

Use Case	Actors	Main Funcation
E-vanet	EV owner : Registered and New Owner, CS owner, DB manager, Block-chain Admin, Authenticationn Admin, Security Admin, Data Scientist	Log in/Sign up, View Available options, Fetch Current EV data, page to go ahead for CS scheduling and communication module
CS Scheduling	Registered EV owner, CS staff and owner and data provider, Data analyst and AI implementor, Payment Gateway provider	Recommment and Schedule CS, provide pre-payment gateway
Communication	Registered EV owner, AdHoc network admin, Road Transport Authority	Send Message, Receive Message, Establish Connection

Description	Context Info	Precondition
Provide Log in and Sign up facility, Display User data and current EV data fetched from sensors	Username (EV number) password, Sensor access permission	User must have a compatible smart EV, User have proper authenticity to use EV.
Based on current EV stats, CS recommendation provided to user based on threshold-price-distance- availability, provide payment methods towards CS	EV stats (Battery Current, Battery Voltage, various Air-vent temp, time), Block- chain for data security	Registered EV owner, current SoC less than threshold
Share and receive messages if any hazardous situation occurs towards other EV owner and Road Transport Authority	AdHoc network configuration	EV owner's vehicle or mobile device is equipped with the capability to accept ad-hoc communication.

## Flow of Event

New user will come and sign up, Existing user will log in and see their current account info, EV stats and current sensor data

System will generate CS recommendation, User will perform CS selection based on provided recommendation and then payment will be done through user if he wants to ensure the CS

If any unfavoured condition occurs, EV owner first establishes connection with peer-to-peer config using Network provider, then sends messages and other users and Transport Authority receives that text and takes action.