

NETWORK SEGMENTATION WITH AN RS232 ETHERNET ROUTER

HIGHLIGHTS

- ✓ Many industrial manufacturing companies still utilise legacy equipment which has to be connected to the Internet in order to function properly.
- ✓ Network segmenting, which allows network access only for specific recipients, is necessary in industrial settings for safety reasons, as well as remote and on-site management.
- ✓ The Teltonika Networks RUT142 Ethernet router has the RS232 interface, ensuring continuous network connectivity for legacy devices and creating a network within a network.

THE CHALLENGE – NETWORK SEGMENTATION & SEAMLESS CONNECTIVITY

Industrial settings often deal with critical infrastructure and manufacturing processes, all containing sensitive data. This data is usually confidential and can be accessible only to specific groups of people. Sometimes, external vendors or contractors also need access to certain systems or equipment. This way, they can obtain real-time data needed to make manufacturing decisions.

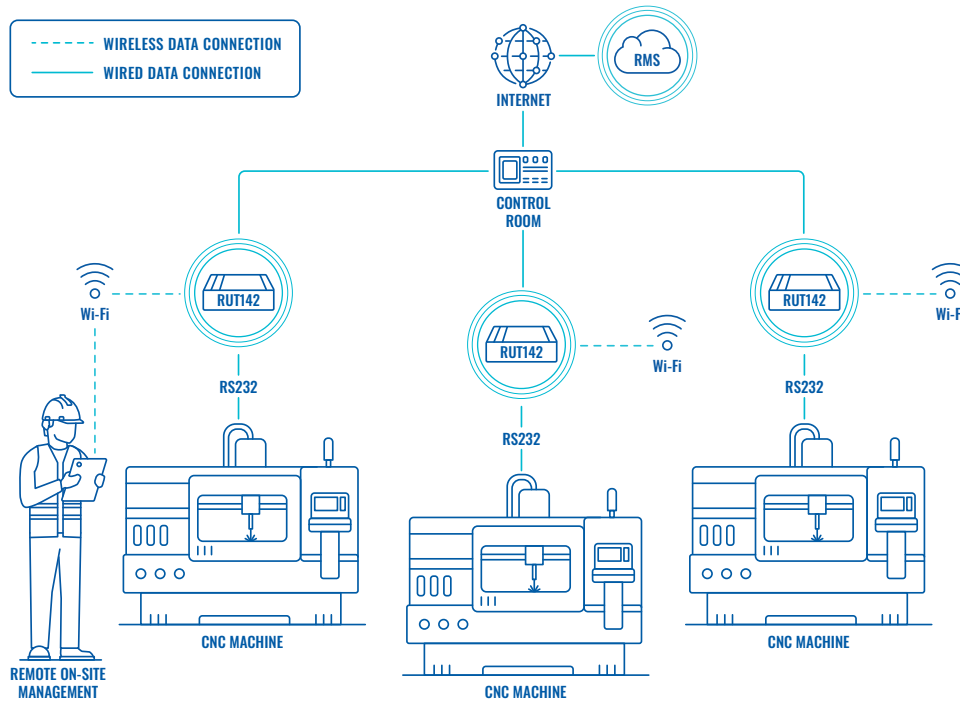
Machine operations are the most important part of industrial manufacturing. In this field, legacy devices such as Computer Numerical Control (CNC) machines are necessary for the infrastructure. They're a type of manufacturing equipment that utilises computerised control and precise programming of many connected devices.

These machines interpret instructions from a Computer-aided Design (CAD) file or a Computer-aided Manufacturing (CAM) software and translate them into precise movements of the cutting tools. To put it simply, they enable manufacturers to produce parts and components with high precision, consistency, and repeatability.

The RS232 interface is a standard for serial communication between devices, widely used in industrial automation settings for data transfer. Moreover, many industrial manufacturing companies rely on devices equipped with the RS232 interface, which is often used with legacy equipment due to its widespread use in older systems and machinery.

Therefore, there is a need for a network device that would not only deliver a secure and stable private network but also facilitate the seamless operation of legacy equipment, monitoring and controlling critical production processes.

TOPOLOGY



THE SOLUTION – AN RS232 ETHERNET ROUTER

The RUT142 is a compact RS232 industrial router, designed for facilitating uninterrupted connectivity for legacy devices via RS232 serial communication and enabling efficient data utilisation for continued operational effectiveness.

With its capability to create separate networks within an existing network using Network Address Translation (NAT) functionality, each production line can be connected to its own RUT142 router. This ensures network safety and controlled access for external entities without exposing the entire network.

With the ability to create a network within a network, this Ethernet router optimises traffic and guarantees smooth data flow within each segment without any unwanted disruption from unrelated processes. Most importantly, with the help of this network device, manufacturers can control access to critical data, preventing unauthorised personnel or devices from reaching sensitive information.

The RUT142 Ethernet router is perfect for industrial use because of its built-in DIN rail bracket. This feature makes installation in any control box as easy as it can be. Additionally, this network device comes with RutOS, meeting the highest security standards, and supports industrial protocols like Modbus, DNP3, OPC UA, and DLMS.

Our industrial router is equipped with a 3-pin power connector. Such connectors are used for installing many electrical components in automation cabinets. The pins are designed to fit into corresponding sockets in a way that prevents accidental contact with live electrical components, thereby preventing power surges.

Moreover, our Ethernet router stands out as one of the smallest connected devices. With a size of only 113.1 x 25 x 68.6 mm, this industrial router helps to avoid clutter in a manufacturing facility. In addition to this, it features two 10/100 Mbps Ethernet ports for LAN and WAN, enabling seamless connectivity.

Lastly, this device is perfect for both on-site and remote management. It is equipped with Wi-Fi 4, allowing engineers to effortlessly monitor it without accessing the control cabinet. Our Remote Management System ([RMS](#)) allows for remote management and monitoring, granting engineers access to fix any connectivity issues remotely.

