

palmerston north city

challenge

Palmerston North is New Zealand's eighth largest city, with a population of over 82,000 and a concentrated CBD with a vibrant shopping centre catering for over 60,000 vehicle trips every week.

The CBD is fitted with Integrated Technology Solutions (Global) parking meters set at varying time limits and, prior to implementation of Frogparking technology, enforcement was being carried out manually by enforcement officers.

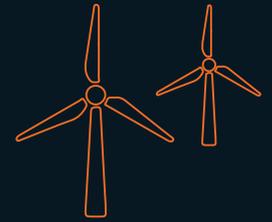
Furthermore, without accurate data on its parking asset or customer behaviours, Palmerston North City Council was limited in its ability to make informed decisions to increase compliance and revenue.

Frogparking, as the world-leading parking technology company based in Palmerston North, saw the opportunity to work with the City Council to create an intelligent and efficient 21st century urban parking system.

solution

In 2010, Frogparking installed an intelligent parking solution fully integrating with the CBD's parking meter system, comprising of:

- **Solar occupancy sensors** – Installation of 2,613 of Frogparking's world-first solar-powered occupancy sensors, surface mounted with a space identifier installed on the pavement allowing the motorist to pay at the meter. The sensors communicate directly with the Integrated Technology Solutions Global pay-by-space parking meter, so when a parking space becomes unoccupied, any time remaining on the meter for that space 'zeroes out'.
- **Payment integration** – Frogparking's solution integrates with the Global parking meters, so when a vehicle occupies a parking space the 'chalk time' is recorded on Frogparking's cloud-based parking management system. When the motorist pays the information is matched at the server and when payment expires, the enforcement officer is notified to issue an infringement notice. This encourages motorists to pay at the meter due to the increased chance of being ticketed.
- **Robust and clean sensor-to-meter integration** – The Frog sensor and the Metro meter communicate via a small piece of circuitry attached to the side of the meter, with all communications sent to Frogparking's cloud-based system in real-time via the meter's GPRS connection. This integration eliminates the need for additional street clutter like gateways or repeaters mounted on poles around the city with all circuitry hidden inside the meter.
- **'Smart' enforcement** – The city's six ticketing officers use a Smartphone running the Frogparking app linked to Frogparking's cloud-based management system. The app notifies each officer immediately when a vehicle nearby begins infringing, guiding them to the infringing vehicle and displaying all information required to issue the ticket. The result is significantly increased ticketing while maintaining current staffing levels.
- **Mobile App** – Using Frogparking's mobile app customers can view live parking availability and pay for their parking without having to interact with a meter.
- **Cloud-based management** – City managers can log in to the Frogparking management software for access to real-time and historical data which is used to make informed decisions around intelligent transporation.



benefits

Since the commissioning of the system in 2010, the City Council has experienced dramatic increases in enforcement revenue as well as compliance, while using the invaluable data from the cloud-based system to support better planning and management of the CBD.

The following 'snapshot' statistics taken over an average 40-week period demonstrate the level of efficiencies the City Council continues to enjoy:

- Weekly net value of enforcement revenue increased by 423%
- Tickets issued increased by 394%
- Value of tickets issued increased by 257%
- Average tickets per warden, per day increased by 251%



outcome

For Palmerston North City Council, the implementation of intelligent Frogparking technology has delivered an immediate return on investment with long-term benefits for its parking asset and its customers. With very little change required to its infrastructure and no need to increase its staff, the council has a highly efficient asset with increased ticketing revenue, high customer compliance and the ability to make informed decisions thanks to the in-depth and accurate data delivered by Frogparking's cloud-based management system.

