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ERM Gateway

Release notes

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Table of Contents

1. Release versions....3
1.1. Version 4.4.1 (April 2025)....3
1.2. Version 4.3.15 (March 2025)....4
1.3. Version 4.3.9 (November 2024)....6
1.4. Version 4.3.7 (October 2024)....7
1.5. Version 4.3.6 (October 2024)....7
1.6. Version 4.3.5 (October 2024)....7
1.7. Version 4.3.4 (October 2024)....7
1.8. Version 4.3.3 (October 2024)....7
1.9. Version 4.3.2 (October 2024)....7
1.10. Version 4.3.1 (October 2024)....7
1.11. Version 4.3.0 (October 2024)....8
1.12. Version 4.1.8 (Not released)....8
1.13. Version 4.1.7 (July 2024)....8
1.14. Version 4.1.6 (July 2024)....8
1.15. Version 4.1.5 (July 2024)....9
1.16. Version 4.1.4 (June 2024)....9
1.17. Version 4.1.3 (June 2024)....9
1.18. Version 4.1.2 (June 2024)....10
1.19. Version 4.1.1 (April 2024)....10
2. Testing versions....11
2.1. Version 4.3.8....11
2.2. Version 4.1.9....11

1. Release versions

Following is the list of official ERM Gateway firmware versions.

1.1. Version 4.4.1 (April 2025)

- Added ACL, up to 32 bridges (API version 205).
- Added "**!NUMBER xxx**" SMS command to set the gateway's phone number.
- Added support for combined GW+BRG+WiFi product.
- Modified DFU progress to show progress in percents.
- Updated custom broker keys.
- Added input events (ermInC / ermInD / ermInE / ermInF).
- Fixed issue of not returning to prod. server after custom broker fails to connect.
- WiFi support (in supporting hardware):
  - WiFi gateways will automatically try to connect to "**Wiliot**" with password "**12345678**".
  - Added support for API command to configure WiFi SSID and password.
  - Added WiFi and additional connectivity status for Wiliot Monitor.

1.2. Version 4.3.15 (March 2025)

- SMS:
  - (4.3.10) Added "**token expired**" and "**refresh token**" states to **INFO** response.
  - (4.3.10) Added server name in response to **INFO**.
  - (4.3.10) Added SMS command to reset to defaults (**!DEFAULT**) - this will also reset the registration.
  - (4.3.11) All SMS commands (except INFO) are prepended with '!'.
  - (4.3.11) Sending received SMS messages as **ermSMS** event.
  - (4.3.11) **!CONNECT** command will switch back to regular server if gateway is connected to custom server.
  - (4.3.11) Delaying **INFO** response until gateway state is stable.
- Bridge firmware update:
  - (4.3.13) Fixed issue that in some cases the GW doesn't return to the server after DFU (ref #3074).
  - (4.3.14) Automatically exiting PL mode when updating bridge (**exitPlMode**).
- Gateway info:
  - (4.3.11) Added average daily data TX counter (DA).
  - (4.3.12) Added "**Ignition switch state**" field in gateway info.
  - (4.3.14) Removed "estimated" data counters.
  - (4.3.15) Removed **autoGatewayInfo** parameter (always on).
- General functionality:
  - (4.3.10) Added option to set customer configuration in production line.
  - (4.3.11) Added ping event after movement detection (**movAboveSpeed**, etc).
  - (4.3.11) Added support for WiFi gateways.
  - (4.3.11) Fixed issue of some settings that were not saved between firmware updates.
  - (4.3.11) Removed option to disable backoff times (that option could cause high data use in some rare cases).
  - (4.3.11) Removed option to disable diagnostics.
  - (4.3.11) Turning Bluetooth on periodically when in power saving mode.
  - (4.3.15) Increased logger size, added **!CLEAR** command to clear it.
  - (4.3.15) Modified custom events (see user manual).
- Data path:
  - (4.3.11) Added support for V3 protocol (not supported on Wiliot's cloud at the time of the release).
  - (4.3.12) Fixed handling of sensor packets with shorter length (ref #3072).
  - (4.3.15) Added WiFi SSID to gateway info.

  - (4.3.15) Added support for customMessage instead of customBroker in V2 protocol.
  - (4.3.15) Increased max. pixels per packet, added a parameter to limit it.
- Diagnostic log:
  - (4.3.10) Sending diagnostic log every 2 weeks.
  - (4.3.11) Added connection/disconnection duration.
  - (4.3.11) Added locations.
  - (4.3.11) Transmission of authentication failure diagnostic report will be at most once every 25 hours to prevent repeated transmissions.
  - (4.3.15) Added "**Logger used percent**" to the gatewayInfo.

1.3. Version 4.3.9 (November 2024)

- Added parameter to enable reception of pixels/bridges during bridge firmware update (transmission of configuration / commands will not be allowed).
- Sending automatically paired bridges as part of the gateway information packet (informational only).
- Added option to set configuration using Monitor (for production line).
- Added option to periodically transmit gateway information.
- Added parameter for daily maximum battery charging duration.
- Added report of bridge firmware complete/failed to the cloud.
- Setting owner id to NO_OWNER when using custom server and device is not registered.
- Added support for internal/external temperature sensor report using the **ermTemperature** event.

1.4. Version 4.3.7 (October 2024)

- Fixed extra CR+LF after POST data (problem with latest AWS version).
- Added server name report for Monitor.

1.5. Version 4.3.6 (October 2024)

- Fixed issue with setting always_on and ignition_on (they were swapped internally).
- Using protocol V2 by default (when updating from versions before v4.3.0).
- Communication byte counter is always active.

1.6. Version 4.3.5 (October 2024)

- Added communication byte counter (in **GatewayInfo**).

1.7. Version 4.3.4 (October 2024)

- **tagMetadataCouplingSupported** was set to false (unified packets only).
- Resetting registration when changing server.
- Added SMS command to change servers.

1.8. Version 4.3.3 (October 2024)

- Updated API version to 204.

1.9. Version 4.3.2 (October 2024)

- V2: Re-sending GW status after configuration update.
- V2: Added **bleSwVersion**.
- V2: Fixed setting some parameters.
- V1: Allowing longer incoming JSON (32 → 64).

1.10. Version 4.3.1 (October 2024)

- Enabled GNSS location filters.

1.11. Version 4.3.0 (October 2024)

- Based on version 4.1.8.
- Added Wiliot protocol V2 (using legacy protocol by default).
- Added "**disconnect**" action.

1.12. Version 4.1.8 (Not released)

- Removed data coupling.
- Increased server timeout to 6 minutes.
- Removed **gatewayName** (unused by Wiliot).
- Filtering duplicates at the BLE level.
- Fixed issue with FOTA SMS command.
- Fixed issue with truncated SMS messages.
- Added SMS command to get GNSS diagnostics.
- Added event for failure get GNSS location (duration is a parameter).
- Added event for low voltage.
- Added support for AUTO custom topic.
- Added SMS command to switch to OSCAR.
- Modified LED logic.

1.13. Version 4.1.7 (July 2024)

- Modified sensor packet cache to prevent filtering side info.

1.14. Version 4.1.6 (July 2024)

- Fixed issue with **transmitPixels** parameter.
- Removed nfpkt from sensor messages.

1.15. Version 4.1.5 (July 2024)

- Added link to maps to gateway page when in SMS messages.
- Added option to disable scanning.
- Added option to enable/disable pixel transmission.
- Added support for Sensor UUID (0x90FC).

1.16. Version 4.1.4 (June 2024)

- Reduced time to wait for packets (10s → 2.5s).
- Fixed issue with large packet transmissions (more than 30 pixels per packet).
- Not sending **gwGeoLocation** if location is not available.
- Using location timestamp and not transmission timestamp for location.
- Added **ermEvent** events: Power disconnected/reconnected, Ignition on/off.

1.17. Version 4.1.3 (June 2024)

- Fixed issue of first packet having PacketID 0 with QoS=1.
- Added additional information to INFO SMS command.
- Renamed SMS command from RESET to REBOOT.
- Added SMS status after REBOOT command.
- Added Gateway ID to every SMS message.
- Added Registration progress report after UNREGISTER command.

1.18. Version 4.1.2 (June 2024)

- Added automatic transmission for gateway information when connecting to the cloud.
- Added diagnostics log, with a parameter to enable/disable diagnostic transmission.
- Added message in DFU log of which bridge was not found.
- Added more details in SMS messages, including location and version to INFO SMS.
- Added delay after power loss to be able to report it to the cloud.
- Added support for prod/dev/test servers and for a custom server.
- Enabled Bluetooth advertising while the Gateway is not authorized to allow connection from a mobile application.
- Increased cache size for Bridge to Gateway packets.
- Increased number of tags per packet (16 → 32).
- Optimized transmission speed to the server.
- Modified default Bluetooth channel to 39 only (listen only to Bridges).
- Modified server port to 8883.
- Renamed **automaticReset** → **automaticReboot**.

1.19. Version 4.1.1 (April 2024)

- Updated API version to 202.

2. Testing versions

The following are TESTING versions, changes made in these versions are outside of the regular firmware version tree, and are not persistent.

2.1. Version 4.3.8

- Removed GNSS filters.

2.2. Version 4.1.9

- Based on 4.1.7.
- Added fix for AWS registration (from 4.3.7).
- Added fix for JSON payload length (from 4.3.2).