



OS Image for UC-8200 Series CTO Models (MIL3) Release Notes

Version: v1.3	Build: 241220_072353
Release Date: Feb 19, 2025	

Applicable Products

UC-8200 Series

Supported Operating Systems

Moxa Industrial Linux 3 (Debian 11)

New Features

- Supports encryption of external disk partitions such as a USB drive and SD card.
- Supports Telit LE910C4-WWXd module on Asia-Pacific models.
- MCIM Tool:
 - Supports enable/disable of peripheral interfaces (Ethernet, console port, serial port) with Moxa Computer Interface Manager (MCIM).
 - Supports I/O status settings for UC-8200 Series (U-boot version 3.2 or higher) and UC-1200A/2200A Series (U-boot version 1.2 or higher) with in MCIM.
- MCM Tool:
 - Supports AutoAPN with Moxa Connection Manager (MCM) (enabled when the APN field is left blank).
 - Supports automatic time synchronization with an NTP server, GPS location, or cellular base station with MCM.
 - Supports the “WiFi-p2p” interface with MCM.
 - Supports monitoring of cellular and Wi-Fi signals with MCM to enable accurate triggering of failover.
 - Supports lock-down of cellular 3G/4G/5G connections with MCM.
- MSU Tool:
 - Supports MIL online/ offline updates with Moxa Software Updater (MSU).

Enhancements

- Includes the latest security patches.
- MCM Tool:
 - Supports IPv6 address on LAN1 when the Type changes from "managed" to "none" in Moxa Connection Manager (MCM).
 - Supports monitoring gpsd with MCM to ensure GPS port.
 - Supports SIM activation with MCM to ensure higher success with SIM registrations.
- Supports a serial port to connect to UPort "-G2" Series devices.
- Supports alias name "mg" for "mx-guardian" command.
- MSM Tool:
 - Supports compression function with Moxa System Manager (MSM) to reduce backup file size.
- Supports creating snapshots, replicas, and backups in cold mode that ensures data integrity.

Bugs Fixed

- LAN1 sometimes fails to obtain IPv4 and IPv6 addresses when Type is set to "none" in Moxa Connection Manager (MCM).
- Cellular data usage is displayed as zero in MCM.
- Manually (via CLI) turning off power to the cellular module will restart MCM.

Changes

- Disables the Debian "networking" parameter in “moxa-connection-manager.service”.



- The "set to default" option will only reset the configuration file and does not restart MCM.

Notes

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



Version: v1.2	Build: 240809_102239
Release Date: Sep 06, 2024	

Applicable Products

UC-8210-T-LX-S, UC-8220-T-LX, UC-8220-T-LX-AP-S, UC-8220-T-LX-EU-S, UC-8220-T-LX-US-S

Supported Operating Systems

Moxa Industrial Linux 3 (Debian 11)

New Features

N/A

Enhancements

- Includes an important enhancement to fix the increased computer shutdown time because of the May 10, 2024, update to the cellular modem power sequence in MIL 3.1.1 (MIL 3 image v1.1). The shutdown time has been reduced by 25 seconds.

Bugs Fixed

- The /boot_device/p2 and /var/log failed to unmount properly during device shutdown.
- Security patch for CVE-2024-1086.

Changes

- Updates MIL from version 3.1.1 to 3.1.2.

Notes

- This update includes fixes for security vulnerabilities in the Linux kernel and Debian 11. It is highly recommended that you update your device to maintain its security. A detailed record of changes made to Moxa Industrial Linux, including package added, upgrades, and removals, as well as security patches applied, is available at: <https://docs.moxa.online/mil/>.
- You can also use OTA update from APT software repositories to apply this change. For instructions, please refer to Tech Note: "Keeping IIoT Gateway Software Up-to-date" available at <https://www.moxa.com/en/products/industrial-computing/arm-based-computers/uc-8200-series#resources>. Ensure that the device is rebooted after the update to apply the changes.
- After a successful update, the MIL version should be v3.1.1, and the Image version should be v1.1. You can query the MIL and Image versions using the commands 'mx-ver -M' for MIL and 'mx-ver -v' for Image.
- This update includes Moxa Industrial Linux 3 (Debian 11) and is not compatible with UC-8200 devices currently running Moxa Industrial Linux 1 (Debian 9). Direct upgrades are not possible without Moxa assistance. If you wish to upgrade from Moxa Industrial Linux 1 (Debian 9) to Moxa Industrial Linux 3 (Debian 11), please contact your regional sales representative for assistance.



Version: v1.1	Build: 240202_143550
Release Date: May 10, 2024	

Applicable Products

UC-8200 Series

Supported Operating Systems

Moxa Industrial Linux 3 (Debian 11)

New Features

- Adds WireGuard kernel module.
- Moxa Guardian utility adds the capability to backup and restore current security configurations.
- Adds roaming SIM card support to the Moxa Connection Manager (MCM).
- Adds a CLI command in Moxa Connection Manager (MCM) to toggle GPS functionality on or off, with the default state being on (active).

Enhancements

- Includes the latest security patches.
- Enhances the connection check-alive feature in Moxa Connection Manager (MCM) to include domain server name pinging.
- Adds a check-alive criterion in Moxa Connection Manager (MCM) to confirm IP acquisition by the network interface, eliminating the need to ping the server.
- Adds seamless failover mechanism in Moxa Connection Manager (MCM), minimizing downtime during connection transitions.
- Upgrades Moxa Industrial Linux 3 from version 3.0.0 to 3.1.1.

Bugs Fixed

- An issue in the Moxa System Manager's backup function.

Changes

- Adjusts the power sequence for the Telit LE910C4 modem to address a rare issue where the modem could enter protected mode due to excessively rapid shutdowns. This change will extend the shutdown time for the UC-8200 Series devices with built-in cellular connectivity (UC-8220-T-LX-EU, UC-8220-T-LX-US, UC-8220-T-LX-AP) by 25 seconds. If a shorter shutdown time is critical for your application, you may want to refrain from applying this update. We are collaborating with Telit to develop a faster power sequence that will reduce device shutdown times in the upcoming release.
- Removes the 'add_hook' and 'remove_hook' commands from the Moxa Computer Interface Manager (MCIM) DIO control. You can now simply put the scripts under '/etc/moxa/MoxaComputerInterfaceManager/dio-scripts/' for Moxa service to automatically handle run the corresponding script when the DIO status changes. The new method is more secure, flexible, and eliminates the need to repeatedly call 'add_hook' for every DIO status change. For details, see "Moxa Industrial Linux 3 (Debian 11) Manual for Arm-based Computers" on UC-8200 Series product page or the 'README' file located in the '/etc/moxa/MoxaComputerInterfaceManager/dio-scripts/' folder.
- Deprecates the digital output (DO) event script function in the Moxa Computer Interface Manager (MCIM). This function will be officially removed in the next MIL3 release. Because the control of the DO status is managed by user code, it is more practical for actions related to DO status changes to be implemented directly within customer programs rather than through MCIM.



Notes

- This OS image is applicable only to the CTO models of the UC-8200 Series.
- This version includes fixes for security vulnerabilities in the Linux kernel and Debian 11. It is highly recommended that you update your device to maintain its security. A detailed record of changes made to Moxa Industrial Linux, including packages added, upgraded, and removed, and security patches applied, can be found in the Moxa Linux Document Center at: <https://docs.moxa.online/mil/>.
- You can also use OTA updates from our APT software repositories to apply this change. For instructions, please refer to "Tech Note: Keeping IIoT Gateway Software Up-to-date" available at <https://www.moxa.com/en/products/industrial-computing/arm-based-computers/uc-8200-series#resources>.
- Ensure that the device is rebooted after the updates.
- After a successful update, the MIL version should be v3.1.1, and the Image version should be v1.1. You can query the MIL and Image versions using the commands 'mx-ver -M' for MIL and 'mx-ver -v' for the Image.
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Version: v1.0	Build: 221223_154337
Release Date: Mar 06, 2023	

Applicable Products

UC-8200 Series

Supported Operating Systems

Moxa Industrial Linux 3 (Debian 11)

New Features

- First release.

Enhancements

N/A

Bugs Fixed

N/A

Changes

N/A

Notes

- For details of all packages in Moxa Industrial Linux 3 (Debian 11), visit the Moxa Linux document center at: <https://docs.moxa.online/mil/>