NORTEL
NETWORKS™

Release 25.37N

(PSWV 73)

M3902, M3903 Firmware 7.9

M3904, M3905 Firmware 7.8

Loadware Patches are available to upgrade all M3900 FW to 8.0

Beta Release Bulletin (BRB)

Version 0.6

Generic X11 Release 25.37N is Beta issue of X11 Release 25.40.
A Beta NTP CD-ROM (NTKF76AC-A0867885) was shipped with your Rls 25.37N Software upgrade

The following list of features are supported on Rls 25.37N

Release 25.40 Features	25.37N All systems
NI-2 B-channel Service Messages & GF Transport	Supported
NI-2 Name Display	Supported
NI-2 B-channel Service Messages & GF Transport	Supported
QSIG Message Waiting Indication	Supported
QSIG Product Improvements: - CLID Enhancement for QSIG Call Diversion - QSIG Call Completion & Call Diversion Interaction Enhancement. - Redirecting Name Display Enhancement for QSIG Call Rerouting.	Supported
Singapore ISDN Enhancement	Supported
CP PII Memory Enhancement	Supported
ACD DN Expansion	Supported
SDID as CLID for Euro ISDN trunks	Supported
Network Breakin & Forced Disconnect	Supported
Attendant Announcement	Supported
Plugin #18-42	Supported
Keycode Enhancement	Supported
MDECT Visitors ISM (RPC - 3)	Supported
TMDI Enh. in IP Expansion Cabinet (RPC 10)	Supported
PDT Password Enhancement (RPC - 9)	Supported
SIPE (DPNSS & MISP)	Supported
SIPE Autonegotiate (RPC - 2)	Supported
i2050 (RPC -5)	Supported
QSIG MCDN Gateway	Supported
M3902, M3903, M3904 Phase III	**Supported**
M3905 Phase III	**Supported**
M3904 Full Duplex Handsfree	**Supported**
TAPI Service Provider for CTIA	**Supported.**
Dynamic PSDL patching	**Supported**
Plugin#43 & #47	**Supported**
Large system New Clock	Pending new Clock (HW) availability

This document provides the patches and advisements specific to X11 Beta Release 25.37N.
Where references are made to Release 25, the statements are applicable to Release 25.10 , 25.15, 25.30 and 25.40.

Release 25.37N Beta Releases Notes

The following lists of patches are recommended for Release 25.37N Beta sites. This list does not represent the total number of patches applicable to the release, and as such previously installed patches may still be required. Not all problems listed are new with Releases 25.37N, but they were deemed service affecting and as such patches are provided.

The following patches are mandatory for Release 25.37N sites:

PRS #	Title	Patch	Applicable to 25.37N small systems	Applicable to 25.37N CP2,3,4 systems	Applicable to 25.37N CP PII system
MP17058 MP17094 MP17109	Transfer call to 500 set Fails ACD calls tranferred to another ACD broken MAX report is wrong.	**MPLR16156**	Yes	Yes	Yes
MP15693	During data dump a BUG7058 occurs. This may or may not lead to an ini. This only applies only to Option 11C.	**MPLR16094**[*]	Yes	No	No
MP16797	Software watchdog timeout (SWD) during task sl1	**MPLR16095**[*]	Yes SIPE only	No	No
MP16936	The CSE1000 or SIPE systems have experienced several initializations due to BUG7058 SWD: Swd watchdog timer expired on task TSL1	**MPLR16157**[*]	Yes	No	No

[*] These patches are not manufactured PEP (installed) with Release 25.37N small system,
   Please install them from the MPLR web page.

The following patches for Release 25.37N sites with MAX:

PRS #	Title	Patch	Applicable to 25.37N small systems	Applicable to 25.37N CP2,3,4 systems	Applicable to 25.37N CP PII system
MP13850	HSL to MAX will not recover if it goes down on the 16th of the month	MPLR15696	Yes	Yes	Yes

The following patches for Release 25.37N CP-PII sites with ACD-E & MAX:

PRS #	Title	Patch	Applicable to 25.37N small systems	Applicable to 25.37N CP2,3,4 systems	Applicable to 25.37N CP PII system
MP17248	Max load management link will not download ACD information.	MPLR16182	No	No	Yes

The following patches for Release 25.37N sites with 9150:

PRS #	Title	Patch	Applicable to 25.37N small systems	Applicable to 25.37N CP2,3,4 systems	Applicable to 25.37N CP PII system
MP16738 (MP15197)	9150 set call forwarded to host PBX set, an incoming ISDN call to this 9150 set will be forwarded to host PBX set, when the host PBX set answer the call, but there is no speech path.	MPLR16153	Yes	Yes	Yes

The following patches for Release 25.37N sites part of Multi-Switch Network:

PRS #	Title	Patch	Applicable to 25.37N small systems	Applicable to 25.37N CP2,3,4 systems	Applicable to 25.37N CP PII system
MP15081	Calls that are transferred to remote switch lose the CLID. Problem does not occur when calling a set that is Forwarded to set on the remote switch. Only occurs on transferred calls. No problem when calling the remote switch directly.	MPLR16130	Yes	Yes	Yes

The following patches for Release 25.37N sites with M3900[M3905 &(M3903/M3904 with CLS HFD)]:

PRS #	Title	Patch	Applicable to 25.37N small systems	Applicable to 25.37N CP2,3,4 systems	Applicable to 25.37N CP PII system
MP17264	M3905 user can only conference or transfer once on PDN or SDN, the second time when the user presse 'Conf' or 'Tran' key, nothing happens. Reset set, the user can conf once.	MPLR16216	Yes	Yes	Yes
MP17110	M3903/3904 set with CLS HFD. Select 'On hook default path' to 'Headset selected' on the option menu of the set. Press DN key to make or to answer a call, the speech path doesn't go to headset. The loudspeaker is turned on, and microphone is turned off. The user has to press headset key to use headset.	MPLR16166	Yes	Yes	Yes

The following Loadware patches (M3900) for Release 25.37N (Loadware patches are independent on machine type):

Patch	Title
MPLR16187	M3902 Firmware V8.0 Global language Loadware Patch
MPLR16188	M3902 Firmware V8.0 Western European Loadware Patch
MPLR16189	M3902 Firmware V8.0 Eastern European Loadware Patch
MPLR16190	M3902 Firmware V8.0 North American Loadware Patch
MPLR16199	M3903 Firmware V8.0 Global language Loadware Patch
MPLR16200	M3903 Firmware V8.0 Western European Loadware Patch
MPLR16201	M3903 Firmware V8.0 Eastern European Loadware Patch
MPLR16202	M3903 Firmware V8.0 North American Loadware Patch
MPLR16191	M3904 Firmware V8.0 Global language Loadware Patch
MPLR16192	M3904 Firmware V8.0 Western European Loadware Patch
MPLR16193	M3904 Firmware V8.0 Eastern European Loadware Patch
MPLR16194	M3904 Firmware V8.0 North American Loadware Patch
MPLR16195	M3905 Firmware V8.0 Global language Loadware Patch
MPLR16196	M3905 Firmware V8.0 Western European Loadware Patch
MPLR16197	M3905 Firmware V8.0 Eastern European Loadware Patch
MPLR16198	M3905 Firmware V8.0 North American Loadware Patch

The following workarounds apply to Beta Release 25.37N:

PRS #	Product	Applicable to 25.37N small systems	Applicable to 25.37N CP2,3,4 sytems	Applicable to 25.37N CP PII systems	Workaround
MP12512	M5317 Call Forward (CFW) and transfer	Yes	Yes	Yes	For CFW on a BRI set (M5317) press 00 and clear and enter the number required for CFW and press the CFW key multiple times until the "last forward" appears, and then press forward. For transfer use the conference feature and then dropout.
MP05980	NI-2	Yes	Yes	Yes	NI2 terminating to DMS 100 can not support 00+ calls

The following workarounds apply to Beta Release 25.37N with Option 11C /Mini And Option 11C IP Expansion:

PRS #	Product	Description	Impact	Workaround
MP14089	TMDI, PRI	Digital trunks on the IP expansion cabinets occasionally do not come into service after system reboot/restart.	Digital trunks are down	Manually disable the trunk loop and then enable the loop

System Management and Release 25.40 Beta Trials

OTM 1.2 will be the concurrent system management tool for X11 Release 25.40.
All X11 25.40 Beta sites using the OTM system management tool should be running OTM 1.2 software.
MAT is not a supported system management tool for Release 25.40.

Documentation

25.37x Release Beta Special CD-ROM Documentation
NTKF76AC /A0867885 is a special NTP CD-ROM for 25.40 Beta sites and contains:

- What's New for Release 25.40

- NTP CD-ROM Release 25.30

PDT Enhancement is not included in this NTP-CD, for Feature description refers to the Feature Details of this Bulletin.

M3900 Phase 3 Advisements

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M3900 Special Notes

- For sites upgrading to 25.37H or higher and Package 386 is equipped " M3900 productivity enhancements", the system will print **ERR5575 message** for each M3900 Phase II and Phase 1 active set**.**

- The new M3904 and Full Duplex Handsfree (FDHF) cartridge will not support a Key-Based Expansion Accessory (KBA) during the beta trial. We are working this issue for the general availability product. If this functionality is absolutely required during the beta trial, please contact the Nortel beta site prime and we will make special arrangements to make available a specially modified FDHF cartridge that will support a KBA.

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With X11 Release 25.40 the software installer is given the ability to select one of six different language sets to be installed on the Meridian 1. This selection determines the languages and firmware release level available to M3900 Series telephone users.

During the install of **25.37N (where M3902, M3903, M3904, M3905 Phase III are supported)** any of the first **Four** language groupings can be selected.

The six different language sets in the beta software are:

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

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

3. Eastern Europe 10 Languages [Release 3] - English, French, German, Dutch, Polish, Czech, Hungarian, Russian, Latvian, Turkish

4. North America 6 Languages [Release 3] **-**English, French, German, Spanish, Brazilian Portuguese, Japanese Katakana

5. Spare Group A

6. Spare Group B

Please see Software Conversion Procedures (553-2001-320) for information on software installation.

Refer to M3900 Phase III Product Bulletin [2001-056] for details of Release 2.40 M3900 Enhancements

IP Expansion Advisements for 25.30 & 25.37A - 25.37K only.

- 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.
- SILC and UILC cards are not supported in IP Expansion cabinets for Release 25.30, and 25.37G, but are supported in 25.37I.

TMDI in IP Expansion Cabinet

On switchback from Survival mode to Normal mode, the first TMDI card on the IP expansion cabinet takes up to 3 minutes to enable. For each additional TMDI card on the expansion cabinet, there will be an incremental delay of approximately 20-30 seconds.

ISM Parameters And Packages Changes

Instant ISM was introduced in 1998 to eliminate the need to perform a sysload to update new keycode parameters related to ISM changes. A Sysload is dependant upon the type of keycode changes being made.
According to the Rls 25 CD ROM NTPs. NTP 553-3001-511 dated June 2000. System Input / Output Guide -Maintenance - LD 143 Customer Configuration Backup and Restore indicates that a SYSLOAD is not required to update <u>ANY</u> keycode parameters.
The NTP will be updated with Release 25.40 to reflect that the SYSLOAD is not required to update any ISM parameters but it is required when adding or removing any packages.

The Instant Incremental Software Management (IISM) feature will allow the user to update the ISM limits by simply delivering the new keycode to the switch and executing a simple command – no SYSLOAD will be required. Previous to IISM, in order to increase ISM limits, the user would have to initiate a Sysload, which caused a service interruption.
In order to use this feature, the following conditions must be met:
> Software release and issue remain unchanged.
> All feature packaging remains the same.
> The MOPT ISM value remains the same.
> ISM parameters are not decreased.
> For option 11C, the AUX-ID must remain unchanged.
> For large systems, the system generic must remain unchanged.

This feature is applicable to Option 11C - 81C systems   (including dual-CPU systems). However, Options 51C-81C must be equipped with IODU/C to support this feature.

Meridian Home Office MHO-II & Remote Office

Meridian Home Office MHO-II is supported with Release 25.40, but **not** supported with M3900 Phase III

Remote office (RO) 1.3 is supported with Release 25.40 but **not** supported with M3900 Phase III until the upissue 1.3.4 is available.

	M2000	**M3900 Phase II** **[3902,3903,3904]**	**M3900 Phase III** **[3902,3903,3904,3905]**
Release 25.40/RO 1.2	Supported	Supported	Downgrade to Phase II [3902,3903,3904] Downgrade to Phase I [3905]
Release 25.40/RO 1.3.1	Supported	Supported	Downgrade to Phase II [3902,3903,3904] Downgrade to Phase I [3905]
Release 25.40/RO 1.3.4	Supported	Supported	Supported

Support for telephone sets and the different versions of Remote Office (RO)and Release 25.40 as per the table above.
Remote Office 1.3.4 is a maintenance up-issue to provide full M3900 Phase III compatibility and will be available for Beta in early January 2002. General availability for Remote Office 1.3.4 will be early March 2002.

Keycode for Small System Advisements [25.37A, 25.37B, 25.37E]

Beta Customers for North America will require new keycodes for 25.37E, as package 152 has been added to the North American spreadsheet. A new keycode is required when upgrading from any release before 25.37E.
New keycode is not required for if upgrading from 25.37E to any higher Beta release as long as there are no changes to the ISM or packaging .

IP Configuration New option during Software upgrade on IP Expansion Cabinets (25.37I).

Entering IP Configuration Menu through Expansion Cabinet Installation - From Software Delivery Card option
===

Technology Software Installation Main Menu:
1. IP Expansion Cabinet
2. Main Cabinet
[q]uit, [h]elp or [?], <cr> - redisplay

Enter Selection : 1

Expansion Cabinet Software Installation Main Menu :
1. Expansion Cabinet Installation - From Software Delivery Card
2. Utilities
3. Expansion Cabinet Installation - From Software DaughterBoard
[q]uit, [p]revious, [m]ain menu, [h]elp or [?], <cr> - redisplay

Enter Selection : 1
Do you wish to do IP configuration? (y/n/[a]bort) : y

IP Configuration Menu :
1. Automatically Using BootP
2. Using Manual Configuration
3. Keep Existing Configuration   ******** New Option with 25.37I or higher ********
[q]uit, [p]revious, [m]ain menu, [h]elp or [?], <cr> - redisplay

Entering IP Configuration Menu through Utilities option
===

Technology Software Installation Main Menu:
1. IPExpansion Cabinet
2. Main Cabinet
[q]uit, [h]elp or [?], <cr> - redisplay

Enter Selection : 1

Expansion Cabinet Software Installation Main Menu :
1. Expansion Cabinet Installation - From Software Delivery Card
2. Utilities
3. Expansion Cabinet Installation - From Software DaughterBoard
[q]uit, [p]revious, [m]ain menu, [h]elp or [?], <cr> - redisplay

Enter Selection : 2
Utilities Menu :
1. IP Configuration (L3)
2. Review Upgrade Information
3. Clear Upgrade Information
4. Undo Installation
5. Flash Boot ROM Utilities
6. Current Installation Summary
7. IP FPGA Utilities
[q]uit, [p]revious, [m]ain menu, [h]elp or [?], <cr> - redisplay

Enter Selection : 1
Do you wish to do IP configuration? (y/n/[a]bort) : y

IP Configuration Menu :
1. Automatically Using BootP
2. Using Manual Configuration
3. Keep Existing Configuration   ******** New Option with 25.37I or higher ********
[q]uit, [p]revious, [m]ain menu, [h]elp or [?], <cr> - redisplay

Introduction – Release 25.40 Overview

Generic X11 Release 25.40 is supported on:
- Option 11C and Option 11C Mini.

[Refer to Option 11C/Mini Installer's Checklist Release 25.40 (P0941097) for details of any manufactured PEPs with the GA Release of 25.40.]
**** Beta Trial coordinator will provide patches as required for each Beta Release****

- Options 51C, 61C, 81 and 81C equipped with the Motorola 68040 (NT9D19), 68060 (NT5D10), or 68060E (NT5D03) commercial processors.

[Refer to Manufacture Delivered Customer Solutions (MDCS) Rls25.40 GRB for details of any mandatory PEPs required for Large Systems.]
**** Beta Trial coordinator will provide patches as required ****

- Options 81C equipped with Call Processor PII commercial processors, plus mandatory PEPs.

[Refer to Manufacture Delivered Customer Solutions (MDCS) Rls25.40 GRB for details of any mandatory PEPs required for Large Systems if applicable]

This document provides an overview of the Global features developed for the Meridian 1 Generic X11 Release 25.40 software. It describes the new features and enhancements offered . This document contains feature information that is applicable for all supported Meridian 1 system types.

X11 Global release 25.40 is multi-purpose releases designed to deliver a single global software stream to all markets. Release 25.40 will be supported on new system as follows: (NOTE: not all processor types were available in all markets). As of February 2001 the Option 51C is no longer sold as a new system, however upgrades to 25.40 will be offered to existing Opt. 51C systems provided that no H/W upgrade are required.
The default processor for new systems Option 61C in all regions will be the 68060E processor and for Option 81C will be Call Processor PII commercial processor.
Release 25.40 Option 81C new systems will ship with Fiber Network Fabric (FNF) and Call Processor PII (CP PII) with 256MB memory as the default configuration.

For Options 51C, 61C, 81 and 81C details on feature installation and operation, and hardware upgrade procedures, refer to the Nortel Networks Publications (NTPs). Also, please refer to the Software Conversion Procedures (553-2001-320) that are included in your NTP shipment prior to loading this software.
For information on Real Time requirements, please contact your local Nortel Networks sales representative. For information on Memory calculations, please refer to P0915854, the Technical Reference Guide for Small Systems or NTLH03AA-A0804746, the Meridian 1 Release 25 Planning and Engineering Guide for Large Systems. (This information is also available on the documentation CD-ROM)

When references in this document are made to "Release 25", the statements are applicable to Release 25.10, Release 25.15, Release 25.30 and Release 25.40

> **Note.** Not all features described in this document are offered in all countries, and as noted within the Bulletin, not all features are supported on all machine types. Please contact your local Nortel Networks sales representative for more information.

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

Rls 25.40 Features Availability & MAT/OTM Matrix

Feature/Product	11C Mini	11C	51C	61C	81	81C	25.10	25.15	25.30	25.40	MAT/OTM Mandatory Requirement
System Features & Processor, Memory and Clock Enhancements											
Attendant Announcement	X	X	X	X	X	X				X	No
ACD DN Expansion[6]						X[1]				X	No
Fiber Network Fabric (FNF)					X	X		X	X		No
Call Processor PII (CP PII)						X		X	X	X	No
Inventory Reporting Ph 2	X	X	X	X	X	X	X	X	X	X	No
Option 11C/Mini IP Expansion (IPEX)	X	X							X	X	No[2,3]
MISP & DPNSS for IPEX Autonegotiation on IPEX	X	X								X	No
CP PII Memory Enhancement						X				X	No
Large System Clock Controller			X	X	X	X	X	X	X	X[5]	No
Networking and Internet Telephony Gateway											
ITG Trunks 2.0	X	X	X	X	X	X	X	X	X	X	6.67.04 /1.0
D-Channel Expansion					X	X	X	X	X	X	No
Private to Public CLID Conversion	X	X	X	X	X	X	X	X	X	X	No
CLID on Analog Trunks (Hong kong)	X	X	X	X	X	X	X	X	X	X	No

Notes:

1. M3900 Enhanced Flash Download requires:
   Rls 25.10 Plus MDCS or Manufacture Patches
   Or Rls 25.15 or Rls 25.30 or Rls 25.40.
2. The OTM 1.0 upissue (OTM 1.01) or MAT 6.67 update disk (ITGL content) is required to support Internet Telephony Gateway Line-Side ITGL in Expansion cabinet in survival mode with Option11C/Mini IP Expansion. The OTM 1.2 is supporting Release 25.40 features; MAT is NOT supported on Release 25.40 or later
3. MAT 6.67.07 plus update disk or OTM 1.0 upissue (1.01) is required to support ITG in expansion Cabinet with Release 25.30.
4. i2004 Internet Telephone requires :
   Release 25.30 Plus MDCS or Release 25.40
5. New Clock Controller Requires Release 25.40 in order to download New Firmware
6. Requires Option 81C with CP PII , Applications may require updating in order to account for additional ACD DNs
7. Refer to M3900 phase III advisements section for details.

1. M3900 Enhanced Flash Download requires:
   Rls 25.10 Plus MDCS or Manufacture Patches
   Or Rls 25.15 or Rls 25.30 or Rls 25.40.

System Advisements

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.
Where references are made to Release 25, the statements are applicable to Release 25.10 and Release 25.15 and Release 25.30 and Release 25.40.

Systems Supported

Generic X11 Release 25 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

[*] Note: As of February 2001 the Option 51C will no longer be sold as a new system, however upgrade to 25.40 will be offered to existing Opt. 51C systems.

Feature Interactions

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

- SILC and UILC cards that were not supported in Option 11C/Mini IP Expansion (IPEX) cabinet for Rls 25.30 but are supported with Release 25.40.

PE and EPE Hardware Support

CP2, CP3, and CP4

X11 Release 25.40 - As with all other issues of Rls 25 (i.e Rls 25.10,25.15,25.30). Release 25.40 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.

X11 Release 26 – when available will no longer support Peripheral Equipment (PE) or Enhanced Peripheral Equipment (EPE) on any Meridian 1 system type.

PE or EPE includes the following:
1. All Peripheral Equipment/Enhanced Peripheral Equipment housed in old style Peripheral Equipment/Enhanced Peripheral Equipment shelves and
2. SL-1 proprietary telephone sets and attendant consoles associated with SL-1 line cards.

NOTE 1: "QPC" cards housed in CORE/Network shelves will continue to be supported on Release 26.00. For example, QPC 414 ENET cards will continue to be supported as an interface to Meridian Mail and Digital Trunk Interfaces (DTI) connection even though the card can no longer be used to drive Enhanced Peripheral Equipment (EPE) shelves.
NOTE 2: In order to allow our customers and distributors the ability to optimize resources during a system or software upgrade, Nortel Networks has not introduced any changes in X11 Release 26.00 to prohibit PE and EPE equipment. When a system is upgraded to X11 Release 26, the craftsperson can convert the desktop Terminal Number (TN) to the X11 Release 26 feature set. This eliminates the need to change the TN features and Services twice. Following the TN changes, the new IP shelf can be exchanged and the new desktop equipment installed and tested.

A list of the specific hardware that is impacted with the introduction of X11 Release 26 can be found in Sales and Marketing Bulletin 1323-G dated October 2000 and titled "Peripheral Equipment (PE) / Enhanced Peripheral Equipment (EPE) Retirement Notification with Generic X11 Release 26".

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 migr

Real Time Impact of Release 25

The real time impact of Release 25 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)	210% (= 3.1X)

Recommended Maximum Call Register Counts

The following tables detail the recommended Maximum Call Register Counts for Release 25.40 Call Registers are set in LD. 17, at the "NCR" prompt, after answering "Yes" to the PARM prompt

	11C	51C CP2	51C CP3&4
Recommended Maximum Call Register Count	1750	1500	2000

	61C CP2	61C CP3&4
Recommended Maximum Call Register Count	3000	4000

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

M3900 Digital Telephone Enhancement Advisements

Release 1 vs. Release 2 vs. Release 3 Telephone Feature Operation

The M3900 series of digital telephone sets consists of five models and a variety of value-added accessories
The M3900 series is compatible with Intelligent Peripheral Equipment (IPE)-based Digital Line Cards, NT8D02xx (all vintages) for Meridian 1 Option 11 through 81C. The portfolio is also compatible with the Option 11C Mini IPE-based 48-Port Digital Line Card NTDK16xx. For added convenience; M3900 and M2000 series phones can reside on the same IPE-based Digital Line Card.

M3900 Release 1(Phase I)

Release 1 (Phase 1) of the M3900 sets were introduced in October 1999 with Release 1 firmware and are compatible with X11 release 24 software.

M3900 Release 2(Phase II)

Release 2 firmware (phase 2) was introduced in April 2000, on the M3903 and M3904 only and are compatible with X11 Release 25 software. Phase 1 M3903 and M3904 are not compatible with release 25. M3901, M3902 and M3905 did not change with Phase 2 and are compatible with Rls 25. Release 2 M3900 set features include:

- Flash Download (25.10 + PEPS or 25,15 or later)

- Context Sensitive Keys (25.10 or later)

- Set to Set Messaging (25.10 or later)

- Virtual Office (25.15 or later)

- Corporate Directory (25.15 or later)

- Display Based Expansion Module (25.10 or later)

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 3(Phase III)

Release 3 firmware (Phase 3) is compatible with X11 25.40 and later.

Call Forward Enhancements

Password Clear

Pause in Dialing Strings

Enables user to enter 1.5 second pauses in the dialing string

31 Digit Predial

Special Characters

Refined Corporate Directory Search

Headset State Support

One-button Feature Access Keys

Set-to-Set Messaging Enhancements

System Initiated Language Selection

Virtual Office Automatic Logout

Speed Dial Capabilities (Virtual Office)

Redial & Callers List Erase (Virtual Office)

Computer Telephony Integration Adapter (CTIA)

Full Duplex Handsfree Accessory

M3905 Release 3 set

M3905 Release 3 set:
M3905 Release 3 set delivers both M3900 Phase II & III features listed below

Release 3 M3905 delivers the M3900 Phase II features to the M3905 set:
- Context Sensitive Keys
- Personal Directory, Call Log and Redial lists
- Corporate Directory
- Set to Set Messaging
- Display Based expansion Module

Release 3 M3905 also delivers the following M3900 Phase III features to the M3905 set :
- Call Forward Enhancements
- Password Clear
- Pause in Dialing String
- 31 Digit Predial
- Special Characters
- CTIA Accessory
- Refined Corporate Directory Search
- One-button Feature Access Keys
- Set-to-Set Messaging Enhancements
- System Initiated Language Selection
- Display-Based Accessory Module

M3900 Series Accessories
The following provides an overview of accessories compatibility based on the M3900 series phone model:

Accessory	X11 RLS	Phase Introduced	M3902	M3903	M3904	M3905
Analog Terminal Adapter (ATA)	R24.24	1	X	X	X	X
External Alerter& Recording Interface	R24.24	1	X	X	X	X
Personal Directory PC Utility	R24.24	1			X	X^2
Key-based Expansion Module (KBA)	R24.24	1			X^3	X
Display-based Expansion Module (DBA)	R25.10	2			X	X^2
Computer Telephony Interface Adapter	R25.40	3	X	X	X	X^2
Full Duplex Handsfree Cartridge	$R25.40^1$	3			X	

Notes:

1 The Full Duplex Handsfree Cartridge is not X11 dependent. It will operate on all versions of Release 25 as well as Release 24C (25.08).

2 M3905 Phase 3 firmware and X11 Rls. 25.40 or later software are required to support the Personal Directory PC Utility, DBA, and CTIA accessories.

3 During the M3904 Phase III Beta trial the KBA is not supported when used with the Full-Duplex Handsfree cartridge. A new foot-stand to support this combination is in development.

The cartridge style accessories are designed in two sizes: a small cartridge S (i.e., Personal Directory PC Utility (and CTIA), Full-Duplex Handsfree FDHF, and External Alerter & Recording Interface) and a large cartridge L (i.e., ATA). The M3902 supports one large, or one small cartridge. The M3903, M3904 and M3905 support one large and one small, or two different small cartridges listed above. For example, you can combine an ATA and External Alerter & Recording Interface on an M3903, M3904 or M3905. The CTIA and Full Duplex Handsfree cartridges are also small cartridges. See the following matrix for cartridge compatibility.

M3903, M3904, M3905 Cartridge Compatibility Matrix

Accessory	Size	ATA	MEARI	PC Utility	CTIA	FDHF
Analog Terminal Adapter (ATA)	L	N/A	yes	yes	yes	no
External Alerter& Recording Interface (MEARI)	S	yes	N/A	yes	yes	yes^2
Personal Directory PC Utility (PC Utility)	S	yes	yes	N/A	N/A^1	yes
Computer Telephony Interface Adapter (CTIA)	S	yes	yes	N/A^1	N/A	yes
Full Duplex Handsfree Cartridge (FDHF)	S	no	yes^2	yes	yes	N/A

Notes:

1 The PC **Utility** and the CTIA are the same cartridge and they both can use the PC Utility Software and TAPI Service Provider software.

2 The External Alerter & Recording Interface cannot be used with the Full Duplex Handsfree Cartridge for recording calls, only for external alerting.

Accessory Connection Module (ACM)

The ACM allows the connection of M3900 series cartridge style accessories to the M3902, M3903, M3904 and M3905 phone models.

The ACM supports one cartridge accessory on the M3902 and up to two cartridge style accessories on the M3903, M3904 and M3905 models.

The ACM fits conveniently into the telephone footstand and includes a cable, which attaches to the back of the phone.

M3900 sets with accessory module(s) cannot be wall mounted. The ACM requires 110/220V Wall Transformer.

M3900 Phase 3 Feature X11 Release 25.40 Compatibility Table

Feature	X11 Feature Package	M3902	M3903	M3904	M3905
Call Forward Enhancements	N/A	X	X	X	X
Password Clear	N/A		X	X	X
Pause in Dialing Strings	N/A	X	X	X	X
31 Digit Predial	N/A	X	X	X	X
Special Characters	N/A	X	X	X	X
Refined Corporate Directory Search	N/A		X	X	X
Headset State Support	N/A		X	X	
Speed Dial Capabilities (Virtual Office)	N/A		X	X	
Computer Telephony Integration Adapter (CTIA)	N/A	X	X	X	X
Full Duplex Handsfree Accessory	N/A			X	
M3905 Release 3 set	N/A				X
Set-to-Set Messaging Enhancements	Pkg. 386		X	X	X
System Initiated Language Selection	Pkg. 386	X	X	X	X
One-button Feature Access Keys	Pkg. 386		X	X	X
Virtual Office Automatic Logout	Pkg. 387		X	X	
Redial & Callers List Erase (Virtual Office)	Pkg. 387		X	X	

The following table summarizes which M3900 Feature sets will be active when Release 1, Release 2, and Release 3 M3900 sets are installed with the various releases of X11 Software that support M3900 sets:

	R24.24/24.25	R25.08	R25.10/25.15/ 25.30	R25.40
M3900 R1	Release 1 capability	Release 1 capability	Release 1 capability	Release 1 capability
M3900 R2	None Release 2 sets are not supported on R24	Release 1 capability Note: Release 2 Context Sensitive softkeys & DBA will function	Release 2 capability	Release 2 capability
M3900 R3	None Release 3 Sets are not supported on R24	Release 1 capability Note: These features will also work: Context sensitive keys, DBA,31 digit dialing, Call forward enhancement, Special Character Support, Pause in Dialing, Japanese Language Updates, Full-Duplex Handsfree (with FDHF cartridge)	Release 2 capability Note: These features will also work: Context sensitive keys, DBA,31 digit dialing, Call forward enhancement, Special Character Support, Pause in Dialing, Japanese Language Updates, Full-Duplex Handsfree (with FDHF cartridge)	Release 3 capability

Note for X11 25.xx installations previous to 25.40

If a flash memory download is done to Release 2 or 3 telephones software, they will revert back to a the firmware level introduced by the X11Release they are running on and the additional M3900 feature support will be lost and cannot be restored. Sets will function with all features and capabilities as purchased and supported with their respective X11 Release.

A customer purchases M3900 Release 3 functionality by purchasing X11 Release 25.40 or higher software, not by purchasing M3900 Release 3 telephones. Customers who desire M3900 Release 3 functionality must purchase X11 Release 25.40 or higher software.

Nortel Networks cannot compensate distributors or end users who lose Release 2 or 3 features as a result of a flash download performed to Release 2 or 3 M3900 sets. However, if this does happen, customers can easily restore these features by purchasing X11 Release 25.40 or higher.

M3900 Flash Download provides the capability to download a new firmware version from the Meridian 1 to the M3900 telephone. The following shows the M3900 Releases and the X11 software they were introduced with:

· Release 24C (25.08) – Release 1 Firmware will be downloaded.
· Release 25.10/25.15 – Release 2 Firmware will be downloaded to the set (by default).
· Release 25.40 – Release 3 Firmware will be downloaded to the set (by default).

M3900 Release 1, Release 2, and Release 3 telephones can initially be identified through the part numbers below; however, telephones listed with these part numbers could contain either Release 1, Release 2, or Release 3 firmware if a flash memory download has been performed on them.

Release 1 Sets:

NTMN33BB66	A0767102	Meridian M3903 Enhanced, Rel. 1, Platinum
NTMN33BB70	A0767103	Meridian M3903 Enhanced, Rel. 1, Charcoal
NTMN34BB66	A0767107	Meridian M3904 Professional, Rel. 1, Platinum
NTMN34BB70	A0767108	Meridian M3904 Professional, Rel. 1, Charcoal

Release 2 Sets:

NTMN33FB66	A0806577	Meridian M3903 Enhanced, Rel. 2, Platinum
NTMN33FB70	A0806578	Meridian M3903 Enhanced, Rel. 2, Charcoal
NTMN34FB66	A0806581	Meridian M3904 Professional, Rel. 2, Platinum
NTMN34FB70	A0806582	Meridian M3904 Professional, Rel. 2,Charcoal

Release 3 Sets:

NTMN32GA66	A0858368	Meridian M3902 Basic, Rel. 3, Platinum
NTMN32GA70	A0858369	Meridian M3902 Basic, Rel. 3, Charcoal
NTMN33GA66	A0858372	Meridian M3903 Enhanced, Rel. 3, Platinum
NTMN33GA70	A0858373	Meridian M3903 Enhanced, Rel. 3, Charcoal
NTMN34GA66	A0858377	Meridian M3904, Professional, Rel. 3, Platinum
NTMN34GA70	A0858378	Meridian M3904, Professional, Rel. 3, Charcoal
NTMN35GA66	A0858379	Meridian M3905 Call Center, Rel. 3, Platinum
NTMN35GA70	A0858381	Meridian M3905 Call Center, Rel. 3, 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 and later, 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
.
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

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

MAT is not supported on Release 25.40 or later.

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.x

OTM 1.00 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 when introduced 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.

OTM 1.2 when introduced will supports Generic X11 Release 25.40 and associated features.

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:

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.

For more information about OTM 1.x, Release 25 Features that Require System Management please refer to the OTM 1.01 and OTM 1.1General Release Bulletin when available.

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 or higher (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 or higher)

Please ensure that you have upgraded the bootcode on the MSC to NTDK34FA Rel 06 or higher. 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 or new **NTTK25AA blank** Software Daughterboard.
A system upgrading to Release 25 must replace its NTDK21(32 Mb) or NTDK81(40 Mb) based software daughterboard, with an NTTK13AA **or NTTK25AA** (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)

- For IP Expansion: NTDK20EA or higher Small System Controller (SSC) for Option 11C **main** cabinet and NTDK20CA or higher for each Expansion cabinet.(Rlease 25.30 or later)

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

- Electronic Software Distribution

Option 11C

- Software Daughter board for new systems

- PCMCIA Card for upgrades

- Electronic Software Distribution

Electronic Software Delivery Via Nortel Network's Customer Support website

The software download process is required to take compressed software from the internet and download it to your PC for duplication. 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 Nortel Network's software download website.

Who has access to the web site?
The software distribution is designed for Nortel Networks Distributors and associated technical support personnel. In exceptional circumstances, end customers will be granted access to this site.

To register for an account:
Nortel Networks has adopted the Common Registration System (CRS). This provides one user I.D. and password to access the service websites such as the Software Distribution and Keycode Retrieval websites.
Go to **<http://www.nortelnetworks.com/>,** to "Customer Support" menu, choose "Register menu. Follow the registration process instructions.

Software Download Steps:

Once registered, go to the Customer Support web site at the following URL:
<http://www.nortelnetworks.com ;
Choose "Customer Support" menu,
Choose " Software Distribution" or "Software Downloads" from Customer Support page

You will notice some changes to the ESD in regards to your personalized customer experience. For further details, choose the "What's New to the Customer Support Site" under Support News banner.

You will be able to view software on this page as a Guest only. To access the software as an authorized user, you must go to the "Log in" menu and apply your user I.D. and password.

Choose the applicable software required in the software product listing (ie. Meridian 1 Option 11C/11C Mini).
To find the product listing, go to the « **Products** » banner and choose **"View by a Product".**
Click on required software file required. Click on the executable file and save to your desktop.

If you do not already have the PCMCIA Card Programmer installed on your P.C., go to "General info." banner from the software page and download the Card Programmer (version 0.5 or higher). The Programmer will prepare and if necessary erase the PCMCIA card (40Mb or higher), and load the new software to the card. Open the PCMCIA Card Programmer, select the software from the applicable P.C. drive letter in step 1, then select the PCMCIA drive letter in step 2, click on Program PCMCIA card.
The PCMCIA Card Programmer is compatible with Window 95, 98, and Windows NT 4.0 and above. Please note that the manual process to erase and copy is required if using Windows 2000 operating system.

When properly programmed, the 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 (may be available)

You are now ready to put the programmed card into slot A of the System Controller and proceed with the installation procedure.

Software Conversion

<u>Option 11C</u>

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

<u>Option 11C Mini</u>

Automatic conversion is supported directly to X11 Rls 25 from X11 Release 24.

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 release25.40. 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: Note: Ethernet is not supported in this configuration

Large System Advisements

The following advisements are for large systems only:

Call Processor Memory Requirements

Rls 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
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

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.

Release 25 Recommended Memory Requirements for CP PII Processors:

System Type	Flash Memory Requirement	DRAM Memory Requirement	Total Memory	Applicable Regions
Option 81C CPP With up to 5 Network group	N/A	128 MB	128 MB	North America CALA
Option 81C CPP With 6 or more Network group	N/A	256 MB	256 MB	North America CALA With Release 25.40 ot later

Note:

: Option 81C CPP with 5 or fewer network groups may continue to use 128 MB DRAM for Release 25.40
: Option 81C CPP with 6 or more network groups MUST upgrade their DRAM to 256 MB when upgrading to Rls 25.40.

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

Notes:

 : (xx/yy) denotes Flash memory (xx)/DRAM memory (yy) configuration.
 : New Option 51C Systems not sold in CALA on Release 24 or later.
 : New Option 51C Systems not sold As of Feb. 2001 in all regions.
 : 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.

For Option 81C Systems on CP PII Prpcessor:

Option 81C CP PII with 6 or more network groups MUST upgrade their DRAM to 256 MB when upgrading to 25.40.
NT4N64AA Rel 02 / A0844698 New CP PII CPU Boared with 256MB
NT4N19AA / A0856417 256 MB CP PII memory upgarde Kit for one CPU only
Upgraded CP PII CPU Board from 128MB to 256MB will be coded with NT4N6AA Rel 01

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 Nortel Network's Customer Support web site.

Software Downloads can be accessed through the following Customer Support website:
<http://www.nortelnetworks.com>
Choose "Customer Support" –" Software Distribution" or "Software Downloads from Customer Support page."

You will be able to view software on this page as a Guest only. To access the software as an authorized user, you must go to the "Log in" menu and apply your user I.D. and password.

Choose the applicable software required in the software product listing (ie. Meridian 1 Option 51C, 61, 81C).

To find the product listing, go to the **« Products** » banner and choose "**View by a Product**".
Click on required software file required. Click on the executable file and save to your desktop.

Conversion

Release 25 supports direct conversion 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.

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.

Software ISMs & Packaging

ISM Parameters
New ISM Parameters

With the introduction of X11 Release 25.10, there were Eight new ISM parameters for all systems, there was One new ISM in Rls 25.30 for small systems only. 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 printouts. On the Option11C/Mini, please ensure that the values listed on the keycode sheets are followed during upgrades.

Release 25 ISM Parameters

ISM Parameter	Small Systems	Large systems	Release
ITG ISDN TRUNKS	Yes	Yes	25.10
INTERNET TELEPHONES (i2004 & i2050)	Yes	Yes	25.30
ATTENDANT CONSOLES	Yes	Yes	25.10
Wireless Visitor	Yes	Yes	25.40
CLASS TELEPHONES	Yes	Yes	25.10
PHANTOM PORTS	Yes	Yes	25.10
DATA PORTS	Yes	Yes	25.10
TRADITIONAL TRUNKS	Yes	Yes	25.10
ANALOGUE TELEPHONES	Yes	Yes	Changed with 25.10
DIGITAL TELEPHONES	Yes	Yes	Changed with 25.10
SURVIVABILITY	Yes	No	25.30

Release 25.40 Small systems ISM Parameters changes

(Changes will be introduced with the GA of Release 25.40, Not Applicable to Beta Software)

Release 25.40 or higher software (Enhanced Business, Enterprise Business and NAS/VNS) provides the TMDI_D-Channel ISM defaulted to 64 so the separately orderable code is not required.

Customers on Release 24.24 – Release 25.30 (Enhanced Business, Enterprise Business and NAS/VNS) will need to order the NTSF8730 TMDI package to increment the ISM parameter to one (1) per package.

The NTRB21AA TMDI card provides DTI/PRI functionality. The NTSF6800 package containing an NTRB21AA is compatible with X11.24.24 or higher software.

New and Enhanced Software Packages

The following table provides a list of the New Packages introduced in Release 25.40 and Enhanced Packages as a result of Release 25.40, their mnemonics, and their package numbers.

New Packages

Package Name	Mnemonic	Package Number	Supported on 11C &11C Mini
IP Connectivity* (Option11C/Mini only)	IPEX	295	Yes
Attendant Announcement	ATAN	384	Yes
Priority Network Override	PONW	389	Yes
NI-2 Name Display	NI-2 NAME	385	Yes
M3900 Productivity Enhancements	M3900 PROD-ENH	386	Yes
M3900 Virtual Office Enhancements	VIRTUAL-OFFICE-ENH	387	Yes
ACD DN Expansion	ACDE	388	Yes

* New with Release 25.30

Enhanced Packages

Package Name	New Feature	Mnemonic	Package Number	Supported on 11C/11C Mini
Base Software	- Dynamic PSDL.	BASE	0	Yes
	- Keycode Enhancement.			Yes
	- CP PII Memory Enh.			Yes
	- Large system Clock controller Enh.			No
NI-2 TR-1268 Interface	NI-2 B-Channel Service Messaging.	NI-2	291	Yes
M3900 Corporate Directory	Refine Corporate Directory Search	CDIR	381	Yes
M3900 Virtual Office	Virtual Office Speed Dial Capabilities	VIRTUAL_OFFICE	382	Yes
QSIG Generic Functioning	QSIG Message Waiting Indicator	QSIG-GF	305	Yes
QSIG Supplementary Services	- QSIG Message Waiting Indicator.	QSIG-SS	316	Yes
	- QSIG Call Completion &Call Diversion Interaction Enhancement.			Yes
	- Redirecting Name Display Enhancement for QSIG Call Rerouting.			Yes
	- CLID Enhancement for QSIG Call Diversion			Yes

Quick Summary of Release 25.40 Features

The following list of features is the preliminary content list for Release 25.40. Please note that individual features may be added or deleted from this list depending upon development, market, or testing conditions.

Dynamic PSDL

Dynamic PSDL will split the current PSDL file into 'individual' product loadware files. Meridian 1 will build the PSDL .rec file dynamically during installation from individual product loadware files. Previously the larger PSDL.rec file was included with the software during loadbuild. This will allow for field replacement of individual loadware files as required. It will also eliminate the duplication of loadware files for M39xx language management. With this functionality only 1 PCMCIA card for small systems is required to deliver the entire language file.

QSIG Product Improvements:

QSIG Call Completion and Call Diversion Interaction Enhancement: This product improvement provides for QSIG – MCDN and QSIG-QSIG gateways, the capability of employing Call Completion (CCBS and CCNR) when QSIG Call Diversion occurs.

CLID Enhancement for QSIG Call Diversion: This product improvement provides for QSIG GF interfaces, the capability of displaying the correct CLID on the calling user's set when the diverted-to user set is rung during QSIG call diversion.

Redirecting Name Display Enhancement for QSIG Call Rerouting: This product improvement provides for QSIG GF interfaces, the capability of displaying the redirecting name on the diverted-to user's set, during QSIG Call Diversion due to Call Rerouting algorithm, when the originating and diverted-to user's are present on the same node.

CP PII Memory Enhancement

Increase the amount of DRAM on the CPP processor from 128 Mb to 256 Mb. Required for all Release 25.40 and later CP PII Option 81C systems with 6 or more groups.

NI-2 B-Channel Service Messaging

This feature ensures stable NI-2 PRI spans and eliminates the possibility of a "killer trunk condition", which degrades the service on PRI spans severely. Generic Function (GF) transport is required to support NI-2 Name display and other Supplementary Services to be added in future releases.

Benefit - B-Channel Messages will improve the operational stability of all B-Channels on a PRI span and will result in more reliable and efficient call processing.

QSIG Message Waiting Indication

QSIG Message Waiting Indication allows Meridian 1 users, connected to a voice mail system on another vendor's PBX, to get a message waiting indication. This feature provides a means to pass the Message Waiting Indicator across a private QSIG network with Meridian and other vendors' PBXs. In the same way the feature allows a Meridian Mail hosted at a Meridian 1 switch to serve third party PBX users across a QSIG network.

FNF Clock Enhancement

Introduces a new clock controller that will have downloadable firmware to replace the QPC471 and QPC775.

Survivable IP Expansion – MISP Support & DPNSS

Enable an MISP card to be supported in an Option 11C/11C Mini Survivable IP Expansion cabinet.

Attendant Announcement

Delivers a pre-recorded message for calls redirected to the attendant.

Auto Negotiation for SIPE

This enhancement creates a prompt in D 117 that allows the user to turn on/off auto negotiation. The ability to control Auto negotiation on the Meridian 1 will simplify the installation and support routers and switches where auto-negotiation is turned on.

New Wireless Visitors ISM

Introduces a new ISM for MDECT wireless visitors to differentiate them from "home" users.

PDT Password Enhancement

Allows an authorized Distributor or Nortel Networks Technician to change the diagnostic passwords.

The PDT Password enhancement gives administrators the ability to change the level 1 and level 2 PDT passwords. Currently this capability can only be delivered using patch MPLR13326. Starting with Rls 25.40 this capability is integrated into the software. The installer needs to be aware that there are 3 different methods by which his PBX has gotten to Rls 25.40 or later software.

Keycode Enhancement Feature

The purpose of this enhancement is to modify the dependency between the X11 Software Keycode and the X11 software versionrelease name. Currently, the keycode is linked to the release, issue, and phase letter i.e. 25.27A. . The Phase letter (a.k.a. subissue) is used for Beta releases of software.

This enhancement will remove the dependency of the keycode to the phase letter and leaves it linked to the keycode to the release and issue number only. . This means that a new keycode will not be required to upgrade between Beta sub-issues of software (i.e. from 25.37B to 25.37C, etc.) as long as there are no changes to the other keycode parameters such as ISM parameters limits or package content. A new keycode will be required when upgrading to the market release version 25.40. or package content. A new keycode will be required when upgrading to a different issue, such as the market release version 25.40, or if other keycode parameters change.

Please note that the large systems keycodes generated for various phases within a release and issue (e.g. 25.37a, 25.37b) will differ from another but will work for any phase.

For more detailed information please see the detailed section following the Quick Summary.

ACD DN/CDN Expansion

For Option 81C with CP PII increases the allowable total for ACD DNs and CDNs per customer in any combination from 240 to 1000. The number of customer groups remains at 100 and the system level total of ACD DNs remains at 24,000.

NI-2 Name Display

Enables the M-1 to receive Name Display Information Elements from the public network on the NI-2 PRI interface and Display the name on the terminating set. As well, M-1 will be able to send the Name Display IE's to the CO for delivery to the far end on private network links.

Benefit - Name Display offers more efficient call handling to called parties while eliminating the need to memorize many telephone numbers. Called parties can be more efficient in call answering and screening and can offer a more personalizes level of service to their callers.

Release 25.40 Enhanced M3900 Features

Refined Corporate Directory Search introduces a new "Resume" soft key in the Corporate Directory screen so that the user can resume the keypad entry to enter additional letters to narrow the search further without reentering the letters from the beginning (for M3903, M3904 and M3905).

M3900 CTIA and TAPI
Delivers the M3900 CTIA and TAPI 2.1 service provider (for M3902, M3903, M3904 and M3905).

Headset Support When Handsfree Disabled
Currently, headsets are not supported when handsfree is disabled on an M3900 set. This enhancement will enable end users to use the headset key on their set if the administrator deems it necessary to deny the handsfree class of service (for M3903 and M3904).

Speed Dial Capabilities (Virtual Office)
The current Virtual Office feature enables users to log on to a host set and have their personal profile appear at that set. However, at the present time the configuration of speed call features on a virtual TN is prohibited. The change will be to enable usage of speed dial. (for M3903 and M3904).

Call Forward enhancements
The call forward number is automatically deleted if the user starts entering a new number rather than requiring multiple presses of the delete key (for M3902, M3903, M3904 and M3905).

Password Clear – When the switch issues the Directory/Call Log password reset command, the password is turned off instead of set to "12345678" (for M3903, M3904 and M3905).

Pause in dialing strings - Enables entering 1.5 second pauses in a dialing string. (For M3902, M3903, M3904 and M3905).

31 Digit Predial - Increases number of digits in the dialing strings from 24 to 31 for Call Log, Personal Directory, Redial List, & Predial (for M3902, M3903, M3904 and M3905).

Special Characters - M3900 character set will now include all the special characters defined in the ASCII character set to be used with set-to-set messaging, personal directory, editing feature key labels, etc. (for M3902, M3903, M3904 and M3905).

M3905 Rls II and III - Delivers most Release 2 & 3 M39000 features to M3905 with common F/W on M3904 and M3905.

Virtual Office Login Enhancement
Currently only one user can log into Virtual Office at a time, and other users attempting to log in at the same time receive a "system busy, try later" message. This enhancement will increase the number of users that can log on at the same time.
.

One-button Access keys
One-button Access keys —Improvements to the way the Personal Directory, Corporate Directory, Call Log, Redial List features are accessed (for M3903, M3904 and M3905).
> –*Call Log and Redial List*—One button access via softkeys or feature keys.
> –*Directory*—user can start to conduct a directory search via the dial pad without pressing the Select softkey
> –*Corporate Directory*—Users begin the search without pressing the Select key.

System Initiated Language Selection M3900 sets on systems in different countries can initialize with a default language other than English. This eliminates the need for system administrators/users to have to go through the language selection option on each set to select a different language (for M3902, M3903, M3904 and M3905).

Set-to-Set Messaging Enhancements allows a system administrator to predefine ten messages that can be customized by the administrator to reflect the type of messages most often used by the users. Users can select one message to be sent as their Set-to-Set message and they can edit that one message to whatever they like. The user may only need to modify a

small portion of the message to add the correct date/time, etc.. Only one message per set is actually stored in the system. (for M3903, M3904 and M3905)

Erase Callers and Redial List for Virtual Office allows the lists to be cleared when a virtual office worker logs out of the host M3900 set (for M3903 and M3904).

Automatic Logout for Virtual Office allows the administrator to specify a time in which all idle virtual terminals will be logged out. Also, if a user tries to log into a host terminal, but is still logged into another terminal, the first terminal will be logged out and the user will be allowed to log into the second terminal (for M3903 and M3904).

Full Duplex Handsfree - Delivers a full duplex handsfree cartridge to a new M3904.

Keycode Enhancement

Large-System Install Program

The large system keycode generators do not require updating for this feature. Therefore please note that large-system keycodes generated for various subissues (e.g. 25.37B, 25.37C) will differ from one another but will work for all phase letters of the same release and issue.

The large-system Install Program has been is changed to permit a keycode-file to authorize various phases of software subissues. System routines that interpret software version information are updated to determine whether the keycode-file is valid for the software being installed. This has resultsed in some small menu changes, and the requirement to check checking the installation CDROM to determine the exact for the software phase letter, and using modified. System routines that change the way software version information is interpreted when determining whether the keycode-file is valid for the software being installed.

The first part of the installation process is unchanged.

An updated Confirm Keycode menu replaces the existing menu. The following figure shows the updated menu that advises the craftsperson that the keycode-file is applicable to several all subissues of software versions (same release and issue, but all phases release and issue).

Figure 4 : Updated Confirm Keycode menu

Nortel Meridian-1 Software/Database/PEROM CDROM INSTALL Tool (Version **28**)
==

The provided keycode authorizes the install of **X112537** software
(all subissues) for machine type 2511 (68060 processor on Option 61C).

Please enter:
<CR> -> <y> - Yes, the keycode matches. Go on to Install Menu.
    <n> - No, the keycode does not match. Try another keycode diskette.

Enter Choice>

An updated Prompt CDROM menu and a new Confirm S/W menu replaces the existing Prompt CDROM menu. The following figure shows the first, updated menu that simply prompts the craftsperson to enter the CDROM.

Figure 5: Updated Prompt CDROM menu

```
Nortel Meridian-1 Software/Database/PEROM CDROM INSTALL Tool (Version 28)
=========================================================================

Please insert the installation CDROM into the drive on Core 0.

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


Please enter:
<CR> -> <a> - CDROM is now in drive. Continue with s/w checking.
        <q> - Quit.

Enter Choice>
```

At this point, the Install Program will checks the CDROM for a software version that matches the issue authorized by the keycode-file (this is where the complete software version information – including the phase letter comes from).

The following figure shows the second, new menu that will advise the craftsperson of the software version on the Software installation CD, if the CDROM is valid. This will be the only step where the software phase is checked (currently, the keycode-file must also match the exact software version)..

Figure 6 : New Confirm S/W menu

```
Nortel Meridian-1 Software/Database/PEROM CDROM INSTALL Tool (Version 28)
=========================================================================

The installation CDROM contains version X112537_A.


Please enter:
<CR> -> <y> - Yes, this is the correct version. Continue.
        <n> - No, this is not the correct version. Try another CDROM
              or keycode disk.

Enter Choice>
```