Customer STORY:

Skip Bin Tracking and Management with the Yabby Edge

Operating over 600 waste and communal skip bins and containers across worksites throughout Finland, Delete Group is tracking and optimizing their business-critical waste management assets with the Yabby Edge Indoor/Outdoor battery-powered asset tracking device.

Delete Group is supported by PrismaQuality (PQ-Team OY). Visit www.pqteam.fi to learn more about PQ-Team's asset tracking solutions.

Company:	DELETE GROUP
Website:	https://www.delete.fi
Country:	FINLAND
Industry:	Waste Management
Connectivity:	LTE-M (Cat-M1)/NB-IoT
Implemented Products:	Yabby Edge - Cellular

"Maintaining a bird's eye view of where, how many, and how long their bins are deployed across worksites is critical in optimizing and improving the utilization of their most important assets and reducing downtime."

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Yabby Edge for Skip Bin Tracking and Management

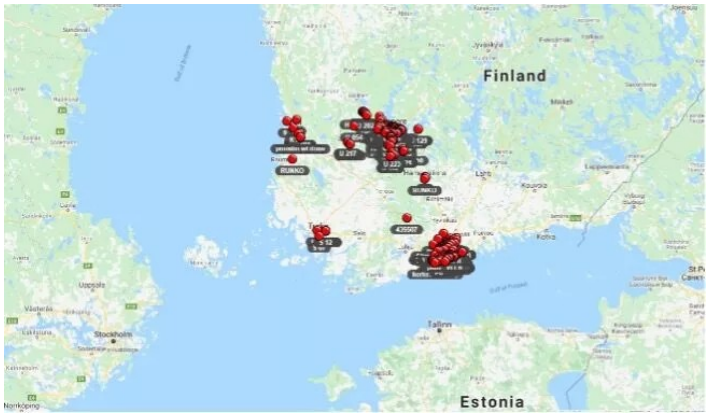
Featuring over 10 years of battery life on 3 user-replaceable AAA batteries, the Yabby Edge offers both outdoor and indoor location tracking and operates on global LTE-M/NB-IoT networks. Compact and IP67-rated ultra-rugged, the Yabby Edge is installed on the front of Delete's range of skip bins near the lifting mechanism to ensure the device can reliably scan for GNSS while outdoors.

If a GNSS fix cannot be obtained, for example in dense urban environments or if the bins are stored indoors, the Yabby Edge automatically switches to Wi-Fi scanning and/or Cell Tower Location to determine location, allowing Delete to maintain asset visibility even in difficult environments.

Installation location of a Yabby Edge on a skip bin to maintain line-of-sight

Cloud-based location solving on the Yabby Edge, an advanced power-saving technique that transfers the location processing workload traditionally handled on-device to the cloud, also enables 'Deploy Once' battery life and minimizes asset downtime, substantially reducing OPEX costs for businesses by eliminating frequent and expensive battery changes or manual recharge cycles.

In addition to size, ruggedness, and battery life, Delete Group also needed to upgrade their existing asset tracking hardware to the latest low-power LTE-M/NB-IoT connectivity to future-proof their bin tracking deployment. Seamless roaming between the two Cellular IoT networks was also required, as Delete's bins move between the two networks regularly.



Live view of assets

Clustering view of assets

With OTA updates, reporting frequency and other tracking parameters on the Yabby Edge can be quickly configured and applied remotely to best fit any bin tracking application. Currently configured to report twice daily regardless of movement, Delete's Yabby Edges will perform reliably for an *estimated 10 years before requiring a battery change.

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Daily Update Battery Estimates on Yabby Edge Cellular

# of Daily Updates	Battery Life – Legacy Devices	**Battery Life - Yabby Edge**
1	3 years	**10 years**
2	1.5 years	**10 years**
4	0.9 years	**8 years**
12*	0.5 years	**3.5 years**
24*	**12 weeks**	**2 years**

*Battery life estimates are influenced by several factors including temperature, installation and orientation of the device, the frequency of location updates, network coverage, sensor integrations, peripherals, accelerometer settings, and more.

Yabby Edge powers up with 3 x AAA - batteries

From PQ-Team Oy:

The Yabby Edge ticked all of Delete Group's bin tracking requirements as a robust, rugged, and future-proof Indoor/Outdoor battery-powered asset tracking device, says Petter Kroneld, Co-founder at PQ-Team Oy.

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