



**NCR UNIX MP-RAS  
Release 03.03  
Release Notes**

**B035-5215-096K**

***Read This Document Before Attempting To Install  
Or Use This Product!***

**This document contains information about factors that must be considered before, during, and after installation.**

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## Revision History

Date Revised	Section(s)	Description of Change(s)
December, 2004	All	Initial Release
July, 2005	What's New Platforms Supported New Features in 3.03.01 BOOTP Client Considerations  Workarounds	Identify latest release information New Platform identified New Features for 3.03.01 Update BOOTP configuration information for 3.03.01 Updated Storage Software versions, New minimum PPDE versions, New tchneipc efix versions, New NCR PUT version, Open Source Package clarifications (Required / Optional), Update Other MP-RAS 3.03 Upgrade or Install considerations Update Other Platform considerations Update Workarounds for xwin and X11R6
September, 2006	Read This First What's New Release 3.03 Install information  Considerations	Updated documentation references New or updated information for 3.03.02 Changed header from New Features in Release 3.03, New Platform identified, Update New Package information, BOOTP Client information updated Updated minimum mppd package version, Updated minimum NCR PUT version, Updated package list in Open Source Tool set

# NCR UNIX MP-RAS 3.03

## READ THIS FIRST!

This document is written for the person who installs or administers the NCR UNIX SVR4 MP-RAS Release 3.03 operating environment (referred to herein as MP-RAS 3.03).

**Read this document before installing or using your system.** It contains important information you may need to know about the Operating System, restrictions and system workarounds when you execute an install or upgrade to MP-RAS 3.03.

## Where to Look for MP-RAS 3.03 Installing and Upgrading Details

This document **does not** cover detailed information about the installation of UNIX MP-RAS 3.03. See the following documents for installation details:

- *NCR 5500 Node for UNIX MP-RAS Software Installation Guide (B035-5275)* for details on installing the base operating system with the MPP 5500 Platform.
- *NCR 5500 Platform Coexistence Guide (B035-5268)* for details on coexistence with the MPP 5500 Platform.
- *NCR 550S Node for UNIX MP-RAS Software Installation Guide (B035-5278)* for details on installing the base operating system with the SMP 550S Platform.
- *NCR 5400/5450 Node for UNIX MP-RAS Software Installation Guide (B035-5214)* for details on installing the base operating system with the MPP 5400/5450 Platforms.
- *NCR 5400/5450 Platform Coexistence Guide (B035-5211)* for details on coexistence with the MPP 5400/5450 Platforms.
- *NCR 540S Node for UNIX MP-RAS Software Installation Guide (B035-5221)* for details on installing the base operating system with the SMP 540S Platform.
- *NCR 4480 Node for UNIX MP-RAS Software Installation Guide (B035-5918)* for details on installing the base operating system with the SMP 4480 Platform.
- For upgrading to MP-RAS 3.03 from MP-RAS 3.02 and for updating packages, the NCR PUT document should be referenced: *Parallel Upgrade Tool (PUT) for UNIX MP-RAS and Linux User Guide, Version 3.04.04 (B035-5712)*
- If you need hardware-specific information or details on products not included in the base-operating environment, please refer to the documentation that came with your system.

## Resolutions for Known Problems

Fixes for known problems are available through your NCR Support Organization.

## Support Policy

Support for this product is provided by the Teradata Global Support Center. Contact your NCR sales representative for information regarding support policies and maintenance contracts.

## What is MP-RAS 3.03?

**MP-RAS 3.03** is essentially the same code base as MP-RAS 3.02, just recompiled with the GCC compiler. With the initial release of 3.03, MP-RAS 3.03 will be the only MP-RAS release to contain new features and support for newer SM3G Teradata platforms. New features and enhancements will not be back ported to MP-RAS 3.02.

### Reasons to go to MP-RAS 3.03 –

- Creates an MP-RAS release dedicated to Teradata eliminating the dependency for Entry Level Server support.
- Provides a cumulative currency update. New package versions released on a new core CD, for the first time since 1997.
- Eliminates encrypted floppy based licensing while introducing a much cleaner product ID strategy.
- Minimal changes for TW8.0 mandatory enabling so that introduction of MP-RAS 3.03 is as “transparent” as possible. Enabling changes included for SM3G, Platform and TVI.

### Additional items about MP-RAS 3.03 –

- Application Integrity! Applications that run on 3.02 will run on 3.03 without modifications or recompilation.
- Metaware compiler remains the default compiler in 3.03.
- PERL has been unbundled from Base and an updated version offered as part of the Open Source CD (*Open Source Tool Set for MP-RAS v3.03*).
- Install procedure much cleaner and faster.
- New “osutils” package for miscellaneous utilities.
- Faster OS shutdown (~50secs -> 15).
- Additional open source package offerings.

### Differences from 3.02 –

- Release strategies: Done away with patches (PKERN, PBASE, etc). Updates to the OS now released solely by new package versions instead.
- Done away with “Edition” (Maintenance) releases. New media releases will be full OS instances as new “Core” releases instead. Maintenance CDs as seen in MP-RAS 3.02 will not exist.
- Not supported for ELS (Entry Level Servers), Mid-Range Servers, or the AWS.

## What's New

The following sub-sections contain information for a new release version of MP-RAS 3.03. These sections will provide a quick glance to what is new in features or updates for the particular MP-RAS 3.03 version. Specific information of package updates will not be listed.

### New Features in Release 3.03.02

- Problem resolutions (until CD creation) are in updated CD packages.
- Added secure package to CD (Initially released to patch server for MP-RAS 3.03.01). See the individual man pages for detailed information about the following commands.
  - `runsec`: Command to implement the security settings indicated by the secure file `/etc/secure/securerc`.
  - `chksec`: Validates file permissions on the system against system secure file list `/etc/secure/securerc`.
  - `edsec`: Command to edit secure file list `/etc/secure/securerc`. This avoids usage of the `vi` command on secure file and provides additional data integrity.
  - `rbksec`: Command to implement fallback option to go back to previous file modes.
- MP-RAS 3.03.02 new support for the following:
  - Enabling for 5500C, 5500H, 550S models
  - SAS driver for internal disks
  - S-ATA driver for tape drive
  - Enabling for 4 new network adapters (onboard, IO module card, PCI-Express copper, and PCI-Express Fibre)
  - USB (keyboard, mouse, storage)
  - Improved dump handling. Also, DumpTrace display is now set off by default.

### New Features in Release 3.03.01

- MP-RAS 3.03.01 supports the 540S SMP platform
  - Enabling support for 540S SMP
  - Support for the new *X11R6* package (separate Open Source package not found on CD)
  - Support for new add-in serial adapter card for use with modem (added after CD release)
- Network e1000 driver enhancements
- BOOTP Client configuration enhancement
- Problem resolutions (until CD creation) in updated packages

# Release 3.03 Install information

## Platforms Supported

MP-RAS 3.03 is not supported on Entry Level Server (ELS) systems, mid-range systems and the AWS. Supported platforms are the Teradata System Platforms listed below.

Platform Model
4850/5250
4455/4851/5251
4855/5255
4470/4900/5300
4475/4950/5350
4480/4980/5380
5400/5450/540S
5500/550S

Note however that coexistence with the 5400 or newer platforms is limited to 4950/5350's and 4980/5380's. Please refer to the *NCR Platform Coexistence Guides* for more details.

## Install Options from CD

MP-RAS 3.03 will install directly from the MP-RAS 3.03 Core CD. When performing an installation select, **Option 1** from the initial menu that appears:

Select one of the following:

1. Perform Installation
2. Perform System Maintenance
3. Perform System Restore (OA/BASE only)
4. Perform keyboard setup

Type selection number, then press ENTER. [default = 1]

Following the selection of **Option 1** above, the next menu will ask types of installation that is desired. It is highly recommended that the *Interactive Installation for VM&F*, **Option 1**, be selected. By selecting this option, the MP-RAS disk will be sliced for a VM&F configured system.

Following the type of install, a menu to select the type of architecture will be displayed.

1. Teradata MPP System (SM3G)
2. Teradata MPP System (SLAN)
3. Teradata SMP System

**Option 1** is to support the SM3G architecture and so is only for 54x0 nodes and forward.

**Option 2** maintains the necessities for the prior SLAN CMIC architecture.

**Option 3** is selected for installations that are for a SMP.

## New Packages in 3.03

MP-RAS 3.03 includes new packages that were created to support the new platform and OS utilities. These packages have not existed in prior form.

- `ipmidrvr` – (For SM3G nodes and newer SMPs starting with the 540S) Required for the MP-RAS nodes to log messages about Dump, Shutdown, Panic, and Entering KDB. This package is similar to the SLAN `smi*` packages.
- `net-snmp` – Net-SNMP Package for MP-RAS
- `osutils` – Contains miscellaneous utilities for MP-RAS.
  - `chandiag`: Displays the Teradata channel configuration information for PBSA adapters in text or XML format (in `/sbin/diag`). See the man page for detailed information.
  - `pcixplore`: Displays the PCI configuration information in textual or XML format (in `/sbin/diag`). See the man page for detailed information. Options include:
    - B Display only devices on the given physical PCI bus
    - D Display only devices with the given device number
    - F Display only devices with the given function number
    - X Formats information into an XML sheet
    - b Display the PCI BIOS table
    - f Display the firmware levels of SCSI devices
    - h Option adds a complete hex dump of the PCI configuration registers
    - i Display the same information as the -b option, sorted by Interrupt Link Number
    - m Maps logical PCI bus number to physical PCI bus numbers
    - p Display the physical PCI slots to their bus/device assignments
  - `vrchk`: The `vrchk` utility is used to check for the existence of specific packages and minimum version numbers before and after a Teradata install.
    - pre Enter into pre check mode where only those packages required before a Teradata install are checked.
    - post Enter into post check mode where only those packages required after a Teradata install are checked.
- `secure` – Commands to set, view, restore secure file modes of OS files and directories.
- `sm3gnode` – NCR Server Management Node Software on MP-RAS for SM3G type nodes including newer SMPs starting with the 540S.

## BOOTP Client

MP-RAS 3.03 contains a *BOOTP* client. The *BOOTP* client is necessary to support the nodes in a SM3G configuration in order to communicate with the AWS while utilizing Console Redirection. When doing a fresh install on a 5400 or newer system, you **should**, on the first boot have only the SM3G network adapters plugged in. With this method the system automatically identifies which adapters are the SM3G LAN devices. The adapters will be identified by having the NET entry in the `sdf` file set to SM3G.

The adapters for SM3G may also be configured by using the `tcpconfig` script and entering SM3G as the network name, but this method will not automatically identify the correct adapters.

## Considerations

There are certain considerations worth mentioning for MP-RAS 3.03. With this new OS you need to be aware of certain limitations in areas such as storage and Teradata releases. Plus, there are a few general considerations to look over when either upgrading or installing MP-RAS 3.03.

### NCR Enterprise Storage

- For 6285 (3621) & 6288 (4665):  
Need AP code 3.01.04.87, rdac 05.06.02.00, PRDAC562 05.06.02.05 or newer
- For 6840 (4884) & 6841 (5884/5885):  
Need SYMplicity 8.43 and mppd 08.53.53.03 or newer
- For 6284 (2882) - SMP Storage:  
Need SYMplicity 8.37 and mppd 08.53.53.03 or newer

NOTE: mppd 08.53.53.03 is the minimum version required for MP-RAS 3.03 when utilizing with the latest BASE package.

### EMC Storage

- 6278 series (not supported for coexistence with 5400)
- 6290-100x
- 6291-100x
- 6291-200x
- 6291-080x (for SMPs)

### Minimal PPDE efix versions for 3.03

The following are the “**Minimal**” PPDE efix versions necessary for use with MP-RAS 3.03:

- PPDE.05.00.03.27
- PPDE.05.01.01.19
- PPDE.05.01.02.07
- PPDE.06.00.00.07
- PPDE.06.00.01.01
- Any releases thereafter

NOTE: PDE versions V2R05.00.02 and earlier, as well as V2R05.01.00 have discontinued efix support and therefore are not supported with MP-RAS 3.03.

## Minimal Channel Driver (tchneipc) efex versions for MP-RAS 3.03

The following are the “**Minimal**” *tchneipc* efex versions necessary for use with MP-RAS 3.03:

- tchneipc 05.00.03.02
- tchneipc 05.01.01.03
- tchneipc 05.01.02.01
- tchneipc 06.00.00.01
- tchneipc 06.00.01.01
- Any releases thereafter

## NCR PUT

It is recommended with upgrading to MP-RAS 3.03 from MP-RAS 3.02 and when updating any packages, that NCR PUT version 03.04.03.14 is the **minimum** version to utilize. NCR PUT will automatically select which MP-RAS packages need updating. Exceptions are listed under the *Other MP-RAS 3.03 upgrade or install considerations* section below.

## Open Source Tool Set

The Open Source Tool Set CD for MP-RAS 3.03, “*Open Source Tool Set v3.03*” contains additional packages that **must** be installed and some that are **optional**. These packages are in addition to the OS packages found with the MP-RAS 3.03 Core CD. See below to determine which packages are required and which are optional.

### Required Open Source packages:

- openssh
- openssl
- perl
- perlmod
- prngd
- X11R6 (from TSS patch server but only required for SMPs 540S or 550S)

### Optional Open Source packages:

- |             |            |
|-------------|------------|
| • binutils  | • openldap |
| • cyrussasl | • rsync    |
| • gcc       | • sudo     |
| • gdbm      | • tcpwrap  |
| • japan-ttf | • unzip    |
| • kerberos  | • zip      |
| • memtester | • zlib     |
| • npasswd   |            |

## Other MP-RAS 3.03 Upgrade or Install Considerations

- Do not install the following packages for MPP SM3G systems: *apaws*, *bclmod*, *bydpemr*, *csfapp*, *gsca*, *gsck*, *gscgw*, *nodecsf*, *shc*, *smbci*, *smidmi*, *smisci*, *smibasebd*,
- Do not install the following packages for MPP SLAN and older SMPs prior to 540S: *ipmidrv*, *net-snmp*, *sm3gnode*.
- Starting with the 540S, SMP installations **require** the *ipmidrv*, *net-snmp* and *sm3gnode* packages.
- Do not install the following for newer SMPs starting with the 540S: *smidmi*, *smisci*, *smibasebd* since the *sm3gnode* package is installed.
- Do not select *gscgw* and *gsca* during fresh install or upgrade using *pkgplus* without options. For those two packages one should use *pkgplus* with option -k or *pkgadd* to apply them.
- During upgrade, one will need to manually select the *osutils* package from the MP-RAS CD for installation.
- During upgrade, one may need to manually select the required open source software from the “Open Source Tool Set v3.03 CD as well as open source version updates available from the TSS patch server. Depending on your prior system configuration, some of these packages may be automatically selected by PUT.
- Check the TSS patch server for updated packages that should be applied to systems.
- New MP-RAS 3.02 to 3.03 upgrade validation utility, *vrschk*, [in MP-RAS 3.02 *osutils* package] to be used to validate minimum package levels of critical packages for an OS upgrade. This utility will also check the presence of required packages after an upgrade. The man page provides detailed information about command usage.

## Other Platform Considerations

- When adding SM3G nodes to a coexistence system, **ALL TPA nodes must** migrate to MP-RAS 3.03. Please refer to the *NCR Platform Coexistence Guides* for more details.
- Different versions of any OS are not supported across TPA nodes in the same system.
- VM&F is supported and recommended when updating to MP-RAS 3.03 for fallback.
- The newer SMPs starting with the 540S should have the Open Source Package, *X11R6* installed. It is available from the TSS patch server. After a node reboot, the *X11R6* will be in effect. To start *X11R6* without a reboot do the following:
  - Use *ps* and *kill* to stop any *X11R5* *xdm* processes.
  - *cd /etc/init.d*
  - *sh ./xdm start*

## Workarounds

Listed below are special workarounds that are intended to help with issues where no patch or package is available for a known problem or a procedure for an upgrade that is not documented in other publications.

- Fresh install on a 5400 or newer – This procedure should be followed to make sure Console Redirection is set up properly for the AWS. Additional installation information is found in the *NCR 5400 (or newer) Node for UNIX MP-RAS Software Installation Guide*. The following is also written in the install document.
  - Before you start a MP-RAS install, BIOS must be set up with Console Redirection disabled. Use the VGA Console for the install.
  - After the OS install is complete, the node will be rebooted and Console Redirection in BIOS will be enabled. In order to have *bootp* correctly detect the LAN connections for the AWS, you MUST on the first boot have ONLY the SM3G network adapters plugged in (network cable connected). This is the method used to identify which adapters are the SM3G LAN devices.
  - After this first boot the file `/etc/inet/sm3g.conf` should be created and will tell *bootp* which devices to send requests out on.
  - Any additional network adapters may be plugged in (connected) at the login prompt.
- xwin and xR5 – When upgrading with *pkgplus* and NCR PUT, the XWIN packages of *xR5vga*, *xsR5ati*, *xsR5ati64* and *xsR5orca* will have the X server and virtual resolution set to default values instead of retaining the old values set by the end user. This is not seen when *pkgadd* is utilized.
  - Workaround involves executing the utility "X Server Configuration Tool", `/usr/bin/X11/xservconfig`. This will reconfigure your configuration for X.
  - When asked for the configuration appropriate to your system, select R5 VGA 640 x 480 x 4 (16 color).
  - When asked if you want to use XDM to start the local X Server, type y then press Enter.
  - When asked to select the virtual resolution for the root window, select 640 x 480.
- X11R6 – No special configuration necessary once the package is installed on the newer SMPs starting with the 540S. If the X11R6 is installed on the SMP and no reboot is preformed, the following should be executed in order for the X11R6 to take effect:
  - Use `ps` and `kill` to stop any X11R5 xdm processes.
  - `cd /etc/init.d`
  - `sh ./xdm start`