

MODULES

Data Bridge (IoT gateway)

REST server, REST client and MQTT client agents; payload formats; Kepware-compatible endpoints.

Online: mergenhub.envest.com.tr/docs/data-bridge

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The Data Bridge (formerly IoT Gateway) moves data **out of** MergenHub to clouds, brokers and third-party systems, and lets simple HTTP clients read or write tags without OPC UA. It runs as its own Windows service (`MergenHubDataBridge`), so a slow cloud endpoint can never affect scanning.

Extensions > Data Bridge – agent list and the agent editor

Agents

AGENT	DIRECTION	WHAT IT DOES
REST server	inbound	Kepware-compatible HTTP endpoints (<code>/iotgateway/read</code> , <code>/iotgateway/write</code> , <code>/iotgateway/browse</code>) with the same JSON shapes as Kepware's IoT Gateway, so existing integrations work unchanged
REST client	outbound	Pushes selected tags to a URL (POST/PUT) on change or on a schedule; JSON/XML/CSV/key-value formats; custom headers and auth
MQTT client	outbound	Publishes selected tags to a broker (QoS, retain, TLS, username/password or certificate); JSON payloads, one topic per tag or grouped; optional Sparkplug-style templates

Each agent has its own tag list, publish rate, *on change* / *deadband* filters and a status page with counters and the last error.

REST server quick start

1. Add a *REST server* agent, choose the tags, allow writes if needed.
2. Log in (session cookie or API token) and read:

```
curl -b c.txt "http://localhost:8090/iotgateway/read?ids=Plant.PLC1.Flow&ids=Plant.PLC1.Pressure"
```

```
{"readResults":[{"id":"Plant.PLC1.Flow","s":true,"r":"","v":412.6,"t":1757067641008}, ...]}
```

1. Write (when *allow write* is on):

```
curl -b c.txt -X POST http://localhost:8090/iotgateway/write -H "Content-Type: application/json" \
-d '[{"id":"Plant.PLC1.Setpoint","v":55}]'
```

MQTT client quick start

- Broker `mqtt://broker.example.com:1883` (or `mqtts://` with TLS), client id, credentials.
- Topic template such as `plant/{channel}/{device}/{tag}` or a single topic with a JSON array.
- Publish mode: *on change* (with deadband) or *every N ms*.
- Payload example:

```
{"id":"Plant.PLC1.Flow","v":412.6,"q":"Good","t":"2026-09-05T10:20:41.008Z"}
```

Reliability

- Agents buffer when the destination is down and flush when it returns (store-and-forward in memory with a bounded queue).
- The agent status shows *connected* / *retrying* and the last error text; failures are also in the [Event log](#).
- Because the bridge is a separate process, restarting it (*Settings* › *Services*) does not interrupt OPC UA or scanning.

Security notes

- The REST server uses the same users, tokens and resource ACL as the main API; only tags the user may read are returned.
- Prefer HTTPS and API tokens for external systems; never expose the web port without TLS.
- MQTT: use TLS and per-device credentials on the broker; MergenHub validates the broker certificate unless you disable it for testing.