5G ROUTER FOR MOBILE RV INTERNET SOLUTIONS

HIGHLIGHTS

- Chantal and Donny are full-time travellers and influencers from the Netherlands who have upgraded their RV to make it smart, equipping it with sensors and remote control capabilities for multiple systems.
- They needed a networking device that could provide robust Wi-Fi connectivity to most of their end devices while enabling a secure connection to a remote server. This would allow them to remotely control and configure the devices and send data from one point to another.
- The duo chose Teltonika's RUTX50 5G router, which is the ideal solution for their needs. With its incredible Wi-Fi speeds, VPN support, and MQTT protocol capabilities, this router easily brought Chantal and Donny's vision to life.

THE CHALLENGE – RV, BUT MAKE IT SMART

More and more people are choosing eco-friendly travel, as shown by the rising popularity of recreational vehicles (RVs)—an industry growing at an annual rate of 11.5% from 2023 to 2030. And with this eco-friendly RV living, staying connected for work, entertainment, or navigation has become the standard among travellers.

Having Internet for RV on the road is truly great. It allows you to enjoy home comforts while travelling from one spot to another. TVs, gaming consoles, and mobile devices stay connected for continuous and optimal use—what more could you wish for? Well, in today's world, perfection is a moving target.

What if this was taken a step further, and the RV became a smart vehicle equipped with technology that could be controlled remotely? This is exactly what the travelling influencers Chantal and Donny, known as Chanti.and.Ollie, did with their RV.

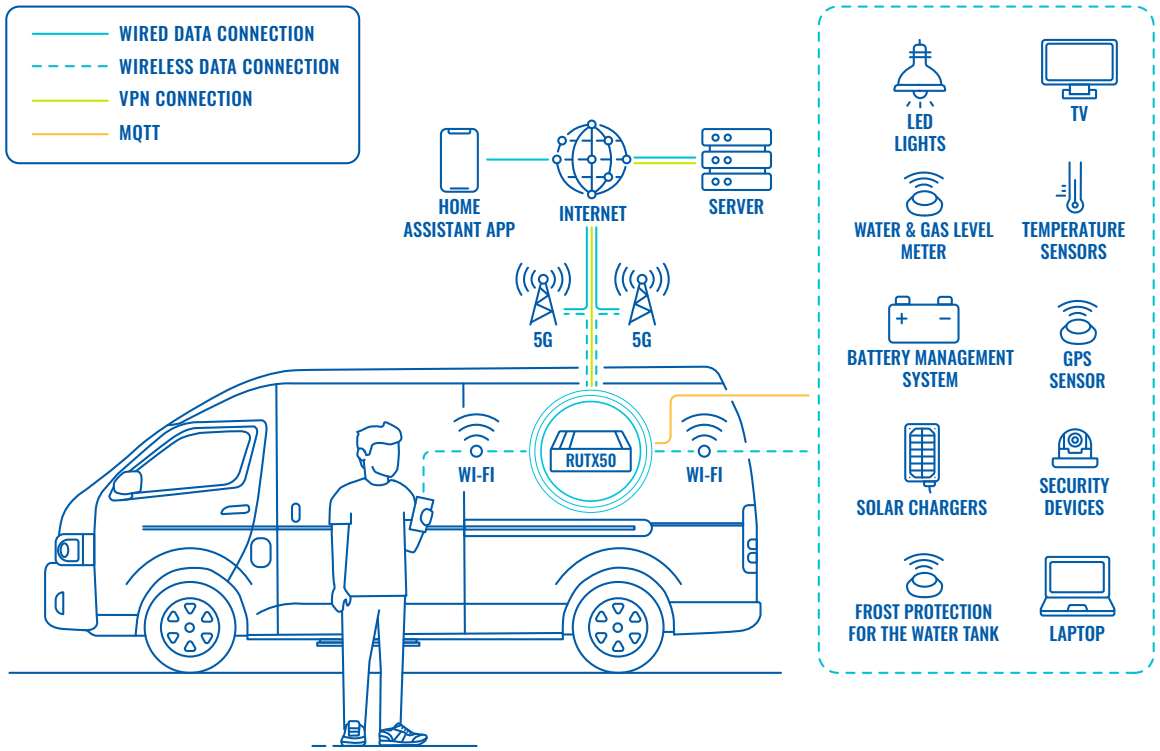
With both of their jobs relying on remote work, reliable Internet for RV is essential. However, they also upgraded their RV to become smart, adding sensors that enabled voice control capabilities. As you can imagine, not just any mobile router can meet such demands, especially given the connectivity challenges of RVs.

RVs' metal frames create significant challenges for wireless network penetration. Wi-Fi needs to support electronics like custom sensors, laptops, and entertainment devices operating on both the 2.4 and 5 GHz bands.

This becomes even more difficult as Chantal and Donny rely on a remote server for data collection while traveling between different locations. As you might have guessed, this server is often quite far from them. Therefore, connecting to it via VPN is non-negotiable.

So, can you guess what this duo chose to provide Internet for their RV? That's right: Teltonika's RUTX50 5G router.

TOPOLOGY



THE SOLUTION – A MATCH MADE IN TECH WITH A 5G ROUTER

Chantal and Donny previously used Teltonika's RUT950 mobile router with a Puck-5 antenna for their travels, but it was time to upgrade to something new, shiny, and more powerful – the RUTX50 5G router, guaranteeing RV Internet with its robustness and higher speeds.

This 5G router has two SIM card slots and can reach cellular speeds of up to 3.3 Gbps. So, if one SIM card needs to reboot or goes offline, the router's failover feature steps in, switching to the other SIM to maintain connectivity. Once the primary SIM is restored, the router automatically switches back. This is particularly helpful when driving around rural areas with poor cellular coverage.

Additionally, the RUTX50 also supports both SA and NSA network architectures and is backward compatible with 4G LTE Cat 20. These features ensure that the router will provide fast cellular speeds even in areas without 5G.

The RUTX50 features five Gigabit Ethernet RJ45 ports, one of which connects to a computer for the most stable connection possible. Since other devices rely solely on Wi-Fi, this 5G router can act as a wireless access point and supply Wi-Fi connectivity.

With speeds of up to 867 Mbps, the router ensures connectivity performance as smooth as butter, especially when paired with a 5G antenna that helps overcome the challenges posed by the RVs' metal frames. And when campsites provide their own Wi-Fi, the RUTX50 can function as a Wi-Fi client.

This 5G router supports a multitude of VPNs, from WireGuard to ZeroTier, giving the influencers a wide selection for choosing the most secure VPN option to connect to their home server for site-to-site traffic. Given this, they establish a data transmission tunnel using the MQTT protocol so the server can read sensor data from the RV.

Wireless sensor network and data operations are what truly make this solution unique. Chantal and Donny created custom sensors using the Arduino platform to measure things like water, gas, and temperature levels, and toggle switches or LED strips. Once the connections are established, everything can be controlled, monitored, and logged with the home server remotely. Talk about convenience!

Additionally, this 5G router allows Chantal and Donny to use the Home Assistant app as an automation hub, enabling them to perform tasks like turning on the RV's diesel heater or checking the temperature outside. With such reliable connectivity, they can even monitor camera feeds when motion detectors trigger the alarm.

Creativity knows no bounds, and with a reliable and robust 5G router empowering you to accomplish anything you set your mind to, it becomes the ultimate example of innovation in action.