P. BERGHAUS
New Zealand

PB Traffic improves traffic conditions and road safety with Internet of Things

NZ traffic management company uses Pollin8 devices and analytics software with Thinxtra's 0G Network to resolve expensive lost and stolen asset challenges

The Challenge

Traffic management company PB Traffic would historically lose an average of two traffic light systems every year, either by going missing or being stolen. They needed a way to manage their assets, so road users have functioning traffic control systems in place.

The Solution

PB Traffic opted for the Internet of Things (IoT), installing Pollin8's low cost and battery powered tracking devices to its traffic light units, which communicate data in real-time over Thinxtra 0G Network, based on low power wide area network (LP WAN) technology.

The Benefits

The combined Thinxtra and Pollin8 solution gives PB Traffic full oversight of the location and the traffic view available through the platform enables monitoring the performance of its traffic light systems, preventing asset theft and losses, and improving traffic conditions and road safety.

Established in 2009, PB Traffic supplies traffic management equipment and portable traffic lights for roads, major infrastructure projects, and specialist operations. The company owns and operates 110 portable traffic light systems, each valued at over NZ$20,000. These have been deployed for the Puhoi to Warkworth motorway (NX2), Clevedon Water, Kaikoura SH1 rebuild, and other major infrastructure projects.

Historically, **PB Traffic would lose an average of two traffic light systems annually**, with some going missing while others were stolen by individuals attempting to profit from reselling the internal batteries. To reduce the potential risk of recurring financial hits of $60,000 per year – and the threats to driver safety when lights aren't present to control traffic – **the company turned to real-time asset tracking technology from Pollin8 and Thinxtra**.

> "As well as being a lost asset, roads missing functioning traffic lights create huge safety risks. It increases the chances of head-on accidents when the light on one side is stolen or vandalised, and this quickly triggers significant congestion, which causes stress for drivers and pedestrians. We therefore needed a tracking system to give us full oversight of our traffic light systems no matter where they are, and the ability to understand whether they are working as expected."

Akshay Gupte,
General Manager at PB Traffic

IoT for tracking lost assets

PB Traffic had considered asset tracking methods using 3G and 4G GPS networks, but found a cost-effective and efficient Internet of Things (IoT) solution with Pollin8's tracking sensors and software. Pollin8's solution works beyond the standard capabilities of GPS tracking, with the **ability to transmit location data even in areas that do not have GPS signals**.

PB Traffic selected Pollin8's Oyster tracking devices and remote monitoring package, which communicate over Thinxtra's 0G low power wide area network (LP WAN) technology. The Oyster sensors are battery-powered with up to seven years battery life, making it an optimal choice for a **reliable and low-maintenance asset management and theft recovery tool**.

In two instances where PB Traffic's lights were stolen, the company worked with local authorities to locate and retrieve the systems in real time before they could be resold. **Although the traffic lights lost power, Pollin8's tracking devices**, with a long battery-life, **continued to provide location data as they operate independently**.

> "As a supplier of traffic management solutions, PB Traffic has incredible responsibility for the safety of all persons impacted by its systems. Taking the guesswork out of asset management with our IoT devices and Thinxtra's national connectivity means the organisation can focus on proactively managing theft and optimising traffic flow, making roadworks safer with less impact on commuters."

Nick Pickering,
Chief Executive Officer at Pollin8

Traffic management and road safety

The Thinxtra-powered Oyster tracking system will also help PB Traffic manage traffic and road safety.

Polin8's IoT sensors are connected to its remote mobile and web applications, allowing the team at PB Traffic to view the real-time location and status of each device.

"**Our team can now view live traffic flows on the Pollin8 platform to understand how the lights are performing in every location,** and if necessary discuss with the contractor on site and work with them to adjust the timing of signal light changes to prevent road congestion and accidents," Gupte said.

Thanks to IoT, PB Traffic has access to real-time information and updates that **allow them to respond promptly in the event of lost, stolen, or damaged traffic light systems**. This means road users will have lower risks of road accidents caused by non-functional traffic signal lights or outages.

> "PB Traffic provides crucial safety assets for some of New Zealand's most important infrastructure development and construction projects. By using real-time tracking powered by the Internet of Things, PB Traffic has created an invaluable safety net that not only ensures its traffic light systems are in the right places and working as intended, but keeps workers, drivers and pedestrians safe during their commutes."

Nicholas Lambrou,
Chief Executive Officer at Thinxtra

About PB Traffic

PB Traffic (Peter Berghaus New Zealand) is a New Zealand owned company that represents Peter Berghaus GmbH.

Peter Berghaus range of traffic lights have been successfully used in New Zealand for over 20 years, and they have also supplied products in Australia.

For more information, please visit PB Traffic's website.

About Thinxtra

Thinxtra accelerates business efficiency by connecting physical assets and making them work smarter. The company provides fit-for-purpose Internet of Things (IoT) connectivity and solutions that are economically viable and operationally scalable. Thinxtra owns and operates the public 0G Network in Australia, New Zealand (A/NZ) and Hong Kong,

Visit thinxtra.com for more information.