FRIOLINK™

DATASHEET

Friolink Gateway

Friolink · Site gateway

Status with Friolink: Lab-tested

A small unit that stays at the client's site: it collects what the Zigbee and Bluetooth sensors and the site's controllers measure and sends it to Friolink, encrypted. It is Friolink software on a mini PC or a virtual machine.

Specifications

Version	0.1.0 [1]
Recommended hardware	Intel N100 / N95 / N97 mini PC · 4 cores · 4 GB · 64 GB SSD [2]
Minimum	x86-64 PC · 2 cores · 2 GB · 16 GB [2]
Virtual machine and OS	Proxmox VE 8 / 9 · VMware ESXi · Debian 12 / 13 · Ubuntu 22.04 / 24.04 LTS [2]
Zigbee	Zigbee 3.0 via USB dongle (SONOFF ZBDongle-E / -P, ConBee II / III, SMLIGHT SLZB-07) or an existing Zigbee network [2]
Bluetooth	Bluetooth LE via USB adapter (TP-Link UB500 recommended) or the Friolink Bluetooth bridge; passive listening [2]
Controllers	KMC via TotalControl (BACnet), read-only, every 30 to 60 s [1]
Upload to Friolink	Outbound HTTPS and WSS, one batch every 60 s; no open ports (works behind CGNAT, Starlink or 4G) [1]
Offline	Local queue of about one week; resends in order with the real timestamps [1]
Local web	HTTPS :9443 · Installer and Client roles · 15-min lockout after 5 attempts [1]
Updates	Signed package, verified twice; automatic rollback if it fails [1]
Remote access	Outbound encrypted tunnel of up to 60 min, permission-based, logged and can be turned off by the client [1]

With Friolink

- One product for Zigbee and Bluetooth sensors and controllers
- Its own installation code, no factory passwords
- A single "Gateway offline" alert that groups its sensors
- Encrypted backup to replace a broken unit
- Read-only: never writes to controllers, operates equipment or opens ports

Friolink Gateway is software. Electrical safety and radio certifications (CE, FCC and local approvals) are those declared by the manufacturer of each mini PC, dongle or adapter.

Sources

[1] Friolink technical documentation: Friolink Gateway (GATEWAY.md, v0.1.0)

[2] Compatible hardware list: Friolink Gateway (GATEWAY-COMPATIBILIDAD.md)

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