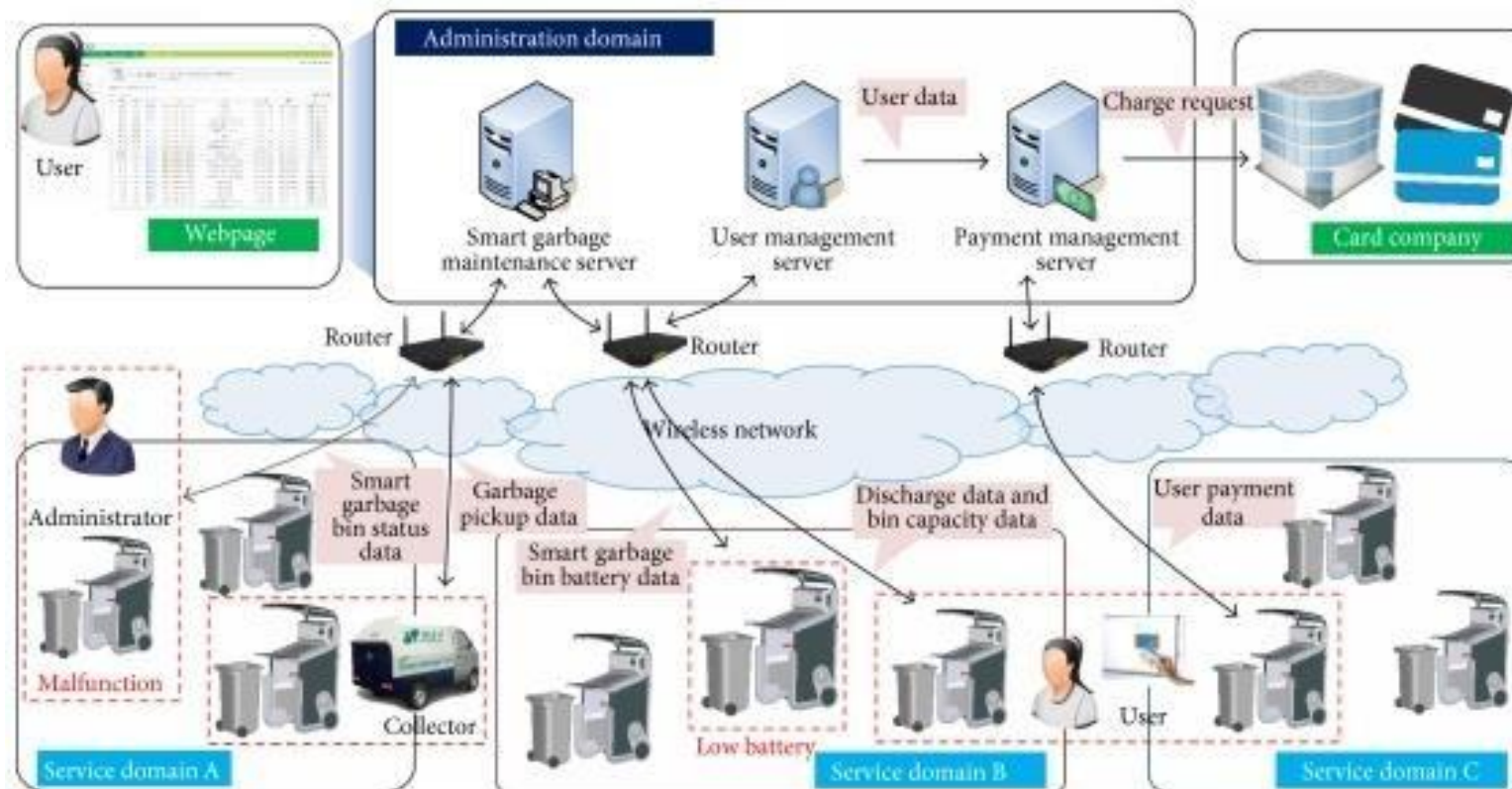


## Project Design Phase-II Technology Stack (Architecture & Stack)

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### Technical Architecture:



**Table-1: Components & Technologies:**

S.No	Component	Description	Technology
1.	User Interface	web Application	NODE-RED
2.	Application Logic	Script	python
3.	Database	Data Type, Configurations etc.	MySQL
4.	Cloud Database	Database Service on Cloud	IBM Cloud
5.	File Storage	File storage requirements	Local Filesystem and IBM cloud
6.	Infrastructure (Server / Cloud)	Application Deployment on Cloud Local Server Configuration	local and kubernetes

**Table-2: Application Characteristics:**

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	GitHub,Node-red,kubernetes	Internet hosting service
2.	Security Implementations	Application security: Veracode Firewall: IBM	Network automation
3.	Scalable Architecture	It provides the room for expansion more database of smart bins added additionally can be updated.	Cloud storage
4.	Availability	As the system control is connected to web server it is available 24*7 and can be accessed whenever needed.	Server
5.	Performance	Performance is high it uses 5mb caches	Wireless Sensor Network

