Final Deliverables

Smart Waste Management Using IOT In Metropolitan Cities

Team Id:PNT2022TMID27037

Smart Bin:

Smart Bin have established themselves as the leader of Intelligent Remote Monitoring Systems for the waste & recycling sectors. With over 100 clients across the globe, that include both private and public collectors of waste and recyclables and distributors of fresh oil and lubricants, Smart Bin have the solution, expertise, and experience to optimize any manner of collection or distribution operation. In June 2016 Smart Bin was acquired by OnePlus Systems Inc., a portfolio company of Parker Gale, LP, and the world leader of Intelligent Monitoring for the waste compactor industry.

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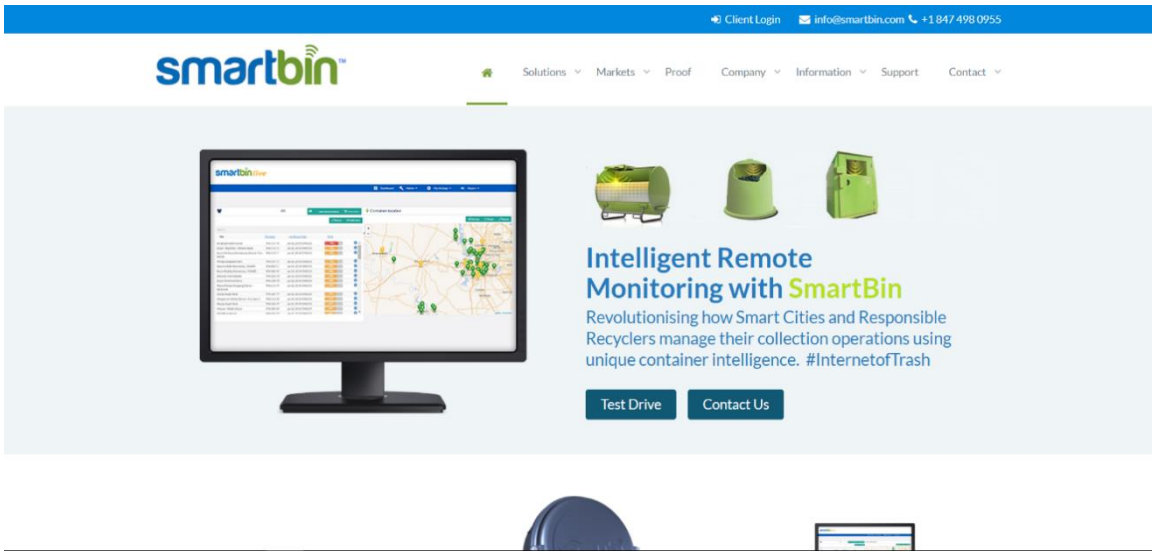
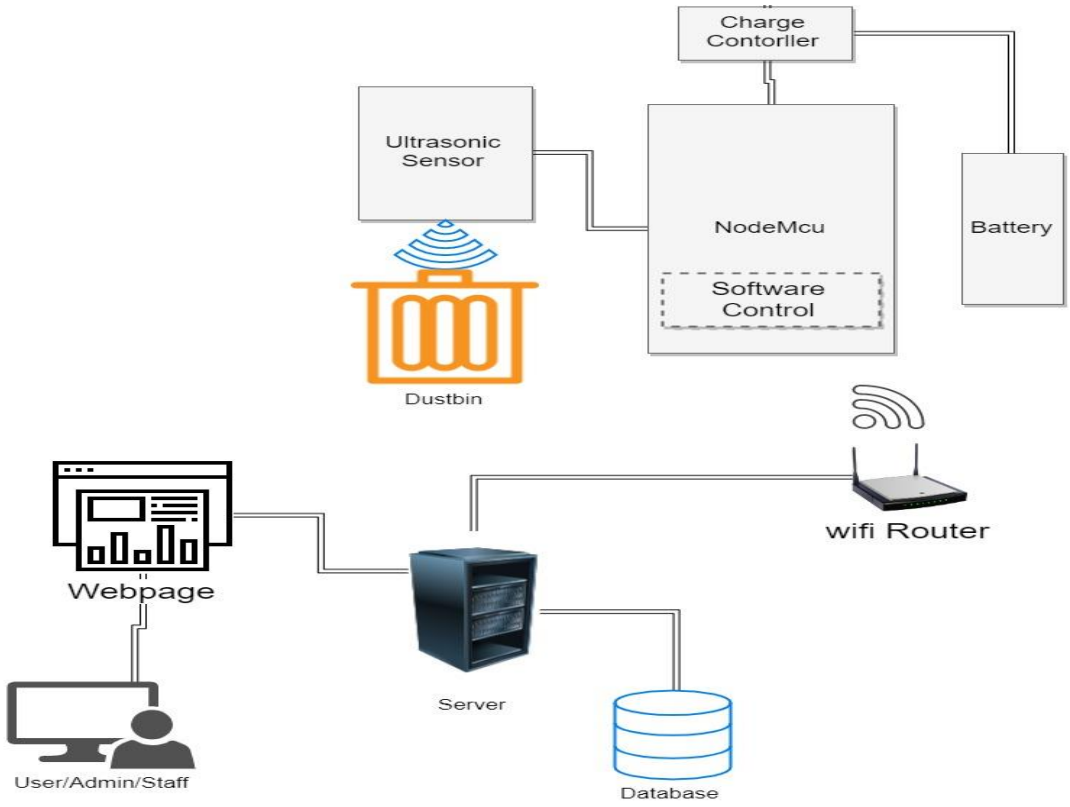


Architectural Design:



Dustbin Status Indicator:

Status: Full Dustbin

Height: <75%

Status: Half Dustbin

Height: 75> and

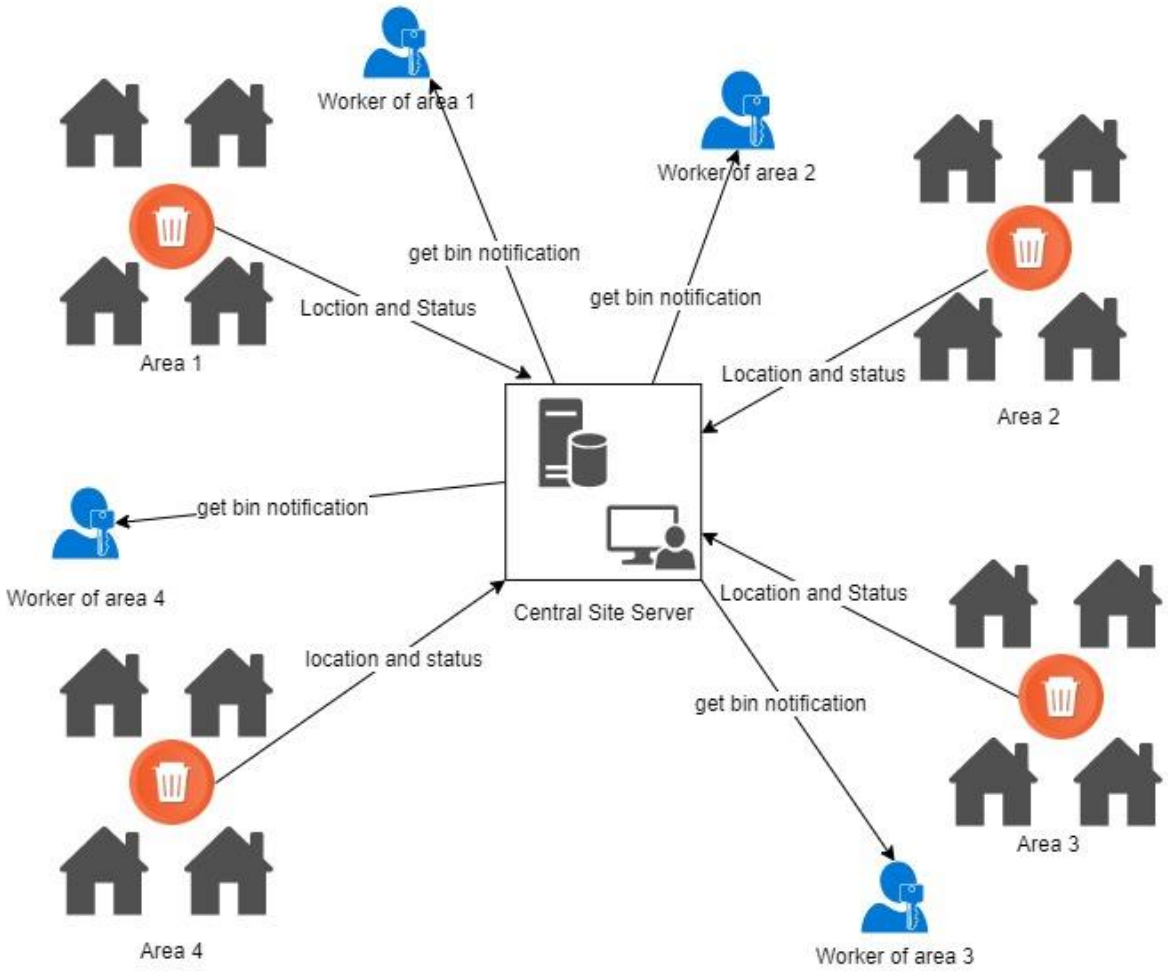
Status: Empty Dustbin

Height: <10%

Status: Damage or leakage in Dustbin

Height: >100%

Server Based Connection:



On the final note, it can be inferred that, a real time waste monitoring system is the key to achieve a better waste management system. This would optimize logistics and human resources for any modern municipal agency. The above proposed waste management system would solve various scenario specific issues in modern cities when it comes to waste collection and disposal to ensure better community hygiene. As discussed, the submitted system would be cost effective solution to achieve a real-time waste bin level sensing by reliable and centralized cloud data integration. The prototypes and proof of concept shown in this paper can be upgraded to industry standard hardware and software for real world deployment. But point to be noted the concept, idea, systematic approach and technique used will remain unchanged. Further as discussed work has opened new opportunities to work in the domain of data analytics to further optimize the waste collection vehicle route by implementing better algorithms with more relevant and practical parameters, which may come in to picture in a real world scenario.