OS Image for UC-3100 Series (MIL v1.4) Release Notes

Version: v1.9	Build: 250430_120820
Release Date: Aug 20, 2025	

Applicable Products

UC-3100 Series

Supported Operating Systems

Moxa Industrial Linux 1 (Debian 9)

New Features

N/A

Enhancements

• Includes the latest security patches.

• EN 18031-1 RED cybersecurity compliance.
  For devices upgraded from previous firmware versions, Moxa Industrial Linux (MIL) will retain the original settings but provides the "mx-red-migrate" tool to ensure compliance with RED EN 18031-1 requirements. The tool implements the following changes:
  - Adds the password quality configure file.
  - Modifies the SSH configuration.
  - Adds fail2ban support.
  - Enforces a password change on first login.
  - Regenerates the SSH key on first login.
  - Adopts the pam_tally2 mechanism.

  For details about the tool, see MIL1 manual at: https://www.moxa.com/en/products/industrial-computing/system-software/moxa-industrial-linux#resources

• Uses HTTPS communication for Debian source in /etc/apt/sources.list.

Bugs Fixed

N/A

Changes

N/A

Notes

N/A

Version: v1.8	Build: 24032009
Release Date: Mar 20, 2024	

Applicable Products

UC-3100 Series

Supported Operating Systems

Moxa Industrial Linux 1 (Debian 9)

New Features

• Supports auto installation of system image from an USB or a SD card upon next bootup.
    Use the command mx-bootloader-mgmt image_auto_install to start the installation.

Enhancements

• Includes the latest security patches.
• Removes the 2 GB file size limitation on the bootloader for installing system images via the TFTP server.
    To support system images exceeding 4 GB, use a TFTP server that can accommodate
    larger files. We recommend using the SolarWinds TFTP server, which is tested and
    approved by Moxa.

Bugs Fixed

N/A

Changes

N/A

Notes

• For detailed release notes, including a change list for the packages, visit the Moxa Linux document center at:
    https://docs.moxa.online/mil/

Version: v1.7	Build: 221124_134540
Release Date: Mar 06, 2023	

Applicable Products

UC-3100 Series

Supported Operating Systems

Moxa Industrial Linux 1 (Debian 9)

New Features

• Adds the moxa-bootloader-manager utility for upgrading the bootloader for Linux.

Enhancements

• Includes the latest security patches.

Bugs Fixed

• Even if the watchdog timer flags WDIOS_ENABLECARD and WDIOS_DISABLECARD are set successfully, the return value always still indicates failure.
• The Bluetooth device fails to initialize at times.
• CVE-2022-3088 for moxa-version utility

Changes

N/A

Notes

• For detailed release notes, including a change list for the packages, visit the Moxa Linux document center at: https://docs.moxa.online/mil/.

Version: v1.6	Build: 220505_155211
Release Date: Jul 01, 2022	

Applicable Products

UC-3100 Series

Supported Operating Systems

Moxa Industrial Linux 1.x (Debian 9)

New Features

• Supports UC-3111-T-EU-LX-NW, UC-3111-T-AP-LX-NW, and UC-3111-T-US-LX-NW.

Enhancements

N/A

Bugs Fixed

N/A

Changes

N/A

Notes

• For detailed release notes, including a change list for the packages, visit the Moxa Linux document center at: https://docs.moxa.online/mil/

Version: v1.5	Build: 22030713
Release Date: May 04, 2022	

Applicable Products

UC-3100 Series

Supported Operating Systems

Moxa Industrial Linux (Debian 9)

New Features

• Adds the moxa-auto-mountd package for configuring auto-mounting of USB devices and SD card.
• Synchronizes utilities, libraries, and configurations across all Moxa Arm-based computer models with Moxa Industrial Linux 1.1.0.
• Adds moxa-mxio-library, a user-friendly I/O programming library to reduce development effort and ease transfer operations when retrieving data from the ioLogik E1200 I/O devices.

Enhancements

• Updated Debian to version 9.13.
• Includes the latest security patches.
• Cellular signal strength LED will now light up only when a connection to the Internet is available.
• The mx-ver utility now displays the Moxa Industrial Linux version.
• Added the Moxa UPort driver for the UPort 1100/1200/1400/1600 Series.

Bugs Fixed

• A connection failure issue on the UC-3100 Series (US models) with Telit cellular module when a Verizon SIM card is used without IMS.
• An issue with the Telit cellular module gps_off return code for the UC Series that supports Telit LE910.
• UC-3111 and UC-3121: An issue where a system reboot triggered by the watchdog might have resulted in kernel panic.

Changes

N/A

Notes

• For detailed release notes, including a change list for the packages, visit the Moxa Linux document center at:
https://docs.moxa.online/mil/

Version: v1.3	Build: 20102720
Release Date: Apr 16, 2021	

Applicable Products

UC-3100 Series

Supported Operating Systems

N/A

New Features

• Supports Telit LE910C1-EU and LE910C1-AP cellular modules.
• Updates the mx-module-ctl tool to support the `get sim card slot` function.

Enhancements

• Upgrades the root file system to Debian 9.13.

Bugs Fixed

• Wrong status from qmi wds when the signal is weak and the status is "detached".
• First qmi command timeout issue on the Telit cellular module.
• Upgrades the root file system packages to fix CVEs.

Changes

N/A

Notes

N/A

Version: v1.2	Build: 20040710
Release Date: Nov 06, 2020	

Applicable Products

UC-3100 Series

Supported Operating Systems

Moxa Industrial Linux (Debian 9)

New Features

• Kernel version upgraded from CIP Linux 4.4.75 to 4.4.190.
• OS updated from Debian 9 version 9.3 to 9.11. For details, visit
https://www.debian.org/News/2019/20190908.
• Adds the mx-power-mgmt utility for managing power consumption.
• Includes multi-GNSS (GPS, GLONASS, BeiDou, Galileo, and QZSS) support.
• Bluetooth 4.2 compliant.
• Adds the mx-ver utility for retrieving device model name and version.
• Add the mx-module-ctl utility with wireless module power on/off status query to replace the mx-mod-ctl utility.
• Updates the cell_mgmt utility to support the Telit LE910C1-NF cellular module.
• Upgrades tpm2-tools to version 3.1.3-2.

Enhancements

• Replaces the TI USB 3410 driver with the Moxa UPort driver to improve transmission stability.
• Disables the WL1837 Wi-Fi module ELP mode by default to improve connection stability.

Bugs Fixed

N/A

Changes

• SD and USB card is no longer auto-mounted to increase device security.
• Removes mx-frm-upgrade, mx-frm-downgrade, and mx-overlay commands.
• Adds the can-utils and bridge-utils utilities.
• Merges uc3100-moxa-configs and uc3100-moxa-firmware packages into the uc3100-base-system package.
• Changes kernel name to 4.4.0-cip-rt-am335x.

Notes

N/A

Version: v1.1	Build: N/A
Release Date: Nov 05, 2018	

Applicable Products

UC-3100 Series

Supported Operating Systems

Moxa Industrial Linux (Debian 9)

New Features

• Enables cellular module's 'disable thermal shutdown' feature by default.
• Runs fsck when the system is booting up.
• Adds the moxa-init self-upgrade feature.

Enhancements

N/A

Bugs Fixed

N/A

Changes

• The UART driver ti_usb_3410 is not preinstalled and needs to be installed manually.
• Includes a platform initialization service before the auto-mountd.service.

Notes

N/A