

# Osprey Secure IoT Stack – Powered by Clearwater

## “Raptor” Terminal

Vessel data is collected through the Raptor, a GPS-terminal developed for the transport industry and adapted for maritime use. The Raptor is robust, waterproof at IP67 and IEC 60945 approved.

The Raptor is powered by the onboard 12/24V DC battery supply and has additional built-in batteries to which the device will switch over automatically in case of power loss on the vessel, enabling continued tracking in events where traditional AIS connectivity would be lost.

A unique frequency hopping feature built-in to Raptor provides extreme resilience against GPS ‘spoofing’.



## Satellite Connectivity

Raptor terminals communicate with satellites in the Inmarsat network using the proprietary Inmarsat IsatData Pro M2M communication protocols.

The network has a global coverage, except for extreme polar regions, and availability figures of 99.9 % for the Inmarsat legacy L-band network.

HTTPS connectivity with end to end encryption is used to store the received data, where it is made accessible on the portal through Clearwater’s secure API.



## Cloud Platform

The Clearwater platform is hosted on Amazon Web Services (AWS), the world’s most used cloud platform with advanced security features including GDPR compliance. AWS has been architected to satisfy the security requirements for military, global banks, and other high-sensitivity organizations.

The Clearwater platform is firewalled from other AWS customers to create a secure network environment using industry leading Virtual Private Cloud (VPC) technology. Access to the network is protected using advanced security features and restricted only to trusted Clearwater personnel.

