

Software Name: Driver for NPort S8000 Series (Real TTY for Linux $\overline{3.x.x, 4.x.x}$)

Version No.	Build Date No./ Release Date	Supported OS	Apply to Models	New Features/ Enhancements	Bugs Fixed/Changes	Note
.19	N/A	Linux_3.x, Linux_4.x	N/A	New Features: 1. Supports Raspbian Jessie and later for Raspberry Pi 2/3. 2. Added driver background polling feature to eliminate the waiting time when an NPort is not present in Slackware 14.0. Enhancements: 1. Supports kernel 4.13. 2. Compiling errors with error message "error: expected expression before '(' token" in specific platforms. 3. When using a domain name as the mapping address for NPort, it will be translated every time when Real TTY is opening the port. 4. Compiling errors when using secured Real COM mode. 5. Shutdown hanging might happen in Red Hat Enterprise Linux 7.2 (3.10.0-123.el7).	Bugs Fixed: 1. Real TTY can't start up TTY ports with the domain name mapped after the system is rebooted. 2. Kernel panic with error message "unable to handle kernel paging request" on specific platforms. 3. Driver doesn't load properly after system reboot on Ubuntu 16.04. 4. Driver may cause a kernel crash with the error message "soft lockup" with specific network interface cards. 5. The command stty may output an error if there is no loopback connector on NPort in Redundant mode. 6. Network reconnection problems when using redundant mode. 7. The Real TTY service may not start automatically in Debian 6.0 and later versions. 8. There may be communication loss when using IPv6. 9. Data can't be read due to abnormal flow control in Linux kernel 3.8 and later. 10. When security mode is enabled, the driver may crash if it connects to an offline NPort. 11. Port mapping is incorrect after rebooting in Kernel 3.2.48. 12. When NPort is offline, the current serial parameters are not saved for reconnection. 13. While executing mxsetsec, the configuration of the driver will be cleared. 14. When opening node /dev/ttyr10, port 16 should be opened, but port 10 is opened instead. 15. The driver reference count becomes negative after a port open fails. Changes: 1. No longer supports kernel 2.x. 2. Log file increasing without limit causes a file system crash.	N/A