



# Smart Waste Management

# CymbIoT

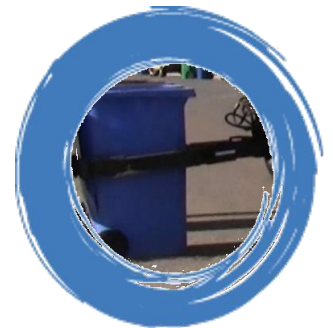
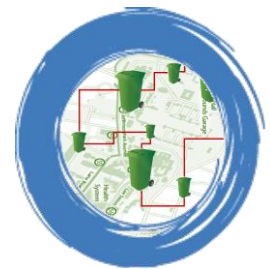
## Smart Waste Management

INTEGRATE | MONITOR | OPTIMIZE | SAVE

Residential trash collection comprises one of the top 5 municipal expenses, with the annual cost of waste pickup and disposal in the US reaching **200\$B**, almost **60\$B** of it in collection. With current zero oversight of the process, waste collection and disposal is highly inefficient –ineffective bin collection, route management, and truck allocation all contributing to both costs and pollution.

The CymbIoT Smart Waste Management solution is an integrated waste collection, tracking, removal , and analysis solution that dramatically cuts down on operational costs, minimizes transportation time, optimizes routes, and reduces emissions, pollution, and environmental impact of both waste and the waste collection process .

The CymbIoT solution is rapidly and easily deployable, requiring a simple 1 day installation per truck which then renders all truck and waste data instantly accessible 24/7 via any device, and supporting easy integration into new and existing Smart City platforms for comprehensive urban management.





**CymbIoT**  
Making IoT Smarter

## Bin RFID Tag

Bin identifier tag.

## Bin Volume Sensor

Tracks waste volume inside bin

## Lift Sensor

Sensors installed on any garbage truck ,  
send lift data per bin, including bin  
capacity, lift time and lift location.

## CymbIoT Command & Control

Suggests logistical improvements and route-  
optimization based on data collected from  
waste system and other urban sensors.

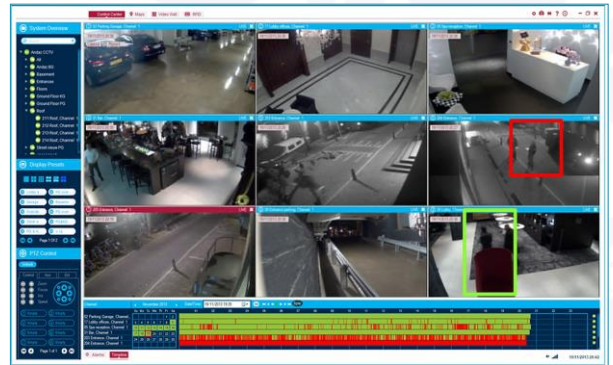




# ADDITIONAL INTEGRATIONS

## Smart Waste Management

- Route Planning
- Optimized Bin Collection (by Volume)
- Waste Production Analysis
- Fuel Consumption Optimization
- Truck Emission Reduction
- ...more



## Smart City Integration

- Replace Damaged Bins
- Identify/Stop Bin Theft/Vandalism
- Identify/Stop Illegal Dumping
- Collect Hazardous Materials
- Route Optimization (Traffic, Stoplights)
- ...more



*Waste Management integrated with data from other Smart City sensors in CymbioT Command & Control::*



# Bin RFID Kit



## Identify

Each bin is identified and tracked by the system..



## Track

As individual bins are collected, lift sensors collect weight & waste information per bin.



## Analyze

CymbloT analyzes waste pattern per specific bin.



## Plan

CymbloT identifies optimizes collection plan per bin



## Implement

CymbloT designs optimized collection routes based on individual bin waste patterns.

# Bin Volume Kit



## Alert

As individual bins reach capacity system is alerted.



## Analyze

CymbloT receives alerts from multiple full bins



## Plan

CymbloT plans optimal collection route based on full bin alerts.



## Deploy

CymbloT identifies number of trucks required to collect full bins



## Implement

CymbloT designs optimized routes based on number of required trucks & full bins

# Lift Sensors Kit



## Collect

Trucks collect waste.



## Sensor Data

Lift sensors collect data on no. of lifts & weight per lift.



## Analyze

CymbloT analyzes waste information per route (total weight & no. of lifts=bins)



## Plan

CymbloT identifies required frequency & no. of trucks based on route waste data..



## Implement

CymbloT optimized collection routes based on waste patterns per route.



**CymbIoT**  
Making IoT Smarter

CymbIoT's mission is to design, implement and deliver advanced Internet of Things (IoT), Video Management Solution (VMS), and Command & Control (C&C) platforms. We empower end users to configure and manage integrated networks of all types and scales - from Smart and Safe Cities, through Transportation Hub security, to Smart Buildings and Enterprise management.

With millions of sensors across numerous verticals using our products to deliver actionable intelligence and real-time response capabilities to customers worldwide - we have the experience, know-how and technology to deliver real world solutions that work.

## HEADQUARTERS

**Mail:** P.O.B 37, Azur 5819001  
ISRAEL  
**Tel:** +972 (0)3-631-6881  
**Contact Us:** [info@cymbiot.com](mailto:info@cymbiot.com)

## SINGAPORE OFFICE

**Mail:** 6A Shenton Way  
SINGAPORE 068807  
**Contact Us:** [APJ@cymbiot.com](mailto:APJ@cymbiot.com)

## ROMANIA OFFICE

**Mail:** Hareju 29, 2nd District, Arh.  
Bucharest, ROMANIA  
**Contact Us:** [office@cymbiot.ro](mailto:office@cymbiot.ro)

## ONLINE CONTACT

[www.cymbiot.com/contact](http://www.cymbiot.com/contact)