GATEWAY 002

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MOVE SOLUTIONS GATEWAY

The Move Solutions Gateway integrates connectivity in order to collect the data sent by the sensors and forward it to the Cloud platform. Connectivity is threefold: LoRaWAN for communication with sensors, and LTE or Ethernet, at the user's choice, to forward data over the internet. The robust IP67 class case allows the installation even in outdoor unfriendly environments making the gateway suitable for any situation. It is provided with plate and mounting screws, and LoRa and Cellular antennas.

APPLICATIONS

Static and dynamic monitoring of:

- Bridges
- Dams
- Metallic structures
- Vertical structures
- Historical architecures
- Working sites
- Underground structures
- Tunnels

Pairing with:

- Deck sensors
- Tiltmeters
- Accelerometers
- Crackmeters
- Other structure monitoring devices

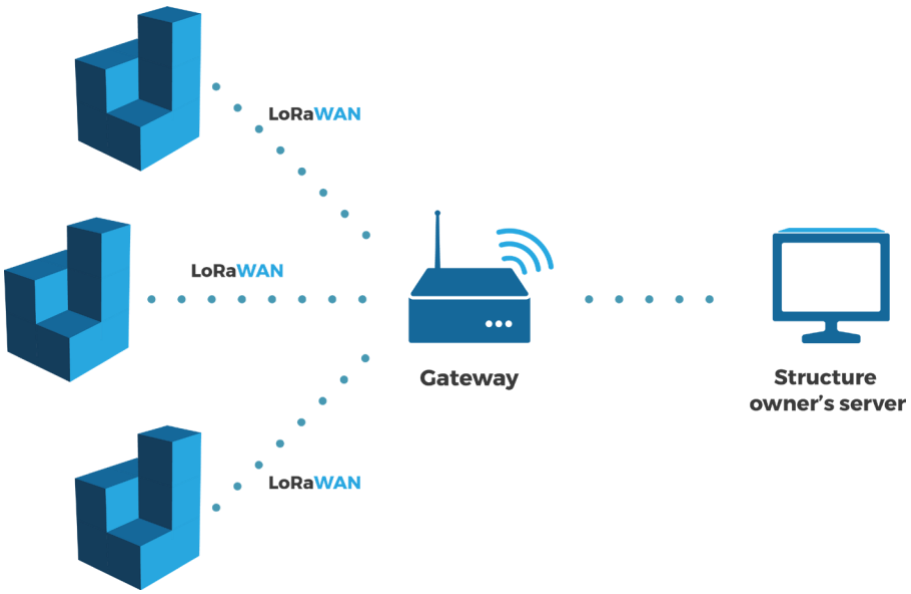
DATASHEET

Connectivity	Cellular, LoRaWAN, Ethernet (on request) Other connectivity on request
Cellular channel	LTE, fallback 3G and 2G
Devices protocol	LoRaWAN communication protocol
LoRaWAN radio channel	ISM 868Mhz
LoRa radio coverage	1km Urban (line of sight with the devices)
Working temperature	-30°C/+85°C
Power supply	220V AC -> 12 V provided (PoE on request)
Waterproof/dustproof class	IP67
Dimensions	250 x 220 x 75 mm
Weight	1kg
Installation	Pole or wall mounting with appropriate plates and screws
Corrosion resistance	>1000 hours in salt spray

NETWORK SYSTEM

The data transmitted by the sensors is collected first by the Gateway through the LoRaWAN protocol and after sent to a server and database system via Cellular connection. Each monitoring site is equipped with at least one gateway, which transmits the data through an internet connection (LTE, 3G, GSM or Ethernet) to a set of servers that manage the LoRaWAN protocol and the data received from the sensors.

The data is then written into a DB system for storage, and it can be viewed and analyzed through the Cloud platform provided. If the customer uses his own platform for data analysis, these can be extrapolated from the servers through a REST API service.



La The Cloud platform displays data anywhere on any device, to constantly monitor the status of the structure. Through various graphs, it is possible to view the oscillation trends and mathematically relate them to each other. Moreover, the software verifies any change in the structure over time by monitoring its degradation over the months and years.