# OPTIMIZING YOUR PARKING EXPERIENCE WITH SMART CITY SYSTEMS

## HIGHLIGHTS

**CET⚡Energy**

- Parking search habits are being fundamentally restructured with smart parking systems, but robust network connectivity is critical for those to work.

- **CET Energy** has created the Smart Parking project, which, with the help of our RUT240 cellular router and TSW100 switch, enhances a parking experience and reduces CO2 emissions.

- Both RUT240 and TSW100 ensure reliable and uninterrupted 4G LTE network connection while keeping the system's operation cost-effective and simple.
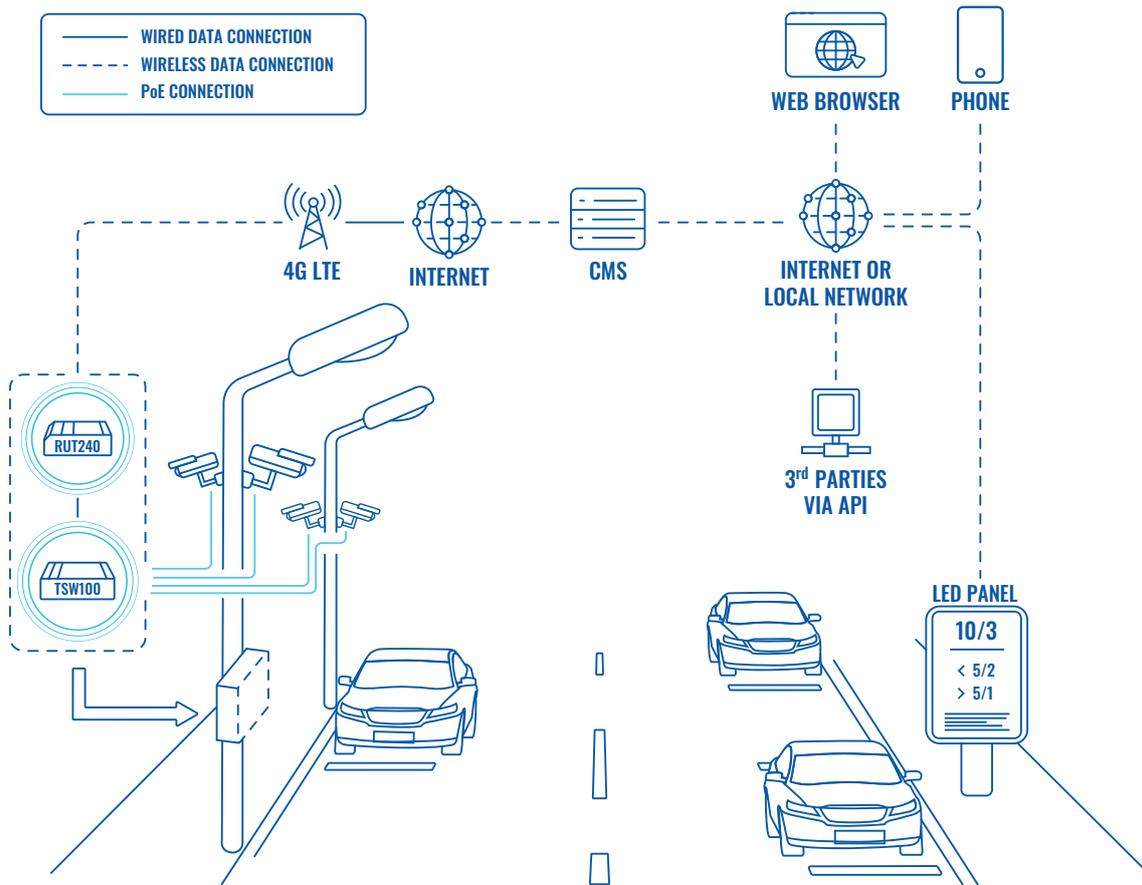
## THE CHALLENGE – A CHAIN REACTION

The average driver can spend up to 20 minutes trying to find a parking spot, which is not only a waste of time but can also test their sanity. However, these aren't the most critical problems.

You see, whenever drivers are on the lookout for a place to drop off their cars, each of them wastes around 30% of gasoline per year, which in smarter words, stands for carbon dioxide emissions. Now, besides throwing money away on wasted gasoline, the most concerning side-effect of parking spot hunting is air pollution, which isn't welcomed in the environment at all.

This problem will get worse because of growing urbanization rates, so it needs a valid solution. An excellent one for overcoming these problems would be a system that allows for remotely checking whether there are parking spots at any given moment, and where. But that's not something that can be achieved manually. How about employing IoT for monitoring and report automation, then?

# TOPOLOGY



— WIRED DATA CONNECTION
--- WIRELESS DATA CONNECTION
— PoE CONNECTION

WEB BROWSER    PHONE

4G LTE    INTERNET    CMS    INTERNET OR LOCAL NETWORK

RUT240

TSW100

3rd PARTIES VIA API

LED PANEL
10/3
< 5/2
> 5/1

# THE SOLUTION – RESERVING ENVIRONMENTAL PROTECTION

Our partner, CET Energy, has developed a well-organized Smart Parking project that, using our cellular RUT240 and switch TSW100, makes the parking search much quicker, stress-free, and less harmful to the environment (yay)!

The specifics of this project begin with IP cameras mounted to street lights, which constantly transmit images of in-sight parking spots to cloud-based servers. After the images are analysed, the availability data of parking spots travel from servers to platforms like web and mobile apps, LED displays, dashboards, and third-party systems. This way, drivers can see available parking spots, their costs, and even make reservations. By providing convenience to the people, this project ultimately reduces parking search traffic and, consequently, air pollution.

However, the project must maintain a stable, uninterrupted, and wireless network connection to succeed. That's where our RUT240 router and TSW100 switch drop in. RUT240 provides the system with robust 4G wireless connectivity, making M2M communication fast and reliable. It's an irreplaceable router that guarantees cost-effective and high performance even in network-limited locations. But it's not the only networking device that makes this solution possible.

Since one street light holds four IP cameras, the network connectivity is equally distributed to them through a TSW100 router, which makes it a win-win situation by having four of its five ports featuring PoE+. This way, no extra power supply wires are needed to power the cameras.

Our devices simplify the Smart Parking project by providing robust, uninterrupted, and cost-effective network connectivity that doesn't require any particular know-how for installation.