

HONEYWELL CENTRAL HUB

Universal Connectivity Gateway

Collecting the gas sensor data of the wireless instrument and reporting to the platform in real time.

The Central Hub utilizes Long Range Low Power (LoRa) radio that collects the gas sensor data from Honeywell gas detectors and reports it in real-time to the Honeywell Safety Suite software solution. The Hub supports three uplink connection methods: Ethernet, Wi-Fi and Cellular.

- Supports GPS positioning and regularly report device location information
- Supports multi-channel LoRa enabled gas detectors
- Multiple indicators show the working status of the equipment
- Aids wall-mounted, desktop, and car installation



FEATURES AND BENEFITS



Supports three uplink connection methods, Ethernet, Wi-Fi & Cellular



Supports up to 64 LoRa enabled gas detectors per Central Hub



Operates in real time to provide data analytics through Safety Suite software



Allow multiple Central Hubs to work together for wide area coverage

Honeywell Central Hub Technical Specifications

TABLE 1. HARDWARE SPECIFICATIONS

| SPECIFICATIONS | DESCRIPTION | REMARKS |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| Core | ARM 4-core processor; 2 GB RAM; 8 GB Flash Ubuntu OS, Python | |
| Power supply | DC power supply, 12 V ~ 24 V, 500 mA or USB Type C input: 5 V, 2 A | |
| Power consumption | 6 W | |
| LoRa | 868/915 MHz band & 470 MHz band Honeywell Proprietary LoRa network | Downlink to gas detectors |
| Ethernet | 10/100M adaptive | RJ45, uplink |
| 4G | LTE FDD, CAT/4 | Uplink |
| Wi-Fi | 802.11 g/n 2.4 GHZ | Uplink |
| Bluetooth* | BT/BLE 5.0 | Reserved |
| GPS/BD | GPS L1 C/A, -163 dBm tracking sensitivity | Support active antenna |
| Storage memory | Micro-SD card, 32 GB memory | |
| USB | USB TypeC | |
| NFC reader | 13.56 MHz | Buzzer ack, reserved |
| SIM cellular | 1.8 V/3.0 V, plug-in card | |
| Key/button | Power button; reset button | Power button: On/Off Reset button: Hot reset |
| LED | Status indication | Power LED: Green RF LED: LoRa activity, Green LAN LED: Green Wi-Fi LED: Green LTE LED: Green Fault LED: Red, unit fault |
| Working temperature | -4°F to 140°F (-20°C to 60°C) | |
| Storage temperature | -40°F to 140°F (-40°C to 60°C) | |
| Enclosure | IP30 | |
| Size | 194 mm x 131 mm x 44,5 mm 950 g device, 1.7 kg with package 7.64" x 5.16" x 1.75" 2.1lbs device, 3.27lbs with package | |
| LoRa range | Up to 0.62 mile/1 km (gas detectors) Up to 64 per Central Hub | |

* Bluetooth is a trademark of Bluetooth Special Interest Group (SIG)

Honeywell Central Hub Technical Specifications

TABLE 2. SOFTWARE SPECIFICATIONS

| SPECIFICATIONS | DESCRIPTION | REMARKS |
|-----------------|------------------------------------------------------------------------------|---------------------------------------------------|
| User interface | Embedded web server, show the Central Hub's status; configure its parameters | |
| Log (SD card) | Record the device working log, FDD dial-in log, error log | Easy to check and helps manage device maintenance |
| Firmware update | Update the Central Hub firmware through web browser interface | |
| Reset | Hot reset, web browser interface command reset | |

TABLE 3. ENVIRONMENTAL COMPLIANCE

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|------------------------------|
| RoHs3 |
| REACH |
| US California Proposition 65 |
| TSCA PBT Substances |

TABLE 4. CERTIFICATIONS

| |
|-------------------------------------------------|
| Certification: RE-D for EU |
| FCC & IC for North America |
| Mobile Network Operator Approvals for 4G module |
| Safety UL/EN60950-1 for AC adaptor |
| Compliance: ROHS/REACH /Prop65 compliance |

Honeywell Central Hub Technical Specifications

CENTRAL HUB | PLANT

Existing Solution

MultiRAE

- **Wireless connectivity** – Mesh (0.5 km – 0.3 mile)
- **Man down** – Gyroscope/Accelerometer

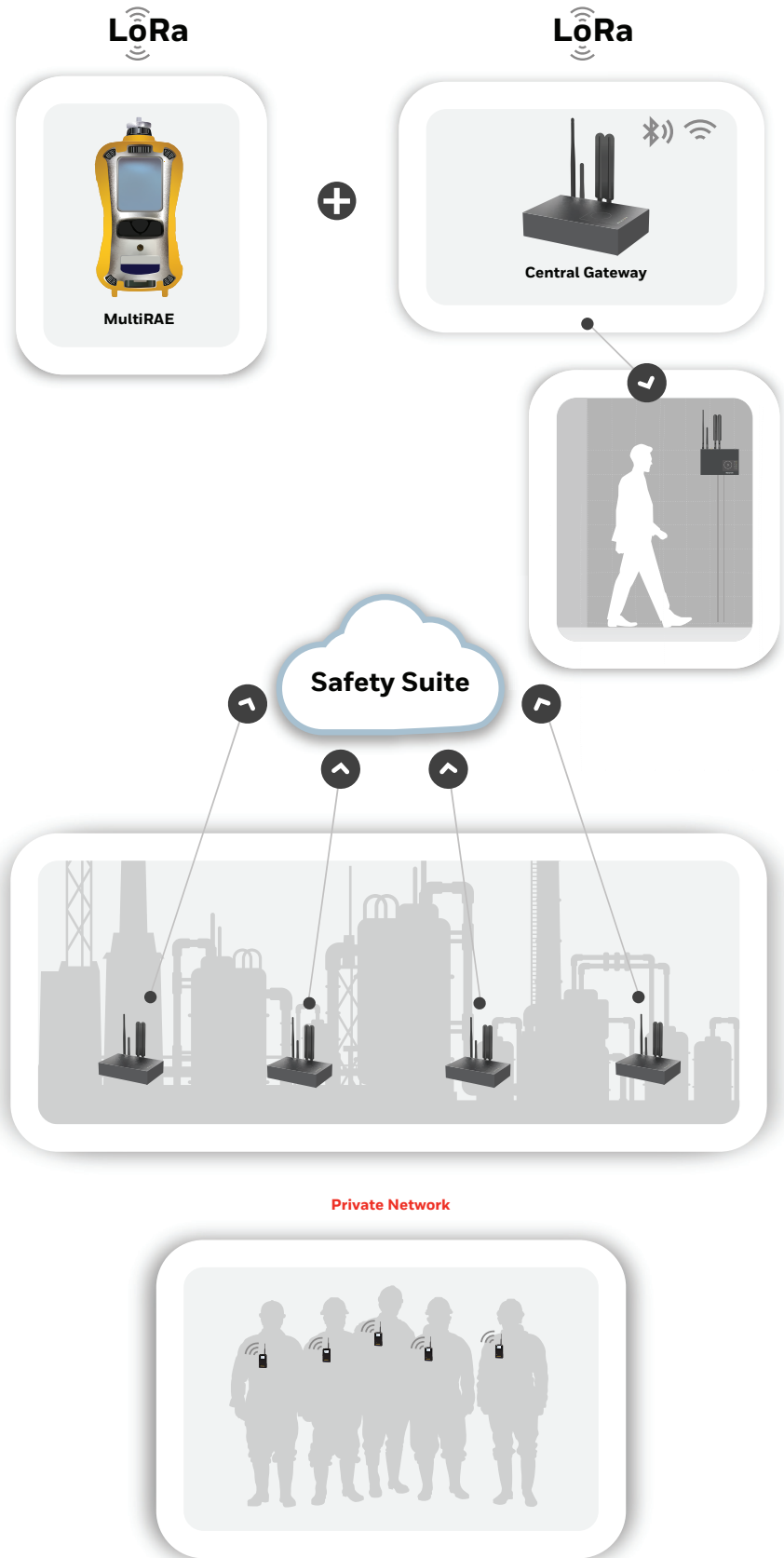
New Solution

MultiRAE

- **Wireless connectivity** – LoRa (1 km – 0.6 mile)
- **Certification** – RE-D, FCC/IC

Central Gateway

- **Wireless connectivity** – LoRa
- **Wired uplink** – Ethernet Port/Wi-Fi
- **Additional connectivity** – USB-C/BLE
- **Device identification** – RFID/NFC reader
- **Local storage** – Data storage & forward; firmware update; configuration update



Honeywell Central Hub Technical Specifications

CENTRAL HUB | REMOTE

Existing Solution

MultiRAE

- **Wireless connectivity** – Mesh (0.5 km – 0.3 mile)
- **Man down** – Gyroscope/Accelerometer

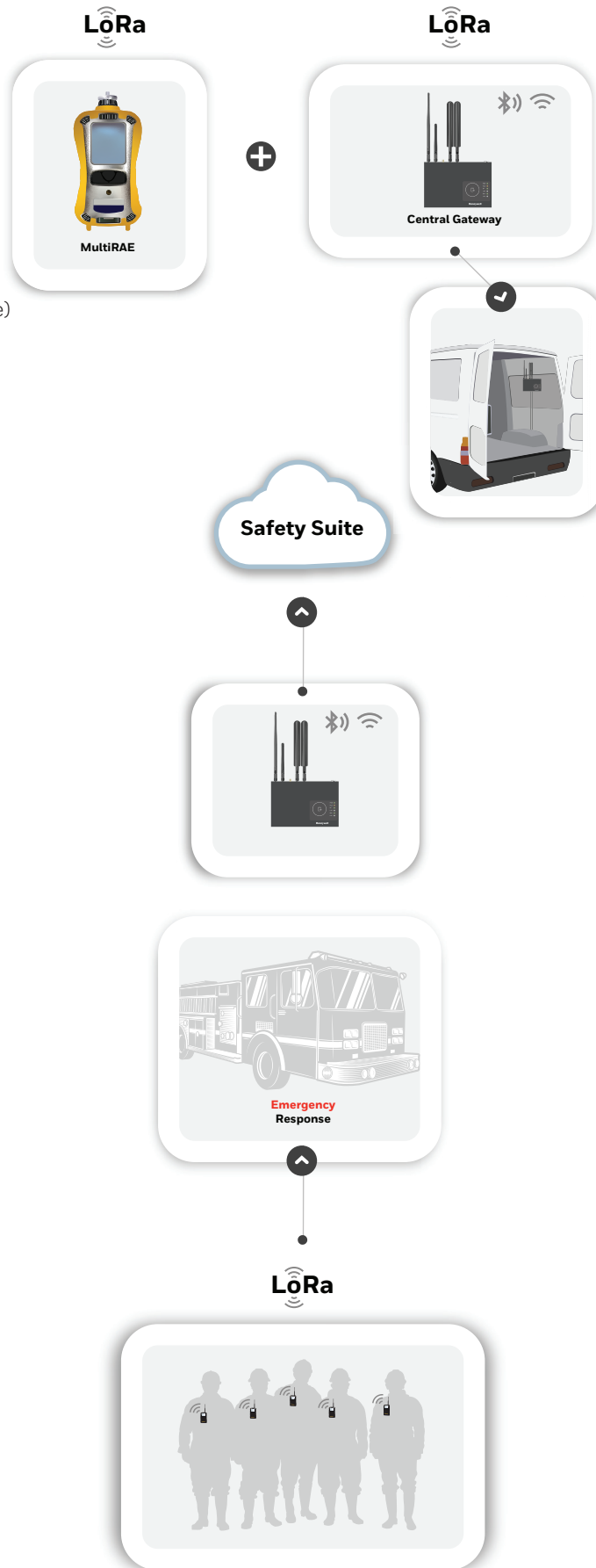
New Solution

MultiRAE

- **Wireless connectivity** – LoRa (1 km – 0.6 mile)
- **Certification** – RE-D, FCC/IC

Central Gateway

- **Wireless connectivity** – LoRa
- **Wired uplink** – Cellular/Wi-Fi
- **Additional connectivity** – USB-C/BLE
- **Device identification** – RFID/NFC reader
- **Local storage** – Data storage & forward; firmware update; configuration update



CENTRAL HUB | AREA MONITORING

Existing Solution

AreaRAE, RigRat & Meshguard

- **Wireless connectivity** – ISM(1.5 km – 0.9 mile)/Mesh (0.5 km – 0.3 mile)
- **Man down** – Gyroscope/Accelerometer

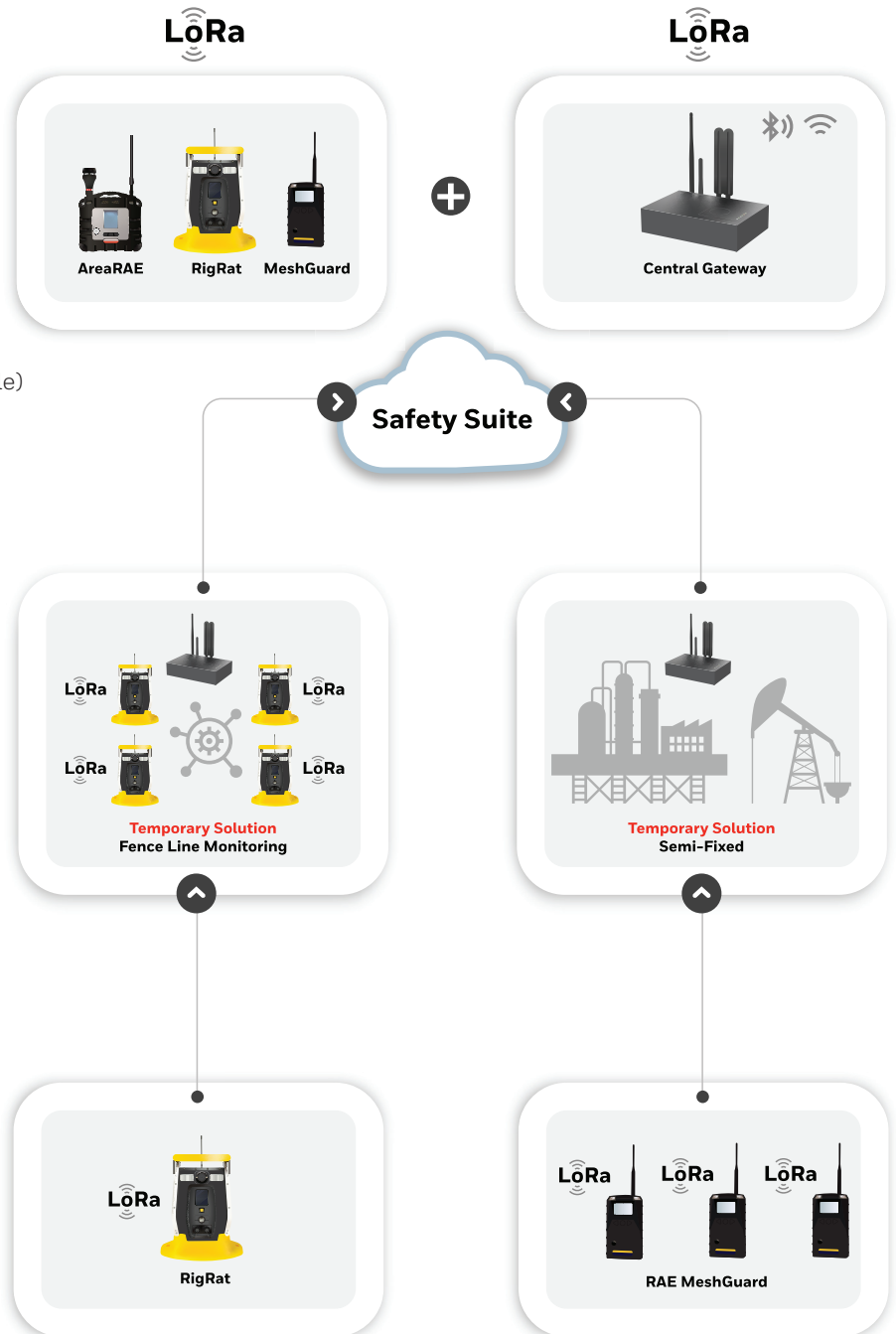
New Solution

AreaRAE, RigRat & Meshguard

- **Wireless connectivity** – LoRa (1 km – 0.6 mile)
- **Certification** – RE-D, FCC/IC

Central Gateway

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For more information

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