

SEAPORT WIRELESS CONNECTIVITY

SUMMARY

For centuries, seaports have served as a vital economic lifeline by bringing goods and services to people and enhancing the overall quality of life. Seaports continue to be a crucial link for access to the global marketplace. The volume of cargo shipped by water in 2018 was nearly 4.2 billion metric tons and is projected to increase over the coming decades dramatically. Therefore operators of the seaports are continuously looking for ways to increase efficiency.

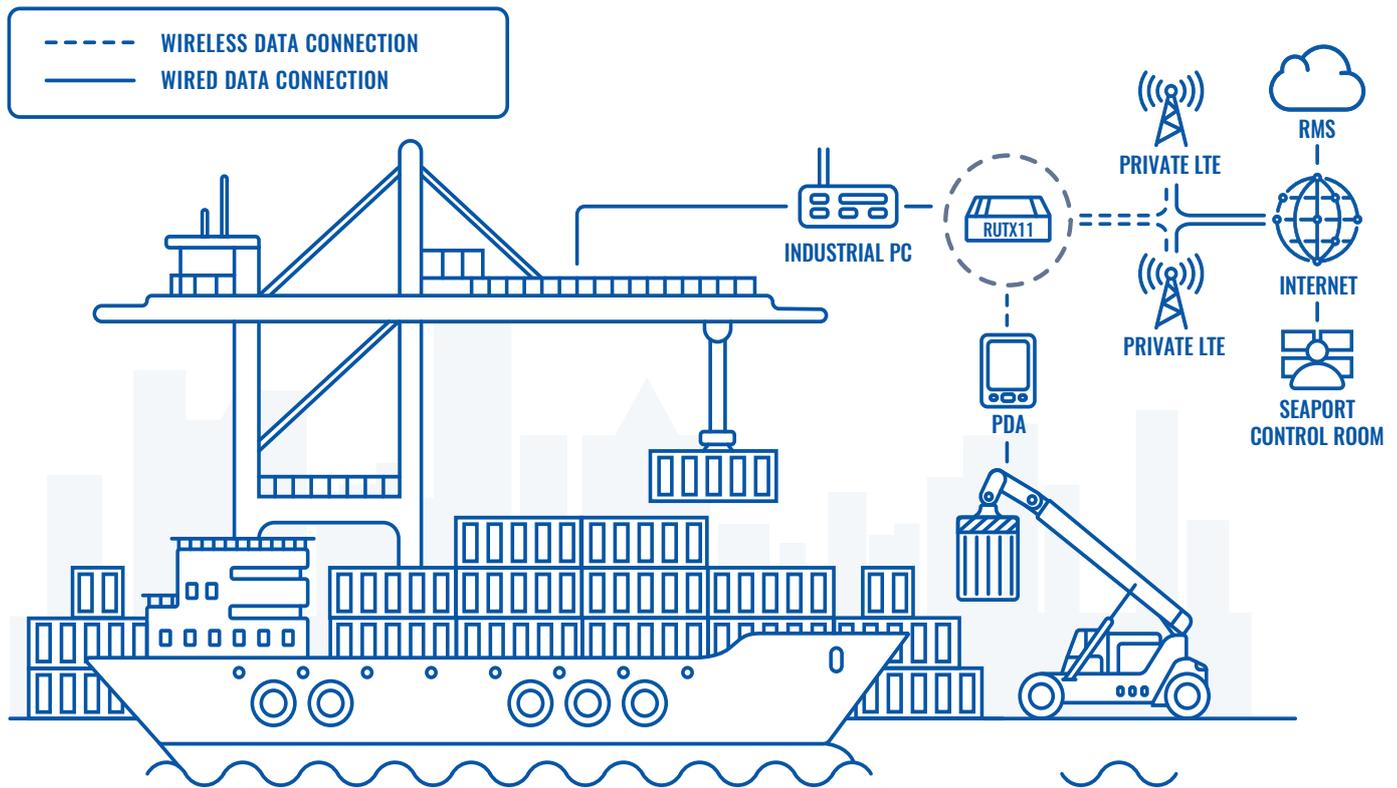
CHALLENGE

Information systems have become indispensable to the competitiveness of seaports, facilitating communication and decision making of enhancing the visibility, efficiency, reliability, and security in port operations. Besides, analytics is increasingly important to maintain a competitive edge and to fulfill regulatory requirements. To increase the level of efficiency in seaport operations, all equipment needs to communicate, because it is essential to use all the available data and newest solutions in IoT to make the best decisions. It is estimated that using this real-time information could save seaports operators as much as \$80,000 each time they dock a vessel.

SOLUTION

As we indicate in the topology, all vehicles and cranes in the seaports need to be connected to a unified, secure, and reliable network. Our partners are choosing RUTX11 for this solution due to multiple reasons, one of which is performance. RUTX11 with 4G LTE CAT6 is capable of speeds up to 300 Mbps and can support large data throughput application not only for today but for years to come. Dual Wi-Fi functionality allows connecting multiple PDAs or industrial PCs to the router. These or other devices can also be connected via Ethernet ports. RUTX11 is a rugged device with metal casing, which can sustain vibrations, humidity, and extreme temperatures. The operating temperature of the router can vary from -40 C to 75 C. This professional cellular router has E-mark certification ensuring full compliance with a number of essential requirements when mounting additional devices in aftermarket automotive vehicles.

TOPOLOGY



In this specific use case, devices are using a secure private LTE network provided by the mobile operator. Although they are using their solution for efficient traffic management, they still needed Remote Management System (RMS) by Teltonika Networks. With the help of this IoT platform, customers easily could configure all settings of the vast fleet of routers or just to a part of it, in a single window. They also can upload firmware for all their fleet at once. Of course, RMS is a highly secure platform as it has two-factor authentication functionality. Moreover, you are also able to use ID Biometrics authentication when logging in to it.

BENEFITS

- Performance - RUTX11 with LTE CAT 6 cellular module provides speeds up to 300 Mbps and is ready for industrial applications with rugged aluminum housing, wide operating temperature range, and resistance to vibrations.
- Security – with advanced RutOS features, RUTX11 offers multiple VPN options, embedded firewall and other security features to comply with high security standards of seaports operators.
- Easy Management – Remote Management System allows to efficiently upload FW or change settings in a single-window configuration even for a vast fleet of routers.

WHY TELTONIKA?

RUTX11 is a great choice for seaport applications because it is rugged, reliable, and secure. This router is ready for harsh environments. The device offers a high bandwidth of up to 300 Mbps, with 2 SIM card slots in each device. Dual Wi-Fi functionality allows connecting multiple devices such as PDA, industrial PCs, and others. While RMS (Remote Management System) allows easily monitor and make configurations for numerous devices with ease.

