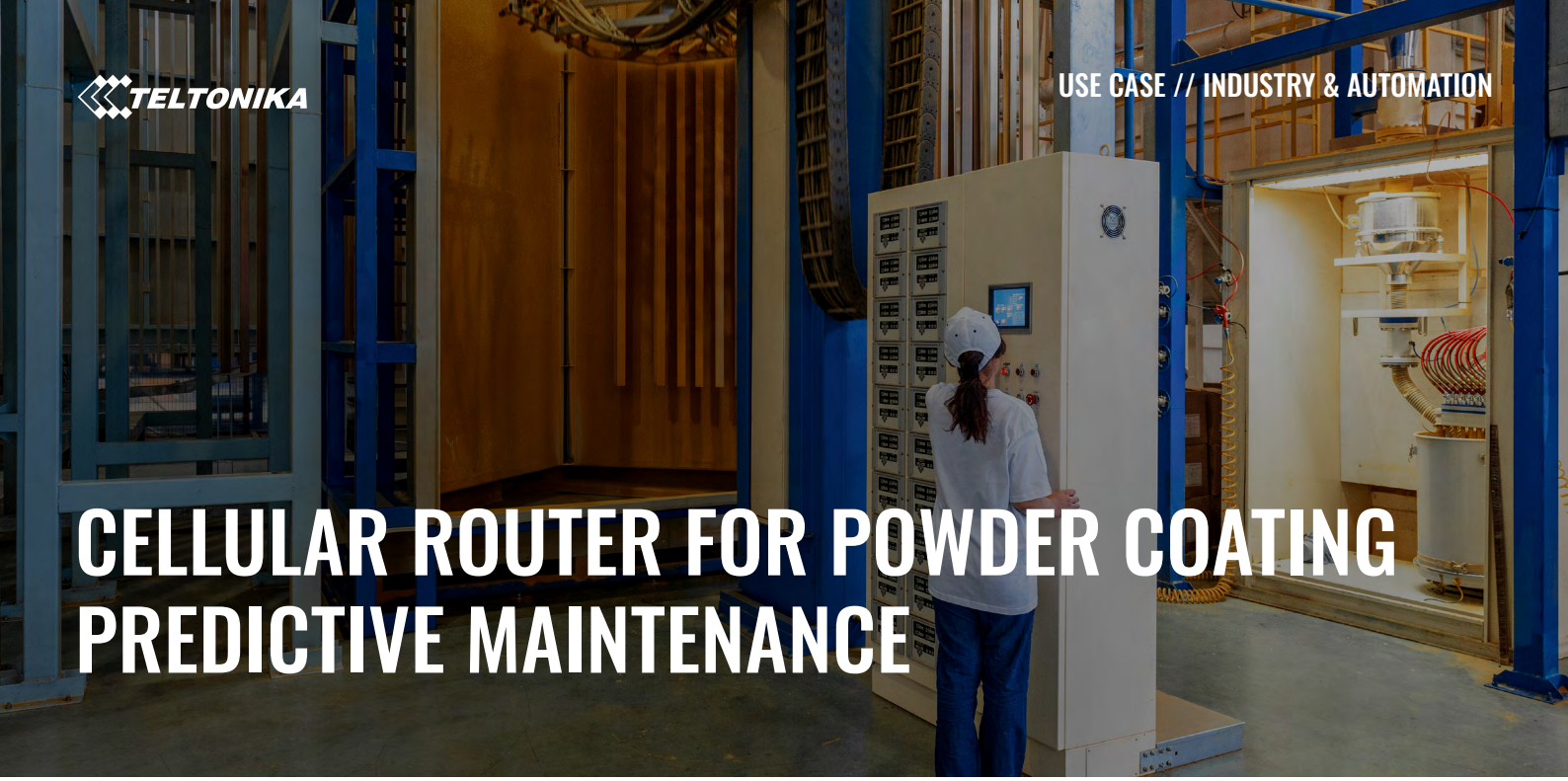


CELLULAR ROUTER FOR POWDER COATING PREDICTIVE MAINTENANCE

HIGHLIGHTS

- Powder coating enhances the durability and aesthetic appeal of surfaces through a process that provides a resilient, long-lasting finish resistant to wear and environmental elements.
- Powder coating control systems are essential for sufficient and successful powder coating by connecting all the needed equipment. To implement predictive maintenance and connect this system to a control and support centre and on-site management facilities, a connectivity device was needed.
- The device of choice is our RUT241 cellular router, providing uninterrupted 4G LTE Cat 4 connectivity and compatibility with Teltonika's Remote Management System (RMS).

THE CHALLENGE – PREDICTING THE FUTURE

Powder coating is a dry finishing process, responsible for over 15% of the whole industrial finishing market. Compared to more common finishing application methods, such as spray painting or manual finishing, this method is more sustainable and eco-friendly.

It's perfectly aligned with the reduce–reuse–recycle principle. Waste is reduced because powder-coated finish is durable and resilient to harsh environmental conditions, extending the lifespan of products. It's also a highly reusable and recyclable material, resulting in almost 30% of used power being recuperated.

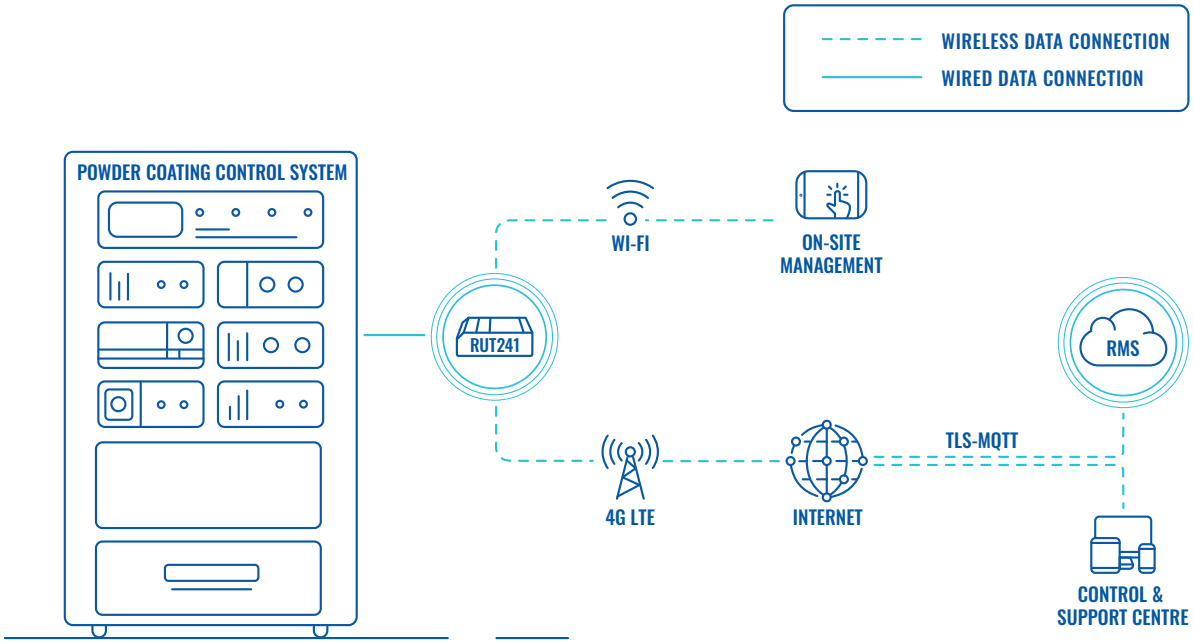
However, although environmentally beneficial, this process is also highly complex and requires all components to be perfectly aligned and work in harmony. A powder coating system includes not only powder delivery, electrostatic powder spray guns, control units, cyclone units, painting booths, and movement sensors, but also automated movement handles and curing cameras.

These components are connected to a powder coating control system, via which each component is managed.

To elevate this system to the next level and enable predictive maintenance capabilities, the idea of connecting it to an on-site management and control and support centre was born. For that, a secure and stable connectivity device was needed.

So, please kindly welcome the star of the show, our RUT241 industrial cellular router!

TOPOLOGY



THE SOLUTION – UNLOCKING CONNECTIVITY

The industrial cellular router, RUT241, is connected to the powder coating control system via Ethernet, providing a reliable and undisrupted connection. This 4G router is equipped with 4G LTE Cat 4 connectivity, able to reach speeds of up to 150 Mbps.

Moreover, this cellular router ensures network efficiency with high-speed and low-latency services, ideal for real-time data applications like powder coating system monitoring.

This networking device is also compatible with our Remote Management System (RMS), providing remote monitoring and management capabilities to this solution. This allows your engineers to access and manage powder coating system remotely, from your control and support centre.

Additionally, the RUT241 cellular router provides connectivity for on-site management. This not only increases data flow efficiency for on-site engineers, but also enables data collection and implementation of predictive maintenance. This technology predicts equipment failure before it occurs, optimising maintenance schedules and minimising downtime.

Let's not forget that our cellular router has a failover feature, automatically switching to an available WAN connection to ensures that, no matter what, your connectivity will stay undisrupted!

A myriad of VPN services, including OpenVPN, IPsec, ZeroTier, Stunnel, and many more makes our RUT241 4G router especially secure.

Lastly, our 4G LTE router is perfect for industrial settings. Sized at only 83 x 25 x 74 mm, you won't have to worry about it not fitting into small and narrow places. Its sturdy, aluminium housing can withstand operating temperatures from -40 °C to 75 °C, making it a powderful choice for your industrial IoT solution!

So, don't wait up. Grab your own RUT241 cellular router and enjoy all its benefits!