Option 11C/ 11C Mini Installer's Checklist
P0917423 –v5

NOTE: This document is pertinent for Option 11C and Option 11C Mini systems on Release 25.30.

The **Generic X11 Release 25.30** software for Option 11C and Option 11C Mini systems includes fourteen (14) manufacture installed Performance Enhancement Products (PEPs) applicable to all regions, with one (1) additional PEP applicable to CALA and Asia Pacific regions only.

PEP #	PRS ID	Description
MPLR13794	MP11680	ELAN disconnection print msg causes warm start
MPLR13774	MP11705	When Main INIs basic calls not properly torn down
MPLR13736	MP09996	LD11 cpy TYPE=3900: value > 8 => SCH3202 error
MPLR13735	MP11563	Provide overflow to orig if mail TN in Maint Busy
MPLR13734	MP11651	Exp cab connected over L3 IP doesn't switch back
MPLR13816	MP11626	Improve router ARP refresh, prevent LD117 sys hang
MPLR14421	MP12182	11C M3900 Download Failure
MPLR14758	MP12345	11C Survivable IP Expansion file
MPLR14638	MP12272	**i2004** - EDD and ELAN failures with i2004
MPLR14599	MP12131	**i2004** - ISM decrement problem
MPLR14639	MP12118	**i2004** - Observe ACD agent problem
MPLR14539	MP11595	**i2004 -** Call interruptions
MPLR14331	MP11975	**i2004 -** M1 warmstart due to packet loss
MPLR15217	MP12561	ISA routes will be blocked

(CALA, A/P & Japan only)

Patch #	PRS ID	Description
MPLR13435	MP11358	PLDN GIVE ACCESS TO EXTERNAL TRUNKS

The Option 11C software daughterboard versions for Release 25.30 are as follows:

North America (U.S.A. / Canada)	CALA	Asia/Pacific
NTSK11AQ R19	**NTSK02AQ R17**	**NTSK03AQ R17**

The new Option 11C Mini system controller versions are as follows:

North America	CALA	Asia/Pacific
NTSK11ZQ R19	**NTSK02ZQ R17**	**NTSK03ZQ R17**

The software version can be identified by the Product Issue of the pre-programmed daughterboard, (or system controller on Option 11C Mini) or PCMCIA card. Product Issue may be determined by locating the label with the product code (i.e. NTSKxxAQ, NTSKxxZQ, or NTSKxxBQ) on either the software box, the software daughterboard, or the PCMCIA card. The Product Issue is the two digit number immediately following the product code. Note that the "xx" in the NTSKxxAQ, NTSKxxZQ, and NTSKxxBQ indicates the region to which the software is released.

PEPS Description

MPLR13794 MP11680 - A large number of M1 error messages are sent to the TTY if the ITG ELAN / TLAN cable is disconnected from the ITG cards or if the ITG cards are pulled out. This can result in a system warm-start. This PEP is to prevent the error messages from printing, thus also preventing the warm-start.

MPLR13774 MP11705 – This PEP resolves the INI problem on the MAIN cabinet. When Main INI's basic calls are not properly torn down since the dynamic switching bitmap was not properly initialized to reflect the preserved calls. This PEP must be loaded in both the MAIN cabinet and all EXPANSION cabinets.

MPLR13736 MP09996 - This PEP is required for Option 11C IP expansion systems. The craftsperson is blocked to copy more than eight (8) M3900 set types at one time. That is, when cpy is used in LD 11 the user can only enter a maximum value of 8 when the TYPE is 3900 set. A SCH3202 error is reported if a value of greater than 8 is specified and TYPE is 3900. **LD11 cpy TYPE=3900: value > 8 => SCH3202 error**

MPLR13735 MP11563 - This fix is useful if the mail intercept treatment is configured. It provides overflow (fast busy) tone to originating party if the mail TN is in Maintenance Busy state.

MPLR13734 MP11651 - This fix resolves the issue where the IP expansion cabinet when connected over layer 3 IP does not switch back from survival mode after the link comes back up.

MPLR13816 MP11626 - These two PEP's should be installed on both the Main and Expansion cabinets in all configurations (PTP,L2 and L3). They are provided to improve the router ARP refresh mechanism and prevents system hang while using OVL 117.

MPLR14421 MP12182 – This PEP resolves the issue where the M3900 TN's cannot successfully complete the firmware download on Option 11C systems. If this failure occurs while doing a single-set download, the error codes bug4036 and npr334 will appear.

MPLR14758 MP12345 – This PEP provides a file required for Survivable IP Expansion.

MPLR14638 MP12272–The manual and automatic EDD can fail if more than 4 ITG line cards are in use at one time.

MPLR14599 MP12131 – When creating an IP set in LD 11, the ISM values for both Internet telephones and digital telephones are decremented. This patch prevents the digital ISM value from being affected.

MPLR14639 MP12118 – If the ACD supervisor activates OBV (Observe Agent key) while agent is on, a trunk call to an i2004 ACD set, releasing the OBV key can drop the original call. This PEP corrects this issue.

MPLR14539 MP11595 – This patch prevents BUG330, AUD017 and AUD018 messages that occur when a call is placed to a different DN on the same i2004 phone or when a call originates or terminates on an i2004 to/from various different types of trunks (PRI, PRI2, DTI, DTI2, QSIG, others). This PEP is a replacement for MPLR13817/MP11659 which was provided on the previous version.

MPLR14331 MP11975 – Occasionally, packet loss on the E-LAN may result in the RUDP message getting stuck in queue. This can eventually result in the need to INI the switch. This PEP addresses that problem.

MPLR15217 MP12561 – This PEP addresses the problem of several calls failing due to blockage. ISA route calls would be blocked because of maximum and minimum restrictions even when there are several trunks still available.

+
(CALA and Asia Pacific software only)

MPLR13435 MP11358 – This PEP addresses an issue of potential toll fraud when Group Hunt (PLDN) allows access to an external trunk or number. If a PLDN is directed to Speed Call, and the Speed Call List entry is empty, it may be possible to access an external trunk. The PEP now invalidates the call if the digit following the PLDN is blank.
NOTE: The Group call feature is currently only available in the EMEA, CALA and Asia-Pacific Regions.

Option 11C/ 11C Mini Installer's Checklist
P0917423

NOTE: This document is pertinent for Option 11C and Option 11C Mini on R25.30

CAUTION

Ensure that the NTDK20 SSC card is on a **FLAT** surface before installing the Software Daughterboard and

Security Device. Ensure that the NTDK97 MSC is on a **FLAT** surface before installing the Security Device.

DAMAGE MAY RESULT if this is done with the card still in the box!

CAUTION Please read this important message on software upgrades

Note: Nortel Networks recommends that you upgrade the boot code to the latest release when you upgrade the software. The boot code is on the programmed PCMCIA card.
Please refer to Nortel Networks NTP's for installation instructions.

UPGRADE method: Log in to the system and select DL 143. Type UPGRADE to access the Installation Program.

You cannot use the UPGRADE command to upgrade correctly from Release 22 to 23; 22 to 24; or 23 to 24. The Sysload Method must be used.
SYSLOAD method: Toggle the power supply to OFF and then to ON. During the reboot, press Ctrl I to access the Installation Program.

NEW - Software daughterboard – NTTK25AA

The NTTK25AA blank software daughterboard is being introduced due to the component obsolescence of the Intel Flash Memory chip used on NTTK13AA daughterboards. This new daughterboard however; has the same memory capacity as the NTTK13AA containing 48 Meg of flash memory storage split into 32 Meg of program store and 16 Meg of C:Drive. The NTTK25AA card is compatible with X11 Release 25.30 software or higher. This card is not compatible with issues of software earlier than 25.30.   The installation of the card is the same as with the NTTK13AA or NTDK81AA. . **If you are upgrading from a previous version of software daughtercard, please ensure that you have the latest bootcode from your release 25.30 PCMCIA card. (see Upgrade NTP).**

As noted below, NTTK13AA will continue to be supported with X11 Release 24.24 to Release 25.30 and higher.

Software Daughterboard Compatibility

The following identifies the existing software daughterboards and the software releases they are compatible with:

Software Daughterboard	Capacity	Introduced on	Compatible with
NTDK21AA	32 Meg	Release 22.08D	Release 22.08D – 23.55
NTDK81AA	40 Meg	Release 23.18	Release 23.18 – 24.24
NTTK13AA	48 Meg	Release 24.24	Release 24.24 – 25.30and higher
NTTK25AA	48 Meg	Release 25.30	Release 25.30 and higher

NTDK97 – 11C Mini System Controller

This controller is designed specifically for the Option 11C Mini which has forced air cooling. DO NOT install this controller in an Option 11C Cabinet (NTAK11) as it will generate excess heat and system damage will result. In addition this controller, when installed in an Option 11C cabinet DOES NOT meet regulatory standards.

IP Expansion Connectivity

Upgrading your Option 11, 11E or 11C system to support IP Connectivity

A minimum software release of X11 Release 25.30 is required to use the new IP daughterboards.

In order to support the software, the software daughterboard, NTTK13AA or NTTK25AA is required on each IP cabinet.

The IP Expansion product requires a minimum vintage of the NTDK20EA SSC card in the main cabinet for Option 11C. Option 11C IP Expansion cabinets require minimum NTDK20CA or later.

Option 11C Mini requires a minimum vintage of the NTDK20EA SSC card in both the main and IP Expansion chassis.

The Option 11C Cabinet refresh is required for cabinets configured with IP daughteboards. Existing cabinets can be easily field upgraded by ordering the **NTDK18AA** cabinet upgrade kit.

IP daughterboards can co-exist with existing Fibre daughterboards thereby providing customers with an easy upgrade solution

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NTDK97 – Faceplate LED status
The Link light will be "on" during sysload, then turn "off" after the ethernet interface is enabled (whether ethernet is configured or not) and remain "off" during normal use.

Before starting make sure you have the following:

11C System
• NTDK20 SSC Card   • Software Daughterboard   • Security Device   • Keycode Datasheet   (see next page for keycode instructions)

11C Mini System
• NTDK97 MSC Card   • Security Device   • Keycode Datasheet   (see next page for keycode instructions)

For IP Expansion Systems
• IP Daughterboard(s) with appropriate cables   • IP Expansion Security Device(s)   • Grounding Clips
Note: Your IP Expansion Security Device I.D. begins with the number 4xxxxxxx. It is programmed to work with your main cabinet security device.

The following guides from the NTP suite will be helpful to complete installation:

• Option 11C Planning and Installation Guide   • Option 11C Mini Planning and Installation Guide

• Option 11C and 11C Mini Upgrade Procedures Guide

• For IP Expansion installation procedures, refer to the Planning and Installation Guide

• For Survivability configurations, please refer to the Option 11C Survivability Operation and Configuration Guide.

• Set the baud rate for Port 0 of the SSC/MSC card, using the dip switch on the SSC/MSC card faceplate.

 Port 0 is the only SDI port that can be used for software installations and upgrades.

• After successful install of the system, make sure that Port 0 of SSC/MSC card is configured as a Maintenance Terminal/TTY. This is required for future software upgrades.

• If upgrading from an Option 11E multi-cabinet system that has fibre connection to the expansion cabinets, it is recommended that the keycodes be validated on the main cabinet first before swapping out the expansion cabinets.

INSTALL MENU

If installing Option 11C using a Software Daughterboard for a brand new system or for an upgrade from an Option 11/11E to 11C, select Option 1 (New Install or Option 11/11E Upgrade – From Software Daughterboard). If installing to your 11C Mini system using a Mini System Controller for a brand new system, select Option 1.

If installing using a PCMCIA card, select Option 4 (New system installation – from Software Delivery Card) or Option 2 (System Upgrade) to upgrade an Option 11/11E to Option 11C, or to upgrade software to a new release or issue.

"**Basic Configuration**" database option includes the following items: Directory, Configuration Record, XPECs blocks, Superloops blocks, Patch, Physical Dump Record, IMS TN Table, IMS Links No, Table, Asynch Blocks, CSL Blocks, VAS Blocks, Background TTY Blocks, Background Port ID Blocks, Aries Data Block, SYS PARAMS Block, LAPW Blocks. For a more extensive default data block, please choose "Pre-Configured Data".

IMPORTANT KEYCODE INFORMATION:

The data you need to enter in the INSTALL MENU is provided on the Keycode Datasheet.

If the keycodes are unsuccessful, check the following:

-software issue, feature set name, any additional packages, TNs, ISM parameters, security ID, auxiliary ID (the old site ID, if this is an upgrade), and ensure the correct keycodes were entered. All items must match the keycode sheet exactly.

For an Option 11C Mini system, check that the number of TNs has been entered correctly from the keycode sheet.

When performing a new system installation, please ensure that the default AUX ID matches the AUX ID from the keycode data sheet.

If they still are not successful, then call your Service Representative.

SYSTEM UPGRADE FROM Option 11/11E to Option 11C, retaining copper interface

If you are installing the NTDK26 Backwards Compatible Daughterboard on the SSC card, jumper J7 must be removed prior to installing the card.

SYSTEM UPGRADE FROM Option 11 or 11E to Option 11C

The following two methods can be used to extract customer data from Option 11/11E software cartridge:
• PC with the Option 11/11E data stored in a CCBR file, or   • NTDK30 Database Upgrade Tool

SOFTWARE UPGRADE on Option 11C or Option 11C Mini

The following is required: Software on PCMCIA Card and new keycodes; or blank PCMCIA Card and access to Nortel Network's Electronic Software Distribution website to download the applicable software.

SOFTWARE DOWNLOAD Website

The Electronic Software Distribution website (ESD) is available for Option 11C/11C Mini software downloads. The site is located at: http://www.nortelnetworks.com Choose Customer Support – Software Distribution. Choose Option 11C/11C Mini from the pulldown product listing menu.

Registration is required in order to access this site.

Addendum to
General Release Bulletin - Release 25.30
P0938310
Issue 1.0, November 2000

Please note the following changes applicable to Issue 1.0 of the Release 25.30 General Release Bulletin:

Chapter 1 - Page 10 under Section [System Management and X11 release 25.30] add the following statement

SELK - Scheduled Electronic Lock not supported in MAT 6.67 or OTM 1.01
> This is an enhancement to the existing Electronic Lock Feature to provide a schedule facility. This allows a set or group of sets to be locked automatically after a predefined time when the user forgets to lock the set by dialing the FFC ELKA or FFC ELKD. The feature is activated in LD 10/11 by setting the new Class of Service (SLKA/SLKD) to SLKA. Packages 81(CCOS), 139 (FFC) and 162 (SAR) are required for the feature.
> This feature is not supported in MAT 6.67 or OTM 1.01.
> Support for this feature is planned for OTM 1.1.

Chapter 2 – Page 19 under section [IP Expansion Advisements for 25.30] add the following bullets

- If the following files do not exist on the main cabinet (inet1.db, inet2.db, inet3.db and inet4.db), which are used for the configuration of a 10BaseT port on an IP Expansion cabinet, the message "Database Backup Failed" will be printed if the user backs up files from the C:drive to the PCMCIA card in overlay 43, even though the back-up was SUCCESSFUL. Please see patch: MPLR13879 in the patch library, which fixes the problem.

- If an i2004 set (installed in one of the Expansion cabinets) is called when the IP link is down, the caller will get ringback tone instead of overflow tone if Meridian Mail is not configured on the system.

Chapter 7 – Page 60 – Correction to the Auxiliary Compatibility table

The Scheduled Electronic Lock (SELK)

Feature Description

The Scheduled Electronic Lock (SELK) enhances of the Electronic Lock Feature .

The Scheduled Electronic Lock feature automatically locks telephone sets at predetermined times. These times are defined in the Scheduled Access Restrictions (SAR) database (Overlay 88). SAR group numbers are also defined in LD 88. A maximum of eight scheduled lock times can be assigned to each group.

Each telephone set that requires Scheduled Electronic Lock functionality must be assigned to a SAR group in LDs 10 or 11, and must have the Scheduled Electronic Lock Allowed (SLKA) Class of Service assigned.

In order to override the Scheduled Electronic Lock feature, the user must use the existing Electronic Lock feature. The user enters the Electronic Lock Deactivated (ELKD) Flexible Feature Code (FFC). The telephone set remains unlocked until the user dials the Electronic Lock Activated (ELKA) FFC. If the user does not dial the ELKA FFC, the system automatically locks the telephone set at the next scheduled lock time. For the set to be unlocked again, the user must dial the ELKD FFC to unlock the telephone set. The telephone set does not automatically unlock.

A special dial tone, defined in Overlay 56, notifies the user that the telephone set is in a locked state.

SELK Example

The SELK is scheduled for 18:00, 24:00, and 02:00. At 22:00, an employee who is working overtime needs to use their telephone. That person enters the ELKD FFC on the telephone set to unlock it. At 24:00, the telephone set automatically locks, if the user has not already locked it. To use the telephone set again, the employee must unlock it. At 02:00, the next scheduled lock time; the telephone set locks once more. The Schedule Electronic Lock feature remains in affect until the employee unlock the set by dialing the ELKD FCC.

Operating Parameters

This feature applies to X11 Release 25.3x and later.

The SELK feature supports analog and Meridian 1 proprietary telephone sets.

The SELK feature does not support ACD sets, trunks or attendant consoles.

If a telephone set does not support the SAR and Electronic Lock features (for example, ACD sets), then it will not support the SELK feature.

If the Class of Service (CLS) is set to Scheduled Electronic Lock Deactivated (SKLD) in Overlays 10 and 11, the existing Electronic Lock and SAR feature functionalities apply.

When the SELK feature is active, it does not take the Controlled Class of Service (CCOS) restriction from Overlay 15. Configuration is done in Overlay 88.

When a telephone set is unlocked, CCOS restrictions override normal telephone set restrictions. When the SELK feature is active, the Scheduled Access Restrictions override the CCOS restrictions.

If the system is busy the Scheduled Electronic Lock feature could be slightly delayed. It is possible that a user could still dial an external number after the beginning of a scheduled lock time.

Feature Interactions

Automatic Call Distribution

The SELK feature does not support Automatic Call Distribution (ACD) sets, as CCOS does not support ACD sets.

Direct Inward System Access

Direct Inward System Access (DISA) numbers are not assigned to Scheduled Access Restrictions groups, so the SELK feature does not affect them.

Electronic Lock Network Wide / Electronic Lock on Private Lines

The SELK feature supports Electronic Lock Network Wide / Electronic Lock on Private Lines. However, a scheduled lock is not supported over a network. Scheduled Electronic Lock must be configured and administered locally. Like SELK, these features obtain their restrictions from Scheduled Access Restrictions.

Message Intercept

When SELK locks a telephone set, Message Intercept (MINT) provides a different dial tone or announcement while the telephone set is locked.

Multi Tenant Service

If Scheduled Access Restrictions are applied to a tenant, the telephones in that tenant group follow the Scheduled Access Restrictions (unless the telephone belongs to a different SAR group).

Scheduled Access Restrictions

The Scheduled Access Restrictions (SAR) Permanent Disable, Active Lock, and Lock Disable FFCs operations have precedence over SELK.

Feature packaging

Scheduled Electronic Lock requires the following packages:
- Controlled Class of Service (CCOS) package 81

- Flexible Feature Code (FFC) package 139

- Scheduled Access Restrictions (SAR) package 162

- Message Intercept (MINT) package 163, if the Message Intercept function is required

Feature Implementation

Task summary list

The following is a summary of the tasks in this section:

1. **LD 88** – Configure Scheduled Access Restrictions data block.

2. **LD 10** – Assign the Scheduled Electronic Lock feature to an analog (500/2500 type) telephone set.

3. **LD 11** – Assign the Scheduled Electronic Lock feature to a Meridian 1 proprietary telephone set.

4. **LD 57** – Define Flexible Feature Code for Scheduled Electronic Lock.

LD 88 – Configure Scheduled Access Restrictions data block.

Prompt	Response	Description
REQ	NEW CHG	Create data block. Change existing data block.
TYPE	SAR	Scheduled Access Restrictions.
CUST	0-99	Customer number.
	0-31	For Option 11C.
SPWD	xxxx	Secure data password (same password as defined for DISA on a per customer basis in LD 15).
		Note: This Prompt will not appear to a user with an LAO password.
SGRP	0-999	SAR group number.
OFFP	1-8 <CR>	Off-hour period number. Off-hour periods may overlap; the period that starts first has priority until that off-hour period is finished. All the promps shown up to the ICR prompt repeat until you enter <cr>. Go to ICR prompt.

- STAR hh mm	hh mm	Start time. The current start time (hours and minutes) is printed individually after the prompt. Respond with the new start time.
	X	Remove value and return to OFFP prompt.
- STOP hh mm	hh mm	Stop time. The current stop time (hours and minutes) is printed individually after the prompt. Respond with the new stop time.
	X	Remove value and return to OFFP prompt.
- DAYS	d ... d	Respond with a new set of days to be used. Maximum of seven entries in the range of 1-7. Day 1 = Sunday, Day 2 = Monday, etc.
- COS		Off-hour period Class of Service.
	(UNR)	Unrestricted
	CTD	Conditionally Toll-Denied
	CUN	Conditionally Unrestricted
	FR1	Fully Restricted Class1
	FR2	Fully Restricted Class 2
	FRE	Fully Restricted
	SRE	Semi-restricted
	TLD	Toll Denied
- TGAR	(0)-15	Trunk Group Access Restriction.
- NCOS	0-99	Network Class of Service.
- ICR	(NO) YES	Incoming Calls are Restricted.
LOCK	(1)-8	Indicates off-hour period to be used as the LOCK period. Default is Period 1.

LD 10 - Assign the Scheduled Electronic Lock feature to Meridian 1 proprietary Telephone set

Prompt	Response	Description
REQ	NEW	Add new data.
TYPE	aaaa	Meridian 1 proprietary telephone.
		See X11 Administration (553-3001-311).
TN	l s c u c u	Terminal Number. Terminal Number for the Option 11C.
SGRP	(0)-999	Scheduled Access Restriction group number. Must have group defined in LD 88.
SCPW	xxxx	Station Control Password.
CLS	CCSA	Controlled Class of Service Allowed. CCSD is default.
	SLKA	Scheduled Electronic Lock Allowed. SLKD is default.

LD 57 - Define Flexible Feature Code for Scheduled Electronic Lock

Prompt	Response	Description
REQ	NEW CHG	Add new data. Change existing data.
TYPE	FFC	Flexible Feature Code
CUST	0-99 0-31	Customer number. For Option 11C.
FFCT	YES (NO)	Provide FFC confirmation tone
CODE	ELKA	New/change Electronic Lock Activate FFC.
ELKA	xxxx	Enter the new or changed Electronic Lock Activate FFC
CODE	ELKD	New/change Electronic Lock Deactivate FFC.
ELKD	xxxx	Enter the new or changed Electronic Lock Deactivate FFC

Feature Operation

During the period that a set is locked, the user must enter the ELKD FFC to unlock the set. The set remains unlocked until either the next scheduled lock occurs or the user dial the ELKA FFC to manually lock/unlock the set.

Night Service Enhancement for BRI Trunks

Reference List

The following are the references in this section:

- Night Service and Night Service Enhancements feature modules in X11 Features and Services (553-3001-306)

Feature Description

Night Service Enhancement for BRI Trunks enhances the functionality of the Night Service feature. Night Service allows calls that are normally directed to the attendant to be routed to another defined destination. With the Night Service Enhancement for BRI Trunks feature, a Night Service DN (NITE) or Night Service Group number (NGRP) can be defined for BRI trunks.

The Night Service Enhancement for BRI Trunks feature introduces the NITE and NGRP prompts for Overlay 27.

The NITE prompt appears in Overlay 27 when the following conditions apply:

- Enhanced Night Service is disabled (ENS = NO) in Overlay 15.

- Auto Terminate is disabled (AUTO = NO) in Overlay 16.

- The BRI trunk is defined as a Direct Inward Dialing (DID) or Central Office (COT) trunk in Overlay 27.

The NGRP prompt appears in Overlay 27 when the following conditions apply:

- Enhanced Night Service is enabled (ENS = YES) in Overlay 15.

- Auto Terminate is disabled (AUTO = NO) in Overlay 16.

- The BRI trunk is defined as a DID or CO trunk in Overlay 27.

The Auto Terminate DN (ATDN) prompt appears in Overlay 14 when the following conditions apply:

- Auto Terminate is enabled (AUTO = YES) in Overlay 16.

- The BRI trunk is defined as a DID, CO, or TIE trunk in Overlay 27.

Note: In this case, neither the NITE prompt nor the NGRP prompt appears in Overlay 27.

Operating Parameters

With the Night Service Enhancement feature, you can enter a Group Hunt Pilot DN as the Night Service DN.

You cannot assign a BRIL DN to the night station.

The Night Service DN defined in Overlay 27 takes precedence over the Customer Night DN defined in Overlay 15.

The NITE or NGRP prompt appears for each B-channel. You can enter different Night DNs for each B-channel.

If you enter B2 = NO for the configuration of the second B-channel, the Night DN or Night Service Group number that you entered for the first B-channel (BI) is used.

If the definition for the ENS prompt is changed from NO to YES while Night Service is in effect, the system verifies that the Night number defined is a group number or a DN. If a Night DN or 0000 is defined, the existing Night DN, defined in Overlay 15, is used.

Feature Interactions

Refer to the Night Service and Night Service Enhancements feature modules in X11 Features and Services (553-3001-306) for feature interactions.

Feature packaging

The Night Service Enhancement for BRI Trunks feature requires the following packages:

- Enhanced Night Service (ENS) package 133, in order for the NGRP prompt to appear

- Integrated Services Digital Network (ISDN) package 145

- Primary Rate Access (PRA) package 146

- 2.0 Mb/s Primary Rate Interface (PRI2) package 154

- International Primary Rate Access (IPRA) package 202

- Basic Rate Interface (BRI) package 216

- Integrated Services Digital Network Basic Rate Interface Trunk Access (BRIT) package 233

- Basic Rate Interface Line Application (BRIL) package 235

Feature Implementation

Task summary list

The following is a summary of the tasks in this section:

1. LD 27- define a Night Service DN when ENS is disabled in Overlay 15.
2. LD 27- define a Night Service Group number when ENS is enabled in Overlay 15.

LD 27 – Define a Night Service DN when ENS is disabled in Overlay 15.

Prompt	Response	Description
REQ	CHG	Change existing data.
TYPE	DSL	Digital Subscriber Loop Data Block.
DSL	l s c dsl	Digital Subscriber Loop address.
	c dsl	For Option 11C.
APPL		Application type for this DSL.
	BRIE	Basic Rate Interface protocol engine. BRIE supports the QSIG and EuroISDN interfaces, and requires BRIT package 233. Any changes in the DSL route must match the BRIE loadware application.
	BRIT	Basic Rate Interface Trunk BRIT supports SL-1, Numeris, and ITR6 interfaces. BRIT package 233 is required.
...		
TKTP		Trunk Type.
	DID	Direct Inward Dialing trunk type.
	COT	Central Office trunk type.
PRID	x	Protocol ID, where x = 1-4
PDCA	xx	Pad Category table, as defined in Overlay73,
		where: xx = 1-16
ROUT	xxx	Route number for the Trunk DSL, where: xxx = 0-511
...		
B1	YES	Change B-Channel 1 configuration.
NITE		Night Service Directory Number.
	x...x	This DN can have up to four digits, or up to seven digits withDirectory Number Expansion (DNXP) package 150.
		You can enter a Group Hunt Pilot DN at this prompt.
		The DN that you enter here takes precedence over the NITE and NIT1-NIT4 prompts in LD15.
		If you enter a DN at this prompt, calls will go to this DN.
		If you do not enter a DN at this prompt, calls will go to the DNs defined at NITE prompts in LD15.

TGAR ...	0-(1)-31	Trunk Group Access Restriction number.
B2	YES	Change B-Channel 2 configuration.
NITE		Night Service Directory Number.
	x...x	This DN can have up to four digits, or up to seven digits with Directory Number Expansion (DNXP) package 150.
		You can enter a Group Hunt Pilot DN at this prompt.
		The DN that you enter here takes precedence over the NITE and NIT1-NIT4 prompts in LD15.
		If you enter a DN at this prompt, calls will go to this DN. If you do not enter a DN at this prompt, calls will go to the DNs defined at NITE prompts in LD15.

LD 27 – Define a Night Service Group number when ENS is enabled in Overlay 15.

Prompt	Response	Description
REQ	CHG	Change existing data.
TYPE	DSL	Digital Subscriber Loop Data Block.
DSL	l s c dsl	Digital Subscriber Loop address.
	c dsl	For Option 11C.
APPL		Application.
	BRIE	Basic Rate Interface protocol engine. BRIE supports the QSIG and EuroISDN interfaces, and requires BRIT package 233. ANy changes in the DSL route must match the BRIE loadware application.
	BRIT	Basic Rate Interface Trunk BRIT supports SL-1, Numeris, and ITR6 interfaces. BRIT package 233 is required.
...		
TKTP	DID	Trunk Type.
	COT	Direct Inward Dialing trunk type. Central Office trunk type.
...		
B1	YES	Change B-Channel 1 configuration.
NGRP		Night Service Group number, where:
	x	x = 0-9
		The NGRP prompt replaces the NITE prompt when ENS = YES in LD15.
TGAR ...	0-(1)-31	Trunk Group Access Restriction number.

B2	YES	Change B-Channel 2 configuration.
NGRP		Night Service Group number, where:
	x	x = 0-9
		The NGRP prompt replaces the NITE prompt when ENS = YES in LD15.

Feature operation

Refer to the Night Service and Night Service Enhancements feature modules in X11 features and services (553-3001-306) for Night Service and Night Service Enhancements feature operation.

Meridian 1

Option 11C, 11C Mini, 51C, 61C, 81, and 81C

General Release Bulletin - Release 25.30

P0919854   Issue 1.00   General Release Bulletin - Release 25.30

Meridian 1

Option 11C, 11C Mini, 51C, 61C, 81, and 81C

General Release Bulletin - Release 25.30

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Information is subject to change without notice. Nortel Networks reserves the right to make changes in design or components as progress in engineering and manufacturing may warrant. This equipment has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of the FCC rules.

Meridian 1 is a trademark of Nortel Networks.

Revision history

November 2000   Issue 1.00   Standard for Release 25.30

Introduction

> Generic X11 Release 25.30 is supported on:
>
> - Option 11C and Option 11C Mini plus Performance Enhancement Products (PEPs), as required. Refer to Option 11C/Mini Installer's ckecklist P0914619 for details of any manufactured PEPs.
>
> - Options 51C, 61C, 81 and 81C equipped with the Motorola 68040 (NT9D19), 68060 (NT5D10), or 68060E (NT5D03) commercial processors, plus mandatory PEPs as required. Refer to Manufacture Delivered Customer Solutions (MDCS) Rls25.30 GRB for details of any mandatory PEPs required for Large Systems.
>
> - Options 81C equipped with Call Processor PII commercial processors, plus mandatory PEPs. Refer to Manufacture Delivered Customer Solutions (MDCS) Rls25.30 GRB for details of any mandatory PEPs required for Large Systems.

This document provides an overview of Release 25.30 features and enhancements. This document contains feature information that is applicable Globally but the advisements and many of the technical details apply specifically to North America and CALA, and may not apply in other regions.

The default processor for new Option 51C and 61C systems is the 68060E processor.

Release 25.30 Option 81C new systems will ship with Fiber Network Fabric (FNF) and Call Processor PII (CP PII) as the default configuration.

The Meridian 1 Customer Documentation Library was simplified for X11- Global Release 25.10 and higher please refer to Chapter 4 for details of the Documentation Restructure and for the complete listing of Release 25.30 codes.

Release 25.30 Feature Overview:

When references in this document are made to "Release 25", the statements are applicable to Release 25.10, Release 25.15 <u>and</u> Release 25.30.

Note: Not all Release 25.30 features are offered in all countries, and not all features are supported on all machine types. Please refer to Chapter 5 of this document for feature details and market availability information, or contact your local Nortel Networks sales representative for more information.

Note: For information on Real Time requirements, please contact your local Nortel Networks sales representative. For information on Memory calculations, please refer to P0910790, the Technical Reference Guide for Small Systems or NTLH03AA-A0804746, the Meridian 1 Release 25 Planning and Engineering Guide for Large Systems.

IMPORTANT
Please read all included advisements, requirements, and enhancements both common, and pertinent to your machine type prior to loading this software.

Release 25 Feature Availability & MAT/OTM Matrix

	11C/Mini	51 C	61C	81	81C	25.10	25.15	25.30	MAT/OTM Mandatory Requirement
Fiber Network Fabric (FNF)				X	X		X	X	NO
Call Processor PII (CP PII)					X		X	X	NO
Option11C &11 Mini IP Expansion	X							X	NO[2,3]
ITG Trunks 2.0	X	X	X	X	X	X	X	X	6.67.04/1.0 or later
ITG Line- Side & i2004 Internet Telephone	X	X	X	X	X			X[1]	6.67.07/1.0[2] or later
D-Channel Expansion				X	X	X	X	X	NO
CLID On Analog Trunks	X	X	X	X	X	X	X	X	NO
10/20 Digit ANI on 911	X	X	X	X	X	X	X	X	NO
Private to Public CLID Conversion	X	X	X	X	X	X	X	X	NO
Plug ins 1-14 (Europe only)	X	X	X	X	X	X	X	X	NO
M3900 Digital Telephone Enhancement	X	X	X	X	X		X	X	NO
M3900 Corporate Directory	X	X	X	X	X		X	X	6.67.07/1.0 or later
M3900 Virtual Office	X	X	X	X	X		X	X	NO
Inventory Reporting Ph 2	X	X	X	X	X	X	X	X	NO
Plug in infrastructure (Europe only)	X	X	X	X	X	X	X	X	NO
MDECT 2000 MSMN (Europe only)	X	X	X	X	X	X	X	X	NO
BNE (Europe only)	X	X	X	X	X		X	X	NO
Agent Greeting (Europe only)	X	X	X	X	X		X	X	NO

Note:

1. ITG Line-Side & i2004 Internet Telephone Set will be generally available On December 04th, 2000, Release 25.30 will be the base software for i2004, refer to i2004 Internet Telephone Product Bulletin.

2. The OTM 1.0 upissue (OTM1.01) or MAT 6.67 update disk (ITGL content) is required to support ITGL in Expansion cabinet in survival mode with option11C/Mini IP Expansion.

3. When OTM 1.1 is introduced it will deliver additional functionality to manage the Survivable IP Expansion cabinets in the areas of Common Services and Maintenance in both the Windows and Web environment.

Chapter 1 - System Advisements

This document provides the advisements specific to North America and CALA, that may not be applicable to Europe and Asia Pacific.

In this document, Small Systems refer to the Option 11C and Option 11C Mini. Large Systems refer to the Option 51C, 61C, 81 and 81C machine types. System Advisements are applicable to all System Types. Chapters 2 and 3 detail advisements that are Small and Large system specific respectively.

Where references are made to Release 25, the statements are applicable to Release 25.10 <u>and</u> release 25.15<u>and</u> release 25.30.

Systems Supported

Generic X11 Release 25.30 supports the following machine types:

- Meridian 1 Option 11C

- Meridian 1 Option 11C Mini

- Meridian 1 Options 51C, 61C, 81, and 81C

- Meridian 1 Option 81C system equipped with Call Processor PII

Feature Interactions

- Microcellular features (packages 345, 346, 314, 302, 303) are not supported on Release 25.10 or later systems.

- SLIC and UILC cards are not supported in Option 11C/Mini IP Expansion (IPEX) cabinet for Rls 25.30

PE and EPE Hardware Support

CP2, CP3, and CP4

X11 Release 25.10, 25.15 and 25.30 supports PE and EPE equipment currently supported on Release 24.25 systems. A very limited number of sites running release 25 have experienced sporadic digital set operation when combined with older PE and EPE hardware. This issue is related to the occasional loss of system messages between the CPU and the set. Release 25 contains a Message Buffering solution to address this issue.

Call Processor Pentium (CP PII)

For upgrades to the CP PII processor platform, EPE cards will not be supported and will need to be migrated to IPE hardware. This refers to cards that plug into PE and EPE shelves (cards that have 1 1/2" spacing). Some telephone sets, such as SL1 sets (QSUXXX), may have to be replaced in this migration. Cards in the network shelves will continue to be supported. Connections from Networking Equipment to Meridian Mail and Digital Trunk/Primary Rate Interface are therefore not impacted by this requirement and remain supported in this configuration.

Real Time Impact of Release 25

CAUTION

Real time impact is based on Release 25.15, the data will be updated as soon as the new numbers are available

The real time impact of Release 25.10 is shown in the following table. These values are based on the average basic calls measurements in combination with the real time impact on some basic market models which make extensive use of key features, such as: CPND, CDR, digital trunking, digital sets.

Machine type	24 to25
11C	6%
CP2: (51C/61C/81/81C)	16%
CP3: (51C/61C/81/81C)	6%
CP4: (51C/61C/81/81C)	6%

CP4 to CP PII improvement in real time capacity	
CP4 to CP PII: **(Options 51C/61C/81/81C)**	206% (= 3.06X)

Recommended Call Register Counts

The following tables detail the recommended Call Register Counts for Release 25 Call Registers are set in LD. 17, at the "NCR" prompt, after answering "Yes" to the PARM prompt.

	11C	51C CP2	61C CP2	51C CP3&4	61C CP3&4
Recommended Call Register Count	1750	1500	3000	2000	4000

	81/81C CP2	81/81C CP3&4	81C CP PII with 5 or fewer groups	81C CP PII with 6 to 8 groups
Recommended Call Register Count	7500	10000	20000	25000

M3900 Digital Telephone Enhancement Advisements

Release 1 vs. Release 2 Telephone Feature Operation
Release 1 M3900 Features include the base M3900 feature set introduced on Release 24.24/24.25.

Release 2 M3900 set features include:

• Flash Download (25.10 + PEPS or 25,15)

• Context Sensitive Keys (25.10 or later)

• Set to Set Messaging (25.10 or later)

• Virtual Office (25.15)

• Corporate Directory (25.15)

• Display Based Expansion Module (25.10 or later)

The following table summarizes which M3900 Feature sets will be active when Release 1 and Release 2 M3900 sets are installed with the various releases of X11 Software which support M3900 sets:

	X11 Release 24 (24.24/24.25)	**X11 Release 25 (25.10/25.15)**
M3900 Sets with Rls 1 F/W	Rls 1 capability	Rls 1 capability
M3900 Sets with Rls 2 F/W	None Rls 2 Sets are not supported on Release 24.	Rls 2 capability

M3900 Flash Download provides the capability to download a new firmware version from the Meridian 1 to the M3900 telephone. On Release 25.15& 25.30, Release 2 Firmware will be downloaded to the set by default, however, during the system software install process, the system administrator can select Release 1 firmware to be downloaded, if desired, when the flash download process is invoked.

Customers who desire M3900 Release 2 functionality must purchase X11 Release 25.10 or higher software.

M3900 Release 1 and Release 2 telephones can initially be identified through the part numbers below; however, telephones listed with these part numbers could contain either Release 1 or Release 2 firmware if a flash memory download has been performed on them. A flash memory download is not possible on X11 Release 24 so part numbers are likely to be accurate for M3900 telephones on this X11 release. M3900 telephones can be queried through Overlay 32 or from the set directly to determine their firmware version.

Release 1 Sets:

NTMN33BA-66   A0767102 Meridian M3903 Enhanced, Rel.1, Platinum

NTMN33BA-70   A0767103 Meridian M3903 Enhanced, Rel.1, Charcoal

NTMN34BA-66 A0767107   Meridian M3904 Professional, Rel.1, Platinum

NTMN34BA- 70 A0767108 Meridian M3904 Professional, Rel.1, Charcoal

Release 2 Sets:

NTMN33FA-66 A0806577 Meridian M3903 Enhanced, Rel. 2, Platinum

NTMN33FA-70 A0806578 Meridian M3903 Enhanced, Rel. 2, Charcoal

NTMN34FA-66 A0806581 Meridian M3904 Professional, Rel.2, Platinum

NTMN 34FA-70 A0806582 Meridian M3904 Professional, Rel. 2,Charcoal

Important Notes Regarding Scheduling of Flash Downloads

Since the Flash Downloading feature of the M3900 takes some bandwidth from the system signaling path while it is operating, it is recommended that downloading is scheduled in off peak hours for best results.

When a system is first brought into service with M3900 sets, there is a significant amount of messaging that occurs to activate the sets via the Lamp Audit background routine. The time required to bring all the sets into service on a system is dependent on the system configuration, and could take several hours. Performing a Flash Download directly after the system is brought into service will add to the message load on the system. As such it is recommended that M3900 set download activities not occur in conjunction with systems being brought into service, but that downloads occur 24 hours later.

These recommendations will reduce the likelihood of any other system signaling or messaging related issues from occurring on the Meridian 1 switch.

The following table provides an estimate of the Flash Download times for the different system types.

System	Average Lines	M3900 Lines	Download Time
Option 11C	100	80	3 hours
Option 51C/61C	400	200	15 hrs. (2 XPECs) 7.5 hrs. (4 XPECs)
Option 81/81C	1350	650	16.5 has (6 XPECs)

Assumptions

20% trunking on all systems

100% M3900 sets on 11C system

60% M3900 sets on large systems

Option 11C

Download timing is approximately 9 minutes per set (idle system)

Can download 4 sets in parallel

Option 51C-81C and MSL-100

Download timing is approximately 9 minutes per set (idle system)

Can download 1 set per XPEC in parallel (assuming sets evenly distributed across XPEC's)

Variables on Timing

Recommend Downloading on idle system (during heavy traffic download could terminate)

If the Superloops are configured with 2 XPEC cards per XNET then the downloads will be twice as long for each Superloop.

For full details please refer to the **M3900 Advisory bulletin 2000-040** and **M3900 flash download 2000-090**

X11 Software and PSDL Version Identification

The PSWV version that is installed on the system will print when the ISS command is initiated in LD 22. A sample printout for small system with the PSWV identification and patch installed is as follows:

This is new information provided in Rls 25.30, reissue of Rls 25.15 and reissue od Rls 24C(25.08)

REQ ISS

MAIN CAB

VERSION 2111

RELEASE 25

ISSUE 30 +

PSWV VERSION: PSWV **XX**

XX will be the new version number of PSWV in the installed software

IN-SERVICE PATCHES : 3

PAT#	PRS	PATCH REF #	NAME	DATE	FILENAME
00	MP11029	MPLR13321	rem_tty	02/08/96	p13321.p
01	MP11030	MPLR13323	xdlc_enable	02/08/96	p13323.p
02	MP10806	MPLR13324	dyn_switch	02/08/96	p13324.p

The following print command is also available in order to get a complete list of all S/W versions of the PSDL which is part of the X11 Software:

REQ   prt

TYPE   pswv

PSWV   VERSION: PSWV 52

MISP: S/W VERSION NUMBERS: 70

BRIL: S/W VERSION NUMBERS: 81

BRIT: S/W VERSION NUMBERS: 80

MSDL: S/W VERSION NUMBERS: 70

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3902:   S/W VERSION NUMBERS: 40

3903:   S/W VERSION NUMBERS: 52

3904:   S/W VERSION NUMBERS: 46

3905:   S/W VERSION NUMBERS: 32

System Security

Nortel Networks strongly recommends changing the default system passwords for both Meridian 1 and Meridian Mail 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 (NTLH10AA - A0804757) included with new system or system upgrade shipments.

Audit routine

As in the case of previous 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.

Call Pilot Distributor Web Site for PEPs Identification

Please check on the CallPilot distributor web site on the NIC for current information on any required PEPs for any given X11 software release. The web site is at: http://www.nortelnetworks.com/nic Products>CallPilot

Please note that this site requires account and password. If you do not currently have an account and password, and are a CallPilot distributor, please contact your regional sales representative for access to this site.

System Management and X11 Release 25.30

Release25.30 is supported by Meridian Administration Tools Release 6.6 (MAT 6.67.07) or later, or Optivity Telephony Manager 1.01 (OTM 1.01) or later.

Customers that utilize 3rd party management systems such as Switchview, must ensure that the Management System is compatible with Release 25 software.

MAT 6.6X

MAT Release 6.67.04 supports Generic X11 Release 25.10 and associated features;

MAT Release 6.67.07 supports Generic X11 Release 25.15 and associated features.

MAT Release 6.67.07 Plus update disk supports Generic X11 Release 25.30 and associated features

To confirm your MAT Release version, open MAT on your PC, in the MAT Navigator Window under Help, select About MAT Application.

For further information on MAT 6.6x please refer to the MAT specific General Release Bulletin, which will be shipped with each MAT order.

OTM 1.01

OTM 1.01 (Optivity Telephony Manager for Meridian) is a system management software product that provides a single point of connectivity to multiple Meridian 1 voice switches, Meridian Mail systems, and other applications within the portfolio. OTM supports connectivity over serial, dialup/PPP, or Ethernet. OTM includes:

•   Windows based client applications with all of the functionality offered in MAT. This includes Station Admin., Traffic, Maintenance Windows, System terminal, etc.

•   Improved Alarm management including ability to receives alarms other than core Meridian 1 alarms, and ability to translate serial alarms to SNMP.

•   An Alarm Notification Script Wizard to assist in generating and maintaining the scripts that define conditions for alarm notification. OTM also offers Web Enabled Alarm viewing. The Web-based Maintenance Pages and Virtual Terminal Server provide users simple Browser access to devices in a site or workgroup both internally over the LAN or WAN or externally through dialup PPP connections.

- A transition toward IP-based management solutions needed to support Optivity and Unified Networks solutions of tomorrow.OTM 1.01 integrates with Nortel's Optivity NMS (Network Management System) as part of a Unified Management solution.

OTM 1.0 supports Generic X11 Release 25.15 and associated features

OTM 1.01 supports Generic X11 Release 25.30 and associated features

When OTM 1.1 is introduced it will deliver additional functionality to manage the Survivable IP Expansion cabinets in the areas of Common Services and Maintenance in both the Windows and Web environment.

For more information about OTM 1.01, Release 25 Features that Require System Management please refer to the OTM 1.01General Release Bulletin when available.

The following X11 Release 25 Features require MAT 6.6 or OTM 1.0x:

- **ITG Trunks 2.0 with ISDN**- the configuration and maintenance of the IP Telephony Gateway (ITG) card is through the "ITG ISDN Trunks" application in MAT 6.67.04 or later or OTM 1.0.

- **Corporate Directory** functionality (one of the M3900 Digital Telephone Enhancements) - the configuration and maintenance of Corporate directory requires MAT 6.67.07 or OTM 1.0. For existing MAT 6.67.04 sites, and up-issue to MAT 6.67.07 is required for Corporate Directory.

- **ITG Line Side & i2004 Internet Telephones** - the configuration and maintenance of the IP Telephony Gateway (ITG) IPE card is through the "ITG IP Phones" application in MAT 6.67.07 or OTM 1.0.

- **Option 11C/Mini IP Expansion** - MAT 6.67.07 Plus update disk or MAT 1.01 is required to support ITGL card in the Expansion cabinet in survival mode.

NOTE: When OTM 1.1 introduced it will deliver additional functionality to manage the Survivable IP Expansion cabinets in the areas of Common Services and Maintenance in both the Windows and Web environment.

Chapter 2 - Small System Advisements

The following advisements are for small systems (Option 11C and 11C Mini) only.

Small System Memory Requirements for Release 25

Option 11C Mini

The Option 11C Mini comes with 48Mb Total Memory (32 Mb Program Store and 16 Mb C-Drive space) on the Mini System Controller in order to run Release 25 software. The supported Release 25 System Controller card for Option 11C Mini:

- NTDK97AB (48 Meg - no memory upgrade needed) Mini System Controller (MSC)

- NTDK20EA or higher Small System Controller (SSC) for Option 11C Mini main and IP Expansion chassis when using IP Expansion.(25.30)

Please ensure that you have upgraded the bootcode on the MSC to NTDK34FA Rel 06. Refer to NTP Upgrades Guide - Chapter 15 Use the flash boot ROM utility.

Option 11C

Software Daughter Board Requirements

The Option 11C requires a 48Mb Total Memory (32 Mb Program Store and 16 Mb C-Drive space) in order to run Release 25 software. This requirement is met with the NTTK13AA Software Daughterboard.

A system upgrading to Release 25 must replace its NTDK21(32 Mb) or NTDK81(40 Mb) based software daughterboard, with an NTTK13AA (48 Mb) daughterboard.   Please ensure that you have upgraded the bootcode on the SSC   prior to upgrading the software daughterboard. To verify the size of the software daughterboard and for installation instructions, refer to NTP upgrade manual Chapter 9.

System Controller Card Requirements

The supported Release 25 System Controller card for Option 11C:

- NTDK20CA or higher Small System Controller (SSC)

- NTDK20EA or higher Small System Controller (SSC) for Option 11C main cabinet when using IP Expansion and NTDK20CA or higher for each Expansion cabinet.(25.30)

An existing Option 11C system equipped with a controller card NTDK20AB can be upgraded to an NTDK20CA with a field upgrade kit NTDK19AA. As of July 1999, all controller cards shipped to the field have been NTDK20DA, which is compatible with Release 25.

Software Delivery Methods

Option 11C Mini

- Pre-Programmed Mini System Controller (MSC) for new systems

- PCMCIA Card for upgrades

- Meridian 1 Electronic Software Distribution (M1 ESD)

Option 11C

- Software Daughter board for new systems

- PCMCIA Card for upgrades

- Meridian 1 Electronic Software Distribution (M1 ESD)

Electronic Software Delivery for Small Systems

A programmed PCMCIA card can be used to upgrade an Option 11C or an Option 11C Mini system. The downloading of the software is only necessary when re-programming a PCMCIA card to update an existing Option 11C or 11C Mini system. When ordering a PCMCIA card for the first time, it can be sent pre-programmed with the current market release of software. Alternatively, a blank PCMCIA card can be ordered. This card can be used for future upgrades of software by downloading software from the Meridian 1 ESD site (the M1ESD site is not available to European Distributors - interested European distributors should contact their NPI prime). The M1ESD site is at the following address: http://www.nortelnetworks.com/servsup/esd/meridian1/

The software download process is required to take compressed software from the internet and download it to your PC for duplication.

To download the software from the M1ESD site onto your PCMCIA card using the PCMCIA Card Programmer, you must use the new version (05 or higher) which is found in the "Site Tools" menu. Any previous versions of the Card Programmer must be deleted from your PC before downloading the new version of this tool.

The previous Small System site that was applicable in CALA, Asia Pacific and North America (https://www.nortel.com/entprods/cts/option11c/) went off-air on January 15, 2000. User accounts and passwords for this site will not be automatically migrated to the new M1 ESD site. Nortel Networks has implemented a Common Registration System, whereby you use only one user name and password to access all Nortel Networks web pages to which you have rights. The old Option 11C site and its login format do not comply with the Common Registration System.

Even if you have an account at the old small system site, you will need to re-register for access to the new site. Please refer to the information on the Meridian 1 Electronic Software Distribution (M1 ESD) section in Chapter 1 of this document for more information.

Software Conversion

For Option 11C, automatic conversion is supported directly to X11 Release 25 from the following releases (Note - not all releases were made available in all markets):

•   X11 Release 16, 18, 20, 21, 22, 23, 24

For Option 11C Mini, automatic conversion is supported directly to X11 Release 25 from X11 Release 24.

Option 11C Mini Default TN Level for North America

The Option 11C Mini and the Option 11C are offered with the same software feature sets however the default number of TNs with Option 11C Mini is 100.

For Option 11C Mini, when the installer uses the Software Installation menu the default number of TNs shown in the menu is set to 200. The keycode sheet for the installation will show the correct value which needs to be entered for the customer.

Upgrades to Release 25 from Option 11/11E

The Option 11/11E systems running on pre-release 22 software require a hardware upgrade to Option 11C in order to support Release 25. The Option 11C system offers a menu driven installation and upgrade method. Please refer to Option 11C Installation and or Upgrade Procedures Guide for additional information.

Please read the Option 11C NTPs thoroughly before performing any hardware/software changes. All upgrade procedures should be strictly followed step by step.

Upgrades to Release 25 from Option 11C

The Boot Code on the SSC requires updating before upgrading software to release25.30. Refer to the "Small Systems Memory Requirements for Release 25" earlier in this Chapter for the requirements. Updating of the SSC Boot Code is a manual process that uses the Flash Boot ROM Utility. Refer to NTP 553-3021-250 Upgrade procedures, Chapter 13.

Upgrades to Release 25 from Option 11C Mini

Option 11C Mini was introduced with Release 24 on the NTDK97AA in Asia Pacific. This vintage of the Mini System Controller does not have sufficient memory for Release 25. To upgrade to Release 25 the minimum vintage of MSC is NTDK97AB or higher.

The Boot Code on the MSC requires updating before upgrading software to release 25. Refer to the "Small System Memory Requirements for Release 25" earlier in this chapter for the requirements.

Updating the MSC Boot code is a manual process that requires a PCMCIA card programmed with R25. The upgrade is done using the Flash Boot ROM Utility in LD 143. Refer to NTP 553-3021-250 Upgrade Procedures Chapter 13.

Basic Configuration Data

On Release 22.08, the "Basic Configuration" default data option provided only a configuration record and no other customer data. With X11 Release 22.16 and later, the "Basic Configuration" data option is expanded to include default data such as XPECs, Superloops, and other default data blocks. It doesn't include Model sets, routes, TN's etc. For complete default data including model sets etc., choose the Pre-Configured data option.

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 slot "B" on the CPU faceplate.

Warning: If the pre-programmed software PCMCIA card is used during BKO operation, the card cannot be used to install software without first removing the backup data, reformatting the disk, and reprogramming with the appropriate software.

Backwards Compatible Daughterboard - NTDK26

The backward compatible daughterboard allows Option 11/11E/11C two cabinet (copper) systems to be upgraded to Release 25 maintaining copper connectivity.

The NTDK26 has a hardware key that prevents installation when the ethernet jumper (J7) is installed.

The ethernet jumper plug (J7) on the NTDK20 (Small System Controller) pack MUST be removed before the NTDK26 daughterboard is installed.

Note: Ethernet is not supported in this configuration.

IP Expansion Advisements for 25.30

- When connecting cabinets over a data network, One Way Speech Path is occasionally experienced for established calls for approximately 15 seconds during a system warm start as a result of data switch transmission interruption

- When using PRI2 with DDCH, it is recommended to set guard timers to a minimum value in LD 73 on the far end.

- When using the copy command for 3900 sets, the maximum number of sets that can be copied per command is 8 sets on an IP Expansion system.

- SILC and UILC cards are not supported in IP Expansion cabinets for Release 25.30.

TMDI in IP Expansion Cabinet

If the Main cabinet warm starts, TMDI trunk calls are dropped on the IP Expansion cabinet. If the IP link goes down, TMDI calls are dropped on the IP expansion cabinet.

When TMDI cards are plugged in to an IP expansion cabinet, or if they are enabled with the Force Download (FDL) option, the loop may not enable correctly (PRI006 may occur). In this case disable the loop and TMDI again and enable the TMDI without the FDL option. The loop should now 1 Tw7.612tWin

Software PEPs

Manufactured Software PEPs

Refer to Option 11C/Mini Installer's Checklist **P0917423**.

Programming PCMCIA Cards

New Method for Programming PCMCIA Cards for Option 11C for Software Release 24 or Later

Electronic Software download is not available in Europe. Interested European distributors should contact their NPI Prime.

The Old Procedure

The old procedure of copying the self-extracting archive to the PCMCIA card, exploding the archive, deleting the archive, and then using the card for upgrading will no longer work for Release 24 or later.

There is a new Windows 95/98/NT tool available for preparing Option 11C and Option 11C Mini PCMCIA cards. This tool is very easy to use, and avoids errors that can occur when these cards are prepared manually. The PCMCIA Card Programmer and instructions can be downloaded from the Meridian 1 Electronic Software Distribution (M1ESD) web site.

The Windows 95/98/NT PCMCIA Card Programmer

The PCMCIA Card Programmer is compatible with Window 95, 98, and Windows NT 4.0 and above. The Programmer will prepare and if necessary erase the PCMCIA card, and load Option 11C software onto that card.

PCMCIA Card Software Structure

When properly programmed, the Option 11C and 11C Mini software on the PCMCIA card will have the following directory and file structure:

bootrom/

dflt_db/

p/

u/

dramos

dramos.sym

dramoscc.sym

readme.txt

Chapter 3 - Large System Advisements

The following advisements are for large systems only:

Call Processor Memory Requirements

Release 25 Minimum Memory Requirements for 68040, 68060 or 68060E Processors:

X11 Release 25 Supports Call Processor 68040 (NT9D19), Call Processor 68060 (NT5D10), and Call Processor 68060E (NT5D03).

Minimum call processor memory requirements for X11 Release 25 as follows:

System Type	Flash Memory Requirement	DRAM Memory Requirement	Total Memory	Applicable Regions
Option 51C/61C	32 MB	48 MB	80 MB	North America
Option 81/ 81C on 68060/68060E with 5 or fewer Network Groups, or Option 81C on 68040 (FNF or non-FNF)	32 MB	64 MB	96 MB	North America
Option 81/ 81C on 68060/68060E with 6 or more Network Groups (FNF systems)	32 MB	80MB	112 MB	North America

System Type	Flash Memory Requirement	DRAM Memory Requirement	Total Memory	Applicable Regions
Option 51C/61C	64MB	80MB	144 MB	CALA
Option 81/ 81C on 68060/68060E any number of Network Groups, (FNF or non-FNF)	64MB	80MB	144 MB	CALA

Note: Call Processor PII is available only in the 128 Mb memory configuration.

Release 25 Recommended Memory Requirements for 68060E Processors:

System Type	Flash Memory Requirement	DRAM Memory Requirement	Total Memory	Applicable Regions
Option 51C/61C	64 MB	64MB	128 MB	North America CALA
Option 81/ 81C (with or without Fiber Network Fabric)	64 MB	96 MB	160 MB	North America CALA

New Release 25 systems will ship with Call Processor 68060E with the recommended memory configurations as shown in the table above.

Call Processors 68040 and 68060 have been market retired and are no longer orderable.

With X11 Release 25, there will be three call processor configurations available for new systems, system hardware upgrades and merchandise shipment:

- 68060E - 128 MB (NT5D03FB). This configuration meets the X11 Release 25 memory requirements for all Meridian 1 Option 51C, 61C, 81, 81C systems except Option 81C systems having 6 or more network groups. This configuration is suggested for Option 51C and 61C systems.

- 68060E - 160 MB (NT5D03PB). This configuration is available commencing April, 2000. It meets the X11 Release 25 memory requirements for all Meridian 1 Option 51C, 61C, 81, 81C systems. This configuration is suggested for Option 81/81C systems where CP PII is not available or elected.

- CP PII - 128 MB - Option 81C Call Processor with Intel® Pentium® II. A separate product bulletin will address CP PII product availability and product description.

How to Meet Release 25 Memory Requirements

The following table defines the actions to be taken to ensure compatibility with Release 25 for various existing call processor combinations on Option 51C, 61C, 81/81C:

For Option 51C/61C Systems:

Existing System Type	Existing Processor	Existing Memory Config.	Action to be supported on Release 25	Applicable Regions
Option 51C/61C	68040, 68060, 68060E	48 MB (32/16)	Upgrade to 80 MB (32/48) by adding one 32 MB DRAM SIMM (per card)	North America
Option 51C/61C	68040, 68060, 68060E	64 MB (32/32)	Upgrade to 96 MB (32/64) by adding one 32 MB DRAM SIMM (per card)	North America
Option 51C/61C	68040, 68060, 68060E	80 MB (32/48)	**None -** Configuration is supported.	North America
Option 51C/61C	68040	96 MB (64/32)	Upgrade to 128 MB (64/64) by adding one 32 MB DRAM SIMM (per card)	North America
Option 51C/61C	68040, 68060, 68060E	112 MB (64/48)	**None -** Configuration is supported.	North America
Option 51C/61C	68060E	128 MB (64/64)	**None -** Configuration is supported.	North America
Option 51C/61C	68060, 68060E	112 MB (64/48)	Upgrade to 144 MB (64/80) by adding one 32 MB DRAM SIMM (per card)	CALA
Option 61C	68060E	128 MB (64/64)	Upgrade to 160 MB (64/96) by adding one 32 MB DRAM SIMM (per card)	CALA

Note: (xx/yy) denotes Flash memory (xx)/DRAM memory (yy) configuration.

Note: New Option 51C Systems not sold in CALA on Release 24 or later.

Note: For CALA order NT9C29AD for 51C, and NT9C38AA for 61C.

For Option 81/81C Systems on 68060/68060E with five or fewer network groups, or any Option 81/81C 68040 based systems:

Existing System Type	Existing Processor	Existing Memory Config.	Action to be supported on Release 25	Applicable Regions
Option 81/81C	68040, 68060, 68060E	64 MB (32/32)	Upgrade to 96 MB (32/64) by adding one 32 MB DRAM SIMM (per card)	North America
Option 81/81C	68040, 68060, 68060E	80 MB (32/48)	Upgrade to 112 MB (32/80) by adding one 32 MB DRAM SIMM (per card)	North America
Option 81/81C	68040	96 MB (64/32)	Upgrade to 128 MB (64/64) by adding one 32 MB DRAM SIMM (per card)	North America
Option 81/81C	68040, 68060, 68060E	112 MB (64/48)	Upgrade to 144 MB (64/80) by adding one 32 MB DRAM SIMM (per card)	North America
Option 81/81C	68060E	128 MB (64/64)	**None -** Configuration is supported.	North America
Option 81/81C	68060, 68060E	112 MB (64/48)	Upgrade to 144 MB (64/80) by adding one 32 MB DRAM SIMM (per card) (NT9C39AA)	CALA
Option 81/81C	68060E	128 MB (64/64)	Upgrade to 160MB (64/96) by adding one 32 MB DRAM SIMM (per card) (NT9C39AA)	CALA

Note: (xx/yy) denotes Flash memory (xx)/DRAM memory (yy) configuration.

For Option 81/81C Systems on 68060/60E with 6 or more network groups:

Existing System Type	Existing Processor	Existing Memory Config.	Action to be supported on Release 25	Applicable Regions
Option 81/81C	68060, 68060E	64 MB (32/32)	Upgrade to 128 MB (32/96) by adding two 32 MB DRAM SIMMs (per card)	North America
Option 81/81C	68060, 68060E	80 MB (32/48)	Upgrade to 112 MB (32/80) by adding one 32 MB DRAM SIMM (per card)	North America
Option 81/81C	68060, 68060E	112 MB (64/48)	Upgrade to 144 MB (64/80) by adding one 32 MB DRAM SIMM (per card)	North America
Option 81/81C	68060E	128 MB (64/64) NT5D03FA	Upgrade to 144 MB (64/80) by removing one 16 MB DRAM SIMM and adding one 32 MB DRAM SIMM (per card)	North America & CALA
Option 81/81C	68060E	128 MB (64/64) NT5D03FB	Upgrade to 160 MB (64/96) by adding one 32 MB DRAM SIMM (per card)	North America & CALA

Note: (xx/yy) denotes Flash memory (xx)/DRAM memory (yy) configuration.

Note: For CALA order NT9C39AA DRAM Memory Upgrade Kit.

The NTZC75AA DRAM Memory Upgrade Kit for North America supports 32 MB DRAM memory upgrade of Call Processors 68040, 68060 and 68060E. This kit contains one 32 MB DRAM SIMM and supports the memory upgrade of one call processor card. The number of SIMMs required to upgrade a call processor to the minimum memory requirement is defined above for currently existing memory configurations.

The NTZC77AA package contains the anti-static mat and ESD wrist-strap, which is required to perform a memory upgrade. NTZC77AA is not required if the distributor/customer already possesses the anti-static mat and wrist-strap.

Software Delivery Methods

The only supported media for large systems (Options 51C, 61C, 81 and 81C) is CD-ROM. This means that Release 25 requires an IODU/C (NT5D61) on a system operating with Call Processor 68040 (NT9D19), 68060 (NT5D10) or 68060E (NT5D03).

For an Option 81C system equipped with Call Processor PII, Release 25 requires an Multi-Media Disk Unit - MMDU (NT4N43). The MMDU is automatically included with an upgrade to Call Processor PII.

Option 51C, 61C, and 81C software including system software, install disks, related MDCSs, and related documentation for all CPU types can now be downloaded from the Meridian 1 Electronic Software Distribution (M1ESD) web site. The M1ESD site can be accessed through the following URL:

http://www.nortelnetworks.com/servsup/esd/meridian1/

Conversion

Release 25 introduces direct conversion to Release 25 from (Note - not all software releases were made available in all markets):

- X81 Phase 7A/7B/7C

- X81 Phase 8B.0/8B.1/8B.2

- X11 Release 19, 20, 21, 22, 23, 24

for Large System types RT, NT, XT, Option 51, 61, 71, 81, 51C, 61C, 81C and 81C with CP PII*. Direct software conversion from Release 19 or 20 is not supported on Option 21E or STE system types. The Option 21E and STE continue to use previously defined upgrade processes. For all other supported system types in North America, direct software conversion to Release 25 is supported from Release 19 and subsequent. For Pre-Release 19 systems, the system must first be upgraded to Release 19 or Release 20 (depending upon the system and previously defined upgrade path). Once on Release 19 or Release 20, direct software conversion is supported to Release 25. Refer to the Software Conversion NTP (553-2001-320) and Upgrade System Installation NTPs (553-3001-258) for more information.

*   Direct upgrades to CP PII are only possible from systems with 68K series Processors (CP1, CP2, CP3, CP4). Systems with earlier processors will require an interim upgrade step through a 68K processor.

CAUTION

Please read the Software Conversion NTP thoroughly before performing any software conversions. All conversion procedures should be strictly followed step-by-step. To avoid static discharge, wear a properly connected anti-static wrist strap when working on the Meridian 1 equipment.

Chapter 4 - Documentation

Release 25.15 documentation suite has been updated for Release 25.30 to reflect the update for small systems as a result of the introduction of the IP Expansion Feature. The changes include:

- Updated Option 11C/Mini Suite

- Updated Navigator P0934461

- Large system introductory Task guides

- Input/Output guides

- What's New guide P0919733 which includes:

    - M3900

    - CPP Software upgrade

    - Option 11C overview

- Several Small Systems NTP's

- Option 11C Survivability Operation and Configuration Guide English P0919734, French P0935783

- i2004 Internet Telephone Set NTP is on a separate CD-ROM, the code is NTDW81AA A0806119.

- A Release 25 Customer Documentation Addendum will be included with every 25.30 Documentation order.

- The code for the condensed library has been changed to NTLH17AB and includes updated documents.

- The NTP CD-ROM has been updated and the code for the CD-ROM has changed to NTLH01AC to include updated documents.

Option 11C and 11C Mini Release 25 Documentation

Option 11C - English - Coil Package

Description	Rls 25 PEC	Rls 25 CPC
Option 11C English - Coil Package	**NTTK31AC**	**A0818524**[*]
Option 11C Planning and Installation	N/A	P0915838[*]
Option 11C and 11C Mini Fault Clearing Guide	N/A	P0915839[*]
Option 11C and 11C Mini Central Answering Position Guide	N/A	P0910772
Option 11C and 11C Mini Customer Controlled Back-up and Restore Guide	N/A	P0910773
Option 11C and 11C Mini Upgrade Procedures Guide	N/A	P0915840[*]
Meridian 1 X11 Release 25 Input/Output Administration Guide	N/A	P0915832[*]
Meridian 1 X11 Release 25 Input/Output Maintenance Guide	N/A	P0915833[*]
Meridian 1 X11 Release 25 Input/Output System Messages Guide	N/A	P0916834[*]
Option 11C Survivability	N/A	P0919734[*]

* New for Release 25.30

Option 11C - French - Coil Package

Description	Rls 25 PEC	Rls 25 CPC
Option 11C French - Coil Package	**NTTK31BC**	**A0818525**[*]
Option 11C Planning and Installation	N/A	P0915841[*]
Option 11C and 11C Mini Fault Clearing Guide	N/A	P0915842[*]
Option 11C and 11C Mini Central Answering Position Guide	N/A	P0910780
Option 11C and 11C Mini Customer Controlled Back-up and Restore Guide	N/A	P0910781
Option 11C and 11C Mini Upgrade Procedures Guide	N/A	P0915843[*]
Meridian 1 X11 Release 25 Input/Output Administration Guide	N/A	P0915844[*]
Meridian 1 X11 Release 25 Input/Output Maintenance Guide	N/A	P0915845[*]
Meridian 1 X11 Release 25 Input/Output System Messages Guide	N/A	P0915846[*]
Option 11C Survivability	N/A	P0935783[*]

* New for Release 25.30

Option 11C Mini - English - Coil Package

Description	Rls 25 PEC	Rls 25 CPC
Option 11C Mini English - Coil Package	**NTKG80CG**	**A0818640***
Option 11C Mini Planning and Installation	N/A	P0910788
Option 11C and 11C Mini Fault Clearing Guide	N/A	P0915839*
Option 11C and 11C Mini Central Answering Position Guide	N/A	P0910772
Option 11C and 11C Mini Customer Controlled Back-up and Restore Guide	N/A	P0910773
Option 11C and 11C Mini Upgrade Procedures Guide	N/A	P0915840*
Meridian 1 X11 Release 25 Input/Output Administration Guide	N/A	P0915832*
Meridian 1 X11 Release 25 Input/Output Maintenance Guide	N/A	P0915833*
Meridian 1 X11 Release 25 Input/Output System Messages Guide	N/A	P0915834*

* New for Release 25.30

Option 11C Mini - French - Coil Package

Description	Rls 25 PEC	Rls 25 CPC
Option 11C Mini French - Coil Package	NTKG81CG	A0818641[*]
Option 11C Mini Planning and Installation	N/A	P0910789
Option 11C and 11C Mini Fault Clearing Guide	N/A	P0915842[*]
Option 11C and 11C Mini Central Answering Position Guide	N/A	P0910780
Option 11C and 11C Mini Customer Controlled Back-up and Restore Guide	N/A	P0910781
Option 11C and 11C Mini Upgrade Procedures Guide	N/A	P0915843[*]
Meridian 1 X11 Release 25 Input/Output Administration Guide	N/A	P0915844[*]
Meridian 1 X11 Release 25 Input/Output Maintenance Guide	N/A	P0915845[*]
Meridian 1 X11 Release 25 Input/Output System Messages Guide	N/A	P0915846[*]

Small System Optional Documents - Coil

Description	Rls 25 PEC	Rls 25 CPC
Option 11C and 11C Mini Technical Reference Guide-English	N/A	P0915854[*]
Option 11C 1.5 MB DTI/BRI - English	N/A	P0915856[*]
Option 11C 2.0 MB DTI/PRI Guide- English	N/A	P0915855[*]
Option 1C BRI Guide- English	N/A	P0915857[*]
Option 11C 1.5 MB DTI/BRI - French	N/A	P0915849[*]
Option 11C 2.0 MB DTI/PRI Guide- French	N/A	P0915850[*]
Option 11C BRI Guide- French	N/A	P0915851[*]

Option 11C Mini Fiber Expansion Packages

Description	Rls 25 PEC	Rls 25 CPC
Option 11C Mini Fiber Expansion package (English)	NTTK38AC	A0818527[*]
Mini Planning and Installation guide	N/A	P0910788
Mini Fiber Expansion Guide - English	N/A	A0915853[*]
Option 11C Survivability	N/A	P0919734[*]
Option 11C Mini Fiber Expansion package (French)	NTTK38BC	A0818528[*]
Mini Planning and Installation guide	N/A	P0910789
Mini Fiber Expansion Guide	N/A	A0915852[*]
Option 11C Survivability	N/A	P0935783[*]

Global Release 25 Meridian 1 CD-ROM

Description	Rls 25 PEC	Rls 25 CPC
Global Release 25 CD -ROM Meridian 1 Reference Library Options 11C- 81C	NTLH01AC	A0828806[*]

* New for Release 25.30

Meridian Electronic Reference Library (MERL)

Description	Rls 25 PEC	Rls 25 CPC
Meridian Electronic Reference Library CD -ROM (MERL)	NTLH19AB	A0835745[*]

* New for Release 25.30

Option 51C to 81C Release 25 Documentation

Meridian 1 Reference Library (Binders)

Large System (Binders)	Rls 25 PEC	Rls 25 CPC
Global Meridian 1 Reference Library	**NTLH02AB**	**A0828803***
Library Navigator	N/A	P0934461*
Meridian 1 X11 Release 25 Planning and Engineering	NTLH03AA	A0804746
Meridian 1 X11 Release 25 System Installation and Maintenance	NTLH04AA	A0804747
Meridian 1 X11 Release 25 Upgrade and Conversion Procedures	NTLH05AA	A0804748
Meridian 1 X11 Release 25 Remote Services Products Guide	NTLH06AA	A0804749
Meridian 1 X11 Release 25 Software Feature Guide	NTLH08AA	A0804751
Meridian 1 X11 Release 25 Software Input/Output Guide	NTLH09AA	A0804753*
Meridian 1 X11 Release 25 Software System Management	NTLH10AA	A0804757
Meridian 1 X11 Release 25 Networking	NTLH11AA	A0804767
Meridian 1 X11 Release 25 Meridian Data Services	NTLH12AA	A0804771
Meridian 1 X11 Release 25 Automatic Call Distribution	NTLH13AA	A0804775
Meridian 1 X11 Release 25 Hospitality	NTLH14AA	A0804777

* New for Release 25.30

Large System Optional Documents (Binders)

Description	Rls 25 PEC	Rls 25 CPC
Meridian 1 X11 Release 25 DPNSS1	NTKF79AA	A0788073
Meridian 1 X11 Release 25 DASS2	NTKF92AA	A0788088

Introductory Task Guides - COIL

Introductory Task Guides (Coil)	Rls 25 PEC	Rls 25 CPC
Meridian 1 X11 Task System Programming Guide	N/A	P0912433[*]
Meridian 1 X11 Task Basic Telecom Management Guide	N/A	P0912434[*]
Meridian 1 X11 Task Network Planning Guide	N/A	P0912435[*]
Meridian 1 X11 Task Fault Clearing Guide	N/A	P0912436[*]

Applicable to All Systems (Coil)

All Systems Coil	Rls 25 PEC	Rls 25 CPC
Meridian 1 X11 Input/Output Administration Guide	N/A	P0915832[*]
Meridian 1 X11 Input/Output Maintenance Guide	N/A	P0915833[*]
Meridian 1 X11 Input/Output Guide Messages Guide	N/A	P0915834[*]
Meridian 1 X11 Guide for the UK Option 11C-81C	N/A	P0912437
Meridian 1 X11 Release 25 System Security Management	N/A	P0913527

Stand Alone Guides (Coil)

Stand Alone Guides - Coil	Rls 25 PEC	Rls 25 CPC
CP PII w/ FNF Reference Library (Includes P0914249, P0914248) ***	NT5F36AA	A0786997
Meridian 1 X11 Release 25 Call Processor PII Description, Installation and Administration (CP PII & FNF)***	N/A	P0914249
Meridian 1 X11 Release 25 Call Processor PII System and Software Upgrade (CP PII & FNF)***	N/A	P0914248
Meridian 1 X11 Release 25 Fibre Network Fabric Reference Guide **	NT5F37AA	A0786998
Meridian 1 X11 Release 25 Mini Carrier Remote Description, Installation and Administration	N/A	P0914209

** New Documents for Release 25.10

***New Documents for Release 25.15

Stand Alone Guides - Coil	Rls 25 PEC	Rls 25 CPC
Meridian 1 X11 Release 25 NT5D61 IODU/C Reference Guide	N/A	P0912861
Meridian 1 X11 Release 25 Call Processor Card Field Memory Upgrade	N/A	P0912862
Meridian 1 X11 Release 25 Meridian Integrated Conference Bridge Description, Installation, Administration and Maintenance	N/A	P0912865
Meridian 1 X11 Release 25 Meridian Integrated RAN Description, Installation and Operation	N/A	P0912866
Meridian 1 X11 Release 25 Meridian Internet Telephony Gateway (ITG) Trunk 1.0 Basic Per-Trunk Signaling Description, Installation and Operation	N/A	P0912863
Meridian 1 X11 Release 25 Meridian Integrated Personal Call Director **	N/A	P0914163
Meridian 1 X11 Release 25 Meridian Integrated Call Assistant **	N/A	P0914162
Meridian 1 X11 Release 25 Meridian Internet Telephony Gateway (ITG) Line Card 1.0 IP Telecommuter Description, Installation and Operation **	N/A	P0912864
Meridian 1 X11 Release 25 Meridian Internet Telephony Gateway (ITG) Trunk 2.0/ISDN Signaling Link (ISL) Port Description, Installation and Maintenance **	N/A	P0912540
Meridian 1 X11 Release 25 Meridian Branch Voice 1.0 Description, Installation and Operation **	N/A	P0912867

** New Documents for Release 25.10

Condensed Library

	Rls 25 PEC	**Rls 25 CPC**
Release 25 Condensed Library	**NTLH17AB**	**A0828804**[*]
includes:		
Meridian 1 X11 Input/Output Administration Guide	**N/A**	**P0915832**[*]
Meridian 1 X11 Input/Output Guide Messages Guide	**N/A**	**P0915834**[*]
Meridian 1 X11 Input/Output Maintenance Guide	**N/A**	**P0915833**[*]
553-2001-320 - Software Conversion Procedures 553-3001-300 - X11 System Management 553-3001-301 - X11 System Management Applications 553-3001-302 - X11 System Security Management 553-3001-313 - Emergency Services Access	**N/A**	**P0916586**

* new for Release 25.30

Data Sheets

Global Release 25 Data Sheets are available by ordering P0907149.

Note: Data sheets are not available in all regions.

Release 25 Customer Documentation Addendum

A Release 25 Customer Documentation Addendum will be included with every Release 25 documentation library order. Please read the documentation addendum before you begin any installation. It will contain updated information on the following topics:

- Cable correction in the Meridian 1 Equipment Identification document (553-3001-154).

- Network group number correction in the Meridian 1 System Installation Procedures (553-3001-210).

- Card replacement procedure in the Meridian 1 Hardware Replacement (553-3001-520).

- CLID on analog trunks for Hong Kong

- Computer Telephony Integration Adapter (CTIA) for the M3900 series telephones.

- Configuring SCPW for use with the M3903 and M3904 Virtual Terminal feature.

Chapter 5 - Features Overview

The following features are supported in Release 25.30. All features are available on Release 25.30, but some features may not be available in all markets. Regional Sales representatives will be able to identify any features that are not available in a specific region.

For more detailed feature information refer to the following NTPs:

- 553-3001-011 - Feature Listing
- 553-3001-306 - X11 Features & Services

Feature Overview

Feature	New/ Changed ISMS	New S/W Pkg.	New H/W
Call Processor PII (CP PII) - (25.15) (For Option 81C only)	No	Yes 368	Yes
Fiber Network Fabric (FNF) - (25.15) (for Option 81/81C only)	No	Yes 365	Yes
Option11C/Mini IP Expansion (25.30) **(Small systems only Option11C/Mini)**	**Yes- Survivability**	**Yes 295 IPEX**	**Yes**
D-Channel Expansion - (25.10) (For Option 81 & 81C only)	No	No	No
ITG Trunks 2.0 with ISDN - (25.10)	Yes ITG ISDN	Yes	Yes
M3900 Digital Telephone Enhancements - (25.10)	No	Yes 380,381,382	Yes
Inventory Reporting Ph. 2 - (25.10)	No	No - in base	No
Public to Private CLID Conversion - (25.10)	No	No	No
10/20 Digit ANI on 911 - (25.10)	No	Yes - 249	No
ISM Enhancements - (25.10)	Yes	No	No
Analog CLID on Analog Trunks for Hong Kong - (25.10)	No	No	Yes
ITG Line-side and i2004 Internet Telephones - (25.30)	**Yes - INTERNET TELEPHONE**	**No**	**Yes**

The Release in brackets after the feature name indicates the release that the feature is available on.

Option 11C/Mini IP Expansion

Description

The Option 11C/Mini IP Expansion provides IP interconnection between Option 11C main and expansion cabinets. This IP interconnection enables:

- Increased Digital Trunking Capacity
- Voice Distribution over Campus Data Network via IP Expansion Cabinet
- Survivable Expansion Cabinet

The solution is applicable to Option 11C and Option 11C Mini systems.

Increased Digital Trunking Capacity

This development provides increased networking capacity for the Option 11C and Option 11C Mini systems. Digital trunks can now be supported in any IP Expansion Cabinet or Mini main chassis, when connected via 100BaseT or 100BaseF. A total of 45 digital trunks could be supported on Option 11C, and 15 digital trunks supported on Mini.

TTY are not supported in the IP Expansion Cabinets.

The following CE cards can now be supported in IP expansion cabinets/mini main chassis.

- 1.5MBDTI/PRI (NTAK09)
- 1.5MBTMDI (NTRB21)
- 2.0MB DTI (NTAK10)
- 2.0MB PRI (NTAK79)
- 2.0MB PRI (NTBK50)
- SDI DCH (NTAK02) (Only DCH is supported for ISL, ESDI, AML)

This development also provides increased SDI/D-channel capacity. 3 SDI ports are provided with each IP Expansion Cabinet and D-Channel capacity has been increased, such that a total of 16 D-channels are now supported per cabinet.

IP Expansion Cabinets

The Option 11C SSC card can accommodate up to two single or dual port IP daughterboards. The IP daughterboards can co-exist with either the single port or dual port fibre daughterboards.

These boards are available in single and dual port versions. The dual port IP daughterboard connects to the SSC of a Main cabinet and supports connections to two expansion cabinets, each equipped with an SSC, via IP. The single port IP daughterboard is used at the IP Expansion to provide connectivity back to the Main.
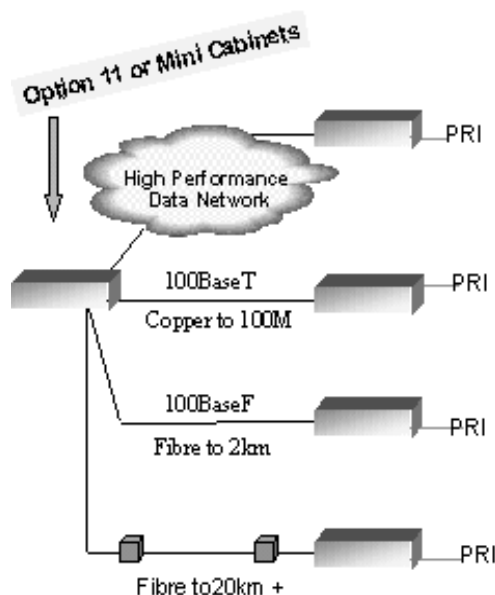
Survivability

IP Expansion Cabinets can be configured to be survivable in the event of a link failure, or a catastrophic failure of the main cabinet.

Based on the system configuration, if IP connectivity to the main is lost or a manual command is issued, an IP expansion cabinet can enter survival mode in which it acts as a fully functional "Stand-alone" Option 11C.

The number of survivable expansion cabinets allowed on a specific system is controlled via a new ISM parameter, "Survivability" , which has a range of 0-4. The default value for this ISM parameter is zero.

The code for ordering each Survivability option (**for NA, CALA &AP)** is **NTSF8720/A0784530**

Connectivity to IP Expansion Cabinets

Option 11 or Mini Cabinets

High Performance Data Network

PRI

100BaseT
Copper to 100M

PRI

100BaseF
Fibre to 2km

PRI

Fibre to20km +

PRI

Connection Through Data Network

- Either 100 BaseT or 100 BaseF can be used to connect into data equipment for voice distribution over data network

100BaseT

- Uses Standard copper Ethernet cable
- Expansion Cabinets can be located up to 100m from Main Cabinet when connected "point-to-point"

100BaseF

- Uses glass multimode fibre cable
- Expansion Cabinets can be located up to 2km from Main Cabinet

Third Party Converters

- Can be used to convert 100BaseT or 100BaseF to fibre for distances of 20km - plus

The IP Expansion introduces Four types of IP daughterboards:

- Single 100BaseT IP daughterboard
- Dua100BaseT IP daughterboard
- Single 100BaseF IP daughterboard
- Dual 100BaseF IP daughterboard

Voice Distribution over Campus Data Network

The IP Connectivity of expansion cabinets enables a high capacity, cost effective solution to distribute Option 11C and Mini cabinets over a high performance data network.

Full feature functionality, and non blocking architecture is maintained when Option 11C systems are distributed over high performance data networks. This patented solution delivers the exceptional functionality and reliability of Meridian 1 Option 11C, while delivering the benefits of voice/data convergence.
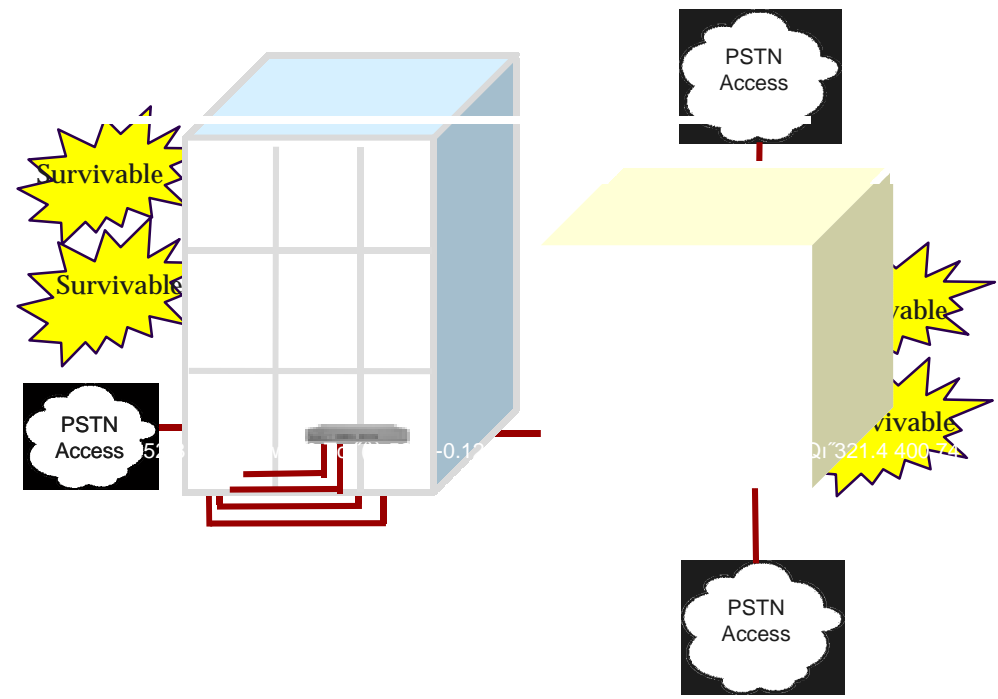
Hardware

The Option 11C/Mini IP Expansion introduces the following new hardware

- Dual Port 100baseT Daughterboard - NTDK83AA

- Single Port 100baseT Daughterboard- NTDK99AA

- Dual Port 100baseF Daughterboard- NTTK02AA

- Single Port 100baseF Daughterboard- NTTK01AA

- IP Expansion cabinet/chassis security device- NTDK57DA

- Option 11C EMC Grounding Clip Kit - NTTK41AA

- Option 11Mini EMC Grounding Clip Kit - NTTK43AA

- Various cables for intercabinet connectivity and EMI compliance

Security

A new security scheme is introduced in order to maintain the requirement of a single keycode per system while addressing the scenario where both the IP expansion cabinets and the Main must be independently installed with system software. A new expansion cabinet/chassis security device is introduced. This security device is installed in each IP Expansion cabinet and is coded to correspond only to a specific Main.

Package Requirements

IP Connectivity is packaged under package number 295 "IPEX" . If the IP Expansion package is restricted, IP connectivity between the Main and IP Expansions will be dis-allowed, regardless of whether or not IP daughterboards are connected to the Main. CE-Mux Expansion is not separately packaged, but is dependent on package number 295 "IPEX".

Applicable Systems

Survivable IP Expansion is offered on Option 11CMini and 11C systems only.

Target Region

Global

Meridian ITG Line-side & i2004 Internet Telephones

Description

The Meridian ITG Line-side offering and i2004 Internet Telephone unifies a number of enterprise-critical communication functions and provides the customer with the benefits of IP Telephony such as simplified management without sacrificing features, reliability or Quality of Service (QoS).

Meridian Administration Tools (MAT 6.67.07) or Optivity Telephony Manager (OTM 1.0) is used to provide a Graphical User Interface for installation and administration of the Meridian ITG and allow configuration of features such as bandwidth management for the telephony traffic on the data network, set ToS/ DiffServ bits, select various voice CODECs (using silence suppression and voice activity detection as required) and much more.

Notable features of the i2004 Internet Telephone are:

- Large multi-field LCD display

- Integrated headset jack with ON/OFF button

- Fixed Icon labeled Hold key

- Fixed Icon labeled Release key

- Handsfree button with LED and enhanced audio speaker

- Volume Up/Down control and Mute button with LED

- Mute key

- Fixed Icon labeled Quit key (Used to exit displayed options or services)

- Fixed Icon labeled Headset key (with LED)

- Fixed Icon labeled Inbox key (Used as voice message key in 1st phase)

- Fixed Icon labeled Services key (Used to access set options)

- · 12 Key keypad

- · Handset

- · 4 Navigation keys (left, right, up, down)

- · 10 Soft labeled programmable DN or feature keys

- · Message Waiting Indicator lamp

Soft label keys will operate similar to the analogous keys on the M3904 Phase 1 telephone.

Package Requirements

There are no new packages introduced for this feature.

There is a new ISM parameter (called "Internet Telephones ") introduced with this feature, which controls the number of Internet Telephones that are enabled on the system.

The configuration and maintenance of the IP Telephony Gateway (ITG) IPE card is through the "ITG IP Phones" application in MAT or OTM.

ISM Parameter	PEC Code (NA,CALA)	CPC Code (NA,CALA)
Internet Telephones (Small Systems)	NTZC84AA	A0808998
Internet Telephones (Large systems)	NTZC82AA	A0804340

The following table describes the existing X11 package dependencies for this feature to be operable:

Pkg Mnemonic	Pkg Number	Pkg. Description	Applicable Market
DSET	88	Digital Set Pkg	Global
ARIES	170	Aries Terminal	Global

Applicable Systems

All system types supported by Release 25

Target Region

Global

Market Availability

ITG Line-Side & i2004 Internet Telephone Set will be generally available with Release 25.30 On Dec. 04/2000, Release 25.30 will be the base software for i2004, refer to i2004 internet Telephone Product Bulletin.

Chapter 6 - Software ISMs & Packaging

ISM Parameters

New ISM Parameters

With the introduction of X11 Release 25, there are Eight new ISM parameters. Many of the new ISM Parameters have been introduced for future use and are not used in Release 25. ISM parameters that are not being used in Release 25 are set to the maximum values (32767 for Large systems, 2500 for small systems) which means:

- Large Systems - the new "maximum set" ISM parameters will not appear on the keycode sheet or in the LD 22 print outs.

- Small Systems - the new "maximum set" ISM parameters will appear on the keycode sheet, during the software installation and in the LD 22 & LD 143 print outs. On the Option11C and Option 11C Mini, please ensure that the values listed on the keycode sheets are followed during upgrades.

New Release 25 default ISM Parameters values for LARGE SYSTEMS

ISM Parameter	CALA	North America
ITG ISDN TRUNKS	0 (sold increments of 8)	32767 (NOT USED)
INTERNET TELEPHONES **NTZC82AA / A0804340**	0 (sold in increments of 8)	0 (sold in increments of 1)
ATTENDANT CONSOLES	32767 (NOT USED)	32767 (NOT USED)
CLASS TELEPHONES	32767 (NOT USED)	32767 (NOT USED)
PHANTOM PORTS	32767 (NOT USED	32767 (NOT USED)
DATA PORTS	32767 (NOT USED)	32767 (NOT USED)
TRADITIONAL TRUNKS	32767 (NOT USED)	32767 (NOT USED)
ANALOGUE TELEPHONES	32767 (NOT USED)	32767 (NOT USED)
DIGITAL TELEPHONES	32767 (NOT USED)	32767 (NOT USED)

Release 25.30 default ISM Parameter values for SMALL SYSTEMS

ISM Parameter	CALA	North America
ITG ISDN TRUNKS	0 (sold increments of 8)	2500 (NOT USED)
INTERNET TELEPHONES **NTZC84AA / A0808998**	**0** **(sold in increments of 8)**	**0** **(sold in increments of 1)**
ATTENDANT CONSOLES	2500 (NOT USED)	2500 (NOT USED)
CLASS TELEPHONES	2500 (NOT USED)	2500 (NOT USED)
PHANTOM PORTS	2500 (NOT USED	2500 (NOT USED)
DATA PORTS	2500 (NOT USED)	2500 (NOT USED)
TRADITIONAL TRUNKS	2500 (NOT USED)	2500 (NOT USED)
ANALOGUE TELEPHONES	2500 (NOT USED)	2500 (NOT USED)
DIGITAL TELEPHONES	2500 (NOT USED)	2500 (NOT USED)
SURVIVABILITY* **NTSF8720 / A0784530**	**0** **(sold increments of 1)**	**0** **(sold increments of 1)**

* New for Release 25.30

New and Enhanced Software Packages

There are no new packages introduced with Release 25.15. The following table provides a list of the new packages introduced in Release 25.10 and enhanced packages as a result of Release 25.10, their mnemonics, and their package numbers.

New Packages

Package Name	Mnemonic	Package Number	Supported on 11C &11C Mini
Flexible Service Package (for Agent Greeting Feature)	FXS	152	Yes
10/20 Digit ANI on 911 Calls	M911_ENH	249	Yes
Fiber Network Fabric	FIBER_ NETWORK	365	No
Business Network Express	BNE	367	Yes
Call Processor PII	CPP_CNI	368	No
IP Connectivity* (Option11C/Mini only)	**IPEX**	**295**	**Yes**
MDECT Multi Site Mobility Networking	MSMN	370	Yes
M3900 - Set to Set Messaging	STS_MGS	380	Yes
M3900 Corporate Directory	CDIR	381	Yes
M3900 Virtual Office	VIRTUAL_ OFFICE	382	Yes

* New For Release 25.30

Enhanced Packages

Package Name	Mnemonic	Package Number	Supported on Option 11C/11C Mini
Inventory Reporting Phase 2	BASIC	0	Yes
D-Channel Expansion	MSDL	222	No
Meridian ITG Trunks 2.0	ISDN ISL	145, 147	Yes Yes
Private To Public CLID Conversion	ISDN PRA	145, 146	Yes Yes

Chapter 7 - Auxiliary Processor Compatibility

Below are the auxiliary application release levels that are compatible with X11 Release 25.30 and later.

Auxiliary Processor	Compatibility (Release)
Messaging	
Call Pilot	1.x
Meridian Mail	9.66, 10.11, 11.xx-13.xx
Meridian Mail Card Option	9.66, 10.11, 11.xx-13.xx
Wireless	
Companion	3.xx - 7.xx (7.xx required for Enhanced Capacity)
Companion DECT	45000302 or later (not downloaded from Meridian)
Call Centre	
Meridian MAX	6.3, 7.5, 8.7, 9.2, 9.3
Meridian Customer Controlled Routing (discontinued)	3B, 3C [a]
Meridian Link (Replaced by Symposium Link)	5, 5C [a]
Network Administration Center	2.5 [a]

Auxiliary Processor	Compatibility (Release)
C-PLUS (base) - LAN Key - Performer	3.11 - 1.0 - 1.0 and later
System Management	
Meridian Administration Tools (MAT)	6.6x and later (Windows 95/98/NT V4 Workstation)
Optivity Telephony Manager (OTM)	1.0x and later
Symposium Applications	
Symposium Messenger	3.x - 4.0
Symposium Multimedia Conference	4, 5
Symposium Communicator	1.x - 2.0
Symposium Fast Call / Fast View	1.x (Windows Only)
Symposium TAPI Service Provider	2.x
Symposium Desktop TAPI Service Provider for MCA (Meridian Communicator Adapter)	1.x - 2.x
Symposium Call Manager	4.x - 5.x
Symposium Agent	1.x - 2.x
Symposium Link	6.x
Symposium Express Call Center	2.0
Symposium Call Center Server (SCCS)	1.x, 2.x Compatibility with SCCS 3.0 & 4.0 To Be Determined
Symposium Integrated Interactive Voice Response	2.2 [a]
Symposium Open Interactive Voice Response	4.0 a

[a] No X11 dependency.

Meridian 1
Option 11C, 11C Mini, 51C, 61C, 81, and 81C
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