CNI c s</b>	Get status of cCNI cards (core, slot)
<b>TEST CNI c s</b>	Test cCNI (core, slot)

- 4**    Test system redundancy:

<b>LD 137</b>	Load program
<b>TEST RDUN</b>	Test redundancy

**DATA RDUN****TEST CMDU**    Test the MMDU card

- 5**    Test that the system monitors are working:

**LD 37**            Load program**STAT XSM**       Check the system monitors**\*\*\*\***            Exit program

- 6**    Clear the display and minor alarms on both Cores:

**LD 135****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***           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 Clock**SWCK**            Switch Clock again

- 8**    Test the Fiber Rings

See *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 status of Ring 0 (HALF/HALF)

**STAT RING 1**          Check 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 status of Ring 0 (HALF/HALF)

**STAT RING 1**          Check 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

- 10 Check applications (such as Call Pilot and Symposium).

- 11 Check dial tone.

---

**End of Procedure**

---



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# Upgrades from Meridian 1 Option 61C

---

## Contents

This section contains information on the following topics:

Meridian 1 Option 61C upgrade to Option 61C CP PII .....	590
Prepare for upgrade .....	593
Perform upgrade .....	610
Meridian 1 Option 61C upgrade to Option 81C CP PII/FNF .....	718
Prepare for upgrade .....	721
Perform upgrade .....	736

## Meridian 1 Option 61C upgrade to Option 61C CP PII

This chapter provides instructions for upgrading a source 61C CP1, CP2, CP3, CP4 to a target platform of Meridian 1 Option 61C CP PII. The procedures within this chapter are written for a stacked configuration (Core/Net 1 on top of Core/Net 0). With the introduction of the Meridian 1 Option 61C CP PII, the system may be configured in a side by side profile (see Figure 88 on page 592).

**Note:** For side by side configuration, additional equipment such as the pedestal, top cap, shelf spacers, or NT4N41 module, and XSM cables must be ordered separately. This equipment must be installed before attempting this upgrade. All existing cables in Core/Net 1 must be checked for proper length and routing to the new configuration.

Please see *Large System: Installation and Configuration* (553-3021-210) for instructions on how to install a column.

Procedures are written with the intent to maintain partial service. The service interruption will cause half the system to be down during most of the procedure. Some thought should be given to a complete power down hardware replacement process.

**Note:** Nortel recommends that when working on an AC system that all power to the column be removed. This would by itself cause total system outage.

Figure 87 on [page 591](#) shows an upgrade from a Meridian 1 Option 61C to a stacked Meridian 1 Option 61C CP PII.

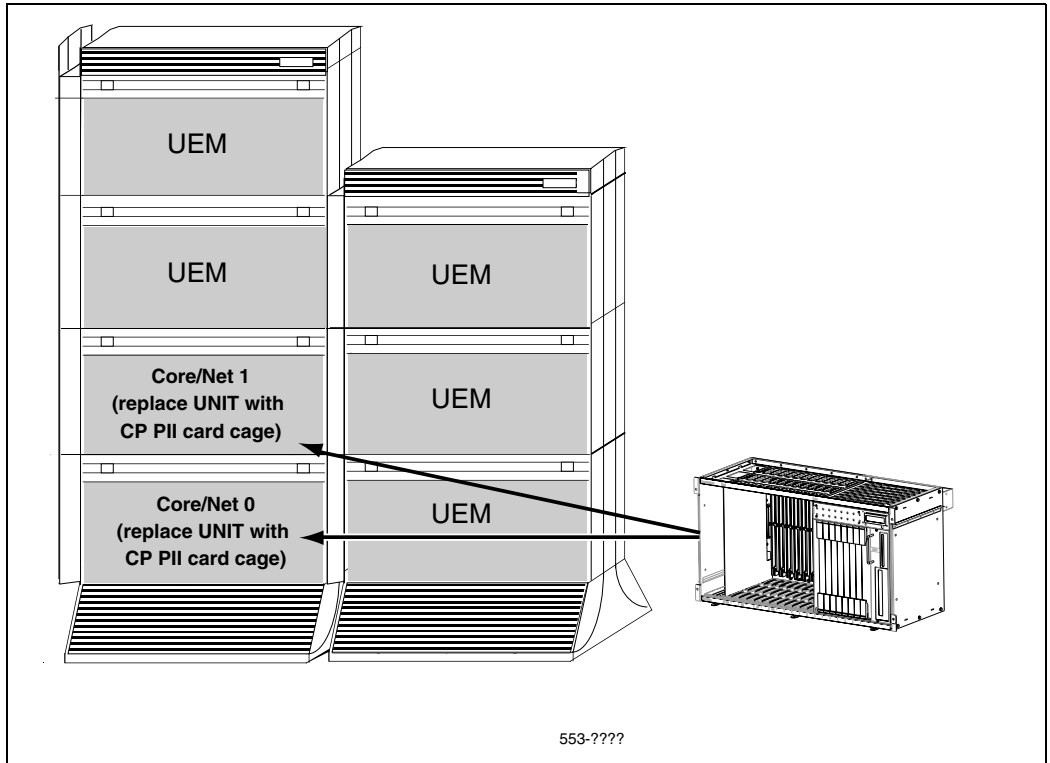
Figure 88 on [page 592](#) shows an upgrade from a Meridian 1 Option 61C to a side by side Meridian 1 Option 61C CP PII.



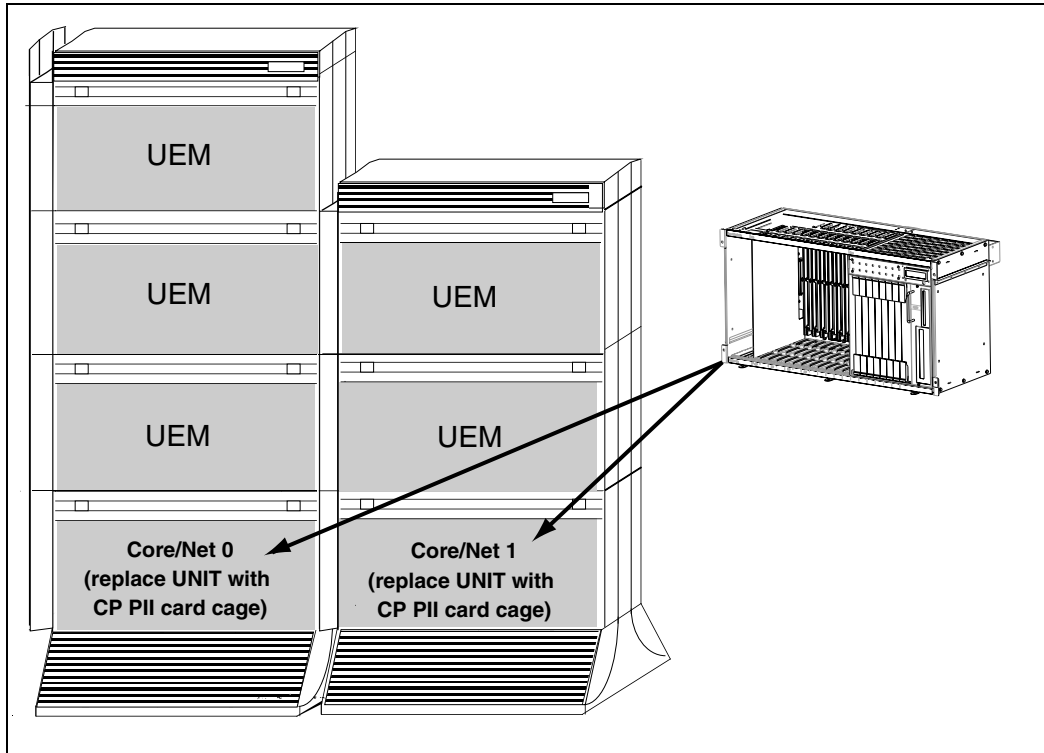
### DANGER OF ELECTRIC SHOCK

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.

**Figure 87**  
**Meridian 1 Option 61C to Meridian 1 Option 61C CP PII stacked**



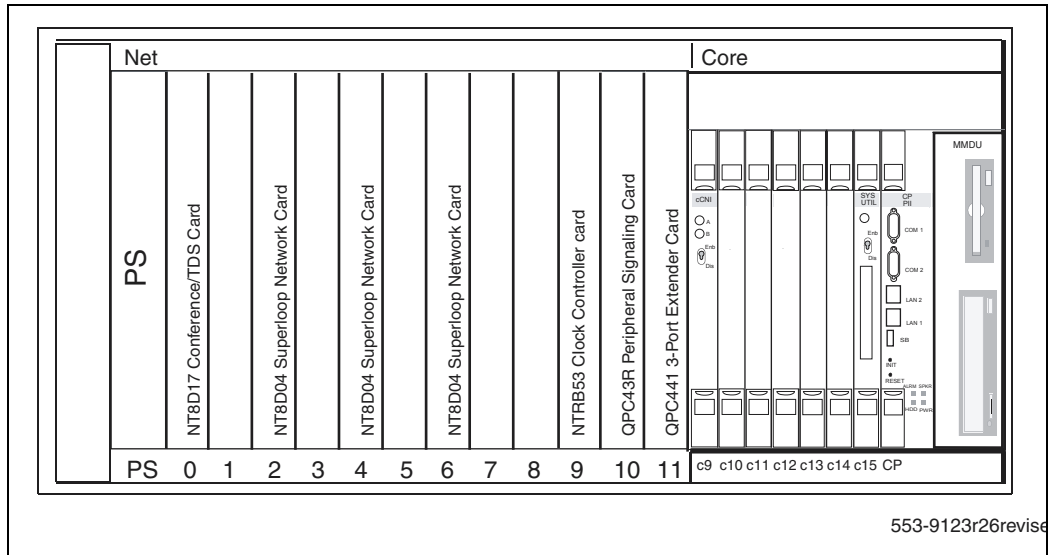
**Figure 88**  
**Meridian 1 Option 61C to Meridian 1 Option 61C CP PII side by side**



This upgrade takes a Meridian 1 Option 61C to a single-group Meridian 1 Option 61C with CP PII. CP PII cards are located in the Core/Net modules or card cage.

- The card cages in the existing Core/Net modules are replaced with CP PII card cages.
- Existing network cards are relocated to the NT4N40 CP PII card cage.
- The existing Clock Controllers are moved from the old Core/Net to the CP PII Core/Net in slot 9.
- An IPE module can be installed on top of CP PII Core/Net 0 module.

**Figure 89**  
**CP PII Core/Net Module slot**



## 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 78 below:

**Table 78**  
**Prepare for upgrade steps**

Procedure Step	Page
Plan upgrade	<a href="#">594</a>
Upgrade Checklists	<a href="#">595</a>
Prepare	<a href="#">595</a>
Identifying the proper procedure	<a href="#">596</a>
Connect a terminal	<a href="#">596</a>
Check the Core ID switches	<a href="#">597</a>
Print site data	<a href="#">600</a>
Perform a template audit	<a href="#">603</a>
Back up the database (data dump and ABKO)	<a href="#">604</a>
Identify two unique IP addresses	<a href="#">609</a>
Check requirements for cCNI to 3PE cables (NTND14)	<a href="#">609</a>

## 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 of Book 3. 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](#)).
- Verify proper cable lengths for the target platform.
- Verify card vintage requirements of the target platform.
- Determine and note current patch or Dep lists installed at the source platform.
- Determine 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 178 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/O 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 179

#### 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 — Service Interruption**

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 97.
- 3 Reinstall the System Utility card.

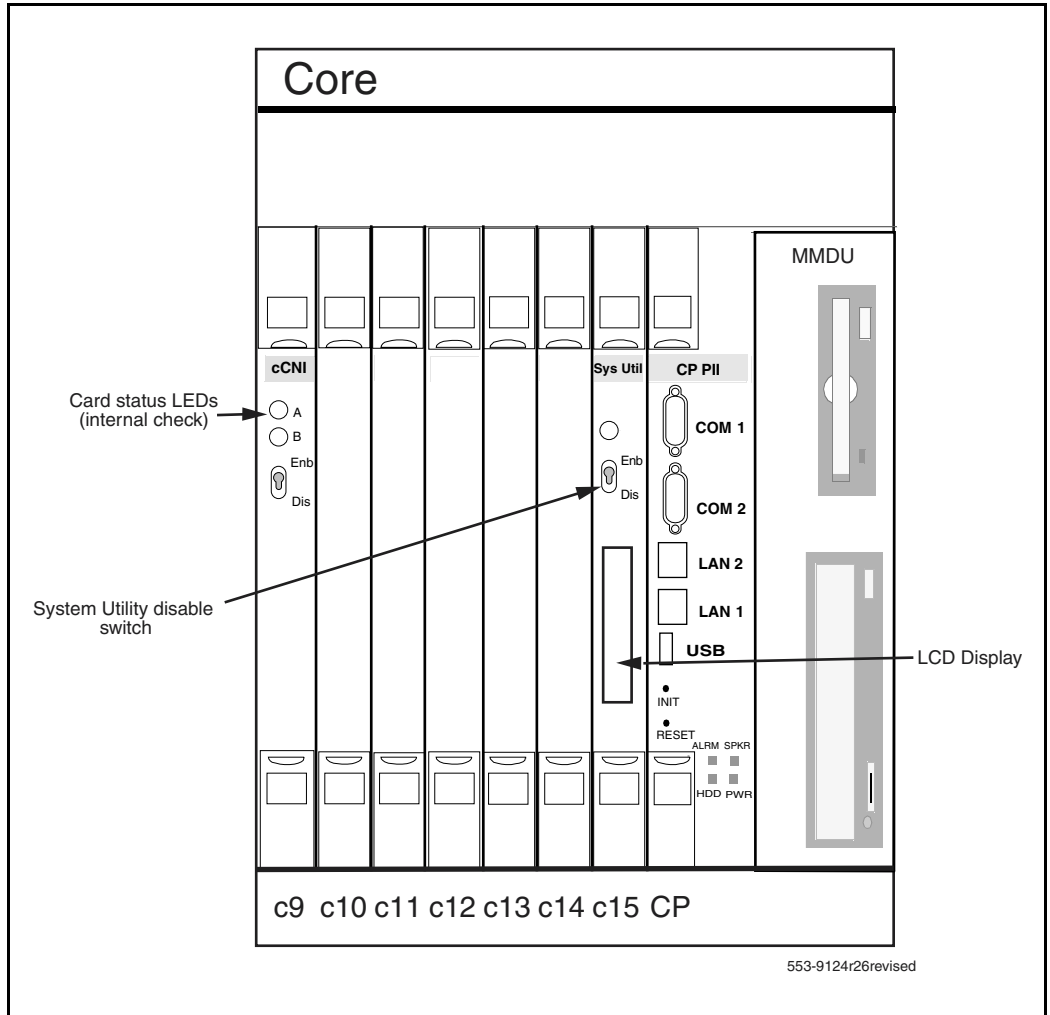
- a. Gently slide the card into the slot until it makes contact with the backplane. Never force a card into the slot.
- b. Push in the top and bottom latches on the card to lock it in place.

End of Procedure

Table 79  
Core module ID switch settings (System Utility card)

	Position 1	Position 2
Core 0	On	On
Core 1	Off	On

**Figure 90**  
**Core card placement in the NT4N40 Core/Net card cage (front)**



**Figure 91**  
**Core Module ID switch**



**Print site data**

Print site data to preserve a record of the system configuration (Table 80 on page 601). 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 80**  
**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>
*Configuration Record	LD 22	
	REQ	PRT
	TYPE	CFN

**Table 80**  
**Print site data (Part 2 of 3)**

Site data	Print command	
*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 80**  
**Print site data (Part 3 of 3)**

Site data	Print command	
DTI/PRI data block for all customers	LD 73	
	REQ	PRT
	TYPE	DDB
<b>Note:</b> 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      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 180 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 181****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 182****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" in Book 3.

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 MB 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 System Administrator to identify two unique IP addresses before the upgrade.
- For instructions to configure these IP numbers, see “Configuring IP addresses” on [page 667](#).

## 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:



### 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.

## Perform upgrade

### Review upgrade requirements

This section describes the *minimum* equipment required for CP PII. Additional equipment can also be installed during the upgrade. Verify that *all* equipment has been received.

#### Check equipment received

Meridian 1 Option 61C CP PII equipment is configured at the factory according to customer requirements. Some cards and power supplies are shipped in separate packages to prevent damage to cards.

Before the upgrade, check that equipment on the order form is also on the packing slip. Check that all equipment has been received. If any items are missing, contact your supplier for replacements before you begin the upgrade.



#### **WARNING**

##### **Service Interruption**

DO NOT proceed with the upgrade if any of the required equipment is missing. All equipment must be received to complete the upgrade.

#### Check required software

The following software packages are required to upgrade a system to Meridian 1 Option 61C with CP PII:

- Succession 3.0 Software
- CPP\_CNI CP Pentium Backplane for Intel Machine Package 368
- Software Install Kit

#### Check vintage requirements for existing hardware

Make sure that existing hardware meets the following minimum vintage requirements for CP PII:

- The QPC441 3-Port Extender (3PE) cards must be minimum vintage F.

- The NTRB53 Clock Controller cards must be minimum vintage AA.
- The existing QPC471 Clock Controller cards must be minimum vintage H or the QPC775 Clock Controller cards (all countries except USA) must be minimum vintage E.

**Note:** QPC720 PRI cards require NT8D79 cables. NT5D12 Dual PRI/DTI cards require NTCG03 cables.

- The QPC43 Peripheral Signaling cards must be minimum vintage R.

If any equipment does not meet these requirements, replace the equipment before you begin the upgrade.



### CAUTION

#### Service Interruption

Equipment that does not meet the minimum vintage requirements will cause system malfunctions and loss of call processing.



### WARNING

Clock Controller cards must be of the same part number for any single system. For instance, a QPC471 card cannot be used with an NTRB53 card.

## Check required hardware

Table 81 below describes the *minimum* equipment required to upgrade a system to CP PII.

**Table 81**  
**Minimum requirements for single column Meridian 1 Option 61C CP PII (Part 1 of 3)**

Order number	Description	Quantity per system
NT4N64AA	CP PII Call Processor Card (256mb Memory)	2
NT4N43CA	Multi-Media Disk Unit (MMDU)	2

**Table 81**  
**Minimum requirements for single column Meridian 1 Option 61C CP PII (Part 2 of 3)**

Order number	Description	Quantity per system
NT4N40AA	CP PII Core/Network Card Cage AC/DC	2
NT4N65AB	CP PII Core Network Interface Card (2 ports)	2
NT4N48AA	CP PII System Utility Card	2
NT4N88AA	CP PII to I/O Panel DTE Cable (48 in.)	2
NT4N88BA	CP PII to I/O Panel DCE Cable (48 in.)	2
NT4N90BA	CP PII to I/O Panel Ethernet Cable (48 in.)	2
NT8D80AZ	3PE to 3PE cables	2
*NT8D01BC	Controller - Four Card	1
*NT8D04BA	Superloop Network Card	1
*NT8D17FA	Conference/TDS Card	2
NTRB53	Clock Controller Card	2
NTRC17BA	CP PII Ethernet to Ethernet Cable (8.5 ft.)	2
NTRE40AA	Dual Ethernet Adapter (RJ45) for I/O Panel	2
NT8D46	Cable, System Monitor Inter-CPU Internal, 30 in.	1
NT8D99AD	Cable, Network to Network, 6 ft.	2
P0712003	Package, Instruction	1
*QPC43R	Pack, Peripheral Signaling (PS)	2
*QPC441F	Pack, Three Port Extender (3PE)	2
QPC471	Clock Controller Card	2
QPC775	Clock Controller Card	2
P0605337	CP PII Card Slot Filler Panel	4



**Table 81**  
**Minimum requirements for single column Meridian 1 Option 61C CP PII (Part 3 of 3)**

Order number	Description	Quantity per system
<p>*Cards from customer's existing system.</p> <p>** QPC471 H or QPC775 E are supported at Succession 3.0 Software on this platform. All clock cards must be the same type.</p> <p><b>Note:</b> The NTRB53 Clock Controller cards must be minimum vintage AA. The QPC471 Clock Controller cards must be minimum vintage H. The QPC775 Clock Controller cards (all countries except USA) must be minimum vintage E. These cards may be reused from the existing card cage.</p>		

## Check required power equipment

Table 82 below lists the equipment required for DC-powered systems.

Table 83 on [page 614](#) lists the equipment required for AC-powered systems.



### WARNING

Ensure that power supplies NT6D41CA (DC) or NT8D29BA (AC) are used in the Core/Net shelf.

**Table 82**  
**DC power requirements for Meridian 1 Option 61C CP PII system**

Order number	Description	Quantity per system
NT6D41CA	Core/Network Power Supply DC	2
NT4N97BA	CP PII Upgrade Kit DC (Misc. Card Cage Components)	2

**Table 83**  
**AC power requirements for Meridian 1 Option 61C CP PII system**

Order number	Description	Quantity per system
NT8D29BA	Core/Network Power Supply AC	2
NT4N97AA	CP PII Upgrade Kit AC (Misc. Card Cage Components)	2

### Check personnel requirements

Nortel Networks recommends that a minimum of two people perform the card cage upgrade.

### Database requirements

If the system is running pre-release 19 software or the source platform is a Meridian 1 Option 21E, 51, 61, 71, STE, NT or XT, the database must be sent to Nortel Networks for conversion.

If the source platform is a Meridian 1 Option 51C, 61C, 81, or 81C equipped with IOP/CMDU cards then the database must be converted with the Database Transfer utility. See “Upgrades from Meridian 1 Option 61C” on [page 589](#).

If the source platform is a Meridian 1 Option 51C, 61C, 81, or 81C equipped with IODUC cards, the database should be data dumped (EDD) to a blank 2 MB floppy.

**Note:** All of the above listed system types can be converted by Nortel Networks in the software conversion lab. Please check the current price manual for the requirements of this service.

## System requirements



### IMPORTANT!

Systems and components delivered to customer sites may include pre-installed software. However, the pre-installed software versions are typically older and are included only for manufacturing and order management purposes. **Do not attempt to operate the system with the pre-installed software.** The latest software must be downloaded from the Nortel Networks Software Download web site and installed as part of the upgrade process.

**Table 84**  
**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)
M2250 Attendant Console	Supported	Supported	Supported

**Table 84**  
**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
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 84**  
**Succession 3.0 Software Compatibility (Part 3 of 13)**

<b>Auxiliary Processor</b>	<b>Compatibility (Release)</b>		
	<b>Meridian 1 Options 51C, 61C, 81, 81C; Succession 1000M Half Group, Single Group, Multi Group</b>	<b>Succession 1000</b>	<b>Branch Office</b>
Meridian Mail reporter	2.xa	Not supported	Not supported
<b>Companion</b>			
Companion	3.xx -7.xx (7.xx required for Enhanced Capacity)	Not supported	Not supported
<b>Voice over Internet Protocol</b>			
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 84**  
**Succession 3.0 Software Compatibility (Part 4 of 13)**

<b>Auxiliary Processor</b>	<b>Compatibility (Release)</b>		
	<b>Meridian 1 Options 51C, 61C, 81, 81C; Succession 1000M Half Group, Single Group, Multi Group</b>	<b>Succession 1000</b>	<b>Branch Office</b>
Internet Telephone – i2004 (Software Telephone)	Minimum FW version – 1.39	Minimum FW version – 1.39	Minimum FW version – 1.39
<b>Remote Office Portfolio</b>			
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 84**  
**Succession 3.0 Software Compatibility (Part 5 of 13)**

<b>Auxiliary Processor</b>	<b>Compatibility (Release)</b>		
	<b>Meridian 1 Options 51C, 61C, 81, 81C; Succession 1000M Half Group, Single Group, Multi Group</b>	<b>Succession 1000</b>	<b>Branch Office</b>
RPE (Remote Peripheral Equipment)	Not supported	Not supported	Not supported
<b>Retired Call Center Applications</b>			
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 84**  
**Succession 3.0 Software Compatibility (Part 6 of 13)**

<b>Auxiliary Processor</b>	<b>Compatibility (Release)</b>		
	<b>Meridian 1 Options 51C, 61C, 81, 81C; Succession 1000M Half Group, Single Group, Multi Group</b>	<b>Succession 1000</b>	<b>Branch Office</b>
Meridian Link & MCCR Co-residency	6.0, 6.4	Not supported	Not supported
<b>Symposium Call Center and CTI Applications</b>			
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 84**  
**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) "	<p>SCCS 4.2 is supported with Succession 3.0 in general. If using the Call Centre Transfer Connect (UUI) feature, the following are required:</p> <ul style="list-style-type: none"> <li>• Meridian 1 with Core Succession 3.0; connected to any switch by ESS4 or ESS5 interface (NI-1 only); subscription and connection to AT&amp;T Transfer Connect Services</li> <li>• SCCS Release 4.2 SU 09 or later ( GA Q3 2003)</li> <li>• Symposium TAPI server 3.0 or 3rd party CTI application licensed to work with S MLS</li> </ul>	<p>SCCS 4.2 is supported with Succession 3.0 in general. If using the Call Centre Transfer Connect (UUI) feature, the following are required:</p> <ul style="list-style-type: none"> <li>• Meridian 1 with Core Succession 3.0; connected to any switch by ESS4 or ESS5 interface (NI-1 only); subscription and connection to AT&amp;T Transfer Connect Services</li> <li>• SCCS Release 4.2 SU 09 or later ( GA Q3 2003)</li> <li>• Symposium TAPI server 3.0 or 3rd party CTI application licensed to work with S MLS</li> </ul>	<p>Not supported</p> <p>Not supported</p> <p>Not supported</p>

**Table 84**  
**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 84**  
**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]	<p>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:</p> <ul style="list-style-type: none"> <li>• Meridian 1 with Core Succession 3.0; connected to any switch by ESS4 or ESS5 interface (NI-1 only) ; subscription and connection to AT&amp;T Transfer Connect Services</li> <li>• SCCS rls 4.2 SU 09 or higher (GA Q3 2003)</li> <li>• Symposium TAPI server 3.0 or 3rd party CTI application licensed to work with S MLS</li> </ul>	<p>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:</p> <ul style="list-style-type: none"> <li>• - Meridian 1 with Core Succession 3.0; connected to any switch by ESS4 or ESS5 interface (NI-1 only) ; subscription and connection to AT&amp;T Transfer Connect Services</li> <li>• - SCCS rls 4.2 SU 09 or higher ( GA Q3 2003)</li> <li>• - Symposium TAPI server 3.0 or 3rd party CTI application licensed to work with S MLS</li> </ul>	<p>Not supported</p> <p>Not supported</p> <p>Not supported</p>
Symposium Web Centre Portal [SWCP]	4.0	4.0	Not supported

**Table 84**  
**Succession 3.0 Software Compatibility (Part 10 of 13)**

<b>Auxiliary Processor</b>	<b>Compatibility (Release)</b>		
	<b>Meridian 1 Options 51C, 61C, 81, 81C; Succession 1000M Half Group, Single Group, Multi Group</b>	<b>Succession 1000</b>	<b>Branch Office</b>
Symposium Web Client	4.5	4.5	Not supported
<b>IVR Applications</b>			
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 84**  
**Succession 3.0 Software Compatibility (Part 11 of 13)**

<b>Auxiliary Processor</b>	<b>Compatibility (Release)</b>		
	<b>Meridian 1 Options 51C, 61C, 81, 81C; Succession 1000M Half Group, Single Group, Multi Group</b>	<b>Succession 1000</b>	<b>Branch Office</b>
Periphonics Multimedia Processing Server (MPS) 500	2.1	Not supported	Not supported
<b>Business Communication Manager</b>			
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
<b>MIXX Portfolio</b>			
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 84**  
**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
<b>MCS 5100 (formally Succession MX)</b>			
MCS 5100	1.1	1.1	Not supported
<b>Note 1:</b> 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 <i>Product Compatibility</i> (553-3001-156)"			
<b>Note 2:</b> a = No Core Software dependency			

**Table 84**  
**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
<p><b>Note 3:</b> 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 timeframe. Indefinite operation with a mixed configuration is not supported.</p>			
<p><b>Note 4:</b> Call Server and Succession Signaling Server software releases on both the Main Office and at the Branch Offices should be congruent at all times.</p>			
<p><b>Note 5:</b> 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.</p>			

## Install Core 1 hardware

### Procedure 183 Checking main Core card installation

The main Core cards including the MMDU (with the cables for power and data), are installed in the factory as shown in Figure 92 on page 629:

- 1 NT4N65AB CP PII Core Network Interface (cCNI) cards:  
Each system contains one NT4N65 cCNI card per Core/Net module. The cCNI cards are located in slot c9. If not already installed, install a P0605337 CP PII Card Slot Filler Panel to cover slots c10-c12, which do not contain cCNIs.
- Note:** In the NT4N41 Core/Net module, port 0 on the NT4N65 Core to Network Interface (cCNI) Card in slot c9 must be configured as “group 0.” The cCNI and 3PE cards for group 0 communicate through the NT4N29 cable. Only one cCNI card is required for group 0 in a Meridian 1 Option 61C CP PII.
- 2 Slots c13 and c14 are left empty. If not already installed, install a P0605337 CP PII Card Slot Filler Panel in each slot.
- 3 NT4N48AA System Utility (Sys Util) card is located in slot c15. Check side ID switch settings for SU card in Core/Net 1 according to Table 85 below.

Table 85  
Core module ID switch settings (System Utility card)

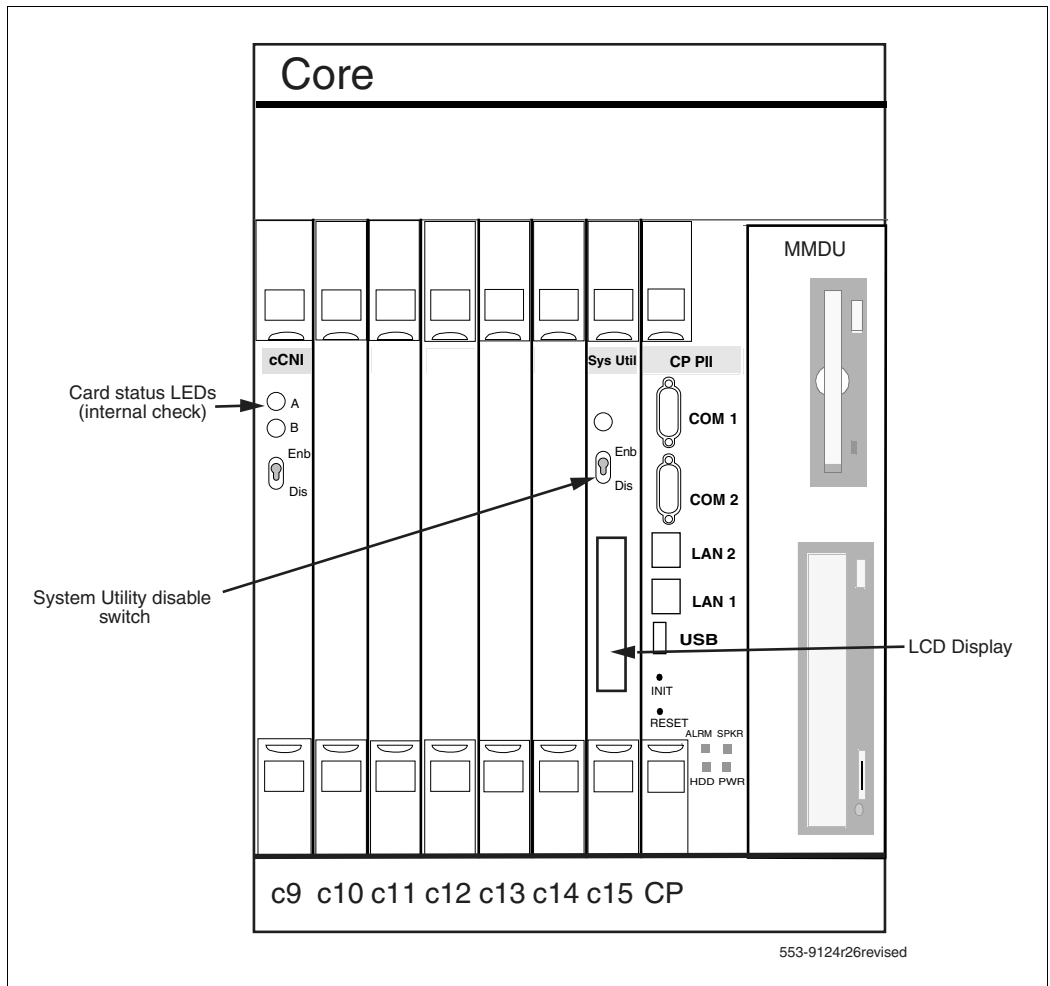
	Position 1	Position 2
Core 0	On	On
Core 1	Off	On

- 4 NT4N64AA CP PII is located in the Call Processor slot.
- 5 The NT4N43CA Multi-Media Disk Unit (MMDU) is located in the extreme right-hand slot next to the CP PII card. The MMDU contains the hard drive, floppy drive and CD-ROM drive.

End of Procedure



**Figure 92**  
**Core card placement in the NT4N41 Core/Net Module (front)**



### Check for the shelf power cable

Check that the NT4N4405 Shelf Power Cable is installed in the CP PII card cage backplane. See Figure 93 on [page 631](#) for cable location.

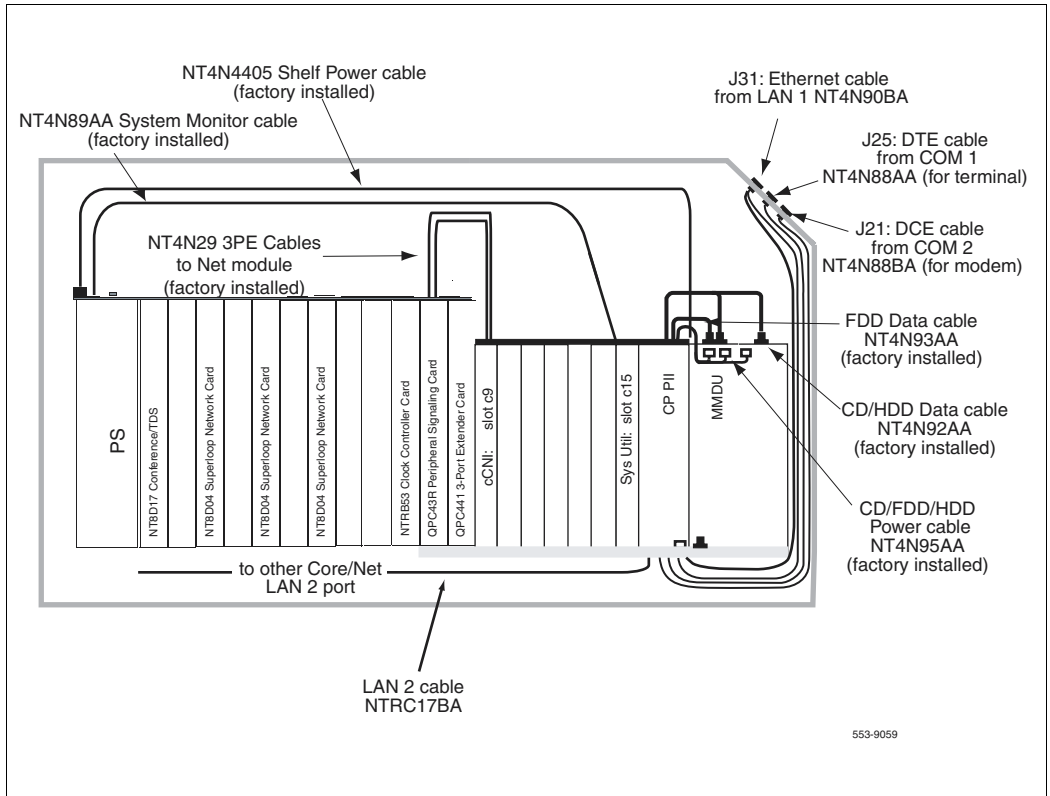
**Check factory-installed cables**

Table 86 lists factory-installed cables.

**Table 86**  
**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

**Figure 93**  
**Core/Net cable connections (top view)**



## Disable and remove equipment from Core 1

### Procedure 184

#### Checking that Core 0 is active

To upgrade Core 1, verify that Core 0 is the active side performing call processing:

- 1    Verify that Core 0 is active.

**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 (if necessary)

**\*\*\*\***            Exit program

---

**End of Procedure**

---

### Procedure 185

#### Checking 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**            Switch to Clock Controller 0 (if necessary)

**DIS CC 1**        Disable Clock Controller 1

**\*\*\*\***            Exit program

- 3    Faceplate disable Clock Controller 1.

---

**End of Procedure**

---

### Procedure 186

#### Splitting the Cores

- 1 In Core 0, set the NORM/MAINT switch on the Call Processor card to MAINT.
- 2 In Core 1, set the ENB/DIS switch on the NT6D65 cCNI card to DIS.
- 3 In Core 1, set the NORM/MAINT switch on the Call Processor card to MAINT.

Result: The system is now in split mode, with call processing on Core 0.

---

**End of Procedure**

---

### Software disable Network cards in Core/Net 1 from Core/Net 0



#### CAUTION

#### Service Interruption

At this point, the upgrade interrupts service.

### Procedure 187

#### Software disabling cards in network slots of Core/Net 1 from Core/Net 0

- 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** sl = the superloop number of the XNET card

**\*\*\*\*** Exit program

- b. In Core/Net 1 only, disable ENET.

**LD 32** Load program

**DISL X** X= the loop number of the ENET card

**\*\*\*\*** Exit program



### CAUTION

#### Service Interruption

If the system terminal is assigned to an SDI port that you are disabling, assign it to another port before you disable the SDI.

- c. In Core/Net 1 only, software disable each port on the SDI cards:

**LD 37**                      Load program

**DIS TTY x**                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**                    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**                    x = the loop number PRI port

**\*\*\*\***                      Exit program

- f. In Core/Net 1 only, disable MSDL cards.

**LD 48**                      Load program

**DIS MSDL x**            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** 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** Table 87 lists Peripheral Signaling Card values for “x”

**\*\*\*\*** Exit program

**Table 87**  
**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 3PE, Per Sig and all network cards.

---

### End of Procedure

---



#### CAUTION

##### Service Interruption

The system can shut down if the system monitors are not removed. Remove the monitors and keep the cooling fans ON.

### Procedure 188

#### Removing the system monitors from the Core column

**Note:** Perform the following procedure for both AC and DC systems

- 1 In Core 0, 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 0 system monitor.

**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 0.

---

**End of Procedure**

---

## Power down Core/Net 1



### CAUTION

#### Service Interruption

Call processing is interrupted for approximately 60 minutes while the procedures are completed.



### 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.

For AC-powered systems: set the MPDU circuit breaker located at the left end of the module to OFF (down position).

For DC-powered systems: set the breaker for the Core 1 module in the back of the column pedestal to OFF (down position).



**Procedure 189****Removing Core 1 cables and card cage**

- 1 Label and disconnect the Clock Controller 1.
  - a. Disconnect the NT8D76AC cable from the Clock Controller 1 faceplate card.
  - b. If primary and secondary clock reference cables are connected to the Clock Controller 1 faceplate, disconnect them last.
- 2 Label and disconnect all cables from the front of the module.
- 3 Tape over the contacts to avoid grounding.
- 4 Tie all cables to the sides so the working area in front of the card cage is totally clear.
- 5 Remove the I/O safety panel by turning the screws on each side. Set the I/O safety panel aside.
- 6 Tag and disconnect all cables from the backplane to the interior of the I/O assembly.
- 7 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 with the cards left installed.

- 8 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 for use with the CP PII card cage.

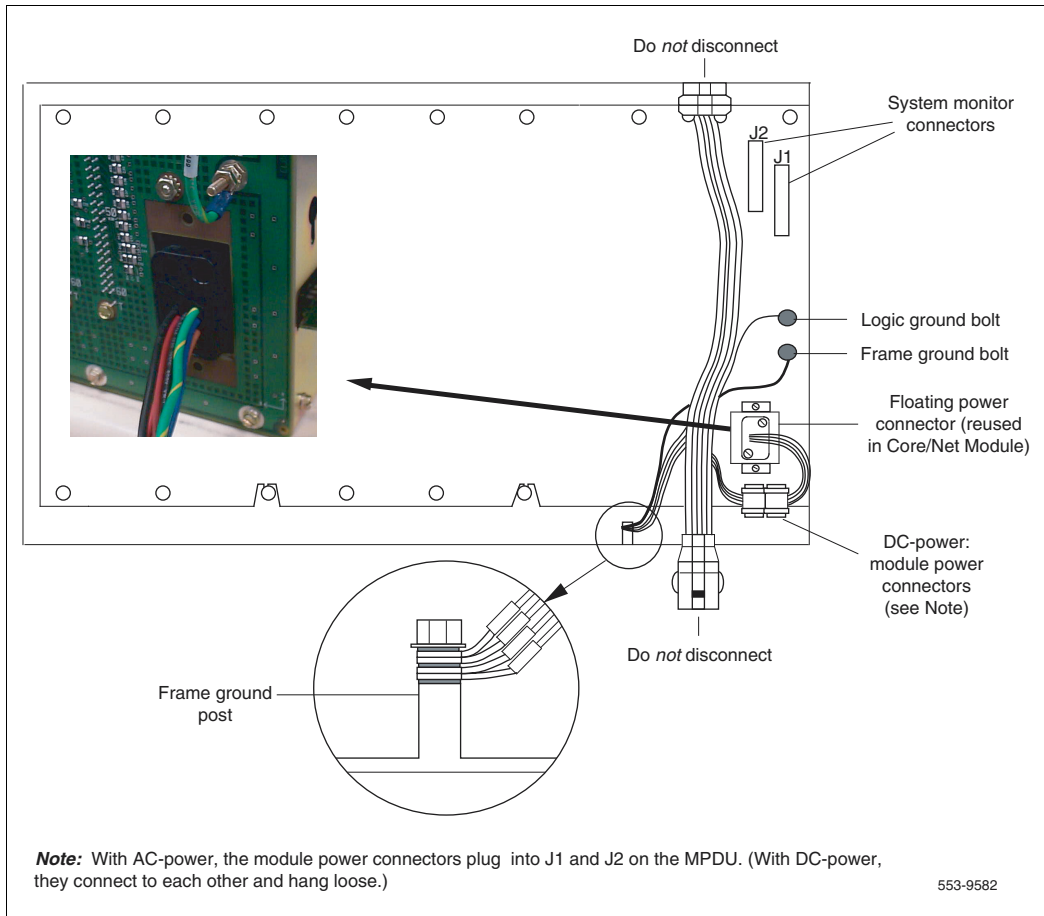
**CAUTION**

Do not drop the mounting screws into the pedestal. Doing so can cause serious damage.

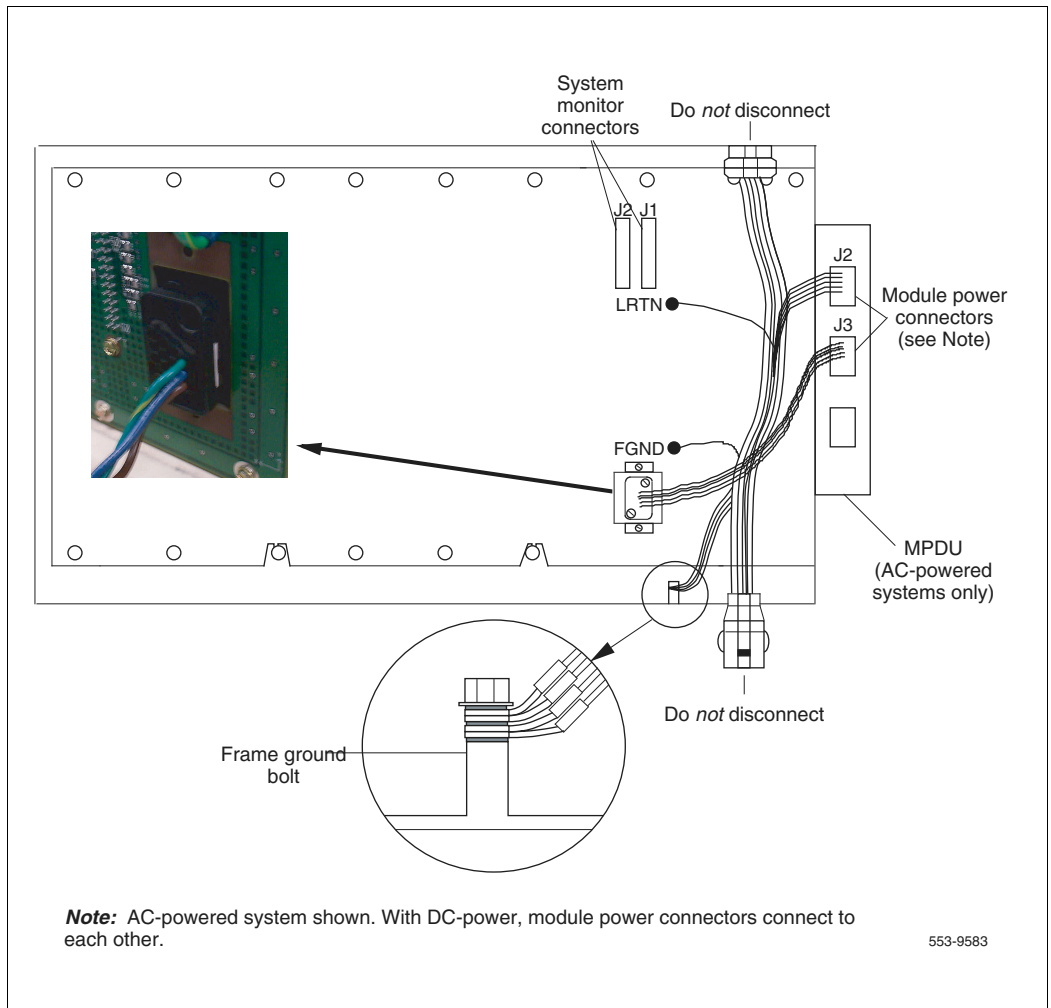
- 9 Remove the front trim panels on both sides of the card cage.
- 10 Remove the three mounting screws that secure the front of the card cage to the bottom of the module. Keep the screws for use with the CP PII card cage.
- 11 Pull the card cage forward until it is halfway out of the module.

- 12 Disconnect cables, plugs, and wires from the rear of the module to the backplane.
- 13 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 94 below for DC power connectors. See Figure 95 on [page 639](#) for AC power connectors.

**Figure 94**  
**DC power connectors on the Core module backplane**



**Figure 95**  
**AC power connectors on the Core module backplane**



- 14** Remove the frame ground (FGND) (green) wire from the frame ground bolt on the module.

- 15 Label and disconnect the module power connectors. In an AC-powered system, these are small orange connectors plugged into the module power distribution unit (MPDU). In a DC-powered system, these are connected to each other.
- 16 Label and disconnect the system monitor ribbon cables to J1 and J2.
- 17 Remove the Core card cage from the module.
- 18 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 NT8D40. For DC systems, relocate power harness NT7D11.
- 19 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 will not be able to install the card cage in the module correctly.



#### **CAUTION**

##### **Damage to Equipment**

Check for and remove any debris (such as screws) that fell into the base of the UEM module.

---

**End of Procedure**

---

**Procedure 190****Installing the CP PII card cage in Core 1**

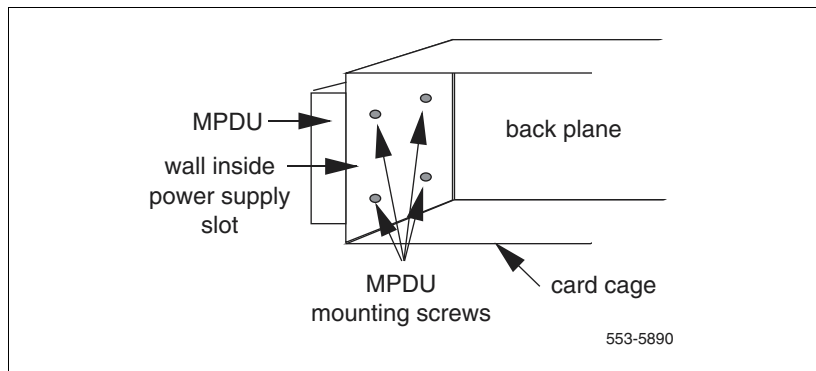
- 1 Check that the card cage is configured as Core 1. See Table 85 on [page 628](#) for instructions.

**IMPORTANT!**

If the upgrade target system is a side by side configuration of anMeridian 1 Option 61C CP PII, an NT4N41 Core/Net module with pedestal, top cap and necessary cables should already have been installed. If so, proceed to “Relocating Network cards to CP PII Core 1” on [page 643](#).

- 2 For AC-powered systems only attach the new MPDU, part of the CP PII Upgrade kit, to the side on the NT4N40 card cage. The screws that secure the MPDU are accessible from the power supply slot. See Figure 96 below.

**Note:** Pre-thread 2 bottom mounting screws at the back of the Core/Net shelf.

**Figure 96****Location of the screws for the MPDU**

- 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.
        - c. Attach the system monitor ribbon cables:
          - i. Connect the ribbon cable that goes down to the column to connector J1 on the backplane.
          - ii. Connect the ribbon cable that goes up the column to J2 on the backplane.
        - d. Use a 11/32" socket wrench 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, then tighten down the nut.
      - Note:** For all of the wire terminals to fit on the bolt, remove one of the lock washers. Leave the first lock washer at the bottom of the bolt and a second at the top of the bolt. Leave a third lock washer between the second and third, or the third and fourth, wire terminals.
      - e. 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. Use a 1/4" socket wrench to tighten down the nut.
  - 6 Slide the card cage all the way 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 97 on [page 647](#).)
  - 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** At this point, do not connect the NTRC17BA crossover ethernet cable.

---

**End of Procedure**

---

**Procedure 191****Relocating Network cards to CP PII Core 1**

- 1** Remove all remaining network cards from the Meridian 1 Option 61C Core 1.
- 2** When you move the 3PE card, check the switch settings and jumpers. See Table 88.
  - a.** All 3PE cards must be vintage F or later.
  - b.** Check that the RN27 Jumper is set to "A".
  - c.** The settings for 3PE cards in Core/Net shelves are different from those in all other shelves: Table 88 on [page 644](#) shows the 3PE settings for cards installed in CP PII Core/Net modules.
- 3** Reinstall each removed card in the same network slot in the CP PII Core/Net 1.

- 4    Connect the tagged cables to the relocated cards.

**End of Procedure**

---

**Table 88**  
**QPC441 (QPC440) 3PE Card installed in the CP PII Core/Net modules**

<b>Jumper Settings:</b> Set Jumper RN27 at E35 to "A".									
Switch Settings									
Module		D20 switch position							
CP PII Core/Net modules only		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
Core/Net 0 (Shelf 0)	Group 0	off	on	on	off	on	on	on	on
Core/Net 1 (Shelf 1)	Group 0	off	on	on	off	on	on	on	off

**Procedure 192**  
**Moving Clock Controller 1**

- 1    Remove Clock Controller 1 from the Core module.
- 2    Set the Clock Controller 1 switch settings according to Table 89 on [page 645](#) and Table 90 on [page 646](#).
- 3    Move Clock Controller 1 to the CP PII Core/Net 1, slot 9.  
DO NOT seat Clock Controller 1 and DO NOT enable the card.
- 4    Reconnect all primary and secondary reference cables.



- 5 Do NOT connect the clock to clock cable.



### CAUTION

#### Service Interruption

At this point in the upgrade, only move Clock Controller 1; do not move Clock Controller 0.

**Table 89**  
**Clock Controller switch settings for NTRB53**

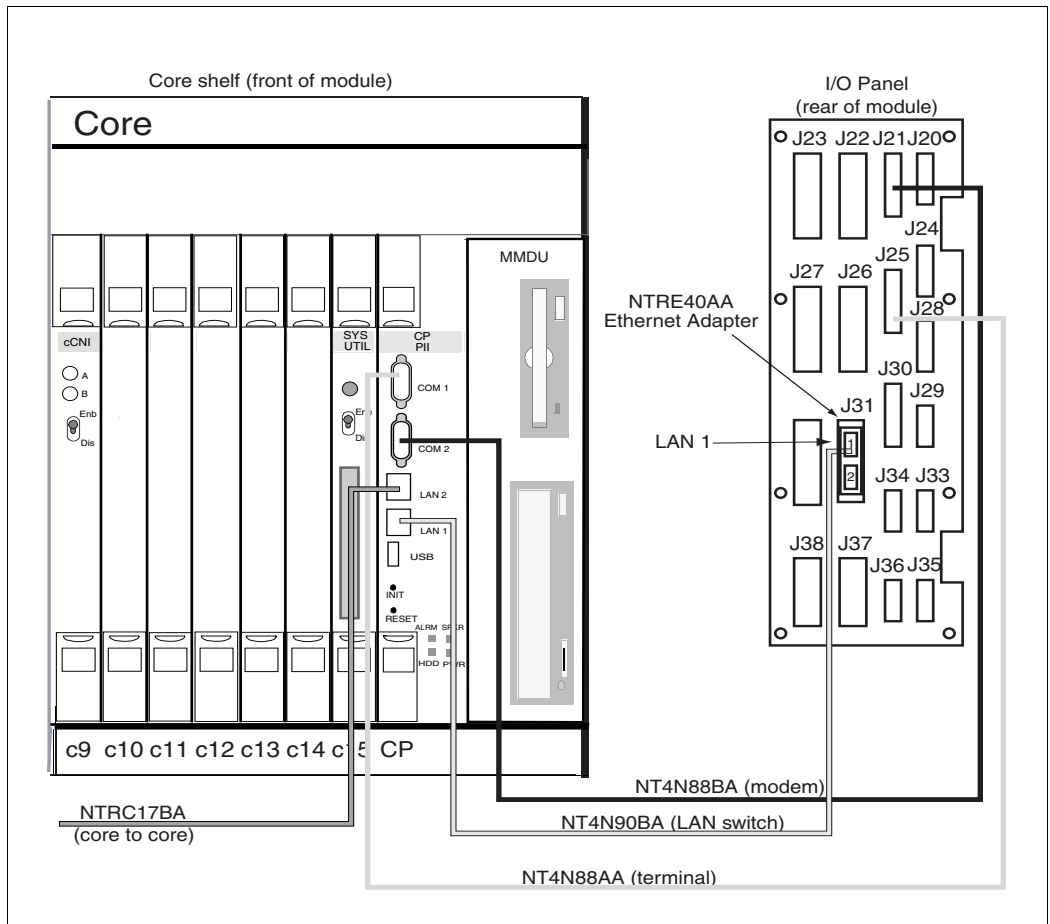
Multi-group Single group	Machine Type #1	Faceplate Cable Length CC to CC			Side Number	Machine Type #2
1	2	3	4		5	6
Multi-group = Off  Single group = On	21E = Off  51, 61, 51C, 61C 71, 81, 81C = On	Off	Off	0-14 Ft.	Side 0 = On  Side 1 = Off	71,81 = Off  21E, 51, 51C, 61. 61C, 81C = On
		Off	On	4.6–6.1 m (15–20 ft.)		
		On	Off	6.4–10.1 m (21–33 ft.)		
		On	On	10.4–15.2 m (34–50 ft.)		
<b>Note:</b> Switch 7 and 8 are not used.						

**Table 90**  
**Clock Controller switch settings for QPC471H, QPC771H**

Systems upgraded to CP PII must use the Meridian 1 Option 61C CP PII switch settings to enable Clock Hunt software. Use the settings in this table.											
SW1				SW2				SW4			
1	2	3	4	1	2	3	4	1	2	3	4
on	on	on	on	off	off	off	off	**	on	*	*
*Total cable length between the J3 faceplate connectors:											
0–4.3 m (0–14 ft.)										off	off
4.6–6.1 m (15–20 ft.)										off	on
6.4–10.1 m (21–33 ft.)										on	off
10.4–15.2 m (34–50 ft.)										on	on
** Set to ON for Clock Controller 0. Set to OFF for Clock Controller 1.											

\_\_\_\_\_ **End of Procedure** \_\_\_\_\_

**Figure 97**  
**COM and LAN connections to the Core/Net I/O panel**



## Installing the Security Device

### Procedure 193

#### Installing the Security Device

The Security Device fits into the System Utility card (see Figure 98 on [page 649](#)).

If the original system had an IODU/C, remove the Security Device from the IODU/C for reuse.

- 1 Unlock the latches and remove the IODU/C card.
- 2 Remove the round 1/2" diameter IODU/C Security Device from the round black Security Device holder on the top right corner of the IODU/C card.
- 3 Check that the Security Device is securely in place.

If the original system did not have an IODU/C, use the Security Device provided with the CP PII Software kit.

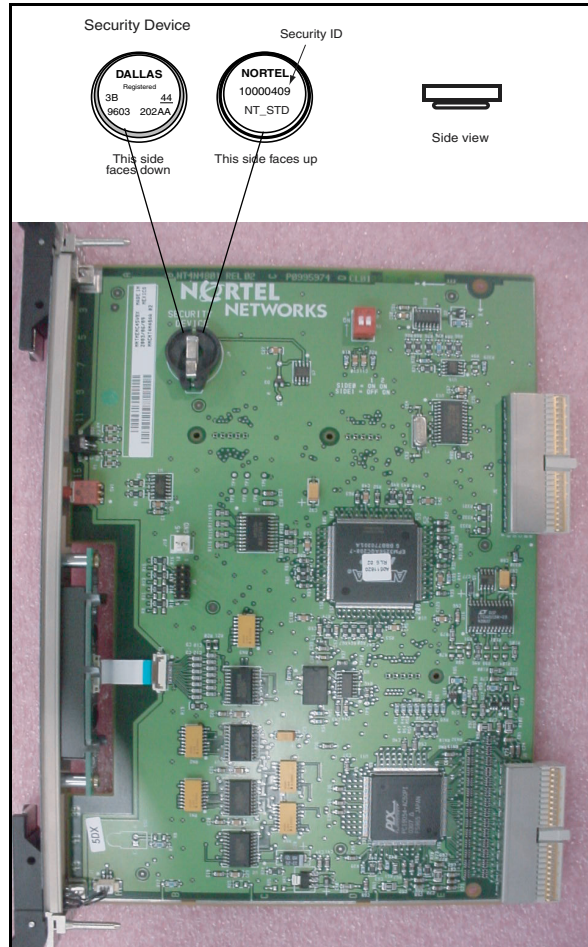
- 1 Insert the Security Device into the Security Device holder on the System Utility card with the "Nortel" side facing up. Do not bend the clip more than necessary.
- 2 Check that the Security Device is securely in place.

---

**End of Procedure**

---

**Figure 98**  
**Security Device**



## Unpack and install Power Supply

**Procedure 194**  
**Installing the NT6D41CA (DC) or NT8D29BA (AC) power supply**

- 1   Unpack the power supply.
- 2   Faceplate disable the power supply.
- 3   Insert power supply into Core/Net module power supply slot.

---

**End of Procedure**

---

## Cable Core 1

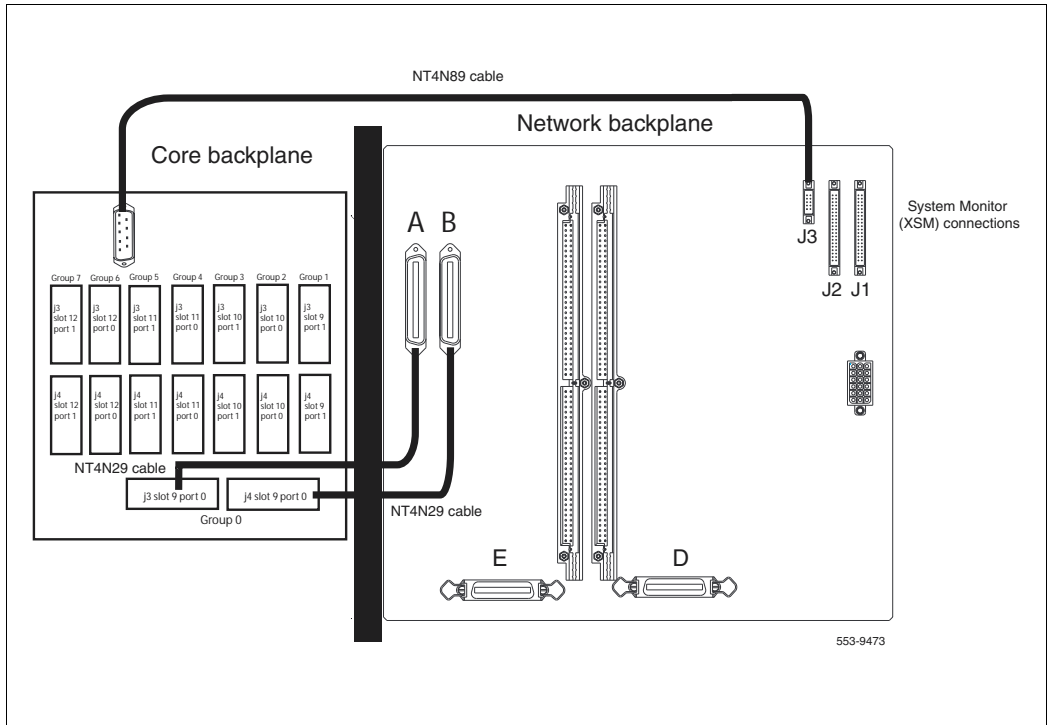
**In Core 1, inspect the CNI to 3PE (NT4N29) and system monitor (NT4N89) cables**

New NT4N29 cables must be installed for existing Network group 0. If the system has XSDI cards, reinstall the cards and attach the cables. Inspect the NT4N89 system monitor cables. See Figure 99 on [page 651](#) and Table 91.

**Table 91**  
**Fanout Panel to 3PE card connectors**

Group Number		Fanout Panel connector		3PE card connector
0	connects	9-0, J3		A
0	from	9-0, J4	to	B
<b>Note:</b> Group 0 cables (NT4N29) connect the fanout panel directly to the network backplane of Core/Net 1.				

**Figure 99**  
**Fanout Panel connections on the CP PII Core/Net backplane**



## Power up Core 1

### Procedure 195 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.

- 2 Connect a terminal to the J25 port on the I/O panel in Core 1.

- 3 Check the terminal settings as follows:
  - 9600 Baud
  - 7 data
  - 1 space parity
  - 1 stop bit
  - full duplex
  - XOFF
- 4 Faceplate enable all 3PE, Per Sig, clock controller, core and network cards.

*Note:* If only one terminal is used for both cores, the 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.

---

**End of Procedure**

---

## **Power up Core cards**

### **Procedure 196**

#### **Powering up core cards**

- 1 For AC-powered systems (NT8D29BA): set the MPDU circuit breaker located at the left end of the module to ON (top position).
- 2 For DC-powered systems: faceplate enable the NT6D41CA power supply and then set the breaker for the Core 1 module in the back of the column pedestal to ON (top position).

---

**End of Procedure**

---

## **Restore power**

### **Procedure 197**

#### **Restoring power**

- 1 Restore power to Core/Net 1.
- 2 Wait for the system to load/initialize.



- 3 Check that the Network and I/O cards have working power.



System is in split mode, CP 0 is active, clock 0 is active, all network cards in shelf 1 are software disabled.

---

**End of Procedure**

---

## **Install software and customer database**

### **Procedure 198**

#### **Installing the software and converting the database**

- 1 Check that a terminal is connected to J25 on Core/Net 1.
- 2 In Core/Net 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.

- 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:

```
Copyright (c) 1993-1996 RST Software Industries Ltd. All rights 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 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.

```
MAIN  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> -> <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 install floppy disk at this time and insert the keycode diskette.

- 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: 2540 to release: 0300K.

This will erase all old system files.

---

553-3021-258    Standard 1.00    October 2003



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 2540 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:



**IMPORTANT!**

Remove keycode diskette at this time and insert the customer backup database diskette.

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: 2540 to the hard disk on Core X. release: 2540.

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...
```

**Note:** Before completing the next procedure, wait for Core/Net 1 to INI.

---

**End of Procedure**

---

## Configuring IP addresses

### Procedure 199 Configuring the IP addresses

Two unique IP address are required for the CP PII system to communicate with the LAN. One IP address is defined for the *active* Core. The second IP address is defined for the *inactive* Core.

- 1 Use the following to check the status of the system's IP address:

**LD 117** Load program

**prt host** Print the configured host information

If the system returns with host names "active" and "inactive", go to "Check for Peripheral Software Download to Core 1" on [page 668](#). If the system returns no host names, complete the steps below.

- 2 Contact your System Administrator to identify IP address and subnet mask information.
- 3 Configure the primary (*active*) and secondary (*inactive*) IP addresses:

**LD 117** Load the program

**new host name 1 IP address** Define the first IP address: "name 1" is an alias for the IP address such as "primary". The IP address is the IP number.

**chg elnk active name 1** Assign the "name 1" address to the *active* Core.

**new host 'name 2' 'IP address'** Define the second IP address: "name 2" is an alias for the IP address such as "secondary". The IP address is the IP number.

<b>chg elnk inactive <i>name 2</i></b>	Assign the “name 2” address to the <i>inactive</i> Core.
<b>chg mask <i>xxx.xxx.xxx.xxx</i></b>	Set the sub-net per local site. This number allows external sub-nets to connect to the system.

4    Enable the new Ethernet interface.

<b>LD 137</b>	Load program
<b>dis elnk</b>	<i>Disable</i> the old IP interface values
<b>enl elnk</b>	<i>Enable</i> the new IP interface values

---

End of Procedure

---

Check for Peripheral Software Download to Core 1

Enter LD 22 and print Target peripheral software version. The Source peripheral software version was printed in “Print site data” on [page 600](#). 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.
- The system drops established calls on IPE.

Access LD 22 and print Target peripheral software version.

<b>LD 22</b>	Load program
<b>REQ</b>	PRT
<b>TYPE</b>	PSWV
<b>ISSP</b>	Print System and Patch Information



<b>SLT</b>	Print System Limits
<b>TID</b>	Print the Tape ID
<b>****</b>	Exit program

## Reconfigure I/O ports and call registers

### Procedure 200

#### Reconfiguring I/O ports and call registers

- 1 Evaluate the number of call registers and 500 telephone buffers that are configured for the system (suggested minimum values are 4500 and 1000 respectively). If changes are required, reconfigure the values in LD 17:

<b>LD 17</b>	Load program
<b>CHG</b>	
<b>CFN</b>	
<b>PARM YES</b>	
<b>500B 1000</b>	Use 1000 as a minimum value
<b>NCR 20000</b>	Use 20000 as a minimum value
<b>****</b>	Exit program

- 2 Print the Configuration Record to confirm the changes made above:

<b>LD 22</b>	Load program
<b>REQ PRT</b>	Set the print Option
<b>TYPE CFN</b>	Print the configuration
<b>****</b>	Exit program

- 3 Perform a data dump to save the customer database to the hard drive and floppy disk. Insert a blank floppy into the Core/Net 1 MMDU. The system will request this database disk when installing Core/Net 0:

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

**LD 43**                      Load program

- b. When "EDD000" appears on the terminal, insert a blank floppy and enter:

**EDD**                      To 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.

- c. When "DATADUMP COMPLETE" and "DATABASE BACKUP COMPLETE" appear on the terminal, enter:

**\*\*\*\***                      Exit program

---

**End of Procedure**

---

## **Reboot Core/Net 1**

### **Procedure 201**

#### **Rebooting Core 1**

- 1**    Unseat the CP card in Core/Net 0.
- 2**    Faceplate disable the CNI card in Core/Net 0.
- 3**    Faceplate disable the IODUC in CORE/NET 0.
- 4**    Faceplate disable Clock Controller 0 and unseat the card from the backplane.
- 5**    Seat Clock Controller 1 and Faceplate enable it.
- 6**    Press the RESET button on the CP PII card faceplate to reboot the system.

- 7 Wait for “DONE” and then “INI” messages to display before you continue.



Call processing should be active on Core/Net 1, Clock 1 is active, Clock 0 is disabled, and Network cards in Core/Net 0 are disabled.

**End of Procedure**

## Disable equipment in Core 0

### Procedure 202

#### Faceplate disabling cards in core and network slots of Core/Net 0:

- 1 Faceplate disable all core and network cards in Core/Net 0.
- 2 Set the ENB/DIS switch on the 3PE card to DIS.

**End of Procedure**

## Power down Core/Net 0



### CAUTION

#### Service Interruption

Call processing is interrupted for approximately 60 minutes while the procedures are completed.



### 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.

For AC-powered systems: set the MPDU circuit breaker located at the left end of the module to OFF (down position).

For DC-powered systems: set the breaker for the Core 0 module in the back of the column pedestal to OFF (down position).

## Remove Core 0 cables and card cage

### Procedure 203

#### Removing Core 0 cables and card cage

- 1 Label and disconnect all cables to 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 with the cards left installed.

- 7 Remove the two mounting screws at the bottom rear of the card cage that secure the card cage to the module casting.



#### CAUTION

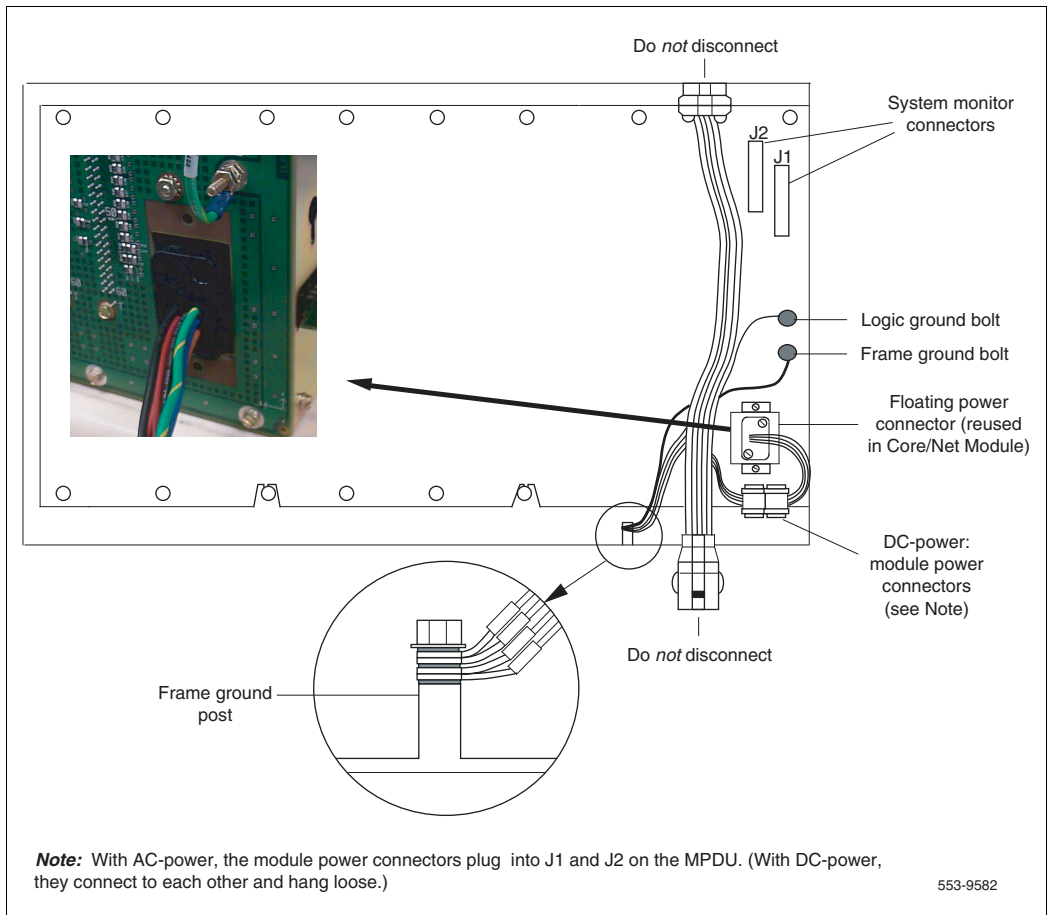
Do not drop the mounting screws into the pedestal.  
Doing so can cause serious damage.

Keep the screws for use with the CP PII card cage. (You need a 1/4" nut driver to remove the screws.)

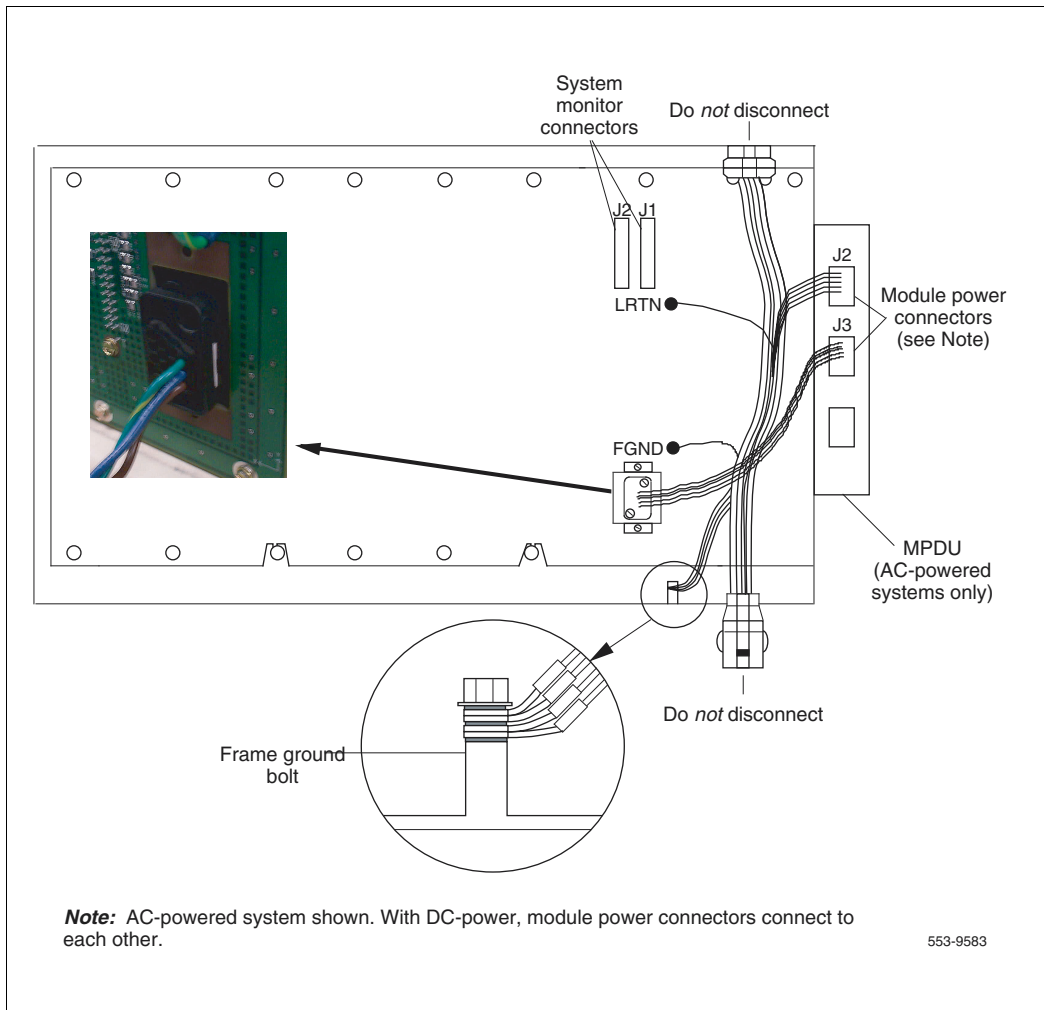
- 8 Remove the front trim panels on both sides of the card cage.
- 9 Remove the three mounting screws that secure the front of the card cage to the bottom of the module. Save the screws for use with the CP PII card cage.

- 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. For DC power connectors, see Figure 100 on page 673. For AC power connectors, see Figure 101 on page 674.

**Figure 100**  
**DC power connectors on the Core module backplane**



**Figure 101**  
**AC power connectors on the Core module backplane**



- 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 as part of installing 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 NT8D40.
  - For DC systems, relocate power harness NT7D11.

**CAUTION****Service Interruption**

Be sure to perform the following step. If you do not tape the EMI shield in position, you will not be able to install the card cage in the module correctly.

- 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****Damage to Equipment**

Check for and remove any debris (such as screws) that could have fallen into the base of the UEM module.

---

**End of Procedure**

---

## Install Core 0 hardware

### Procedure 204

#### Checking main Core card installation

The main Core cards, including the MMDU (with the cables for power and data), are installed in the factory as shown in Figure 102 on page 677.

- 1 NT4N65AB CP PII Core Network Interface (cCNI) cards:  
Each system contains one NT4N65 cCNI card per Core/Net module. The cCNI cards are located in slot c9. If not already installed, install a P0605337 CP PII Card Slot Filler Panel to cover slots c10 - c12, which do not contain cCNIs.  
  
**Note:** In the NT4N41 Core/Net module, port 0 on the NT4N65 Core to Network Interface (cCNI) Card in slot c9 must be configured as "group 0." The cCNI and 3PE cards for group 0 communicate through the NT4N29 cable. Only one cCNI card is required for group 0 in a Meridian 1 Option 61C CP PII.
- 2 Slots c13 and c14 are left empty. If not already installed, install a P0605337 CP PII Card Slot Filler Panel in each slot.
- 3 NT4N48AA System Utility (Sys Util) card is located in slot c15.
  - a. Check side ID switch settings for SU card in Core/Net 1 according to Table 92 below.

**Table 92**

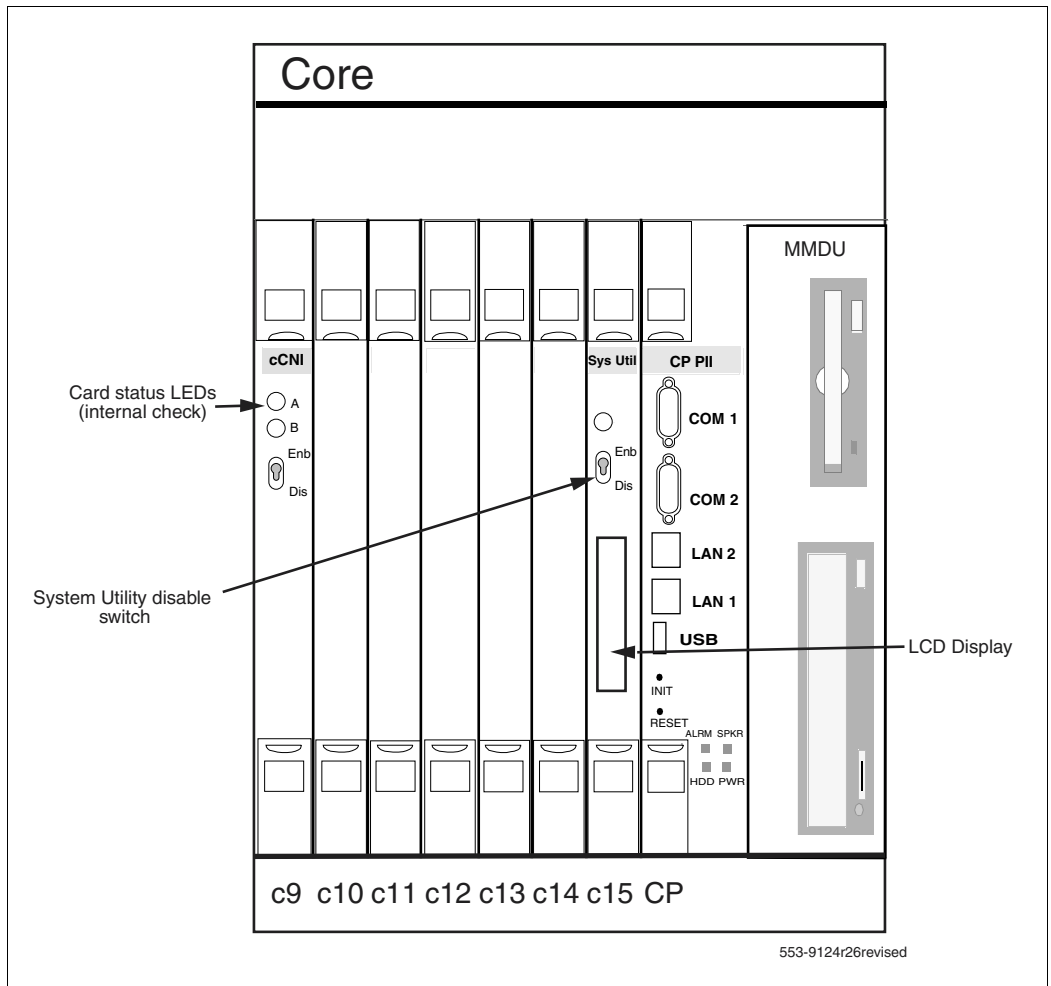
**Core module ID switch settings (System Utility card)**

	Position 1	Position 2
Core 0	On	On
Core 1	Off	On

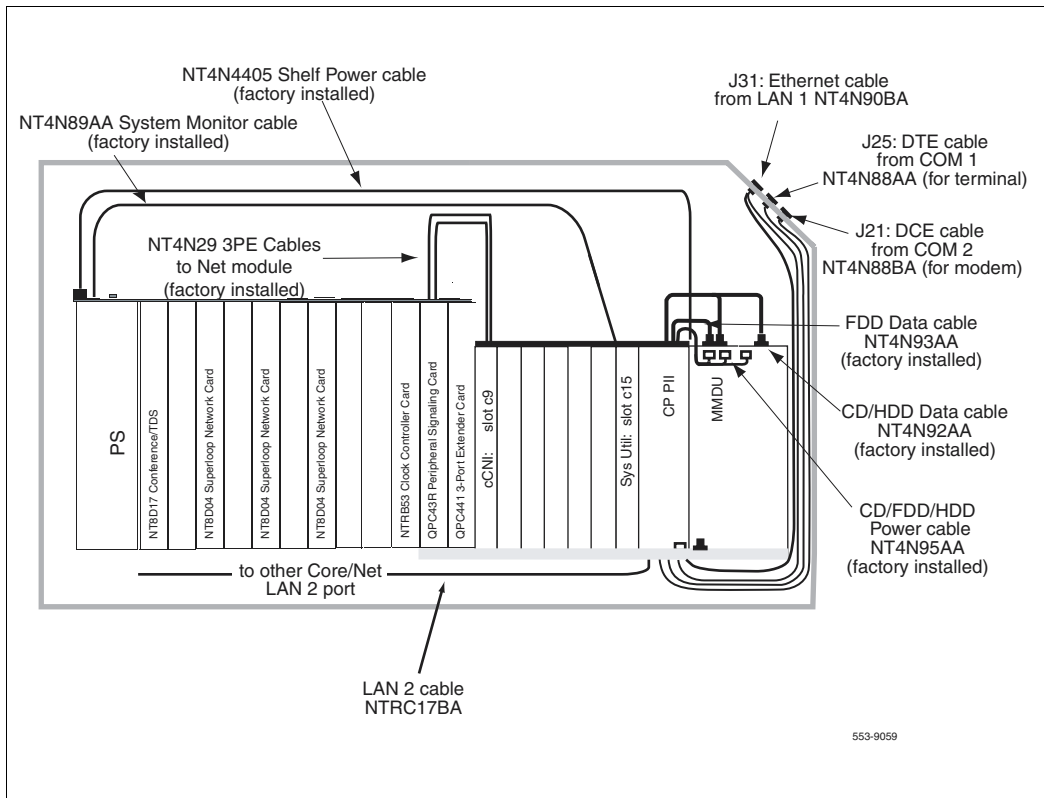
- 4 NT4N64AA CP PII is located in the Call Processor slot.
- 5 The NT4N43CA Multi-Media Disk Unit (MMDU) is located in the extreme right-hand slot next to the CP PII card. The MMDU contains the hard drive, floppy drive and CD-ROM drive. Check that the NT4N4405 shelf power cable is installed in the CP PII card cage backplane. See Figure 103 on [page 678](#) for the cable location.



**Figure 102**  
**Core card placement in the NT4N41 Core/Net Module (front)**



**Figure 103**  
**Core/Net cable connections (top view)**



## Install the CP PII card cage in Core 0

### Procedure 205

#### Installing the CP PII card cage in Core 0

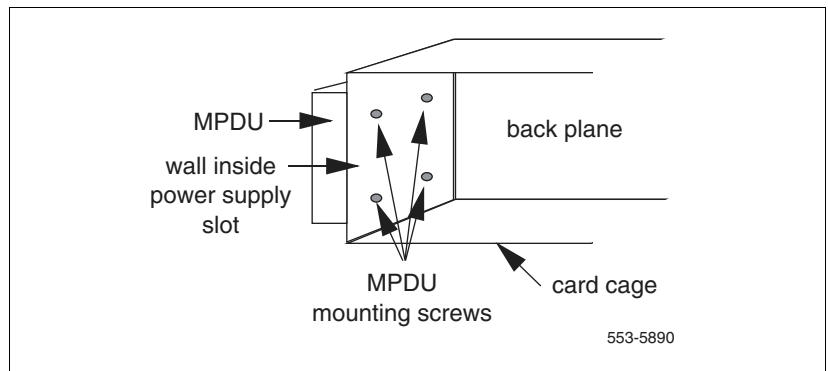
- 1 Check that the card cage is configured as Core 0. See “Core module ID switch settings (System Utility card)” on [page 676](#) for instructions.
- 2 For AC-powered systems only, install the new MPDU, part of the CP PII Upgrade kit, to the side on the NT4N40 card cage. The screws that secure the MPDU are accessible from the power supply slot. See Figure 104 on page 679.

**Note:** Pre-thread 2 bottom mounting screws at the back of the Core/Net shelf.

- 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.

**Figure 104**

**Location of the screws for the MPDU**



- 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 fell into the base of the UEM module.

- b. In DC-powered systems, connect the module power connectors to each other.
  - c. Attach the system monitor ribbon cables:
    - i. Connect the ribbon cable that goes down to the pedestal to connector J1 on the backplane.
    - ii. Connect the ribbon cable that goes up the column to J2 on the backplane.
  - d. Attach the green ground wire to the frame ground bolt on the module. (a 11/32" socket wrench is used to attach the wire.) 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, then tighten down the nut.
- Note:** For all of the wire terminals to fit on the bolt, remove one of the lock washers. Leave a lock washer at the bottom of the bolt and at the top of the bolt. Leave a third lock washer between the second and third, or the third and fourth, wire terminals.
- e. 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" or 2/8" socket wrench.)
- 6 Slide the card cage all the way 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.

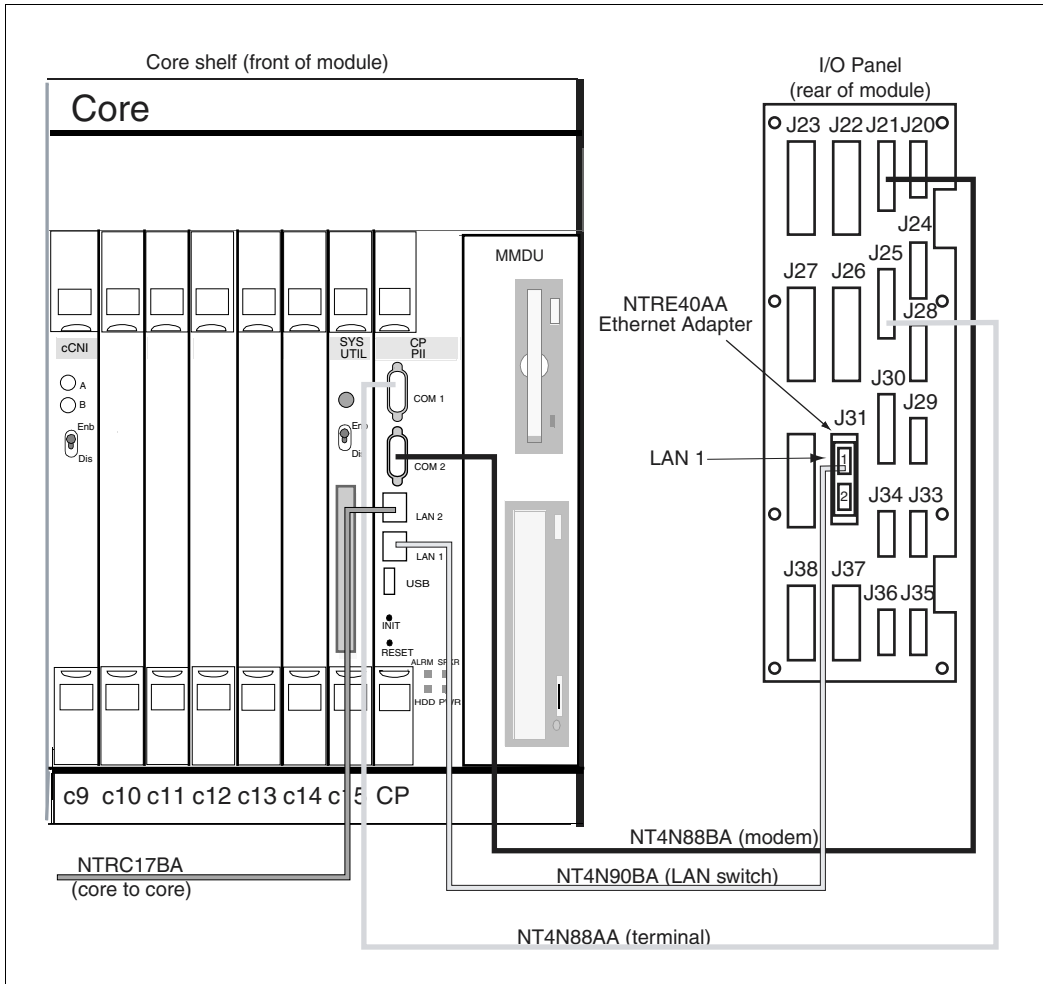
- 8** Pre-route cables NT4N88AA, NT4N88BA and NT4N90BA before you secure the card cage. (See Figure 105 on page 682.)
  - a.** Route cable NT4N88AA from COM1 on the CP PII faceplate to J25 on the I/O panel. (NT4N88AA is used to connect a terminal.)
  - b.** Route cable NT4N88BA from COM2 on the CP PII 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** At this point, do not connect the NTRC17BA crossover ethernet cable.

---

**End of Procedure**

---

## COM and LAN connections to the Core/Net I/O panel



## Install the Security Device

### Procedure 206

#### Installing the Security Device

The Security Device fits into the System Utility card (see Figure 106 on [page 684](#)).

To install the Security Device:

- 1 If the original system had an IODU/C, remove the Security Device from the IODU/C for reuse.
  - a. Unlock the latches and remove the IODU/C card.
  - b. Remove the round 1/2" diameter IODU/C Security Device from the round black Security Device holder on the top right corner of the IODU/C card.

OR

If the original system did not have an IODU/C, use the Security Device provided with the CP PII Software kit.

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.

- 2 Check that the Security Device is securely in place.

---

**End of Procedure**

---

Figure 106  
Security Device





## Relocate network cards to Core/Net 0

### Procedure 207

#### Relocating Network cards to CP PII Core 0

- 1 Remove all network cards from the Meridian 1 Option 61C Core 0.
- 2 When you move the 3PE card, check the switch settings and jumpers.  
See Table 93 below.
  - a. All 3PE cards must be vintage F or later.
  - b. Check that the RN27 Jumper is set to "A".
  - c. The settings for 3PE cards in Core/Net shelves are different from those in all other shelves: Table 93 below shows the 3PE settings for cards installed in CP PII Core/Net Modules.
- 3 Reinstall each removed card in the same network slot in the CP PII Core/Net 0.
- 4 Connect the tagged cables to the relocated cards.

**Table 93**

**QPC441 (QPC440) 3PE Card installed in the CP PII Core/Net modules**

<b>Jumper Settings:</b> Set Jumper RN27 at E35 to "A".									
Switch Settings									
Module		D20 switch position							
CP PII Core/Net modules only		1	2	3	4	5	6	7	8
Core/Net 0 (Shelf 0)	Group 0	off	on	on	off	on	on	on	on
Core/Net 1 (Shelf 1)	Group 0	off	on	on	off	on	on	on	off

**End of Procedure**

**Procedure 208**  
**Moving Clock Controller 0**



**CAUTION**

**Service Interruption**

Move only Clock Controller 0 at this point in the upgrade.

- 1 Label and disconnect the Clock Controller 0.
- 2 Disconnect the NT8D76AC cable from the Clock Controller 0 faceplate card.
- 3 If primary and secondary clock reference cables are connected to the Clock Controller 0 faceplate, disconnect them last.
- 4 Set the Clock Controller 0 switch settings according to Table 94 on [page 687](#) (QPC471H, QPC771H) and Table 95 on [page 688](#) (NTRB53).
- 5 Disable any ISDN PRI card in the Core module.



The active side Core/Net 1 registers all Network cards in Core/Net 0 as disabled.

- 6 Place Clock Controller 0 in Group 0 Network Shelf 0, slot 9.
- 7 Seat the Clock Controller 0 and faceplate enable the card.

**8** Reconnect all reference cables and clock to clock cable.

**Table 94**  
**Clock Controller switch settings for QPC471H, QPC771H**

Systems upgraded to CP PII must use the Meridian 1 Option 61C CP PII switch settings to enable Clock Hunt software. Use the settings in this table.											
SW1				SW2				SW4			
1	2	3	4	1	2	3	4	1	2	3	4
on	on	on	on	off	off	off	off	**	on	*	*
*Total cable length between the J3 faceplate connectors:											
0–4.3 m (0–14 ft.)										off	off
4.6–6.1 m (15–20 ft.)										off	on
6.4–10.1 m (21–33 ft.)										on	off
10.4–15.2 m (34–50 ft.)										on	on
** Set to ON for Clock Controller 0. Set to OFF for Clock Controller 1.											

**Table 95**  
**Clock Controller switch settings for NTRB53**

Multi-group Single group	Machine Type #1	Faceplate Cable Length CC to CC			Side Number	Machine Type #2
1	2	3	4		5	6
Multi-group = Off  Single group = On	21E = Off  51, 61, 51C, 61C 71, 81, 81C = On	Off	Off	0-14 Ft.	Side 0 = On  Side 1 = Off	71,81 = Off  21E, 51, 51C, 61. 61C, 81C = On
		Off	On			
		On	Off			
		On	On			

————— End of Procedure —————

## Cable Core 0

### Inspect the NT4N29 cables

The NT4N29 cables must be installed for existing Network group 0. If the system has XSDI cards, reinstall the cards and attach the cables. See Figure 107 on [page 689](#).

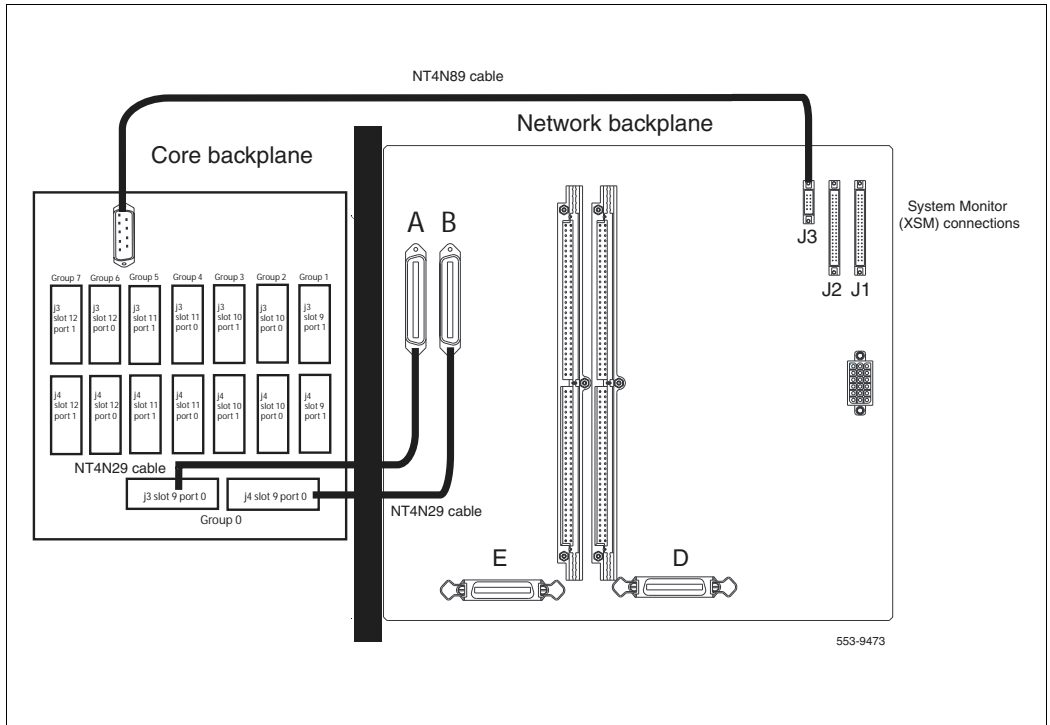
### Install intermodule cables

#### Procedure 209

#### Installing intermodule cables

- 1    Locate and unpack 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 107 on [page 689](#)).

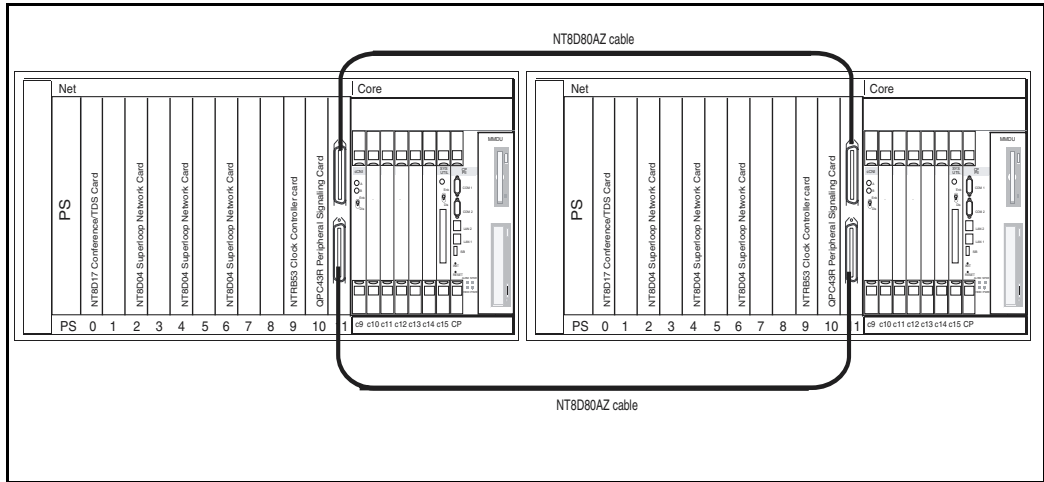
**Figure 107**  
**Fanout Panel connections on the CP PII Core/Net backplane**



- 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 108 on [page 690](#)).

**End of Procedure**

**Figure 108**  
**3PE card connections**



## Unpack and install the power supply

### Procedure 210

#### Installing the NT6D41CA (DC) or NT8D29BA (AC) power supply

- 1 Unpack the power supply.
- 2 Faceplate disable the power supply.
- 3 Insert power supply into Core/Net module power supply slot.

————— End of Procedure —————

## Connect LAN 1

The LAN 1 port is used to enable redundancy features between the two Core/Net modules. LAN 1 can also be connected to a local area network (LAN) for use with LAN based administration tools such as OTM.

The options for the LAN 1 connections are shown in Figure 109 on page 692.

**Procedure 211****If the system is connected to a LAN**

- 1** Connect the “Dual Ethernet Adapter (RJ45) for I/O Panel” (NTRE40AA) to J31. Secure the adapter to J31 with the two screws included in the shipment. Insert the adapter from the inside of the I/O panel.
- 2** Connect LAN 1 (Ethernet) on the CP PII faceplate to J31 (top) of the I/O panel with cable NT4N90BA. This connection can only be made *after* the Dual Ethernet Adapter is installed (see step 1 above).
- 3** Connect J31 to a LAN switch.

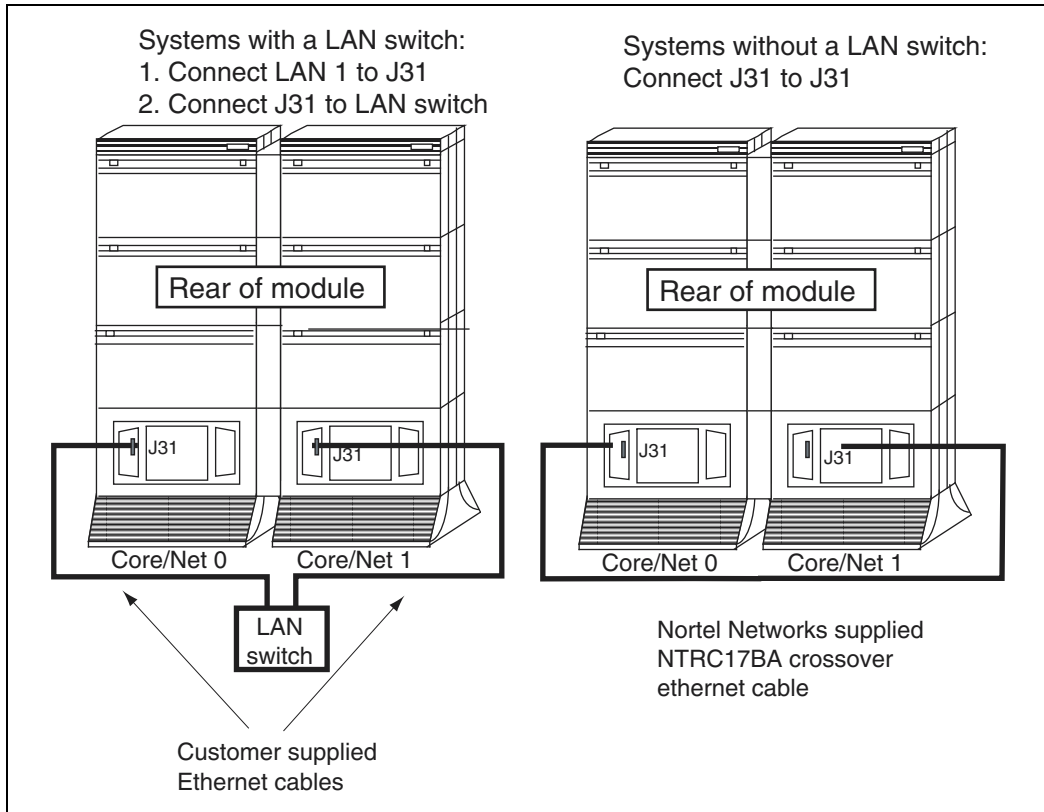
**Note:** If a LAN switch is not available, connect J31 of Core 0 to J31 of Core 1 by NTRC17BA cable.

---

**End of Procedure**

---

**Figure 109**  
**Options for LAN 1 connection**



## Power up Core 0

### Procedure 212 Preparing for power up

- 1 Confirm that a terminal is connected to the J25 I/O panel connector on Core/Net 0.

**Note:** A maintenance terminal is required to access the Core/Net modules during the upgrade.

- 2 Connect a terminal to the J25 port on the I/O panel in Core 0.



**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, the terminal will have to 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 all core and network cards.

---

**End of Procedure**

---

**Power up Core cards****Procedure 213****Powering up core cards**

- 1** Disconnect NTRC17BA crossover ethernet cable from the faceplate of CPU 0.
- 2** For AC-powered systems (NT8D29BA): set the MPDU circuit breaker located at the left end of the module to ON (top position).
- 3** For DC-powered systems: faceplate enable the NT6D41CA power supply and then set the breaker for the Core 0 module in the back of the column pedestal to ON (top position).
- 4** 10 seconds after power up of Core/Net 0, press the INI button on Core/Net 1.

- 5    Wait for the system to load and initialize.



Core/Net 1 is now active. All network cards in Core/Net 0 and Core/Net 1 are enabled. Call processing is resumed.

---

**End of Procedure**

---

**Test Core/Net 1**

**Procedure 214**

**Testing Core/Net 1**

- 1    Stat network cards:

**LD 32**

**STAT x**                      x = loop number

\*\*\*\*                      Exit program

- 2    Test the clocks:

- a.    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**                      To 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

\*\*\*\*                      Exit program

- 3 Check dial-tone.
- 4 Make internal, external and network calls.
- 5 Check attendant console activity.
- 6 Check DID trunks.
- 7 Check applications (Call Pilot, Symposium, Meridian Mail, etc.).
- 8 Label a blank floppy disk as customer database disk and insert into Core/Net 1.
- 9 Perform data dump in LD 43:
  - a. Load the Equipment Data Dump Program (LD 43). At the prompt, enter:  
  
**LD 43**            Load program
  - b. When "EDD000" appears on the terminal, enter:  
  
**EDD**            To 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.

When "DATADUMP COMPLETE" and "DATABASE BACKUP COMPLETE" appear on the terminal, enter,

\*\*\*\*            Exit program



Service is now fully restored with Core/Net 1 as the active call processor.

---

**End of Procedure**

---

## Install software and customer database on Core 0

### Procedure 215

#### Installing the software and customer 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 Core/Net 0 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 in Core/Net 0. 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!

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

System Date and Time now is:

Day 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.

#### MAIN 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> -> <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 install floppy disk at this time and insert keycode diskette.

- 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: 2540 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 2540 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.

**IMPORTANT!**

Remove keycode floppy disk at this time and insert backup customer database diskette from Step 10 of Procedure 214 on [page 694](#).

**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: 2540 to the hard disk on Core X. release: 2540.

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...

**Note:** Before completing the next procedure, wait for Core/Net 0 to INI.

---

**End of Procedure**

---

## Make the system redundant

### Procedure 216

#### Enabling system redundancy

- 1 Connect NTRC17BA from LAN 2 of Core/Net 1 to Lan 2 of Core/Net 0.
- 2 Initialize (INI) Core/Net 0.



Once the INI is complete on the *inactive* Core (Core/Net 0), the system will operate in full redundant mode with Core/Net 1 active.

---

End of Procedure

---

## Complete the CP PII upgrade

### Procedure 217

#### Connecting the system monitor to Core/Net 0

- 1 Connect the system monitor to the rear of the pedestal.
- 2 For the Core column, connect J3 and J4 cables to the system monitor.

**Note:** Do *not* turn off the blower units in the front of the pedestals.

---

End of Procedure

---

**Procedure 218**  
**Testing Core/Net 1**

**From Core/Net 1**, perform these tests:

- 1** Perform a redundancy sanity test:

**LD 135**

**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 and LCDs:

**LD 135**

**TEST LEDs**      Test LEDs

**DSPL 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:

<b>LD 137</b>	Load program
<b>TEST RDUN</b>	Test redundancy
<b>DATA RDUN</b>	
<b>TEST CMDU</b>	Test the MMDU card

5    Test that the system monitors are working:

<b>LD 37</b>	Load program
<b>ENL TTY x</b>	x= system XMS
<b>STAT XSM</b>	Check the system monitors
<b>****</b>	Exit program

6    Clear the display and minor alarms on both Cores:

<b>LD 135</b>	Load program
<b>CDSP</b>	Clear the displays on the cores
<b>CMAJ</b>	Clear major alarms
<b>CMIN ALL</b>	Clear minor alarms

**7 Test the clocks:**

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

<b>LD 60</b>	Load program
<b>SSCK <i>x</i></b>	To get the status of the clock controllers ( <i>x</i> is “0” or “1” for Clock 0 or Clock 1)
<b>SWCK</b>	To switch the Clock (if necessary)
<b>****</b>	Exit program

- b.** Verify that the Clock Controllers are switching correctly.

<b>SWCK</b>	Switch the Clock
<b>SWCK</b>	Switch the Clock again

**8 Check dial tone.****9 Check applications (Call Pilot, Symposium, Meridian Mail, etc.)**

---

**End of Procedure**

---

**Switch call processing****Procedure 219****Switching call processing**

<b>LD 135</b>	Load program
<b>SCPU</b>	Switch call processing from CoreNet 1 to CoreNet 0



Core/Net 1 will INI and Core/Net 0 will become the active call processor.

---

**End of Procedure**

---

**Procedure 220**  
**Testing Core/Net 0**

**From Core/Net 0**, perform these tests:

- 1**    Perform a redundancy sanity test:

<b>LD 135</b>	Load program
<b>STAT CPU</b>	Get status of CPU and memory
<b>TEST CPU</b>	Test the CPU

- 2**    Check the LCD states.

**a.**    Perform a visual check of the LCDs.

**b.**    Test LCDs:

<b>LD 135</b>	Load program
<b>TEST LCDs</b>	Test LCDs

**DSPL ALL**

**c.**    Check that the LCD display matches the software check.

- 3**    Test the System Utility cards and the cCNI cards:

<b>LD 135</b>	Load program
<b>STAT SUTL</b>	Get the status of the System Utility (main and Transition) cards
<b>TEST SUTL</b>	Test the System Utility (main and Transition) cards
<b>STAT CNI c s</b>	Get status of cCNI cards (core, slot)
<b>TEST CNI c s</b>	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** Test that the system monitors are working:**LD 37** Load program**STAT XSM** Check the system monitors**\*\*\*\*** Exit the 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**        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    Check dial tone.
- 9    Check applications (Call Pilot, Symposium, Meridian Mail, etc.)

---

**End of Procedure**

---

## **Perform a data dump**

### **Procedure 221**

#### **Performing a data dump to backup the customer database:**

- 1    Log into the system.
- 2    Load the Equipment Data Dump Program (LD 43). At the prompt, enter  
  
          **LD 43**            Load program.
- 3    Insert a floppy disk into Core 0's MMDU to back up the database.
- 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

---

**End of Procedure**

---

## Meridian 1 Option 61C upgrade to Option 81C CP PII/FNF

The source platform for this procedure is the Meridian Option 61C CP1, CP2, CP3, CP4 with NT5D21 or NT9D11 shelves.



### **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.

The target upgrade, Meridian 1 Option 81C CP PII with FNF, must meet the requirements of Product Bulletins P2002-1658-NA, PAA-2003-0199-NA, and 2000-047 rev 1. These bulletins provide information on:

- NTRB53AA Clock Controller requirement
- NT5D12AC, AD, and AG (1.54MB) support
- NT5D97AB, AD (2.0MB) support

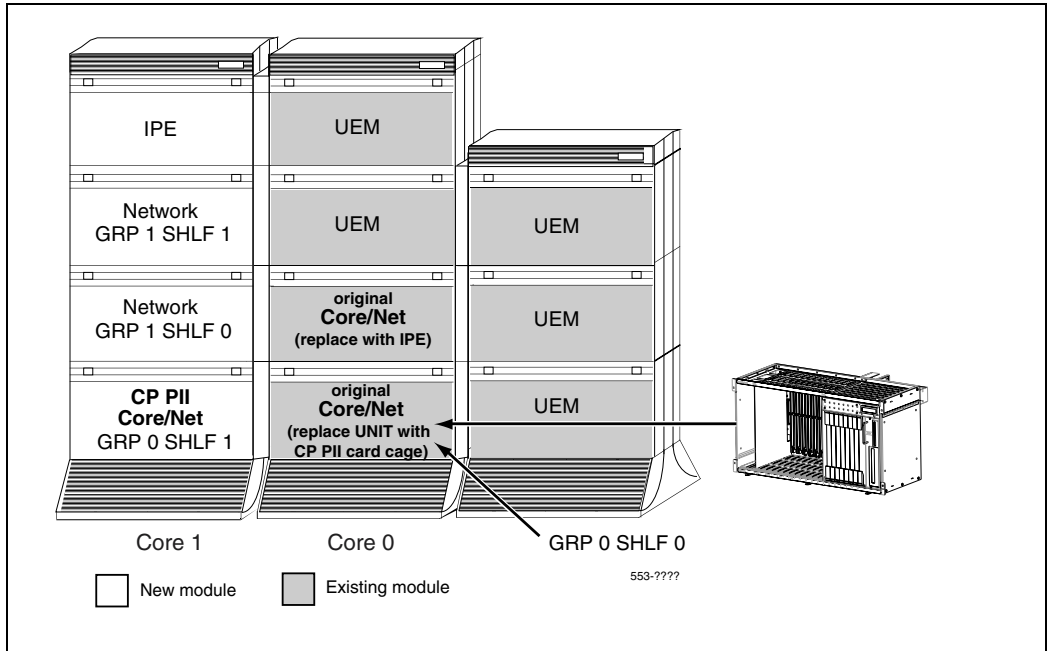


### **IMPORTANT!**

Both NTRC46 cables must be the same length.

Figure 87 on page 591 shows an upgrade from a Meridian 1 Option 61C to Meridian 1 Option 81C with CP PII and Fiber Network Fabric.

**Figure 110**  
**Meridian 1 Option 61C to Meridian 1 Option 81C CP PII with FNF**



Meridian 1 Option 61C can be upgraded to Meridian 1 Option 81C with both CP PII and Fiber Network Fabric. Upgrades from Meridian 1 Options 61/61C to Fiber Network Fabric alone are not supported.

The procedures in this chapter upgrade a Meridian 1 Option 61C to a two group Meridian 1 Option 81C CP PII with Fiber Network Fiber. Additional groups can be added by following the procedure “Adding a Network Group” of Book 3.

To upgrade a Meridian 1 Option 61C system to a Meridian 1 Option 81C CP PII with Fiber Network Fabric:

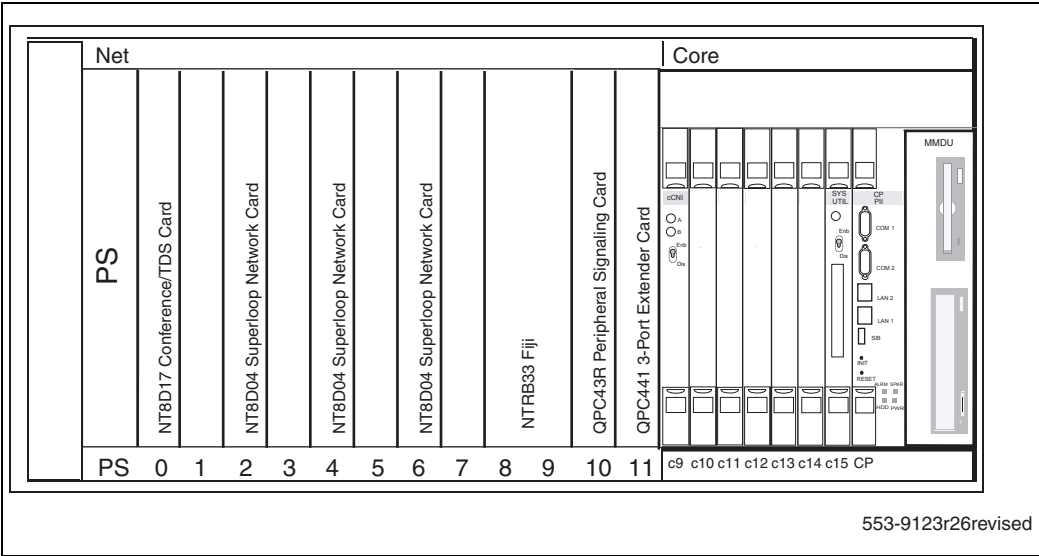
- One card cage in the existing Core/Net module is replaced with an NT4N40 CP PII card cage. The NT4N41 Core/Net module is also required.

- The CP PII Core/Net modules are side by side directly on top of the pedestals. This ensures power and cooling redundancy as well as proper cooling from the pedestal fans.
- New CP PII cards are located in the Core/Net modules or card cage.
- Existing network cards are relocated to the CP PII card cages.
- Two new Group 1 Network modules are installed on top of the new CP PII Core/Net 1 module. This provides the new system with a minimum of two full Network groups.
- The existing Clock Controllers are moved from the Core/Net to the Network shelves.

**Note:** Clock Controller cards must be NTRB53AA.

- Cards for Fiber Network Fabric are added: NTRB33 Fiber Junctor Interface (FJI) card and the NTRE39 Optical Cable Management Card (OCMC).
- An IPE module can be installed on top of CP PII Core/Net 0 module.

**Figure 111**  
**CP PII Core/Net Module**



553-9123r26revised

## 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 96 below:

**Table 96**  
**Prepare for upgrade steps**

<b>Procedure Step</b>	<b>Page</b>
Plan upgrade	<a href="#">722</a>
Upgrade Checklists	<a href="#">722</a>
Prepare	<a href="#">722</a>
Identifying the proper procedure	<a href="#">723</a>
Connect a terminal	<a href="#">724</a>
Check the Core ID switches	<a href="#">725</a>
Print site data	<a href="#">727</a>
Perform a template audit	<a href="#">730</a>
Back up the database (data dump and ABKO)	<a href="#">731</a>
Identify two unique IP addresses	<a href="#">735</a>
Check requirements for cCNI to 3PE cables (NTND14)	<a href="#">735</a>

## 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](#) of Book 3. 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](#)).
- 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 222

#### 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/O 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 223

#### 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 — Service Interruption

The CP PII Core/Net card cages **MUST** be installed in the correct Core 0 or Core 1 module.

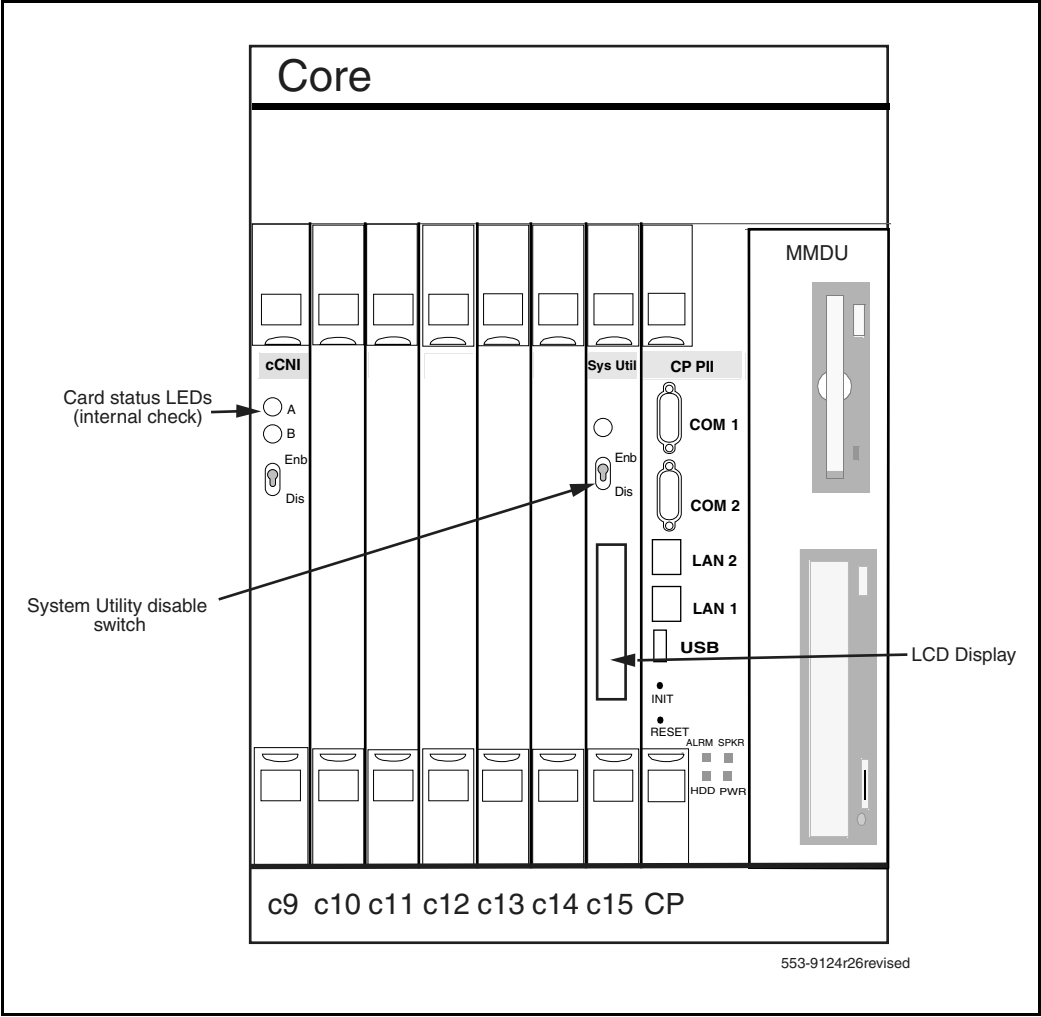
- 1 Pull the System Utility card (NT4N48) far enough out of its slot so you can see the ID switch settings.
- 2 Check and confirm the switch settings according to Table 97.
- 3 Reinstall the System Utility card.
  - a. Gently slide the card into the slot until it makes contact with the backplane. Never 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

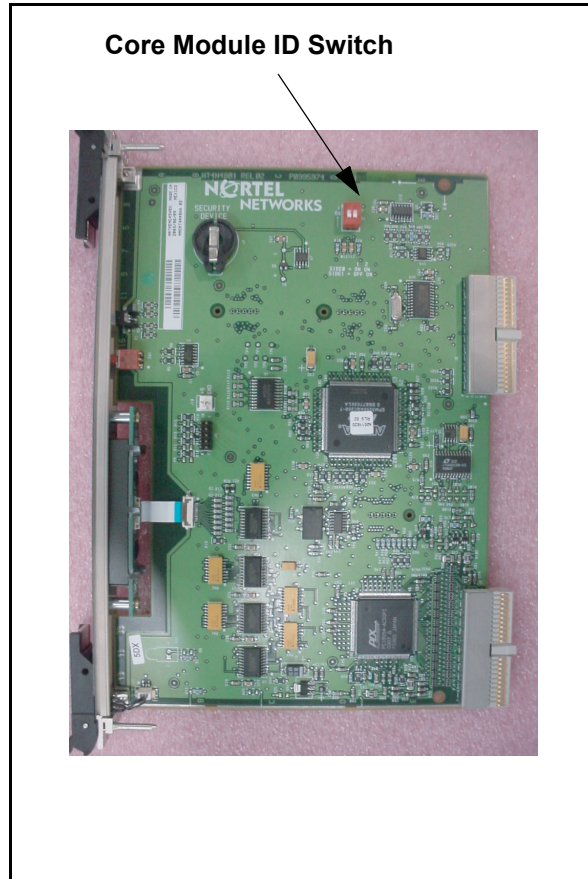
**Table 97**  
**Core module ID switch settings (System Utility card)**

	Position 1	Position 2
Core 0	On	On
Core 1	Off	On

**Figure 112**  
**Core card placement in the NT4N40 Core/Net card cage (front)**



**Figure 113**  
**Core Module ID switch**



## **Print site data**

Print site data to preserve a record of the system configuration (Table 98 on [page 728](#)). 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 98**  
**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>
*Configuration Record	LD 22	
	REQ	PRT
	TYPE	CFN

**Table 98**  
**Print site data (Part 2 of 3)**

Site data	Print command	
*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 98  
Print site data (Part 3 of 3)

Site data	Print command	
DTI/PRI data block for all customers	LD 73	
	REQ	PRT
	TYPE	DDB
<b>Note:</b> 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     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 224**  
**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 225

#### 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 226****Converting 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. See "Database transfer" on [page 179](#) of Book 3.

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 MB 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 System Administrator to identify two unique IP addresses before the upgrade.
- For instructions to configure these IP numbers, see “Configuring IP addresses” on [page 667](#).

## 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:



### 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.

## Perform upgrade

### Review upgrade requirements

This section describes the **minimum** equipment required for CP PII. Additional equipment can also be installed during the upgrade. Verify that *all* equipment has been received.

#### Check equipment received

Before the upgrade, check that the equipment on the order form is also on the packing slip. Check that all equipment has been received. If any items are missing, contact your supplier for replacements before you begin the upgrade.



#### CAUTION

##### Service Interruption

DO NOT proceed with the upgrade if any of the required equipment is missing. All equipment must be received to complete the upgrade.

#### Check required software

The following software packages are required to upgrade a system to Meridian 1 Option 81C with CP PII:

- Succession 3.0 Software
- CPP\_CNI CP Pentium Backplane for Intel Machine Package 368
- CORENET Core Network Module Package 299
- FIBN Fiber Network Package 365
- Software Install Kit

## Check vintage requirements for existing hardware

Check the list below to make sure that existing hardware meets the minimum vintage requirements for CP PII.

If any of the equipment listed does not meet the requirements, replace the equipment before you begin the upgrade.



### CAUTION

#### Service Interruption

Equipment that does not meet the minimum vintage requirements will cause system malfunctions and loss of call processing.

- The QPC441 3-Port Extender (3PE) cards must be minimum vintage F.
- The NTRB53 Clock Controller cards must be minimum vintage A.
- If the Clock Controllers are moved in Meridian 1 Option 61/61C systems, the new Clock Controller reference cables must be the correct length. Order new NT8D79 or NTCG03 PRI/DTI to Clock Controller cables if necessary.

**Note:** QPC720 PRI cards require NT8D79 cables. NT5D12 Dual PRI/DTI cards require NTCG03 cables.

- The QPC43 Peripheral Signaling cards must be minimum vintage R.

## Check required hardware

Table 99 below describes the *minimum* equipment required to upgrade a system to CP PII. Additional equipment for increased Network capacity is ordered separately.

**Table 99****Minimum requirements for Meridian 1 Option 81C CP PII system with FNF (Part 1 of 2)**

<b>Order Number</b>	<b>Description</b>	<b>Quantity</b>
NT4N40AA	Card Cage, cPCI Core/Network AC or DC	1
NT4N41	Module, cPCI Core/Network AC or DC	1
NT4N43CA	Disk Unit, Multi-Media	2
NT4N48AA	Card, cPCI System Utility	2
NT4N64AA	Pack, CPP Processor with 256 MBytes Memory	2
NT4N65AB	Card, cPCI Core Network Interface (2 Ports)	2
NT4N88AA	Cable, CP PII to I/O Panel DTE, 48 in.	2
NT4N88BA	Cable, CP PII to I/O Panel DCE, 48 in.	2
NT4N90BA	Cable, CP PII to I/O Panel Ethernet, 48 in.	2
NT7D00	Top Cap AC or DC	1
NT7D06AA	Blank Faceplate, 2.75 in., dummy panel for NTKW Module	2
NT8D17HB	Pack, Conference, Tone & Digit Switch, (CT)	2
NT8D22AC	Pack, System Monitor (SM)	1
NT8D35	Module, Network (NET) AC or DC	2
NT8D46AL	Cable, System Monitor Serial Link, 7 ft.	1
NT8D46AS	Cable, System Monitor CPU Internal, 30 in.	1
NT8D49AA	Kit, Multi-column Expansion	2
NT8D99AB	Cable, Network to Network, 2 ft.	5
NT8D99AD	Cable, Core Network to Core Network, 6 ft.	2
NTND14BA	Cable, cCNI to 3PE, 6 ft.	2
NTND14BB	Cable, cCNI to 3PE, 10 ft.	2
NTRB33AD	Card, fiber Junctor Interface (FIJI)	4

**Table 99**  
**Minimum requirements for Meridian 1 Option 81C CP PII system with FNF (Part 2 of 2)**

<b>Order Number</b>	<b>Description</b>	<b>Quantity</b>
NTRC46BC	Cable, Clock to FIJI, 5.5 ft. – 8 ft.	2
NTRC17BA	Cable, CP PII Ethernet to Ethernet, 8.5 ft./3 meter	2
NTRC47AA	Cable, FIJI to FIJI Sync, 5 ft.	1
NTRC48AA	Cable, FIJI to FIJI fiber Ring, 6 ft./2 meter	4
NTRC49AA	Cable, Fiber Network Clock-Clock Sync, 6 ft.	1
NTRD25AA/ NT4N57AA	Assembly, Pedestal AC or DC	1
NTRE39AA	Card, Optical Cable Management (OCMC)	2
NTRE40AA	Adapter Assembly, I/O Panel Dual Ethernet, RJ45 (CP PII to ELAN Interface)	2
P0712003	Package, Instruction	1
P0605337	Panel, cPCI Card Slot Filler	4
QPC43R	Pack, Peripheral Signaling, (PS)	2
QPC441F	Pack, Three Port Extender, (3PE)	2

### Check required power equipment

Table 100 below lists the equipment required for DC-powered systems.

Table 101 on [page 740](#) lists the equipment required for AC-powered systems.

**Table 100**

#### DC power requirements for Meridian 1 Option 81C upgrades

Order number	Description	Quantity per system
NT6D41CA	Core/Network Power Supply DC	2
NT4N97BA	CP PII Upgrade Kit DC (Misc. Card Cage Components)	1

**Table 101**

#### AC power requirements for Meridian 1 Option 81C upgrades

Order number	Description	Quantity per system
NT8D29BA	Core/Network Power Supply AC	2
NT4N97AA	CP PII Upgrade Kit AC (Misc. Card Cage Components)	1

### Check required tools

For standard tools required see Table 3 on [page 26](#).

### Check personnel requirements

Nortel Networks recommends that a minimum of two people perform the card cage upgrade.

## Install Core/Net 1 hardware

Install the NT4N41 Core/Net module and pedestal next to the existing column. For information on AC/DC power, side panels and emf spacers (placing the fourth module on a column), refer to the appropriate chapters in *Large System: Installation and Configuration* (553-3021-210).



**Procedure 227****Checking main Core card installation**

The main Core cards including the MMDU (with the cables for power and data), are installed in the factory as shown in Figure 114 on [page 743](#):

- 1 NT4N65AB CP PII Core Network Interface (cCNI) cards:  
Each system contains one NT4N65 cCNI card per Core/Net module. The cCNI cards are located in slot c9. If not already installed, install a P0605337 CP PII Card Slot Filler Panel to cover slots c10 - c12, which do not contain cCNIs.

**Note:** In the NT4N41 Core/Net module, port 0 on the NT4N65 Core to Network Interface (cCNI) Card in slot c9 must be configured as “group 0.” The cCNI and 3PE cards for group 0 communicate through the NT4N29 cable. Only one cCNI card is required for group 0 in a Meridian 1 Option 61C CP PII.

- 2 Slots c13 and c14 are left empty. If not already installed, install a P0605337 CP PII Card Slot Filler Panel in each slot.
- 3 NT4N48AA System Utility (Sys Util) card is located in slot c15.
  - a. Check side ID switch settings for SU card in Core/Net 1 according to Table 102 below.

**Table 102****Core module ID switch settings (System Utility card)**

	Position 1	Position 2
Core/Net 0	On	On
Core/Net 1	Off	On

- 4 NT4N64AA CP PII is located in the Call Processor slot.
- 5 The NT4N43CA Multi-Media Disk Unit (MMDU) is located in the extreme right-hand slot next to the CP PII card. The MMDU contains the hard drive, floppy drive and CD-ROM drive.

---

**End of Procedure**

---

## Check for the shelf power cable

Check that the NT4N4405 Shelf Power Cable is installed in the CP PII card cage backplane. See Figure 93 on page 631 for cable location.

### Procedure 228

#### Check that the Network cards are installed

- 1 Check that the Network cards are installed in Network shelves as shown in the system layout.
- 2 Check that the DC or AC power supply is installed in the Network Shelf 0 and 1.
- 3 Check that the cards in the network side of the CP PII Core/Net Module are installed according to the system layout. See Figure 116 on [page 745](#).
  - The NTRB33 Fiber Junctor Interface (FJI) card is a double width card located either in slots 2 and 3 of each Network module, or in slots 8 and 9 in each Core/Net shelf. Do not seat the FIJs yet.
  - The NTRE39 Optical Cable Management Card (OCMC) is a single width card installed between the power supply and slot 1 of a Network module.
- 4 Check that the power supply (NT6D41CA (DC) or NT8D29BA (AC)) is installed in the Core/Net Shelf.

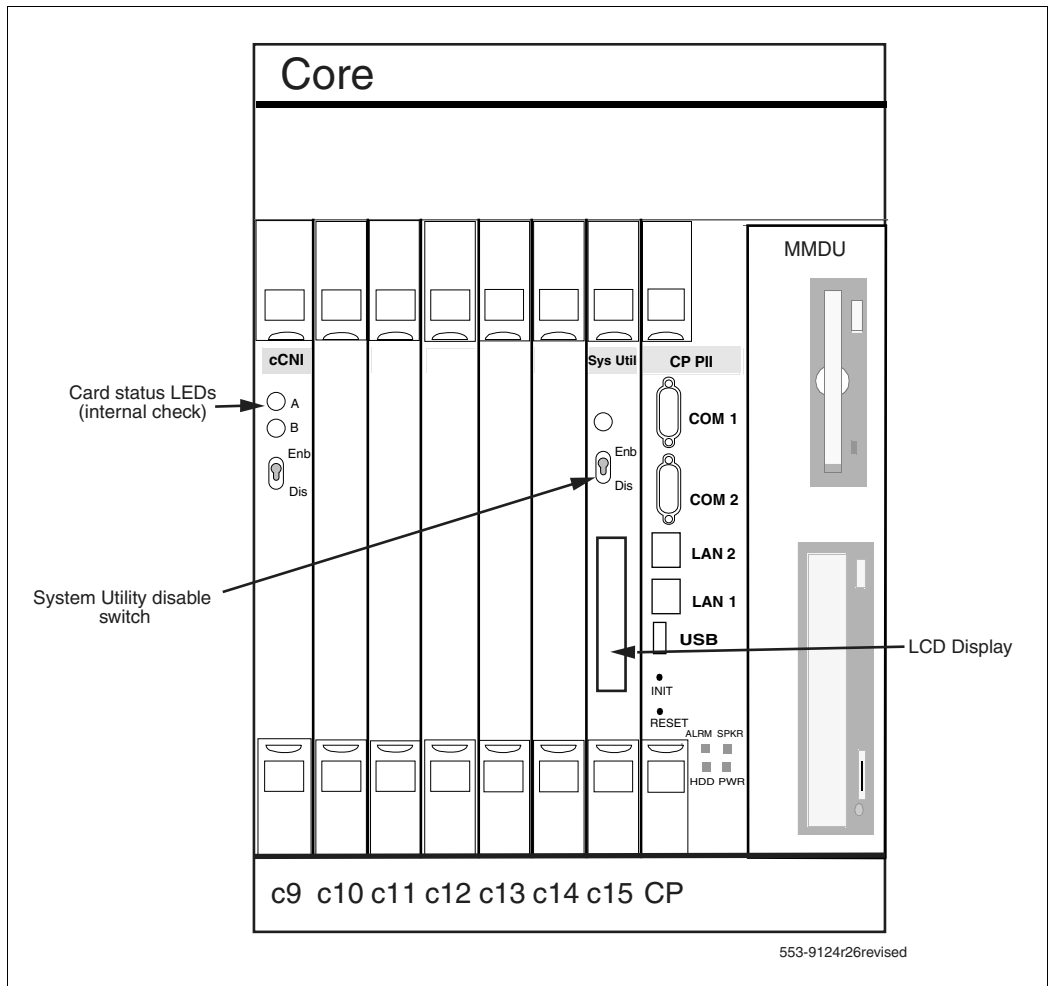
**Note:** Do NOT mix power supplies from the Network Shelf with the Core/Net shelf.

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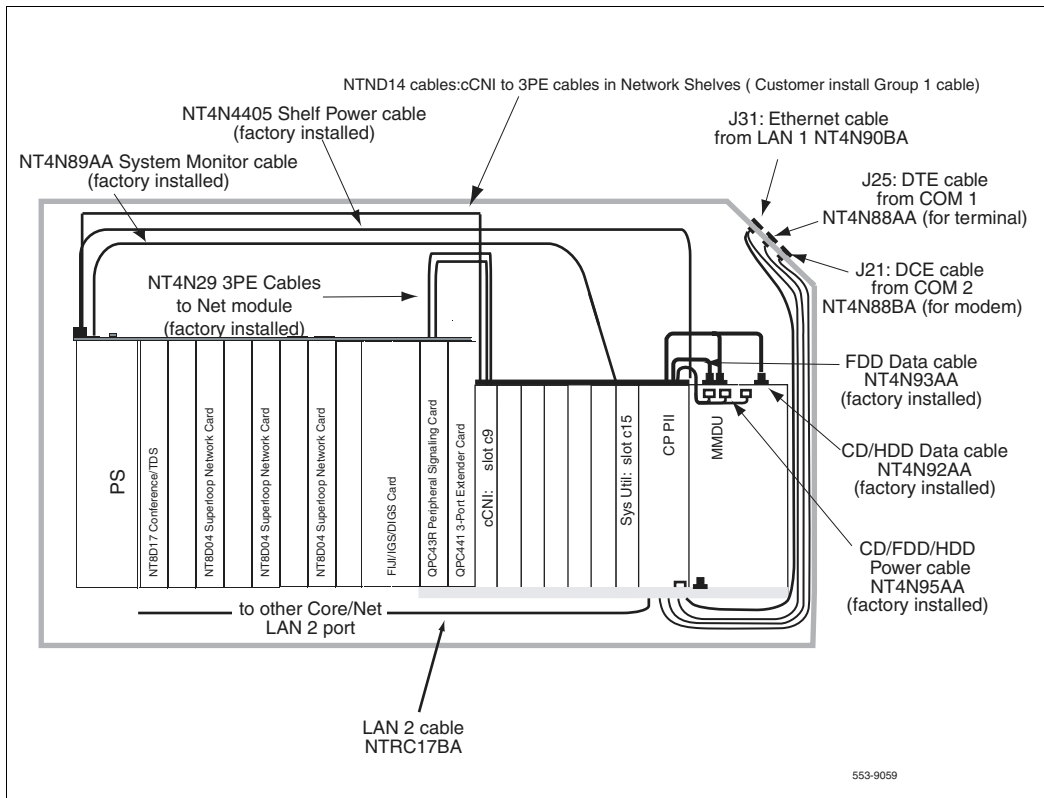
**End of Procedure**

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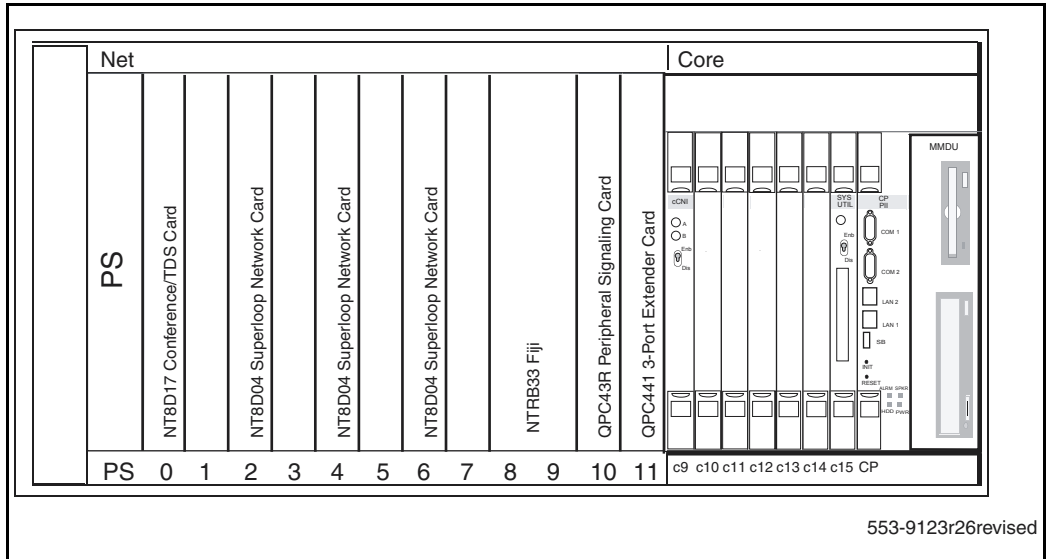
**Figure 114**  
**Core card placement in the NT4N41 Core/Net Module (front)**



**Figure 115**  
**Core/Net cable connections**



**Figure 116**  
**Card layout in the CP PII Core/Net Module**



## Disable Core 1

## Check that Core 0 is active

To upgrade Core 1, verify that Core 0 is the active side performing call processing.

**Procedure 229**

**Verify that Core 0 is performing call processing**

- 1    Verify that Core 0 is active.

**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 (if necessary)

**\*\*\*\***            Exit program

---

**End of Procedure**

---

**Procedure 230**

**Checking 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**            Switch to Clock Controller 0 (if necessary)

**DIS CC 1**        Disable Clock Controller 1

**\*\*\*\***            Exit program

- 3    Faceplate disable Clock Controller 1.

**Split the Cores**

- 1    In Core 0, set the NORM/MAINT switch on the Call Processor card to MAINT.
- 2    In Core 1, set the ENB/DIS switch on all NT6D65 cCNI cards to DIS.

- 3 In Core 1, set the NORM/MAINT switch on the Call Processor card to MAINT.

---

**End of Procedure**

---



The system is now in split mode, with call processing on Core 0.

## Disable and remove equipment from Core 1

### Procedure 231 Moving Clock Controller 1

**CAUTION**

Clock controller cards must be NTRB53 Clock Controller cards.

**CAUTION****Service Interruption**

Move only Clock Controller 1 at this point in the upgrade.  
Do not move Clock Controller 0 at this time.

If the system has a QPC Clock Controller, replace it with NTRB53 Clock Controller (factory installed in Network Shelf 1, group 1, slot 13) and verify settings according to Table 103 on [page 748](#).

If the system has an NTRB53 Clock Controller, it must be moved from Core/Net 1 slot 9 to network shelf 1, group 1, slot 13.

- 1 Label and disconnect the Clock Controller 1.
- 2 Disconnect the cable from the Clock Controller 1 faceplate card.
- 3 If primary and secondary clock reference cables are connected to the Clock Controller 1 faceplate, disconnect them last.

- 4 Remove Clock Controller 1 from the Core module.
- 5 Set the Clock Controller 1 switch settings according to and Table 103 below.
- 6 Place Clock Controller 1 in Group 1 Network Shelf 1, slot 13. Do **not** seat the Clock Controller 1 and do **not** faceplate enable the card.
- 7 Re-connect all reference cables.

**Note:** The Clock Controllers (0 and 1) must be located in group 1. If in the future the Meridian 1 Option 81C CP PII is upgraded to more than two Network groups, Nortel Networks recommends that Clock Controller 0 and 1 be located in different Network groups.

**Table 103**  
**Clock Controller switch settings for NTRB53**

Multi-group Single group	Machine Type #1	Faceplate Cable Length CC to CC			Side Number	Machine Type #2
1	2	3	4		5	6
Multi-group = Off  Single group = On	21E = Off  51, 61, 51C, 61C  71, 81, 81C = On	Off	Off	0-14 Ft.	Side 0 = On  Side 1 = Off	71,81 = Off  21E, 51, 51C, 61. 61C, 81C = On
		Off	On	4.6–6.1 m (15–20 ft.)		
		On	Off	6.4–10.1 m (21–33 ft.)		
		On	On	10.4–15.2 m (34–50 ft.)		
<b>Note:</b> Switch 7 and 8 are not used.						

————— End of Procedure —————



## Software disable Network cards in Core/Net 1



### CAUTION

#### Service Interruption

At this point, the upgrade interrupts service.

### Procedure 232

#### 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

**DISL x**                      x = the superloop number of the XNET card

\*\*\*\*                      Exit program

- b. In Core/Net 1 only, disable ENET.



### CAUTION

#### Service Interruption

If the system terminal is assigned to an SDI port that you are disabling, assign it to another port before you disable the SDI.

- c. In Core/Net 1 only, software disable each port on the SDI cards:

#### LD 37

**DIS TTY x**                      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**                    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**                    x = the loop number PRI port

**\*\*\*\***                      Exit program

f. In Core/Net 1 only, disable MSDL cards.

**LD 48**                      Load program

**DIS MSDL x**            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**                    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**

**DSPS x**                    Table 104 on [page 751](#) below lists Peripheral Signaling Card values for “x”

**\*\*\*\***                      Exit program

**Table 104**  
**Peripheral Signaling Card numbers**

Group/ shelf	Peripheral Signaling Card	Loops disabled/enabled		
0 / 0	0	0	–	15
0 / 1	1	16	–	31
1/0	2	32	-	47
1/1	3	48	-	63

**3** In Core/Net 1 only, faceplate disable all 3PE, PS and network cards.

**End of Procedure**

## Power down Core/Net 1



### CAUTION

#### Service Interruption

Call processing is interrupted for approximately 60 minutes while the procedures are completed.



### 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.

For AC-powered systems: set the MPDU circuit breaker located at the left end of the module to OFF (down position).

For DC-powered systems: set the breaker for the Core 1 module in the back of the column pedestal to OFF (down position).

### Procedure 233

#### Removing Core 1 cables and card cage

- 1 Label and disconnect the Clock Controller 1.
  - a. Disconnect the NT8D76AC cable from the Clock Controller 1 faceplate card.
  - b. If primary and secondary clock reference cables are connected to the Clock Controller 1 faceplate, disconnect them last.
- 2 Label and disconnect all cables from the front of the module.
- 3 Tape over the contacts to avoid grounding.
- 4 Tie all cables to the sides so the working area in front of the card cage is totally clear.
- 5 Remove the I/O safety panel by turning the screws on each side. Set the I/O safety panel aside.
- 6 Tag and disconnect all cables from the backplane to the interior of the I/O assembly.
- 7 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 with the cards left installed.

- 8 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 for use with the CP PII card cage.



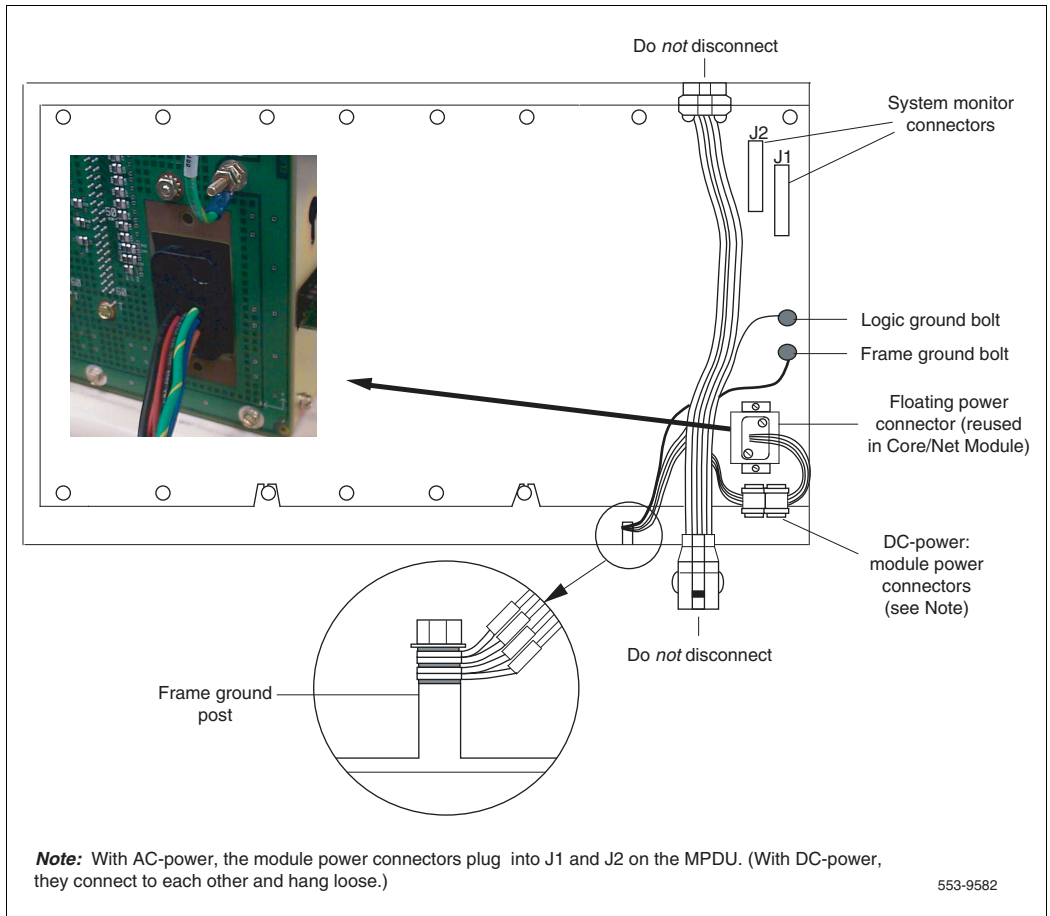
#### CAUTION

Do not drop the mounting screws into the pedestal. Doing so can cause serious damage.

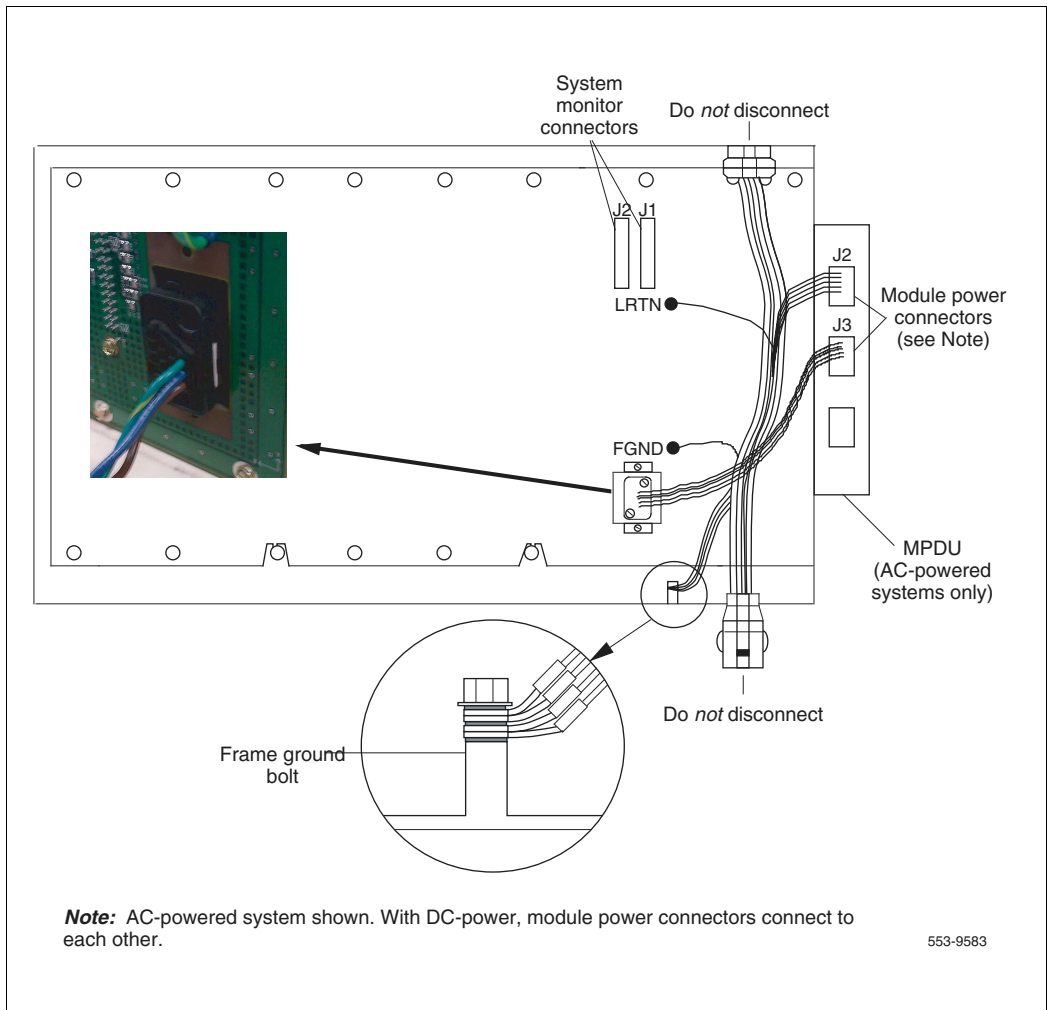
- 9 Remove the front trim panels on both sides of the card cage.
- 10 Remove the three mounting screws that secure the front of the card cage to the bottom of the module. Keep the screws for use with the CP PII card cage.
- 11 Pull the card cage forward until it is halfway out of the module.

- 12 Disconnect cables, plugs, and wires from the rear of the module to the backplane.
- 13 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 117 below for DC power connectors. See Figure 118 on [page 754](#) for AC power connectors.

**Figure 117**  
**DC power connectors on the Core module backplane**



**Figure 118**  
**AC power connectors on the Core module backplane**



- 14** Remove the frame ground (FGND) (green) wire from the frame ground bolt on the module.

- 15 Label and disconnect the module power connectors. In an AC-powered system, these are small orange connectors plugged into the module power distribution unit (MPDU). In a DC-powered system, these are connected to each other.
- 16 Label and disconnect the system monitor ribbon cables to J1 and J2.
- 17 Remove the Core card cage from the module.
- 18 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 NT8D40. For DC systems, relocate power harness NT7D11.
- 19 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 will not be able to install the card cage in the module correctly.

**CAUTION****Damage to Equipment**

Check for and remove any debris (such as screws) that fell into the base of the UEM module.

---

**End of Procedure**

---

**Procedure 234****Relocating Network cards to CP PII Core/Net 1**

- 1 Remove all remaining network cards from Meridian 1 Option 61C Core 1 to CP PII Core/Net 1.
- 2 When you move the 3PE card, check the switch settings and jumpers. See Table 105 on [page 756](#) below.

- a. All 3PE cards must be vintage F or later.
- b. Check that the RN27 Jumper is set to "A".
- c. The settings for 3PE cards in Core/Net shelves are different from those in all other shelves: Table 105 below shows the 3PE settings for cards installed in CP PII Core/Net Modules.

---

**End of Procedure**

---

**Table 105**  
**QPC441 (QPC440) 3PE Card installed in the CP PII Core/Net modules**

<b>Jumper Settings:</b> Set Jumper RN27 at E35 to "A".									
Switch Settings									
Module		D20 switch position							
CP PII Core/Net modules only		1	2	3	4	5	6	7	8
Core/Net 0 (Shelf 0)	Group 0	off	on	on	off	on	on	on	on
Core/Net 1 (Shelf 1)	Group 0	off	on	on	off	on	on	on	off

## Install the Security Device

The Security Device fits into the System Utility card (see Figure 119 on [page 757](#)).

### Procedure 235

#### Install the Security Device

- 1 If the original system had an IODU/C, remove the Security Device from the IODU/C for reuse.
  - a. Unlock the latches and remove the IODU/C card.
  - b. Remove the round 1/2" diameter IODU/C Security Device from the round black Security Device holder on the top right corner of the IODU/C card.

OR

If the original system did not have an IODU/C, use the Security Device provided with the CP PII Software kit.



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.

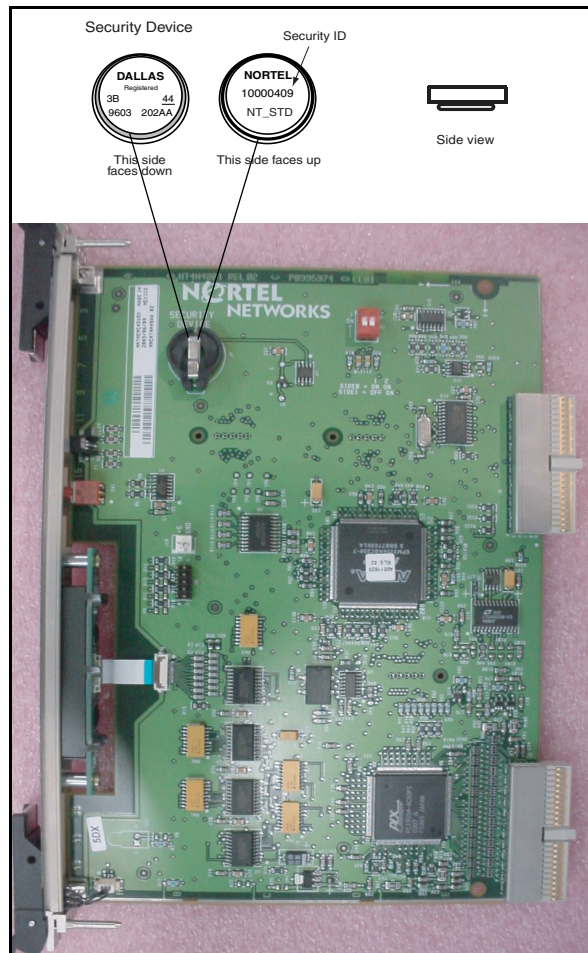
- 2 Check that the Security Device is securely in place.

---

**End of Procedure**

---

**Figure 119**  
**Security Device**



## Cable Core 1



### WARNING

#### Damage to Equipment

Do not pry against the connector with the extraction tool. Simply inserting the tool between the connector and the securing clip is sufficient to unlock the connector. Prying may cause damage to the connector or the backplane pins.

**Note 1:** NTND14 cables for Group 1 shelf 1 should be factory installed to Core/Net 1, if not, follow the procedures.

**Note 2:** If Network Group 0 will not be in the Core/Net module, some re-configuration of the processor module is required to allow for concurrent or future use of the Network portion of the Core/Net for a higher Network group.

### Procedure 236

#### In Core 1, route and connect the cCNI to 3PE (NTND14) cables

NTND14 cables must be installed for Network group 1. See Figure 121 on [page 761](#).

- 1 Remove the module trim panels where the cables will be routed.

These cables are routed to the Network module. To route the cCNI to 3PE cables:

- 2 Label each cable at both ends with:

- a. the Network group number 1
- b. Shelf 1 of the Network group
- c. J3 or J4 (of the 3PE card)

- 3 In Core 1, route the cables from the Shelf 1 3PE cards to a module adjacent to Core 1.

**Note:** Route the cables along the right side of the Core module to avoid interference from the power cards.

- 4 In Core 1, pull the NTND14 cables inside the UEM. Connect the NTND14 cables to J3 and J4 of the 3PE cards. See Figure 121 on page 761 and Table 106 below for connection information.
- 5 Connect the NTND14 cables to the Fanout Panel in Core/Net 1. See Figure 121 on [page 761](#) and Table 106 below.

**Table 106****Fanout Panel to 3PE card connectors**

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
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

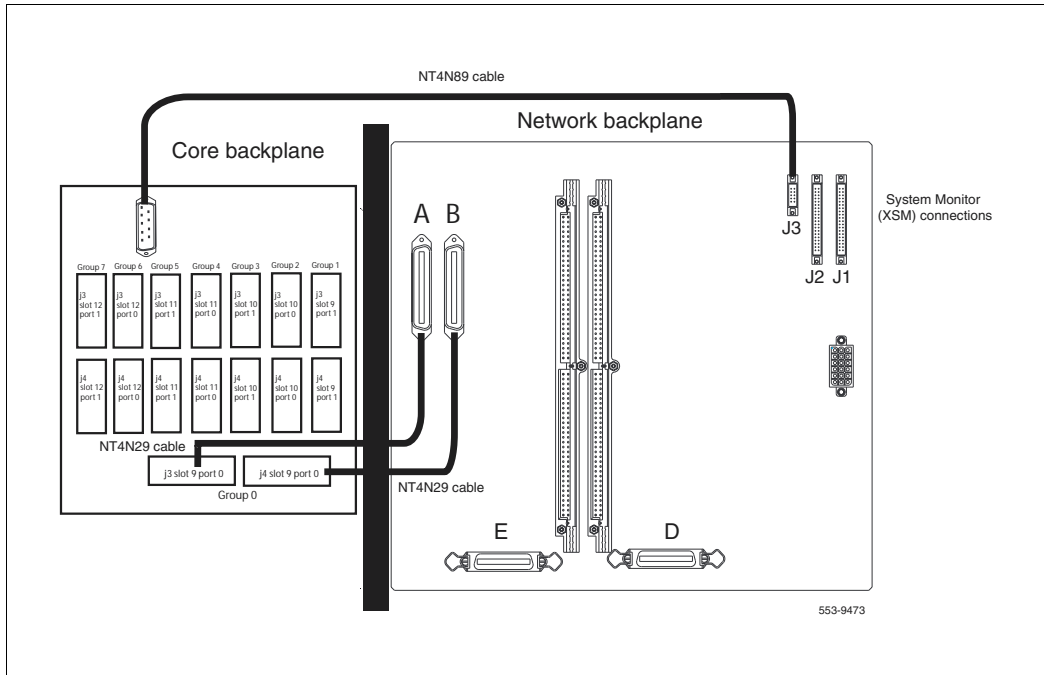
**Note:** Group 0 cables (NT4N29) connect from the Fanout panel directly to the backplane of Core/Net 1 (see Figure 120 on [page 760](#)).  
Group 1 cables (NTND14) connect from the Fanout panel to the faceplate of the 3PE cards of Group 1 (see Figure 121 on [page 761](#)).

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**End of Procedure**

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**Figure 120**  
**Fanout Panel connections on the CP PII Core/Net backplane**



## Add Shelf 1 FIJI Hardware

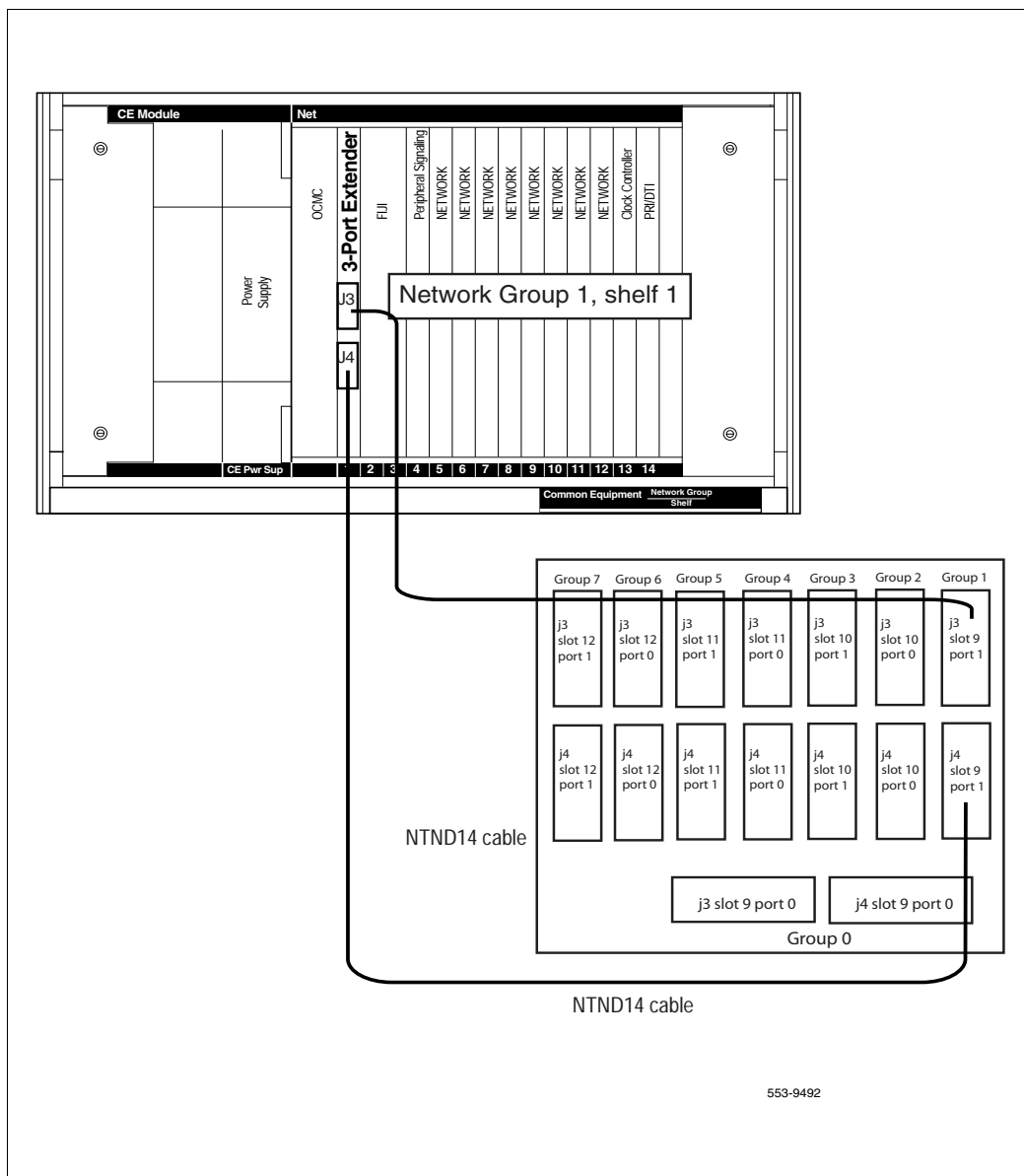
### Procedure 237 Adding Shelf 1 FIJI hardware

- 1 Insert the FIJI cards in Side 1.
- 2 DO NOT seat the FIJI cards.
- 3 Faceplate disable the FIJI cards.

**Note:** FIJI cards are installed in slots 2 and 3 of the Network modules and slots 8 and 9 of the Core/Net modules.

————— End of Procedure —————

**Figure 121**  
**3PE Fanout Panel connections**



### Procedure 238

#### Connecting the shelf 1 FIJI Ring cables (descending)



#### IMPORTANT!

The shortest Fiber Cable must always be used.

The cables from group 0 to group 1 must always be the same length as the cables from the last group back to group 0.

The delta between the lengths of each fiber ring from group 0 to any other group must not exceed 50'. Rings are directional. Ring 0 is ascending and ring 1 is descending.

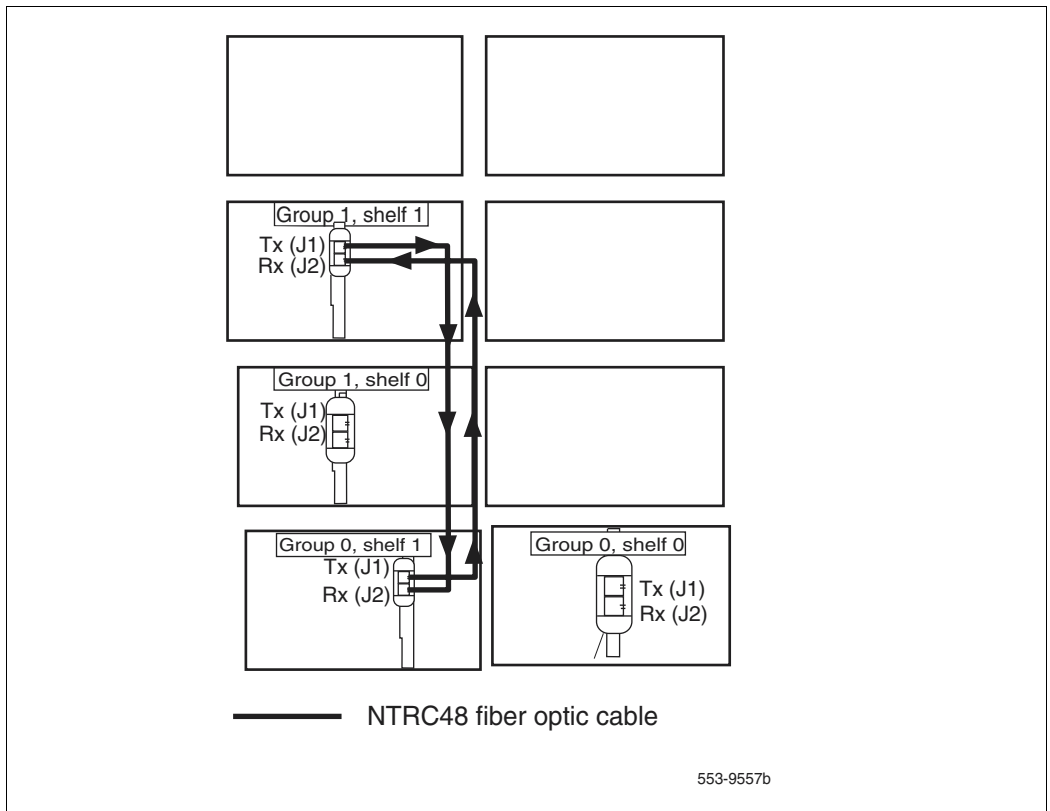
**Note:** When adding an additional network group, fiber cables must be changed to adhere to the rules above.

To create the shelf 1 fiber optic loop, connect the FIJI cards in each Network shelf 1 in **descending** order, from Tx to Rx (Figure 122 on [page 763](#) and Table 107 on [page 764](#)).

Remove the black cap from the end of each cable before it is connected.

**Note:** Each end of the NTRC48 cable is labeled "Tx" or "Rx" in the factory.

- 1 Start with Network Group 0, shelf 1.
- 2 Connect a NTRC48 FIJI Fiber Ring cable of the appropriate length from the Tx (J1) port of the FIJI card in Group 0, shelf 1 to the Rx (J2) port of the FIJI card in the highest Network Group, shelf 1.
- 3 Connect a NTRC48 cable from the Tx (J1) port of the FIJI card from the Tx (J1) port in the highest Network Group, shelf 1 to the Rx (J2) port in the second highest Network Group, shelf 1.
- 4 Continue to connect NTRC48 FIJI Fiber Ring cables of the appropriate length from the Tx (J1) port to the Rx (J2) port in shelf 1 of each Network Group. Connect these cables in descending order of Network Groups.
- 5 To complete the Ring, connect a final cable from Tx in Group 1, shelf 1 to Rx in Group 0, shelf 1.
- 6 Connect the Side 1 FIJI Ring cables only.

**Figure 122****Shelf 1 descending fiber optic Ring (Meridian 1 Option 81C 2 group example)**

7    Unseat and faceplate disable all FIJI cards.

**Table 107**  
**FIJI Ring 1 connections**

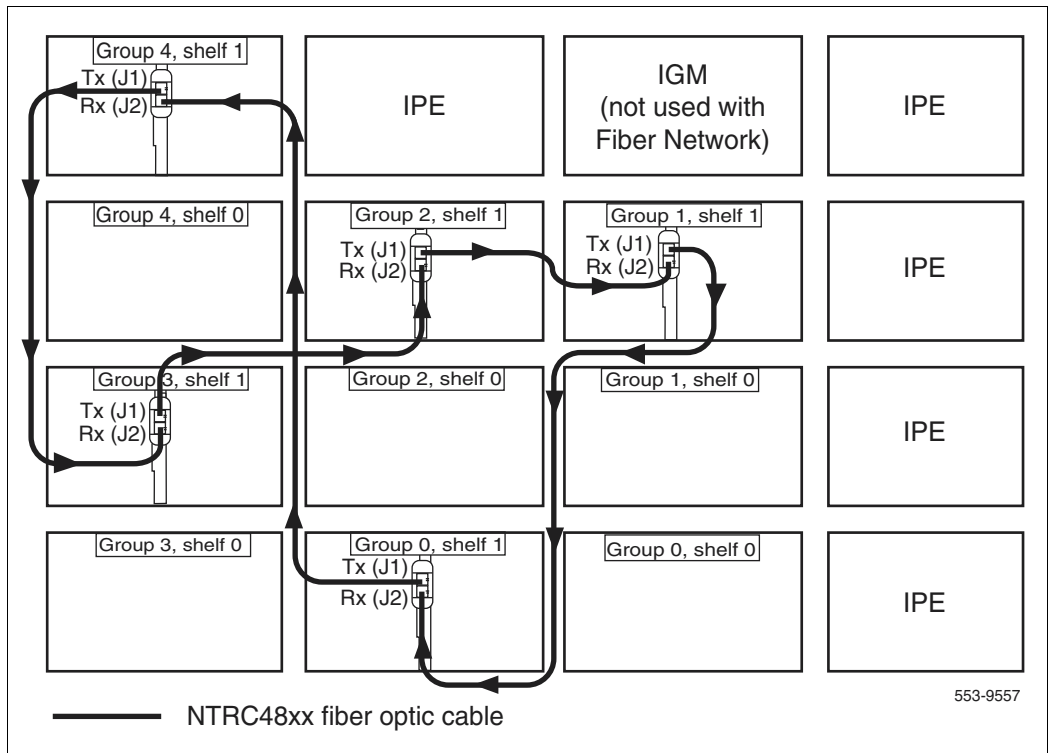
Groups 0 - X are cabled in descending order		
Group/shelf	NTRC48 fiber cable connector	FIJI card connector
0/1	P1	Tx - J1
7/1	P2	Rx - J2
7/1	P1	Tx - J1
6/1	P2	Rx - J2
6/1	P1	Tx - J1
5/1	P2	Rx - J2
5/1	P1	Tx - J1
4/1	P2	Rx - J2
4/1	P1	Tx - J1
3/1	P2	Rx - J2
3/1	P1	Tx - J1
2/1	P2	Rx - J2
2/1	P1	Tx - J1
1/1	P2	Rx - J2
1/1	P1	Tx - J1
0/1	P2	Rx - J2

---

**End of Procedure**

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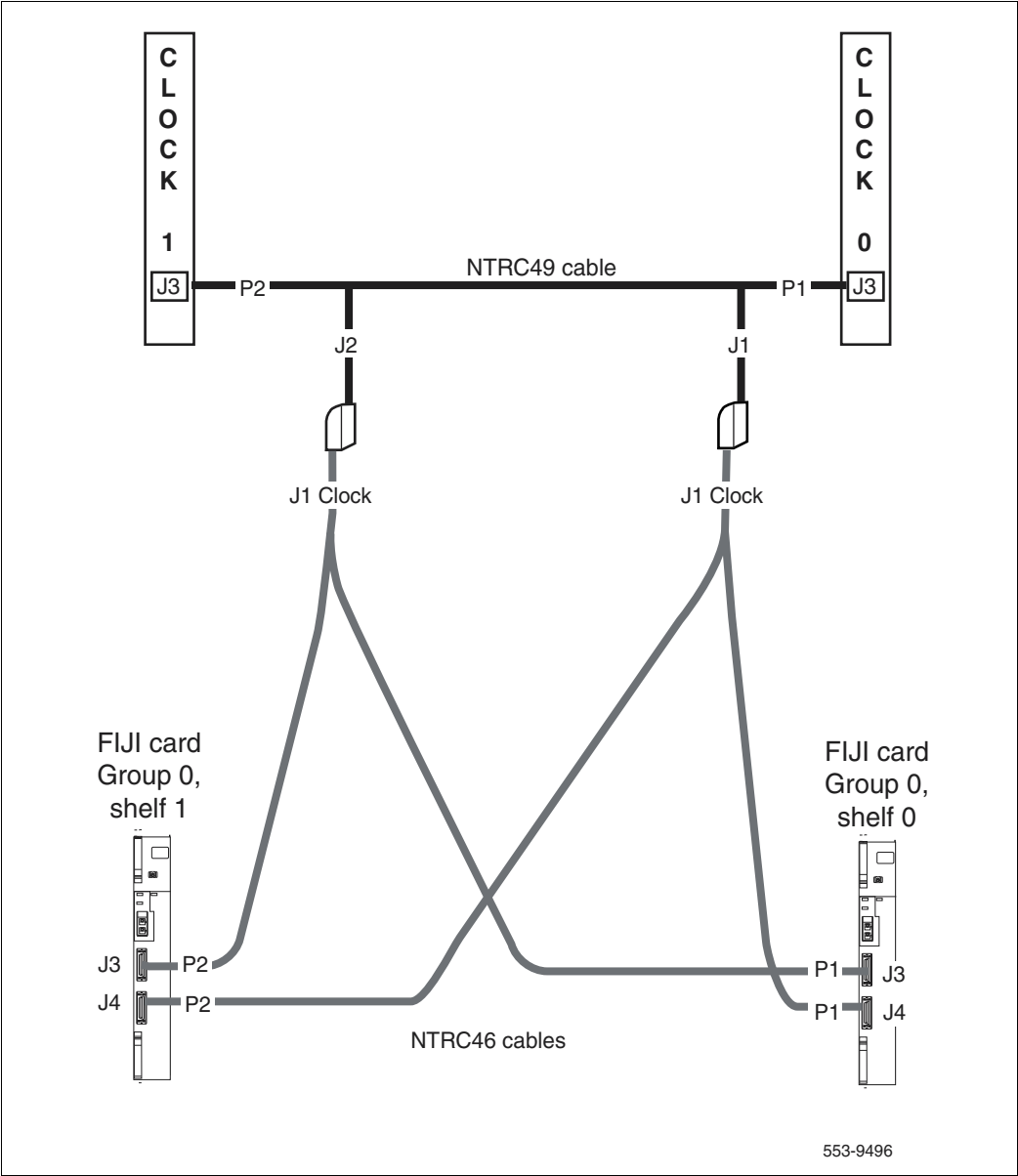
**Figure 123****Shelf 1 descending fiber optic Ring (Meridian 1 Option 81C 5 group example)**

## Connect Clock Controller 1 to FIJI 0 1

Connect P2 of the NTRC46 cable from Clock 1 to J3 of the FIJI card in Group 0, shelf 1. See Figure 124 on [page 766](#).

**Note:** Do not connect Clock Controller 1 to Clock Controller 0 or FIJI group 0 shelf 0 at this point

**Figure 124**  
**Clock Controller cable configuration**



**Procedure 239****Removing the system monitors from Core 1 and Core 0**

- 1 In Core 0, software disable the master system monitor (NT8D22):

**LD 37**

**DIS TTY #**      Disable the master system monitor TTY interface

- 2 For both Core 1 and Core 0, remove J3 and J4 cables on both system monitors.

**Note:** Do *not* turn off the blower units in the front of the pedestals.

- 3 For both Core 1 and Core 0, remove the system monitors from the rear of the pedestals.

**CAUTION****Service Interruption**

The system can shut down if the system monitors are not removed. Remove the monitors and keep the cooling fans ON.

---

**End of Procedure**

---

**Power up Core 1****Procedure 240****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.

- 2 Connect a terminal to the J25 port on the I/O panel in the *inactive* Core.

**3** Check the terminal settings as follows:

- 9600 Baud
- 7 data
- space parity 1
- 1 stop bit
- full duplex
- XOFF

**Note:** If only one terminal is used for both Cores, the terminal will have to 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 241**  
**Powering up Core 1**

- 1** Power up the Core/Net 1 Module.
- 2** Power up the Network shelf 1 Group 1.
- 3** Power up any associated IPE modules.
- 4** Check that the Network and I/O cards have working power.
- 5** Wait for the system to load/initialize.

---

**End of Procedure**

---

## Install software on Core 1

**Procedure 242**  
**Installing the software and converting the database**

- 1** Check that a terminal is connected to J25 on Core/Net 1.
- 2** In Core/Net 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.

- 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 completed!

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

Copyright (c) 1993-1996 RST Software Industries Ltd. All rights 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 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.

#### MAIN 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> -> <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)

- 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



### IMPORTANT!

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



**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: 2540 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 2540 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 0.

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 0 disk drive).

<b> - Install DEFAULT Database

(the installation CDROM must be in the Core 0 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: 2540 to the hard disk on Core X. release: 2540.

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:

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**



**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/disk3321.sys

>Quit Install. Reboot system...

**Note:** Before completing the next procedure, wait for Core/Net 1 to INI.

## Configuring IP addresses

### Procedure 243

#### Configuring the IP addresses

Two unique IP address are required for the CP PII system to communicate with the LAN. One IP address is defined for the *active* Core. The second IP address is defined for the *inactive* Core.

- 1 Use the following to check the status of the system's IP address:

<b>LD 117</b>	Load program
<b>PRT HOST</b>	Print the configured host information

If the system returns with host names “active” and “inactive”, go to “Check for Peripheral Software Download to Core 1” on [page 783](#). If the system returns no host names, complete the steps below.

- 2 Contact your System Administrator to identify IP address and subnet mask information.
- 3 Configure the primary (*active*) and secondary (*inactive*) IP addresses:

<b>LD 117</b>	Load program
<b>new host <i>name 1</i> IP address</b>	Define the first IP address: “name 1” is an alias for the IP address such as “primary” (The IP address is the IP number)
<b>chg elnk active <i>name 1</i></b>	Assign the “name 1” address to the <i>active</i> Core
<b>new host ‘name 2’ ‘IP address’</b>	Define the second IP address: “name 2” is an alias for the IP address such as “secondary” (The IP address is the IP number)

**chg elnk inactive *name 2*** Assign the “name 2” address to the *inactive* Core

**chg mask *xxx.xxx.xxx.xxx*** Set the sub-net per local site  
(This number allows external sub-nets to connect to the system)

**4** Enable the new Ethernet interface.

**LD 137** Load program

**dis elnk** *Disable* the old IP interface values

**enl elnk** *Enable* the new IP interface values

---

**End of Procedure**

---

## **Check for Peripheral Software Download to Core 1**

Load LD 22 and print Target peripheral software version. The Source peripheral software version was printed in “Print site data” on [page 727](#).

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.
- The system drops established calls on IPE

1 Load LD 22 and print Target peripheral software version.

**LD 22**

<b>REQ</b>	PRT
<b>TYPE</b>	PSWV
<b>ISSP</b>	Print System and Patch Information
<b>SLT</b>	Print System Limits
<b>TID</b>	Print the Tape ID
<b>****</b>	Exit program

## For systems with fewer than eight groups, delete CNIs

### Procedure 244 Deleting CNIs

Software has configured the system for eight groups. If your system has eight groups, skip this procedure. If your system has fewer than eight groups, you must software remove the CNIs not used in your system configuration:

1 In Core/Net 1, disable all cCNI cards using LD 135:

<b>LD 135</b>	Load program
<b>STAT CNI</b>	Get the status of all cCNI cards

**DIS CNI x s p**    Disable cCNI cards where:  
                          x = extender number (0 or 1)  
                          s = card slot (9-12)  
                          p = port (0 or 1)

**STAT CNI**        Confirm that cCNI cards are disabled

**\*\*\*\***              Exit program

**2**    Use LD 17 to remove the extra cCNI cards.

**LD 17**            Load program

**CHG**            CFN

**TYPE**          CEQU

**CEQU**

**carriage  
return to  
EXTO**

**EXTO 3PE**      Core/Net 0 extended to 3PE

**CNI s p xg**     Out the cCNI card, where:  
                          s = card slot (9-12)  
                          p = port (0 or 1)  
                          xg = out network group (x0-x4)

**EXTI 3PE**      Core/Net 1 extended to 3PE

**CNI s p xg**     Out the cCNI card, where:  
                          s = card slot (9-12)  
                          p = port (0 or 1)  
                          xg = out network group (x0 - x4)

**carriage  
return to end  
of program**

**\*\*\*\***              Exit program

---

**End of Procedure**

---

## Reconfigure I/O ports and call registers

### Procedure 245

#### Reconfiguring I/O ports and call registers

- 1 Remap all I/O ports (except CPSI ports) to the proper groups.  
The group number of these ports is determined by the physical location of the card.

The configuration information must match the CNI configuration:

```
LD 17          Load program
CHG            CFN
TYPE          ADAN CHG AAA X G
carriage
return to end
of program
```

```
****          Exit program
```

- 2 Evaluate the number of call registers and 500 telephone buffers that are configured for the system (suggested minimum values are 4500 and 1000 respectively). Refer to *Large System: Planning and Engineering* (553-3021-120).

If changes are required, reconfigure the values in LD 17:

```
LD 17          Load program
CHG            CFN
TYPE          PARM
carriage
return to end
of program
```

```
****          Exit program
```

**3** Configure the additional Conference/TDS packs (XCT) in group 1:**LD 17** Load program**REQ** CHG**TYPE** CEQU**carriage  
return to XCT****XCT** XCT XX (33, 49)**carriage  
return****XCT** XCT XX**Carriage  
return until  
end of  
program****\*\*\*\*** Exit program**4** Print the Configuration Record to confirm the changes made above.**LD 22** Load program**REQ** PRT**TYPE** CFN**\*\*\*\*** Exit program**5** Perform a data dump to save the customer database to the hard drive and floppy disk. Insert a blank floppy into the Core/Net 1 MMDU. The system will request this database disk when installing Core/Net 0:

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

**LD 43**                      Load program

- b. When "EDD000" appears on the terminal, enter:

**EDD**                      To 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.

- 6 When "DATADUMP COMPLETE" and "DATABASE BACKUP COMPLETE" appear on the terminal, enter:

**\*\*\*\***                      Exit program

---

#### **End of Procedure**

---

#### **Procedure 246** **Rebooting Core 1**

- 1 In Core/Net 0 only, faceplate disable the CNI card.
- 2 In Core/Net 0 only, faceplate disable the IODU/C card.
- 3 In Core/Net 0 only, unseat the Core Processor card.
- 4 Faceplate disable Clock Controller 0 and unseat the card from the Core/Net 0 backplane.
- 5 Seat and faceplate enable Clock Controller 1 and ALL FIJI on Shelf 1.
- 6 Press the RESET button on the CP PII card faceplate to reboot the system.



- 7 Wait for 'DONE' and then 'INI' messages to display before you continue.



Core 1 is now active with ring 1 drives full. Clock Controller 1 is active. Call processing should be active on Core/Net 1.

---

**End of Procedure**

---

## Faceplate disable cards from Core/Net 0



### **CAUTION**

#### **Service Interruption**

Call processing is interrupted for approximately 60 minutes while the procedures are completed.

### **Procedure 247**

#### **Faceplate disabling cards in core and network slots of Core/Net 0:**

- 1 Faceplate disable all core and network cards in Core/Net 0.
- 2 Set the ENB/DIS switch on the 3PE card to DIS.

---

**End of Procedure**

---

**Procedure 248**  
**Moving Clock Controller 0**



**CAUTION**

Clock controller cards must be NTRB53 Clock Controller cards.



**CAUTION**

**Service Interruption**

Move only Clock Controller 0 at this point in the upgrade.

If the system has a QPC Clock Controller, replace it with NTRB53 Clock Controller (factory installed in Network Shelf 0, group 1, slot 13) and verify settings according to Table 108 on [page 791](#).

If the system has an NTRB53 Clock Controller, it must be moved from Core/Net 0 slot 9 to network shelf 0, group 1 slot 13.

- 1 Label and disconnect the Clock Controller 0.
- 2 Disconnect the cable from the Clock Controller 0 faceplate card.
- 3 If primary and secondary clock reference cables are connected to the Clock Controller 0 faceplate, disconnect them last.
- 4 Remove Clock Controller 0 from the Core module.
- 5 Set the Clock Controller 0 switch settings according to Table 108 on [page 791](#).
- 6 Place Clock Controller 0 in Group 1 Network Shelf 0, slot 13. Do NOT seat the Clock Controller 0 and do not faceplate enable the card.

**7** Re-connect all reference cables.**Table 108**  
**Clock Controller switch settings for NTRB53**

Multi-group Single group	Machine Type #1	Faceplate Cable Length CC to CC			Side Number	Machine Type #2
1	2	3	4		5	6
Multi-group = Off  Single group = On	21E = Off  51, 61, 51C, 61C 71, 81, 81C = On	Off	Off	0-14 Ft.	Side 0 = On  Side 1 = Off	71,81 = Off  21E, 51, 51C, 61. 61C, 81C = On
		Off	On	4.6–6.1 m (15–20 ft.)		
		On	Off	6.4–10.1 m (21–33 ft.)		
		On	On	10.4–15.2 m (34–50 ft.)		
<b>Note:</b> Switch 7 and 8 are not used.						

**Procedure 249**  
**Cabling the Clock Controllers**

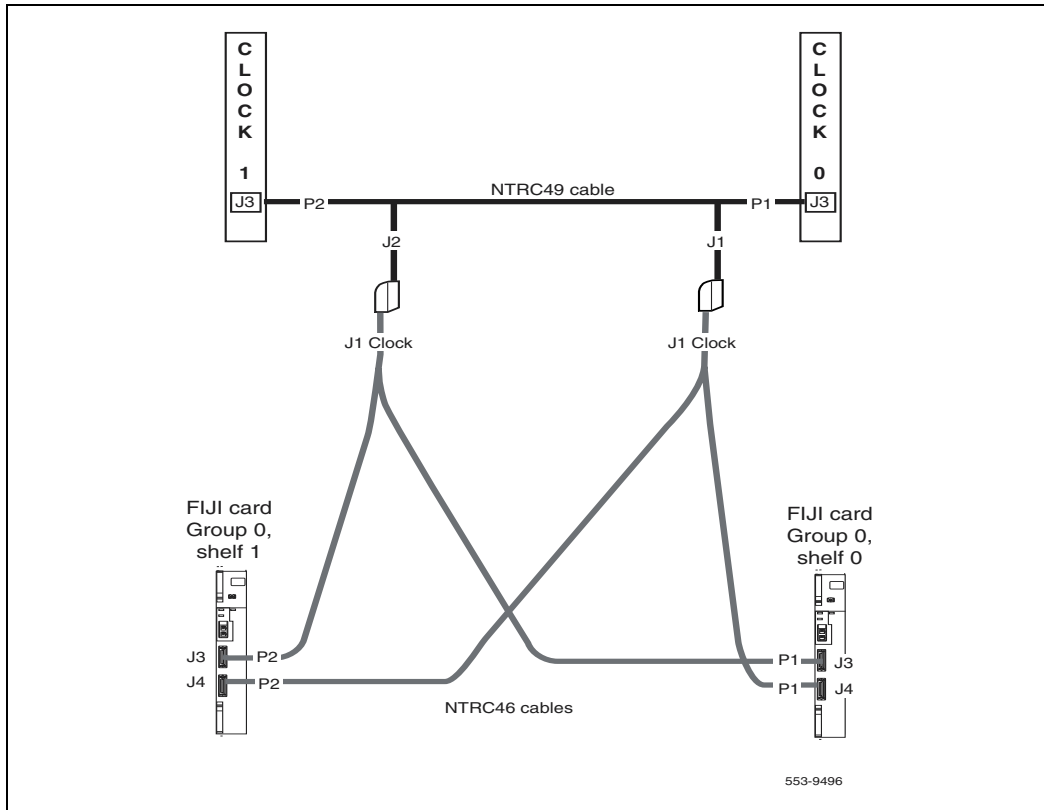
Earlier in the upgrade, you checked that Clock Controller 1 is installed in Network 1 shelf 1, slot 13; and Clock Controller 0 has been moved to Network group 1 shelf 0, slot 13.

Connect the cables to the Clock Controllers as shown in Figure 125 on page 792:

- 1** Connect the Clock to Clock cable:
  - a.** Connect J1 of the NTRC49 cable to port J3 of Clock Controller 0.
  - b.** Connect J2 of the NTRC49 cable to port J3 of Clock Controller 1.
- 2** Connect a Clock 0 to FIJI cable:

- a. Connect J2 of the NTRC46 cable from Clock 0 to J4 of the FIJI card in Group 0, shelf 1

**Figure 125**  
**Clock Controller cable configuration**



**Procedure 250**  
**Removing Core 0 cables and card cage**

- 1 Label and disconnect all cables to 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 with the cards left installed.
- 7 Remove the two mounting screws at the bottom rear of the card cage that secure the card cage to the module casting.

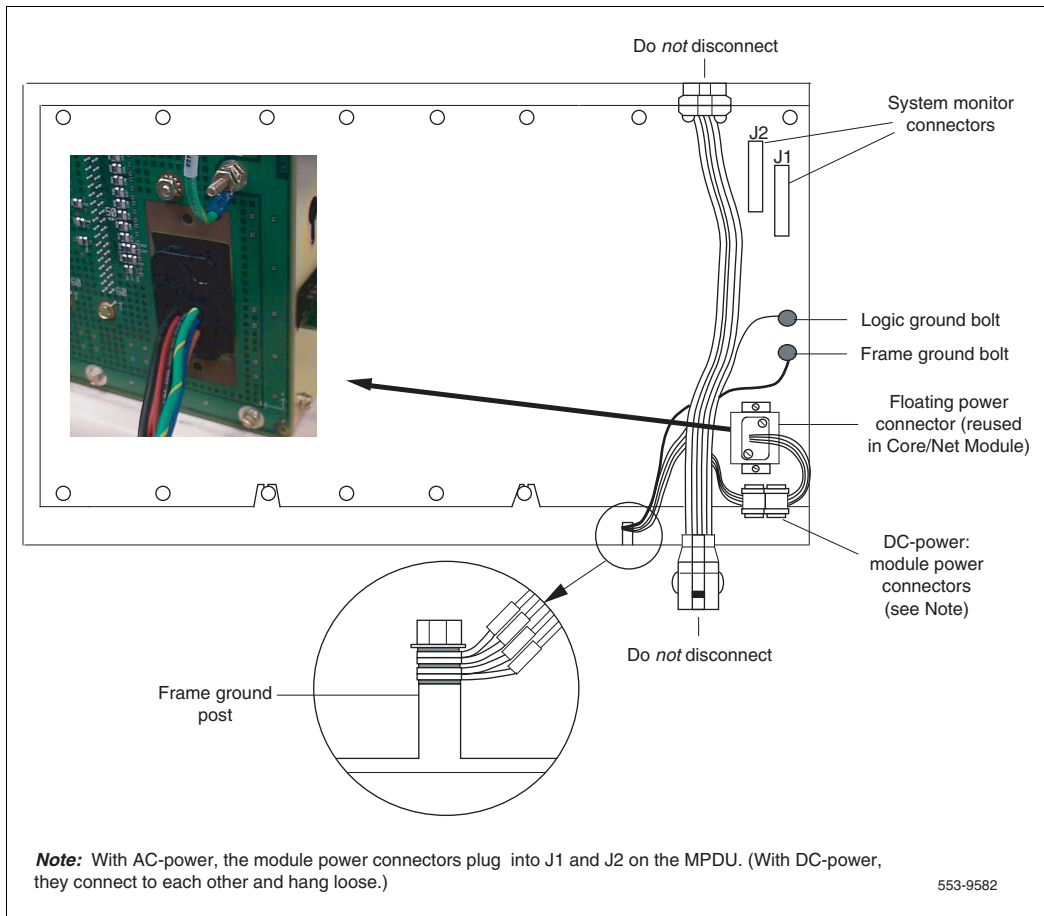
**CAUTION**

Do not drop the mounting screws into the pedestal.  
Doing so can cause serious damage.

Keep the screws for use with the CP PII card cage. (You need a 1/4" nut driver to remove the screws.)

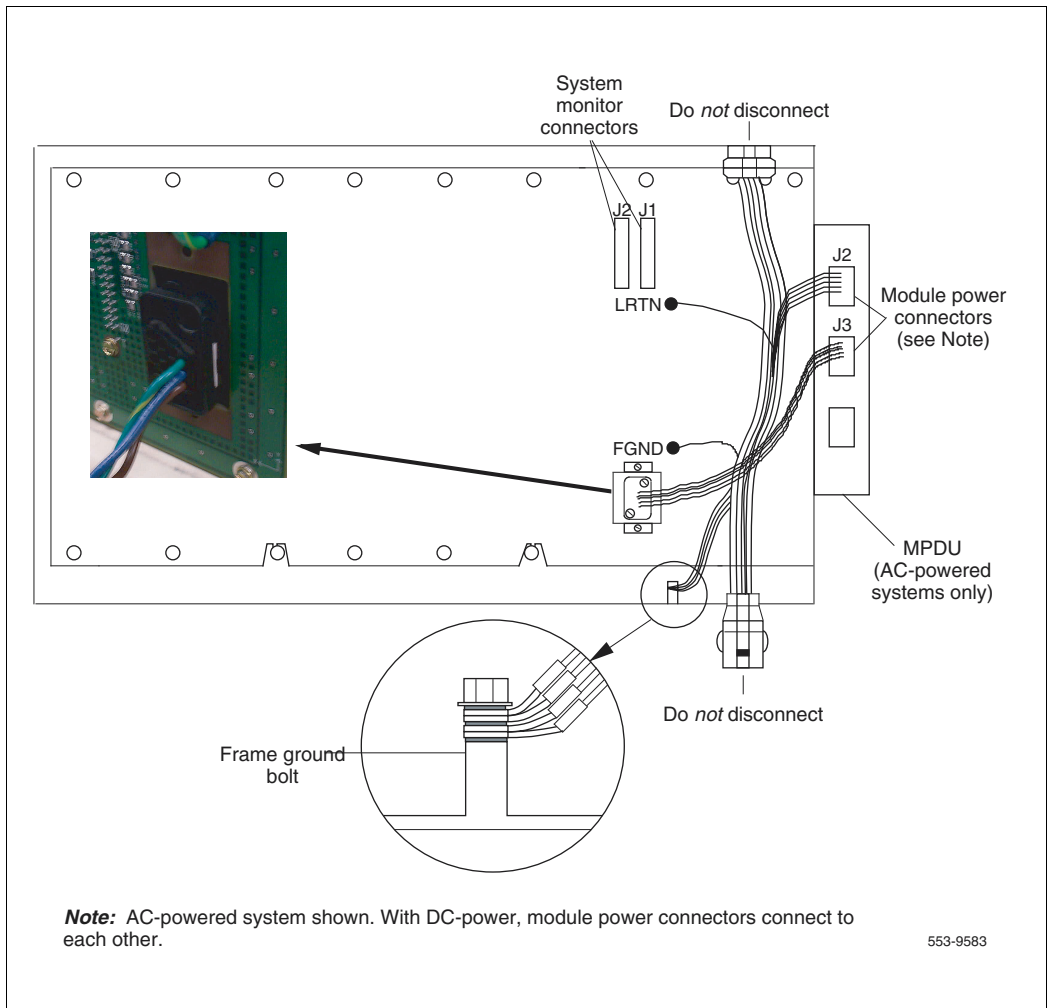
- 8 Remove the front trim panels on both sides of the card cage.
- 9 Remove the three mounting screws that secure the front of the card cage to the bottom of the module.  
Save the screws for use with the CP PII card cage.
- 10 Pull the card cage forward until it is halfway out of the module.
- 11 Disconnect 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 126 on [page 794](#) for DC power connectors.  
See Figure 127 on [page 795](#) for AC power connectors.
- 13 Remove the frame ground (FGND) (green) wire from the frame ground bolt on the module.

**Figure 126**  
**DC power connectors on the Core module backplane**



- 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.

**Figure 127**  
**AC power connectors on the Core module backplane**



- 17** Remove the power harness and reserve it for reinstallation as part of installing 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 NT8D40.
  - For DC systems, relocate power harness NT7D11.



#### **CAUTION**

##### **Service Interruption**

Be sure to perform the following step. If you do not tape the EMI shield in position, you will not be able to install the card cage in the module correctly.

- 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.
- 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 (attached to the side of the card cage).



#### **CAUTION**

##### **Damage to Equipment**

Check for and remove any debris (such as screws) that could have fallen into the base of the UEM module.

---

**End of Procedure**

---

## **Upgrade Core 0 hardware**

### **Check that the main Core cards (front side) are installed**

The main Core cards including the MMDU (with the cables for power and data) are installed in the factory (see Figure 128 on page 798):



- **NT4N65AB CP PII Core Network Interface (cCNI) cards:** Each system contains between one and four NT4N65 cCNI cards per Core/Net module. The cCNI cards are located in slots c9 to c12. If not already installed, install a P0605337 CP PII Card Slot Filler Panel to cover any of slots c10 - c 12 which do not contain cCNIs.
- Slots c13 and c14 are left empty. If not already installed, install a P0605337 CP PII Card Slot Filler Panel in each slot.
- **NT4N48AA System Utility (Sys Util) card** is located in slot c15.
- **NT4N64AA CP PII (Call Processor II)** is located in the Call Processor slot.
- **NT4N43CA CP PII Multi-Media Disk Unit (MMDU)** is located in the extreme right hand slot next to the CP PII card. The MMDU contains the hard drive, floppy drive and CD-ROM drive.
- Check side ID switch settings for SU card in Core/Net 0 according to Table 109 below.

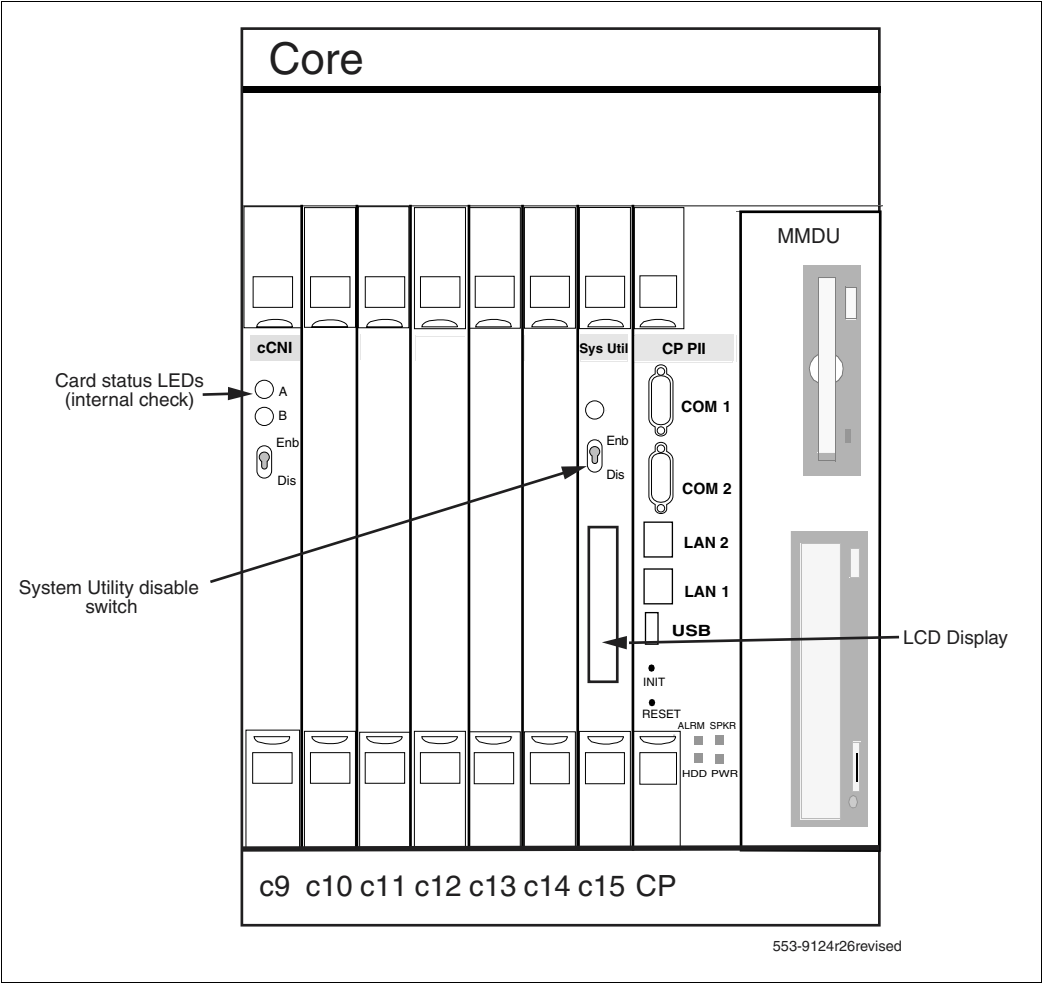
**Table 109**  
**Core module ID switch settings (System Utility card)**

	<b>Position 1</b>	<b>Position 2</b>
Core/Net 0	On	On
Core/Net 1	Off	On

### **Check for the shelf power cable**

Check that the NT4N4405 shelf power cable is installed in the CP PII card cage backplane. See Figure 129 on [page 800](#) below for the cable location.

**Figure 128**  
**Core card placement in the CP PII Core/Net (front)**



## Install the Security Device

### Procedure 251

#### Installing the Security Device

The Security Device fits into the System Utility card (see Figure 130 on [page 801](#)).

To install the Security Device:

- 1** If the original system had an IODU/C, remove the Security Device from the IODU/C for reuse.
  - a.** Unlock the latches and remove the IODU/C card.
  - b.** Remove the round 1/2" diameter IODU/C Security Device from the round black Security Device holder on the top right corner of the IODU/C card.

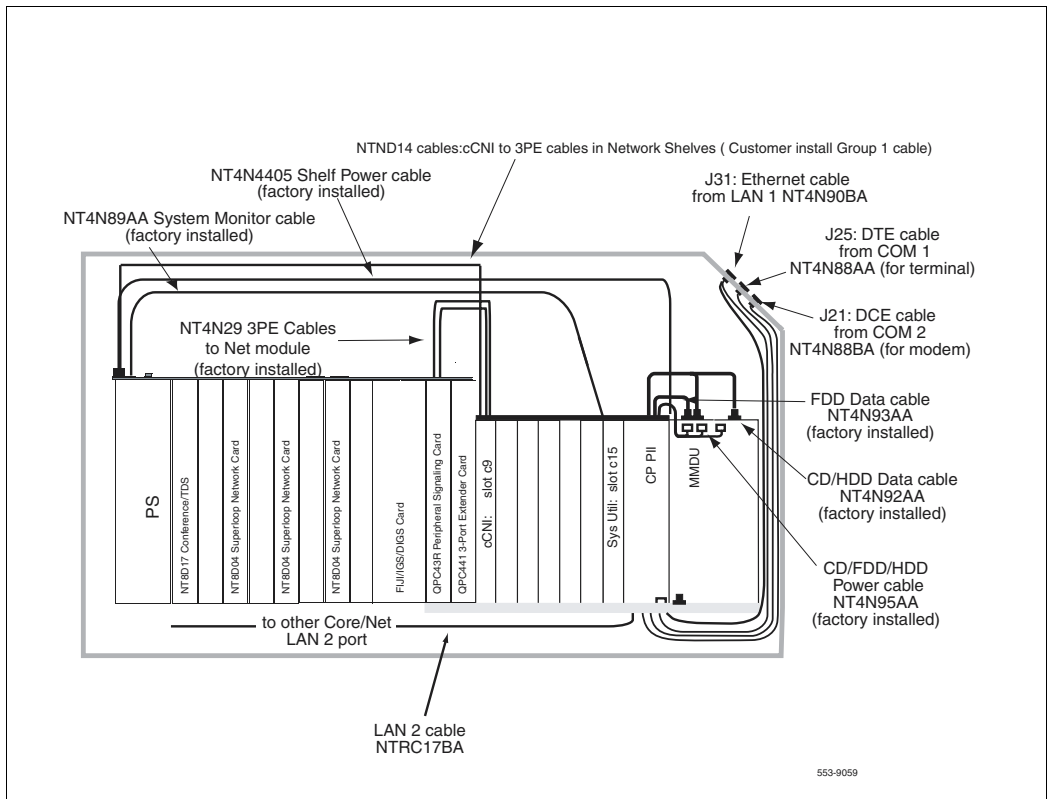
OR

If the original system did not have an IODU/C, use the Security Device provided with the CP PII Software kit.

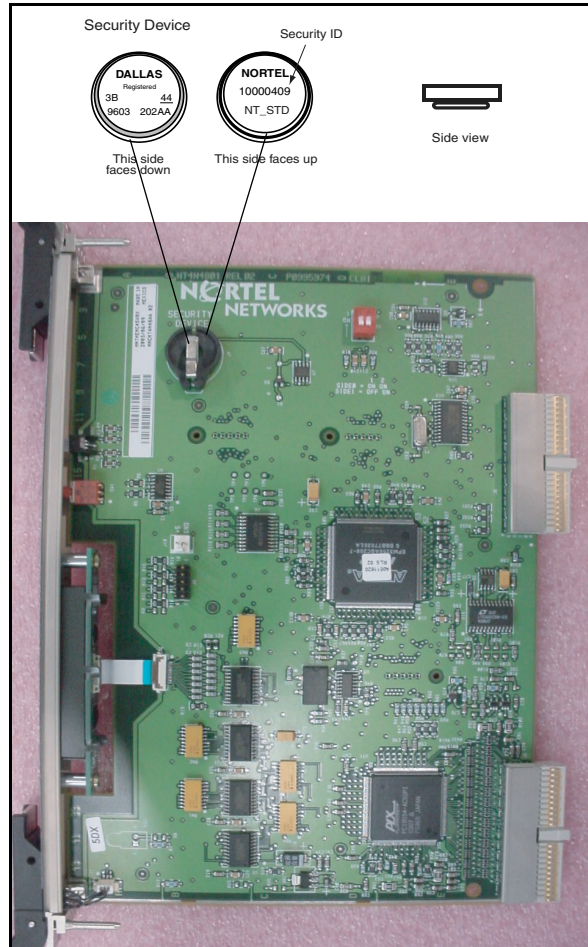
Insert the Security Device into the Security Device holder on the System Utility card with the "Nortel" side facing up. Do not bend the clip more than necessary.

Check that the Security Device is securely in place.

**Figure 129**  
**Core/Net cable connections**



**Figure 130**  
**Security Device**



## Install the CP PII card cage in Core 0

### Procedure 252

#### Installing the CP PII card cage in Core 0

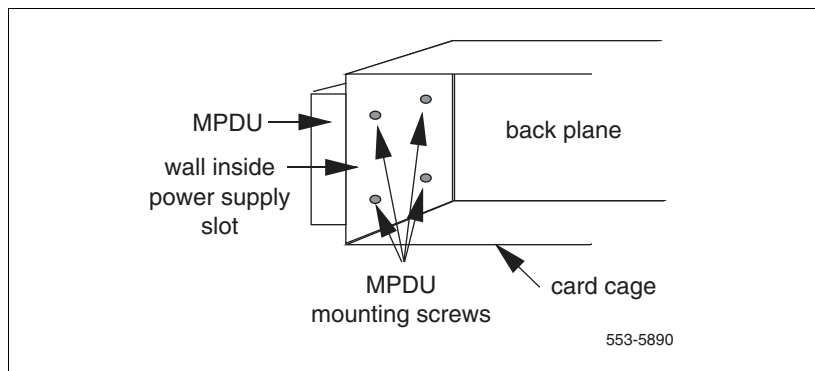
- 1 Check that the card cage is configured as Core 0. See “Core module ID switch settings (System Utility card)” on [page 797](#) for instructions.
- 2 For AC-powered systems only, after the card cage is out of the module, remove the MPDU and reinstall it on the CP PII card cage. Install the new MPDU, part of the CP PII Upgrade kit, to the side on the NT4N40 card cage. The screws that secure the MPDU are accessible from the power supply slot. See Figure 131 on page 802.

**Note:** Pre-thread 2 bottom mounting screws at the back of the Core/Net shelf.

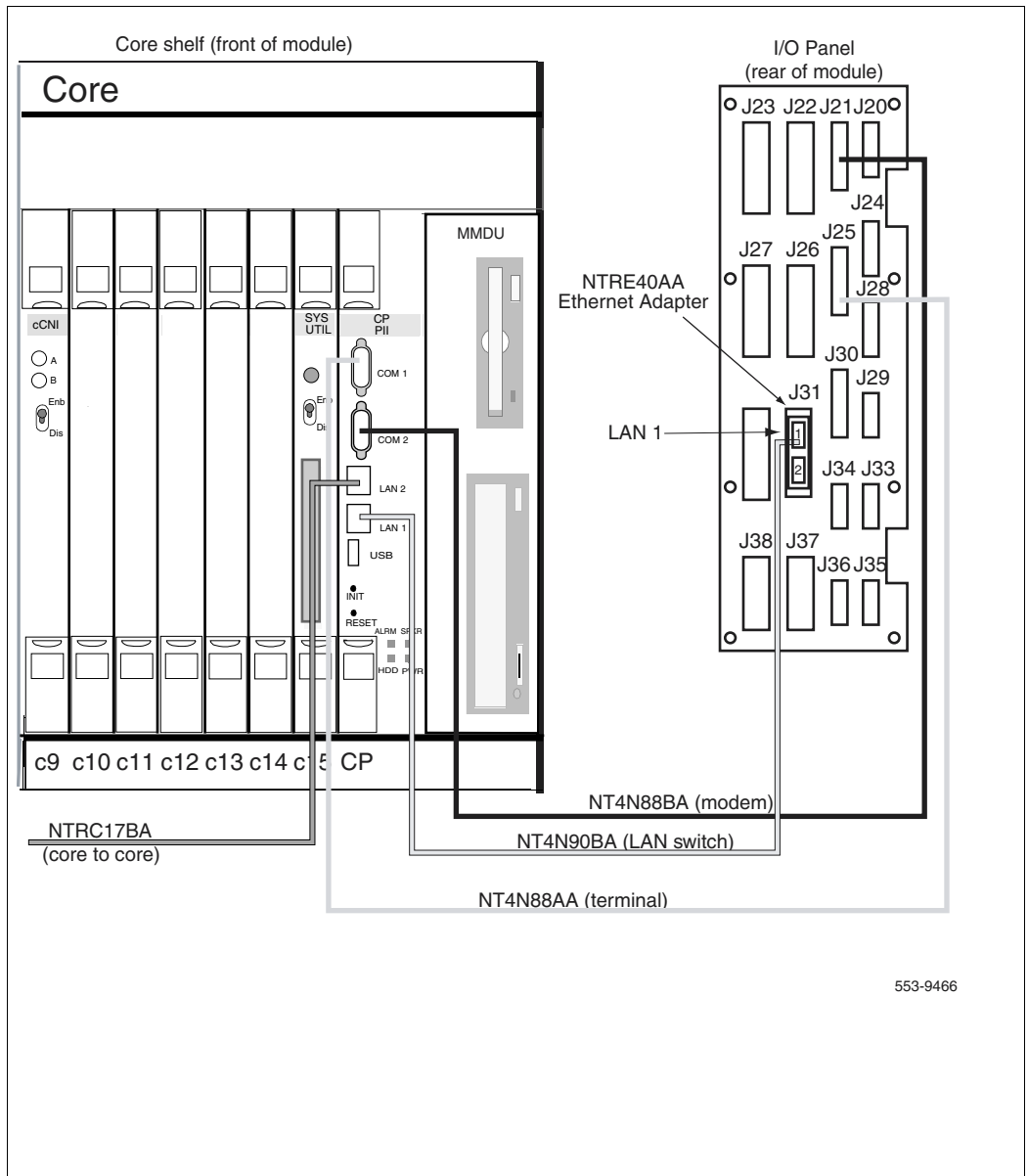
- 3 Check that the power harness at the right rear corner of the card cage has been transferred from the old card cage to the CP PII card cage
- 4 Slide the CP PII card cage halfway into the module.

**Figure 131**

**Location of the screws for the MPDU**



**Figure 132**  
**COM and LAN connections to the Core/Net I/O panel**



- 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.

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 (attached to the side of the card cage).



**CAUTION**

**Damage to Equipment**

Check for and remove any debris (such as screws) that fell into the base of the UEM module.

- a. In DC-powered systems, connect the module power connectors to each other.
- b. Attach the system monitor ribbon cables:
- i. Connect the ribbon cable that goes down to the pedestal to connector J1 on the backplane.
  - ii. Connect the ribbon cable that goes up the column to J2 on the backplane.
- c. Attach the green ground wire to the frame ground bolt on the module. (an 11/32" socket wrench is used to attach the wire.) 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, then tighten down the nut.

**Note:** For all of the wire terminals to fit on the bolt, remove one of the lock washers. Leave a lock washer at the bottom of the bolt and at the top of the bolt. Leave a third lock washer between the second and third, or the 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" or 2/8" socket wrench.)

- 6 Slide the card cage all the way 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.
  - 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 At this point, do not connect the NTRC17BA crossover ethernet cable.

---

**End of Procedure**

---

## **Unpack and install the power supply**

### **Procedure 253**

#### **Installing the NT6D41CA (DC) or NT8D29BA (AC) power supply**

- 1 Unpack the power supply.
- 2 Faceplate disable the power supply.
- 3 Insert power supply into Core/Net module power supply slot.

---

**End of Procedure**

---

## **Check that the Network cards are installed**

Check that the Network cards are installed in Network shelves as shown in the system layout.

## Add Shelf 0 FIJI hardware

### Procedure 254

#### Adding Shelf 0 FIJI hardware

- 1 Insert the FIJI cards in Side 0.
- 2 DO NOT seat the FIJI cards.
- 3 Faceplate disable the FIJI cards.

**Note:** FIJI cards are installed in slots 2 and 3 of the Network modules and slots 8 and 9 of the Core/Net modules.

---

**End of Procedure**

---

### Procedure 255

#### Relocating Network cards to CP PII Core 0

- 1 Remove all remaining network cards from the Meridian 1 Option 61C Core 0.
- 2 When you move the 3PE card, check the switch settings and jumpers. See Table 110 on [page 807](#).
  - a. All 3PE cards must be vintage F or later.
  - b. Check that the RN27 Jumper is set to "A".
  - c. The settings for 3PE cards in Core/Net shelves are different from those in all other shelves: Table 110 on page 807 shows the 3PE settings for cards installed in CP PII Core/Net Modules.
- 3 Reinstall each removed card in the same network slot in the CP PII Core/Net 0.

Connect the tagged cables to the relocated cards.

**Table 110****QPC441 (QPC440) 3PE Card installed in the CP PII Core/Net modules**

<b>Jumper Settings:</b> Set Jumper RN27 at E35 to "A".									
Switch Settings									
Module		D20 switch position							
CP PII Core/Net modules only		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
Core/Net 0 (Shelf 0)	Group 0	off	on	on	off	on	on	on	on
Core/Net 1 (Shelf 1)	Group 0	off	on	on	off	on	on	on	off

————— **End of Procedure** —————

## Cable Core 0

**Procedure 256****Cabling COM 1 and COM 2 to the I/O panel**

- 1 Connect COM1 on the CP PII faceplate to J25 on the I/O panel with cable NT4N88AA.
- 2 Connect COM2 on the CP PII faceplate to J21 on the back of the I/O panel with cable NT4N88BA.

————— **End of Procedure** —————

**Procedure 257****Connecting a terminal and modem to the I/O panel**

- 1 Connect J25 to a terminal for use during the upgrade. Use a separate terminal for each Core if available. J25 can also be connected to an A/B box to share a terminal between both Cores.
- 2 Connect J21 to the device connected in the original system (such as a modem or A/B box).

————— **End of Procedure** —————

## Connect LAN 1

The LAN 1 port is used to enable redundancy features between the two Core/Net modules. LAN 1 can also be connected to a local area network (LAN) for use with LAN based administration tools such as the Meridian Administration Tool (MAT).

The options for the LAN 1 connections are shown in Figure 133 on page 809.

### Procedure 258

#### If the system will be connected to a LAN

- 1 Connect the “Dual Ethernet Adapter (RJ45) for I/O Panel” (NTRE40AA) to J31. Secure the adapter to J31 with the two screws included in the shipment.  
Insert the adapter from the inside of the I/O panel.
- 2 Connect LAN 1 (Ethernet) on the CP PII faceplate to J31 (top) of the I/O panel with cable NT4N90BA.  
This connection can only be made *after* the Dual Ethernet Adapter is installed (see step 1 above).
- 3 Connect J31 to a LAN switch.

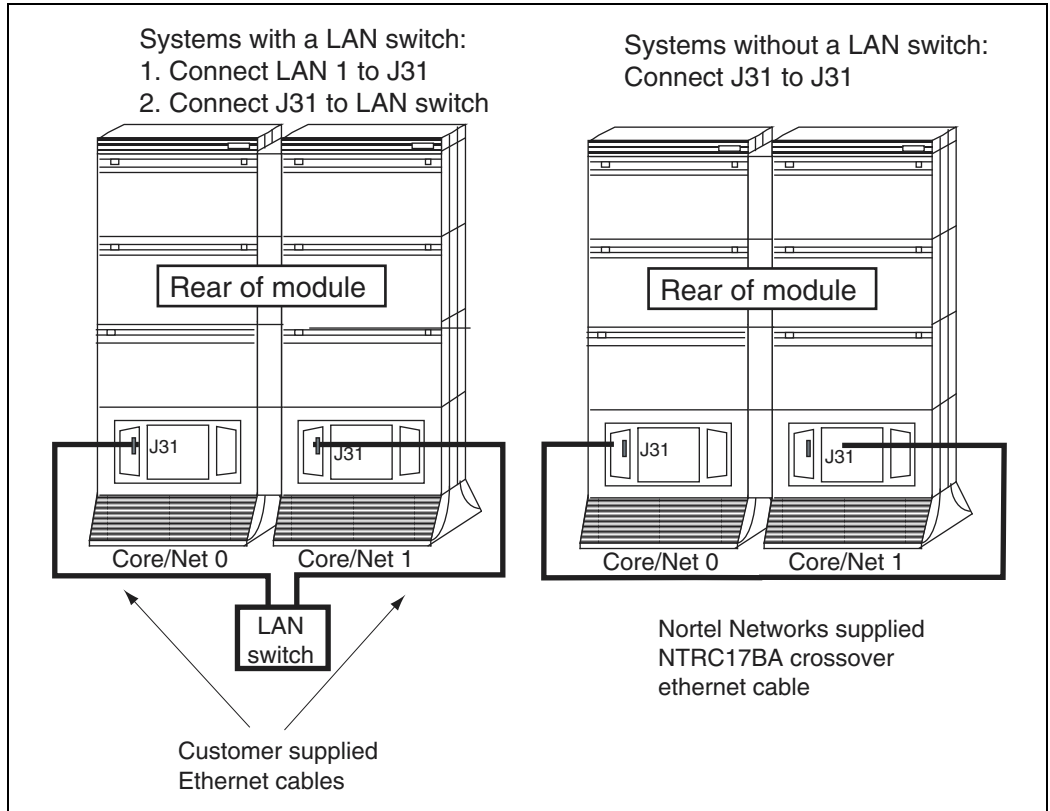
**Note:** If a LAN switch is not available, connect J31 of Core 0 to J31 of Core 1 by NTRC17BA cable.

---

**End of Procedure**

---

**Figure 133**  
**Options for LAN 1 connection**



## Connecting pre-routed CNI to 3PE cables



### WARNING

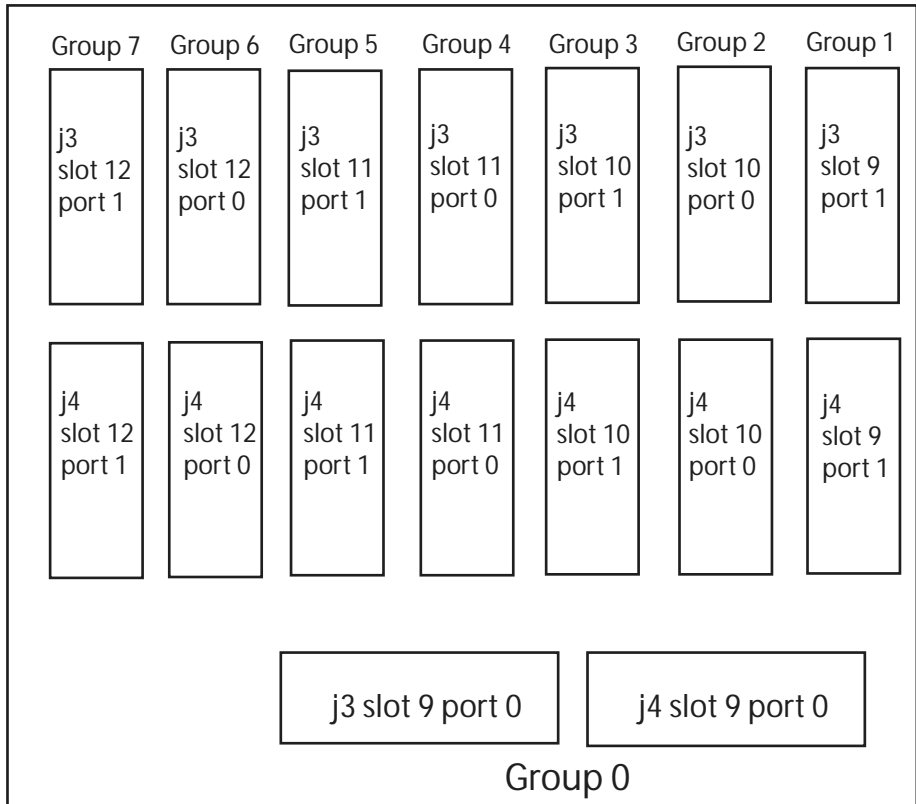
#### Damage to Equipment

Do not pry against the connector with the extraction tool. Simply inserting the tool between the connector and the securing clip is sufficient to unlock the connector. Prying may cause damage to the connector or the backplane pins.

NTND14 cables connect between the Core/Net Fanout Panel and the 3PE cards:

- See “Fanout Panel to 3PE card connectors” on [page 812](#) for detailed information on the slot and Network group assignments.
- Network group assignments for the cCNI ports in the CP PII card cage must be the same as the original system. Check to make sure that the cables are installed according to the port assignments in the existing database.
- The new NTND14 3PE cables must be routed and in place before this procedure is begun.
- Remember to label all cables with the connection information. Labels are necessary to perform troubleshooting or future upgrades.
- Table 111 on [page 812](#) contains connection information for 3PE faceplates and the Core/Net Fanout Panel.
- Figure 134 on [page 811](#) shows the connection information on the Fanout Panel.

**Figure 134**  
**Connectors for CNI Cables to the Fanout Panel**



### Procedure 259

#### Connecting the 3PE cables in the shelf 0 Network module

- 1    Connect the NTND14 cables to the Fanout Panel in Core/Net 0. See Figure 135 on [page 813](#) and Table 111 below.
- 2    Pull the NTND14 cables inside the UEM. Connect the NTND14 cables to J3 and J4 of the 3PE cards. See Figure 135 on [page 813](#) and Table 111 below for connection information.

**Note:** NTND14 cable lengths should be the same. Use cables as short as possible.

- 3    If the system has XSDI cards, reinstall the cards and attach the cables.

**Table 111**

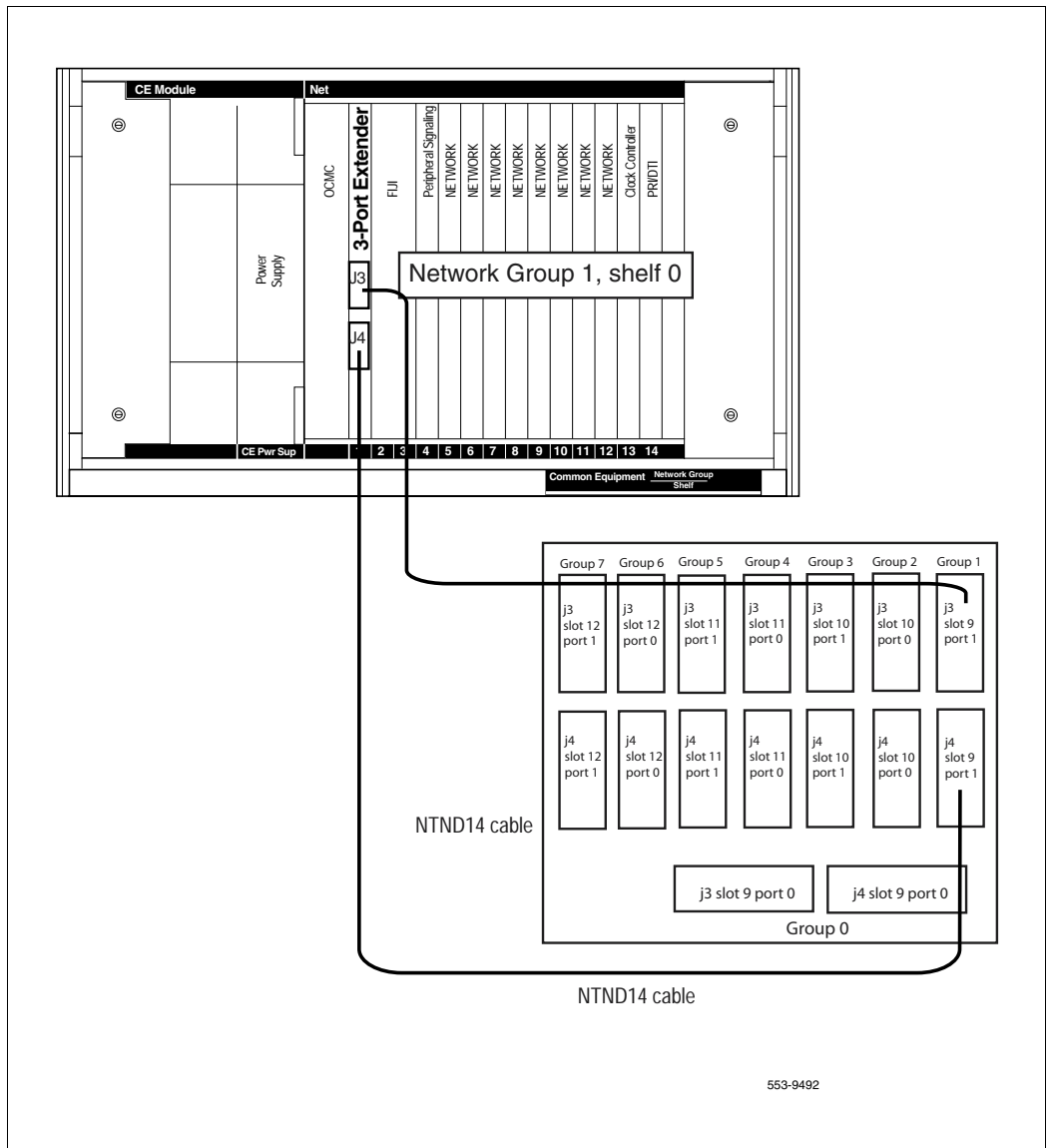
**Fanout Panel to 3PE card connectors**

Group Number	Fanout Panel connector	3PE card connector
0	9-0, J3	AB
0	9-0, J4	AB
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
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
connects from		to
<b>Note:</b> If the Core/Net module contains a network group other than group 0, use NT4N29 cables to connect the Fanout panel to the network portion of the Core/Net backplane.		

————— End of Procedure —————



**Figure 135**  
**3PE Fanout Panel connections**



## Connect intermodule cables

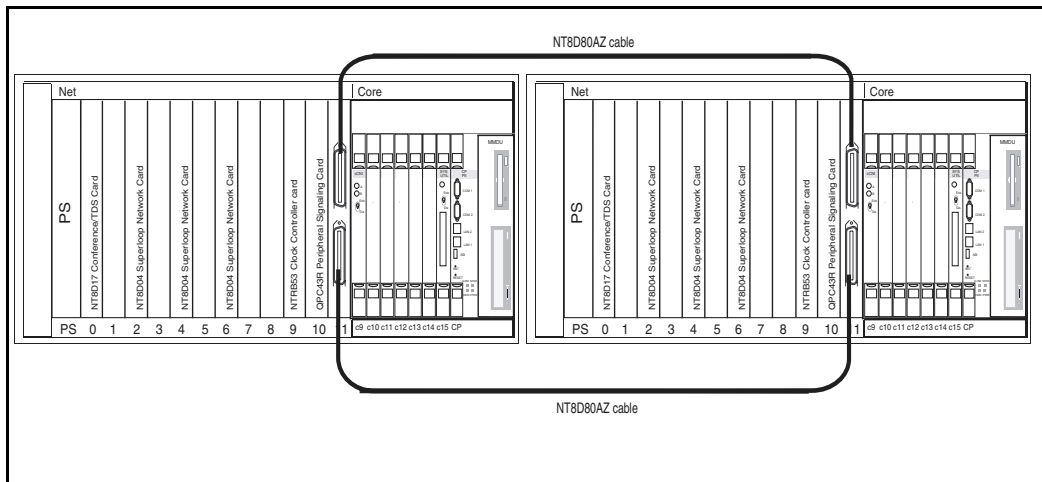
### Procedure 260

#### Connecting intermodule cables

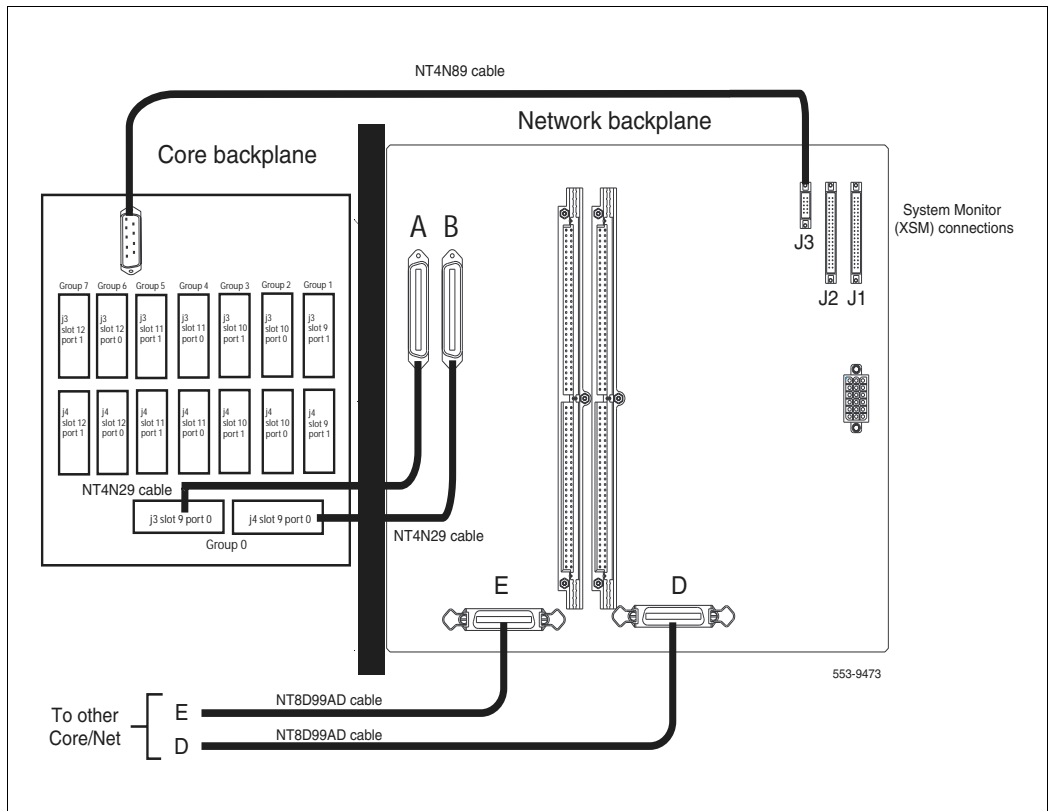
- 1 Locate and unpack the NT8D99AD and NT8D80BZ cables.
- 2 Install NT8D99AD cables between the D connectors on the backplane of each Core/Net module. Install another NT8D99AD cable between the E connectors on the backplane of each Core/Net module (see Figure 137 on [page 815](#))
- 3 Install an NT8D80BZ 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 136 on [page 814](#)).

End of Procedure

**Figure 136**  
3PE card connections



**Figure 137**  
**Fanout Panel connections on the CP PII Core/Net backplane**



## **Cable FIJI in group 0 side 0 to Clock Controller 0 and Clock Controller 1**

### **Procedure 261**

#### **Cabling Clock Controllers to FIJI**

- 1** Connect J1 of the NTRC46 cable from Clock 0 to J4 of the FIJI card in Group 0, Shelf 0.
- 2** Connect J1 of the NTRC46 cable from Clock 1 to J3 of the FIJI card in Group 0, shelf 0.

---

**End of Procedure**

---

**Procedure 262****Connecting the Shelf 0 ascending FIJI Fiber Ring Cables****IMPORTANT!**

The shortest Fiber Cable must always be used.

The cables from group 0 to group 1 must always be the same length as the cables from the last group back to group 0.

The delta between the lengths of each fiber ring from group 0 to any other group must not exceed 50'. Rings are directional. Ring 0 is ascending and ring 1 is descending.

**Note:** When adding an additional network group, fiber cables must be changed to adhere to the rules above.

To create the shelf 0 fiber optic loop, connect the FIJI cards in each Network shelf 0 in **ascending** order, from Tx to Rx (Figure 138 on [page 818](#) and Table 112 on [page 819](#)).

Remove the black cap from the end of each cable before it is connected.

**Note:** Each end of the NTRC48 cable is labeled "Tx" or Rx" in the factory.

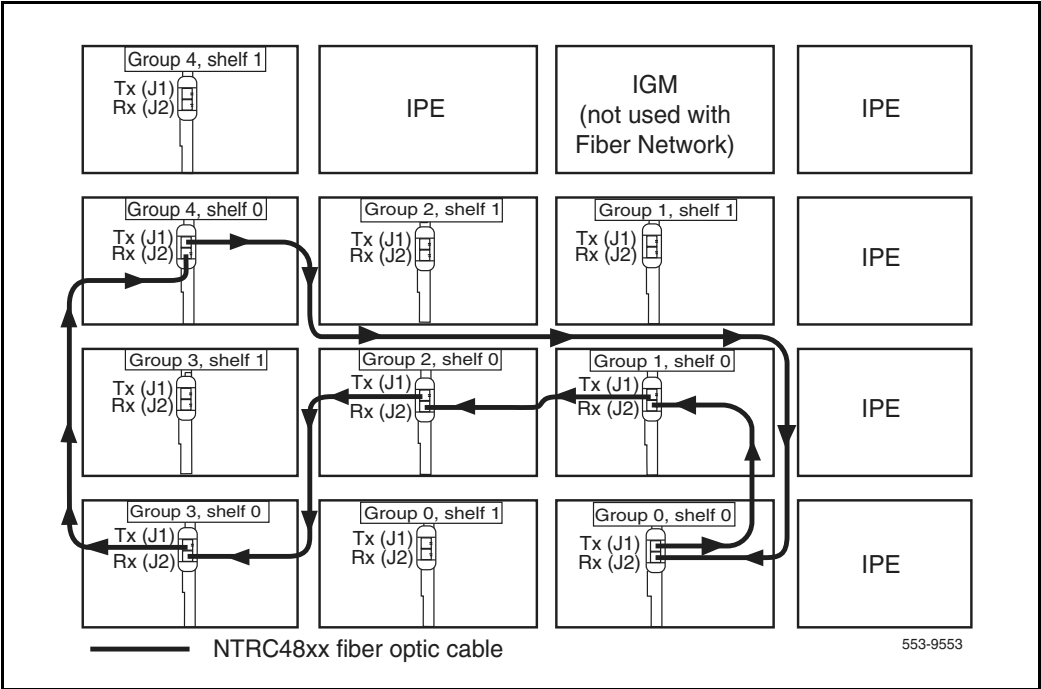
- 1 Start with Network Group 0, shelf 0.
- 2 Connect a NTRC48 FIJI Fiber Ring cable of the appropriate length from the Tx (J1) port of the FIJI card in Group 0, shelf 0 to the Rx (J2) port of the FIJI card in the group 1, shelf 0.
- 3 Connect a NTRC48 cable from the Tx (J1) port of the FIJI card from the Tx (J1) port in Group 1, shelf 0 to the Rx (J2) port in group 2, shelf 0.
- 4 Continue to connect NTRC48 FIJI Fiber Ring cables of the appropriate length from the Tx (J1) port to the Rx (J2) port in shelf 0 of each Network Group. Connect these cables in ascending order of Network Groups.
- 5 To complete the Ring, connect a final cable from Tx (J1) port to the highest numbered group, back to the Rx (J2) port in Group 0, shelf 0.

---

**End of Procedure**

---

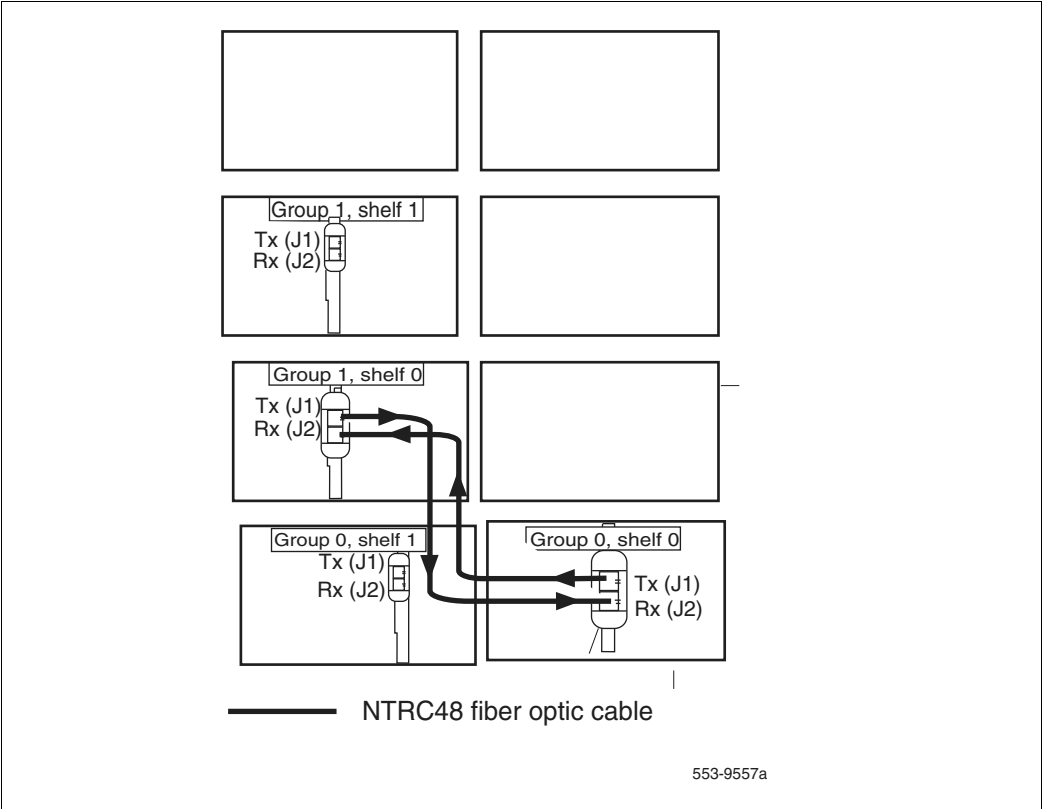
**Figure 138**  
**Shelf 0 ascending Fiber-Optic ring (Meridian 1 Option 81C 5 group example)**



**Table 112**  
**FIJI Ring 0 connections**

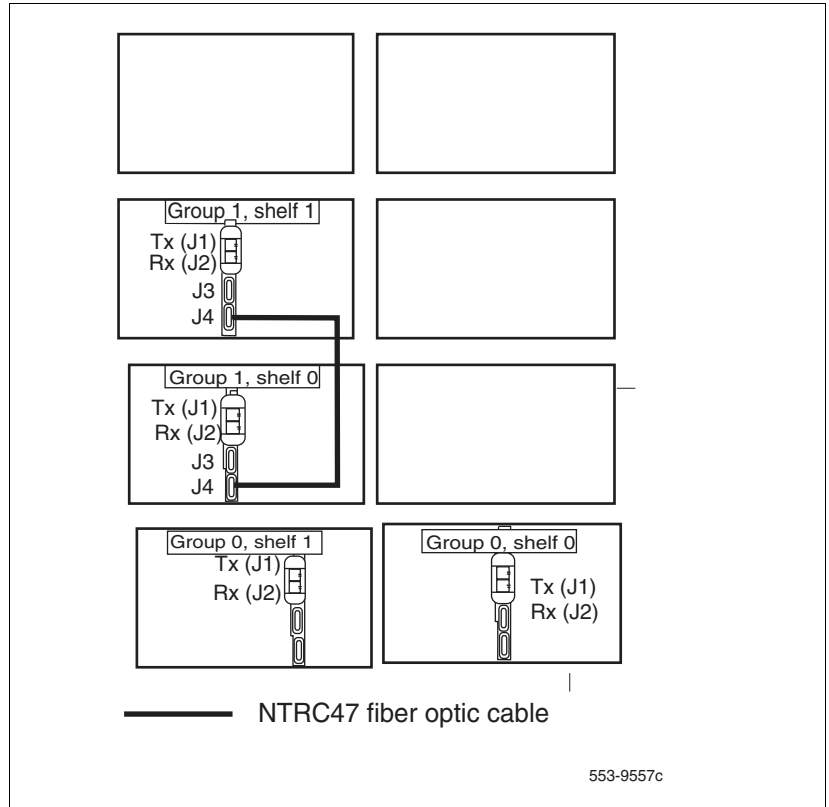
Groups X - 0 are cabled in ascending order		
Group/shelf	NTRC48 fiber cable connector	FIJI card connector
0/0	P1	Tx - J1
1/0	P2	Rx - J2
1/0	P1	Tx - J1
2/0	P2	Rx - J2
2/0	P1	Tx - J1
3/0	P2	Rx - J2
3/0	P1	Tx - J1
4/0	P2	Rx - J2
4/0	P1	Tx - J1
5/0	P2	Rx - J2
5/0	P1	Tx - J1
6/0	P2	Rx - J2
6/0	P1	Tx - J1
7/0	P2	Rx - J2
7/0	P1	Tx - J1
0/0	P2	Rx - J2
<b>Note:</b> Groups 2 through 7 are shown for reference only.		

**Figure 139**  
**Shelf 0 ascending fiber optic Ring (Meridian 1 Option 81C 2 group example)**





**Figure 140**  
**FIJI to FIJI cables**



## Connect FIJI to FIJI cables

### Procedure 263

#### Connecting FIJI to FIJI cables

- 1 Connect P2 of a NTRC47 FIJI to FIJI cable to J4 of the FIJI cards in each Network shelf 0, except Group 0.
- 2 Connect P1 of a NTRC47 FIJI to FIJI cable to J4 of the FIJI cards in each Network shelf 1, except Group 0.

**Note:** The FIJI cards in Group 0 do not use a FIJI.

---

End of Procedure

---

### Procedure 264

#### Connecting LAN 2 in Core/Net 0 to LAN 2 in Core/Net 1

The LAN 2 ports on the CP PII faceplates are directly connected with a NTRC17AA cable. This connection is for Core redundancy.

- 1 Connect a crossover Ethernet cable (NTRC17AA) to the LAN 2 port on the CP PII faceplate of Core/Net 0 (see Figure 132 on [page 803](#)).
- 2 To ensure EMI shielding, route the cable along the front of the card cage and through the sides of the Core/Net modules.
- 3 Connect the other end of the cable to the LAN 2 port on the CP PII faceplate in Core/Net 1.

---

End of Procedure

---

## Restore power

### Procedure 265

#### Preparing for power up

- 1 Confirm that a terminal is connected to the J25 I/O panel connector on Core/Net 0.

**Note:** A maintenance terminal is required to access the Core/Net modules during the upgrade.

- 2 Connect a terminal to the J25 port on the I/O panel in Core 0.

**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, the terminal will have to 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** Seat and Faceplate enable Clock Controller 0 and ALL FIJI on Shelf 0.**5** Faceplate enable all core and network cards in Core/Net shelf 0 and Network shelf 0.

---

**End of Procedure**

---

**Power up Core cards****Procedure 266****Powering up core cards**

- 1** Disconnect NTRC17BA crossover ethernet cable from the faceplate of CPU 0.
- 2** For AC-powered systems (NT8D29BA), set the MPDU circuit breaker located at the left end of the module (Core/Net shelf, Network shelf and any Intelligent Peripheral Shelf) to ON (top position).
- 3** For DC-powered systems, faceplate enable all the power supplies (Core/Net shelf, Network shelf and Intelligent Peripheral Shelf).
- 4** Set the corresponding breaker for the modules in the back of the column pedestal to ON (top position).
- 5** 10 seconds after power up of Core/Net 0, press the INI button on Core/Net 1.

- 6    Wait for the system to load and initialize.



Core/Net 1 is now active. All network cards in Core/Net 0 and Core/Net 1 are enabled. Call processing is resumed.



**IMPORTANT!**

**Service Interruption**

It may take 10-15 minutes to complete the INI. FIJI will try to download new firmware (if necessary).

---

**End of Procedure**

---

**Procedure 267**  
**Testing Core/Net 1**

- 1    Test the clocks:
- a.    Verify that the clock controller is assigned to the *active* Core.

<b>LD 60</b>	Load program
<b>SSCK <i>x</i></b>	To get the status of the clock controllers ( <i>x</i> is “0” or “1” for Clock 0 or Clock 1)
<b>SWCK</b>	Switch the Clock (if necessary)
<b>****</b>	Exit program

- b.    Verify that the Clock Controllers are switching correctly.

<b>SWCK</b>	Switch the Clock
<b>SWCK</b>	Switch the Clock again

- 2    Test the Fiber Rings.

    See *Software Input/Output: Maintenance* (553-3001-511) for more information on overlay 39 commands.

- a. Check that the Fiber Rings operate correctly:

<b>LD 39</b>	Load program
<b>STAT RING 0</b>	Check the status of Ring 0 (HALF/HALF)
<b>STAT RING 1</b>	Check the status of Ring 1 (HALF/HALF)

- b. If necessary, restore the Rings to Normal State:

<b>RSTR</b>	Restore both Rings to HALF state
-------------	----------------------------------

- c. Check that the Rings operate correctly:

<b>STAT RING 0</b>	Check the status of Ring 0 (HALF/HALF)
<b>STAT RING 1</b>	Check the status of Ring 1 (HALF/HALF)

- 3** Check the status of the FIJI alarms

<b>STAT ALRM</b>	Query the alarm condition for all FIJI cards in all Network Groups
------------------	--

<b>****</b>	Exit program
-------------	--------------

---

**End of Procedure**

---

## Install software on Core 0

### Procedure 268

#### 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 completed!
```

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

Copyright (c) 1993-1996 RST Software Industries Ltd. All rights 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 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)
```



- 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



**IMPORTANT!**

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

**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: 2540 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 2540 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. Insert the database floppy from Core/Net 1 MMDU 1 to Core/Net 0 MMDU:

Software release 0300K was installed successfully on Core 0.

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 0 disk drive).

<b> - Install DEFAULT Database

(the installation CDROM must be in the Core 0 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: 2540 to the hard disk on Core X. release: 2540.

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/disk3321.sys

>Quit Install. Reboot system...

**Note:** Before completing the next procedure, wait for Core/Net 0 to INI. Remove database floppy from Core/Net 0 MMDU and insert into Core/Net 1 MMDU.

---

**End of Procedure**

---

**Procedure 269****Checking for Peripheral Software Download to Core 0**

Load LD 22 and print Target peripheral software version. The Source peripheral software version was printed in "Print site data" on [page 727](#).

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.
- The system drops established calls on IPE.

**LD 22**

<b>REQ</b>	PRT
<b>TYPE</b>	PSWV
<b>ISSP</b>	Print System and Patch Information
<b>SLT</b>	Print System Limits
<b>TID</b>	Print the Tape ID
<b>****</b>	Exit program

- 1** Perform a data dump to save the customer database to the hard drive and floppy disk. Insert a blank floppy into the Core/Net 0 MMDU.

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

**LD 43**            Load program

- b.** 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.

- 2 When "DATADUMP COMPLETE" and "DATABASE BACKUP COMPLETE" appear on the terminal, enter:

\*\*\*\* Exit program

---

**End of Procedure**

---

## Make the system redundant

### Procedure 270

#### Enabling system redundancy:

- 1 Connect NTRC17BA from LAN 2 of Core/Net 1 to Lan 2 of Core/Net 0.
- 2 Initialize (INI) Core/Net 0.



Once the INI is complete on the *inactive* Core (Core/Net 0), the system will operate in full redundant mode with Core/Net 1 active.

---

**End of Procedure**

---

## Complete the CP PII upgrade

### Procedure 271

#### Testing Core/Net 1 and Core/Net 0

**From Core/Net 1**, perform these tests for both Cores:

- 1 Perform a redundancy sanity test:

#### **LD 135**

**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**

**TEST LCDs**      Test LCDs

**DSPL ALL**

c. Check that the LCD display matches the software check.

- 3 Test the System Utility cards and the cCNI cards:

#### **LD 135**

**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 Switch Cores and repeat the tests to confirm that the data is consistent.:

**LD 135**

**SCPU** Switch cores

**STAT CPU** Get status of the CPU

**TEST CPU** Test the inactive Core

**TEST LEDs** Test LEDs

**TEST LCDs** Test LCDs

**DSPL ALL**

**STAT SUTL** Get status of System Utility (both main and Transition) cards

**TEST SUTL c s** Test System Utility cards, both main and Transition cards

**STAT CNI c s** Get status of cCNI cards, both main and Transition cards (core, slot)

**TEST CNI c s** Test cCNI cards, both main and Transition cards (core, slot)

- 5 Test system redundancy:

**LD 137**

**TEST RDUN** Test redundancy

**DATA RDUN**

**TEST CMDU** Test the MMDU card

- 6** Install the two system monitors. Test that the system monitors are working:

<b>LD 37</b>	Load program
<b>STAT XSM</b>	Check the system monitors
<b>****</b>	Exit program

- 7** Clear the display and minor alarms on both Cores:

<b>LD 135</b>	
<b>CDSP</b>	Clear the displays on the cores
<b>CMAJ</b>	Clear major alarms
<b>CMIN ALL</b>	Clear minor alarms

- 8** Get the status of the Cores, cNIS, and memory.

<b>STAT CPU</b>	Get the status of CPUs and redundancy
<b>STAT CNI c s</b>	Get the status of cCNI cards (core, slot)

- 9** Test the clocks:

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

<b>LD 60</b>	Load the program
<b>SSCK <i>x</i></b>	Get the status of the clock controllers ( <i>x</i> is “0” or “1” for Clock 0 or Clock 1)
<b>SWCK</b>	Switch the Clock (if necessary)
<b>****</b>	Exit program

- b.** Verify that the Clock Controllers are switching correctly.

<b>SWCK</b>	Switch the Clock
<b>SWCK</b>	Switch the Clock again

**10 Test the Fiber Rings:**

See *Software Input/Output: Maintenance* (553-3001-511) for more information on overlay 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)

**11 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**

---

**Perform a data dump**

**Procedure 272**

**Performing a data dump to backup the customer database:**

**1**    Log into the system.

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

**LD 43**                      Load program



**3** Insert a floppy disk into the MMDU to back up the database.

**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

---

**End of Procedure**

---

**Add an IPE module, if required**

Place an IPE module on top of the Core 1 column, if required. Refer to *Large System: Installation and Configuration* (553-3021-210).

Refer to Engineering Guidelines for Meridian 1 Option 81C to re-engineer the system, if required.

The Meridian 1 Option 61/61C upgrade to Meridian 1 Option 81C with CP PII and Fiber Network Fabric is complete.



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**Meridian 1**  
**Succession 1000M**  
**Large System**  
**Upgrade Procedures**  
**Book 1 of 3**

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