

How to configure data sending on generic MQTT, AWS or Azure Cloud

When **energy** matters



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This technical note aims to explain, step by step, how to configure Diris Digiware gateways to send data from slave modules to a generic MQTT cloud, AWS or AZURE.

INTRODUCTION TO THE MQTT PROTOCOL

The MQTT (Message Queuing Telemetry Transport) protocol is a low bandwidth communication protocol which is ideal for IoT (Internet Of Things) type applications.

This protocol is based on the publish/subscribe model which allows simplified communication between:

- **Publishing clients**, who post messages on a topic
- **Subscribed customers**, who subscribe to a topic to receive messages

Message management is then driven by a central broker (ie : Mosquitto, HiveMQ, EMQX, etc.)

This protocol is also used by more well-known clouds like AWS and AZURE

The MQTT protocol is compatible with the following gateways:

- Diris Digiware D-50v2
- Isom Digiware D-55
- Diris Digiware D-70
- Isom Digiware D-75
- Diris Digiware M-50
- Diris Digiware M-70
- Diris A-200

CONFIGURING THE DIRIS DIGIWARE GATEWAY

Prerequisites

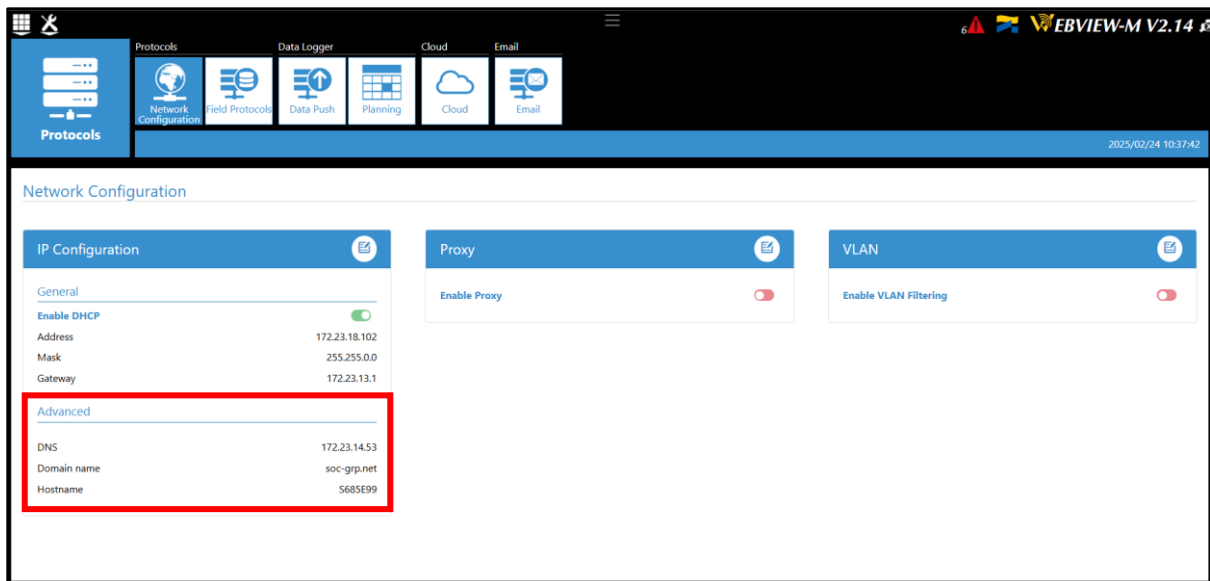
Before you can start configuring the MQTT protocol in the gateway, it is necessary to have:

- Connected the gateway to the network
- Auto-detected and configured slave modules
- Synchronized gateway topology with Webview-M/Web-config

DNS and SNTP servers must also be configured

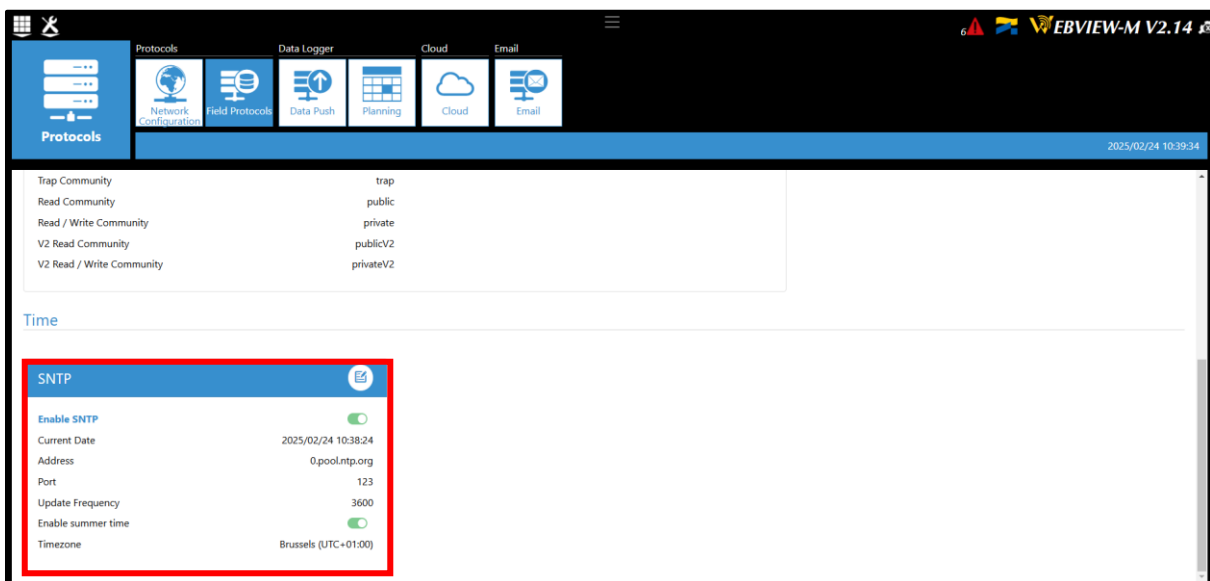
DNS Server Configuration

Go to settings, "protocols" menu then click on the "Network configuration" tile



SNTP Server Configuration

Go to settings, "protocols" menu then click on the "Field protocols" tile



Generic MQTT Protocol Configuration

Configuring data sending to the MQTT cloud is done via the built-in Webview-M/Web-config web server.

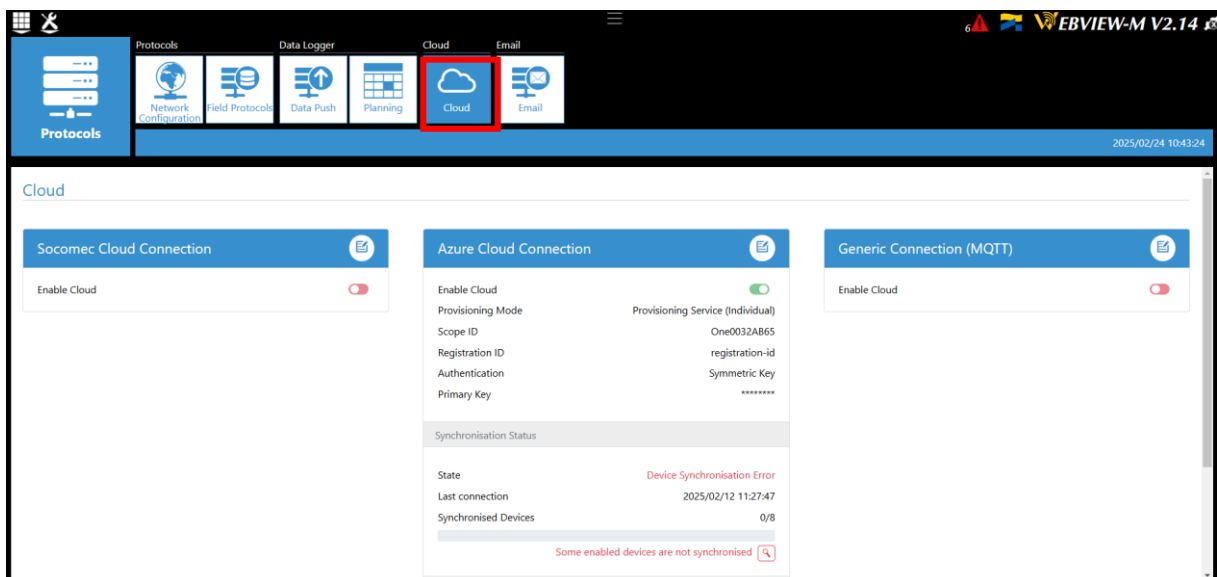
Step 1: Connect to Webview-M in "administrator" or "cybersecurity" mode then go to the settings



and click on "Protocols"



Step 2: Click on the “Cloud” tile then on the edit button  in the “generic connection (MQTT)” section



Step 3: Activate the cloud connection and fill in the requested information, namely:

- The host name
- The port
- The topic
- The type of connection and authentication
- Username and password if authentication is desired

Click on validate to save the configuration

Generic Connection (MQTT)

Enable Cloud ☒

Host Name

Port

Base topic

Secured Connection ☐

Authentication ☒

User Name

Password

Synchronization Status

State Not Started

Note 1: In case the connection is secure, it will be necessary to integrate the certificates in the gateway (menu " Cybersecurity ", tile " CAs ") and in the MQTT broker. **Warning:** the common name of the certificate must be the IP address or the hostname of the MQTT broker.

Delivered to	Delivered by	Expiration	Authority certificate type	Actions
AlphaSSL CA - SHA256 - G2	GlobalSign Root CA	2024/02/20 11:00:00	HTTPS, SMTPS, FTPS	
Baltimore CyberTrust Root	Baltimore CyberTrust Root	2025/05/13 00:59:00	HTTPS, SMTPS, FTPS	
mqtt_qualif	mqtt_qualif	2025/11/20 16:28:23	HTTPS, SMTPS, FTPS	
10.167.41.40	10.167.41.40	2026/01/06 14:52:15	HTTPS, SMTPS, FTPS	
GlobalSign Root CA	GlobalSign Root CA	2028/01/28 13:00:00	HTTPS, SMTPS, FTPS	
ISRG Root X1	ISRG Root X1	2035/06/04 12:04:38	HTTPS, SMTPS, FTPS	
DigiCert Global Root G2	DigiCert Global Root G2	2038/01/15 13:00:00	HTTPS, SMTPS, FTPS	
Amazon Root CA 1	Amazon Root CA 1	2038/01/17 01:00:00	HTTPS, SMTPS, FTPS	
COMODO RSA Certification Authority	COMODO RSA Certification Authority	2038/01/19 00:59:59	HTTPS, SMTPS, FTPS	
Amazon Root CA 2	Amazon Root CA 2	2040/05/26 01:00:00	HTTPS, SMTPS, FTPS	

Note 2: If authentication is required, the username and password must be defined in the MQTT broker

Step 4: Click on "Synchronize" to synchronize the gateway slave devices with the cloud

Generic Connection (MQTT)

Enable Cloud

Host Name

Port

Base topic

Secured Connection

Authentication

User Name

Password

10.167.41.40

8883

socomec

jb

Synchronization Status

State

Last connection

Synchronized Devices

Active

2025/02/04 13:43:56

33/33

Synchronize

It is possible to check the synchronization of the equipment by going to the “Diagnostics” menu, “Equipment” tile

Type	Name	Network ID	Address	IP Address	Network Type	Version	Date and Time	Option module	Cloud Synchronization	Cloud UUID	Communication
M-70	M-70	CFABFE	1	localhost	None / Unknown	v1.7.11	2025/01/31 16:12:16		Synchronized	0e978c80-3453-11b5-8e3f-2a2323232309	Good
U-30	U-30#2	E258D9	2	localhost	3P+N	v1.13.0	2025/01/31 16:12:15		Synchronized	4d5750a0-51a1-11b5-9f34-333733303130	Good
S-135	S-135#3	E15886	3	localhost	3P+N	v1.6.1	2025/01/31 16:12:15		Synchronized	40d533a0-51a1-11b5-4b25-373230303130	Good
S-135	S-135#4	9A2613	4	localhost	3P+N	v1.6.1	2025/01/31 16:12:15		Synchronized	a0528ed0-51a1-11b5-894b-322330303130	Good
S-135	S-135#6	92171F	6	localhost	3P+N	v1.6.1	2025/01/31 16:12:15		Synchronized	a05454d0-51a1-11b5-88d4-363030303130	Good
S-135	S-135#7	8C4F68	7	localhost	3P+N	v1.6.1	2025/01/31 16:12:15		Synchronized	e7ded9f0-51a1-11b5-9a92-353030303130	Good
S-135	S-135#8	923FAF	8	localhost	3P+N	v1.6.1	2025/01/31 16:12:15		Synchronized	4b252020-51a1-11b5-9856-333030303130	Good
S-135	S-135#9	21D037	9	localhost	3P+N	v1.6.1	2025/01/31 16:12:15		Synchronized	acbf6400-51a1-11b5-9970-313130303130	Good
S-135	S-135#10	8DE277	10	localhost	3P+N	v1.6.1	2025/01/31 16:12:15		Synchronized	a6552180-51a1-11b5-856f-373030303130	Good
S-135	S-135#11	988BES	11	localhost	3P+N	v1.6.1	2025/01/31 16:12:15		Synchronized	a271cc80-51a1-11b5-8c1b-393130303130	Good
S-135	S-135#12	7B2A93	12	localhost	3P+N	v1.6.1	2025/01/31 16:12:15		Synchronized	ae58d3e0-51a1-11b5-a654-393330303130	Good
S-135	S-135#13	SAD008	13	localhost	3P+N	v1.6.1	2025/01/31 16:12:15		Synchronized	e4bd0f80-51a1-11b5-b9f9-383130303130	Good
S-135	S-135#14	S05491	14	localhost	3P+N	v1.6.1	2025/01/31 16:12:15		Synchronized	e98b9480-51a1-11b5-9f06-323030303130	Good
U-10	U-10#15	FEF8DF	15	localhost	3P+N	v1.11.0	2025/01/31 16:12:17		Synchronized	1972d840-a059-11b5-92b3-373930303130	Good
I-30	I-30#16	5F72AD	16	localhost	3P+N	v1.14.0	2025/01/31 16:12:16		Synchronized	1a1c37a0-a059-11b5-b6ec-373130303230	Good
I-30	I-30#17	3104E9	17	localhost	3P+N	v1.14.0	2025/01/31 16:12:16		Synchronized	1ab453a0-a059-11b5-aee7-373331303130	Good
I-30	I-30#18	85E958	18	localhost	3P+N	v1.14.0	2025/01/31 16:12:16		Synchronized	1b4eeb40-a059-11b5-8f53-343732313430	Good
I-30	I-30#19	EB0F6D	19	localhost	3P+N	v1.14.0	2025/01/31 16:12:16		Synchronized	1be78f80-a059-11b5-a79f-383331303130	Good
I-30	I-30#20	F86629	20	localhost	3P+N	v1.14.0	2025/01/31 16:12:16		Synchronized	1c8ac6a0-a059-11b5-bdb8-323030303230	Good
I-30	I-30#21	3A0D17	21	localhost	3P+N	v1.14.0	2025/01/31 16:12:16		Synchronized	1d2fe040-a059-11b5-a4a3-323030303230	Good
I-30	I-30#22	C25E16	22	localhost	3P+N	v1.14.0	2025/01/31 16:12:16		Synchronized	1d856f10-a059-11b5-a5d1-353031303130	Good

AZURE Cloud Configuration

Digiware gateways also allow to send data to the AZURE cloud. The protocol used remains MQTT but the configuration differs slightly from generic MQTT

Steps 1 and 2 are the same as for [generic MQTT setup](#)

Step 3: Activate the connection to the AZURE cloud and fill in the requested elements, namely:

- The provisioning mode (Manual, Individual or Group)
- The hostname/Scope ID
- Device ID/Registration ID
- The type of authentication
 - o Symmetric key : Enter the primary key
 - o X.509 Certificate: Upload certificate and key or auto-generate certificate

Click on validate to save the configuration

Step 4: Click “Synchronize” to synchronize the gateway slave devices with the cloud

AWS Cloud Setup

Digiware gateways also allow to send data to the AWS cloud. The protocol used remains MQTT but the configuration differs slightly from generic MQTT

Steps 1 and 2 are the same as for [generic MQTT setup](#)

Step 3 : Activate the connection to the AWS cloud and fill in the requested elements, namely:

- The endpoint address
- The Thing name
- Certificate management
 - o Upload: upload a certificate and its key
 - o Auto-generate: Generates a certificate to integrate into AWS
 - o Upload Signed Certificate: Upload a signed certificate from the AWS cloud from the generated CSR
- The Thing name to generate the CSR for the AWS cloud so that it can generate a signed certificate

Click on validate to save the configuration

The screenshot shows the 'AWS Cloud Connection' configuration window. At the top, there's a title bar with a close button and a checkmark button. Below it, the 'Enable Cloud' toggle is turned on. The 'Certificate management' section includes fields for 'Endpoint' (a2urlgdsiqpee-ats.iot.eu), 'Thing name' (D70_VLG), 'Certificate management' (set to 'Upload'), 'Certificate' (e6a8ae8cfe5d1826186 with a green checkmark and a 'Browse' button), and 'Private Key' (e6a8ae8cfe5d1826186 with a 'Browse' button). Below this is the 'Certificate Signing Request (CSR)' section with a 'Thing name' field (D70_VLG) and a 'Generate CSR' button.

Note: There are 3 ways to integrate AWS certificates into the gateway:

- Allow AWS to generate a private key and public certificate, then upload them to the gateway (recommended)
- Allow the gateway to generate a private key and public certificate, then download them and upload it to AWS when creating the object

- Download a generated CSR from the gateway, sign it using AWS CA, and upload it back to the device. This method has the advantage of keeping the private key protected by not exposing it.

Step 4: Click “Synchronize” to synchronize the gateway slave devices with the cloud

The screenshot shows the 'AWS Cloud Connection' configuration page. At the top, there's a toggle for 'Enable Cloud' which is turned on. Below this is the 'Certificate management' section, showing the 'Endpoint' as 'a2urlgdsiqqpee-ats.iot.eu-west-1.amazonaws.com' and the 'Thing name' as 'ldd_d70_qual'. There's a link to 'View Certificate Details'. The next section is 'Certificate Signing Request (CSR)', where the 'Thing name' is 'ldd_d70_qual' and there's a 'Generate CSR' button. The 'Synchronisation Status' section shows the 'State' as 'Active', the 'Last connection' as '2023/05/04 11:31:01', and 'Synchronised Devices' as '5/5' with a green progress bar. At the bottom is a large blue 'Synchronise' button.

Note : A [quick start guide](#) exist for the configuration of the AWS part

DECODING PAYLOADS

Payload Structure

The payloads sent are composed of:

- Timestamp in “Epoch Unix Timestamp” format (number of seconds since January 1, 1970)
- “measure ” field that specifies the value of a service. See the " [list of available services](#) " section in the appendix. This field will always start with the load number followed by the service ID and its value. Below is an example

```

"utctimestamp": 1689853778,
"measures": {
  "Load_0_30000": 300179000,
  "Load_0_30001": 511.9,
  "Load_0_30002": 682798000,
  "Load_0_30003": 650.8,
  "Load_0_30004": 10421000,
  "Load_0_30005": 60.4,
  "Load_0_30006": 902442000,
  "Load_0_30007": 626.7,
  "Load_0_30016": 1510049000,
  "Load_0_30017": 973.1,
  "Load_0_30008": 96000,
  "Load_0_30009": 349.0,
  "Load_0_30010": 451689000,
  "Load_0_30011": 25.0,
  "Load_0_30012": 10324000,
  "Load_0_30013": 710.5,
  "Load_0_30014": 450753000,
  "Load_0_30015": 600.2,
  "Load_0_105001": 26598316,
  "Load_0_30018": 300179000,
  "Load_0_30019": 511.9,
  "Load_0_30020": 682798000,
  "Load_0_30021": 650.8,
  "Load_0_30022": 10421000,
  "Load_0_30023": 60.4,
  "Load_0_30024": 902442000,
  "Load_0_30025": 626.7,
  "Load_0_30034": 1510049000,
  "Load_0_30035": 973.1,
  "Load_0_30042": 0,
  "Load_0_30043": 0,
  "Load_0_30076": 0.0,
  "Load_0_30044": 0,
  "Load_0_30077": 0.0,
  "Load_0_30045": 0,
  "Load_0_30078": 0.0,
  "Load_0_30046": 0,
  "Load_0_30079": 0.0,
  "Load_0_30047": 0,
  "Load_0_30080": 0.0,
  "Load_1_105000": 0,
  "Load_1_30000": 0,
  "Load_1_30001": 0.0,
  "Load_1_30002": 0,
  "Load_1_30003": 0.0,
  "Load_1_30004": 0,
  "Load_1_30005": 0.0,
  "Load_1_30006": 0,
  "Load_1_30007": 0.0,
  "Load_1_30016": 0,
  "Load_1_30017": 0.0
}
}

```

Before this payload, a preamble with the topic entered, the gateway ID and the product UUID is sent.

Example: *socomec /M-70//message/data/f06189c0-7d0e-11cc-a716-393939393939*

The UUID of the products is available in the “Diagnostic” menu in the “Equipment” tile.

Type	Name	Network ID	Address	IP Address	Network Type	Version	Date and Time	Option module	Cloud Synchronization	Cloud UUID	Communication
M-70	M-70	CFABFE	1	localhost	None / Unknown	v1.7.11	2025/01/31 16:12:16		Synchronized	9e97a00-3453-11b5-9e3f-2a3232323039	Good
U-30	U-30@2	E259D9	2	localhost	3P+N	v1.13.0	2025/01/31 16:12:15		Synchronized	a05730a0-51a1-11b5-9f34-33773303130	Good
S-135	S-135@3	E15886	3	localhost	3P+N	v1.6.1	2025/01/31 16:12:15		Synchronized	a05338d0-51a1-11b5-a025-373230303130	Good
S-135	S-135@4	9A2613	4	localhost	3P+N	v1.6.1	2025/01/31 16:12:15		Synchronized	a052aed0-51a1-11b5-89a0-323230303130	Good
S-135	S-135@6	92171F	6	localhost	3P+N	v1.6.1	2025/01/31 16:12:15		Synchronized	a0545d0-51a1-11b5-88d4-363030303130	Good
S-135	S-135@7	8C4F68	7	localhost	3P+N	v1.6.1	2025/01/31 16:12:15		Synchronized	a05e99f0-51a1-11b5-9a62-333030303130	Good
S-135	S-135@8	923FAF	8	localhost	3P+N	v1.6.1	2025/01/31 16:12:15		Synchronized	a0523020-51a1-11b5-9856-333030303130	Good
S-135	S-135@9	21D037	9	localhost	3P+N	v1.6.1	2025/01/31 16:12:15		Synchronized	a05f460-51a1-11b5-9970-313130303130	Good
S-135	S-135@10	80E277	10	localhost	3P+N	v1.6.1	2025/01/31 16:12:15		Synchronized	a0552180-51a1-11b5-856f-373030303130	Good
S-135	S-135@11	9888E5	11	localhost	3P+N	v1.6.1	2025/01/31 16:12:15		Synchronized	a071cc00-51a1-11b5-8c1b-393130303130	Good
S-135	S-135@12	782A93	12	localhost	3P+N	v1.6.1	2025/01/31 16:12:15		Synchronized	a058d3e0-51a1-11b5-a654-393330303130	Good
S-135	S-135@13	5AD0D8	13	localhost	3P+N	v1.6.1	2025/01/31 16:12:15		Synchronized	a05d0ff0-51a1-11b5-9a99-383130303130	Good
S-135	S-135@14	505491	14	localhost	3P+N	v1.6.1	2025/01/31 16:12:15		Synchronized	a05b5460-51a1-11b5-9f06-323030303130	Good
U-10	U-10@15	FEF8D9	15	localhost	3P+N	v1.11.0	2025/01/31 16:12:17		Synchronized	1872d840-a059-11b5-92b3-373930303130	Good
I-30	I-30@16	3F72AD	16	localhost	3P+N	v1.14.0	2025/01/31 16:12:16		Synchronized	1a1c37a0-a059-11b5-b0ec-373130303230	Good
I-30	I-30@17	3104E9	17	localhost	3P+N	v1.14.0	2025/01/31 16:12:16		Synchronized	1ab4f530-a059-11b5-aeef-373331303130	Good
I-30	I-30@18	85E958	18	localhost	3P+N	v1.14.0	2025/01/31 16:12:16		Synchronized	1b4eeb40-a059-11b5-8f53-343732313430	Good
I-30	I-30@19	EB0F6D	19	localhost	3P+N	v1.14.0	2025/01/31 16:12:16		Synchronized	1be78f00-a059-11b5-a79f-383331303130	Good
I-30	I-30@20	F86629	20	localhost	3P+N	v1.14.0	2025/01/31 16:12:16		Synchronized	1c3ac6a0-a059-11b5-b0b8-323030303230	Good
I-30	I-30@21	3A0C17	21	localhost	3P+N	v1.14.0	2025/01/31 16:12:16		Synchronized	1c2f6c40-a059-11b5-a4a3-333030303230	Good
I-30	I-30@22	C23E16	22	localhost	3P+N	v1.14.0	2025/01/31 16:12:16		Synchronized	1a859f10-a059-11b5-a5d1-333031303130	Good

FEATURES OF THE GENERIC MQTT PROTOCOL OF GATEWAYS

Non-configurable features

- MQTT over TCP
- Version: MQTT 3.1.1
- Keepalive interval: 1200 seconds
- Client ID (UTF-8 encoded string with a maximum size of 127 bytes): Gateway name
- Data sending period: 10 min

Configurable features

- Hostname : standard or IP
- Port: 0 – 65535
- Topic: ASCII encoded string with a maximum size of 127 bytes. Example:
 - / my /root/ path
 - My /root/ path
 - My
 - / my
- Connection: Secure (TLS 1.2 with x509 CA Certificate in PEM format) or not
- Authentication
 - User: UTF-8 encoded string with a maximum size of 127 bytes
 - Password: UTF-8 encoded string with a maximum size of 127 bytes

APPENDIX

List of available services

ID	Parameters	Unit	Compatible product
ID specific to PMDs (Diris A-xx, Diris B-xx, Diris Digiware)			
10023	l1	A	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
10024	l2	A	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
10025	l3	A	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
10026	ln	A	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
10026	lsys	A	Diris A-40, A-x00, I-35, I-35 MID, I-45, S-135, S-135 MID, BCM Diris B-x0
10030	ldir	A	Diris A-40, A-x00, I-35, I-35 MID, I-45, S-135, S-135 MID, BCM Diris B-x0

10031	linv	A	Diris A-40, A-x00, I-35, I-35 MID, I-45, S-135, S-135 MID, BCM Diris B-x0
10032	lnb	A	Diris A-40, A-x00, I-35, I-35 MID, I-45, S-135, S-135 MID, BCM Diris B-x0
10033	Snom	%	Diris A-40, A-x00, I-35, I-35 MID, I-45, S-135, S-135 MID, BCM Diris B-x0
10175	lnba	%	Diris A-40, A-x00, I-35, I-35 MID, I-45, S-135, S-135 MID, BCM Diris B-x0
10179	lrms avg	A	I-35dc
10180	ldc avg	A	I-35dc
10181	lac avg	A	I-35dc
10220	Crest factor I1	-	Diris A-40, A-x00, I-35, I-35 MID, I-45, S-135, S-135 MID, BCM, Diris B-30
10221	Crest factor I2	-	Diris A-40, A-x00, I-35, I-35 MID, I-45, S-135, S-135 MID, BCM, Diris B-30
10222	Crest factor I3	-	Diris A-40, A-x00, I-35, I-35 MID, I-45, S-135, S-135 MID, BCM, Diris B-30
10223	Crest factor In	-	Diris A-40, A-x00, I-35, I-35 MID, I-45, S-135, S-135 MID, BCM, Diris B-30
30000	EA+ Total	Wh	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
30001	rEA + Total	Wh	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
30002	EA-Total	Wh	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
30003	rEA - Total	Wh	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
30004	ER+ Total	Varh	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
30005	rER + Total	Varh	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
30006	ER-Total	Varh	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
30007	rER - Total	Varh	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
30008	ER+ Total (lagging)	Varh	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
30009	rER + Total (lagging)	Varh	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
30010	ER- Total (lagging)	Varh	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
30011	rER - Total (lagging)	Varh	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
30012	ER+ Total (leading)	Varh	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
30013	rER + Total (leading)	Varh	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
30014	ER- Total (leading)	Varh	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P

30015	rER - Total (leading)	Varh	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
30016	ES Total (VA)	VA	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
30017	rES Total (VA)	VA	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
30018	EA+ Partial	Wh	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
30019	rEA + Partial	Wh	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
30020	EA- Partial	Wh	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
30021	rEA - Partial	Wh	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
30022	ER+ Partial	Varh	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
30023	rER + Partial	Varh	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
30024	ER- Partial	Varh	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
30025	rER - Partial	Varh	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
30026	ER+ Partial (lagging)	Varh	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
30027	rER + Partial (lagging)	Varh	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
30028	ER- Partial (lagging)	Varh	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
30029	rER - Partial (lagging)	Varh	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
30030	ER+ Partial (leading)	Varh	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
30031	rER + Partial (leading)	Varh	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
30032	ER- Partial (leading)	Varh	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
30033	rER - Partial (leading)	Varh	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
30034	ES Partial (VA)	VA	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
30035	rES Partial (VA)	VA	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
30042	Last Partial Reset Date	-	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
30043	Last EA+ Partial	Wh	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
30044	Last EA- Partial	Wh	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
30045	Last ER+ Partial	Varh	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P

30046	Last ER- Partial	Varh	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
30047	Last ES Partial	VA	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
30076	Last rEA + Partial	Wh	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
30077	Last rEA - Partial	Wh	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
30078	Last rER + Partial	Varh	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
30079	Last rER - Partial	Varh	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
30080	Last rES Partial	VA	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
30090	Last ER+ Partial (lagging)	Varh	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
30091	Last rER + Partial (lagging)	Varh	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
30092	Last ER- Partial (lagging)	Varh	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
30093	Last rER - Partial (lagging)	Varh	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
30094	Last ER+ Partial (leading)	Varh	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
30095	Last rER + Partial (leading)	Varh	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
30096	Last ER- Partial (leading)	Varh	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
30097	Last rER - Partial (leading)	Varh	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
40001	Frequency	Hz	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
65014	Total Multi- fluid feeder	-	Diris Digiware IO-10, Countis Eci
65015	Partial Multi- fluid feeder	-	Diris Digiware IO-10, Countis Eci
75008	PF1	-	Diris A-x0, A-x00, All Diris Digiware I, S and BCM (except I-x0 and S-130), Diris B-x0, Countis E and P
75009	PF2	-	Diris A-x0, A-x00, All Diris Digiware I, S and BCM (except I-x0 and S-130), Diris B-x0, Countis E and P
75010	PF3	-	Diris A-x0, A-x00, All Diris Digiware I, S and BCM (except I-x0 and S-130), Diris B-x0, Countis E and P
75011	Total PF	-	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
75012	Type PF1	-	Diris A-x0, A-x00, All Diris Digiware I, S and BCM (except I-x0 and S-130), Diris B-x0, Countis E and P

75013	Type PF2	-	Diris A-x0, A-x00, All Diris Digiware I, S and BCM (except I-x0 and S-130), Diris B-x0, Countis E and P
75014	Type PF3	-	Diris A-x0, A-x00, All Diris Digiware I, S and BCM (except I-x0 and S-130), Diris B-x0, Countis E and P
75015	Type PF Total	-	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
80028	P1	W	Diris A-x0, A-x00, All Diris Digiware I, S and BCM (except I-x0 and S-130), Diris B-x0, Countis E and P
80029	P2	W	Diris A-x0, A-x00, All Diris Digiware I, S and BCM (except I-x0 and S-130), Diris B-x0, Countis E and P
80030	P3	W	Diris A-x0, A-x00, All Diris Digiware I, S and BCM (except I-x0 and S-130), Diris B-x0, Countis E and P
80031	P Total	W	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, I-35dc, Countis E and P
80032	Q1	Var	Diris A-x0, A-x00, All Diris Digiware I, S and BCM (except I-x0 and S-130), Diris B-x0, Countis E and P
80033	Q2	Var	Diris A-x0, A-x00, All Diris Digiware I, S and BCM (except I-x0 and S-130), Diris B-x0, Countis E and P
80034	Q3	Var	Diris A-x0, A-x00, All Diris Digiware I, S and BCM (except I-x0 and S-130), Diris B-x0, Countis E and P
80035	Q Total	Var	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
80044	S1	VA	Diris A-x0, A-x00, All Diris Digiware I, S and BCM (except I-x0 and S-130), Diris B-x0, Countis E and P
80045	S2	VA	Diris A-x0, A-x00, All Diris Digiware I, S and BCM (except I-x0 and S-130), Diris B-x0, Countis E and P
80046	S3	VA	Diris A-x0, A-x00, All Diris Digiware I, S and BCM (except I-x0 and S-130), Diris B-x0, Countis E and P
80047	S Total	VA	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
85880	Temperature	°C	Bluetooth sensor B-TRH
85894	Humidity	%	Bluetooth sensor B-TRH
85895	Count B- Mag	-	Bluetooth sensor B-MAG
85896	State B-MAG	-	Bluetooth sensor B-MAG
100000	THD V1	%	Diris A-x0, A-x00, I-35, I-35 MID, I-45, S-135, S-135 MID, Diris B-x0
100001	THD V2	%	Diris A-x0, A-x00, I-35, I-35 MID, I-45, S-135, S-135 MID, Diris B-x0

100002	THD V3	%	Diris A-x0, A-x00, I-35, I-35 MID, I-45, S-135, S-135 MID, Diris B-x0
100003	THD U12	%	Diris A-x0, A-x00, I-35, I-35 MID, I-45, S-135, S-135 MID, Diris B-x0
100004	THD U23	%	Diris A-x0, A-x00, I-35, I-35 MID, I-45, S-135, S-135 MID, Diris B-x0
100005	THD U31	%	Diris A-x0, A-x00, I-35, I-35 MID, I-45, S-135, S-135 MID, Diris B-x0
100006	THD I1	%	Diris A-x0, A-x00, I-33, I-35, I-35 MID, I-43, I-45, S-135, S-135 MID, Diris B-x0
100007	THD I2	%	Diris A-x0, A-x00, I-33, I-35, I-35 MID, I-43, I-45, S-135, S-135 MID, Diris B-x0
100008	THD I3	%	Diris A-x0, A-x00, I-33, I-35, I-35 MID, I-43, I-45, S-135, S-135 MID, Diris B-x0
100009	THD In	%	Diris A-x0, A-x00, I-33, I-35, I-35 MID, I-43, I-45, S-135, S-135 MID, Diris B-x0
100056	K-Factor I1	-	Diris A-30, A-40, A-x00. I-35, I-35 MID, I-45, S-135, S-135 MID, B-30
100057	K-Factor I2	-	Diris A-30, A-40, A-x00. I-35, I-35 MID, I-45, S-135, S-135 MID, B-30
100058	K-Factor I3	-	Diris A-30, A-40, A-x00. I-35, I-35 MID, I-45, S-135, S-135 MID, B-30
100059	K-Factor In	-	Diris A-30, A-40, A-x00. I-35, I-35 MID, I-45, S-135, S-135 MID, B-30
100060	THD Vsys	%	Diris A-40, A-x00, I-35, I-35 MID, I-45, S-135, S-135 MID, Diris B-x0
100061	THD Usys	%	Diris A-40, A-x00, I-35, I-35 MID, I-45, S-135, S-135 MID, Diris B-x0
100062	THD Isys	%	Diris A-40, A-x00, I-35, I-35 MID, I-45, S-135, S-135 MID, Diris B-x0
100120	TDD I1	%	Diris A-30, A-40, A-x00. I-35, I-35 MID, I-45, S-135, S-135 MID, B-30
100121	TDD I2	%	Diris A-30, A-40, A-x00. I-35, I-35 MID, I-45, S-135, S-135 MID, B-30
100122	TDD I3	%	Diris A-30, A-40, A-x00. I-35, I-35 MID, I-45, S-135, S-135 MID, B-30
100123	TDD In	%	Diris A-30, A-40, A-x00. I-35, I-35 MID, I-45, S-135, S-135 MID, B-30
100124	TDD Isys	%	Diris A-40, A-x00. I-35, I-35 MID, I-45, S-135, S-135 MID, B-30
105000	Total Hour meter	s	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0
105001	Partial Hour meter	s	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0
105012	Last Partial Hour meter	s	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0
110030	V1	V	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
110031	V2	V	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P

110032	V3	V	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
110033	Vn	V	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
110034	Vsys	V	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
110035	U12	V	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
110036	U23	V	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
110037	U31	V	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
110038	Usys	V	Diris A-x0, A-x00, All Diris Digiware I, S and BCM, Diris B-x0, Countis E and P
110343	Vrms avg	V	I-35dc
110344	Vdc avg	V	I-35dc
110345	Vac avg	V	I-35dc
135000	Priority	-	AtyS pM , ATyS P, ATyS C-xx, Atys Bypass
135001	Alarm / fault code	-	AtyS pM , ATyS P, ATyS C-xx, Atys Bypass
135030	Type of application	-	AtyS pM , ATyS P, ATyS C-xx, Atys Bypass
135038	Operating mode	-	AtyS pM , ATyS P, ATyS C-xx, Atys Bypass
135039	Switch Position	-	AtyS pM , ATyS P, ATyS C-xx, Atys Bypass
135041	Source 1 Start Generator relay State	-	AtyS pM , ATyS P, ATyS C-xx, Atys Bypass
135042	Source 2 Start Generator relay State	-	AtyS pM , ATyS P, ATyS C-xx, Atys Bypass
135044	Source 1 state	-	AtyS pM , ATyS P, ATyS C-xx, Atys Bypass
135045	Source 2 state	-	AtyS pM , ATyS P, ATyS C-xx, Atys Bypass
135046	Test in progress	-	AtyS pM , ATyS P, ATyS C-xx, Atys Bypass
135048	Cycle counter	-	AtyS pM , ATyS P, ATyS C-xx, Atys Bypass
135049	Position 1 Counter Maneuver	-	AtyS pM , ATyS P, ATyS C-xx, Atys Bypass
135050	Position 2 Counter Maneuver	-	AtyS pM , ATyS P, ATyS C-xx, Atys Bypass
135052	Alarm / fault summary	-	AtyS pM , ATyS P, ATyS C-xx, Atys Bypass
400119	Switch main fault alarm	-	AtyS pM , ATyS P, ATyS C-xx, Atys Bypass
400120	Switch motor fault alarm	-	AtyS pM , ATyS P, ATyS C-xx, Atys Bypass
400121	Switch autoconf alarm	-	AtyS pM , ATyS P, ATyS C-xx, Atys Bypass

400122	Unexpected switch transfer alarm	-	ATyS pM , ATyS P, ATyS C-xx, Atys Bypass
400123	Switch fail to transfer alarm	-	ATyS pM , ATyS P, ATyS C-xx, Atys Bypass
400125	Switch max power attempts alarm	-	ATyS pM , ATyS P, ATyS C-xx, Atys Bypass
400126	Switch genset failed at start alarm	-	ATyS pM , ATyS P, ATyS C-xx, Atys Bypass
400127	External switch fault alarm	-	ATyS pM , ATyS P, ATyS C-xx, Atys Bypass
400128	Switch unknown position alarm	-	ATyS pM , ATyS P, ATyS C-xx, Atys Bypass

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