



5G GATEWAY FOR ENTERTAINMENT & INDUSTRIAL TELEOPERATION

HIGHLIGHTS

- ✔ [VBR Innovations](#) is an Austrian teleoperation specialist, setting new standards for teleoperations in entertainment and industry. Its vision is a world where new technologies are used to create a better life for people, nature, and the economy.
- ✔ For its VBR Pilot teleoperation platform, VBR Innovations chose our TRB500 5G gateway for uncompromisingly seamless and uninterrupted, high-speed connectivity.
- ✔ This 5G gateway enables real-time video and audio streaming and telemetry data transmission, all while ensuring easy installation in tight-space vehicles and providing robust remote management capabilities.

THE CHALLENGE – THE RACE TRACK OF INDUSTRY

Truly revolutionary technologies begin in one market and expand into others.

Take [MRI](#) scans, for example. A staple of medical procedures today, the technology was originally developed for [atomic clocks](#). Occasionally, technologies are made for entertainment but prove useful for other purposes. An example of this is VR, first developed to change the video gaming landscape, yet is growing in usage for medical and aerospace training, automotive design and testing, and more.

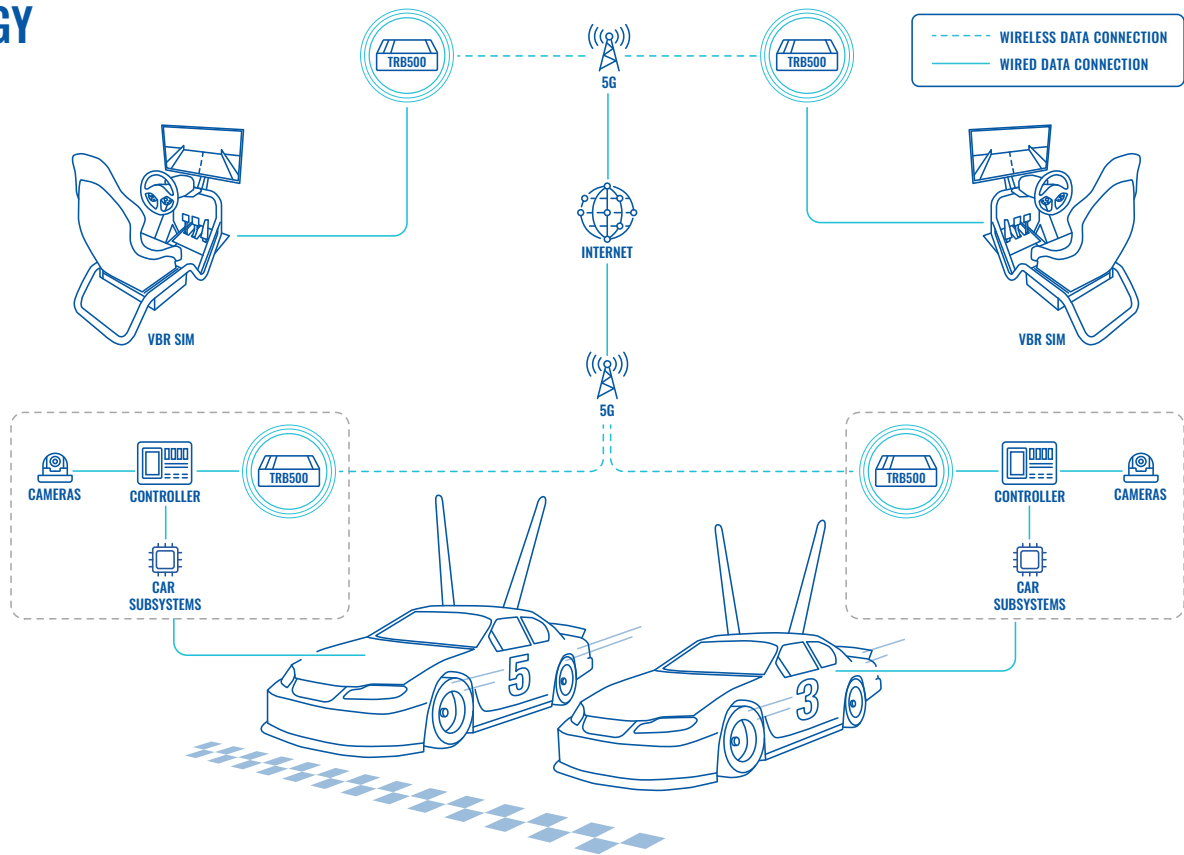
Further illustrating this dynamic is the VBR Pilot of our partner, VBR Innovations. The Pilot is a teleoperation platform made for immersive racing simulator experiences – the Playground. Think go-karts, but with small electric cars racing on real tracks, and the actual driving is done completely remotely.

This is essentially a portable attraction with great entertainment value, but the world beyond the Playground is vast and ripe with potential. The same platform can be used for teleoperation in many different industries. [Logistics](#) and airport vehicle operations, emergency and first response vehicles, and a myriad of [construction](#) and [agriculture](#) vehicles, just to name a few.

Incorporating this technology into these markets would allow unprecedented scalability, safety of operations, and workflow assurance. Short-term staff shortages and hazardous working environments will be eliminated as impacting factors, and costs will be significantly reduced.

The core of this potential is real-time video and audio streaming from the remotely operated vehicles to the Pilot platform, as well as telemetry data transmission. To enable all of this, Pilot requires uncompromisingly robust and stable, high-speed connectivity. In other words, VBR Innovations needed a cellular gateway to provide their solution with 5G IoT capabilities.

TOPOLOGY



THE SOLUTION – 5G GATEWAY TO A TELEOPERATED FUTURE

VBR Innovations chose the TRB500 5G gateway of Teltonika Networks for its VBR Pilot solution. This industrial gateway offers ultra-high cellular speeds of up to 1 Gbps, enabling unparalleled seamless data transmission with single-digit latency.

The 5G gateway is connected to Pilot’s operator station via RJ45. Within each race car, or any other remotely operated vehicle, is another TRB500 device connected to the vehicle’s controller, also via RJ45. Being the smallest 5G gateway on the market, the TRB500 measures only 100 x 30 x 93,4 mm, making it incredibly easy to slot into tight-space vehicles. The device supports both SA and NSA infrastructures, making it adaptable to different solutions involving different vehicles, and is housed in sturdy and rugged aluminium housing, making it fit for any industrial environment those vehicles operate in.

Of course, industrial IoT solutions involving remotely operated vehicles require remote management. VBR Innovations made great use of this 5G router’s compatibility with our [Remote Management System \(RMS\)](#), providing the solution with remote access, monitoring, and management capabilities.

This allows for simple and direct access to all telemetry data to monitor the health of the solution, as well as quick and easy firmware updates, troubleshooting, and even fully custom alerts and automation schemes – all remotely.

Just as VBR Pilot is sure to realize its teleoperation potential in many industries, the TRB500 is sure to enable your industrial IoT solutions to realize their potential.

