



GS Yuasa

Sector:



Warehousing & Logistics

Products:



Enterprise Wi-Fi 6



Next-gen switching



Cloud-management dashboard

Services:

Wi-Fi survey, design and installation, validation survey, Enterprise managed network support

Highlights:

- GS Yuasa Battery Sales UK is benefitting from high-performance Wi-Fi 6 network in its new warehouse
- The automated environment is complex and it was mission-critical the Wi-Fi delivered a constant signal
- With the high levels of lead stock, Redway Networks used advanced interference management techniques to design a Wi-Fi solution 'off plan'
- The new Wi-Fi is enabling staff and robots to work together to maintain speed and efficiency.
- The Cambium ecosystem has improved efficiency and future proofed GS Yuasa's warehouse
- Redway Networks will remain a key partner in supporting GS Yuasa with full enterprise network support.

GS Yuasa Battery Sales UK supports operations in its innovative robotic warehouse with Wi-Fi from Redway Networks

GS Yuasa Battery Sales UK is benefiting from an enterprise wireless network in its newly designed 178,500 sq. ft smart warehouse facility in Swindon. The warehouse is a 'one of a kind' environment with a fleet of automated robotic forklifts, 15-metre-high racking and huge portfolio of battery products, all of which present a unique challenge for a wireless network.

Due to the complex nature of the project, GS Yuasa chose wireless specialists Redway Networks to design and deploy its new enterprise network. Redway Networks leveraged its Wi-Fi expertise to create a solution that would future proof the business and ensure robust wireless connectivity throughout GS Yuasa's UK facility with no loss of signal for facilitating fast, efficient picking and dispatching of battery products to customers.

GS Yuasa Battery Sales UK Ltd is a subsidiary of GS Yuasa Corporation, one of the world's largest battery manufacturers and global leader in quality and innovation. For over 40 years, GS Yuasa Battery Sales UK Ltd has been the UK's leading supplier of high quality automotive, commercial, industrial and leisure batteries, which are supplied from its warehouse and distribution centre in Swindon.

"I knew the Wi-Fi design would be complex, so it was vital we chose a partner like Redway Networks to design our new network."

Adam Miller, Group IT Manager, GS Yuasa Europe



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Automated warehouse requires robust Wi-Fi

GS Yuasa utilises an automated robotic fleet in its warehouse for assisting staff with picking by performing pallet movements and replenishments for faster moving stock. This automation process requires a continuous wireless signal for the staff and robots to work together to maintain warehouse efficiency.

Adam Miller, Group IT Manager for GS Yuasa Europe says: "Our UK warehouse was designed to meet our innovative automation needs, but the environment poses significant challenges for Wi-Fi connectivity because of the high levels of lead in the battery stock. The warehouse has a complex mix of different

areas, deep tunnels and open spaces which all required a different implementation approach when it came to the Wi-Fi. So, we needed a professionally designed wireless solution that would suit the size and scale of our building. I knew the Wi-Fi design would be complex due to the impact that metal environments have on the Wi-Fi signals which can lead to drops and slowdowns, so it was vital we chose the right wireless vendor to design the network."

Redway Networks navigates complex Wi-Fi design

GS Yuasa Battery Sales UK Ltd chose Redway Networks as it came highly recommended with experience in complex warehouse Wi-Fi projects. Adam was also impressed that Redway Networks' engineer held the Certified Wireless Network Expert accreditation which demonstrates a very high level of technical expertise.

Adam says: "It's mission-critical that we have a robust network with strong and reliable Wi-Fi connectivity to the automated forklift fleet and handheld devices to ensure smooth round the clock picking operations. If the wireless signal drops, the robots won't be able to receive their next instruction, and the work-rate efficiency will be reduced."

Given the complexity of the project, Redway Networks' engineers had to design the network from the ground up, as the warehouse was very far from being complete so most of the Wi-Fi design was done using detailed blueprints provided by Adam.

Redway Networks' engineer then used Ekahau's advanced planning tools to create a virtual site map with a meticulous plan of access point placement to ensure maximum Wi-Fi coverage and signal strength and resolve any issues around the Wi-Fi signal being attenuated by the lead stock.

New wireless network supports mission-critical operations

To address the unique challenges of warehouse, Redway Networks recommended a high-performance Cambium cloud-managed solution with the enterprise features to enable Redway's engineers to fine tune the Wi-Fi configuration and optimise the performance of the automated fleet. Redway's engineers installed 64 Cambium access points with a mix of directional and omni-directional antennas positioned at each end of the aisles to provide a resilient, consistent signal with focused coverage in the areas where the strongest signal was needed. To mitigate the impact of the lead batteries on the Wi-Fi signal, Redway's engineers used advanced interference management techniques. All access points were connected to 14 Cambium edge switches to provide reliable communications across the wired network, with additional functionality and visibility provided by the Cambium CN Maestro X network management dashboard.

Adam says: "Redway Networks excelled in navigating our complex project and the service was excellent from start to finish. The technical ability of the team to design the wireless network just from plans with simulated data and then for the

Wi-Fi to be spot on with continuous signal was impressive. Redway Networks ensured that the Wi-Fi would handle the demands of warehouse and enhance the speed at which products are picked and dispatched to our customers. Our Cambium solution is ensuring the warehouse is running super efficiently considering what the Wi-Fi is up against with our robotic fleet and handhelds operating without interruption."

GS Yuasa Battery Sales UK is very much a Cambium ecosystem with a sophisticated Wi-Fi 6 network that is future proofed and resilient enough to last for the foreseeable future. Redway Networks will remain a key partner in supporting GS Yuasa by providing full enterprise managed network support.

Adam says: "With the Wi-Fi being so mission-critical, we signed a support contract to ensure that the wireless network is always running at optimum performance, with ongoing monitoring from Redway Networks' technical team. Redway Networks provided a great service from start to finish and will remain a key partner for us."