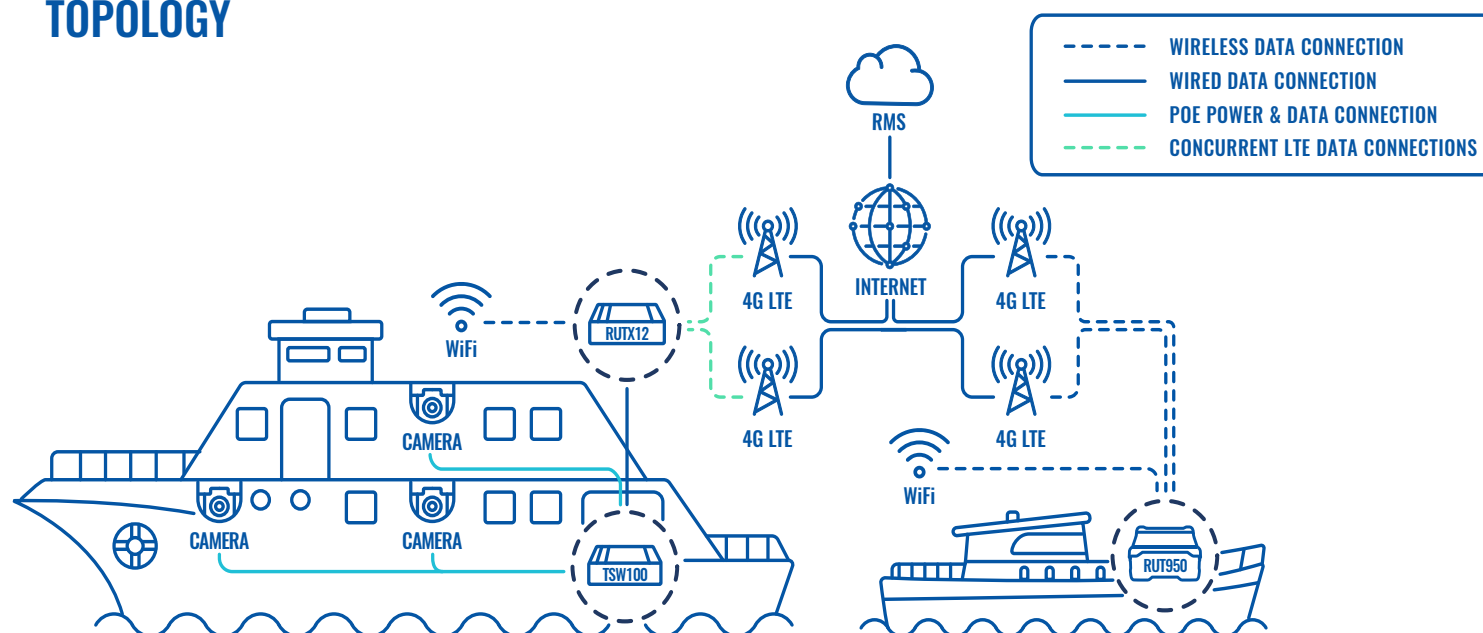# BOAT AND YACHT CONNECTIVITY

SUMMARY

Europe and North America have witnessed high demand for recreational boats during the forecast period as the commercial adoption of boats have increased in these regions. With over 37 000 kilometers of inland waterways and over 70 000 kilometers of coastline, Europe offers its 48-million citizens a perfect ecosystem to participate in recreational marine activities annually. Countries such as Belgium and Croatia have witnessed significant growth in the recreational boat market. There are an estimated 6 million boats kept in European waters.

CHALLENGE

The beginning of 2020 was very challenging, especially for the leisure and tourism sectors, due to the global pandemic. Luckily it seems that the most extreme times have passed, and businesses are starting to rethink their strategies and look for more possibilities on how to improve their solutions. This includes making their services more convenient and appealing for the users while saving time and money with the help of IoT solutions. As the global tourism market has shrunken or even stopped, local tourism is booming, as people still need to spend time with their families and relatives in their native countries. In Today's life all type of transportation vehicles, such as police cars, ambulance vehicles, taxis or even cranes on the port or at the construction site, has to have reliable cellular internet connectivity. Boats and yachts are no different from other transportation, but for operations, marketing, and service quality, these vessels need a robust and easy to use solution for reliable Internet access.

TOPOLOGY

SOLUTION

As we can see in the topology, there are possibilities to use different products form Teltonika Networks portfolio depending on the size of the vessel and the demanded solution. There are numerous applications when Internet connectivity on a boat is essential: weather forecasts, voyage planning, CCTV monitoring. However, when it comes to recreational services – marketing value can be just as significant. With public WiFi service on a boat, trip operators can provide additional value to the consumers while offsetting the costs of mobile data plans with interactive captive portals and digital advertising. Moreover, such tools provide valuable data to help further develop a growing customer base.

As you can see in the topology on the right, we have a professional cellular router RUT950, which is installed into a smaller boat that travels not far from the shores. Mobile 4G LTE CAT4 router is equipped with two SIM card slots, so it could switch to secondary SIM of the mobile operator of the main provider is lost, the signal is very week, or roaming scenario is activated. It also provides managed WiFi service to passengers with captive portal functionality. Finally, it has 4 Ethernet ports for connecting additional equipment like switches or digital signage screens.

In the topology on the left, a larger vessel is equipped with our most powerful and most advanced enterprise cellular router - the RUTX12. This device has two 4G LTE CAT6 mobile modems working simultaneously with load balancing functionality and is able to provide speeds up to 600 Mbps. As two mobile operators are providing connectivity to the device at the same time, it is possible to ensure uninterrupted service and leverage the connection quality between two mobile data providers. RUTX12 also has AC WiFi with 2.4 GHz and 5 GHz frequency bands to provide connectivity for all your mobile devices on the yacht. In addition, 5 Gigabit Ethernet ports let you enjoy the maximum speed available for multimedia applications. As showed in the topology, the router is also connected to our PoE switch – TSW100, which provides data and power connectivity to CCTV Cameras for security. Naturally, it is desired to have access to the yacht remotely, so whenever you wish, you could keep an eye on your property. As bigger boats and yachts travel further from the shores where it is harder to get coverage of the mobile operators, because of that, our routers can be installed together with our MIMO antennas or any other 3rd parties antennas and accessories for better reception.

Both devices RUT950 and RUTX12 are compatible with the Remote Management System - IoT platform for Teltonika Networks devices. With the help of it, you can ensure that you are always connected to your property remotely, you can set the alerts if the boat or yacht has left the geofence area, which you have specified on the platform.

BENEFITS

• Performance - RUTX12 with 2 LTE CAT 6 cellular modules working simultaneously provide speeds up to 600 Mbps and is ready for industrial applications with rugged aluminium housing, wide operating temperature range, and resistance to vibrations.

• Functionality – RUT950 has 2 SIM card slots, which provides flexibility to choose between different mobile operators in different areas.

• Remote monitoring – with RMS, you can conveniently monitor your property, get notifications about any undesirable issues with both RUTX12 and RUT950.

• Security – with advanced RutOS features, RUTX12 and RUT950, offer multiple VPN options, embedded firewall, and other security features to comply with high-security standards.

WHY TELTONIKA?

RUTX12 highly functional device with 2 LTE CAT 6 cellular modules working simultaneously provide the best possible cellular connectivity with high speeds. RUT950 is equipped with 2 SIM card slots for internet failover. All our routers are powered by our own software – RutOS for secure, reliable, and easy usage.