Real TTY Linux Kernel 5.x Driver Release Notes

Version: v5.4	Build: 24080720
Release Date: Aug 07, 2024	

Applicable Products

CN2510 Series, CN2600 Series, MiiNePort E1 Series, MiiNePort E2 Series, MiiNePort E3 Series, NE-4100 Series, NE-4100-ST Series, NPort 5000AI-M12 Series, NPort 5100 Series, NPort 5100A Series, NPort 5200 Series, NPort 5200A Series, NPort 5400 Series, NPort 5600 Series, NPort 5600-DT Series, NPort 6100/6200 Series, NPort 6400/6600 Series, NPort Express Series, NPort IA5000 Series, NPort IA5000A Series, NPort P5150A Series, NPort S8000 Series, NPort S9450I Series, NPort S9650I Series, NPort W2150A-W4/W2250A-W4 Series, NPort W2150A/W2250A Series

Supported Operating Systems

Linux Kernel 5.x

New Features

- Adds support for data-port and command-port encryptions.
- Adds support for certificate authentication in secure mode.

Enhancements

N/A

Bugs Fixed

N/A

Changes

N/A

Notes

N/A

Version: v5.3	Build: 23101317
Release Date: Oct 18, 2023	

Applicable Products

MiiNePort E1 Series, MiiNePort E2 Series, MiiNePort E3 Series, NE-4100 Series, NE-4100-ST Series, NPort 5000AI-M12 Series, NPort 5100 Series, NPort 5100A Series, NPort 5200 Series, NPort 5200A Series, NPort 5400 Series, NPort 5600 Series, NPort 5600-DT Series, NPort 6100/6200 Series, NPort 6400/6600 Series, NPort Express Series, NPort IA5000 Series, NPort IA5000A Series, NPort IAW5000A-I/O Series, NPort P5150A Series, NPort S8000 Series, NPort S9450I Series, NPort S9650I Series, NPort W2150A-W4/W2250A-W4 Series, NPort W2150A/W2250A Series

Supported Operating Systems

Linux Kernel 5.x

New Features

N/A

Enhancements

N/A

Bugs Fixed

1, Compiler error on "implicit declaration of function 'PDE_DATA'".
• An issue in the installation script that resulted in the misidentification of the operating system distribution.

Changes

N/A

Notes

N/A

Version: v5.2	Build: 22121414
Release Date: Jan 17, 2023	

Applicable Products

MiiNePort E1 Series, MiiNePort E2 Series, MiiNePort E3 Series, NE-4100 Series, NE-4100-ST Series, NPort 5000AI-M12 Series, NPort 5100 Series, NPort 5100A Series, NPort 5200 Series, NPort 5200A Series, NPort 5400 Series, NPort 5600 Series, NPort 5600-DT Series, NPort 6100/6200 Series, NPort 6400/6600 Series, NPort Express Series, NPort IA5000 Series, NPort IA5000A Series, NPort IA5000A-I/O Series, NPort IAW5000A-I/O Series, NPort P5150A Series, NPort S8000 Series, NPort S9450I Series, NPort S9650I Series, NPort W2150A-W4/W2250A-W4 Series, NPort W2150A/W2250A Series

Supported Operating Systems

Linux Kernel 5.x

New Features

N/A

Enhancements

- Adds the cmd_timeout parameter to mxinst to specify a custom network timeout.

Bugs Fixed

- A compile error in put_tty_driver, alloc_tty_driverin Ubuntu 22.04 kernel 5.15.
- A compiler error in struct tty_struct in Fedora 35 kernel 5.14.

Changes

- Downgraded the software license from GPLv3 to GPLv2.
- Revised the ARM_PORTING_GUIDE.txt to include information regarding the license change.

Notes

N/A

Version: v5.1	Build: 21080410
Release Date: Aug 04, 2021	

Applicable Products

NPort 5400 Series, NPort IAW5000A-I/O Series, NPort IA5000 Series, MiiNePort E1 Series, NPort W2150A/W2250A Series, MiiNePort E2 Series, NE-4100-ST Series, NPort IA5000A-I/O Series, NPort IA5000A Series, NPort S8000 Series, NPort S9450I Series, NPort 5200A Series, NPort 6400/6600 Series, NPort 5600-DT Series, CN2510 Series, NPort 5600-DTL Series, NPort 5000AI-M12 Series, NPort 6100/6200 Series, NPort 5100A Series, NPort IAW5000A-I/O Series, NPort S9650I Series, NPort 5600 Series, NPort 5100 Series, NPort 5200 Series, MiiNePort E3 Series, CN2600 Series, NE-4100 Series

Supported Operating Systems

Linux Kernel 5.x

New Features

N/A

Enhancements

• Added an optional udev rule to keep redundant ttys.

Bugs Fixed

• Slow startup and shutdown issues while mapping ports.
• Slow response when reading serial data from CN2650 in redundant mode.
• An error when mxmknod is run from a different directory than its original directory.
• An error with the polling parameter in mxinst.
5, An issue of the driver experiencing network timeout randomly.
• An issue of the driver causing the OS to freeze/slow down/be blocked during system reboot or shutdown.
• A compile error due to the "file_operations" structure not supporting start from kernel 5.6.

Changes

• The legacy init startup service system V will not be supported starting with this version.

Notes

N/A

Version: v5.0	Build: Build 19101814
Release Date: Oct 24, 2019	

Applicable Products

NPort 5100A Series, NPort 5100 Series, NPort P5150A Series, NPort 5200A Series, NPort 5200 Series, NPort 5400 Series, NPort 5600 Series, NPort 5600-DT Series, NPort 5600-DTL Series, NPort Express Series, NPort IA5000A-I/O Series, NPort IAW5000A-I/O Series, NPort S8000 Series, NPort S9450I Series, NPort S9650I Series, NPort W2150A/W2250A Series, NPort IA5000A Series, NPort IA5000 Series, NPort 5000AI-M12 Series, NPort 6100/6200 Series, NPort 6400/6600 Series, CN2510 Series, CN2600 Series, MiiNePort E1 Series, MiiNePort E2 Series, MiiNePort E3 Series, MiiNePort W1 Series, NE-4100 Series

Supported Operating Systems

Linux Kernel 5.x

New Features

• Support the systemd process to load the Real TTY driver on the Linux platform.

Enhancements

• The connections of the opened TTY ports will not be disconnected and reconnected when adding or removing servers. The related descriptions are also removed in README.txt due to this change.
• Supports Virtual Machine. The virtual machine ESXi v6.7.0 is tested with guest OS Ubuntu 18.10 x64 and Ubuntu 19.04 x64.
• Supports ARM-based Linux. The Raspbian operating system with Raspberry Pi 2 and 3 are tested.

Bugs Fixed

• The driver may not set the nonstandard baudrate correctly.
• The driver may have a compiling error with message "malloc.c2401: sysmalloc: Assertion" on the distribution Fedora release 28.
• On the distribution Fedora release 24/26, the service daemon may not start NPort service properly after restarting OS.
• Fixing the driver may not determine the init process correctly when deleting the NPort server.

Changes

• Divided an independent driver version 4.0 to support only Linux kernel 4.x.

Notes

N/A

Version: v1.19	Build: N/A
Release Date: Nov 15, 2017	

Applicable Products

N/A

Supported Operating Systems

Linux 3.x, Linux 4.x

New Features

• Supports Raspbian Jessie and later for Raspberry Pi 2/3.
• Added driver background polling feature to eliminate the waiting time when an NPort is not present in Slackware 14.0.

Enhancements

• Supports kernel 4.13.
• Compiling errors with error message “error: expected expression before '{' token” in specific platforms.
• When using a domain name as the mapping address for NPort, it will be translated every time when Real TTY is opening the port.
• Compiling errors when using secured Real COM mode.
• Shutdown hanging might happen in Red Hat Enterprise Linux 7.2 (3.10.0-123.el7).

Bugs Fixed

• Real TTY can't start up TTY ports with the domain name mapped after the system is rebooted.
• Kernel panic with error message "unable to handle kernel paging request" on specific platforms.
• Driver doesn't load properly after system reboot on Ubuntu 16.04.
• Driver may cause a kernel crash with the error message "soft lockup" with specific network interface cards.
• The command stty may output an error if there is no loopback connector on NPort in Redundant mode.
• Network reconnection problems when using redundant mode.
• The Real TTY service may not start automatically in Debian 6.0 and later versions.
• There may be communication loss when using IPv6.
• Data can't be read due to abnormal flow control in Linux kernel 3.8 and later.
• When security mode is enabled, the driver may crash if it connects to an offline NPort.
• Port mapping is incorrect after rebooting in Kernel 3.2.48.
• When NPort is offline, the current serial parameters are not saved for reconnection.
• While executing mxsetsec, the configuration of the driver will be cleared.
• When opening node /dev/ttyr10, port 16 should be opened, but port 10 is opened instead.
• The driver reference count becomes negative after a port open fails.

Changes

• No longer supports kernel 2.x.
• Log file increasing without limit causes a file system crash.

Notes

N/A