OS image for UC-1200A and UC-2200A Series (MIL v4.0.0) Release Notes

Version: v1.0	Build: 25123007
Release Date: Feb 13, 2026	

Applicable Products

UC-1200A Series, UC-2200A Series

Supported Operating Systems

Moxa Industrial Linux 4 (Debian 13)

New Features

• Moxa System Manager (MSM)
  - Introduces a file-exclusion feature that allows users to omit specific files from backups (for example, device-unique keys).
• Moxa Connection Manager (MCM)
  - Adds support to lock the cellular connection to a specific mobile carrier.
  - Enables bash auto-completion (tab) for MCM CLI commands.
  - Adds the ability to preserve the local IPv6 address when the Ethernet connection is disconnected.

Enhancements

• Moxa System Manager (MSM)
  - Supports bash-completions so that "mx-system-mgmt" can automatically prompt options, making the tool easier to use.
  - SSH host keys are no longer included in backups by default, ensuring each restored device retains a unique SSH server key.
• Moxa Connection Manager (MCM)
  - Enhances network failover performance by updating the default WAN failover behavior so that backup WAN interfaces remain connected and periodically ping a configurable target host to proactively verify connectivity and reduce failover time.
  - Ensures device synchronization with gpsd occurs only when the gpsd service is active.
  - Shows 'dummy0' in the routing table only when an interface is managed.
  - Displays 'Unknown' instead of 'Disabled' as the status for unmanaged interfaces to avoid confusion in the MCM CLI.

Bugs Fixed

• Moxa Connection Manager (MCM)
  - GPS toggling did not retry to connect to Telit LE910C4-WWXD modules when no GPS data was received.
  - An issue of the MCM hanging when the service is restarted upon reload timeout.
  - Abnormal DHCP server termination by adding a retry mechanism.
  - An issue whereby cellular time synchronization operates independently of GPS port binding.
• Moxa System Manager (MSM)
  - When system-failback is disabled, the existing system replica is now removed to prevent unnecessary storage usage.

Changes

• Moxa Connection Manager (MCM)
  - MCM no longer manages LAN interfaces (end0) by default. All LAN ports are now consistently managed by NetworkManager, replacing the mixed management behavior in MIL3.
  - Changes default WAN failover behavior: backup WAN interfaces now remain connected and

periodically ping a configurable target host to check that the connection is alive.
  - Enables 'keep alive (connection.always-keep-alive)' on all WAN interfaces by default.
  - Changes the default Cellular IP method (ip-method) from ipv4 to ipv4v6.
  - Restricts the 'failback.enabled' setting to only the value 'true'.
  - Ensures device synchronization with gpsd service occurs only when the service is active.
  - Updated LTE cellular signal strength indicator from a 5-level scale to a 4-level scale (None/Very Poor, Poor, Fair, Good) for a unified Moxa product experience.
  - Renames the 'Enabled/Managed' field to 'Managed' in the MCM CLI for better readability.
  - Renames the bridge interface to 'Bridge-LAN' in the MCM CLI (previously 'LAN').
• Moxa Computer Interface Manager (MCIM)
  - Stops creating symbolic links for serial ports such as ttyM0, ttyM1.
  - Removes deprecated button and DIO management commands from the CLI help menu. These commands were supported to maintain backward compatibility.
• Network Interface Naming
  - Updated network interface naming from legacy eth0 / eth1 to predictable, system-derived names (e.g., end0, end1) in MIL4 (Debian 13).
• Firewall Framework
  - Changed the default firewall framework from "nftables" to "firewalld" enabled, with nftables installed but disabled by default.
• Intrusion Detection System
  - Replaced Zeek with Suricata as the default intrusion detection system.
• Boot Management Tool
  - Unified boot management tools into a single utility named moxa-boot-manage replaces platform-specific tools (moxa-bootloader-manager and moxa-bios-manager).
• MIL Base System
  - Configured systemd-journald to run in volatile mode (Storage=volatile), keeping logs in memory only to reduce disk usage and slightly improve performance.
  - The /tmp folder is now mounted as a memory-backed tmpfs by default in Debian 13, improving performance and reducing disk usage. Systems requiring a persistent /tmp can disable this behavior.
  - Changed MIL version format from 2-digit (x.y) to 3-digit (x.y.z).
  - Changed APT source configuration from the traditional /etc/apt/sources.list format to DEB822-style source files under /etc/apt/sources.list.d/.
  - Removed legacy Diffie-Hellman–based SSH key exchange algorithms to address CVE-2002-20001 and improve cryptographic security.

- Migrates Login/session accounting to wtmpdb and replaces legacy btmp/wtmp/utmp files.
- Removes legacy logrotate rules for btmp/wtmp/utmp; login record rotation and retention now follow wtmpdb default behavior (yearly rotation, retaining up to 4 periods).
- Monitoring or auditing tools that previously relied on legacy btmp/wtmp/utmp files now operate with wtmpdb as the data source, which may result in visible behavior differences.

• Default Utility Package
- Replaces wget with curl as the default HTTP client utility.

• GPIO Control API
- Deprecates the legacy sysfs GPIO interface (/sys/class/gpio).
- GPIO access must now use libgpiod and the gpiod userspace tools, or C/Python bindings.

• GPIO Base Index / Numbering
- GPIO numeric IDs may differ on the same hardware platform when migrating from MIL3 (Debian 11) to MIL4 (Debian 13). This change is expected and a result of the updates in the Linux kernel and GPIO subsystem, including driver probe order and the transition toward the modern GPIO character device framework.

Notes

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