Meridian 1

Option 11C Compact
Meridian Mail Compact Option

General Release Bulletin

Document Number: **P0885540**
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Important Note: This bulletin contains important system advisements.

Please read prior to performing installation

Revision History

This is the revision history of the Option 11C Compact General Release Bulletin.

Document Issue Number	Reason for Change
1.0	Original Option 11C Compact Product Introduction
1.01	PBX software Generic X27 Release up-issue to 1.01
1.10	Option 11C Compact Hospitality Introduction

Table of Contents

Overview

This bulletin provides general information regarding the installation, support and operation of:

- The Option 11C Compact system running Software Generic X27 Release 1.10
- Meridian Mail Compact Option running Release 12.12 software
- Meridian Administration Tool software release 6.1
- Hospitality Software Applications

Chapter 1 - System Advisements
Option 11C Compact PBX

Systems Supported

Generic X27 Release 1.10 and earlier releases support the Option 11C Compact system.

Software Daughterboard NTMW30AC (NTDK81AA)

NTMW30AC is the order code for the software daughterboard NTDK81AA that is factory loaded with Option 11C Compact Generic 27 release 1.10 software. The NTDK81AA is a new card type used with the Meridian 1 small systems Option 11C and Option 11C Compact product lines. It is replacing the NTDK21AA. The NTDK81AA has an additional 8 Megabytes of program store memory (making 32 MB, plus 8 MB for the File System), but is otherwise a direct replacement for the existing NTDK21AA. The new board has been used for all new system shipments beginning with the market release 1.01. The existing NTDK21AA can continue to be used with the new software release 1.10.

Note: The new NTDK81AA board requires minimum software Release 1.01.

Trunk Access Codes with Hospitality

The Compact Hospitality PBX software package set contains Basic Alternate Route Selection (BARS) which contains only one ESN access code for trunk access. The hospitality industry is used to access code 8 and 9 as trunk access codes. If BARS is used and two access codes are required, the Option 11C Compact must be configured with the Pretranslation or Single Digit Access feature to convert an 8 to a 9. This makes the digit 8 and 9 transparent. The calls are treated the same way whether the user dials 8 or 9. Use ESN to direct different call types (NXX vs NPA) to different trunk routes.

Example: Configure Overlay 86 ESN access code 1 (AC1) as 9 and configure the Pretranslation feature to convert 8 to 9. This will enable any TN configured to use the Pretranslation list (XLAT) to convert an 8 into a 9.

Overlay 25 Blocked

The use of overlay 25 is blocked on the Option 11C Compact.

PRI Loopback Tests

1) LD 60 - RLBK (Remote Loopback) this command functions correctly. It puts the pack in remote loopback. Far end can now run continuity pattern tests.

2) LD 60 - RMST (Remote Selftest) Running RMST on the PRI card returns an OK, but the test is not actually performed.

System Security

Nortel Networks strongly recommends changing the default system passwords for Option 11C Compact, Compact Option and MAT systems during initial installation. These passwords should be changed again when the system is placed in active service. These actions will help deter unauthorized system access which can result in toll fraud or system abuse.

For more information, please refer to the System Security Management NTP (553-3001-302).

Audit Routine

As in the case of Meridian 1 software releases, it is recommended that the Audit routine (Overlay 44) be specified as the background diagnostic to optimize the system capability to deal with call processing anomalies, especially in large line size and high traffic configurations.

Use of BKO command in LD 43

The BKO command is used to backup the customer data to an external data card (blank PCMCIA card) located in the slot “B” on the CPU faceplate.

Warning: If the pre-programmed software PCMCIA card is used during BKO operation, then the card cannot be used to install software. If the card is used with Overlay 143 archive database from Drive A, the card can then also be used to install software. Nine databases can be archived on a PCMCIA.

Software Patches

MAT software updates and patches are available to Distributors at www.ntcr.com in the MAT area.

All other Option 11C Compact patch files exist in the Global Patch Database. All patch files for the Option 11C Compact should be placed in the following directory: c:/u/patch. There are 5 ways to get a patch file into this directory.

Patches can be downloaded to the switch by FTP over an Ethernet connection.

Patches can be downloaded to the switch by FTP over a serial line using SLIP.

Patches can be downloaded to the switch by FTP over a serial line using PPP.

Program the patch file onto a PCMCIA card. Install the PCMCIA card in drive a. In pdt copy the patch file from the PCMCIA card to the c drive. E.g.: cp a:newpatch.p c:/u/patch/ newpatch.p

Patches can be downloaded to the switch using XMODEM file transfer over a serial line.

The following is the description of the pdt commands to **perform a file transfer using the XMODEM protocol**.

rx - command for receiving a file

sx - command for sending a file

To use rx, PDT Level 1 or Level 2 password login is required. To use sx, PDT Level 2 password login is required. This is done for security purposes so that you can't get any data out of the system unless you know the PDT Level 2 password.

To transfer a file from a PC/workstation to the switch

pdt> rx [path/]filename.ext

You then enter the appropriate commands to invoke xmodem file transfer on the PC/workstation

To transfer a file from the switch

pdt> sx [path/]filename.ext

Enter the appropriate commands to invoke xmodem file transfer on the PC/workstation. For binary files (e.g., patch files and database files), please ensure that the files are transferred in binary mode. When the transfer is completed, a transmission summary is displayed and the pdt prompt is shown.

total packets:	20
number of retries:	0
receive timeouts:	1
system errors:	0
unknown characters:	0
transfer cancelled:	0
packets received out of sequence:	0
packets with corrupted sequence:	0
packets failed checksum/crc check:	0
incomplete packets:	0
duplicate packets:	0

The following is an **example in a unix environment**:

Use tip to connect to the switch (if you telnet to the switch you can't use umodem).

To transfer a patch to the switch:

in pdt

```
 cd c:/u/patch
 rx newpatch.p
```

When the system prompts “Ready to receive...”, invoke local command mode by typing ~C (tilde C) and issue the umodem (s)end (b)inary command.

```
 ~C      (tilde C to enter local command)
 umodem -sb ~mydir/patches/newpatch.p
```

To transfer a file to the workstation

in pdt

cd to directory e.g. c:/p/sl1

sx direct.rec

When the system prompts “Ready to send...”, invoke local command mode by typing ~C (tilde C) and issue the umodem (r)eceive (b)inary command.

~C (tilde C to enter local command)

umodem -rb ~mydir/backup/direct.rec

The following is an **example in a PC/Window 95 environment**:

Use the HyperTerminal application to dial up to the switch.

To transfer a patch to the switch

in pdt

cd c:/u/patch

rx newpatch.p

NTMW35 10 Slot Expansion Cabinet Provisioning limitation

There is a provisioning limitation you must be aware of. **The** 10 slot **expansion cabinets can only supply a maximum of six NTMW05** digital line cards. The cabinet can be equipped with all ten slots of any card combination with no more than six of them being NTMW05’s. The market segment targeted is a highly analog environment and will not require a large number of digital line cards.

Meridian Mail Compact Option Advisements

It is essential that this section be read before installing or upgrading a Meridian Mail Compact Option system.

Meridian Mail Release 12.12 Compact Option

This release allows upgrade from MM11.19 Compact Option to MM12.12. No change will be required on the hardware for the General Business customers. The Compact Hospitality package is available starting with MM12.12. The necessary hardware is included in this package.

Any Compact Installations, which is using MM11.19 and wants to take advantage of the features supported on MM12.12 must upgrade. If a Meridian Mail Compact Option is using MM11.19 and wants the Remote Notification (Outcalling) or Enterprise Networking supporting up to 150 sites; it must be upgraded to MM12.12 which will automatically enable those features as part of the key codes.

Hardware Requirements

The following lists the hardware requirements for the Compact General Business customers and the Hospitality customers.

Compact	Application	Product	Description	Release
X27 Rls. 1.01	General Business	NTMW02AA	68K Processor Pack	05
		NTMW03AA	Digital Voice Processor	03
		NTAK30DB/ QCA7015C	External Tandberg Tape Drive U.S. (optional) External Tandberg Tape Drive Can. (optional)	N/A
		A0679119	Seagate ST52160N 2GB Disk Drive	N/A
		A0728841 or A0654974	Citizen GSX-190IF Serial Printer (optional) or DEC LA30N printer	N/A
X27 Rls. 1.01	Hospitality	All of above		
		NTMW50AA	RSM Module	TBD
		NTMW51AA	RSM Cable, 4 ft.	TBD
		NTMW55AA	GAC Cable, 40 ft.	TBD
		A0383526	DEC 520 Terminal	N/A
		NTND93AA	PMSI Cable (optional).	

Installation and Modification Advisements

Hard Disk Drive and Voice Card Daughterboard

The hard disk drive and the 4-port voice card daughterboard (NTMW03AA DSP) are packaged separately to protect these parts from damages during product shipment from the warehouse to the site. These parts need to be mounted on the Mail CPU Card (NTMW02AA) before the software can be loaded. Please note that the hard disk drive should be screwed on the bracket before the daughterboard is snapped into position. This will allow enough clearance of the screwing task without the blockage of the daughterboard. After these parts are mounted, they are adjacent to each other. Two screws on the hard disk drive bracket will touch the PCB (Printed Circuit Board) edge of the voice card daughterboard. There is no electrical impact to the product.

Mail CPU Faceplate LEDs

There are 2 LEDs on the faceplate: a green LED (ACT) and an amber LED (HDD).

NTMW02AA pack in stock will have one end of the 2-inch LED Jumper Wire attached to the P4 connector on the board. (i.e., the red wire is connected to the side marked with '+' (positive) of the P4 connector). However, the installer in the field will need to connect the other end of the wire to the hard disk drive after he installed the hard disk to the NTMW02 board. The method is as follows: the red wire (positive) goes to pin 14, and the black wire (negative) goes to pin 13.

Test the faceplate LEDs by plugging in the circuit pack in its cabinet location. It will take approximately 10 seconds after Meridian Mail Compact Option is reset for the hard disk to be accessed and the HDD faceplate LED to light.

At bootup, the green LED will light up for about half-a-second and then go off. After the internal hardware diagnostics is complete, this green LED will stay on if all of the Mail CPU Card hardware passes its test. A flashing green LED indicates that some hardware is in faulty condition. Typically this fault can be cleared away by tightening the connection of the SCSI drive and/or the hard disk drive; or by replacing the hard disk drive, if necessary.

The amber LED (HDD) will light whenever the hard disk drive is being accessed.

Tandberg Tape Drive

Tape Drive Termination

The external Tandberg tape drive for Compact Option systems (labeled Panther 2000-SE) already contains internal termination. Therefore, if an external terminator plug is supplied in the tape drive kit, it should NOT be installed since double termination may cause problems with the Compact Option system operation. In case of difficulties, check also the jumper setting of J5 of the hard disk drive. SCSI Terminator should be Disabled.

Refer to the *Stopping Compact Option for Maintenance* section later in this document or the *Site Planning and Installation.*

SCSI Cable Ground Wire

The SCSI cable for the Tape Drive has a small ground wire with a spade connector attached to it. The ground wire is used for extra ground capability as the NTMW02AA Mail CPU Card is already grounded inside. The NTMW02AA Mail CPU Card is equipped with a small ground lug on the faceplate of the CPU Card. One can attach the spade connector to the ground lug on the faceplate of the NTMW02AA Card.

After completing system operations

After every system operation your system should be booted to full service. Prior to booting, the following items must be checked on the Option 11C Compact PBX:

1. The time is set properly.

2. The virtual agents are in idle state.

3. The corresponding link is in autosetup

Disk MTBF

The NTPs indicate that mean time between failure of disk drives is estimated to be 8 years or greater. This failure rate is based on electrical failures and therefore not conclusive with regard to disk drive life expectancy. Users should expect to replace disks within 5 years.

BV66656 Modified fields of diagnostic port in Tools level

The diagnostic port baud rate should not be allowed to be modified in the Tools level Data Port Configuration screen. The only baud rate that is supported by the port is 2400 baud. If the baud rate is set to any other value the information printed to the console will be unreadable. Users should not set the rate to any other value but 2400 baud.

BV67331 Backup Status does not reflect reality

When a second backup is performed to a backup tape and the tape label is a different name than the first backup tape only the backup status of the first tape is displayed.

Dialing Translations Advisements

The following diagram and examples show the parts of a DN. This is especially relevant to the Dialing Translations section where it is important to understand the structure of a DN and how its parts get translated by Meridian Mail.

DN Format

Y C NPA NXX XXXX

WhereY is the network dialing prefix that is used to access the public network. Examples are 9, 8, and 6.

C is the country code.

NPA is the Numbering Plan Area (or area/city code).

NXX is the exchange code.

XXXX is the local number.

DNs do not have to include all of these parts. For example, local DNs will not include a country code or area code.

Examples

6-1-416-555-2323

9-1-215-444-1234

6-333-4532

Networking Capacity

The Networking Sites have been upgraded from 10 to 150 on Compact Option. This number of sites is supported on all Meridian Mail platforms.

General Administrative Advisements

Warning: If the remote maintenance terminal is used for remote admin. It is essential to return service to the console before disconnecting. If this procedure is NOT followed, further access to that port is inhibited until a reboot is performed.

Warning: If the terminal appears to 'freeze', that is, it does not respond to keyboard input, try selecting Clear COMM from the terminal's SETUP screen. If this option is not present Resetting the terminal or powering it down and up may help. Ensure that the terminal baud rate is correct.

Warning: When performing a backup on a Viper tape drive, the drive indicator does not always go off when the backup write operations are completed for that tape cartridge. Please rely on messages on the MMI screen to indicate completed tape operation.

Warning: Multiple Appearance DNs are not supported.

Warning: During a system reboot, there is a 6124 SEER 'Time-out waiting for node to load ...'. The system will load with no problem. The SEER does not have any system impact, all diagnostics have completed.

Option 11C Compact switch Interaction Advisements

External CLID

This is only an issue for systems using ESN.

WARNING: Due to an PBX interaction problem the Calling Line ID feature does not work for all scenarios. The ‘Reply’ or ‘Call Sender’ may result in a message or a call to an invalid or incorrect DN.

In MM12 COMPACT OPTION, Meridian Mail captures the CLID for external (off-switch or off-net) callers as provided by the M1 switch. Meridian Mail receives the CLID (over the AML) and transforms it into a dilable DN. This allows the receiver of the message to send a message to the caller using the REPLY command or call the caller directly using the CALL SENDER command.

For proper operation of REPLY or CALL SENDER to external CLIDs, the network must be set up such that ALL CALLS STAY ON THE ESN NETWORK or that all calls stay on the public

network. If the customer's network allows calls to be routed on either ESN and/or the public network (e.g., if the customer wants to route calls to the public network when no more ESN trunks are available), the CLID received by Meridian Mail may not always be accurate, making the REPLY and CALL SENDER commands inoperable for those messages.

The Meridian Mail relies on the M1 to suppress the CLID when appropriate.

Password Display Suppression

The Password digits may not be suppressed on the display due to the following limitations:

1. Due to the potential time lag in Meridian Mail and Meridian 1 processing of the digit suppression and disable digit suppression commands, there will be situations where one or more password digits will be displayed. There will also be situations where command digits that are entered immediately after the login password will be suppressed. These situations may occur when the Meridian 1 or Meridian Mail are under peak load and the user has not delayed before and after entering their password. When a user is in an environment where security is an issue, suppression of the complete password can be ensured by waiting for the 'Password?" prompt to be played.

2. Password display suppression of an external call logging on to Meridian Mail is not supported. The local switch has no control on the password display suppression capability of external calls.

3. Password display suppression of an attendant who logs on to Meridian Mail is not supported.

4. The Meridian 1 processes the password display suppression AML message only if the local set is supported and has a display. Sets not supported because they do not have displays include: 500/2500 sets. M2009, M2112, M2018, M2006, M2016TSG. Attendant sets may have displays but are not supported.

5. In a conference call, if a party other than the one who directly called Meridian Mail enters the password, all digits will be displayed.

6. If a conference call is established by a set during the login process, then subsequent password digits will be echoed to the screen.

Stopping Compact Option for Maintenance Procedures

Before working on the Compact Option hardware, software or attaching the tape drive to the SCSI faceplate connector, you must courtesy down the system. This allows anyone using Compact Option to finish their session before the system is brought down. During this time, no users are allowed to log on to Compact Option, and calls are directed to the Compact Option attendant.

Courtesying down the system

Log on to Compact Option at the system administrator's terminal.

From the Main Menu, choose

"5 System Status and Maintenance."Æ"1 System Status."

Press the <Courtesy Down System> softkey.

At the prompt, Do you want to courtesy down the system?,
press the up arrow key to choose Yes, and press <Return>.
The display charts the progress of the courtesy down. Hardware locations are put out of service as users finish their sessions. System Status displays "CourtesyDown" when the process is complete.

Disable the data ports for the console and the AML.

At this point, Compact Option can be worked on, an external tape drive can be attached to the mail card, and other cards can be added or replaced.

Resetting Compact Option

Compact Option does not start automatically; you must reset it manually by pressing the reset button on the Compact Option card face. Press the reset under the following circumstance:

- whenever you courtesy down Compact Option to perform System Installation and Modification with the Install/data tape or to perform troubleshooting and maintenance procedures

Resetting mail

Press the reset button on the Compact Option card.

From the Main Menu, choose "5 System Status and Maintenance."Æ"1 System Status."

Press the [Activate System] softkey.

Enable the data ports for the console and the AML.

Enter **AX** <Return> to view the Compact Option screen.

Do you have a Tandberg tape drive?

If yes, ensure that the tape drive's power is on.

If no, continue.

Wait until the system has loaded and the logon screen is displayed (approximately four minutes).

Restarting Compact Option after turning off the Option 11C Compact Switch

Compact Option loads automatically when the Compact Option Switch is turned on, but you must complete the following steps to restore Compact Option :

Log on to Compact Option at the system administrator's terminal.

Enter the correct time and date when prompted. Compact Option cannot start until these values are entered.

Enabling and disabling the console and AML data ports

Compact Option uses two data ports on the Option 11C Compact switch: port 8 is used by the system administration terminal, and port 9 is used as an Application Module Link (AML).

You must enable these ports before turning Compact Option on, and disable them before turning Compact Option off. The procedures you follow depend on the release number of the Option 11C Compact software running on your switch.

Enabling the console and the AML data ports

Log on to the Option 11C Compact Switch.

At the > prompt, enter the following:

LD 48 <Return>.

ENL AML 9 ACMS <Return> to establish the link on port 9.

Enter * * * * .

Connecting The External Tape Drive

Before connecting the external tape drive to the SCSI port on the faceplate the following steps should be followed:

1. Courtesy down the Compact Option as described above.
2. Reset the mail as described above.
3. Attach the SCSI cable to the SCSI connector. The ground wire of the SCSI cable can be connected to the power supply by loosening one of the screws on the power supply faceplate and attaching the ground wire.
4. Perform the tape operation.
5. When the tape procedure is complete, press the Reset button on the mail faceplate and disconnect the tape drive SCSI cable and ground wire..
6. Bring the mail back into operation.

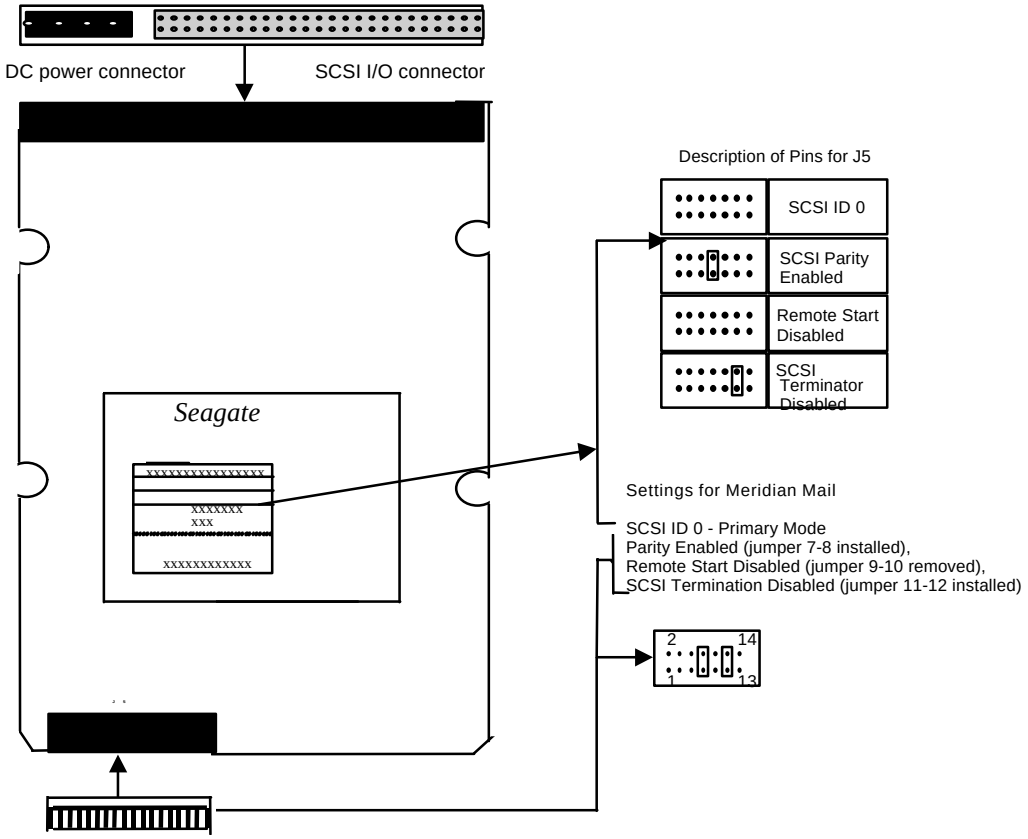
Additional disk drive and printer information

This section covers changes and additions to the Meridian Mail Compact Option documentation.

Note: Presently only the ST52160N Hard Disk Drive (2Gb) is supported for Compact Option Mail.

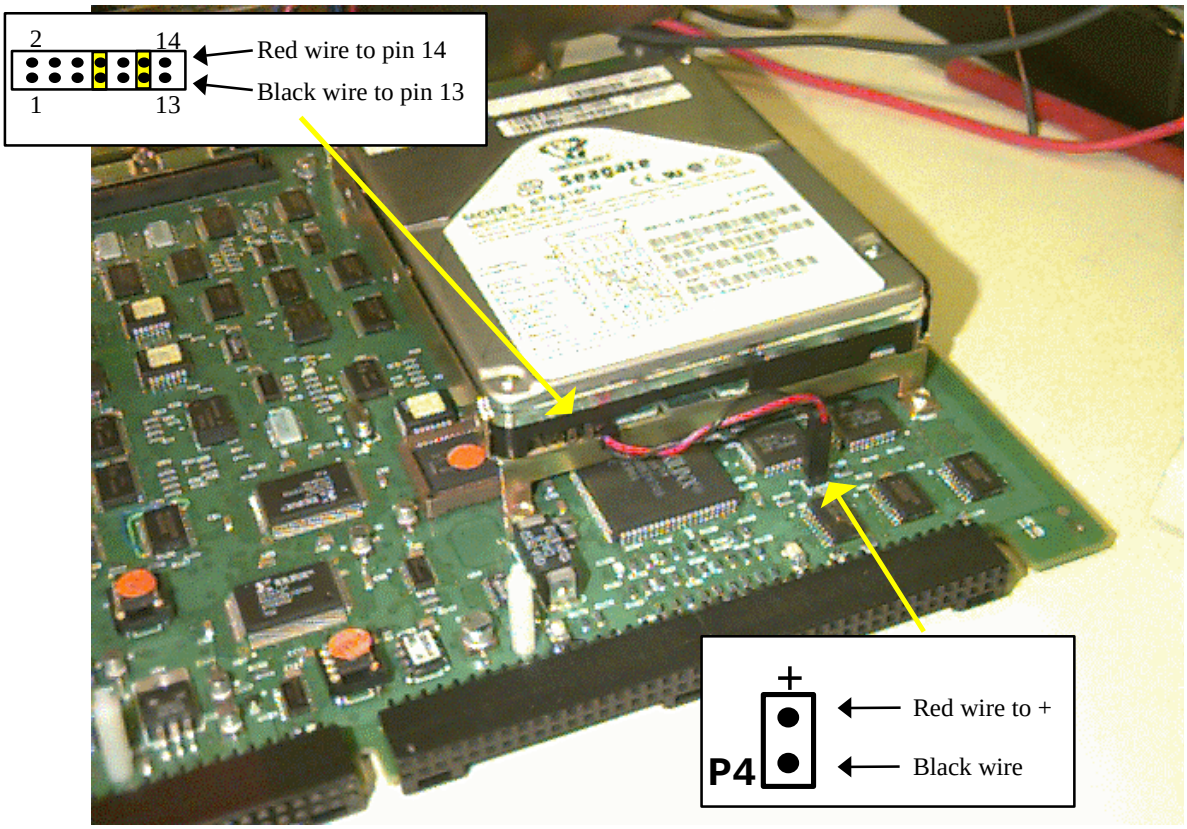
Settings for the Seagate ST52160N Hard Disk Drive

Seagate ST52160N 2 GB Drive - Compact



LED Jumper Wire

The LED Jumper Wire is a 2-in-1 twisted-pair wire about 2 inches long. It has a 2x1 connector on one end and a 2x2 connector on the other. For the market release version of the Mail CPU Card, the 2x2 connector is connected to J5 of the Hard Disk Drive. The red wire (positive) goes to pin 14, and the black wire (negative) goes to pin 13. The 2x1 connector is connected to the P4 connector on the motherboard such that the red wire goes to the side marked with "+" (positive). The following picture shows the connection of the LED Jumper Wire.



Printer

Printers are not shipped with the Compact Option system but may be ordered separately. A user can use either the Citizen Serial Printer Model GSX-190IF. DEC printer model LA30N Companion Printer is also supported.

Citizen GSX-190IF Serial printer

The Citizen GSX-190IF printer (A0728841) is set to the serial mode by default for Meridian Mail. It supports speeds from 150 through 9600 baud, and it can use XON/XOFF and DTR protocols. The package for the printer comes with the following:

- Ribbon cassette
- User's manual
- Paper extension (paper guide)
- Terminal connection cable (A0376171)
- Six step quick start note
- North American power cord

Journal Advisements

- A printer must be configured on the personal computer even though it is not required to be physically attached.

Registrar Advisements

Listed below are other helpful tips for managing the Registrar application:

- Registrar can only function with the journal Call Accounting package loaded.
- The PC running Registrar cannot be used as a GAC terminal.
- The PC PMSI port must be set at 1200 baud rate, 7 bit length, even parity and one stop bit. This can be done using the PMSI2PBX.ini file in the Windows directory. However, the PBX PMSI port must be configured as 8 bit length, no parity and one stop bit and the protocol setup on the PBX must be PMS3.
- In order for the Called Party Name Display (CPND) feature to function properly with Registrar, the CPND length must be changed from overlay 95 default of 13 characters to 27 characters.
- The Dialing Privileges feature in Registrar (Allow all calls vs. Restricted Access) requires the PBX software feature Control Class of Service to be configured for the function to operate properly.
- The PBX software Flexible Feature Code must be configured with Room Status Codes before the guests room status is reflected accurately in Registrar.
- The PBX Auto Wake-Up feature and trunks must be configured on the PBX for the Registrar set Wake-Up feature to operate.
- Prior to archiving, deleting, or restoring Call Records, Transaction Data, system data, or Rate Tables, close the Registrar and PMSI Link applications.
- A dot matrix printer is not recommended to be used with Registrar. A Windows compatible full page print capable printer like a laser or bubble jet printer is recommended.

Chapter 2 — Option 11C Compact System Description

Overview

This Chapter provides Meridian 1 Option 11C Compact system description and the markets it will address. The system is a PBX with integrated Meridian Mail Compact Option. This product is based on the Meridian 1 Option 11C PBX and Meridian Mail Card Option. This product was designed re-using existing technology to enhance the Meridian 1 product line.

The physical appearance of the product is different than the existing Option 11C but it is very similar in most ways. The cabinets are smaller and of a different color. The peripheral cards have been reduced in size but are based on the existing Meridian 1 peripheral packs, which therefore have the same functional characteristic. The Meridian Mail has a solid faceplate with the core product on the motherboard and sounds exactly the same.

Market Positioning

General Business

The Office and Inter-Office General Business Marketing packages are competitively priced extensions of the Meridian 1 Option 11C platform addressing the 40 to 80 line range. Ideally suited for the buyer looking for a single source, turnkey package with integrated voice messaging, small networking, ACD and wireless capabilities either as a key system upgrade or entry level PBX acquisition.

Hospitality

The Basic Hospitality and Advanced Hospitality Marketing packages are complete solutions targeting the highly analog and price sensitive small to medium size hotels in North America up to 165 rooms which may require two lines per room. It targets the tier 2 and 3 hotel chains with limited services that are investing in new technology to improve staff efficiency and customer satisfaction. The solutions include a PBX, an integrated Meridian Mail Compact Option, Journal call accounting software, administration telephone sets and Meridian Administration Tool.

Market Availability

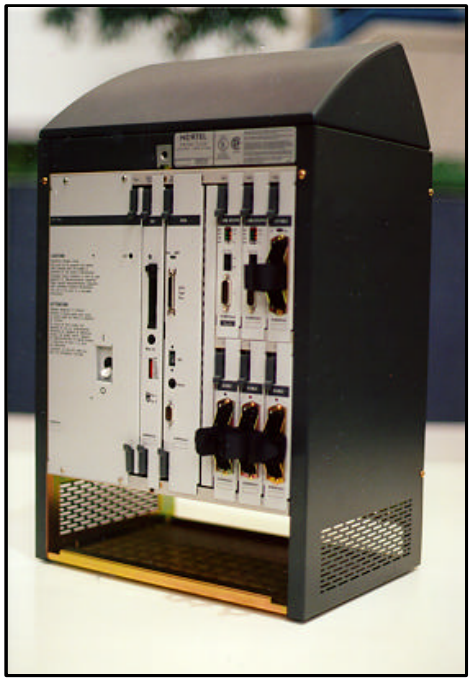
The General Business offerings are presently available to the U.S. and Canadian markets.

The Hospitality offerings will be available to the U.S. and Canadian Markets in November, 1998.

Option 11C Compact PBX Hardware

Cabinet (NTMW08)

This Option 11C Compact NTMW08 cabinet is always used as the main cabinet of all installations and also used as the expansion cabinet in general business installations. The X27 release 1.10 software configures all expansion cabinet configurations. In software all cabinets are configured with 10 slots whether the physical cabinet hardware has six or ten slots:



- Wall mounted only
- Size: 25.25”H X 15”W X 13.25”Deep
- Weight: 32lbs empty and 58.5lb full
- Color: Black
- Has a non-removable tray.
- Six mini peripheral card slots
- Meridian Mail Compact Option dedicated slot 10.
- EMI shield at the cards faceplate
- One small fan found in the back of the top cap
- One three port TTY interface connector

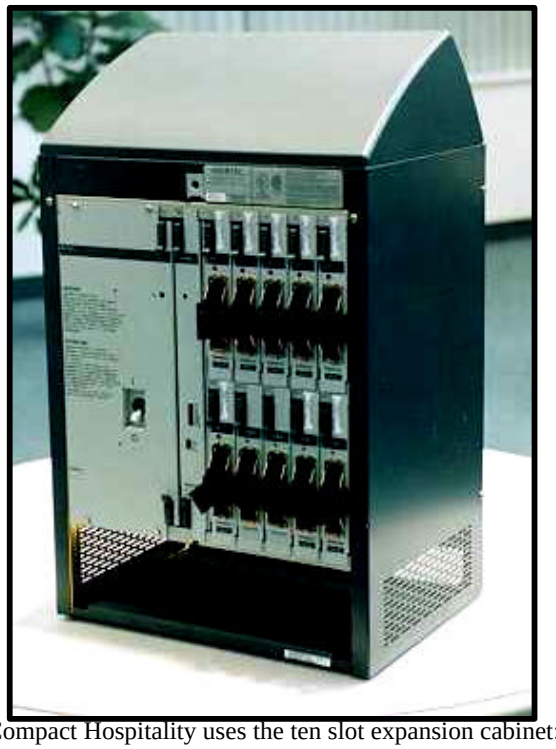
- One Ethernet connector which has direct MAU adapter (No interface cable required)
- Has one 25 pair amphenol connector to connect the RS232 Module to Meridian Mail Compact Option.
- No Auxiliary connector (No +/-15 volt console power or PFTU signal)
- UPS power backup only (No DC battery backup available)

Note: The full height Meridian Mail Compact Option dedicated card slot 10 can't be used for any other purpose. An EMI full height filler plate is required in card slot 20 when used in a general business as an expansion cabinet. The General Business packages continue to have the NTMW08 six slot cabinet as an expansion cabinet. The X27 release 1.10 software configures all expansion cabinet configurations.

Slot 3 & 4 Peripheral Card Assignment

The peripheral card slot location 3 & 4 is above peripheral card slot location 8. It is recommended to install the PRI/DTI in card location 3 & 4. Since the PRI/DTI has a smaller cable going over the peripheral card slot 8 location, it will improve the ease of replacing the card in slot 8 if necessary.

Ten slot Expansion Cabinet (NTMW35)



The Option 11C Compact Hospitality uses the ten slot expansion cabinet:

- Wall mounted only
- Size: 25.25”H X 15”W X 13.25”Deep
- Weight: 32lbs empty and 57 lb. full
- Color: Black
- Has a non-removable tray.
- Ten mini peripheral single card slots
- EMI shield at the cards faceplate
- One small fan found in the back of the top cap
- One port TTY interface connector
- UPS power backup only (No DC battery backup available)
- Cable to the MDF the same way as the main cabinet

Note1: The NTMW35 Ten slot expansion cabinet is used with the Compact Hospitality marketing packages only. The General Business packages continue to have an NTMW08 six slot cabinet as an expansion cabinet. The X27 release 1.10 software configures all expansion cabinet configurations.

Provisioning limitation
There is a provisioning limitation you must be aware of. **The** 10 slot **expansion cabinets can only supply a maximum of six NTMW05** digital line cards. The cabinet can be equipped with all ten slots of any card combination with no more than six of them being NTMW05's. The market segment targeted is a highly analog environment and will not require a large number of digital line cards.

Cabinet Cable Routing

The cabinets have a solid tray at the bottom, which was designed with a gap at the back of it. When the cabinets are mounted on the wall, it leaves the gap at the back of the tray to feed cables through. All cables connecting inside the cabinet must be passed through the gap and routed inside the cabinet to their appropriate connectors.

Power supply (NTMW11)

The PBX power supply characteristics:

- Input Voltage: AC 110 to 240V, 50/60 HZ
- Card ejector latches (Non locking)
- No DC battery backup connector
- Four faceplate installation screws
- Supplies power to every card in the cabinet even Meridian Mail Compact Option

Power Requirement

maximum per cabinet = 750VA

Option 11C Compact Un-interruptable Power supply (UPS) Requirements.

- NTMW11AA Power Supply is rated at 750 VA Max.

- Real Power is 460 Watts Max.

- Power factor of approx. 0.6

- Power up in-rush surge current is 35A max. (120VAC)

A typical 80 line single cabinet system (CPU,Mail,3-24DLC,1-PRI) will have a UPS load of approx. 360 VA.

Selecting a UPS is a function of the total power to be supplied x the total hold up time desired.

SSC Small System Controller (NTMW01)

The Option 11C Compact SSC is a standard size, single slot Meridian 1 style circuit pack that resides in slot 0 of the main cabinet. It is based in the original Option 11C SSC card but is not interchangeable.

The Option 11C Compact Small System Controller has a commercially based CPU (M68040 family) as the primary call processor. The SSC operates under the Wind River Systems VxWorks real time operating system, which is the same as the Meridian 1 Option 11C, 51C, 61C, and 81. The main features include:

- Main CPU: MC68LC040 running VxWorks.
- Auxiliary CPU: MC68020.
- Flash ROM program/file storage.
- supports the Ethernet interface.
- Two Built-in PCMCIA interfaces drives A and B
- Built-in Time of Day device (holds for up to 15 minutes).
- Supports three standard TTY ports.
- Software Flash Daughterboard.
- Two Fiber Expansion Daughterboards.
- Security Device.
- Identical Option 11C SSC Conference, TDS and Digitone Receiver capabilities

Switching Network and Real Time Measurement

- Switching Network: - totally non-blocking switching matrix
- Processing Rating: - Up to 58,000 EBC (Equivalent Basic Calls)

Note: nominal rating; actual capacity dependent on site configuration, and peripheral type.

PCMCIA Socket

The Small System Controller Card has a faceplate accessible PCMCIA type III socket. This is a dual socket that can support up to 2 PCMCIA type II cards such as FLASH cards. The intent of the PCMCIA interface is to provide a software delivery interface to the system. All system software can be delivered on a PCMCIA card and transferred to the on-board FLASH Software Daughterboard during either new system installations, or software up-issues.

Note: A PCMCIA card is **not** required to deliver software for new system installations. The Software Daughterboard comes pre-programmed with system software.

PCMCIA Card Specifications Flash device 40Mb Type II ATA manufactured by:

- Toshiba (TH6SS160402AAA)
- IBM (40G4315)

Security Device

A security device on the CPU card and a site specific keycode scheme protects installation of software, feature set and ISM parameters. The security device is installed as part of the new system installation. Each security device has a unique identification number (Security ID) and is not changeable on the device. As long as the security device stays with the system, the Security ID of the system remains the same. The Security ID is a key component of the system tracking database.

There are two types of security devices:

- The Standard Security Device is site specific and requires keycode to activate software. The standard security device is required for every site.
- The Option 11C Distributor Security Device can be used on the Option 11C Compact.

Conference

The Small System Controller supports 30 conferees. The base configuration can support up to 10 three party conferences or up to 4 six party conferences. They are factory pre configured loops 29 and 30.

Conference capabilities can be expanded by 15 ports (Loop 31) when the fiber expansion daughterboard is used. Therefore, the conference capability extends to 45 conferees for two cabinets or 60 for three cabinets.

Software Daughterboard NTMW30AA (NTDK81AA)

NTMW30AA is the order code for the software daughterboard NTDK81AA that is factory loaded with Option 11C Compact Generic 27 release 1.10 software. The NTDK81AA is a new card type used for the whole Meridian 1 small systems Option 11C and Option 11C Compact product lines (which are replacing the NTDK21AA). The NTDK81AA has an additional 8 Megabytes of program store memory (making 32 MB, plus 8 MB for the File System), but is otherwise a direct replacement for the existing NTDK21AA. The new board has been used for all new system shipments beginning with the market release 1.01. The existing NTDK21AA can continue to be used with the new software release 1.10.

Note: The new NTDK81AA board requires minimum software Release 1.01.

Software operation and storage is provided via FLASH based technology residing on a daughterboard mounted on the Small System Controller. It contains a master copy of the software, pre-configured data, firmware, feature sets, and patches. Highlights of this card include:

- Used for software storage and operating space.
- Used for software delivery for new systems

- 32 MB for program store and 8 Mb for file system.
- Mounted on CPU pack in the main cabinet.
- Re-programmable.
- Factory loaded with the software generic

Software Delivery Card (NTMW30BA)

The Software Delivery Card is a PCMCIA Flash card that can be used to deliver system software to the system. All system software can be delivered on a PCMCIA card and transferred to the on-board FLASH Software Daughterboard during either new system installations, or software up-issues.

Note: A PCMCIA card is **not** required to deliver software for new system installations. The Software Daughterboard comes pre-programmed with system software.

Highlights of this card include:

- Used for software delivery or software upgrades
- Re-programmable.
- Can be used to archive customer databases

Fiber Daughterboard (NTDK22)

Expansion to a second and third cabinet is done via CPU mounted fiber daughterboards. Each expansion cabinet requires one fiber daughterboard mounted on the CPU pack and one expansion cabinet fiber receiver pack installed in the expansion cabinet - slot 0. The Option 11C Compact system supports a 10m fiber connectivity. The fiber connectivity provides up to 10m of separation between the cabinets (main and expansion) via a plastic fiber cable. This allows flexibility in locating expansion cabinets.

The fiber daughterboards must be installed on the SSC motherboard.

The main features of the fiber daughterboards are:

- Fiber connection to expansion cabinets
- Mounted on Small System Controller
- Expansion cabinet requires a fiber daughterboard on the main CPU
- The daughterboard requires a corresponding fiber receiver pack to be installed in the expansion cabinet
- Built in conference

Fiber Receiver Pack (NTMW10)

The expansion cabinet fiber receiver pack is introduced to provide fiber transmitter and receiver interface to the main cabinet. The main features include:

- Installed in slot 0 of the expansion cabinet.
- Provides fiber interface to main cabinet.
- Includes one local TTY port with baud rate switches on the faceplate.

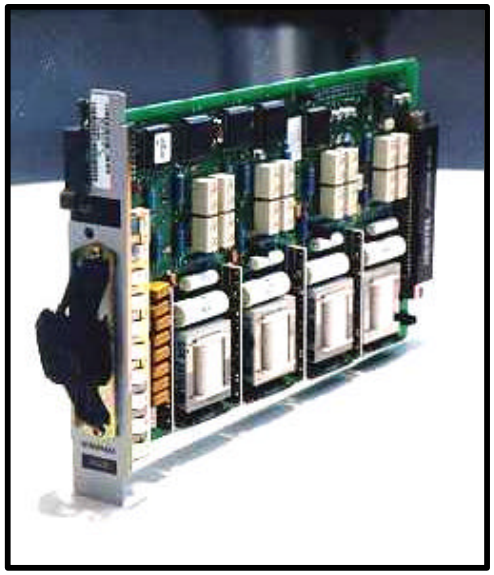
Fiber Optic Cables

The Option 11C Compact system supports the 10m plastic cable for connection between cabinets.

Fiber Specification

The plastic fiber cable is not an industry standard. It is provided by Hewlett Packard to work with a proprietary plastic fiber interface. It must be 10 meters in length. This cable is supplied by Northern Telecom (A0632902).

4 Port Analog Trunk (NTMW44)



This circuit card is new with the Option 11C Compact. The NTMW44 is a 4 port analog trunk mini peripheral card. This card is based on the NTMW07 4UT/4MLC combo card. It has one printed circuit board which holds 4 analog trunk units and unlike the combo card it does not have a Message Waiting Line Card daughterboard. This card can be located in any card slot location of any cabinet.

The NTMW44 supports all the same trunk signaling capabilities as the existing NTMW07 card.

Note that this card does not have power fail transfer capability. You must use an NTMW07 combo card in the main cabinet when power fail transfer is required.

NTMW44 Cross Connect

1	26		
2	27		
3	28		
4	29		
5	30	---	---
6	31	---	---
7	32	---	---
8	33	---	---
9	34	TR0	TT0
10	35	SIG0.A	SIG0.B
11	36	TR1	TT1
12	37	SIG1.A	SIG1.B
13	38	TR2	TT2
14	39	SIG2.A	SIG2.B
15	40	TR3	TT3
16	41	SIG3.A	SIG3.B
17	42	---	---
18	43	---	---
19	44	---	---
20	45	---	---
21	46	---	---
22	47	---	---
23	48	---	---
24	49	---	---
25	50		

NTMW04AA DTI/PRI

The Digital Trunk Interface/Primary Rate Interface card is a 1.544 Mbit DS-1 interface card. The card will do the DTI or PRI functions. The card can also be referred to as T-1 Multi Purpose Digital Interface (TMDI). The TMDI is a new Meridian 1 product being introduced for the first time on Option 11C Compact.

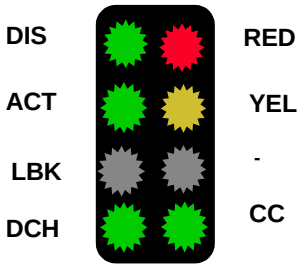
The card incorporates all the components on one card. There is no requirement for any daughterboards. The DS-1 interface, MSDL D Channel and clock circuits are all incorporated on one card.

- Mini card Size: 6”H X 1”W X 10”D
- DB15 Faceplate T-1 connector (Same pin-out as other Meridian 1 products)
- Non intrusive Faceplate Bantam T1 monitor jack
- Faceplate status LEDs

note: The CSU cable connected to the faceplate of the card must have a 90 degree connector as the one provided with the product. If you do not use a 90 degree connector, the cabinet cover may not close properly.

FACEPLATE STATUS LED's

The LEDs on the Murray PRI pack are laid out on the faceplate as follows:



The functions of the LEDs are described in the following table:

LED Label	Colour(s)	Function
DIS	red	Card disabled - LED will be lit only if all applications and TMDI are disabled in LD96
ACT	Green	Active - LED always lit if pack powered up O.K
RED	red	Local Alarm - LED will be lit while card is in a local alarm state e.g. disabled by S/W, unplugged T1 link, etc. - LED will turn off if local alarms cleared
YEL	Yellow	Remote Alarm - LED will be lit while card is detecting a remote alarm indication- LED will be off if remote

		alarm indication cleared
LBK	green	Loopback- LED will be lit when card is placed in loopback mode by S/W- LED will turn off when card is taken out of loopback mode by S/W
-	Yellow	NOT USED- LED never lit
DCH	red/green	D-channel- LED will only function if card is configured as PRI- LED will be red if DCH is disabled -LED will be off if DCH is enabled but not established - LED will turn green when DCH establishes
CC	red/green	Clock Recovery- LED will be red if circuit is disabled (system will be in free run mode) - LED will be green if circuit is enabled (card will be locked to incoming signal)

Clocking

The clock circuit incorporated on the card is called a clock recovery circuit. This clock recovery circuit does not have the same characteristics as a clock controller circuit. The clock recovery circuit has an automatic tracking mechanism, which must be used to track on a reliable incoming T-1 carrier signal like a central office signal. The circuit provides reference to the SSC to synchronize the system clock just like a clock controller does. The circuit has a high level of jitter rejection and stability. The clock recovery circuit does not provide HOLD-OVER function when there is T-1 link failure. The clock recovery circuit does not meet stratum 3 or stratum 4 clock frequency accuracy when it is in the free run mode. The circuit supports a single primary clock source and does not support a secondary one. This circuit has proven to work very reliably, robustly and without service affecting issues.

Tracking

The Option 11C Compact must track on a reliable incoming clock source like a Central Office or another Meridian 1 product. One Option 11C Compact can track on another Option 11C Compact as they have the same characteristics. Other PBXs, Central Office or external equipment can not track off an Option 11C Compact.

NTMW05AA - 24 DLC

The NTMW05AA - 24 Port Digital Line Card is based on the Meridian 1 NT8D02 16 Port Digital Line Card and has the same functionality. The card has 24 voice ports and 8 data ports. This card supports all the Aries sets 2006, 2008, 2008F, 2616, 2616CT, 2216 and 2250 console. It is a mini peripheral card with a 25 pair MDF faceplate connector. The 25 pair MDF cable is held on the faceplate by a Velcro strap.

Note: The 2250 console requires power TNS and must be used from this card as there is no AUX connector on the cabinet. The PWR TNs used do not count against the total TNS purchased.

Voice Units to Data Units Relationship on a 24 DLC:

Unit		Unit
Voice 0		Voice 16
Voice 1		Voice 17
Voice 2		Voice 18
Voice 3		Voice 19
Voice 4		Voice 20
Voice 5		Voice 21
Voice 6		Voice 22
Voice 7		Voice 23
Voice 8	◄►	Data 24
Voice 9	◄ ►	Data 25
Voice 10	◄ ►	Data 26
Voice 11	◄►	Data 27
Voice 12	◄ ►	Data 28
Voice 13	◄►	Data 29
Voice 14	◄ ►	Data 30
Voice 15	◄ ►	Data 31

◄ ► **Voice & Data Associated on same Aries Set**

NTMW06AA - 16MLC

The NTM06AA 16 Port Message Waiting Line Card is based on the Meridian 1 NT8D09 16 Port Message Waiting Line Card and has the following characteristics:

- Mini card Size: 6”H X 1”W X 10”D
- Faceplate MDF connector with Velcro strap
- Same MDF pin out as the existing NT8D09 16MLC
- Bridge 5 sets per TN and two of the 5 sets can have -150 volt message waiting lamps

NTMW07AA 4UT/4MLC Combo

The NTMW07AA 4UT/4MLC Combo is based on the Meridian 1 NT8D14BA analog trunk pack and the NT8D09 Message Waiting Line Card. There are 4 analog trunk ports, which are located on the motherboard and there 4 message waiting lines on the daughterboard. The Trunk and the MLC are configured in software with the card slot and unit. They are assigned units 0 to 3. The pack also has the following:

- Mini card size: 6”H X 1”W X 10”D
- Faceplate 25 pair MDF connector with Velcro strap
- Integrated Power Fail Transfer - PFT

The 4 analog trunks can be configured as COT Loop start, COT ground start, DID or TIE loop dial repeat, Music, Recorded announcement and paging.

Note: There is no analog 4 Wire E&M signaling available. The PRI/DTI card should be used if you require 4 Wire E&M signaling.

The 4 message waiting lines are identical to the 16 MLC lines, which provide the same functionality.

Power Fail Transfer

Unit 3 of the Combo card has the built in power fail transfer. On power fail transfer, unit 3 of the trunk pack connects to unit 3 of the message waiting line. The feature can be disabled on the card by using the jumper strap. The power fail set must have a ground Start Button to pull dial tone from the CO if the trunk at unit 3 is ground start. Power fail transfer is activated on:

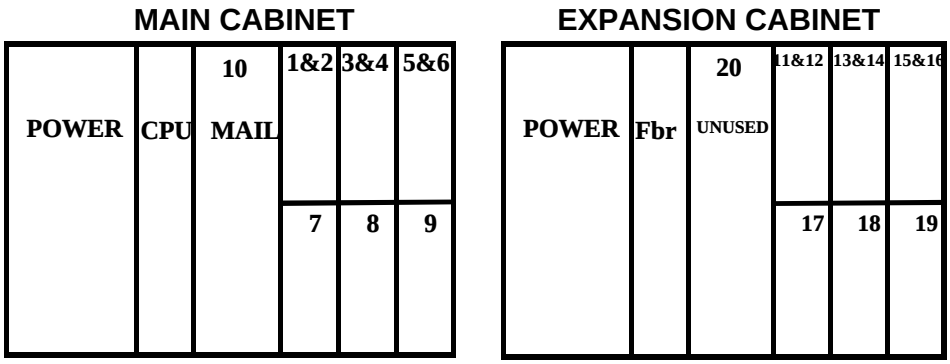
- CPU failure
- Cabinet Power failure
- Trunk disable

Peripheral Card Slot Assignment

General Business Configuration

The Office and Inter Office marketing packages are shipped with the following cabinet configuration.

The main and expansion cabinets are identical six slot cabinets. Even if the cabinets have six physical slots they are configured in software for ten slots because the top three slots are dual slot locations.



The Peripheral cards are keyed and have the following card slot location:

- The PRI/DTI can only be located in the top three slots of the main cabinet
- The Combo pack can only be located in the top three slots of either cabinet.
- The 24 DLC, 16 MLC and 4 UT can be located in any peripheral slots

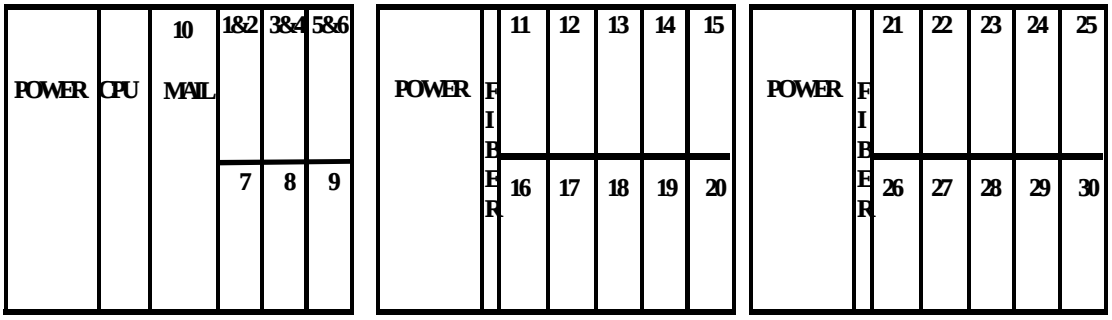
When configuring through the overlays, use the following card slot assignment:

- PRI/DTI Digital loop (DLOP) 1, 3, 5
- 4UT (motherboard) slots 1, 3, 5, 11, 13, 15 (Odd number - top slots of both cabs)
- 4MLC(daughterboard) slots 2, 4, 6, 12, 14, 16 (Even number - top slots of both cabs)
- The 16MLC, 24DLC and 4 UT slots 1,3,5,7,8,9,11,13,15,17,18,19

Hospitality Configuration

The Hospitality and Advanced Hospitality marketing packages are shipped with the following cabinet configuration.
The main cabinet is a six slot cabinet and the expansion cabinets are ten slots. The configuration supports up to two ten slot expansion cabinets. Even if the main cabinet has six physical slots and the expansion cabinets have ten slots, they are all configured in software for ten slots each.

Note: The software generic X27 release 1.10 supports all expansion cabinet configurations since the physical configuration of the cabinets is transparent to the software because they all configure in software with 10 slots each.



The Peripheral cards are keyed and have the following card slot location:

- The PRI/DTI can only be located in the top three slots of the main cabinet
- The Combo pack can only be located in the top three slots of the main cabinet.
- The 24 DLC, 16 MLC and 4 UT can be located in any peripheral slots

When configuring through the overlays, use the following card slot assignment:

- PRI/DTI Digital loop (DLOP) 1, 3, 5
- 4UT (motherboard) slots 1, 3, 5 (Odd number - top slots of the main cabinet)
- 4MLC(daughterboard) slots 2, 4, 6 (Even number - top slots of the main cabinet)
- The 16MLC, 24DLC and 4 UT slots:
  1,3,5,7,8,9,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30

Peripheral Cards Cross Connect Pin Out

Pin #		PRI/DTI		24DLC		16MLC		4UT/4MLC	
1	26	TxT	xxx	R0	T0	R0	T0	R0	T0
2	27	---	xxx	R1	T1	R1	T1	R1	T1
3	28	RxT	xxx	R2	T2	R2	T2	R2	T2
4	29	---	xxx	R3	T3	R3	T3	R3	T3
5	30	---	xxx	R4	T4	R4	T4	---	---
6	31	---	xxx	R5	T5	R5	T5	---	---
7	32	---	xxx	R6	T6	R6	T6	---	---
8	33	---	xxx	R7	T7	R7	T7	---	---
9	34	TxR	xxx	R8	T8	R8	T8	TR0	TT0
10	35	---	xxx	R9	T9	R9	T9	SIG0.A	SIG0.B
11	36	RxR	xxx	R10	T10	R10	T10	TR1	TT1
12	37	---	xxx	R11	T11	R11	T11	SIG1.A	SIG1.B
13	38	---	xxx	R12	T12	R12	T12	TR2	TT2
14	39	---	xxx	R13	T13	R13	T13	SIG2.A	SIG2.B
15	40	---	xxx	R14	T14	R14	T14	TR3	TT3
16	41	xxx	xxx	R15	T15	R15	T15	SIG3.A	SIG3.B
17	42	xxx	xxx	R16	T16	---	---	---	---
18	43	xxx	xxx	R17	T17	---	---	---	---
19	44	xxx	xxx	R18	T18	---	---	---	---
20	45	xxx	xxx	R19	T19	---	---	---	---
21	46	xxx	xxx	R20	T20	---	---	---	---
22	47	xxx	xxx	R21	T21	---	---	---	---
23	48	xxx	xxx	R22	T22	---	---	---	---
24	49	xxx	xxx	R23	T23	---	---	---	---
25	50	xxx	xxx	---	---	---	---	---	---

Environmental Requirements

Ambient temperature: Recommend 59-86F (15-30C)
Absolute 32-113F (0-45C)

Relative Humidity % without condensation:

Recommended 20-55

Absolute 10-95, temperature change less than 18F (10C) per hour

Software

Release 1.10

Option 11C Compact is machine type 27 and uses software generic X27 release 1.10. Generic X27 software is based on X11 Release 22.16 version of software.

Office, Inter-Office, Hospitality and Advanced Hospitality are the software feature packages available. See the software package list for details.

The same Option 11C software installation procedures are used as with the existing Option 11C product. The PBX CPU software daughter board is loaded at the factory with X27 release 1 software. The software or customer databases can be loaded on the PBX from a PCMCIA (Software delivery card).

The default database has been simplified compared to the Option 11C default database.

Future market release software upgrades will be available via the Internet using the same existing Option 11C process.

Release 1.10 is enhanced to support 30 peripheral card slots for three cabinets.

Overlay 10 now requires the card density when configuring 500 lines. Single density is used when configuring the 4 port analog line and Quad density for the 16 ports.

Six New Features

Release 1.10 introduces six new software features. These features are unique to Option 11C Compact Generic X27 and are not available on Meridian 1 X11 software.

The Emergency Pager, Emergency CDR and Control Class of Service on Model Sets features are included in all Compact marketing packages. The other features are included in the Compact Hospitality packages only.

Auto Wake-Up Controller

Auto Wake-Up Controller is a feature key that can be assigned to the Central Answering Position. It allows front desk staff to set and verify wake up calls for guests. This feature operates like the one on the attendant console. The feature has been ported to the 2616, 2216 and 2008 with display telephone sets so that an attendant console is no longer required at a hotel installation. This feature is incorporated as part of the Auto Wake-up package 102.

A recall of unanswered wake-up calls to the front desk CAP set is also part of this feature. It allows the front desk staff to be notified by a continuous ring with the room number displayed on the CAP set when a guest has not answered the wake-up call within three attempts.

Implementation:

Overlay 15
Type AWU
AWU YES (Activate Auto Wake-Up)
ATRC (NO), YES (Deny) allow attendant recall
RANF X (RAN trunk configuration mandatory)
RAN1 X (RAN trunk configuration mandatory)
NRWU 2-(5) Number of rings for Wake-Up call
TAWU 1-(3) Number of Wake-Up tries before recall

Overlay 11
Type 2616
CLS ADD AWCA (Automatic Digit Display Auto Wake-Up Controller Allowed)
Key XX WUK (Wake-Up key)

Track Wake-Up Call Activity

Some hotels want to track guest wake up calls as permanent records for legal reasons. The background command "Display wake up calls" can be configured for this purpose on a TTY port with an RS232 printer connected to it.

Implementation:

Connect a printer to a SDI port on the switch that is programmed for Background Terminal.

This option requires that an additional TTY port be used up specifically for this function.

Enter the following Background Terminal Commands on the TTY port:

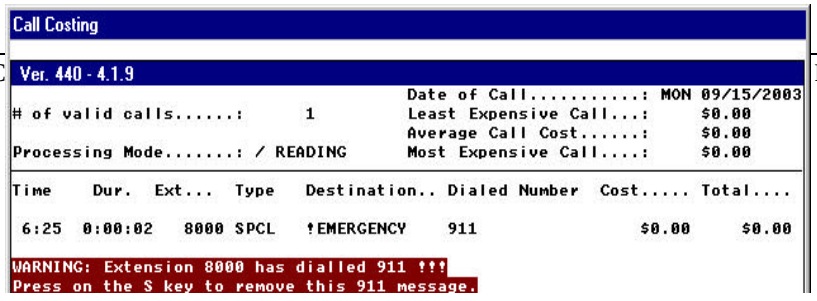
SE OP DI ON

SE OP PO X WA DI ON

X = TTY port number used.

Emergency CDR

Emergency CDR is intended to print a CDR record immediately as soon as an emergency number like 911 is dialed. This will allow the call accounting to pick up this number and flash an alarm on the display. If the call accounting is connected to the PMS, it can display an alarm. Both these methods can be used to advise the front desk staff what DN dialed an emergency number. This feature is available on all Compact offerings as part of the new PBX software Package 199 ESA PAGE.



Note: The Journal application monitors the dialed digits field for any extension which may have dialed 911. The application only tracks 911 calls. It monitors for the following digits in the digits field: 911, 811 and 11. Journal highlights and prints (when a printer is equipped) the extensions that dialed 911 and will stay on the PC screen until the user presses the S Key.

Implementation:

Overlay 18
TYPE SSL
SSL X (Special Service List)
SSDG XXXX (Emergency Number)
CDR YES/NO

OVERLAY 16
ROUTE X
SSL X (Special Service List)

Emergency Pager

Emergency pager is intended for someone to be paged when a guest dials an emergency number like 911. The feature allows the call to be presented at the emergency number like the outside 911 agent, but also dials a number like a dedicated tone only pager. Overlay 18 has a new type, which is special service list where the monitored emergency number is configured. The customer data block has the alarm DN. The DN is expected to be a dedicated 500 line with autodial configured to a pager number. This feature is available on all Compact offerings as part of the new PBX software Package 199 ESA PAGE. Release 1.10 is based on X11 release 22.16. The emergency features described here are different than the E911 feature available on the Meridian 1 X11 release 23 software stream.

Implementation:

Overlay 15

ALDN (500 line DN)
Overlay 18
Type SSL
SSL X (Special Service List Number)
SSDG XXXX (Emergency Number)
ALRM YES / NO

Overlay 10
FTR ADL XXXX (pager number)

Overlay 16
Route
SSL X

Single Digit Access

Single Digit Access allows dialing hotel services with just one digit even if the digit is also used as part of the hotel numbering plan. As an example, if you have a hotel with 7 floors and the first room on all the floors start with the floor number like 101, 201, 301 etc., this feature lets you access a hotel service by dialing a single digit like 1 or 2 or 3. If the guest dials a 3 and does not dial any more numbers, the call is presented to the service configured. This feature is configured with a new Option and timer in Overlay 15 customer data block plus Overlay 18 speed call list. This feature is part of the Pretranslation package 92.

Implementation:

Overlay 15
Type ftr_data
OPT SDAL/SDDE (Single Digit Access Allowed or Denied)
Type Tim_data
DIND 2-60 2-60 2-60 (dial pulse time-out timers)
DIDT 2-30 2-30 2-30 (digitone time-out timers)
Overlay 18
Type PRE
XLAT X (pretranslation list assigned to room DNs)
PRE X (speed call list number used for pretranslation)
SDA Y (speed call list number used for Single Digit Access)

Speed Call list X	Speed Call list Y
0 0	0
1	1 1800XXXXXXX(reservations)
2	2 XXX (Restaurant DN)
3	3 XXX (Housekeeping DN)
4	4
5	5
6	6
7	7
8 9	8
9	9

Flexible DID

Flexible DID gives the Property Management System the capability to assign a DID number to route calls directly to a room. This allows the hotel to acquire a group of DID numbers and reassign them to guest rooms as they wish. This is targeted for a niche market, which is the extended stay business traveler. This feature is based on a feature that has been used in Europe for many years in hospitals. On the PBX side, what happens is the PMSI protocol allows a command, which manages an Incoming digit conversion table in overlay 49 that has the FDID prompt set to YES. Some hotel chains have PM systems that support this PMSI message. Flexible DID package 362 is introduced to allow this capability.

Implementation:

Overlay 49
Type IDC
DCNO X
FDID YES
IDGT XXXX

Overlay 16
Type RDB
IDC YES
DCNO X

Background Terminal Command to assign
DID number to room DN:
SE ST <room dn> FD <did dn>

Allow Control Class of Service on Model Sets

Allow Control Class of Service on model sets does exactly what is described in the title. This feature is incorporated to allow hotels with Companion adjunct CT200 to use the set based installation feature and twin a companion set to a guest room DN.

The front desk staff dials the FFC for set based installation which allows to assign a model and the guest's room DN to the 500 line which the Companion set is connected to. This enables the guest to roam in the hotel and allows him to make and receive calls as it is a secondary appearance of his room DN. The hotel administration has the flexibility to charge for this feature and reassign the companion set to other room numbers as desired.

ISM parameters

TNS is the only ISM parameter, which is flexible when ordering the product.

Office and Inter-Office
48 TNS are provided as a minimum with the base package, Additional TNs may be ordered in increments of 8, to a maximum of 128 TNS. All other ISM parameters are factory set and are not variable.

TNS 48 to 128 in increments of 8
AGNT (128)
ACDN (300)
AST (0)
DSL (0)
LTID (0)
MOPT (0)

Note: Mail TNs, DTRs and Console power TNS do not count against available TNs purchased.

Hospitality and Advanced Hospitality
80 TNS are provided as a minimum with the base packages, Additional TNs may be ordered in increments of 8 with no maximum. All other ISM parameters are factory set and are not variable.

TNS 80 (Additional in increments of 8 with no maximum)
AGNT (128)
ACDN (300)
AST (0)
DSL (0)
LTID (0)
MOPT (0)

Note: Mail TNs, DTRs and Console power TNS do not count against available TNs purchased.

Internet Software Delivery

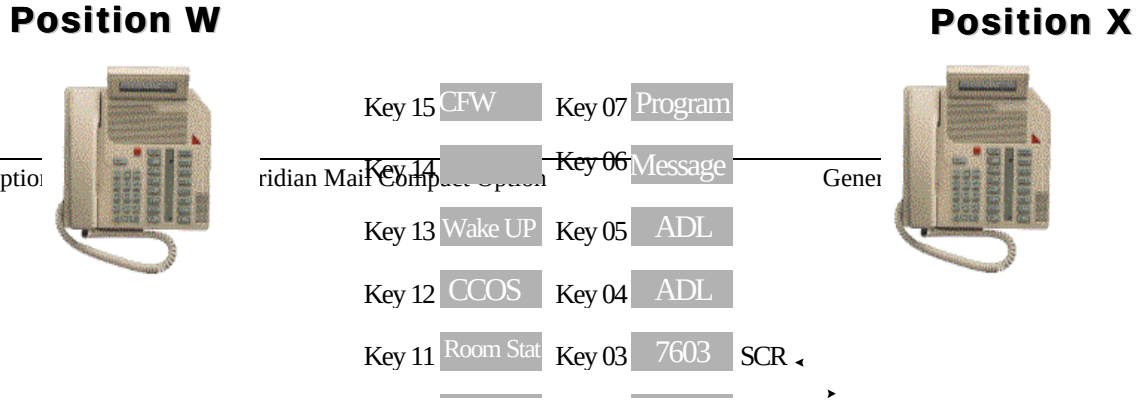
Internet software delivery is available. The Option 11C Internet URL, process and instructions is used.

Order the following package to receive Internet access capability and instructions for the Option 11C and Option 11C Compact:

U.S. Registration - NTFS6851/A0672658

Canada Registration - NTFS6850/A0672657

Multi Line Central Answer Position



Position Y Position Z

This is the suggested hotel front desk telephone set configuration, which can be used instead of a 2250 console. This is the typical feature key assignment of a hotel multi-line Central Answer Position. If you install more than one of these multiple Central Answering Positions configured with the same multiple appearance Directory Numbers and features as described here, the front desk staff can become dramatically more efficient.

The multi line central answer position gets presented with all attendant dial 0 calls or incoming trunk calls when the customer data block (Overlay 15) is configured as attendant DN 0, the night number is the Directory Number of key 0 and there is no 2250 console configured on the switch. Configure the sets as M2616 with multiple Single Call Ringing lines, the class of service as Hunting Allowed and the Last Hunt Key 03. To ensure the positions work effectively it is very important that Automatic Line Selection, Privacy Override are allowed and Handsfree, Last Number Redial are denied for all sets configured. The calls get presented to the M2616 lines in an available ascending order by hunting up the SCR keys. The first call gets presented to key 00. When key 00 is busy, the next call is presented to key 01. When key 00 and key 01 are busy, the next call is presented to key 02 etc .

Configure the Set Based Administration Set Time and Date feature for the front desk staff to change the telephone system time and date.

All staffed positions can answer incoming calls which makes them very efficient compared to a site, which only has one attendant console. They also like this because it can be mounted on a wall or put beside a Property Management Terminal. We strongly recommend this configuration at Compact hotel installations.

Popular and Efficient Central Answer Position Configurations

Here are three CAP configurations that can help the hotel staff become more efficient.

1- M2616CT Cordless Telephone as CAP
Use an M2616CT cordless telephone with a headset at the front desk. This frees the front desk staff from holding an uncomfortable hand set, to use two hands on the computer and walk away from the front desk up to 150 feet without missing a call.

2- All Redirection to an Auto Attendant
This configuration allows to forward no answer, Hunt and Call forward all calls to an Auto Attendant as an overflow when the hotel staff are busy or when they walk away from the front desk. Since the market segment targeted with this offering is the limited services hotels that often have a limited number of staff; this configuration can be very useful.

The Setup using the CAP set configuration on the previous page is done as follows:

I) Auto Attendant Voice menu created for the front desk SCR DN keys and Attendant DN 0. Example: Voice menu for 7600, 7601, 7602, 7603 and 0.

II) The front desk set with the MARP is configured with HUNT, FNA and the Call Forward Key to the Main Voice Mail DN.

III) When a mailbox is required for the front desk. A phantom TN + DN and mailbox like 7800 is created. The mailbox is configured to light the message waiting lamp for DN 7600. The Auto Attendant voice menu contains a selection to leave a message to mailbox 7800. The front desk staff retrieves the messages by accessing Meridian Mail and retrieving the messages from mailbox 7800.

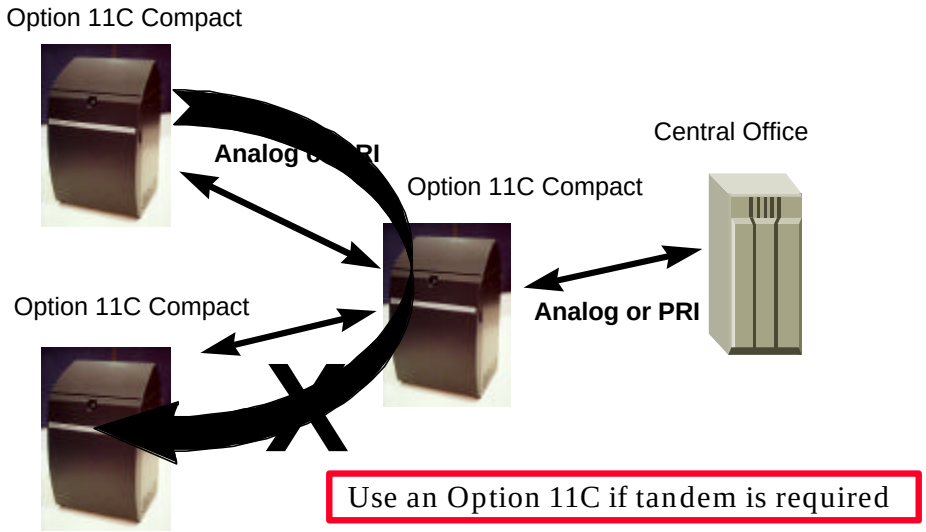
3- Call Forward All Calls to a 500 line cordless telephone
This configuration is to call forward all calls from the CAP to a 500 line cordless phone. This configuration is useful when the hotel front desk staff need to walk away from the front desk. This configuration lets them activate the Call Forward key to a cord less they can carry with them. If the cordless is configured with the transfer capability, the staff personnel can answer calls and transfer them as required. This configuration is not as effective if the hotel staff need to walk far away from the telephone base.

Networking - Call Processing

Option 11C Compact Can NOT be used as a Tandem Node

The Option 11C Compact when used in a network can not be used as a tandem node. The calls will not tandem through the Option 11C Compact going from Tie route to Tie route; whether it is made dialing trunk access code, CDP or ESN. Calls will tandem from Tie trunks to public network type trunks and from public network type trunks to Tie trunks. Use an Option 11C with tandem network capabilities if that is most effective for your customer.

No Tie Route to Tie Route Tandem Connections

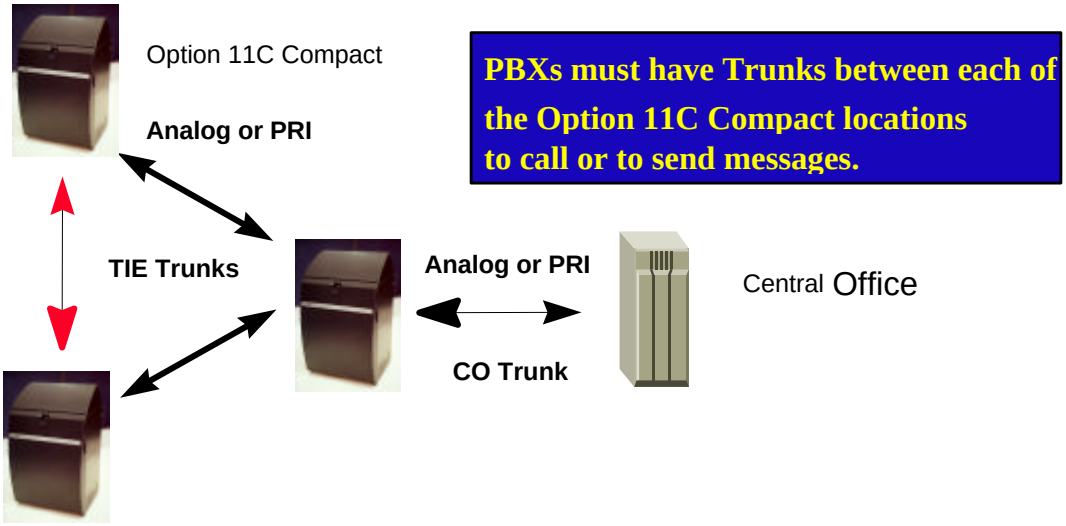


Beyond Two Option 11C Compact Network

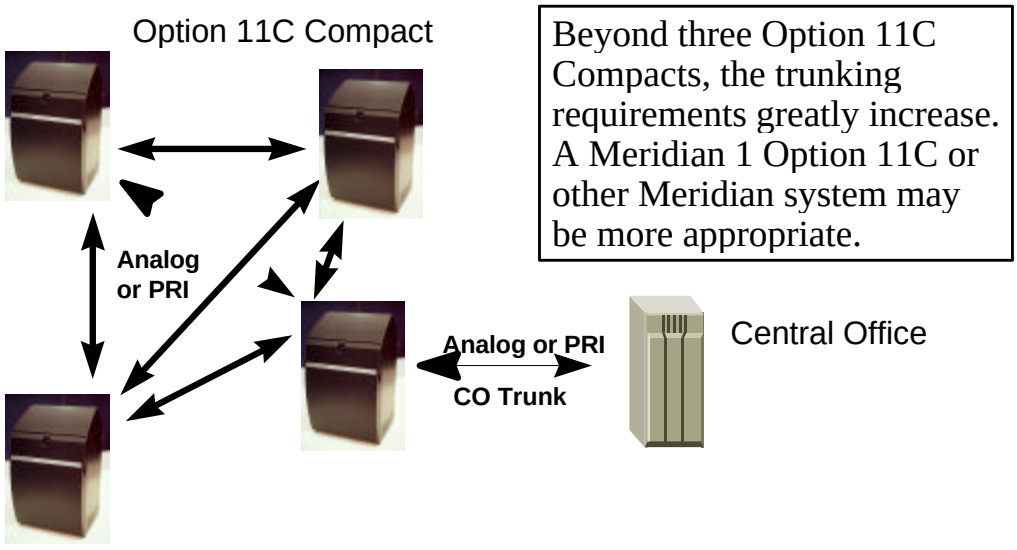
Trunks between all sites are required when more than two Option 11C Compact machines are networked together. All sites need to be connected together as there is no Tie route to Tie route tandem capability. There is no alternate routing capability through another site if all trunks to one site are busy. This may not be cost effective and an Option 11C with tandeming capabilities should be considered.

Tie route redirected via an attendant, using the transfer, the conference, call forward or hunt to another Tie route is allowed. Tandem back out the same Tie route is also allowed.

Beyond Two Option 11C Compact Network



Beyond 3 Option 11C Compact Network



PMSI

Option 11C Compact supports the same Property Management System Interface protocols as the Option 11C.

Chapter 3— Meridian Mail Compact Option Description

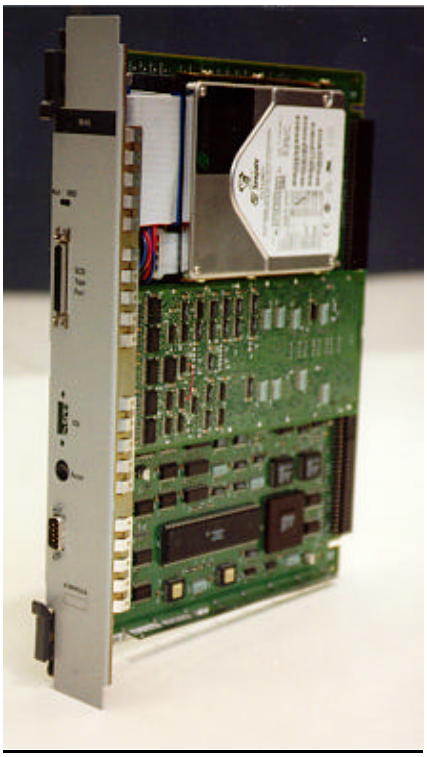
Introduction

This Chapter provides an overview of the Meridian Mail Compact Option system. The Meridian Mail This Compact Option Hospitality package requires minimum Release 12.12 software.

Meridian Mail Compact Hardware Overview

Mail CPU Card (NTMW02)

- Based on Card Option Mail
- Installs in dedicated slot 10 of the main cabinet
- Uses Cabinet Power Supply
- 2GB SCSI Hard Drive
- SCSI Tape Interface on Faceplate
- Same Tape Drive as Option 11C
- No SCSI termination required
- User Interface via TTY pass through
- DB9 Single monitor debug RSM port 1 for diagnostics at 2400 baud
- Full height card
- Face Plate LEDs: ACT OFF - booting, ACT Green - Operational, HDD Yellow- Disk Access
- Supports two NTMW03 4 Port Daughterboards



Meridian Mail Compact Option CPU is Hot Pluggable

The courtesy down procedure **must** be used before removing the card from the system, connecting the tape drive or disconnecting the tape drive. See advisory section for further details. The Meridian Mail Compact Option card is hot-pluggable. There is no need to turn off the power to install or remove the Meridian Mail Compact Option card.

To prepare Meridian Mail Compact Option for maintenance:

- Courtesy down Meridian Mail

- Disable the AML using Overlay 48.

Reset Button

The courtesy down procedure **must** be used before resetting the Meridian Mail Compact Option with the face plate button labeled RESET. This button is used to reset Meridian Mail Compact Option. Pressing the button will cause the mail card to cold reboot and will be out of service for approximately ten minutes while it boots. The button must be pressed after installing the Meridian Mail Compact Option card back in its position, connecting the tape drive or disconnecting the tape drive. See advisory section for further details.

Faceplate DB9 Maintenance Connector

This Mail Compact faceplate DB9 connector is a DCE 2400 baud maintenance port used to monitor the mail card hardware boot. After a reset, Meridian Mail will boot and you can watch the hardware diagnostics results. The port will stop printing after PRM loading. This port can not be used to do software installation or Meridian Mail administration. The AX pass through command using the PBX TTY with a VT220 emulation terminal must be used to install the mail software or perform Administration.

DSP Daughterboard (NTMW03)

- 4 port DSP daughterboards
- Mount on the NTMW02 CPU board
- 2 cards supported on the system

RSM Module (NTMW50)

It has the necessary Drivers and Receivers to transmit and receive 3 RS-232 Ports 2,3 and 4 signals. All Ports are configured as DTE. A switch to select BYPASS/NORMAL modes. The BYPASS/NORMAL mode can be software selectable. In BYPASS mode, RS-232 Ports are connected together via relay contacts on the pack. In NORMAL mode, the Green LED is ON and:

- Port 2 connects to GAC
- Port 3 connects to PMS
- Port 4 connects to SDI port of the SSC

In Mail pack failure mode, the relays switch to BYPASS mode connecting Port 3 and Port 4 RS-232C signals. The 50 pin connector (PBX) connects to Option 11C Compact backplane connector P14. The 50 pin connector (OPTION) is an alternate means of connecting the same 3 RS-232 port signals to a BIX connector on the field. OPTION connection and 3 RS-232 ports (P2, P3, and P4) cannot be used simultaneously.

RSM Cable (NTMW51)

This cable connects the power and 3 sets of RS-232 signals from Option 11C Compact backplane to RSM Module Assembly – NTMW50AA.

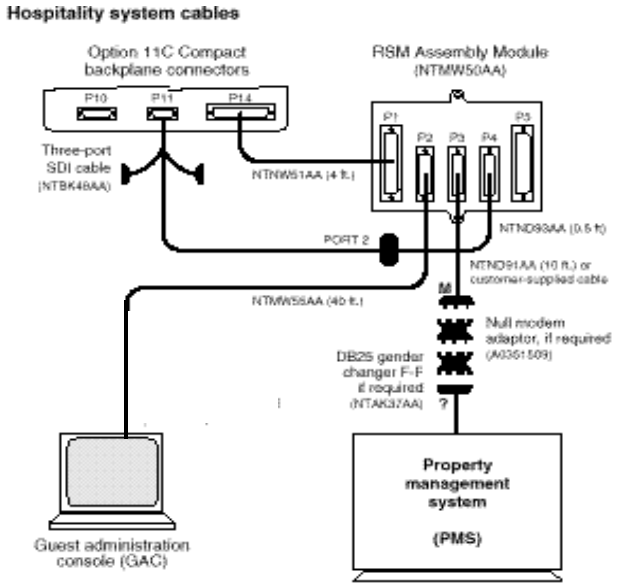
- 50 pin connectors on either ends
- Fully screened 50 wires
- 4 feet in length

GAC Cable (NTMW55)

This cable connects the GAC terminal to RSM Module Assembly Port 2.

- 8 screened wires to carry RS-232 signals
- Null Modem
- 40 feet in length

The following picture depicts Meridian Mail cabling for Compact Option.



Meridian Mail Compact Option Hardware Requirements

Use the following table to determine minimal hardware requirements for the system for MERIDIAN MAIL COMPACT OPTION.

Compact Option Hardware Vintage Requirements

Product	Description	Release
NTMW02AA	68K CPU Pack	05
NTMW03AA	Digital Voice Processor Daughter Card [a]	05
A0637905 or A0368522	External Tandberg TDC4220 Tape Drive (optional) [b] or Viper	not applicable
NTDK74AA A0679119	2GB Disk Drive -Seagate ST52160N	minimum F/W release on the drive 381
NTMW50AA	RSM Module	02
NTMW51AA	RSM Cable, 4 ft.	02
NTMW55AA	GAC Cable, 40 ft.	02
NT5R45AB	Meridian Mail Release 12.12.3 North American software tape	NT5R45AB.01

Notes
a. One NTMW03 Card is required for each 4 ports of mail to a maximum of 8 ports or 2 NTMW03 cards on the system.
b. The Tandberg Tape drive can be ordered for the Compact Option system. The Archive 150S Viper tape drive is also supported.

Platform Configuration

Channel configurations

System Type	Minimum Channels in System	Software Channel Increments	Maximum Channels in System
Compact Option	4	2	8

Multi-Language Impact on Storage

- Approx. 3 hours of voice storage is used by each additional language.
- Max Languages Supported by Platform-Size:

Platform	Size	Max Languages
Compact Option	24Hr	4

Meridian Mail Compact Option Feature Overview

The following table lists the supported Meridian Mail Compact Option features available with Meridian Mail Release 12.12. Features not appearing in this table are not available or supported on the Compact Option platform.

- Call answering
- Auto Attendant
- Thru Dial
- Name Dial
- Multiple languages (Optional)
- Dual language prompting (Optional)
- Outcalling
- Integrated Voice Mail Administration
- Enterprise Networking (Interoffice Package only)
- HVS
- Networking Enhancements
- Voice Services/Messaging Enhancements
- Administration Enhancements
- Support Enhancements
- Upgrade from MM11.19 to MM12.12

Meridian Mail Compact Option Overview

Meridian Mail Compact Option Release 12.12 contains new and enhanced features in the areas of Networking, Voice Services/Messaging, Administration and Support.

Networking Enhancements

Meridian Mail Release 12.12 Compact Option Enterprise Networking supports 150 remote sites.

Network Status

This screen will allow the administrator to search for sites using any combination of site id, name, status, and protocol. Status fields that can be searched on are, *Any, Idle, Ready, Active,*

Error, Disabled, or *DiagTest*. The default find is *Any* for both Status and Protocol and will list all defined Networked sites. In addition to the Find function, the Network Status screen will now display fifteen sites instead of twelve.

The Remote Site Maintenance

This screen has been enhanced to improve the efficiency of maintaining remote sites. A new Find Remote sites screen has been added and will allow the administrator to list sites that match defined search criteria. Remote sites can be searched by any combination of Protocol, Dialing Plan, Network Messaging Center, or if a Spoken Name is Recorded.

Meridian Mail Networking supports up to 10 ESN location codes

For both the local site and remote sites, up to ten ESN codes will be supported. Both the Local site Maintenance screen and Remote Site Maintenance screens have changed to include space for defining additional ESN location codes.

Network Broadcast

This feature has been enhanced to allow defined mailboxes to send a broadcast message to all users at the local site, a single remote site, or every site in the network. Broadcast addresses can now be included in Personal Distribution Lists (PDLs).

Voice Services/Messaging Enhancements

Call Answering enhancements

Enhancements were made to allow for the choice of hearing the Personal Verification (if recorded) or the mailbox number during call answer greetings.

Call Answering Service

A new Call Answering Service (CA) has been added to the Voice Services Directory Number (VSDN) table. When this number is called, a call answering session is initiated for the defined mailbox.

Message Playback Speed Control

It allows the end user to control the speed of playback for voice messages by three levels. During playback of a message, the user enters 2-3 on the telephone keypad to increase the speed one level. The user can then enter 2-3 a second time to increase the playback speed another level and 2-3 a third time to increase the playback speed to the maximum level. During playback the user

can enter 2-1 on the telephone keypad to decrease the playback speed one level. Playback of messages cannot be decreased below the normal playback speed.

Remote Notification Enhancements

Enhancements have been done to support to new capabilities. Remote Notification will now deliver the contents of a voice message which has caused the notification to a voice pager and to deliver the number (Primary DN of a mailbox or Calling Line ID) of the originator of the message which caused the notification to a numeric or paging service. These new Remote Notification functions can only be set up for users by the system administrator.

This feature is supported on

Administration Enhancements

Supports up to eight Directory Numbers per mailbox
The number of DNs associated with a mailbox has increased from 3 to 8.

Support Enhancements

Session Trace

Session Trace in Tools level has been enhanced to allow tracking of all message activity within a mailbox. Session Trace is intended to be used by system administrators and support personnel to aid in determining the cause of user complaints of delayed messages or delayed Message Waiting Indications. New information captured in the Local User Billing files includes the following items.

- Messages deposited in a mailbox as a result of compose and send or network message delivery, and the corresponding effect on MWI.
- Messages deleted by the system due to the fact the message passed the read message retention time limit.
- Messages that are added to a mailbox as a result of a selective restore and the corresponding effect on MWI.

Software Configuration Engineering

Release 12 Software Packaging

The following table overviews Meridian Mail features. Each feature is classified as either standard (provided with Meridian Mail Compact Option Office Software) or optional (available as an additional feature).

Feature Type	Standard	Optional
Messaging	User Changeable Operator Revert Temporary Absence Greeting Personal Distribution List Editing External CLID Seer Trigger Mailbox Message Playback Speed Control Personal Verification Caller ID Support Hospitality Voice Services (standard with the Hospitality package)	Multi-Languages Dual Language Prompting
Networking	Enterprise Networking (standard with the Interoffice package)	
Remote Notification	Outcalling Voice Pager Support	
Caller Services	Voice Menus Call Answering Service	
Administration	Integrated Mailbox Administration Class of Service Session Trace Administration Tool Storage Recapture Selective Backup Bulk Provisioning	
Security	Hacker Tracker Password Suppression	

Compact Option Software Tapes

Media

Meridian Mail Compact Options distributed on the following media:

- A0368760 DC6250 250MB tape cartridge

For the Archive Viper Tape Drive Unit, only DC6250 tape cartridges must be used for backup purposes. The mixed use of DC6150 and DC6250 tapes in the same tape drive can lead to tape drive head wear, producing reliability problems and tape drive errors.

Do not use the original Master Meridian Mail software tape for backup purposes, this tape is required for potential software and hardware modifications in the future. Use a "blank" DC6250 tape cartridge for backup purposes.

For the Tandberg Tape Drive unit, either a DC6250 tape cartridge or any tape up to a 2.5GB tape cartridge (A0630697) can be used for backup purposes. Although the DC6150 tape will work it is not recommended. The mixed use of the two tapes will not impact the normal wear and tear of the drive.

Language Packaging by Master Tape

The North America language taped is shipped with all Compact Option systems.

Part Numbers	Description
NT5R45AB A0740250	Meridian Mail Master Tape- North American 1 Release 12.12 Prompt Sets includes: North American English Canadian French Latin American Spanish German Japanese Brazilian Portuguese

Language Label Identification

A tape can hold up to six languages (four of which can be loaded onto a single Meridian Mail Compact Option system at any one time). When you receive your tape, look carefully at the label to identify what languages are actually on the tape. Some languages listed may have a double asterisk (**) or a single asterisk (*) next to them. A single * indicates that the language is present on the tape, but has not yet been trialled at a customer site. A ** indicates that the language is not yet available and a place holder language has been substituted instead.

The placeholder language is always North American English. Placeholder languages are required to support sites performing upgrades, where the original language(s) already exist on the system, but the actual language is not yet available.

The upgrade process compares the list of languages that are on the system with the list on the tape. A "match" must be found in order for the upgrade to proceed.

Note: When you use a tape containing a placeholder language, the list of languages that appears on the TTY during the procedure will not indicate which languages are a placeholder language. The label accurately reflects which languages are available.

MM12 COMPACT OPTION Keycode

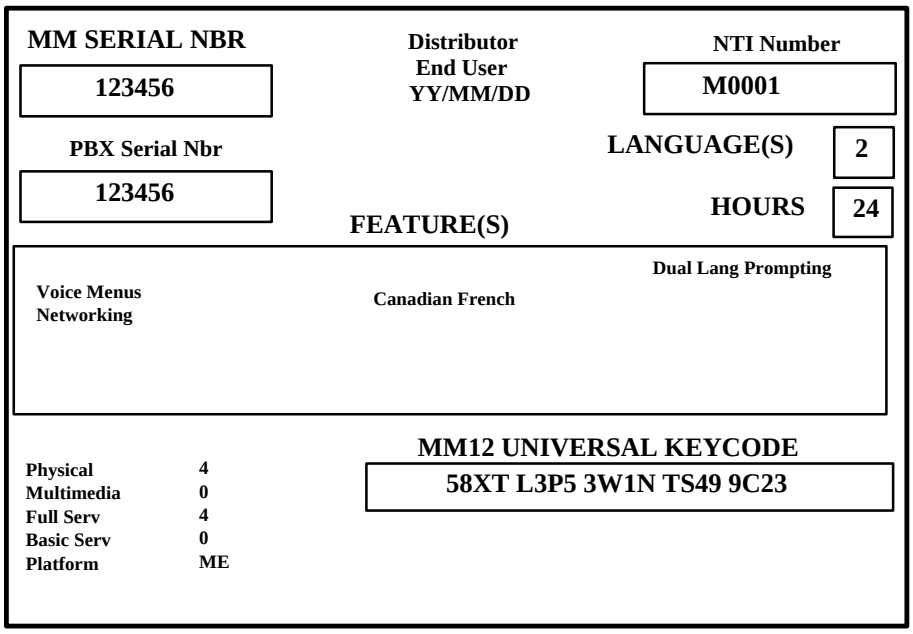
The following items contain information relating to the generation and application of keycodes.

The keycode will be a MM12 COMPACT OPTION keycode.

If a keycode fails during an installation or conversion, please contact 1-800-321-2649 to have the problem resolved.

MM12 COMPACT OPTION Keycode Label

Below is an example of the MM12 COMPACT OPTION keycode label that is shipped with the software.



Notes to the Keycode Label: MM12 COMPACT OPTION port types are controlled by the keycode. The number of ports by type authorized by the keycode is listed in the lower left hand corner.

Physical Ports: is the total number of hardware ports licensed to operate on the system.

Multimedia Ports: is the MINIMUM number of Multimedia ports that are licensed to operate on the system. This number will always be 0 on the Compact Option.

Full Service Ports: is the MAXIMUM number of full service ports that are licensed to operate on the system. This value will be set to the number of physical ports.

Basic Ports: is the MINIMUM number of Basic Ports that are licensed to operate on the system. This value will be set to 0 on the Compact Option system.

Chapter 4 — MAT for Option 11C Compact

The MAT software release is updated to software release 6.1 with all Compact Offerings at this time.

MAT 6.1 is included in all the Option 11C Compact base marketing packages. Software update diskettes to support the Compact machine type is no longer required on release 6.1. The Compact machine type is part of the base software and supports Compact generic X27 including the expansion to 30 peripheral card slots.

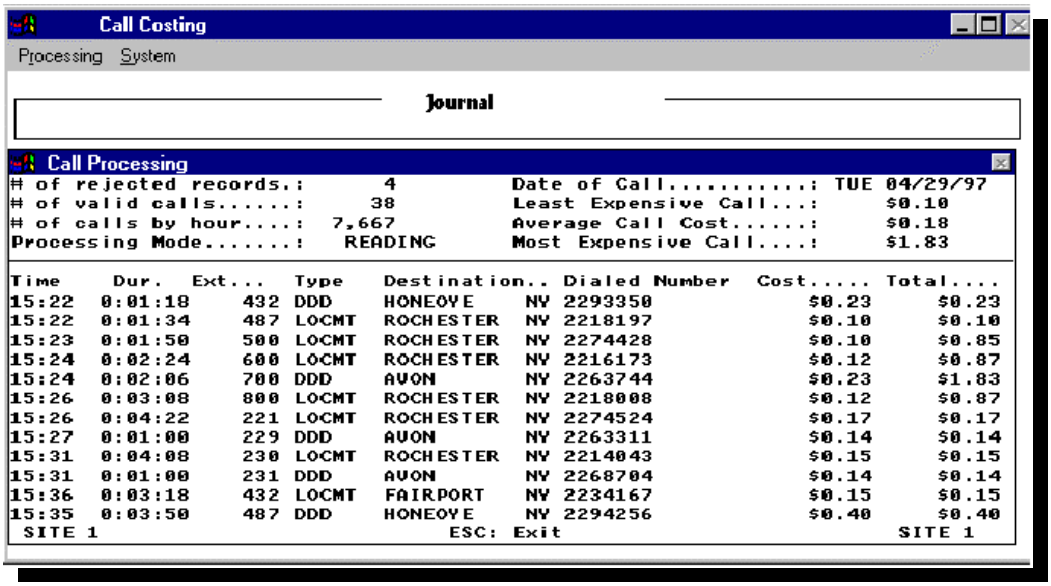
The key code for Common Services and Station Administration are provided. MAT Common Services and Station Administration provided in the Option 11C Compact marketing packages supports a single system. Existing MAT customers who may have purchased other MAT applications who are adding one or more Option 11C Compacts to their network may wish to add additional system licenses to their current MAT software. If the customer requires any other MAT applications, they can be ordered at the same time as the switch.

This information is the relevant MAT information that is related to Option 11C Compact. Please refer to MAT documents for further details.

Chapter 5 - Hospitality Applications

Hospitality specific personal computer applications are available as part of Compact marketing packages to target this market. The industry specific applications add value to the hospitality packages.

Journal



Journal is a call accounting software application designed for the hospitality environment. The application allows real time guest telephone call costing capabilities to a printer or directly to a property management system. Which means guest chargable telephone calls can be costed (external posting) and provided for billing immidiately as they make them. It also has flexible end user control of charges and management reporting.

It has everything a hotel owner likes about such an application because it lets him charge as he wishes for guest telephone calls. It is loaded with rate tables that acuretely calculates the cost of the calls based on the hotel location, taking into account the time of day discounts and holidays of the carrier used.

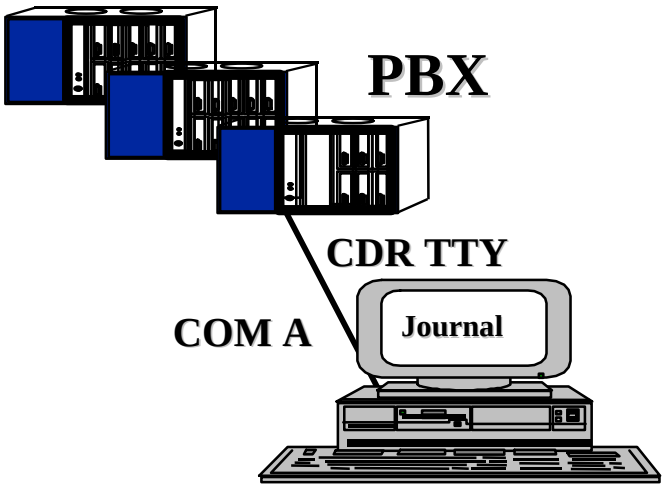
Personal Computer Hardware

The Registrar application must run on the same PC as Journal because they share the same database. The minimum Personal Computer requirements to run Journal and Registrar are:

An Intel Pentium 50 MHz or faster with:
Windows 95 or Windows NT 4.0
16 MB of RAM for Windows 95/32 MB or RAM for Windows NT
1 GB hard disk (500 MB free space required)3.5 inch, 1.44MB diskette drive
CD ROM Drive

Parallel printer port (a printer must be configured, even though it is not required to be physically attached to the PC)
SVGA graphics monitor with interface card
Windows-compatible mouse
2 Com ports required (One port for CDR Interface and one port for PMSI Link/Journal External Posting)

Hardware Connections



The PC running the Journal application uses one COM port (Default COM 1, baud 1200, 7 bit, even parity and 1 stop) to connect to the PBX Call Detail Record TTY port. The two ports likely need a null modem adapter between them since the PC is normally a male 9 pin DTE (Data Terminal Ready) and the PBX TTY is a male 25 pin DTE. The cables to connect the two must be provided by the installer. The PC COM port software settings must match the PBX CDR port settings.

Software Media and Installation

The software is delivered on a CD. The CD software version is 1.1.4. The software is provided on a CD. To load the software on the PC you insert the CD in the CD drive and from the Windows Start pull down menu click on RUN. Select brows, choose the CD ROM drive and double click the SETUP.EXE program.

Key Code
During the software installation you will be asked for the customer information provided when the customer order was made and to enter the activation code. The key code is provided and packaged with the software CD.

Rate Table

The Rate Table are loaded on the PC using 3.5 inch floppy diskettes. The Rate Table diskettes are received on site. They are specific to the site location and they will accurately enable Journal to cost the long distance calls based on the distance of the hotel from the dialed number, the carrier used and the time of day discounts.

Ordering Key Code and Rate Table
To acquire an activation code some specific customer site information is requested when the equipment order is made. The accuracy of the customer information is very important as it is used for the generation of the activation code and is also used to create the Rate tables.

Customer Site Order Information

Customer Name:

Telephone Number:

Address:

ZIP Code:

Long Distance Carrier:

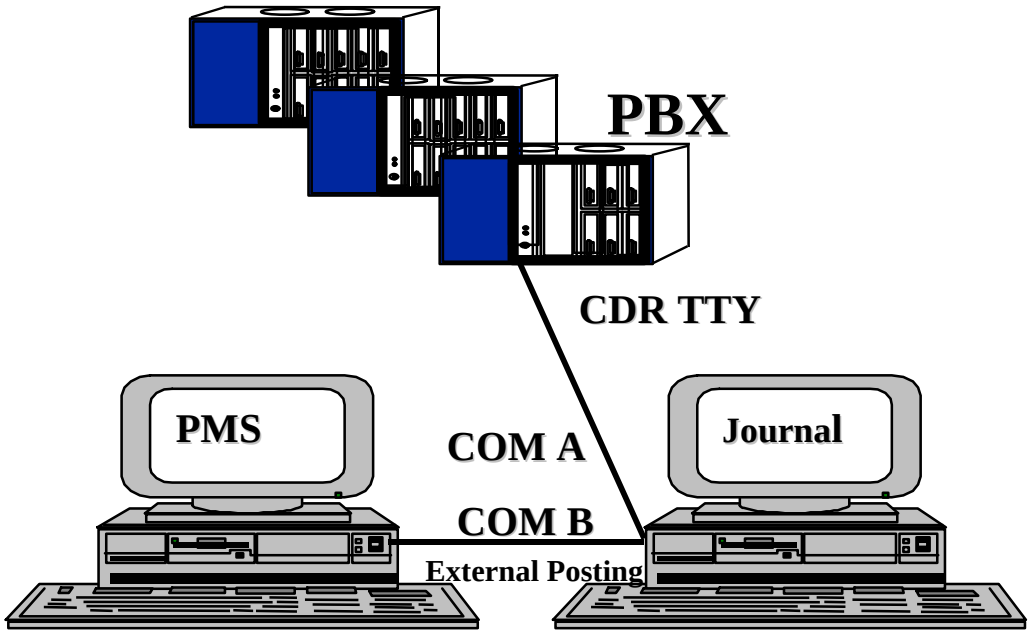
Journal External Posting

Journal External Posting is a component of Journal that allows the costed call record to be posted (sent) in real time to a property management system via one of the PC COM ports. This allows guest telephone costed calls to be sent automatically from Journal to the guest folio in the PMS.

If the end user expects external posting interfaced to his Property Management System, ensure the PMS has an interface that supports one of these formats:

CHOICE
DELUX
DESIG
EECO
ENCORE
FMX000
GEN-SIL
HOBIC (U.S. Standard Format)
HOFAC (Canadian Hobic)
New Bell Canada HOBIC FORMAT Merge Input
Logistec
note: See Journal Guide for details of each format.

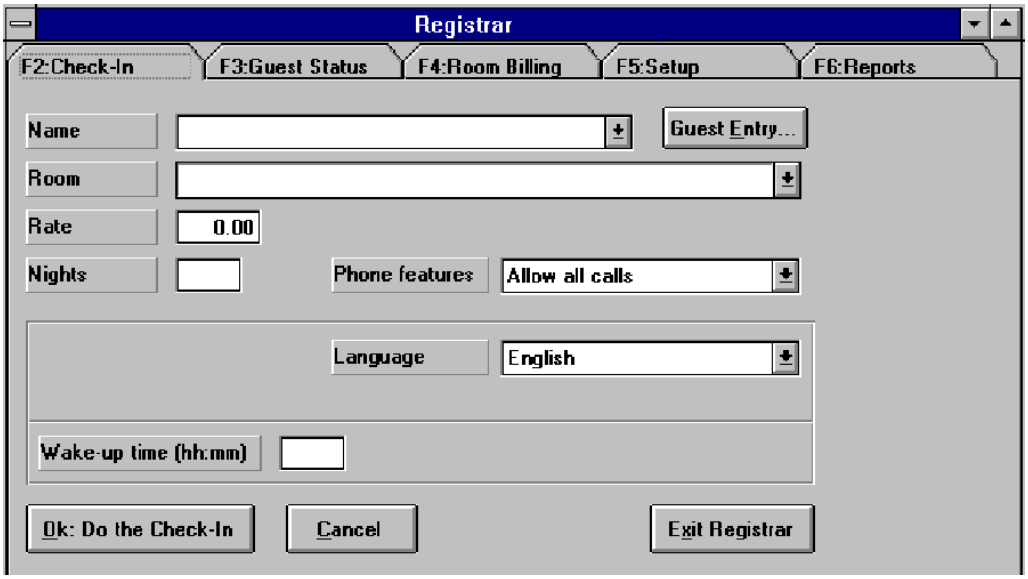
Journal External Posting Connections



This describes the physical connections for the external posting function.

The COM ports on the Journal PC and PMS PC must be configured for the same baud rate, RS232 bit length, parity and stop bit. They most likely would be connected together using a null modem between them as normally PC COM ports are DTE (Data Terminal Equipment).

Registrar



Registrar is a PC software application that emulates many of the Guest Administration Console functions plus provides some billing and report generation capabilities but it is not a Property Management System.

This software can be used when the hotel doesn't have an integrated Property Management System with the PBX. This application is part of the Advanced Hospitality marketing package.

Registrar Functions

Registrar Software is activated by Activation Key when it is purchased.

• Check-in/Check-out: Used by Front desk staff

• Room Billing: Allows fast and easy check-outs and permits you to keep a guest history, guest billing, Integration with Journal guest costed call records and some report capability.

• Telephony Control: Control Class of Service, guest Call Party Name Display, guest wake-up, Room Status and guest mail boxes.

• Integration with Journal (e.g.. Calls costed in Journal appear automatically on the guest bill in Registrar)

Chapter 6 — Upgrade Path

PBX

Option 11C Compact to Option 11 C

There is no direct software upgrade path from the Option 11C Compact X27 generic of software to the Option 11C X11 generic of software. The different hardware card slot assignment between the two products prevents the possibility to directly upgrade from one generic to the other.

Software Upissue

There is direct software upissue from generic X27 release 1.00 or 1.01 to 1.10.

Feature Upgrade

To increase the TN capacity of the switch or go from Office to InterOffice package, you need to enter new key codes. Use overlay 143 upgrade command to enter new key codes.

Investment Protection

A cost-effective marketing package exists to provide investment protection for the end user if he requires going from an Option 11C Compact to an Option 11C. The end user will keep his telephones sets, training, mail boxes, menus, greetings, recordings, etc.

Meridian Mail

Meridian Mail Compact Option to Meridian Mail Card Option

There is direct software upgrade capability for the Meridian Mail Compact Option to Meridian Mail Card Option. Because the hardware assignment is identical between the two products, there is a direct software upgrade path. The end user can keep his mailboxes, greetings, voice menus recordings, etc.

Software Upgrade

This release allows upgrade from MM11.19 Compact Option to MM12.12. See NTPs for details.

Feature Upgrade

Remote Notification (Outcalling) and Enterprise Networking up to 150 sites are supported on Meridian Mail Compact Option MM12.12 software. Any Compact Installations which is using MM11.19 and wants to take advantage of the features supported on MM12.12 must upgrade. If a Meridian Mail Compact Option is using MM11.19 and wants the Remote Notification

(Outcalling) or Enterprise Networking supporting up to 150 sites; it must be upgraded to MM12.12 which will automatically enable those features as part of the key codes.

To change the Meridian Mail Compact Option features you need to enter new key codes. See NTPs for details.

Chapter 7 — Documentation

The Option 11C Compact documentation suite consists of:

Documentation Packages - English

Note: The documentation that is not included as part of the base packages and need to be ordered separately are identified with an asterisk *

Option 11C Compact Customer Documentation Pkg (included in the NTKS1001, NTKS1010 and NTKS1020 packages)	NTMW43AB	A0739704
Multi-line Central Answering Position User Guide		P0885212
Set Based Administration		P0872785
Planning, Installation & CCBR Guide		P0885214
Software Guides (I/O)		P0885215
Option 11C Compact Documentation - CD ROM (contains all Compact mail and system documentation)	NTMW42BA	A0739703
Meridian Mail Compact Option Voice Messaging Package	NT5F97AA	A0686151
15 Meridian Mail Compact Option Voice Messaging Guides		P0873718
15 Meridian Mail Compact Option Quick Reference Cards		P0873720
15 Meridian Mail Compact Option Keypad Templates		P0873722
MAT 6.1 User Guide Package (Included with the Common Services Package - part of the NTKS1001& NTKS1010 packages)	NTZC03AA	A0722110

Individual Documents - English

Note: The following documents can be ordered individually and are identified with an*

	Individual Documents		
*	Planning and Installation Guide		P0885214
*	Software Guides (I/O)		P0885215
*	Technical Reference Guide		P0885216
*	Set Based Administration		P0872785
*	Multi-line Central Answering Position User Guide		P0885212
*	Features and Services Guide		P0885217
*	Option 11C Compact Documentation - CD ROM (contains all PBX documents and Compact Mail specific guides)	NTMW42BA	A0739703
*	1.5 MB DTI/PRI Guide		P0872788
*	Meridian Mail Compact Option System Administration Guide		P0873717
*	MAT 6.1 Option 11C Compact Introduction Guide		P0885042
*	Journal User Guide		P0885219
*	Registrar User Guide		P0885220
*	Meridian Mail Guest Cards (15/pkg)		P0885221
*	Meridian Mail Compact Option Reference Guide (Hospitality)		P0885222
*	Meridian Mail 12 Maintenance Messages (SEERs) Reference Guide		P0875905

*	Meridian Mail Enterprise Networking Installation and Admin.		P0875913
*	Meridian Mail System Installation and Modification Guide		P0875888
*	Meridian Mail System Administration Tools Guide		P0875922
*	Meridian Mail Voice Service Application Guide		P0875903
*	Meridian Mail HVS Implementation Guide		P0875899
*	Meridian Mail HVS GAC Guide/Voice Messaging Guide		P0875900
*	Meridian Digital Sets User Guide	NT5F50AB	A0667509

Documentation Packages - French

Note: The codes that should be orderable by the customer are identified with an asterisk *

	Option 11C Compact French Documentation Pkg	***NTMW48AA**	
	(* NTKS1025- No Charge Package)		
	Multi-line Central Answering Position		P0879764
	Set Based Administration		P0879767
	Planning and Installation		P0879759
	Software Guides (I/O)		P0879781
	M/Mail Compact Option System Admin Guide		P0879757
	Meridian Mail Compact Option User Guide Package	NT5F97BA	A0729257

*	**Meridian Mail Compact Option User Guide Package**	NT5F97BA	A0729257
	15 Meridian Mail Compact Option Voice Messaging Guides		P0879763
	15 Meridian Mail Compact Option Quick Reference Cards		P0879780
	15 Meridian Mail Compact Option Keypad Templates		P0726549

Individual Documents - French

Note: The codes that should be orderable by the customer are identified with an asterisk *

*	Multi-line Central Answering Position Guide	P0879764
*	Set Based Administration Guide	P0879767
*	Planning and Install Guide	P0879759
*	Software Guides (I/O)	P0879781
*	Technical Reference Guide	P0879768
*	Features and Services Guide	P0879761
*	M/Mail Compact Option System Administration Guide	P0879757
*	1.5 MB DTI/PRI Guide	P0879762
*	Option 11C Compact Introduction Guide (MAT 6.1)	P0879772

Chapter 8 – Software Packaging

Software packages for Option 11C and Option 11C Compact

This table represents the Option 11C PBX software packages compared to Option 11C Compact packages for the US and Canadian markets. Market release software for Option 11C is X11 release 23.35 and Option 11C Compact is X27 release 1.10(X27 release 1.10 is based on X11 release 22.16).

		Release+Issue	23.35	23.35	23.35	23.35	1.10	1.10	1.10	1.10
			11C	11C	11C	11C	Compact	Compact	Compact	Compact
Package Number	Package Mnemonic	Package Name	**General Bus.** NTSK11CG	**Enhanced Bus.** NTSK11DG	**Enterprise Bus.** NTSK11EG	**NAS/VNS** NTSK11FG	**Office Commun.** NTMW30 CC	**Interoffice Commun.** NTMW30 DC	**Hospitality** NTMW30 EC	**Advanced Hospitality** NTMW30 FC
0	BASIC	Basic Call Processing	C	D	E	F	O	I	H	AH
1	OPTF	Extended PBX Features	C	D	E	F	O	I	H	AH
2	CUST	Multi Customer	C	D	E	F				
4	CDR	Call Detail Recording	C	D	E	F	O	I	H	AH
5	CTY	CDR on TTY	C	D	E	F	O	I	H	AH
7	RAN	Recorded Announcement	C	D	E	F	O	I	H	AH
8	TAD	Time and Date	C	D	E	F	O	I	H	AH
9	DNDI	Do Not Disturb, Individual	C	D	E	F	O	I	H	AH
10	EES	End to End Signaling	C	D	E	F	O	I	H	AH
11	INTR	Intercept Treatment	C	D	E	F	O	I	H	AH
12	ANI	Automatic Number Identification	C	D	E	F	O	I	H	AH
13	ANIR	ANI Route Selection	C	D	E	F	O	I	H	AH
14	BRTE	Basic Routing	C	D	E	F	O	I	H	AH
16	DNDG	Do Not Disturb, Group	C	D	E	F	O	I	H	AH
17	MSB	Make Set Busy	C	D	E	F	O	I	H	AH
18	SS25	Special Services for 2500 Sets	C	D	E	F	O	I	H	AH
19	DDSP	Digit Display	C	D	E	F	O	I	H	AH
20	ODAS	Office Data Administration System	C	D	E	F	O	I	H	AH
21	DI	Dial Intercom	C	D	E	F	O	I	H	AH
22	DISA	Direct Inward System Access								
23	CHG	Charge Account for CDR	C	D	E	F	O	I	H	AH
24	CAB	Charge Account/Authorization Code	C	D	E	F	O	I	H	AH
25	BAUT	Basic Authorization Code	C	D	E	F	O	I	H	AH
26	CASM	Centralized Attendant Service (Main)								
27	CASR	Centralized Attendant Service (Remote)								
28	BQUE	Basic Queuing	C	D	E	F	O	I	H	AH
29	NTRF	Network Traffic Measurement	C	D	E	F		I		

32	NCOS	Network Class of Service	C	D	E	F	O	I	H	AH
33	CPRK	Call Park	C	D	E	F	O	I	H	AH
34	SSC	System Speed Call	C	D	E	F	O	I	H	AH
35	IMS	Integrated Messaging System Link	C	D	E	F	O	I	H	AH
36	ROA	Recorded Overflow Announcement	C	D	E	F	O	I	H	AH
37	NSIG	Network Signaling			E	F		I		
38	MCBQ	Network Call Back Queuing - Main			E	F				
39	NSC	Network Speed Call			E	F		I		
40	BACD	Basic ACD	C	D	E	F	O	I	H	AH
41	ACDB	ACD Pkg B	C	D	E	F	O	I	H	AH
42	ACDC	ACD Pkg C		D	E	F	O	I		AH
43	LMAN	ACD Pkg C2. Load Mngt Reports		D	E	F	O	I		AH
44	MUS	Music	C	D	E	F	O	I	H	AH
45	ACDA	ACD Pkg A	C	D	E	F	O	I	H	AH
46	MWC	Message Waiting Center	C	D	E	F	O	I	H	AH
47	AAB	Automatic Answer Back	C	D	E	F	O	I	H	AH
48	GRP	Group Call	C	D	E	F	O	I	H	AH
49	NFCR	New Flexible Code Restriction	C	D	E	F	O	I	H	AH
50	ACDD	ACD Pkg D Auxiliary		D	E	F				
51	LNK	ACD PkgD Auxiliary Processor Link	C	D	E	F	O	I	H	AH
52	FCA	Forced Charge Account	C	D	E	F	O	I		AH
53	SR	Set Relocation	C	D	E	F	O	I	H	AH
54	AA	Attendant Administration	C	D	E	F				
55	HIST	History File	C	D	E	F	O	I	H	AH
56	AOP	Attendant Overflow Position	C	D	E		O	I		AH
57	BARS	Basic Alternate Route Selection	C	D	E	F	O	I	H	AH
58	NARS	Network Alternate Route Selection	C	D	E	F		I		
59	CDP	Coordinated Dialing Plan	C	D	E	F		I	***H***	AH
60	PQUE	Priority Queuing		D	E	F				
61	FCBQ	Flexible Call Back Queuing	C	D	E	F	O	I	H	AH
62	OHQ	Off Hook Queuing			E	F				
63	NAUT	Network Authorization Code	C	D	E	F		I		
64	SNR	Stored Number Redial	C	D	E	F	O	I	H	AH
67	NXFR	Network Call Transfer			E	F				
70	HOT/EHOT	HOT Line Services/Enhanced HOT Line	C	D	E	F	O	I	H	AH
71	DHLD	Deluxe Hold	C	D	E	F	O	I	H	AH
72	LSEL	Automatic Line Selection	C	D	E	F	O	I	H	AH
73	SS5	500 Set Features	C	D	E	F	O	I	H	AH
74	DRNG	Distinctive Ringing	C	D	E	F	O	I	H	AH
75	PBXI	PBX Interface for DTI/CPI (1.5Mb)	C	D	E	F	O	I	H	AH
76	DLDN	Departmental Listed Directory #	C	D	E	F	O	I		AH
77	CSL	Command Status Link	C	D	E	F	O	I	H	AH
79	OOD	Optional Outpulsing Delay	C	D	E	F	O	I	H	AH

80	SCI	Station Category Indication	C	D	E	F	O	I	H	AH
81	CCOS	Controlled Class of Service	C	D	E	F	O	I	H	AH
83	CDRQ	ACD CDR Queue Record	C	D	E	F	O	I		AH
86	TENS	Multiple Tenant Service	C	D	E	F				
87	FTDS	Fast Tone & Digit Switch	C	D	E	F	O	I	H	AH
88	DSET	M2000 Digital Sets	C	D	E	F	O	I	H	AH
89	TSET	M3000 Digital Sets	C	D	E	F				
90	LNR	Last Number Redial	C	D	E	F	O	I	H	AH
91	DLT2	M2317 Digital Sets	C	D	E	F				
92	PXLT	Pretranslation	C	D	E	F	O	I	H	AH
93	SUPV	Supervisory Attendant Console	C	D	E	F				
95	CPND	Call Party Name Display	C	D	E	F	O	I	H	AH
98	DNIS	Dialed Number Identification Service	C	D	E	F	O	I		AH
99	BGD	Background Terminal Facility	C	D	E	F			***H***	AH
100	RMS	Room Status	C	D	E	F			***H***	AH
101	MR	PPM / Message Registration	C	D	E	F			***H***	AH
102	AWU	Automatic Wake Up	C	D	E	F			***H***	AH
103	PMSI	Property Management System Interface	C	D	E	F			***H***	AH
105	LLC	Line Load Control			E	F				
107	MCT	Malicious Call Trace	C	D	E	F	O	I	H	AH
108	ICDR	Internal CDR	C	D	E	F	O	I	H	AH
109	APL	Auxiliary Processor Link	C	D	E	F				
110	TVS	Trunk Verification from a Station	C	D	E	F	O	I	H	AH
111	TOF	ACD Timed Overflow	C	D	E	F	O	I		AH
113	IDC	Incoming DID Digit Conversion	C	D	E	F	O	I	H	AH
114	AUXS	ACD D Auxiliary Security		D	E	F				
115	DCP	Direct Call Pickup	C	D	E	F	O	I	H	AH
116	PAGT	ACD Priority Agent	C	D	E	F				
117	CBC	Call by Call Service Selection		D	E	F	O	I	H	AH
118	CCDR	Calling Line ID in CDR		D	E	F	O	I	H	AH
119	EMUS	Enhanced Music	C	D	E	F	O	I	H	AH
121	SCMP	Station Camp On	C	D	E	F	O	I	H	AH
125	FTC	Flexible Tones and Cadences	C	D	E	F	O	I	H	AH
127	BKI	Attendant Break In	C	D	E	F	O	I	H	AH
132	TBAR	Trunk Barring	C	D	E	F	O	I	H	AH
133	ENS	Enhanced Night Service	C	D	E	F	O	I	H	AH
139	FFC	Flexible Feature Codes	C	D	E	F	O	I	H	AH
140	DCON	M2250 Attendant Console	C	D	E	F	O	I	H	AH
141	MPO	Multi-Party Operations	C	D	E	F	O	I	H	AH
145	ISDN	ISDN Signaling		D	E	F	O	I		AH
146	PRA	ISDN 1.5 Mbit PRA		D	E	F	O	I		AH
147	ISL	ISDN Signaling Link			E	F				
148	NTWK	Advanced ISDN Network Services			E	F				

149	IEC	Inter-Exchange Carrier		D	E	F	O	I	H	AH
150	DNXP	DN Expansion (7 digit)			E	F	O	I	H	AH
151	CDRE	CDR Expansion (7 digit)			E	F	O	I	H	AH
153	IAP3P	ISDN Application Processor Third Party Vendors			E	F				
155	ACNT	ACD Activity Code		D	E	F				
157	THF	Centrex Switch Hook Flash	C	D	E	F	O	I	H	AH
158	FGD	Feat Grp D (Require IPE MFR)			E	F				
159	NAS	Network Attendant Service				F				
160	FNP	Flexible Numbering Plan	C	D	E	F		I		
161	ISDN INTL	ISDN Supplementary Features			E	F				
162	SAR	Scheduled Access Restriction	C	D	E	F	O	I	H	AH
164	LAPW	Limited Access to Overlays	C	D	E	F	O	I	H	AH
170	ARIE	Meridian Modular Telephone Sets	C	D	E	F	O	I	H	AH
172	CPGS	Console Presentation Group Level Services		D	E	F				
173	ECCS	Enhanced Controlled Class of Service	C	D	E	F	O	I	H	AH
174	AAA	Attendant Alternative Answering	C	D	E	F	O	I	H	AH
175	NMS	Network Message Service			E	F				
178	EOVF	ACD Enhanced Overflow		D	E	F	O	I		AH
179	HVS	Meridian Hospitality Voice Services	C	D	E	F			***H***	AH
180	DKS	Digit Key Signaling	C	D	E	F	O	I	H	AH
181	SACP	Semi-Automatic Camp-On	C	D	E	F	O	I	H	AH
183	VNS 8	Virtual Ntwk Serv				F				
184	OVLP	Overlap Signaling			E	F				
186	POVR	Priority Override / Forced Camp on	C	D	E	F	O	I	H	AH
191	SECL	Series call	C	D	E	F	O	I	H	AH
192	RVQ	Remote Virtual Queuing/Drop Back Busy			E	F				
199	ESA Page	Emergency Service Access Page + CDR					O	I	H	AH
200	AINS	Automatic Set Based Installation	C	D	E	F	O	I	H	AH
202	IPRA	International PRA (CO)			E	F				
203	XPE	Extended Peripheral Equipment	C	D	E	F	O	I	H	AH
204	XCT0	Enhanced Conf, TDS, and MFS Card	C	D	E	F	O	I	H	AH
205	XCT1	Superloop Administration (LD 97)	C	D	E	F	O	I	H	AH
206	MLWU	Multilanguage Wake-Up	C	D	E	F			***H***	AH
207	NACD	Network ACD			E	F				
208	HSE	Hospitality Screen Enh	C	D	E	F			***H***	AH
209	MLS	Meridian Link Server			E	F				
210	MAID	Maid ID for room status	C	D	E	F			***H***	AH
211	MLIO	Multilanguage CPND							***H***	AH
212	VIP	VIP Automatic Wake-Up	C	D	E	F			***H***	AH
214	EAR	Enhanced ACD Routing			E	F				
215	CCRC	Customer Controlled Routing			E	F				
216	BRI	ISDN Basic Rate Interface		D	E	F				

218	IVR	Hold in Queue for IVR			E	F				
219	MWI	MWI Interworking with DMS			E	F				
222	MSDL	Multi-Purpose Serial Data Link		D	E	F	O	I	H	AH
223	FC68	Compliance for DID ANSWER SUPV	C	D	E	F	O	I	H	AH
224	M911	M911 ENHANCEMENTS			*E*	*F*				
225	CWNT	Call Waiting Notification			E	F				
229	SSAC	Station Specific Auth. Codes	C	D	E	F	O	I		AH
233	BRIT	BRI Trunk Application		D	E	F				
234	CDR-NEW	New Format CDR	C	D	E	F	O	I	H	AH
235	BRIL	BRI Line Application		D	E	F				
240	MCM	M1 CT2/CT2+ Mobility		D	E	F				
242	MUL	*Multi User Login*	C	D	E	F	O	I	H	AH
243	FM	Meridian 1 Fault management	C	D	E	F	O	I	H	AH
246	VMB	*Voice Mail Box -*	C	D	E	F	O	I	H	AH
247	CLID	Call ID for Meridian Link	C	D	E	F	O	I	H	AH
250	DPNA	Direct Private Network Access	C	D	E	F				
251	SCDR	Station Activity Record	C	D	E	F	O	I	H	AH
253	ARFW	Attn & Networkwide RCFW			E	F				
254	PHTN	Phantom TN Operation	C	D	E	F	O	I	H	AH
255	INBD	International nB+D								
256	**ADMINSET**	**Set Based Administration Enhancements**	***C***	***D***	***E***	***F***	O	I	H	AH
258	ATX	Autodial Tandem Transfer	C	D	E	F	O	I		AH
259	CDRX	CDR Enhancements					O	I	H	AH
263	**QSIG**	**ECMA Q-Sig.**			**E**	**F**				
291	NI2	NI-2 TR-1268 PRI Basic Call		D	E	F	**O**	**I**		AH
296	**MAT_PKG**	**Meridian Administration Tools – MI**	**C**	**D**	**E**	**F**	**O**	**I**	**H**	AH
297	**MQA**	**Multiple Queue Assignment**		**D**	**E**	**F**				
301	CPP	Call Party Privacy	C	D	E	F	O	I	H	AH
305	**QSIG_GF**	**QSIG General Function**			**E**	**F**				
306	**CPRKNET**	**Call Park Network Wide**			**E**	**F**				
307	**PAGENET**	**Call Page Networkwide**			**E**	**F**				
310	**CPCI**	**Called Party Control on Internal Calls**	**C**	**D**	**E**	**F**	**O**	**I**	**H**	AH
311	**NGCC**	**Next Generation Call Center**			**E**	**F**				
312	TATO	Trunk Anti-Tromboning Optimized		D	E	F	O	I		AH
315	**OPEN_ALARM**	**Open Alarm**	**C**	**D**	**E**	**F**	**O**	**I**	**H**	AH
316		ISDN QSig Supplementary Services - Call Completion			**E**	**F**				
321	**QTN**	**Queue to NACD**			**E**	**F**				
324	**NGEN**	**New Generation Connectivity**			**E**	**F**				
327	RANBRD	RAN Broadcast	C	D	E	F				
328	MUSBRD	Music Broadcast	C	D	E	F				
329	ESA	Emergency Service Access	C	D	E	F				

330	ESA_SUPP	Emergency Services Access			E	F				
331	ESA_CLMP	Emergency Services Access			E	F				
332	CNAME	CLASS: Calling Name Delivery			E	F				
333	CNUM	CLASS: Calling Number Delivery			E	F				
334	CBC_PKG	NI-2 Call by Call Service Selection		D	E	F				
362	FDID	Flexible DID							H	AH

Chapter 9 - Option 11C and Option 11C Compact Features/Applications Comparison

Features/Applications	Option 11C Compact	Option 11C
Terminals /Consoles & Data		
2250 Attendant Console & Busy Lamp Field (BLF)	X	X
Meridian 1 Modular (Aries) M2006, M2008, M2008HF, M2616, M2216	X	X
M2317 & M3000		X
Meridian Communication Unit (MCU)	X	X
QMT21 High Speed Data		X
Meridian 1 Data Peripheral Cards (AILC, 4PDLC, RILC, DAC)		X
BRI		X
PC-Based Attendant CPLUS & CPLUS 2000	X	X
500/2500 telephone sets (Dial Pulse and Digitone)	X	X
Peripheral Hardware		
DTI/PRI 1.5MB	X	X
Maximum TTY	4	36
Uninterrupted Power Supply	X	X
Battery Backup		X
External RAN (Recorded Announcement Machine)	X	X
Meridian 1 Intelligent Peripheral Equipment (IPE) (Full size cards)		X
Meridian 1 Mini Intelligent Peripheral Equipment (Half size cards)	X	
Meridian 1 Integrated RAN (MIRAN)		X
Meridian Integrated Conference Bridge		X
Dual Port DTI/PRI		
D Channel	X	X
Clock Controller Card		X
Clock Recovery Circuit and Clock Tracking Capability	X	X
Line Side T1		X
PCMCIA	X	X
Power Fail Transfer Trunk Card Integration	X	
External Power Fail Transfer Unit (PFTU)		X
Ethernet port on Cabinet	X	X
Installation		
Wall Mounted	X	X
Floor Pedestal		X
Power		
AC 110-240 volts	X	X
DC		X
Cabinet Auxiliary Connector (+/- 15 volt for console power)		X

2250 Console Power TNS (PWR) 2250	X	X
-150 volt message waiting	X	X

Features/Applications	Option 11C Compact	Option 11C
Trunking		
COT GRD&LOP, DID Loop Dial Repeat (LDR), TIE LDR, RAN, Music, Paging	X	X
4 Wire EAM analog		X
DTI - (COT, DID, TIE) GRD, LOP, Loop Dial Repeat, 4 Wire EAM	X	X
ISDN - SL-1, DMS100, DMS250, ESS4, ESS5, NI2	X	X
BRI		X
Feature Group D		X
Networking		
ESN - BARS, NARS, CDP, NAUT	X	X
Calling Line ID	X	X
CPND	X	X
Least Cost Routing	X	X
Tandem Capability		X
Stratum 3 or 4 Network Clock Source Capability		X
Network Clock Tracking Capability	X	X
4 Wire EAM analog TIE trunks		X
Loop Dial Repeat analog TIE trunks	X	X
PRI and DTI supporting and trunk signaling	X	X
NMS (Network Message Service)		X
VNS (Virtual Network Service)		X
QSIG		X
NACD (Network ACD)		X
NAS (Network Attendant Service)		X
ISL (D channel controlling analog trunks)		X
Video		
Point to Point Video using Communicator Digital Line Card I/F	X	X
Multi Point Video using Communicator Digital Line Card I/F	X	X
Symposium		
Communicator BRI I/F		X
Communicator Digital Line Card I/F	X	X
Remote Agent	X	X

Features/Applications	Option 11C Compact	Option 11C
Meridian Mail		
Call Answering	X	X
Auto Attendant	X	X
Distribution Lists	X	X
Name Dialing	X	X
Thru Dial and other message manipulation options (Call Sender, Reply, Compose etc.)	X	X
Multi Customer		X
Voice Menus	X	X
Outcalling - Remote Notification - Delivery to Non-Users	X	X
Enterprise Networking	X	X
Meridian Networking		X
Network Message Service		X
AMIS Networking		X
Hospitality Voice Services		X
Fax on Demand		X
Access		X
Voice Forms		X
Integrated Mailbox Admin.	X	X
VMUIF		X
Dual Language Prompting	X	X
Multiple Language Support	X	X
Multiple Admin. Terminals		
ADMIN Plus		X
MMR		X
Call Center Applications		
CCR, LINK, IVR		X
ACD-A-B-C & Load Management	X	X
ACD Max		X
Network ACD (NACD)		X
NAC		X
Meridian Administration Tool - MAT		
All modules and services	X	X
Companion		
CT200 Adjunct	X	X
Meridian Companion		X
Mobility		X
Passport		
All models with DTI & PRI DS-1 voice interface	X	X

Features/Applications	Option 11C Compact	Option 11C
Micom		
Marathon	X	X
Rapport		
Model 8	X	X
Model 112	X	X
Other Features		
Message Waiting Center	X	X
Charge Account	X	X
Autovon		X
DISA -	X	X
CDR - Meridian 1 X11 Release 22 format	X	X
Auto Wake-up, Background Terminal, PMSI		X
note: See PBX software package content for further details		

Meridian 1
Option 11C Compact
General Release Bulletin

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