Smart Waste Solutions
Amazon Simple Notification Service

Ecube Labs provides a comprehensive smart waste management solution that consists of various combinations of hardware such as smart bins and sensors as well as software such as CleanCityNetworks (CCN) and CCNx.

A major project with the city of Melbourne in Australia, deployed in 2018 partnership with Ecube's client Smart Waste Solutions, consisted of a fleet of compacting solar-powered smart waste bins that monitor fill-levels, compress waste, and relay information such as fill-level and collection history back to the city through Ecube's CCN cloud-based software.

While most clients would use the CCN software's built-in capabilities for notifications through both the web platform as well as the mobile app, the city of Melbourne required email and SMS text-based notifications in order to smoothly integrate with their existing operations.

SOLUTION

- Conventional waste bins replaced with 397 solar-powered CleanCUBEs in the city's business district
- CleanCityNetworks employed along with CleanCUBEs to provide key data and custom notifications so the city can optimize collections and remedy trouble incidents

Ecube was able to provide a solution to this using Amazon Simple Notification Service. By applying this service to CCN, Ecube was able to offer end-clients the option to select the type of notification (fire warning, open door warning, fill-level, etc.) as well as the method of notification ranging from SMS or email to push notifications in-app. Multiple notification options are selectable for redundancy.

About Smart Waste Solutions

A subsidiary of MASTEC, Australia's only dedicated mobile garbage bin manufacturer, Smart Waste Solutions has been supplying innovative waste reductions solutions since 2006 at over 800 customer sites.

About Ecube Labs

Ecube Labs is an innovative green technology company committed to providing eco-friendly waste management solutions for smart and sustainable cities of tomorrow.

RESULT

- Monthly collection frequency has fallen 96.3% from an estimated average of one collection every 6 hours to an actual average of once every 7 days
- Data reveals monthly waste volume has fallen by 95.4% compared to previous conservative estimates of volume generation from conventional bins
- Overflow incidents minimized to an average of 11.5 per month (only 2.38% of all CleanCUBEs see any overflow in a given month)

While this may seem like a simple feature, it was critical in securing this large scale project as municipal governments have backwards compatibility and stringent operating standard requirements that must be met and would otherwise have been very resource-intensive for Ecube to implement in-house without the help of Amazon Simple Notification Service.