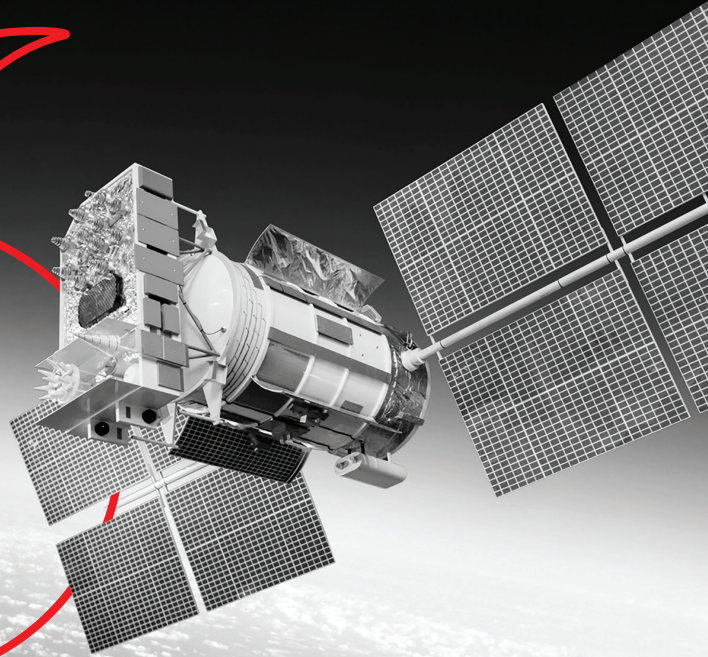# Extending the reach of Cellular networks

IoT devices in remote locations with limited or no cellular connectivity (such as rural or mountainous areas) can be difficult to manage. Whether working with a few IoT devices or tracking millions of them, Vodafone can provide connectivity solutions specifically designed to your needs. With Vodafone Satellite IoT we can address any IoT connectivity or management challenge deriving from poor cellular coverage conditions.

Vodafone's Satellite IoT service uses Inmarsat's Broadband Global Area Network (BGAN – mobile satellite network). The Vodafone Global SIM roams on the satellite network the same way as on any other mobile network and you can manage the service through the Vodafone IoT Connectivity Platform.
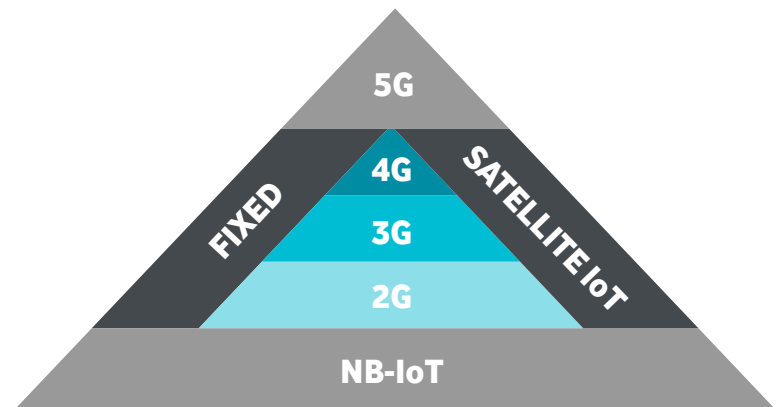
What's in it for you?

- Ideal for lower bandwidth use (up to 448 kbps)
- Integrated into the Vodafone IoT Connectivity Platform.

- Remote hardware management, ideal for long-term unmanned deployments
- Simple installation, fast deployment within days
- Small, lightweight devices, antenna size 20x20 cm
- Resilient to harsh weather conditions
- Charged on per MB basis
- Our platform enables fast start for existing users – even with their existing private APNs, no need to change any network architecture

Vodafone IoT connectivity at a glance

Vodafone Satellite IoT is part of our one-stop shop IoT connectivity offering. Vodafone can supply customers with a range of connectivity options including Narrowband-IoT, Fixed and Satellite IoT to complement our 2G, 3G and 4G network connectivity to cover all known application environments.
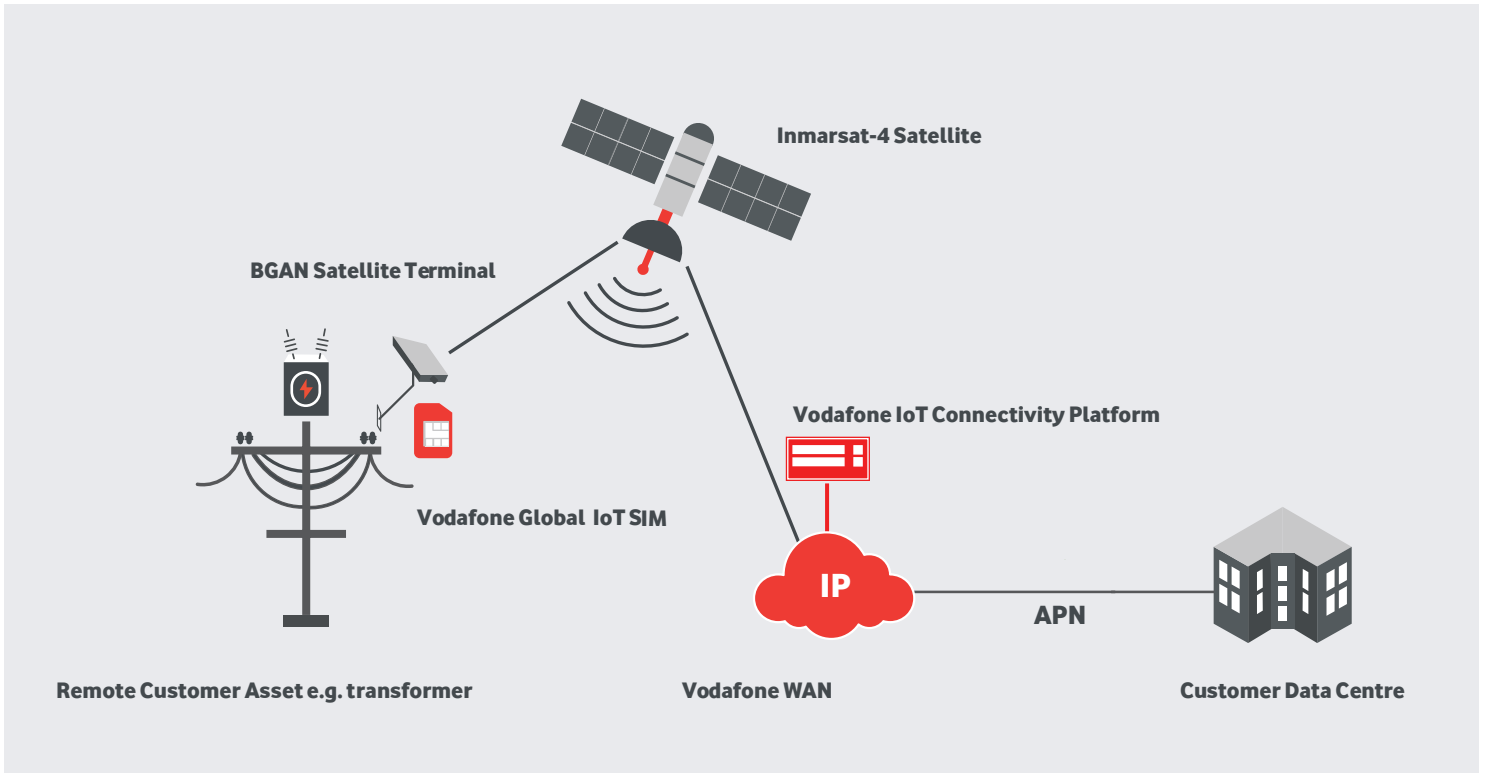
Product overview
Vodafone Satellite IoT

How does Vodafone Satellite IoT work?

Satellite terminals deployed with line of sight to the Inmarsat Satellite network will enable the connectivity through to Vodafone's IoT network. The Vodafone Global SIM within the terminal roams on the satellite network as on any other network, connecting the remote device to the Vodafone Wide Area Network (WAN) and Vodafone IoT Connectivity Platform. Whenever there is a power outage, the satellite terminals can be run off-grid thanks to the low power usage.

Satellite IoT use cases

Banking & Retail
- Connectivity for remote ATMs and PoS devices
- Backup for ATMs during natural disasters

Environmental Monitoring
- Monitoring and warning for natural disasters
- Remote environmental data collection for sustainable development

Oil & Gas
- Pipeline monitoring to detect leaks and intrusions
- Monitor and control of extraction and distribution equipment

Agriculture/Farming
- Monitor livestock for wellbeing (temperature, humidity)
- Connectivity for hydroponic farms to increase output

Utility
- Smart Grids
- Asset & Infrastructure condition monitoring
- Smart metering (concentrator backhaul)
- Telemetry & SCADA
- Safety & Security

Product overview
Vodafone Satellite IoT

Feature	Benefit
Reliable network Radio coverage and support for Satellite IoT using the Inmarsat Satellite Network as a Global Roaming Partner	• Connectivity for assets and sites in locations with no or poor cellular coverage • 99.9% network availability with additional resiliency option with BGAN • Dedicated IoT network
Global SIM availability Subscriptions on Global SIMs	• Managed SIMs • Utilises existing SIM catalogue
Packet Data Service IP data connectivity over Satellite	• Works with existing solution • No need to integrate new systems
Plug and play	• Simple for field teams to set up, integrate and maintain

Vodafone Satellite IoT is underpinned by Vodafone IoT Connectivity Platform

Vodafone IoT Connectivity Platform includes powerful and highly secure self-service delivery and management tool for managed IoT connectivity. Wholly owned and developed by Vodafone, it provides you with clear visibility and control of your entire business process. Scalable, flexible and with security built in from the ground up, the platform allows you to realise the full potential of your applications and drive transformation in your business from the IoT landscape.

Why choose Vodafone?

• We are market leaders in offering IoT services, as determined by leading industry analysts, and with over 54 million IoT connections.

• Our Vodafone IoT Connectivity Platform already manages 250+ different types of IoT devices and new device type support can be added on demand.

• We provide enhanced device management functionality through full integration with the Vodafone IoT connectivity service.

• Our highly resilient IoT connectivity is wholly managed by Vodafone, providing clear visibility and control of your IoT devices, SIMs and services with end-to-end security built in from the ground up.

• Our dedicated team of IoT experts serving millions of customers and the largest mobile telecommunications network ensure the best connectivity service worldwide.

About Inmarsat

Inmarsat is market leader in mobile satellite services. Their satellite communications network is positioned in nine orbital locations for seamless coverage. Vodafone uses their two-way IP data service, BGAN M2M for Satellite IoT.

Next steps

If you would like to discover more on Vodafone Satellite IoT, please do not hesitate to contact your Vodafone Account Manager.

Find out more here:
www.vodafone.com/iot

The future is exciting.

Ready?

vodafone