

Internet of Things helps NZ glass manufacturer AGP disrupt industry with four-day supply delivery

The Challenge

Double-glazed glass manufacturer Architectural Glass Products (AGP) owns more than 1,750 delivery trolleys, worth NZ\$3,000 each, which transport its high-value and fragile glass products. The company needed a way to track these assets around the clock to provide its industry-leading, four-day order-to-delivery cycles.

The Solution

AGP opted for the Internet of Things (IoT), installing Pollin8's low cost and battery powered tracking solution, which includes devices that communicate data in real-time over Thinxtra's national Sigfox OG Network, based on low power wide area network (LP WAN) technology.

The Results

The combined Thinxtra and Pollin8 solution gives AGP visibility into where its assets are, ensuring it maintains service levels, avoids unnecessary losses, and avoids any delays to its customers' projects.

Sigfox OG Network Operator



Thinxtra accelerates business efficiency by connecting physical assets and making them work smarter. The company enables Massive Internet of Things (IoT) with connectivity and solutions that are economically viable and operationally scalable. Thinxtra owns and operates public Sigfox OG Networks in Australia, New Zealand (A/NZ) and Hong Kong, and is a member of OG United Nations, the global association of Sigfox OG Network Operators. www.thinxtra.com/

Solution Partner



Pollin8 offers SaaS solutions within the Industry 4.0, SmartCity and Agritech domains. The Pollin8 Track platform offers the options of SaaS with the added flexibility to get the best of both worlds with custom dashboards, device integration and custom branding to suit your current and future business needs. Pollin8 specializes in unlocking the value of data through visualizations, machine learning supported insights, and proactive alerts and task scheduling. www.pollin8.co.nz/

Customer



AGP (Architectural Glass Products) is a brand-new state of the art double-glazing manufacturing business focused on supplying high quality products with exceptional service to its customers. AGP operates out of a custom-built world-class facility in Hautapu, near Cambridge. AGP is part of the PGL Group, the market leader of window and door systems in New Zealand. www.agp.co.nz/

AGP was founded in response to market demand for high quality glass that can be manufactured and delivered in short, predictable timeframes.

Established in 2019, the company has become the nation's largest manufacturer of insulated glass units (IGUs). It currently operates a four-hectare, highly automated factory in Hautapu on Te Ika-a-Māui, NZ's North Island.

1750

Number of Delivery Trolley

\$3000

Cost of Delivery Trolley

AGP owns over 1,750 purpose-built delivery trolleys, worth NZ\$3,000 each, which are used to transport its fragile, high-value glass products. If these crucial assets go missing for any reason, AGP not only sees a financial loss, but is at risk of missing its delivery targets, which can have a ripple effect on customers awaiting their arrival to complete constructions.

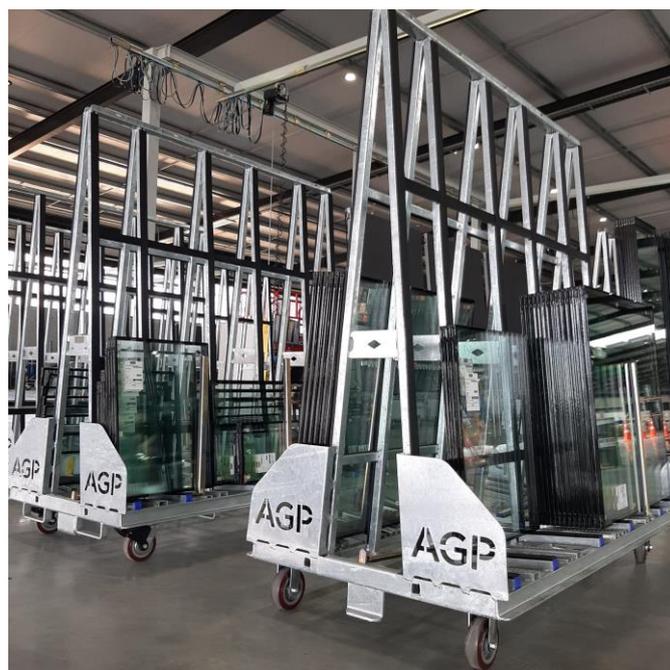
To reduce the chances of the delivery trolleys going missing and ensure their efficient return to the facility, AGP deployed Pollin8's Track solution, featuring IoT tracking devices which transmit location data over Thinxtra's Sigfox 0G Network. This data can be viewed within Pollin8's sophisticated analytics platform, allowing the manufacturer to track assets in real-time so they can be retrieved efficiently to maintain its four-day order-to-delivery service, and optimize asset utilization long term.

"Before AGP came to market, the time from ordering the glass to delivery was unpredictable, and customers never quite knew specifically when their products would arrive. We have completely disrupted the market by delivering in four days," said Gene Sanford at AGP.



Since foundation, AGP has built a highly-sophisticated operation underscored by incredible efficiency, which has catapulted the company to the pinnacle of glass supply in NZ. By bringing IoT into the mix from a very early stage, AGP gained granular visibility over the assets responsible for safely transporting its glass products to a fast-growing network of customers, avoiding unnecessary losses, and maintaining its stringent customer service level agreements.

Nicholas Lambrou, CEO at Thinxtra



Pollin8's IoT devices are fixed to every AGP delivery trolley, and record location data at all times, including where GPS signals are unavailable. That information is transmitted over Thinxtra's national low power wide area network (LP WAN), known as the Sigfox 0G Network, and provided to AGP in real-time through Pollin8's web and mobile applications in an easy-to-understand format.

The Combined IoT Solution

AGP selected Pollin8 and Thinxtra because the combined IoT solution is extremely cost-effective, making it ideally suited to the manufacturer's plans for continued expansion. The devices are quick to install, and the Sigfox 0G Network allows AGP to simply connect the sensors to the IoT without needing to invest in building or maintaining any communications infrastructure.



AGP also stands to save costs over time as the devices are battery-powered and last several years, reducing the need for replacement, and don't require ongoing maintenance.

"Having Pollin8 and Thinxtra's joint IoT solution in place from the start has proved central to our ability to deliver this level of service. Rather than resorting to the time-consuming task of counting assets on a map with a basic GPS solution, we have a dashboard and data that inform us which customer has the trolleys and how long they have had them, enabling us to quickly take action to maintain our high service levels.

Our customers' cash flow can be improved significantly knowing their supply will be delivered on time; getting our assets back quickly to fulfil the next set of orders helps mitigate any knock-on effect that might impact them," added Sanford.



Although GPS based tracking solutions have been available for powered vehicles for decades, IoT has introduced the capability to deliver tracking of non-powered assets using devices with long battery life in an affordable manner and at scale. That means we can provide AGP with not only around the clock tracking, but tailor the solution to its unique business requirements now and as its business expands in the future.

Nick Pickering, CEO at Pollin8



The combination of IoT devices and data has created a tremendous opportunity to reduce carbon emissions. With the ability to better track vehicles and assets, organizations can reduce their environment impact by optimizing fleets and routing to shorten time on the road, while avoiding waste from lost assets. It's great to see Thinxtra continuing to partner with companies to help them achieve efficiencies and reduce their carbon impact.

Craig Weise, CEO at New Zealand Green Investment Finance (NZGIF)