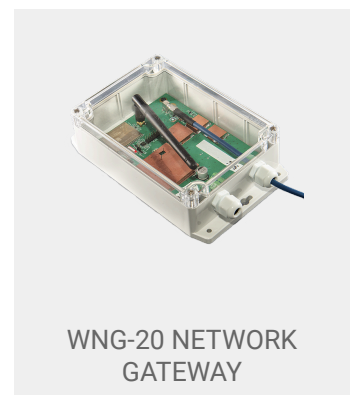# Marine Vessel Monitoring

wanwave's marine vessel monitoring system offers a comprehensive solution for maritime industries to monitor and manage vessel operations, ensure safety, and optimize performance. By deploying marine vessel monitoring systems, stakeholders can enhance situational awareness, comply with maritime regulations, and mitigate risks associated with vessel operations.

Key aspects of using **wanwave**'s marine vessel monitoring system include:

1. **Real-Time Monitoring:** **wanwave**'s marine vessel monitoring system continuously monitors key parameters such as vessel position, speed, and heading in real-time, providing stakeholders with immediate visibility into vessel activities and movements. This real-time monitoring capability enables stakeholders to track vessel locations, monitor navigation routes, and detect deviations from planned courses promptly, facilitating effective fleet management and operational control.

2. **Safety and Security:** **wanwave**'s marine vessel monitoring system contributes to safety and security by providing stakeholders with tools and capabilities to monitor vessel activities, detect potential hazards, and respond to emergencies promptly. By integrating with distress alert systems, collision avoidance technologies, and onboard sensors, stakeholders can enhance safety protocols, mitigate risks of accidents or collisions, and ensure compliance with maritime safety regulations and standards.

3. **Seamless Integration:** **wanwave**'s marine vessel monitoring system offers seamless integration with existing maritime systems, vessel management platforms, and shore-based command centers. Integration allows stakeholders to centralize data collection, automate reporting processes, and coordinate

Hardware Components Used in this Solution

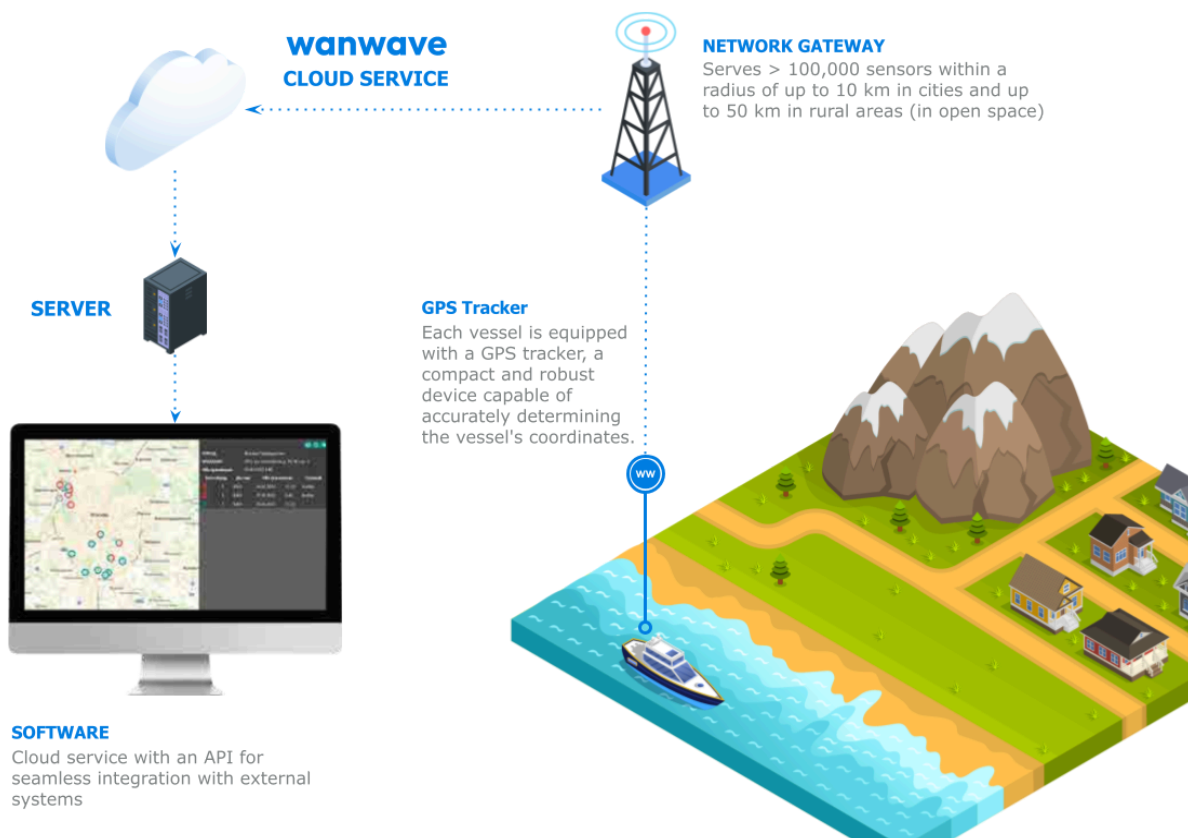GPS TRACKER

WNG-20 NETWORK GATEWAY

operational activities across different maritime domains, enhancing situational awareness, operational efficiency, and collaboration among maritime stakeholders.

Mode of Operation

Each monitored ship is equipped with **wanwave**'s GPS tracker, a compact and robust device capable of accurately determining the vessel's coordinates. These trackers utilize global positioning system (GPS) technology to provide highly precise location data.

In conjunction with the GPS trackers, our solution incorporates the **wanwave** advanced radio protocol. This protocol ensures seamless and reliable communication between the ships and the receiving antennas placed along the shore. Our radio protocol enables the transmission of ship coordinates and other relevant information at regular intervals of 10 minutes, providing a comprehensive overview of the ship's movements and status.

The transmitted information is received by the network gateways which automate the reception and transmission of messages between end devices and the **wanwave** server.

wanwave
CLOUD SERVICE

NETWORK GATEWAY
Serves > 100,000 sensors within a radius of up to 10 km in cities and up to 50 km in rural areas (in open space)

SERVER

GPS Tracker
Each vessel is equipped with a GPS tracker, a compact and robust device capable of accurately determining the vessel's coordinates.

SOFTWARE
Cloud service with an API for seamless integration with external systems

Learn more at wanwave.com