# PRISM Creates the Smart Fish Farm

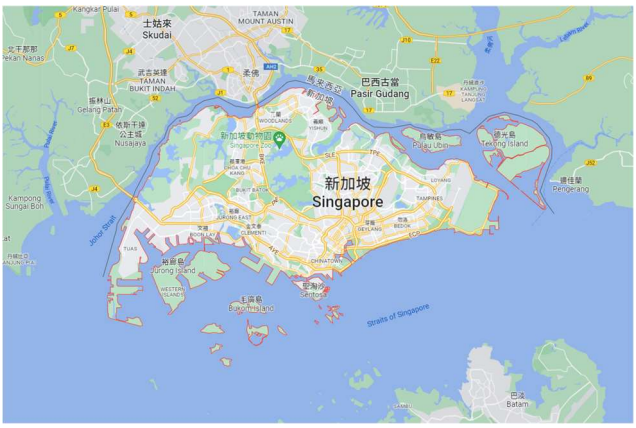
## The Future of Wireless Connected Marine Aquaculture

**BACKGROUND STORY**

Company: Pervasive Marine Fishery Pte Ltd

Location: Offshore islands in Singapore.

Pervasive Marine Fishery Pte Ltd (PMF) is a company setup incorporated in 2010 to invest and setup advanced fish management systems and currently owns primary fish farming and production area are of 10,000 $m^2$ of sea space off the coast of Singapore.




The global fish market is booming, many marine aquaculture companies are entering a new era by adopting smart technology. Wi-Fi networks support fish farms to centralize farming operations, to ensure faster, safer, easier, and more efficient work. To monitor with a high-bandwidth, low-latency network and provide all data to manager via real-time visual, voice, and data communications from PrismX™ Controller. Wi-Fi 6 meets the bandwidth requirements of the network, offering enough bandwidth to replace local area networks as well.

**REQUIREMENTS**

This IoT based automated fish farm is 30 minutes away from land of Singapore. The IoT sensors can transmit data and the business owner can monitor the water condition from anywhere in the world.

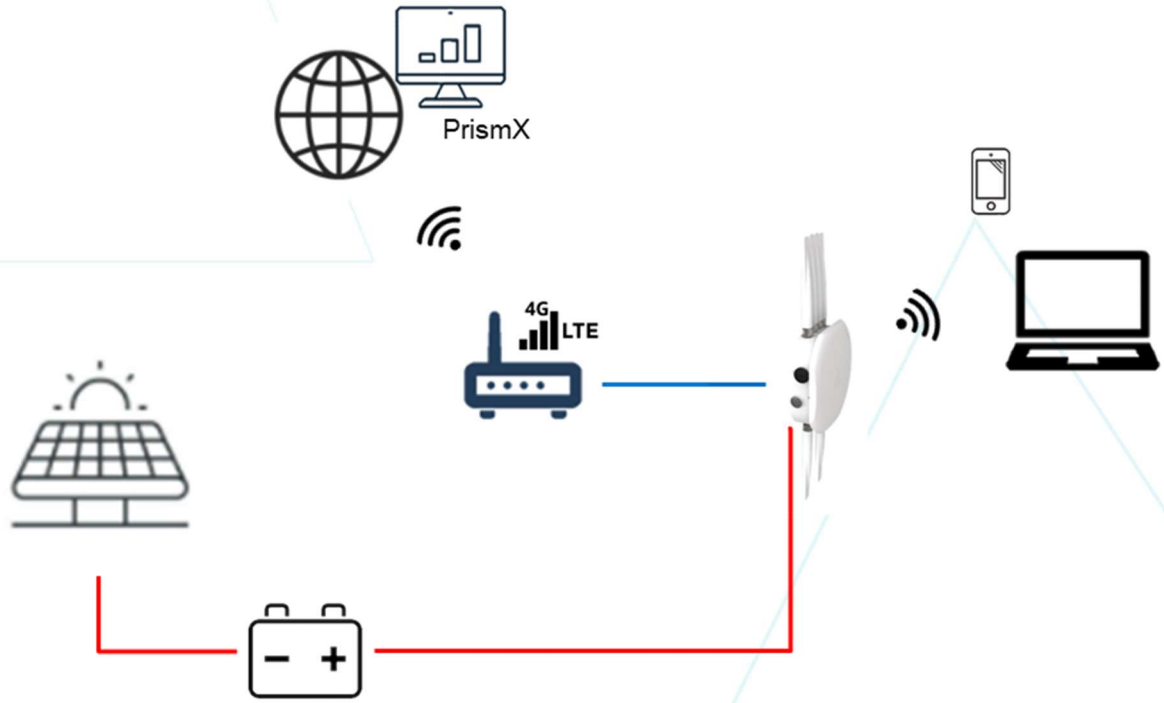
These offshore islands also attracts many tourists during holidays, all those visitors need the Wi-Fi service when they join the farm tour.

**CHALLENGES**

The nature of geography makes it very difficult to deploy electricity and internet wire from the land. Especially, any device in the fish farm would face to a lot of challenges, including the big winds, the direct sunlight, the moisture and the salty air.

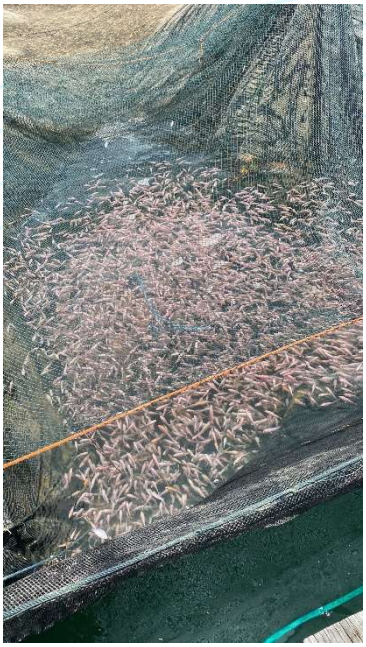
**PRISM SOLUTIONS**

- Prism MO10 Wi-Fi 6 AX6600 Tri-Radio Mesh Router
- Remote controlled by PrismX™ Controller Cloud Version




The MO10 can be powered through 802.3bt PoE ethernet connection or a standard power supply 12V/3A PSU. In this case, due to difficulty to connect standard power the business owner uses solar power controller to convert solar energy to DC to power the MO10.

Prism MO10 Wi-Fi 6 AX6600 Tri-Radio Outdoor Mesh Router is housed in a rugged IP68 aluminum enclosure. The casing provides the waterproof, dustproof, wind load and salt spray protection against the extreme weather conditions in the sea. The MO10 can be protected from the lightning using the ethernet and antenna arrestor and the grounding wire.



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