whatwatt

**whatwatt AG**
Switzerland
whatwatt.ch

L'Orgère 12
1568 Portalban

hallo@whatwatt.ch

# Release Notes whatwatt Go firmware Version 2.4.1

**Please only install firmware 2.4.1 on compatible HW.**

Your HW is **compatible**, if the address on the product label is as follows:

**whatwatt AG**
**L'Orgère 12, 1568 Portalban, Switzerland**

Please **do not install** this firmware on engineering samples HW: **ww-go-01.Rev.004**

| Version | Type | Description |
|---|---|---|
| 2.4.1 | Bugfix | Report buffer in RAM failing for local disconnections |
| 2.4.0 | Feature | Modbus TCP template management (export, import, reset to default) to support Modbus Meter Emulations |
| 2.4.0 | Feature | New WebUI with more comprehensive overview |
| 2.0.2 | Feature | Improve cloud communication when communication with meter is impossible |
| 2.0.2 | Feature | Modbus registers with constant value type |
| 2.0.2 | Feature | Delay boot if P1 interface is used |
| 2.0.2 | Feature | Report buffer in RAM for brief cloud connectivity interruptions |
| 2.0.2 | Feature | NTP server selection enhancements (DHCP option 42, custom servers) |
| 2.0.2 | Feature | Extreme power saving mode |
| 2.0.2 | Feature | Unify wording for locally controlled Services (used to be called Integrations) |
| 2.0.2 | Feature | Improve LAN netmask validation in local WebUI |
| 2.0.2 | Feature | Update the copyright note in the footer |

| Version | Type | Description |
|---|---|---|
| 2.0.2 | Bugfix | Correct too aggressive Enter key handling in Payload and Berry editors |
| 2.0.2 | Feature | Implement complete LAN netmask handling |
| 2.0.2 | Bugfix | Correct handling of 15 characters LAN IP addresses (e.g.: 192.168.234.100) |
| 2.0.2 | Feature | Experimental support for GGC protocol variant (Sagemcom) |
| 2.0.1 | Feature | Measurement backups for MQTT clients stored on SD cards |
| 2.0.1 | Feature | Improved variable expansion for MQTT and Berry scripts |
| 2.0.1 | Feature | Minor updates in local WebUI |
| 2.0.0 | Feature | Abstraction layer for hardware versioning |
| 2.0.0 | Feature | Prevent going to the power saving mode if Ethernet connection is used |
| 2.0.0 | Feature | Digest authentication |
| 2.0.0 | Feature | Support custom Kamstrup meter addressing schemes |
| 2.0.0 | Feature | Larger response buffer for longer API response messages |
| 2.0.0 | Feature | Scheduled debugging improvements |
| 2.0.0 | Feature | Report water codes in /api/v1/report and via variables, if aggregated by electric meter |
| 2.0.0 | Feature | Local WebUI: Interactive MQTT Payload Template Editor under MQTT, with auto-preview, template loading and publication, variable name completion and JSON syntax validation |
| 2.0.0 | Feature | Local WebUI: Better Berry editor, if Berry Script is enabled under Integrations |
| 2.0.0 | Feature | Local WebUI: Conveninent SD Card browser, if SD Card CSV exports are enabled under Integrations |
| 2.0.0 | Feature | Local WebUI: Usability improvements when navigating to subpages and opening files |
| 2.0.0 | Feature | Local WebUI: Show license details on the main page |
| 2.0.0 | Feature | Local WebUI: More useful tab titles |
| 2.0.0 | Feature | Local WebUI: Device information in footer of every page |
| 2.0.0 | Feature | Preserve power by limiting WIFI power mode when P1 infterface used with p1_wifi_boost in the settings local API |
| 2.0.0 | Bugfix | Removed obsolete html pages, redirect to applicaton resources |
| 2.0.0 | Bugfix | Fix for Berry console output not showing |
| 1.9.4 | Bugfix | Improve reliability of report backups stored on SD cards |
| 1.9.3 | Feature | Full support for licenses |
| 1.9.2 | Bugfix | Handle HTTPS remote downloads |

| Version | Type | Description |
|---|---|---|
| 1.9.1 | Bugfix | Handle Mbus packet in HDLC streams |
| 1.9.0 | Feature | Improvement in local firmware upgrade handling |
| 1.8.2 | Feature | MQTT Payload Testing feature |
| 1.8.2 | Feature | Allow stromkonto OTA management |
| 1.8.2 | Feature | Support NES 5 time encoding |
| 1.8.2 | Feature | Support Scalers also in DSRM mode |
| 1.8.2 | Bugfix | Fix expansion of 0-length strings |
| 1.8.1 | Feature | Added variables for local and UTC time |
| 1.8.0 | Bugfix | Stability improvements (fewer unexpected reboots) |
| 1.7.7 | Bugfix | Relaxed validation rules in MQTT TLS-related fields in local WebUI |
| 1.7.6 | Bugfix | Fix TLS connectivity with mosquitto MQTT broker |
| 1.7.5 | Feature | Add extra OBIS codes 5.8.0, 6.8.0, 7.8.0, 8.8.0 in DSMR mode |
| 1.7.4 | Feature | Improved reliability of Berry report delivery |
| 1.7.3 | Bugfix | Correct myStrom service status exposed in /api/v1/system |
| 1.7.3 | Feature | Increase Connection Pool size |
| 1.7.3 | Feature | Improve HTTPD Connection management |
| 1.7.3 | Feature | Relaxed dependencies between some services (e.g.: myStrom and Stromkonto) |
| 1.7.3 | Feature | Improved diagnostic state reporting (e.g.: Berry status and system resources) |
| 1.7.3 | Feature | More direct LED behavior when services other than whatwatt are enabled |
| 1.7.2 | Feature | Upgrade process improvements |
| 1.7.2 | Feature | Updated WebUI with network-related improvements (e.g.: always show ETH MAC, explain WIFI status, etc.) |
| 1.7.1 | Feature | Support TLS 1.3 for even better communication security |
| 1.7.1 | Bugfix | Correct NO_DATA state indication when meter is disconnected and reconnected too rapidly |
| 1.7.1 | Feature | New IF type ttl_push for Kamstrup PUSH mode enabling |
| 1.7.0 | Feature | Support for berry scripting language to even better control locally executed actions |
| 1.6.5 | Feature | High performance (CPU clock, WIFI power) when P1 adapter is used |
| 1.6.4 | Feature | Kamstrump Omnipower DLMS push improvements when clock issues occur |
| 1.6.3 | Bugfix | L+G 570 meter not recognized bug fix |

| Version | Type | Description |
|---|---|---|
| 1.6.2 | Feature | Workaround for key-role mismatch (Kamstrup Omnipower) |
| 1.6.1 | Feature | Improvements in local actions implementation |
| 1.6.0 | Bugfix | L+G meter not recognized bug fix |
| 1.5.4 | Feature | SET endpoint for /api/v1/settings |
| 1.5.3 | Feature | Support for Siemens TD-35XX |
| 1.5.2 | Bugfix | DST handling for Omnipower meters (first attempted in 1.5.1) |
| 1.5.0 | Feature | Added /api/v1/settings API |
| 1.4.9 | Feature | Kamstrump Omnipower time shift handling added |
| 1.4.8 | Feature | Better exposure of stromkonto service status in local WebUI |
| 1.4.7 | Bugfix | Fix missing /meter/objects in some cases |
| 1.4.6 | Bugfix | Improved robustness of NES meters using MEP protocol |
| 1.4.5 | Bugfix | Unstable handling of NES meters improved |
| 1.4.4 | Feature | Workaround for NES meter communication issue |
| 1.4.3 | Feature | Show instructions when enabling protection in local WebUI |
| 1.4.3 | Feature | Allow defining WIFI networks with custom or hidden SSID |
| 1.4.3 | Bugfix | Additional "0" character on top of system page when trying to backspace empty password |
| 1.4.3 | Feature | Minor updates in local WebUI |
| 1.4.2 | Feature | WebUI: Support for setting custom certificates and keys for MQTT clients |
| 1.4.2 | Feature | WebUI: Added fractional scaling settings for more precise control |
| 1.4.2 | Feature | WebUI: New configuration option for compatibility with P1 adapters |
| 1.4.2 | Bugfix | Resolved an issue where connecting to the WebUI via DNS hostname was failing due to problems with the DNS resolution and the CORS protection mechanism |
| 1.4.2 | Bugfix | Fixed an incorrect meter status displayed in WebUI—previously, if a meter stopped sending data, the status incorrectly showed as "OK". Now correctly shows "NO DATA" when data transmission ceases. |
| 1.4.2 | Bugfix | Addressed a problem where meters reporting more frequently than every 5 seconds experienced an incorrect report interval after disconnecting and reconnecting the cable. The system now correctly enforces the minimum 5-second interval. |
| 1.4.1 | Bugfix | CORS and DNS /hostname fixes. After this release is installed, and the hostname is invalid, it will be restored to the default. Changing the hostname requires the device to be rebooted |
| 1.4.0 | Feature | Second production Release.<br>1.3.1 and 1.4.0 are identical. |

| Version | Type | Description |
|---|---|---|
| 1.3.1 | Feature | DST handling based on NTP time when time provided by the meter is not really UTC |
| 1.3.1 | Bugfix | Allow /firmware virtual path to be refreshed in the browser |
| 1.3.1 | Bugfix | Resolve a race condition on /live view |
| 1.3.0 | Feature | Repackaged 1.2.22 in preparation of the release |
| 1.2.22 | Bugfix | Fixed issue with plug detection |
| 1.2.22 | Feature | Showing dot masks in fields where password is set |
| 1.2.22 | Bugfix | Fix for rounding values shown in local WebUI |
| 1.2.22 | Feature | P1_ADAPTER mode added to APIs to control mode |
| 1.2.21 | Bugfix | Fixed issue with incorrectly reported KEY REQUIRED meter status |
| 1.2.21 | Feature | Improvements in DSMR parsers |
| 1.2.20 | Feature | Manage MODBUS in local WebUI |
| 1.2.20 | Feature | Support for floating point scaling settings for every OBIS code |
| 1.2.20 | Feature | Support for custom certificates and keys for MQTT client configuration |
| 1.2.20 | Feature | Improved handling of situations where the device used to shut down after USB-C power disconnection |
| 1.2.20 | Feature | MQTT reports continually sent even if meter is disconnected |
| 1.2.20 | Feature | For credential fields, added <fieldname>_len read-only attribute indicating how long the write-only field <fieldname> is |
| 1.2.20 | Feature | Additional meter API fields with the indication if encryption is active (enc_en) and if the authorization is enabled (auth_en) |
| 1.2.20 | Feature | Full support for deleting files and directories directly from the SD card, with an updated sd.html management page |
| 1.2.20 | Feature | A new neskey.html page, providing quick and easy conversion of the MEP BASIC KEY from text to hexadecimal format |
| 1.2.20 | Feature | Updated default Modbus register map now based on Siemens PAC2200 meter |
| 1.2.19 | Feature | Initial support for floating point scaling setting |
| 1.2.18 | Feature | Modbus TCP Slave Implementation; look for details in a dedicated how-to document |
| 1.2.18 | Feature | mDNS presence advertisement |
| 1.2.16 | Feature | Upon connecting to the MQTT broker, the meter state is submitted |
| 1.2.16 | Feature | Signed current variables |
| 1.2.16 | Feature | MQTT username is now optional |
| 1.2.15 | Feature | Integration of WebUI with custom scaling factors |

| Version | Type | Description |
|---|---|---|
| 1.2.15 | Feature | Support for defining and execution of HTTP actions both locally and remotely |
| 1.2.15 | Bugfix | Resolved caching issues in local HTTP server |
| 1.2.14 | Feature | Improved handling of  key requirements messages for NES meters |
| 1.2.14 | Feature | Display of current values in the main meter API even when power data for individual phases is unavailable |
| 1.2.14 | Bugfix | HTTP client authentication and redirection corrections |
| 1.2.14 | Feature | Enhancements in device DNS name resolution and CORS policy handling |
| 1.2.13 | Feature | whatwatt-xxxxxx.local access in the browser, with xxxxxx being the last 6 characters of the WIFI MAC/ID. The WebUI will be accessible via http://custom-hostname, http://custom-hostname.local and http://whatwatt-xxxxxx.local.  The access via the IP address will continue to work as always: http://<local IP address> |
| 1.2.12 | Bugfix | Fix to AP mode not working |
| 1.2.12 | Feature | Prevent firmware upgrade to incompatible version when attempted on old hardware |
| 1.2.11 | Feature | Ability to set scalers for individual OBIs codes |
| 1.2.10 | Feature | Support conversion factor from 0.001 to 1000 |
| 1.2.9 | Feature | Improvements in handling of E570 unexpected messages |
| 1.2.8 | Feature | Improved voltage scalers for L&G E360 |
| 1.2.8 | Bugfix | Return reactive power for individual phases in reports when DSMR is used |
| 1.2.8 | Feature | Adjust reporting time depending on the type of power supply; 5 seconds by default and 15 seconds for Mbus |
| 1.2.7 | Feature | Support for fragmented incoming messages from whatwatt cloud |
| 1.2.7 | Bugfix | Don't delete whatwatt cloud report sending configuration after reconnection |
| 1.2.7 | Feature | Ability to force protocol in /api/v1/meter/settings, especially useful for Kamstrup and DLMS push meters |
| 1.2.7 | Feature | New if_mode in /api/v1/meter/settings to force interface type |
| 1.2.7 | Bugfix | Fixed issue with scalers and meters that send scalers in reports |
| 1.2.7 | Feature | Send COSEM structure in /api/vi1/report/objects |
| 1.2.7 | Feature | Report hardware version as 1.2 |
| 1.2.7 | Feature | New WebUI with tariff presentation in live view and control of meter type and scaler set |
| 1.2.7 | Feature | Return registration status flags in /api/v1/system (cloud.whatwatt.registered) |

| Version | Type | Description |
|---|---|---|
| 1.2.6 | Bugfix | Fixed incorrect detection of DSMR/DLSM on P1 port |
| 1.2.5 | Bugfix | Fixed a memory leak when custom topics are set from the whatwatt cloud |
| 1.2.5 | Bugfix | Fixed handling of COSEM octet-string with zero length |
| 1.2.5 | Feature | Advanced energy saving involving CPU frequency control, thread pausing, CPU pausing, especially useful for Mbus meters |
| 1.2.5 | Feature | Predefined scalers for L&G E570 meters |
| 1.2.5 | Feature | Support for P1 interface without power with an additional adapter |
| 1.2.3 | Feature | Updated WebUI version |
| 1.2.3 | Feature | Support for custom topic and template-based topic and payload in MQTT configuration |
| 1.2.3 | Feature | Regular report times aligned to a full multiple of the reporting time (e.g.: for 15 seconds reporting time, reports will come at 00, 15, 30, 45 seconds after a full minute). |
| 1.2.1 | Feature | Enhanced the WebUI with new layout and service labeling |
| 1.2.1 | Bugfix | Corrected some issues in DSMR processing |
| 1.2.1 | Feature | Possibility to use NTP time as report time (instead of meter time) |
| 1.2.0 | Feature | Initial Production Release |

whatwatt related documents can be downloaded from [whatwatt.ch/docs](whatwatt.ch/docs)