



# Connect More

Connect, protect, and derive more value from the assets that matter.



# The HydroTerra Difference

## QUALITY

### Matters

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'Good Enough' is Not Enough  
For Your Critical Assets

Details matter. Our entire process is underpinned by a relentless attention to detail to consistently deliver solutions of the highest-possible quality and reliability.

## POWER

### Matters

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The Power to Do More with  
'Deploy Once' Battery Life

Through smarter design and better engineering we're now able to achieve 'deploy once' battery life, significantly reducing operating costs and enabling deployments at scale.

## FLEXIBILITY

### Matters

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Demand More From Your  
Devices

Easily configure your devices with full control over a rich set of device parameters. Send data to any end platform with multiple integration options.

## SECURITY

### Matters

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Authenticated and Encrypted  
Everywhere

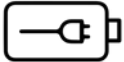
We implement comprehensive security protocols on our hardware and software to protect the integrity and confidentiality of your data.

# Any Asset, Anywhere

Connect More with Multiple Location, Power, and Connectivity Solutions



Indoor/Outdoor Location



Wired and Battery-Powered



GPS, Wi-Fi MAC Address Scanning, Cell Tower Positioning



IoT Data Loggers for Remote Sensor Monitoring



Bluetooth® Gateways with Third-Party Tag and Sensor Integrations



Cellular 4G/5G LTE-M (Cat-M1)/NB-IoT with Network Roaming



Cellular 4G LTE Cat 1bis with 2G Fallback for Global Roaming



LoRaWAN® 868, 902-928 MHz



Iridium and IoT Satellite





# The Power to Do More

Our suppliers are pioneers in battery-powered IoT asset tracking, continuously setting the bar for innovation, battery life, and performance.

With over years of 'lessons learned,' today we design and manufacture the longest-life battery-powered asset tracking hardware in the world for businesses that demand more from their devices.

- Indoor/Outdoor Location
- Movement Detection
- Theft Recovery
- Bluetooth® Gateways
- Onboard Geofencing
- Impact and Tip Detection
- Rotation Counting
- Run Hour Monitoring
- And More!



## Yabby Family

Smallest form factor. Collar housing available for securing devices to animals.

85 x 63 x 24 mm  
(3.35 x 2.48 x 0.94 in)



## Bara Family

Lowest cost with a thin form factor. Magnetic activation and tamper detection.

149 x 51 x 21 mm  
(5.9 x 2.0 x 0.8 in)



## Oyster Family

Our most popular device family. Perfect balance between size and battery life.

108 x 86 x 31 mm  
(4.25 x 3.39 x 1.22 in)



## Remora Family

For use cases where extremely long battery life and/or aggressive (second-by-second) tracking performance is required. Magnetic tamper detection.

224 x 91 x 41 mm  
(8.82 x 3.58 x 1.61 in)

# Battery-Powered

Cellular 4G/5G  
LTE-M (Cat-M1)/NB-IoT



**Bara GPS**



**Yabby3 GPS**



**Oyster3 GPS**



**Oyster3 Bluetooth GPS**



**Remora3 Bluetooth GPS**

|                                   |  |  |  |  |  |
|-----------------------------------|--|--|--|--|--|
| Connectivity                      | LTE-M and NB-IoT                                 | LTE-M and NB-IoT                                 | LTE-M and NB-IoT                                 | LTE-M and NB-IoT                                 | LTE-M and NB-IoT                                 |
| Environment                       | Outdoor  | Outdoor  | Outdoor  | Outdoor  | Outdoor  |
| Location Technologies             | GNSS<br>Cell Tower Location                      | GNSS<br>Cell Tower Location                      | GNSS<br>Cell Tower Location                      | GNSS<br>Cell Tower Location                      | GNSS<br>Cell Tower Location                      |
| Bluetooth® Gateway                | -  | -  | -  | Yes  | Yes  |
| Housing Size                      | 149 x 51 x 21 mm<br>(5.9 x 2.0 x 0.8 in)         | 85 x 63 x 24 mm<br>(3.35 x 2.48 x 0.94")         | 108 x 86 x 31 mm<br>(4.25 x 3.39 x 1.22")        | 108 x 86 x 31 mm<br>(4.25 x 3.39 x 1.22")        | 224 x 91 x 41 mm<br>(8.82 x 3.58 x 1.61")        |
| Magnet                            | Magnetic Activation and<br>Tamper Detection      | -  | -  | -  | Magnetic Tamper Detection                        |
| IP Rating                         | IP68 Rugged Waterproof                           | IP68 Rugged Waterproof                           | IP68 Rugged Waterproof                           | IP68 Rugged Waterproof                           | IP68 Rugged Waterproof                           |
| Accelerometer                     | Movement, Impact, Rotation,<br>and Tip Detection | Movement, Impact, Rotation,<br>and Tip Detection | Movement, Impact, Rotation,<br>and Tip Detection | Movement, Impact, Rotation,<br>and Tip Detection | Movement, Impact, Rotation,<br>and Tip Detection |
| Batteries                         | 2 x AA Lithium                                   | 3 x AAA Lithium                                  | 3 x AA Lithium or LTC                            | 3 x AA Lithium                                   | 2 x D LTC  |
| <b>Battery Life Estimates*</b>    |  |  |  |  |  |
| Once Daily Location Updates       | 8 years  | 10 years   | 10 years   | 10 years   | 20 years   |
| Movement-Based Location Updates** | 3 years  | 2 years  | 6 years  | 6 years  | 10 years   |
| Hourly Location Updates           | 1.5 years  | 1.5 years  | 3.5 years  | 3.5 years  | 10 years   |

\*Battery life estimates are influenced by several factors including temperature, installation and orientation of the device, battery selection, the frequency of location updates, network coverage, sensor integrations, peripherals, accelerometer settings, and more.

\*\*Movement-based estimates are based on 2 hours of movement, occurring 5 days a week, with default tracking parameters (location updates every 3 minutes and uploads every 30 minutes). Devices can be configured to provide more frequent location updates when the asset is in motion which will impact battery life.

# Indoor/Outdoor Asset Management on One Device

Track and manage your assets as they move across environments with Edge Devices.

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## Multi-Technology Location Tracking

Performing where GPS-only devices fail, Edge devices support multiple location technologies (GNSS Scanning, Wi-Fi MAC Address Scanning, and Cell Tower location), to enable seamless Indoor-to-Outdoor asset tracking and management on one device.

## Location 'Scanning' with Cloud-Based Solving

Unlike most GNSS asset tracking devices in the market today that conduct location calculations on-device, Edge devices employ a unique approach by offloading the location processing workload to the cloud to significantly reduce power consumption and extend battery life.



# Indoor/Outdoor Battery-Powered

Cellular 4G/5G  
LTE-M (Cat-M1)/NB-IoT



**Bara Core**



**Bara Edge**



**Yabby Edge**



**Oyster Edge Bluetooth**

|                                   |   |  |  |   |
|-----------------------------------|---|--|--|---|
| Connectivity                      | NB-IoT Only                                 | LTE-M and NB-IoT                                       | LTE-M and NB-IoT                                       | LTE-M and NB-IoT  |
| Environment                       | Indoor/Outdoor                              | Indoor/Outdoor   | Indoor/Outdoor   | Indoor/Outdoor  |
| Location Technologies             | Wi-Fi Scanning<br>Cell Tower Location       | GNSS Scanning<br>Wi-Fi Scanning<br>Cell Tower Location | GNSS Scanning<br>Wi-Fi Scanning<br>Cell Tower Location | GNSS Scanning<br>Wi-Fi Scanning<br>Cell Tower Location<br>Bluetooth Beacons |
| Cloud-Based Location Solving      | Yes   | Yes  | Yes  | Yes   |
| Bluetooth® Gateway                | -   | -  | -  | Yes   |
| Housing Size                      | 149 x 51 x 21 mm<br>(5.9 x 2.0 x 0.8 in)    | 149 x 51 x 21 mm<br>(5.9 x 2.0 x 0.8 in)               | 85 x 63 x 24 mm<br>(3.35 x 2.48 x 0.94")               | 108 x 86 x 31 mm<br>(4.25 x 3.39 x 1.22")                                   |
| Magnet                            | Magnetic Activation and<br>Tamper Detection | Magnetic Activation and<br>Tamper Detection            | -  | -   |
| IP Rating                         | IP68 Rugged Waterproof                      | IP68 Rugged Waterproof                                 | IP68 Rugged Waterproof                                 | IP68 Rugged Waterproof  |
| Accelerometer                     | Movement and Impact Detection               | Movement, Impact, Rotation,<br>and Tip Detection       | Movement, Impact, Rotation,<br>and Tip Detection       | Movement, Impact, Rotation,<br>and Tip Detection                            |
| Batteries                         | 2 x AA Alkaline or Lithium                  | 2 x AA Alkaline or Lithium                             | 3 x AAA Alkaline or Lithium                            | 3 x AA Alkaline or Lithium  |
| <b>Battery Life Estimates*</b>    |   |  |  |   |
| Once Daily Location Updates       | 10 years                                    | 10 years   | 10 years   | 10 years  |
| Movement-Based Location Updates** | 4.5 years                                   | 5 years  | 3 years  | 7 years   |
| Hourly Location Updates           | 3 years                                     | 3 years  | 2 years  | 4.5 years   |

\*Battery life estimates are influenced by several factors including temperature, installation and orientation of the device, battery selection, the frequency of location updates, network coverage, sensor integrations, peripherals, accelerometer settings, and more.

\*\*Movement-based estimates are based on 2 hours of movement, occurring 5 days a week, with default tracking parameters (location updates every 3 minutes and uploads every 30 minutes). Devices can be configured to provide more frequent location updates when the asset is in motion which will impact battery life.

# Connect on Almost Any Cellular Network with **Global Devices**

For enterprises seeking asset visibility across different networks and borders where LTE-M or NB-IoT is not available, 4G LTE Cat 1bis with 2G fallback emerges as a comprehensive global connectivity solution.

## Track Anywhere

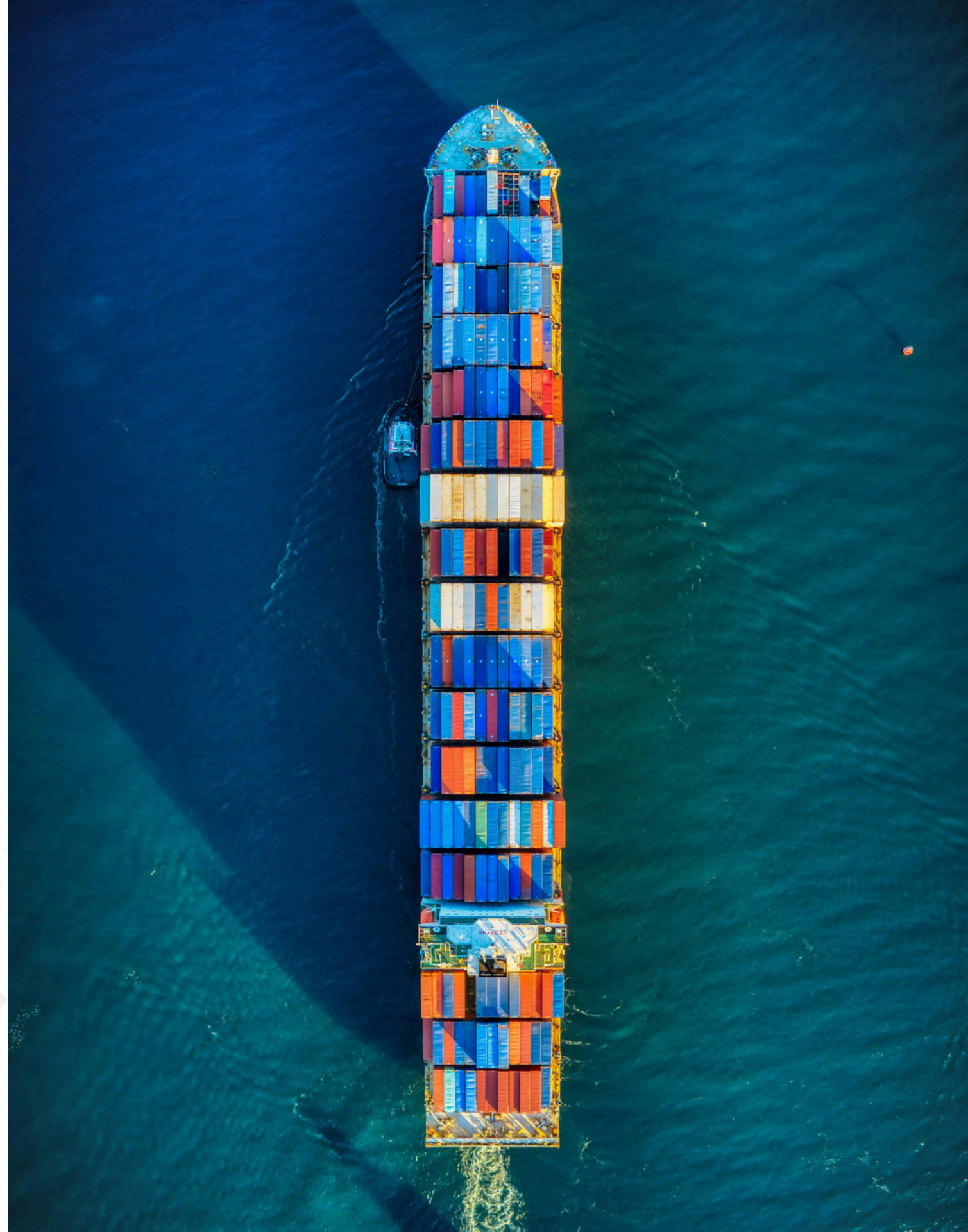
Our global devices enable seamless global asset tracking and management across most of the world's cellular networks.

## Deploy in Regions Without LTE-M or NB-IoT

While these networks offer specific advantages in IoT asset tracking, including longer battery life, improved range and penetration, and better performance, global coverage is limited in some regions.

## 2G Migration Plan

Deploy today on 2G with a migration path to 4G as networks sunset.





# Global Battery-Powered

4G LTE Cat 1bis with 2G Fallback  
**Connect Almost Anywhere**



**Oyster3 Global GPS**



**Remora3 Bluetooth Global GPS**

|                                   |  |  |
|-----------------------------------|--|--|
| Connectivity                      | 4G LTE Cat 1bis and 2G fallback                  | 4G LTE Cat 1bis and 2G                           |
| Location Technologies             | GNSS<br>Cell Tower Location                      | fallback GNSS<br>Cell Tower Location             |
| Bluetooth® Gateway                | -  | Yes  |
| Housing Size                      | 108 x 86 x 31 mm<br>(4.25 x 3.39 x 1.22")        | 224 x 91 x 41 mm<br>(8.82 x 3.58 x 1.61")        |
| Magnet                            | -  | Magnetic Tamper Detection                        |
| IP Rating                         | IP68 Rugged Waterproof                           | IP68 Rugged Waterproof                           |
| Accelerometer                     | Movement, Impact, Rotation,<br>and Tip Detection | Movement, Impact, Rotation,<br>and Tip Detection |
| Batteries                         | 3 x AA Lithium or LTC                            | 2 x D LTC  |
| <b>Battery Life Estimates*</b>    |  |  |
| Once Daily Location Updates       | 8 years  | 10 years   |
| Movement-Based Location Updates** | 2.5 years  | 9 years  |
| Hourly Location Updates           | 1.5 years  | 7 years  |

\*Battery life estimates are influenced by several factors including temperature, installation and orientation of the device, battery selection, the frequency of location updates, network coverage, sensor integrations, peripherals, accelerometer settings, and more.

\*\*Movement-based estimates are based on 2 hours of movement, occurring 5 days a week, with default tracking parameters (location updates every 3 minutes and uploads every 30 minutes). Devices can be configured to provide more frequent location updates when the asset is in motion which will impact battery life.

# Feature-Rich **Fleet** **Management** Solutions

Track the equipment and vehicles that drive your business with our range of GPS tracking solutions for powered assets.

From plug-and-play devices that fit existing OBD ports to advanced wired options, build a comprehensive fleet and driver management solution.

- Real-Time Location Tracking and History
- Theft Prevention and Recovery
- Accident Detection
- Driver ID and Behaviour
- Driver Fatigue
- Speed Reporting
- Immobilisation
- In-Geofence Behaviour



# OBDII & Wired

Cellular 2G and 4G/5G  
LTE-M (Cat-M1)/NB-IoT



**Bolt2**



**Dart2 Bluetooth®**



**G70 Bluetooth®**



**G150 Bluetooth®**

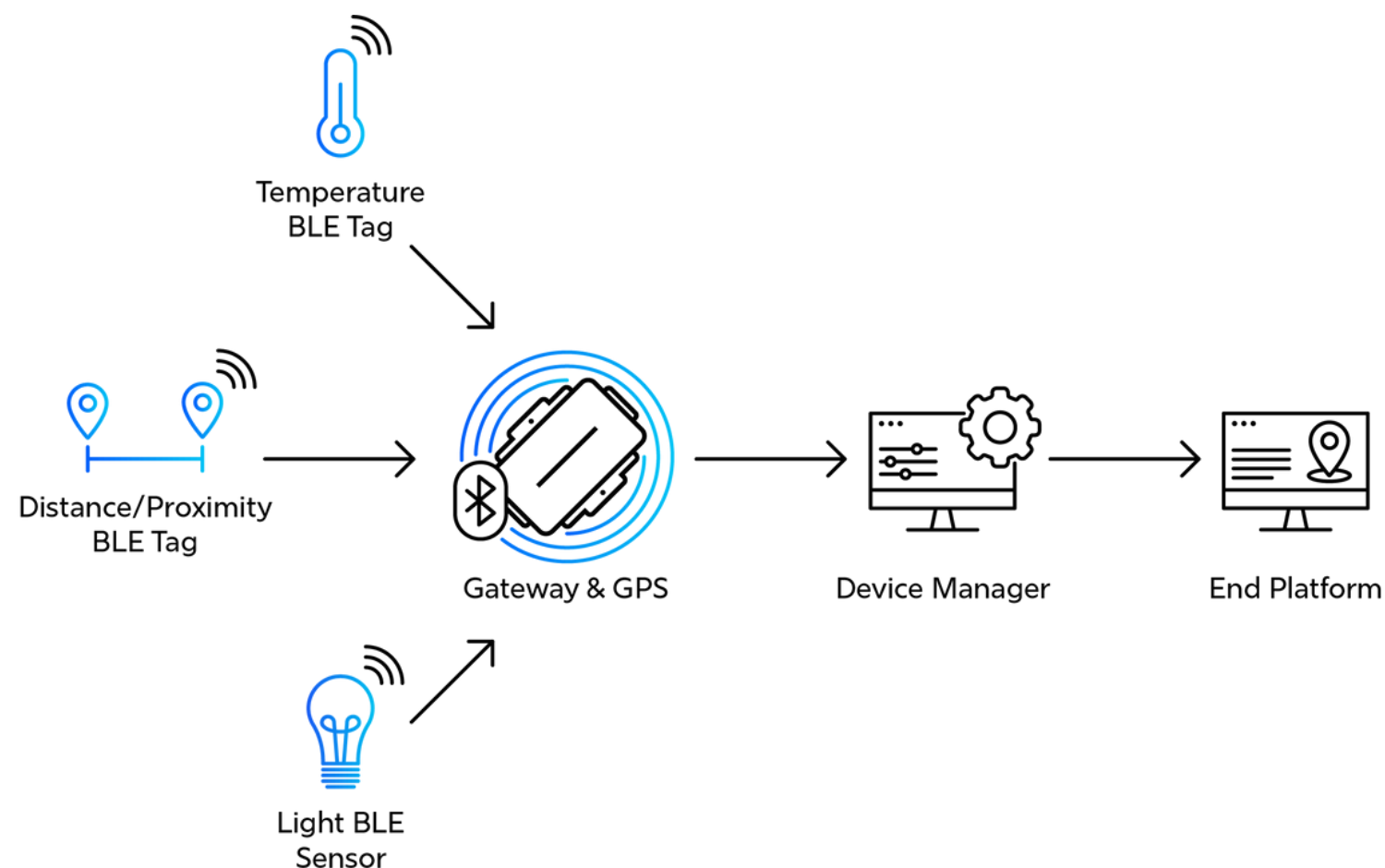
|                                |                  |  |                                     |   |
|--------------------------------|------------------|--|-------------------------------------|---|
| Connectivity                   | LTE-M and NB-IoT | 2G*, LTE-M and NB-IoT, or<br>4G LTE Cat 1bis and 2G fallback | 2G* or LTE-M and<br>NB-IoT versions | 4G LTE Cat 1bis and<br>2G fallback (Global) |
| Location Technologies          | GNSS             | GNSS   | GNSS                                | GNSS  |
| Installation                   | OBDII            | Wired / Optional OBDII or<br>cigarette lighter power harness | Wired                               | Wired                                       |
| IP Rating                      | -                | -  | IP68 Rugged Waterproof              | IP68 Rugged Waterproof                      |
| Real-Time Tracking             | Yes              | Yes  | Yes                                 | Yes   |
| Bluetooth® Gateway             | -                | Yes*   | Yes*                                | Yes   |
| Backup Battery                 | Yes              | Yes  | Yes                                 | Yes   |
| Ignition Digital Input         | -                | 1  | 1                                   | 1   |
| Digital Inputs                 | -                | 3  | 3                                   | 4   |
| Analog Inputs                  | -                | 2  | 2                                   | 1   |
| Switched Ground Digital Output | -                | 1  | 1                                   | 2   |
| Switched Power Out             | -                | Yes  | -                                   | Yes   |
| RS-232 Interface               | -                | -  | -                                   | Yes   |
| Driver ID                      | -                | Yes  | Yes                                 | Yes   |
| Driver Behaviour               | Yes              | Yes  | Yes                                 | Yes   |
| Run Hour Monitoring / Odometer | Yes              | Yes  | Yes                                 | Yes   |
| Remote Immobilisation          | -                | Yes  | Yes                                 | Yes   |

\*2G versions of these devices do not support Bluetooth Low Energy.

# Enhance Your Solution with Bluetooth® Low Energy (BLE)

Our range of Bluetooth gateway devices combine the accuracy of GPS location tracking and Bluetooth Low Energy to enable asset visibility, condition monitoring, exception reporting, and more.

Integrate with any third-party BLE tag, sensor, or beacon to capture and report on the data that matters to your business.



## Inventory, Cargo, and Asset Management

Bluetooth Location tracking tags can be used to manage stock, inventory, pallets, tools, small pieces of equipment, and more.



## Condition Monitoring and Cold Chain

Install Bluetooth sensors in temperature and/or humidity-sensitive trucks, freezers, or packages to maintain safety and compliance.



## Exception Reporting

Receive alerts when, and at what locations, high-value assets or dangerous goods are mishandled during transit with impact, vibration, or high G-force detection.



## Door Open/Close Monitoring

Integrate with a variety of Bluetooth tags such as magnets or light sensors to enable door open/close monitoring for tamper detection, reporting, and/or compliance.



## Enhanced Fleet Management

Leverage Bluetooth sensors for driver ID, fuel monitoring, axle load, tire pressure, and temperature to achieve a robust and wire-free fleet management solution.

# telematics?guru

## Asset Tracking Software

Telematics Guru is our GPS asset tracking platform. It works seamlessly with all our hardware



### Proven & Deployment-Ready

Tried, tested, and ready for immediate use.



### Enterprise-Level Security

Secure and scale your solution.



### Regional Support

Resolve queries quickly with expert technical support.

## One Platform, Every Asset.

### Asset Management Location Tracking

Quickly locate your assets

### Robust Reporting

Vital reports for analysis

### Asset Utilisation

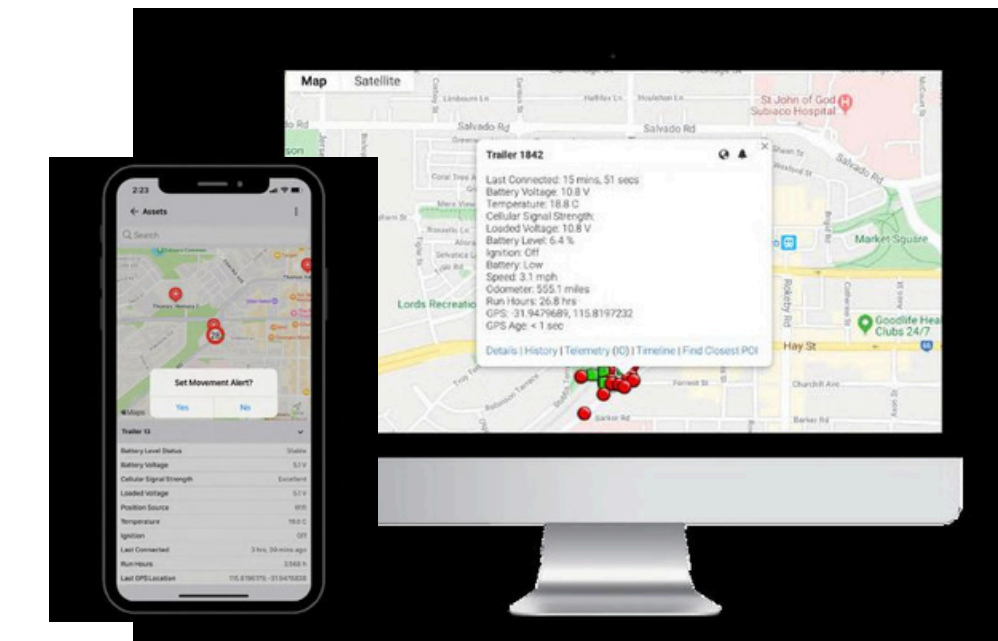
Understand how your assets are being used

## Fleet Management

**Driver ID** Collect, manage, and sync Driver ID details

**Preventative Maintenance** Reduce asset downtime with maintenance alerts

**Maintenance & Checklists** Create pre-start checks, proof of delivery and maintenance



### Trip History

View historical trip data

### Actionable Alerts

Set notifications for exceptional events

### Condition Monitoring

Report on temperature, humidity, and more

### Recovery Mode

One-touch real-time tracking

### Geofencing

Create digital boundaries to understand asset movement

### Custom Map Overlays

Integrate custom maps

### Driver Behavior

Monitor fatigue, speeding, acceleration, braking and more

### Immobilisation

Safely and remotely disable assets

### Expense Reporting

Mark trips as business vs. private for logbooking

### Incident Detection

Receive alerts if asset is involved in an accident

### Deliveries & Dispatches

Enable simple job or delivery dispatching

# Device Manager

Device Manager is our cloud-based **Device Management Platform** that provides visibility and control over your devices and ensures that they continue to perform at their best for longer.



## Customise for Your Use Case

Take control of over 200 device settings to fine-tune performance for your use case.



## Monitor and Troubleshoot Quickly

Minimise downtime and improve end-customer satisfaction.



## Keep Devices Up-to-Date Remotely

Update device settings, firmware, and security enhancements over-the-air.



## Maximise Performance

Utilise advanced functionality such as GNSS Aiding Data to improve device performance.



## Secure Your Solution and Scale

AES-256 Encryption and Authentication keeps data secure.

The screenshot displays the Device Manager web interface for a specific device, 'Device 394004'. The interface includes a navigation sidebar on the left with icons for home, device, and settings. The main content area features a header with the device ID and three action buttons: 'Restart Device', 'Resync Device Slot Versions', and 'Reset Device Statistics'. Below the header are tabs for 'Details', 'Logs', 'User Activity', 'Async Messages', and 'Debug Terminal'. The 'Details' tab is active, showing a 'Device Details' section with a table of device information and a map of the device's location.

| Field                          | Value  |
|--------------------------------|--|
| Serial Number:                 | 394004   |
| IMEI:                          | 352656106135190  |
| Distributor / Vendor / Client: | DMA / DMA / -  |
| Connector:                     | <a href="#">Location Engine -&gt; TG (APAC 03)</a><br><a href="#">WiFi-Perlk</a> |
| Product:                       | 85.1   |
| Firmware:                      | 1.22   |
| Modem Version:                 | nrf9160_1.3.2  |
| Comment:                       | Shay   |
| Enabled:                       | <span style="color: green;">✔</span>   |
| Connector Locked:              | <span style="color: red;">✘</span>   |

Additional details shown in the interface include:

- ICCID: 89882280666031061009
- Sim Pin: 4292
- Recovery Mode: ✘
- Date Last Connected (UTC): 5/27/2024 1:33:09 AM (1 hr 20 min)
- Date Last Committed (UTC): 5/27/2024 1:33:09 AM (1 hr 20 min)

The map shows the device's location in the Subiaco area of Perth, Australia, with various landmarks like St John of God Subiaco Hospital and West Perth Campus marked.



# Fine-Tune Device Performance for Your Use Case

Our devices are highly configurable via Device Manager. Take control over a robust range of settings to fine-tune performance for your specific use case. Streamline your operations by templating parameters to apply settings in bulk and remotely push updates, ensuring your hardware continuously adapts to the evolving needs of your deployments.



## Tracking Behaviors

Update Rate, Tracking Mode, Movement Detection, Accelerometer Settings, Scheduled Uploads, Inactivity



## Fleet Management

Accident Logging, Driver ID, Harsh Driving, Driver Fatigue, Idle Monitoring, Speeding, Immobilisation, Geofence Behavior



## Bluetooth®

Universal Tag Integration, Bluetooth Scanning Frequency and Upload Behavior, Update on Sensor Values or Events



## Location and Accuracy

Accuracy Requirements and Filtering, GPS Timeout Behavior, Location Technology Types



## Condition Monitoring

Impact Detection, Tip Detection, Rotation Counting, Run Hour Monitoring



## Inputs/Outputs and Peripherals

Analog, Digital, I/O Thresholds and Alerts, Upload Behavior, Task Management, Peripheral Integrations, Peripheral Control



## Recovery and Tampering

Live Tracking and Logging Intervals, After-Hours Movement, Tamper Alerts



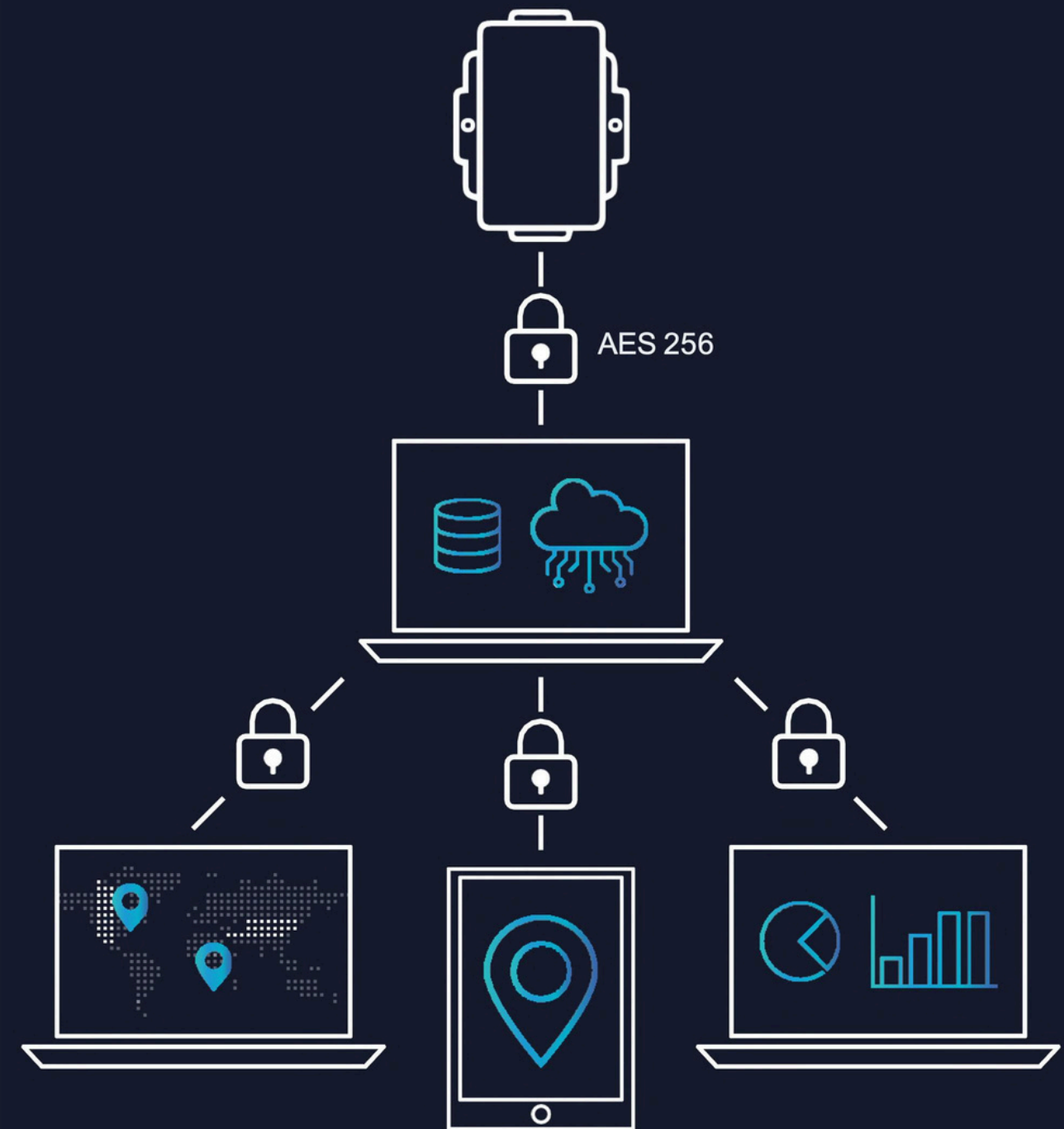
## Network Settings

APN Settings, Network Settings and Preferences, Band Selection or Masking, Network Registration Timeouts

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# Send Data Anywhere with Integration and API Control

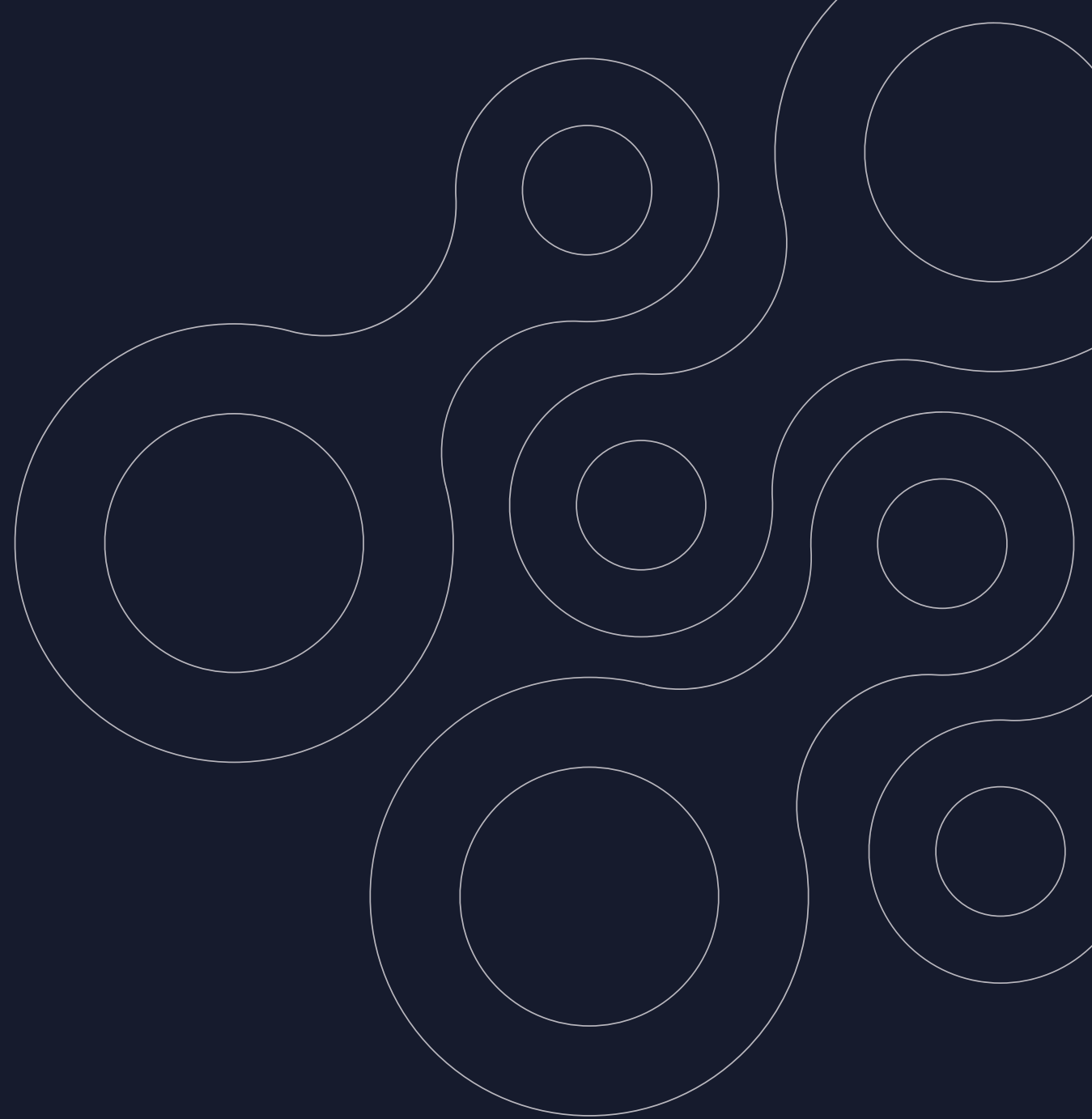
Securely send device data to your end platform through HTTPS or TCP, including to multiple endpoints simultaneously. Perform various functions through a comprehensive API to automate device control, provisioning, and performance monitoring.





# Connect More

Our Suppliers are a leading global developer and supplier of IoT asset tracking, sensor monitoring, and advanced telematics solutions. Engineered to outperform, we offer a versatile range of 'deploy once' hardware with the largest portfolio of battery-powered IoT asset tracking devices across a range of connectivity technologies.



**HydroTerra**

Environmental Monitoring Specialists