

evoGate™ Central Collector



evoGate Central Collectors play a key role in the evoNet™ AMI system by gathering data from fields of evoRTM™ Endpoints and relaying their data back to the evoNet Manager database.

In an Elster AMCO Water evolution™ fixed network (evoNet), evolution Radio Transceiver Modules (evoRTM) are located many miles away from your office and data processing centers. Whether you need to monitor meters in industrial environments, indoors/ outdoors, apartment buildings, or any widespread geographical layout, you can use evoGate Central Collectors to get full access and control from a single location.

evoGate Central Collectors use Wavenis® ultra low-power wireless technology to communicate with installed Wavenis-enabled evoRTM Endpoints and Wide Area Network (WAN) connectivity to send data directly back to your utility. With evoNet Advanced Metering Infrastructure (AMI), you can connect remote evolution networks to back-end systems and enterprise networks over any distance. Each evoGate Central Collector can collect and store information from up to 5000 evoRTM Endpoints. Data is then transferred to your server via preferred WAN connection options.

With full two-way communications, evoGate Central Collectors can also be used for remote network management, allowing administrators to query evoRTM Endpoints when required during times other than the scheduled collection period. The evoRTM Endpoints can even use the evoNet system to send various kinds of alerts automatically, ensuring peace of mind for managing even the largest networks.

- 2-way, end-to-end communications
- Secure reliable Wavenis communications protocol
- A single evoGate Central Collector handles a field of up to 5000 evoRTM Endpoints.
- Time and date stamp for data and events
- Programmable automatic alarms (power failure, cable damage, low battery)
- Photovoltaic power source when AC source is not available.
- Battery backup
- Data backhaul options via cellular GPRS or an Ethernet connection



Each evoGate Central Collector communicates with its field of evoRTM Endpoints and evoHop™ Range Extenders using the 902 to 928 MHz unlicensed ISM band. Cellular GPRS WAN is often used for backhaul to the evolution Ground Server and evoNet Manager Server in the utility office.

General features

- Full 2-way communications
- Supports up to 5000 RTMs
- Battery backup for up to five days
- Power outage detection and automatic notification
- Event data log and time stamp
- Protection index IP65 – protection against water ingress (outer enclosure)
- Outer enclosure
 - Dimensions: 15.75 x 15.75 x 8.25 in (40 x 40 x 21 cm)
 - Total weight: approx 40 lbs (18.1 Kg)
- Power options
 - AC (120 V)
 - 12 V input for solar panel connection (optional)
- Operating temperature -40° to 185° F (-40° to 85° C)
- Relative humidity: 0 to 95%
- Operating software on PC/Windows with client-server architecture
- Management of several evoGate Central Collectors from one server
- Top-mounted GPRS antenna
- Remote external antenna with cable for increased range for evoRTM Endpoint communications.

Link characteristics

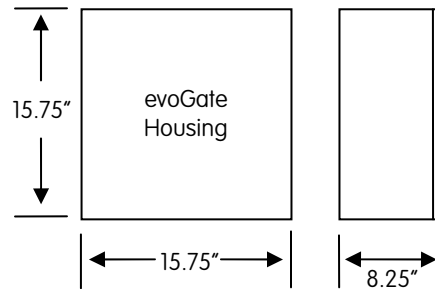
- U.S. 902-928 MHz ISM bands using FHSS
- Wavenis radio range over an up to 2-3 mile diameter span

WAN backhaul connectivity network features

- Ethernet
- Cellular GPRS

Network features

- Supported routing: point-to-point and evoHop™ Range Extender
- Wireless on-site configuration via notebook PC
- Self-healing
- Topologies: star, point-to-point, combination



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