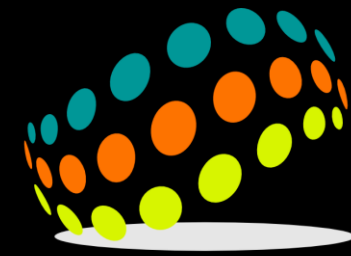


RAMAC™

Pallet Tracking
Solution Overview



G-Matrix Systems
Integrated System Design



G-Matrix Systems

Integrated System Design

G-Matrix Systems addresses the modern need for monitoring through a range of bespoke IOT communications solutions, from cold chain monitoring, to security and entry control, tracking, fluid measurement and more.

G-Matrix Systems is a **Full IoT Turn-key** solution provider and is completely network Agnostic

CONTACT US

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Our Core Business

RESEARCH & DEVELOPMENT

Internal R&D for product enhancement ensuring G-Matrix is always ahead of the curve with future Technologies.



RAPID PROTOTYPING

The G-Matrix Systems “Heart” is an all-encompassing device which allows for multiple sensors to be connected allowing rapid prototyping. This, together with our in-house 3D printers ensures prototypes are aligned with Customer expectations



PRODUCTION

40 000+ GPS units pass through our Test jigs every month supported by the G-Matrix test data base and monthly SLA



"A Good company delivers excellent products and services.
Great companies does all that and strives to make the world
a better place"

Bill Ford - Executive Chairman of *Ford* Motor Company

Our Services

- Electronic Firmware Development in right down to microprocessors
- Low Power Products – Sigfox, LORA, GSM, Low Power Radio, BLE, Solar powered, NB-IoT, RPMA, M-CAT1, MQTT Products.
- Labview Software Development
- Electronic and Mechanical Interfacing.
- Development on "Internet of Things" networks
- Integration on 3rd party Platforms
- Deployment of LPWAN networks
- Intensive research and development in Sigfox, Lora, BLE, Wi-Fi & GSM communication
- Management Systems for remote communication
- Development of smartphone application.

Current Products

RAMAC™

Remote Access Management and Control Systems

- Cold Storage Monitoring
 - Smart Location Button
 - Range Detector
 - Remote Lock Monitor and driver
 - Cable Theft Solution
 - Asset Tracker
 - Temperature Sensor
 - Power State Monitor
 - Tamper Proof Container Locks
 - Intrusion protection Sensors
 - Vibration Sensor
 - Magnetic Sensor
 - Power consumption and Battery monitor
 - Camera Pole Maintenance Monitoring
- RAMAC™ Portal is a ready to use online web-based portal, available to any customer
 - RAMAC™ App allows local device configuration, OTA Firmware updates, diagnostics and real time information of the device
 - RAMAC™ Cerebro is a consumer facing App which can be white labelled for our channel partners
 - RAMAC™ API allows for easy integration



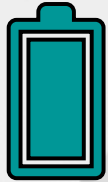
G-Matrix Systems
Integrated System Design

Pallet Tracking Solution

Asset Tracker (AT1)

Returnable pallets last over 3 times more cycles than conventional pallets with heavy duty Industrial Pallets even double of that which doesn't cheap. We work with pallet manufacturers to embed our tracking device inside pallet cavities safe from tampering allowing them to not only track the pallets but also the precious cargo.

The **RAMAC™-Asset Tracker** monitors the remote movement of Assets. The device is attached to the Asset and continuously evaluates the Asset for significant movement which enables the by using the built-in GPS until movement stops.



Low Power Consumption

IoT networks such as Sigfox and Lora allow the device to operate autonomously for up to 5 years.



3- Axis Accelerometer

The 3-Axis accelerometer allows the RAMAC- Asset Tracker enter an ultra-low power state yet still wakeup when movement occurs.



Magnetic Sensor

Once the enclosure is opened the device will transmit a Tamper Alert



GPS

Once the Movement is detected, the device starts transmitting GPS Positions every 5 minutes.

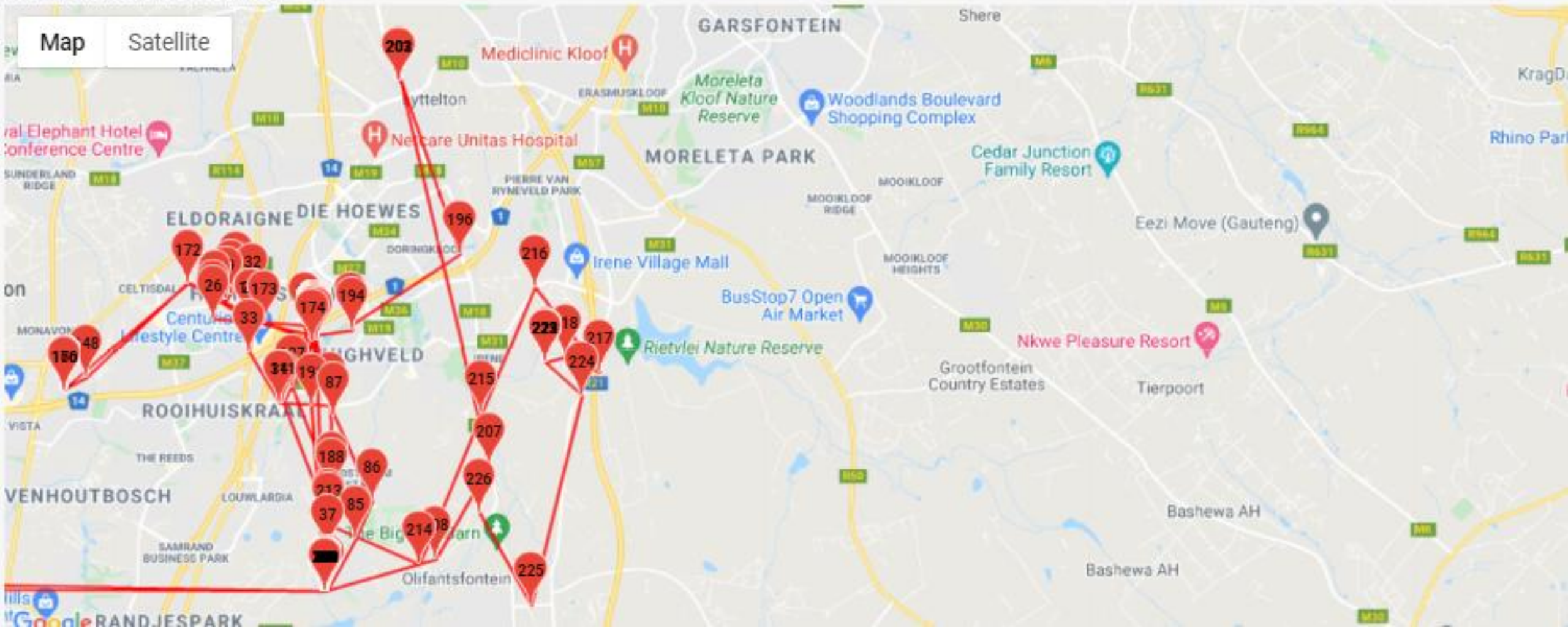


G-Matrix Systems
Integrated System Design

Location History

Start Date: End Date: No of Messages:

Note: 1 is latest location and 1000 is oldest



Alerts are sent via Email, Telegram with a map card and shown in the NOC Dashboard View.

The platform keeps an audit log of every alert sent from the portal and where it was sent. Should any user reset the alarm they will need to supply a reason.

Every action like muting a unit, resetting an alarm, suspending a device is time stamp recorded with the user details for accountability reasons.

RAMAC® Remote Access Management and Control Systems November 17, 2021 05:57:12 WED Akheel Jam.

Alerts

Device Type: RAMAC AT1 Start Date: 2021-10-17 End Date: 2021-11-17 Device ID: Search Export

DEVICEID	ALERT TYPE	DATE TIME	VIEW MAP
C7258F	AT1 Movement Alarm	2021-11-11 13:34:52	No Location
C51581	State: -Armed -Not Alarming -Temperature Normal -Door Closed -New Location -Moving	2021-11-08 15:30:31	Map
C51581	State: -Armed -Not Alarming -Temperature Normal -Door Closed -New Location -Moving	2021-11-08 15:24:40	Map
C51581	State: -Armed -Not Alarming -Temperature Normal -Door Closed -New Location -Moving	2021-11-08 15:18:50	Map

ADD MEMBERS

19:38

Movement alarm for AT1 device
Device:C6C3E5
Description:LEVI_Test 2
Date:2021-08-23 19:38:38

Account:V2 SALES DEMO
<https://portal.ramac.io/vd/C6C3E5/19>
19:38

Movement alarm for AT1 device
Device:C71A07
Description:LEVI_Test
Date:2021-08-23 19:38:42

Account:V2 SALES DEMO
<https://portal.ramac.io/vd/C71A07/19>
19:38

P1 Device Location Update
Device:C5005E
Description:Akheel_Goodwill
Date:2021-08-23 19:41:23

Account:V2 SALES DEMO
Map:[Click Here](#) to view latest location on map
RB

Account: All Accounts Device Types: RAMAC AT1 Devices: All Devices Alerting Devices

Devices Having Alert

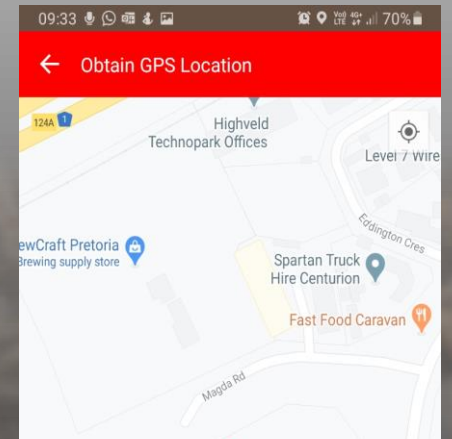
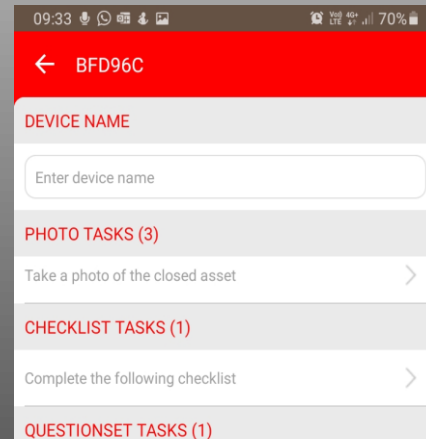
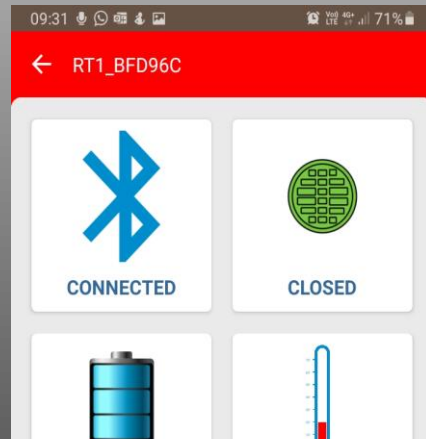
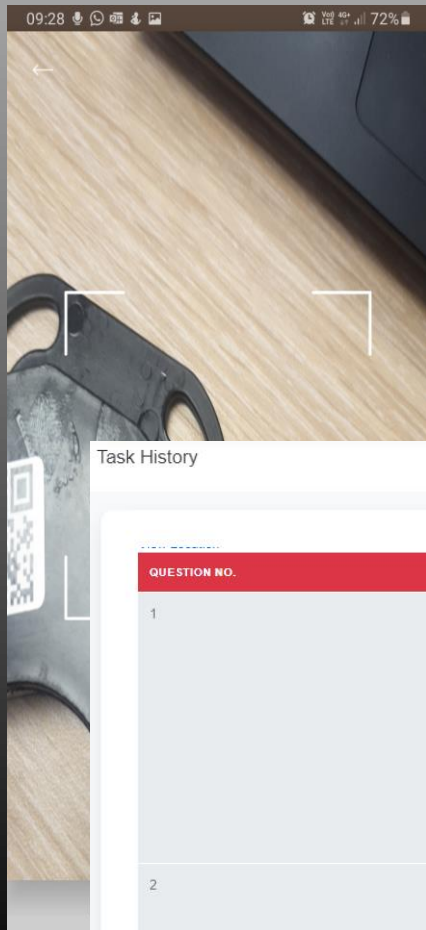
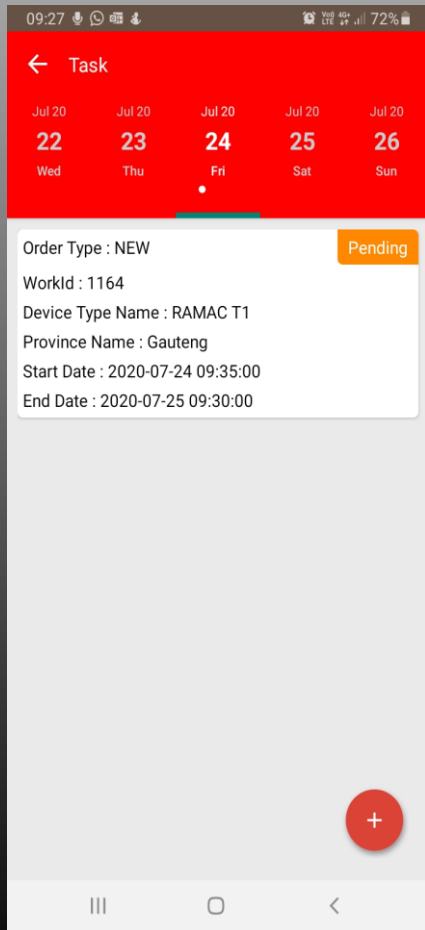
11 (Alert Devices) / 32 (Total Devices)

Show All

DEVICE ID	DEVICE TYPE	ALARM STATUS	LAST SEEN
C74604	AT1	! ↻	12 minutes ago
C5007B	AT1	! ↻	1 hour ago
C4DD3B	AT1	! ↻	1 hour ago
C4DD2C	AT1	! ↻	1 hour ago
C12ED1	AT1	! ↻	1 hour ago
C4D277	AT1	! ↻	1 hour ago
C6A9C1	AT1	! ↻	1 hour ago
C57B76	AT1	! ↻	1 day ago
C75DF9	AT1	! ↻	8 days ago
C7690A	AT1	! ↻	8 days ago
BFA048	AT1	! ↻	19 days ago

Work Order Overview

The work order process is a step-by-step guide to activating the device whereby the Communication will only be enabled on the installation.



Task History

QUESTION NO.	TASK	ANSWER
1	Take a photo of the height installed in the ground	
2	Take a photo of the installed Device	



Audit Log

All information captured by installer during the installation will immediately be available on the portal on completion of all tasks.

Search Device Id

Work Order History

Start Date: End Date: Order Type: Assigned User: Device:

Status:

[Clear Search](#)
 Show entries

WORK ORDER ID	WORK ORDER TEMPLATE	CLIENT	START DATE	END DATE	ORDER DATE	ORDER TYPE	DEVICE	STATUS	ASSIGNED TO	INSTALLATION DATE	ACTION
7697	Protea Coin	Protea Coin	2021-05-27 14:01:00	2021-05-27 15:16:00	2021-05-27 14:01:44	NEW	RAMAC MD1	COMPLETED	Kenneth Lindgren	27-05-2021	
7696	Protea Coin	Protea Coin	2021-05-27 13:57:00	2021-05-27 15:15:00	2021-05-27 13:58:53	NEW	RAMAC MD1	COMPLETED	Kenneth Lindgren	27-05-2021	
7695	Protea Coin	Protea Coin	2021-05-27 13:53:00	2021-05-27 15:16:00	2021-05-27 13:53:33	NEW	RAMAC MD1	COMPLETED	Kenneth Lindgren	27-05-2021	
7654	Protea Coin	Protea Coin	2021-05-27 12:03:00	2021-05-27 14:15:00	2021-05-27 12:04:29	MAINTENANCE	C6A397	NEW	Kenneth Lindgren	27-05-2021	
7653	Protea Coin	Protea Coin	2021-05-27 00:12:00	2021-05-27 13:10:00	2021-05-27 11:36:43	NEW	RAMAC MD1	COMPLETED	Kenneth Lindgren	27-05-2021	
7652	Protea Coin	Protea Coin	2021-05-26 14:38:00	2021-05-26 16:25:00	2021-05-26 14:38:45	NEW	RAMAC MD1	NEW	Kenneth Lindgren	-	
7590	Protea Coin	Protea Coin	2021-05-25 12:15:00	2021-05-25 13:45:00	2021-05-25 12:25:01	NEW	RAMAC MD1	COMPLETED	Kenneth Lindgren	25-05-2021	
7591	Protea Coin	Protea Coin	2021-05-25 12:15:00	2021-05-25 13:45:00	2021-05-25 12:25:01	NEW	RAMAC MD1	COMPLETED	Kenneth Lindgren	25-05-2021	
7592	Protea Coin	Protea Coin	2021-05-25 12:15:00	2021-05-25 13:45:00	2021-05-25 12:25:01	NEW	RAMAC MD1	COMPLETED	Kenneth Lindgren	25-05-2021	
7593	Protea Coin	Protea Coin	2021-05-25 12:15:00	2021-05-25 13:45:00	2021-05-25 12:25:01	NEW	RAMAC MD1	COMPLETED	Kenneth Lindgren	25-05-2021	

Pulse Sensor



Cable Theft Sensor



Temperature Sensor



RAMAC™ Portal
& Mobile App



Vibration Sensor



Remote Lock Unit



Smart Location
Button



RAMAC™
Remote Access Management and Control Systems

Power State Sensor



Asset Tracker



Magnet
Sensor



Intrusion Protection





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G-Matrix Systems is a full turn-key IOT solution provider.

Contact Us

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