

ENABLING connected agriculture

Aquaculture Management Solution

Enabling the use of real-time data
to ensure optimum harvests

Your challenge

Sea and freshwater farmers are constantly looking for innovative ways to accelerate the growth of their stocks until they are ready for harvest. Maintaining the optimal environmental conditions is critical in maintaining fish health and maximising yields.

Changes in water quality can have a big impact, so maintaining optimum levels of dissolved oxygen, pH and ammonia and where possible, temperature, are vital. In some locations, detecting salinity events such as upwelling, rainstorms and discharges is also important.

Often operations are located in remote places so it is critical that conditions can be monitored and equipment can be operated remotely. This saves costly and potentially hazardous travel for maintenance staff to site, while also ensuring optimum conditions.

However, connectivity is a huge challenge and in many cases it prohibits the use of innovative technologies which will help improve revenues.

Our solution

Inmarsat's Aquaculture Management Solution allows farmers to monitor and remotely control conditions at their farms to produce optimum yields, wherever they are located

Our solution is built to your requirements and includes real-time monitoring of dissolved oxygen, pH, ammonia, temperature and salinity. Depending on the capability of your equipment, remote control of oxygenation and other systems are possible.

Built on our highly reliable L-band satellite connectivity we manage the transfer of data from the farm to a cloud-based dashboard allowing your operations centre to see all the key metrics they need and to react accordingly.

Our solution reduces the need to send technicians to remote sites to ensure data readings are recorded, reducing both cost and risk to the workforce. Our terminals are robust and proven to protect from dust and water, enabling our solutions to be deployed quickly and easily regardless of the weather.

Connectivity services

-  Broadband Global Area Network (BGAN)
-  Long Range Wide Area Network (LoRaWAN)

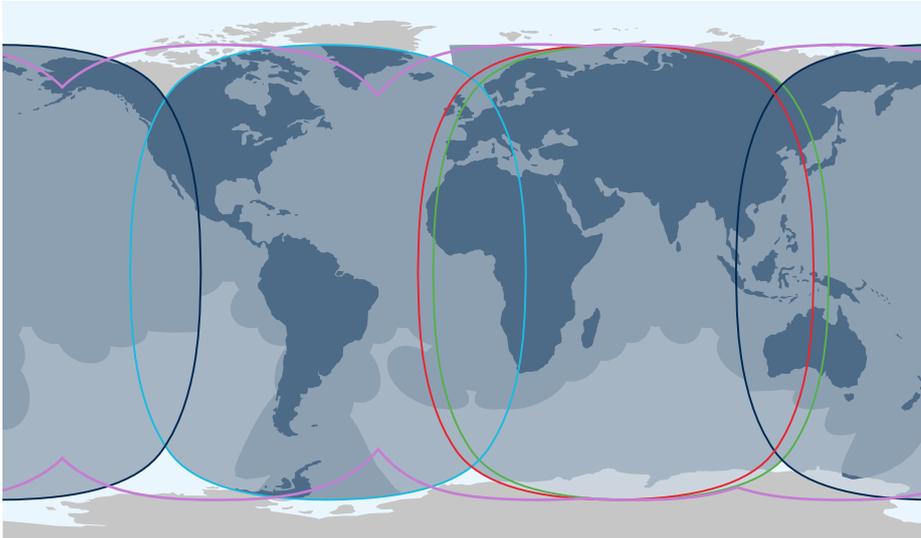
Aquaculture Management Solution is for you if...

- > You need to monitor and manage remote fisheries with little or no connectivity
- > You want real-time alerts of changes in conditions which could affect growth rate and yield
- > You want to maximize efficiency by reducing the need for manual monitoring

Where we deliver

Due to the unique nature of Inmarsat's geostationary satellite network we can deliver highly resilient, mobile communications services across the world. Global Xpress (GX), our Ka-band service is delivered through our Inmarsat-5 (I-5) satellites, while Broadband Global Area Network (BGAN) is delivered, through our Inmarsat-4 (I-4) satellites.

Where required, our ecosystem of local partners will deliver onsite warranty, support and repairs, and Inmarsat will ensure that all license and regulatory compliance will be in place.



□ I-5 F2 □ I-5 F4 □ I-5 F1 □ I-5 F3 □ I-4 and Alphasat coverage

■ Global Xpress network available over at least 99% of this area ■ Extendable Global Xpress coverage via steerable beams

This map depicts Inmarsat's expectations of coverage. It does not represent a guarantee of service. The availability of service at the edge of coverage areas fluctuates depending on various conditions. Fleet Xpress coverage March 2019.

About Inmarsat

Inmarsat is the leading provider of global mobile satellite communications services. Since 1979, Inmarsat has been providing reliable voice and high-speed data communications to governments, enterprises and other organisations, with a range of services that can be used on land, at sea or in the air. Inmarsat operates around the world, with a presence in the major ports and centres of commerce on every continent. Inmarsat is listed on the London Stock Exchange (ISAT.L). For more information, please visit www.inmarsat.com.

About Inmarsat Enterprise

Inmarsat Enterprise is the leading global provider of satellite-enabled connectivity and managed connectivity services for land-based organisations. We are enabling the Industrial Internet of Things (IIoT) and helping transform business outcomes across a diverse set of sectors, including agriculture, aid and NGO, media, mining, oil and gas, renewable energy, transport and utilities.

Benefits

- **Improve yields** – respond quicker to optimally manage your stocks, leading to higher growth rates and profitability
- **Reduce costs** – remove the need for costly manual monitoring of remote sites
- **Increase sustainability** – reduce fish mortality and damage to the surrounding environment

Features

- **Real-time monitoring** of key variables including dissolved oxygen, pH, ammonia, salinity and temperature
- **Real-time alerts** of a change in water quality
- **Information available** on an easy to use application and via SMS alerts
- **Managed service** – single contract with Inmarsat, no need to manage multiple connectivity suppliers
- **Full training** provided and a complete service package to give you peace of mind
- **Highly reliable satellite connectivity** – BGAN, L-band connectivity offers 99.9% network reliability
- **Global coverage** – we can connect you anywhere

For more information

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