EcoVision Environmental
Amazon EC2 & Aurora

aws partner network

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.

CCN is a cloud-based web and app platform for managing smart bin and sensor assets, monitoring and collecting various data such as fill-level history and waste generation patterns, and analyzing data such as collecČ tion efficiency to provide actionable insights. CCNx takes this a step further by providing asset tracking of collection vehicles and handling dispatch, routing, and optimization features to further enhance the efficiency maximization capabilities of CCN.

Ecube's partner EcoVision has a range of end-clients ranging from corpoČ rate to municipal governments with large scale hardware deployments of smart bins and sensors, all connected to CCN and CCNx. However a unique issue with EcoVision is that the hardware deployment is not fully permanent and the fleet of IOT assets fluctuates by season and sees periods of heavy use where constant monitoring and optimization is required versus periods of dormancy where the computational load required to run all the assets on CCN are much lower.

SOLUTION

- No more ambiguity, waste volume can now be analyzed online to identify areas with high waste generation so collection routes can be optimized

About EcoVision Environmental

ecovision environmental

EcoVision helps cities and businesses reach their waste diversion goals. They offer not only key products but also expertly-designed programs informed by many years of industry experience. The most successful ongoing programs are those that address all the links that make up the waste stream with the goal of True Zero Waste.

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.

ECUBE LABS

RESULT

- Collections dramatically reduced by 98.5% for compacting CleanCUBEs (general waste only) from twice a day per bin to an average of once a month
  - Waste volume down 97.7% from previous conservative estimates
  - Haulers can visually check bins with low levels and skip them saving time, fuel emissions, traffic congestion, and money
- Waste overflow incidents minimized to an average of once a day

In 2019, in a bid to lower costs for the the end-user, we implemented Amazon EC2 as our on-demand server for generating route optimizations which allowed us to use high-spec servers only when needed rather than running them full-time. Also using Amazon Aurora as our database proČ vider in conjunction with EC2 for computational requirements, we were able to modulate additional servers when needed during high- traffic periods and reduce servers during low-traffic periods. This resulted in an average 32% reduction in overhead costs which translated directly to savings for our end-users as well.