

IQRF Parking Sensor Solution



Makesense installation environment

Budapest - Telekom parking area

- 50 sensors
- 7/24 cam controlled environment
- 24 month tests with 1440 validated status/day



City of Debrecen – extreme electric disturbance

- 200 sensor network in city center
- 60pcs next to the tram line (<5m)



City of Kaposvár

- 400 sensor network
- City environment



High accuracy and disturbance filtering proven in different locations

Architecture

Makesense cloud functions

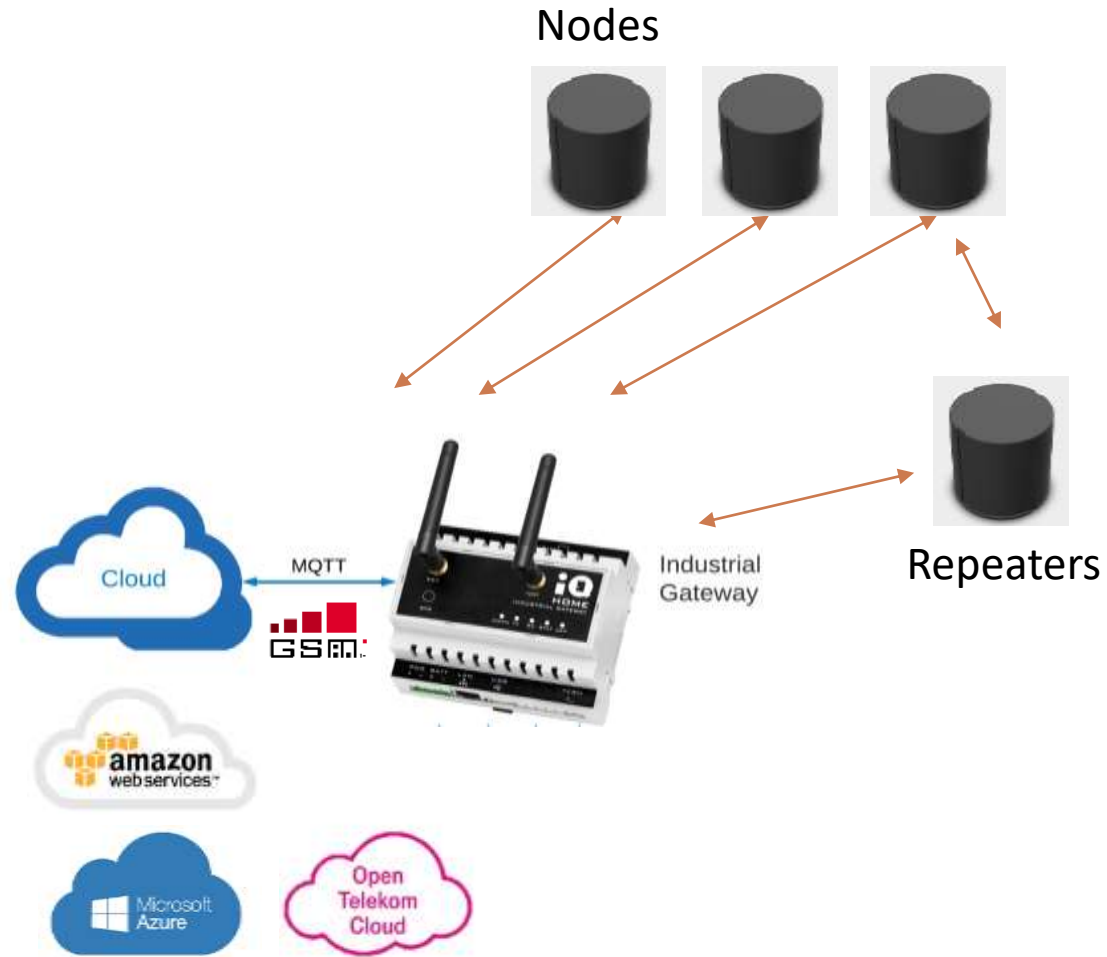
- MQTT Broker
- Device Management
- Data storage
- Interface to business partners

Flexible operation environment

- Ready to run in any cloud
 - Amazon AWS
 - Azure
 - OTC

Efficient Outdoor communication

- Antenna - IQRF AN-09
- Range over 100meters



Standardized communication and flexible operation via
IQHOME IQRF Gateways

Lessons learned and future tasks

- Industrial grade efficient use of IQRF based communication proven
 - Network elements
 - Makesense Parking Sensors
 - Makesense Repeaters
 - IQHOME IQRF gateways

- „Auto Invite” functionality developed
 - 1 dedicated comm channel to new nodes
 - Coordinator initiate 1st contact with new nodes via a dedicated channel

- Open issues
 - Proof of real large scale sensor network (thousands of nodes and dozens of gateways)
 - Cost effective on site Maintenance requirement of large
 - Next project – Budapest City Center 2,000 devices



Thank you for your attention!

For further information & pricing please contact us at:

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