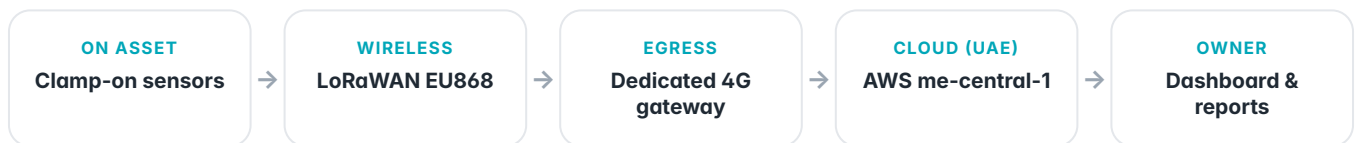


— TECHNICAL NOTE 03 — ARCHITECTURE & SECURITY

Independent overlay. *Air-gapped* by design.

The platform is a parallel monitoring overlay — it does not touch the BMS, SCADA or building IT network. Sensors reach the cloud over a dedicated cellular path, never the building LAN.

No integration, no inbound ports, no agent on building systems.



LAYER	DETAIL
Wireless	TDRA-approved LoRaWAN EU868 — no rewiring, no building cabling
Transport	Dedicated 4G gateways, air-gapped from building IT / OT; encrypted in transit
Cloud	AWS me-central-1 (UAE region) — full data residency
Encryption	TLS 1.2+ in transit, AES-256 at rest, WireGuard VPN for site-to-cloud links
Integration	None required — no BMS / SCADA integration, no IT change request
Data ownership	Asset owner owns all data from day one; open standards, full export, no lock-in

Because the path is sensor → LoRaWAN → cellular → cloud, the building network is never in scope. IT teams don't need to open a port, add a VLAN, or touch a single switch.