



## POINT COLOUR IOT

NB-IOT/CAT-M1 BATTERY-POWERED RTUS

FEATURES  
BACKGROUND  
BENEFITS

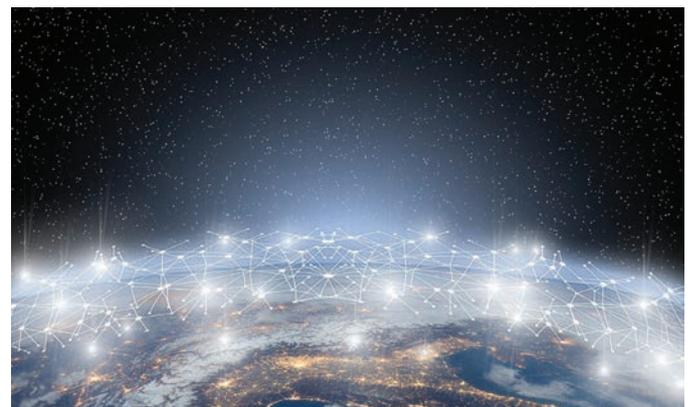
### INTRODUCTION: POINT COLOUR RTUS

Metasphere's newest **Point Colour** remote telemetry units (RTUs) deploy the latest wireless technologies to integrate and log data from a vast range of different sensors, before making it available in near-real time where needed.

**Point Orange IoT** and **Point Blue IoT** (ATEX/IECEX) RTUs can utilise NB-IoT / LTE and Cat-M1 cellular network technologies to send data and alarms to SCADA systems, FTP servers, or to **Metasphere's** cloud-based **Palette** data and alarm-monitoring platform. Features and Benefits of the **Point Colour** range of IoT RTUs are listed overleaf.

### BACKGROUND: 3G SWITCH-OFF

As **3G** services are turned off in favour of **4G/5G** services, telemetry users need to plan migration away from 3G. While 3G will still exist for a few years, **Telstra** and **Vodafone** have started to phase out parts of their 3G networks. **Telstra** switched off 3G connectivity on 2100MHz spectrum in 2019, but will continue to operate some 3G services on 850MHz spectrum until June 2024. **Vodafone** was phasing out 3G on 2100MHz spectrum during 2019, but will continue to operate 3G services on 900MHz spectrum. **Vodafone** has already upgraded 2100MHz spectrum to 4G in the ACT.



### BENEFITS OF NB-IOT / CAT-M1

- ◇ **NB-IoT** and **Cat-M1** are forms of **Low-Power-Wide-Area-Network (LPWAN)** technology developed to enable a wide range of devices and services. **LPWAN** can offer significant improvements over **3G** in the power consumption of devices, spectrum efficiency and potentially connectivity in remote and hitherto inaccessible places (through improved building and structure penetration).
- ◇ **LPWAN** can considerably extend the battery life of **remote telemetry units (RTUs)**, with some equipment able to run for 10+ years on a single battery. This benefit translates into huge potential for water and wastewater utilities, allowing for deployment at multiple sites of low-bandwidth devices on their networks for purposes, including utility metering, flow and pressure monitoring, water-level monitoring and quality control.

## WHAT WE HAVE SEEN IN LPWAN TRIALS

From an early stage, **Metasphere** has been involved in trials with network operators including **Vodafone** (Australia, Ireland and UK), **Telefónica** (called O2 in the UK) and **Telstra**. In Australia, **Metasphere** has been testing RTU devices with NB-IoT with both **Vodafone** and **Telstra** - with the latter, testing has included Cat-M1 (also known as LTE-M, another LPWAN technology that is part of the 4G standard).

**Telstra** and **Vodafone** in Australia have been activating **LPWAN** on their networks, helped by **Metasphere**, who tested logging devices before first deploying them for **Sydney Water** in May 2018. The units have been performing reliably, across networks in Sydney, Melbourne, Perth and Brisbane. Through use of a modem spanning both technologies, the intuitive **Metasphere** RTU promises flexibility and simplicity with remote, configurable solutions that can be either Cat-M1 or NB-IoT.

**Vodafone Australia's** Executive General Manager of Enterprise, **Stuart Kelly**, says the new economically viable technology has provided more openings for increased connectivity between devices, and shown considerably improved battery life:

*"NB-IoT offers customers a range of benefits, including greater power efficiency, which means less need for investment in hardware and resources relating to sourcing and replacing batteries. The result is increased longevity for assets, reducing the need for site visits while devices are being used in the field."*



## FEATURES & BENEFITS OF POINT COLOUR IOT

- » **Point Blue IoT: intrinsically safe RTU** • simple and safe installation direct in hazardous environments
- » **IP68 housing** • robust installation in exposed environments
- » **Supports both NB-IoT and Cat-M1** • choose the appropriate technology for your application
- » **Reduced power consumption** • longer battery life or reduced battery size = saving money!
- » **DNP3 protocol** • direct connection to major SCADA platforms
- » **Supported by Palette** • web-based telemetry service, without need for large supporting IT infrastructure
- » **Configurable I/O** • one telemetry product supports many monitoring requirements
- » **Modbus Master on RS232/485** • easily add telemetry to smart sensors and meters

### FIND OUT MORE!

If you would like to try the **Point Colour IoT** range, get in touch to find out how they could transform your operation



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