# AKATRONICS
## INFOTECH

# SMART GAS METER INTELLIGENT PLATFORM



INTERNET OF THINGS

## Safe use of gas

Gas safety is an important aspect of gas networks. Pipeline corrosion, gas leaks, excessive pressure and temperature, and dangerous customer behaviors are issues that require remote monitoring to quickly resolve.

## Fair use of gas

Smart gas IoT allows you to visualize what's happening inside your pipeline – whenever and wherever you want. Meanwhile, with more information acquired through meter-end, APP and internet, users are more aware of their energy consumption.

## Smart use of gas

Get real-time data with prioritized alarms and full data analysis that allow both the utility companies and users investing and using gas more efficiently.

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High/Low Voltage Alarm then close valve

Close valve when Power off

Close Valve when strong Magnetic Interference

Long-term un-consumption Close valve

Abnormal Flow Rate Alarm then close valve

Abnormal Continuous Flow Alarm then Close Valve

Close valve when 1.2Qmax

Flow Rate Monitoring

Shut-off Valve when gas leaking

Remote Valve Control

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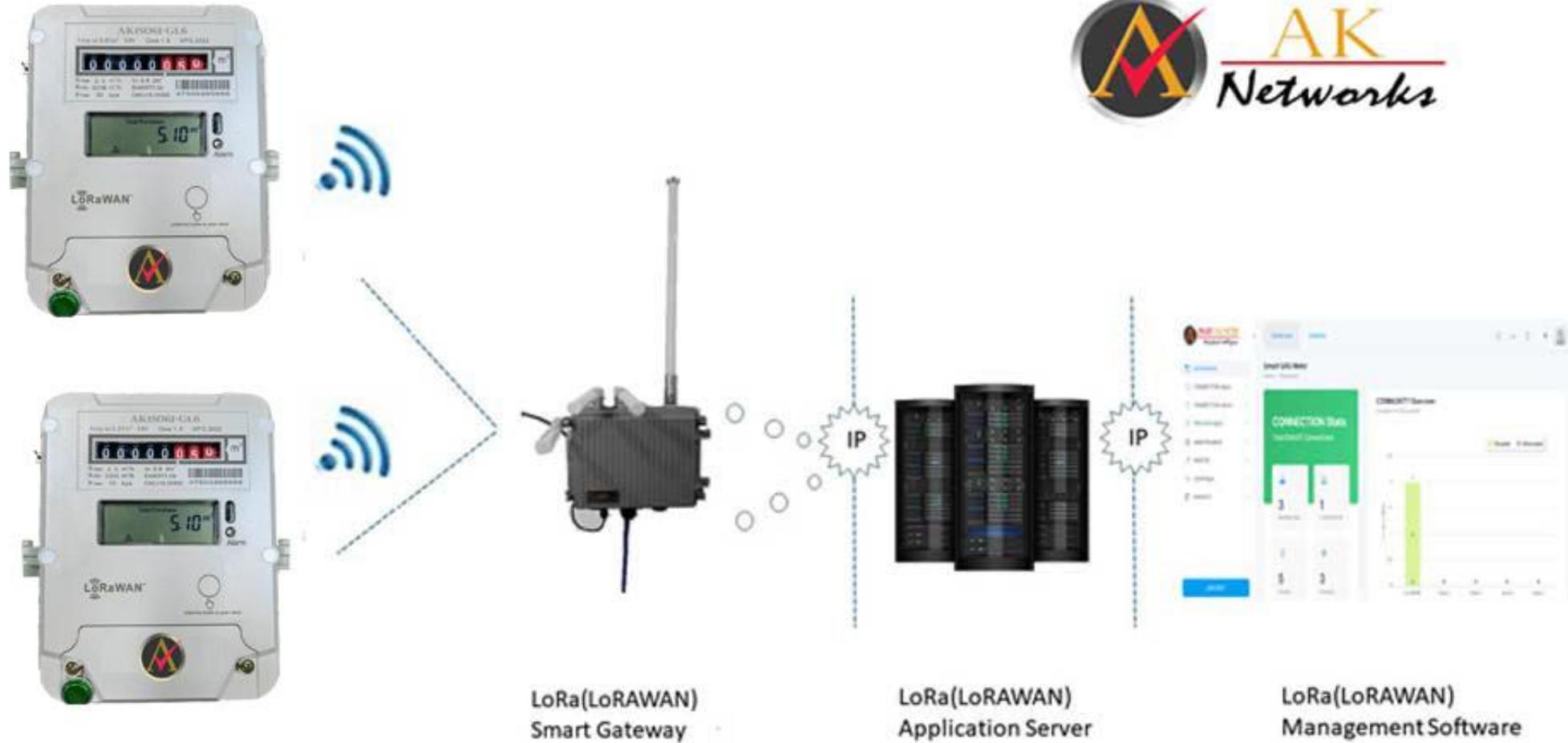
# IOT Smart Gas Meter
## Functions

### Smart Management

- Remote re-charge
- Remote meter reading
- Remote valve control
- Remote lock/unlock valve
- Remote ladder pricing
- Remote time-of-use pricing
- Remote prepayment
- Remote query
- Daily data transmit
- Failure shutoff
- Metrological info management

- Valve failure reminding
- Shutoff records and query
- Remote shutoff preset
- Remote ladder pricing preset
- Maximum flow preset
- Continuous usage changing
- Low battery display and shutoff
- Meter reading date preset
- Status display
- Time synchronization
- Data logger for readings, alarms and events

### Safety Management

#### Anti-explosive
- Long term non-usage shutoff
- Abnormal tiny flow shutoff
- Overtime continuous flow shutoff
- Overflow shutoff
- Abnormal large flow shutoff
- Over 1.2Qmax flow shutoff
- Gas leakage shutoff
- Remote shutoff
- Safe re-set

#### Information Security
- Meter-end
- Communication
- Systems

### Intelligent Protection
- Low gas pressure shutoff
- Magnetic interferences shutoff
- High/low voltage shutoff
- Input outer alarm info and shutoff

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LoRa(LoRAWAN)
Smart Gateway

LoRa(LoRAWAN)
Application Server

LoRa(LoRAWAN)
Management Software

LoRaWAN™     NB-IoT™

| Key Parameters | LoRa(LoRAWAN) |
|---|---|
| Techniques | Spread Spectrum |
| Network Deployment | Independent Station |
| Network Mode | Star Network |
| RF Band | EU 868 Mhz |
| Transmission Bandwidth | 125khz-500khz |
| Indoor Penetration Capability | 8dBm link boost |
| Transmission Distance | Visual distance 3 km |
| Rate | <300kbps |
| Number of Connections | 2000-3000/hub |
| Meter TX power | 14dBm |
| Meter RX sensitivity | LoRa -148dBm |
| Meter TX current | 130mA |
| Meter RX current | 10mA |
| Gateway TX power | 0.5w |
| Gateway | Needed |
| Link Robustness | 148dBm |

**SMART GAS METER**
*Analytical Intelligence*

- **DASHBOARD**
- CONNECTION Mgnt. ∨
- CONNECTION Admin. ∨
- PROCESS Mgnt. ∨
- MAINTENANCE ∨
- MASTER ∨
- USER Mgnt. ∨
- REPORTS ∨

**LOG OUT**

# Smart GAS Meter

Home - Dashboard

## CONNECTION Stats

**Total SMART Connections**

**3**
Residential

**1**
Commercial

**5**
Zones

**3**
Groups

## COMMUNITY Overview

Occupied Vs Unoccupied

Occupied     Unoccupied

| | AL BARARI | Zone 2 | Zone 3 | Zone 4 | Zone 5 |
|---|---|---|---|---|---|
| Occupied | 2 | 0 | 0 | 0 | 0 |
| Unoccupied | 0 | 0 | 0 | 0 | 0 |

Location Wise

# SMART GAS METER
*Analytical Intelligence*
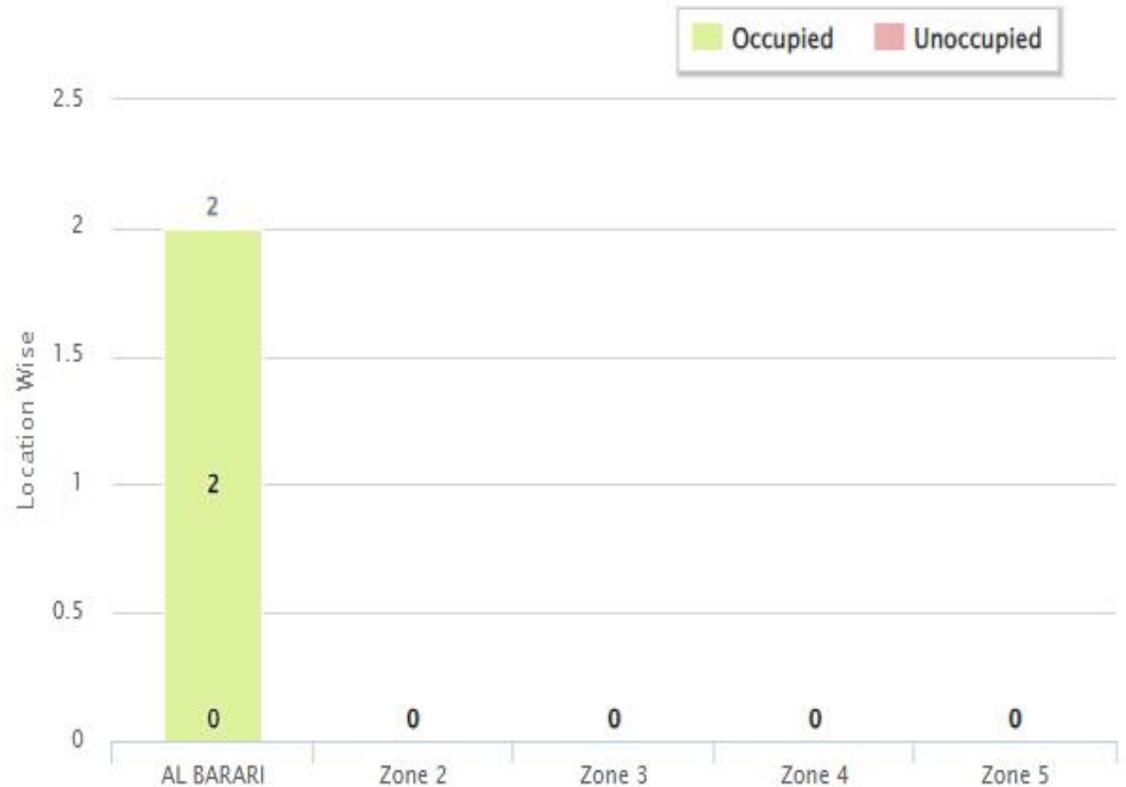
DASHBOARD

CONNECTION Mgnt. ∨

CONNECTION Admin. ∨

PROCESS Mgnt. ∧

• METER MANAGEMENT

• STATUS - LIVE

• STATUS - BASE

MAINTENANCE ∨

MASTER ∨

USER Mgnt. ∨

REPORTS ∨

LOG OUT
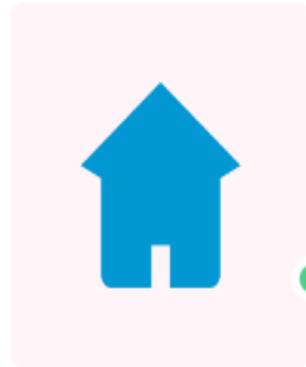
## AKINFOS TEST 80327 ✔  LoRaWAN   Active

📍 Al BARARI   ✉ support@akinfos.com

REFRESH     LIVE

| A | Postpaid | 🔧 Open | 01 Hr. |
|---|---|---|---|
| CLASS | MODE | VALVE | Rpt. Period |

BATTERY Onboard   🔋100%

**Overview**    Signal Strength    Settings    Activity

## Profile Details

| | |
|---|---|
| Full Name | AKINFOS TEST 80327 |
| Contact Phone ⓘ | 00971555074996  Verified |
| Email | support@akinfos.com |

# OUTSTANDING FEATURES
## of IoT Smart Gas Meter

**Real-time Bi-directional Communication**

**12 Safe Shut-off Remote control**

**Leakage Notification**

**Transparent Billing**

**Integrated Resource Management**

**12+ year Battery life**

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**Thank You**

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