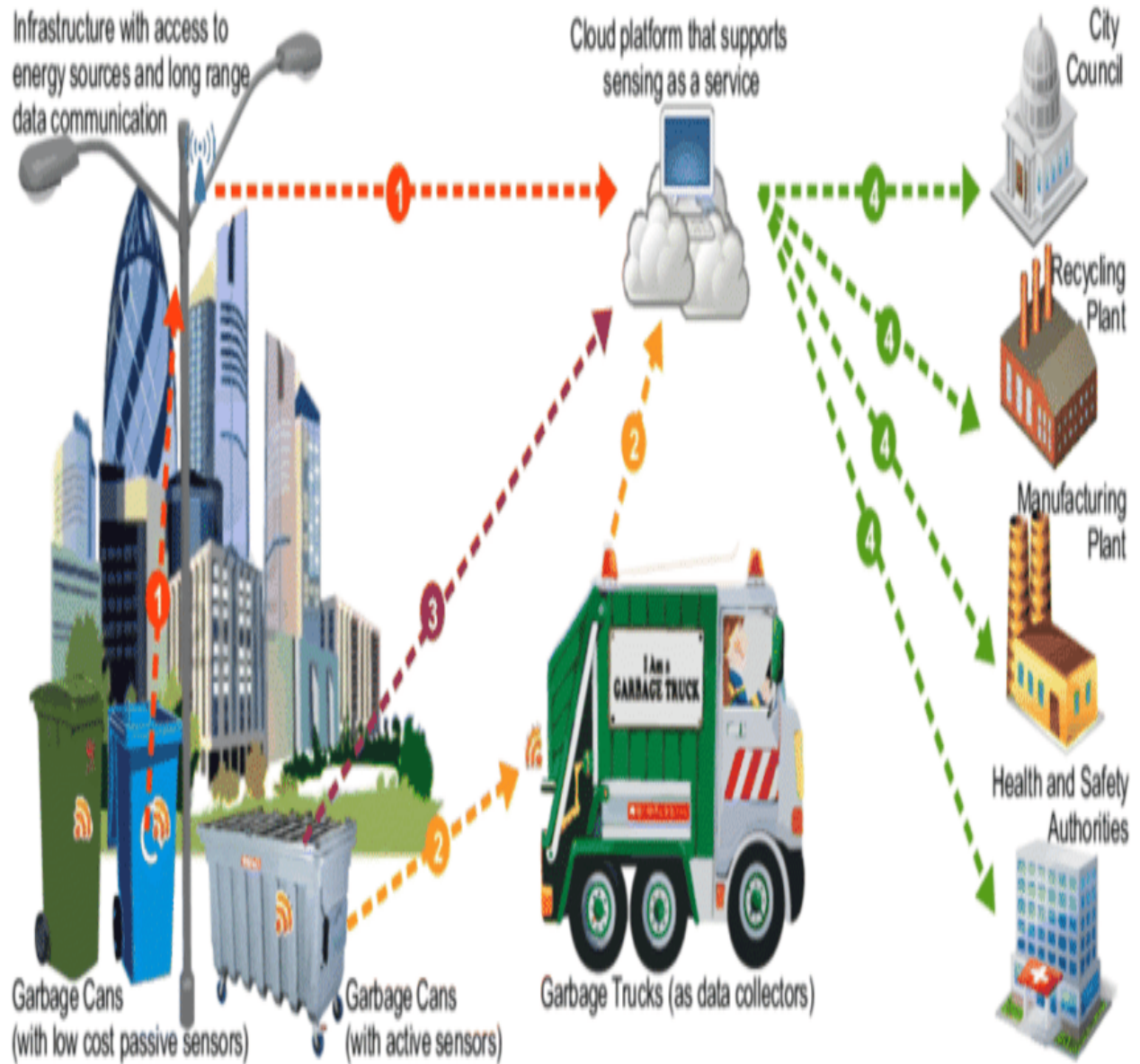
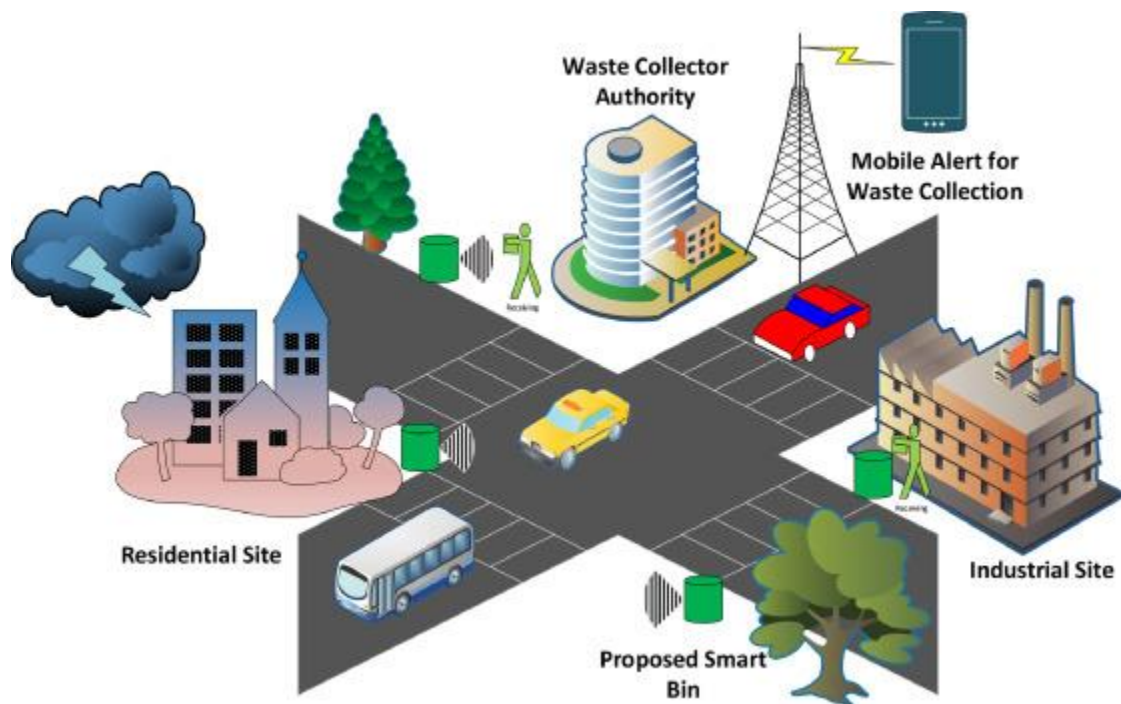
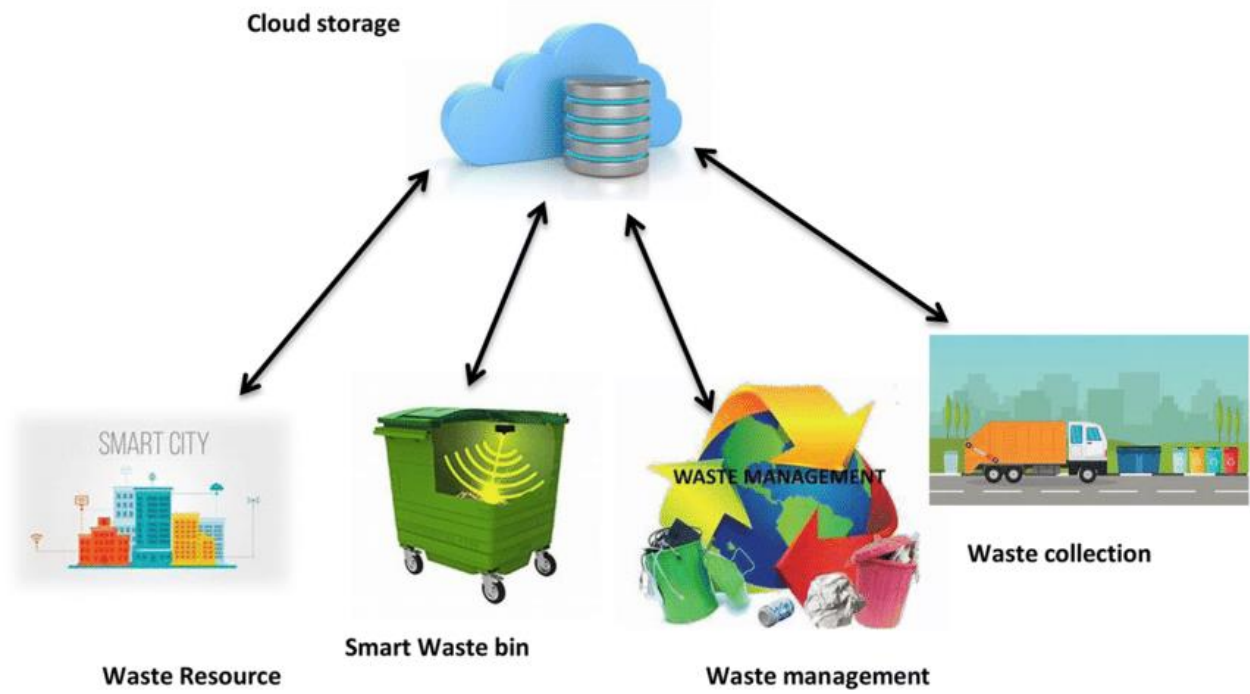


TECHNOLOGY ARCHITECTURE





The existing waste Management system got no technological innovation and relies purely on human being towards collecting the bin regularly. The collection of bin and getting cleaned are supervised by municipal authorities. But there is no record of bin being cleaned or not. Many a times the bin collector do not come regularly which results in waste overflow and making streets and city unclean with foul smell. So towards this some sort of technological innovation been developed as a prototype by employing IoT technology where Infrared sensor employed in detecting the level of waste in the bin and accordingly intimate the municipal authorities by email. Also research done in developing low cost embedded system for tracking the level of the garbage bins and a unique ID will be provided for every dustbin in the city so that it is easy to identify which garbage bin is full. In all these research, Infrared type sensor used which can only detect the level of bin based on threshold when garbage in direct line of sight with Infrared sensor. This is a bit of challenge in detecting the level of threshold in the bin. Also placement of sensor under the bin will give a wrong signal as bin is full due to line of sight. Also there is no system for predicting the rate at which waste getting filled and cleaned from the bin for planning the garbage removal periodically rather than static policy. So accordingly we here have developed. An IoT Based Smart waste Management System where ultrasonic sensor attached to top of the waste Bin. These

sensors would work on sound waves that would detect and monitor automatically the waste in the bin and trigger alarm when the waste gets filled in the bin. In addition the rate at which bin getting filled along with the date and time is computed based on the number of times the bin was filled during the day.