

Engineering the Future of

Digital Innovation

- IoT-based Electric Vehicles Monitoring System
- IoT-based Electric Vehicle Batteries Charging & Swapping Platform

IOT PLATFORM

EV SOLUTIONS

ZERO CARBON

SMART CITY

TOTAL CONTROL. ONE UNIFIED SYSTEM.

IOT-POWERED SMART BATTERY CHARGING & SWAPPING PLATFORM

Transform how you manage electric mobility with a unified command center that gives you real-time visibility, total operational control, and the flexibility to scale effortlessly.

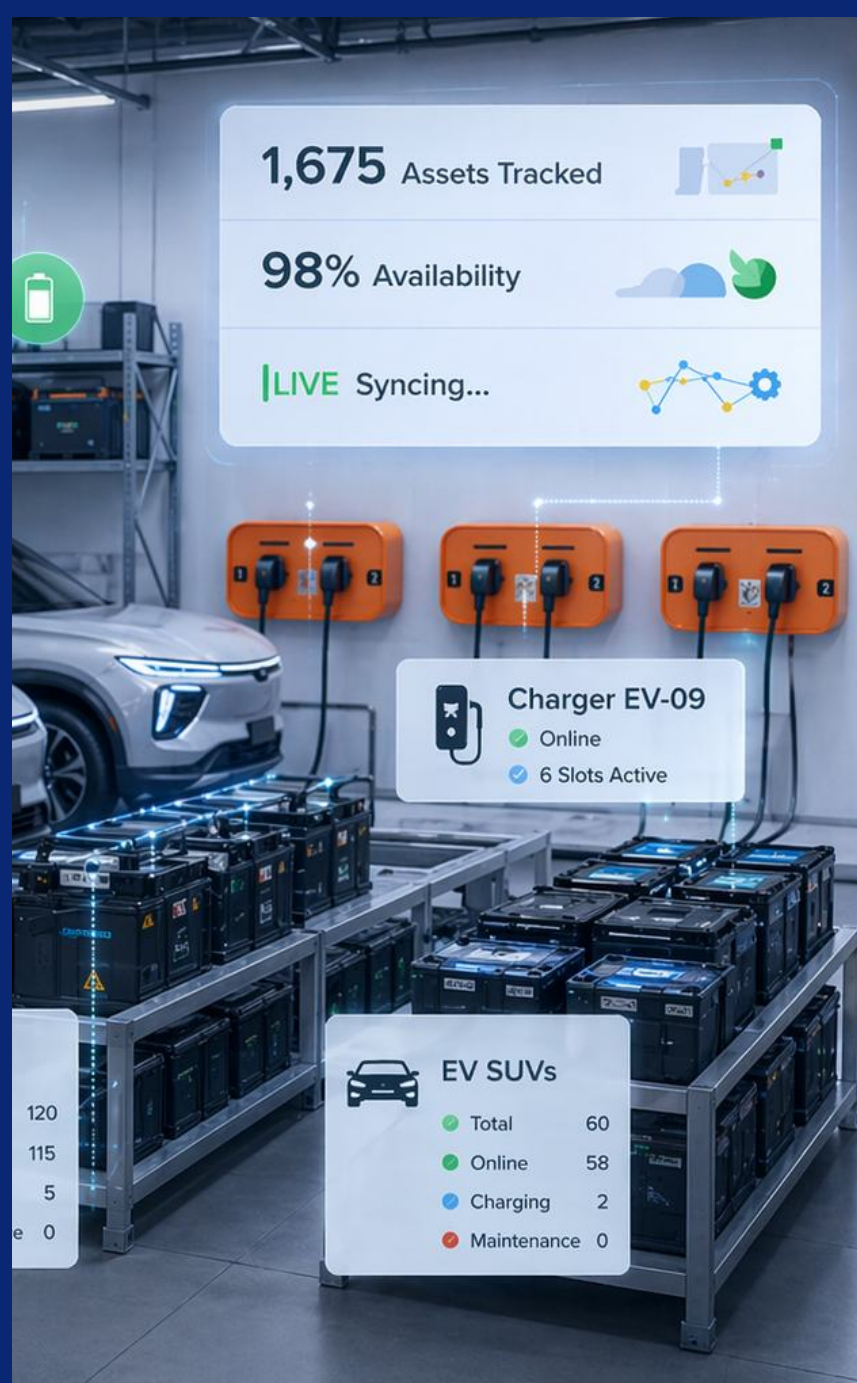


Full Control with Smart Role Management

Put the right access in the right hands, without compromising security. Easily define roles from Super Admin to field operators, enforce accountability, and track every action with complete audit transparency.

Smarter Contracts. Stronger Partnerships.

Simplify complex agreements and unlock new revenue models. Manage long-term contracts, customize payment structures, and handle multi-fleet operations, all from a single platform.



Expand Faster with Charging Station & Outlet Management

Onboard and manage charging stations with zero friction. Whether centralized or independent partners, monitor performance, control operations, and grow your network with confidence.

Real-Time Inventory Intelligence

Never lose track of your assets again. Monitor bikes, batteries, and chargers at a granular level, streamline swaps and sales, and ensure real-time synchronization across every outlet.

REAL-TIME INTELLIGENCE. ZERO BLIND SPOTS.

Gain complete visibility across your entire EV ecosystem, track assets, monitor operations, and make decisions instantly with live, data-driven insights.



ATOM - Asset Tracking & Operations Monitoring

Track, monitor, and control every vehicle with precision. Powered by GPS and IoT, ATOM delivers real-time visibility, operational control, and predictive monitoring across your entire fleet.

- Live tracking with high-accuracy positioning
- 30-day trip history & playback insights
- Remote controls: Start, Stop, Geo-fencing
- OTA updates for continuous optimization

Advanced Protection & Diagnostics

- Automatic accident & tampering detection
- Battery health monitoring (SoC, SoH, temperature)
- Unauthorized hardware detection & instant alerts



Smart Analytics. Actionable Growth.

Turn raw data into powerful business insights. Monitor performance, predict demand, and optimize operations with AI-driven analytics.

- Unified dashboards across payments, usage, and IoT sessions
- Real-time revenue tracking (ARPU, MRR, plan performance)
- Predictive demand & merchant performance insights
- Intelligent anomaly detection & alerts

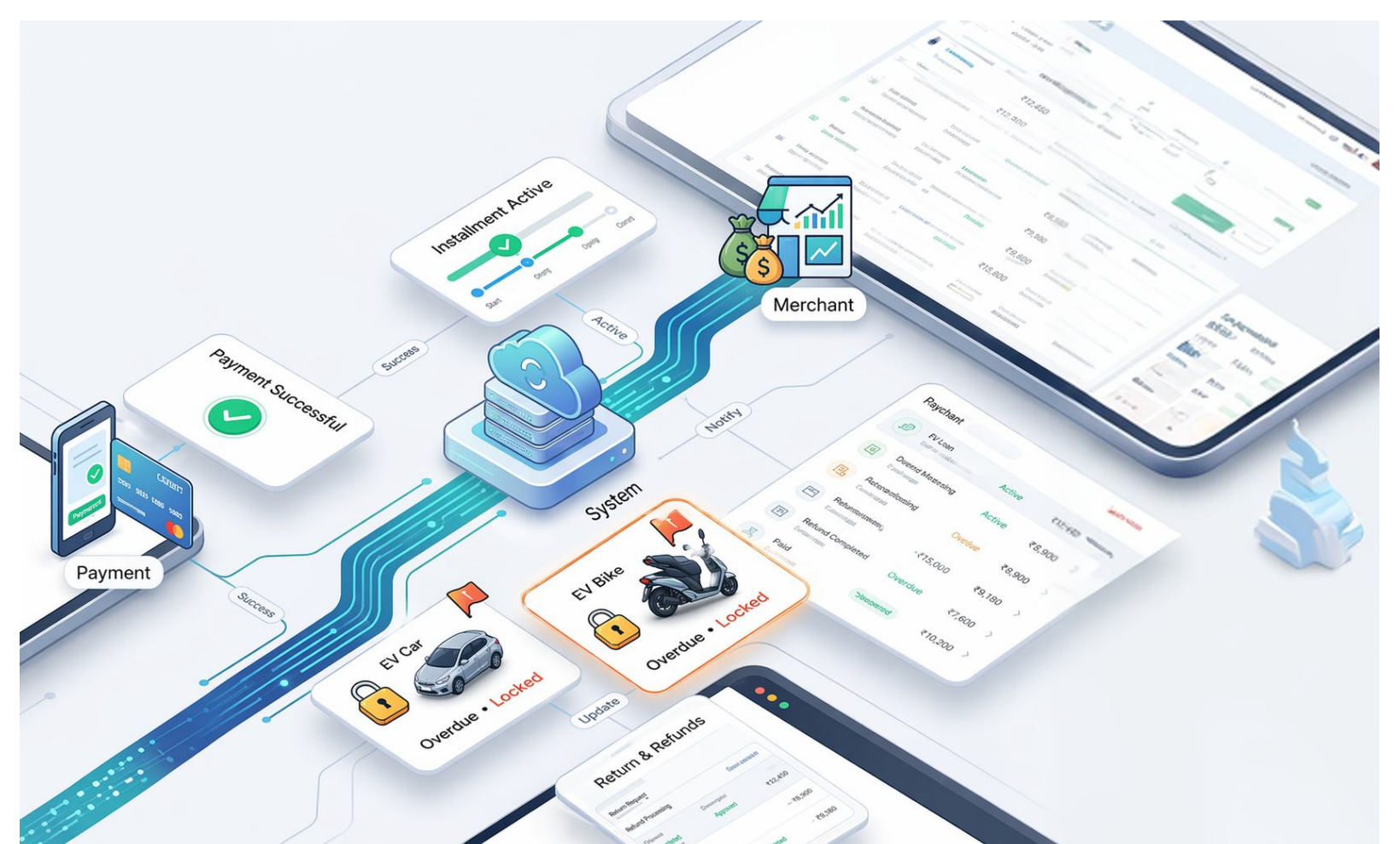
Payment Management

Enable frictionless financial operations across your ecosystem. From subscriptions to full payments, manage everything with security and precision.

- Supports prepaid, postpaid & installment-based models
- Automated workflows with smart triggers (e.g. overdue lock)
- Merchant settlement & reconciliation made easy
- Return, resale & financial adjustments handled seamlessly

Enterprise-Grade Security

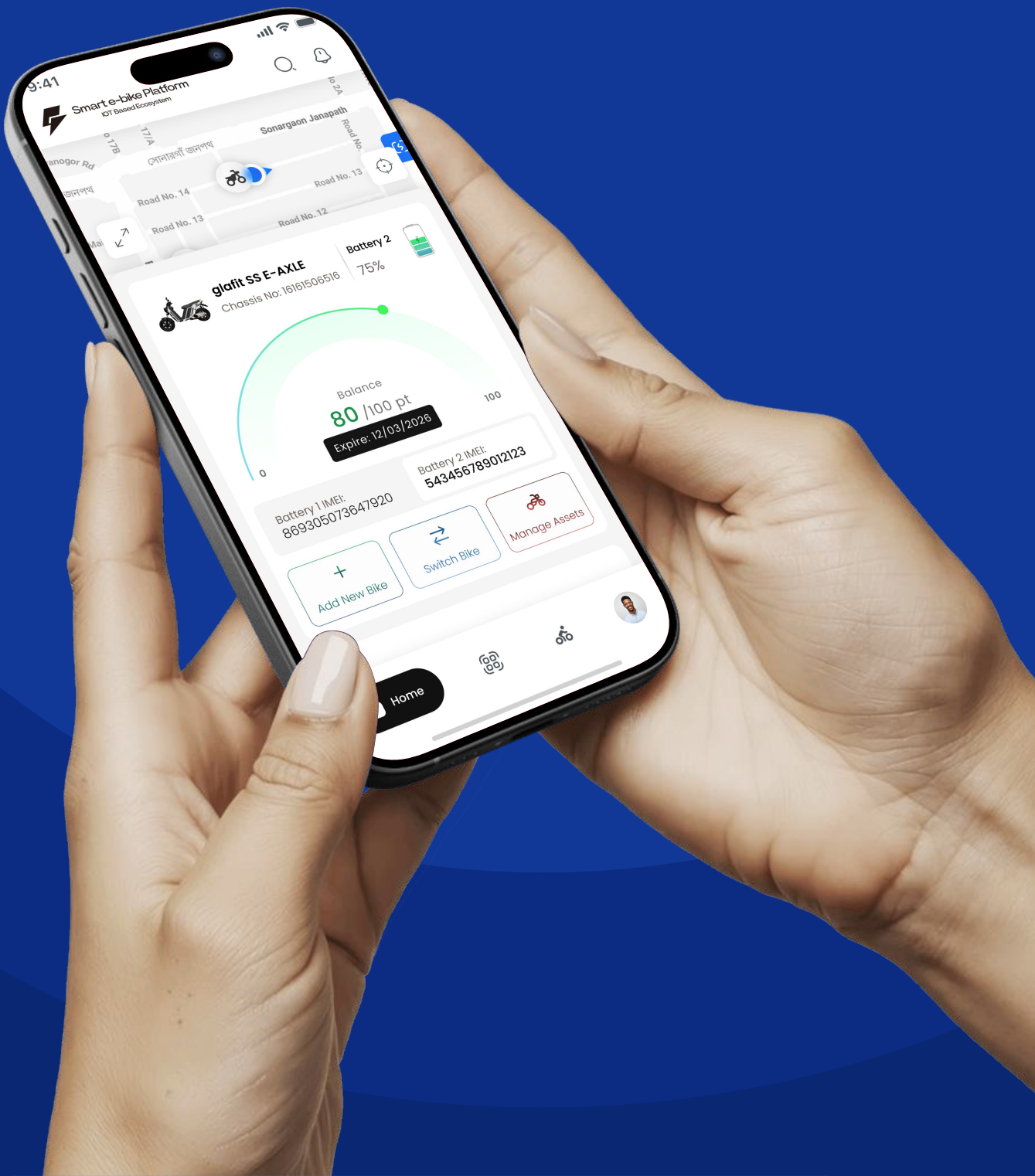
- PCI-DSS compliant infrastructure
- Tokenized and secure transactions
- Complete audit trails for every action



IOT BASED SMART EV SOLUTION

EVERYTHING A RIDER NEEDS, ONE APP.

From activating and connecting a new vehicle to managing a multi-vehicle fleet, the IOT based smart EV App gives riders, fleet owners, and merchants complete control — in one intuitive mobile experience.



Multi-User Fleet Management

- Assign vehicles to registered riders
- One vehicle assigned per rider at a time
- Real-time GPS tracking & monitoring
- Detailed trip and activity logs
- Complete fleet owner control
- Centralized rider management



Point Wallet & FIFO Consumption

- Free points during NPT (Non-Payment Tenure)
- Purchase points via Bank, MFS or Card
- FIFO-based point deduction system
- Oldest points consumed first
- Real-time wallet balance tracking
- Low-balance alerts at ≤20 points



Contract & Installment Tracker

- Track tenure status and payment history
- Daily, Weekly & Monthly installment plans
- Automated due date reminders
- Instant payment notifications
- Prevent vehicle lock through timely payments
- Centralized agreement management



Charging Station Management



Live Station Monitoring



Real-Time Charging Port Availability



GPS-Based Station Discovery



Smart Electricity Pricing



Remote Charger Management



Owner Earnings Dashboard



Battery Swapping Ecosystem



QR Based Authentication



Smart Theft Protection



Smart battery Allocation



Battery Performance Analytics



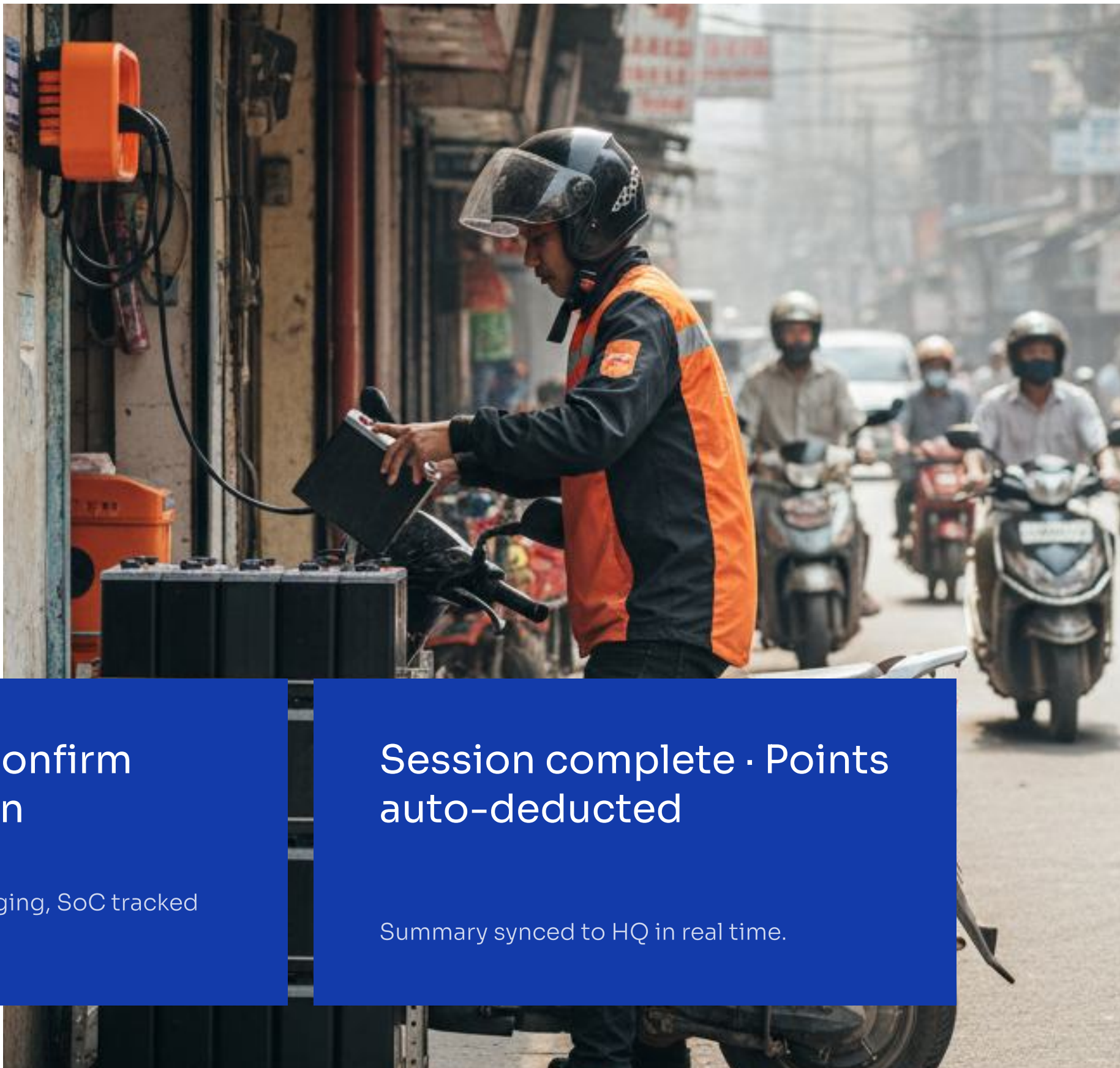
Unauthorized Swap Detection



Battery Lifecycle Tracking

SWAP FAST. CHARGE CLEAN.

The charging and swapping network is IoT-powered, QR-driven, and always point-verified, giving riders seamless energy access across the entire station network.



Scan battery QR code at station

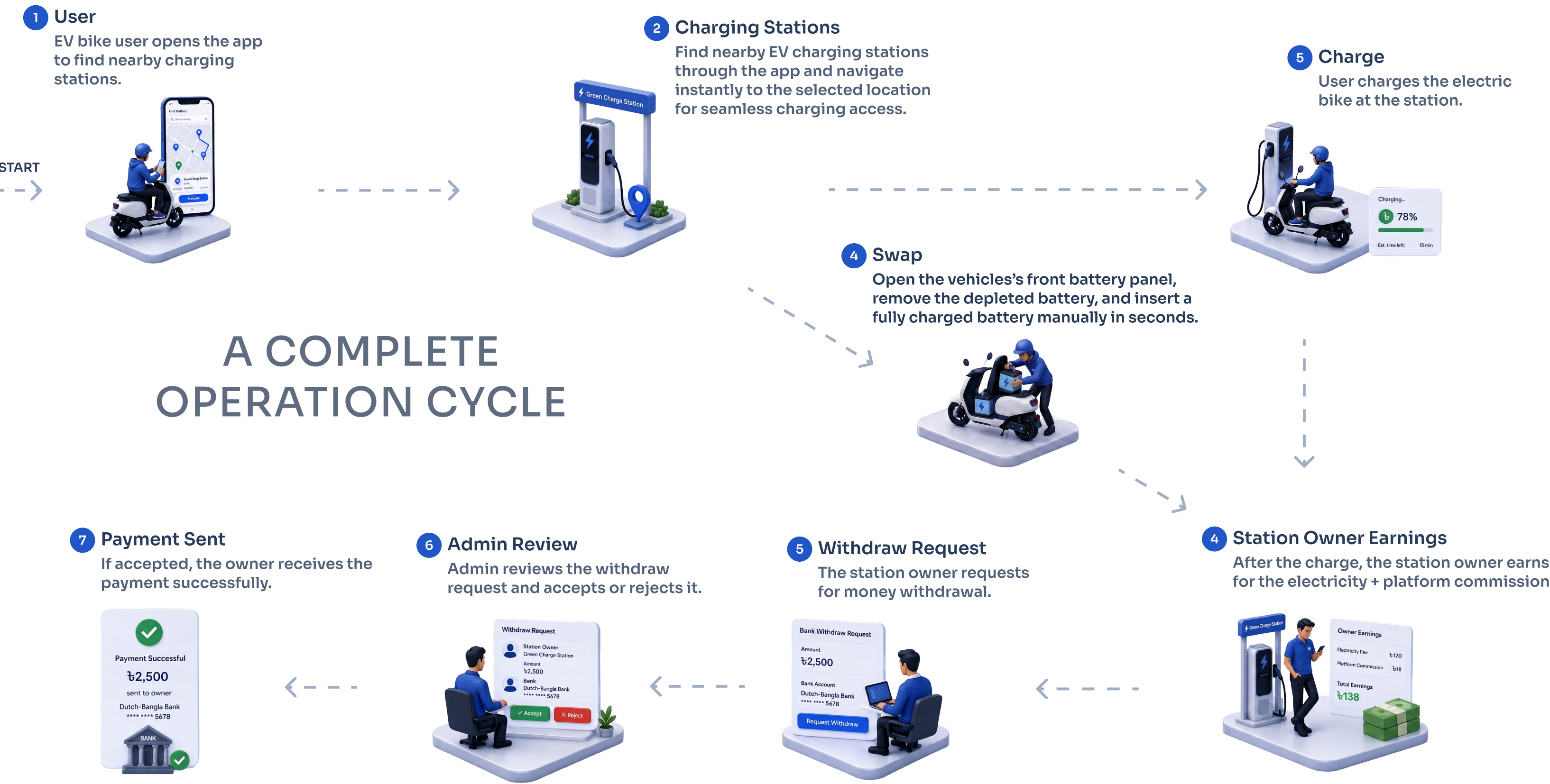
System verifies ownership, contract & point balance

Select port & confirm point allocation

IoT device activates charging, SoC tracked in real time

Session complete · Points auto-deducted

Summary synced to HQ in real time.



Battery Swapping inside Eco-System

SoC-based point deduction. Scan both batteries, system validates health and calculates charge difference before approving swap.

Unauthorized Swap Detection

Any battery exchanged outside the app is automatically flagged as unauthorized. Points remain with the original battery, no transfer occurs. Station owner receives no compensation for the session. The event is logged and both parties are notified instantly via the app and admin panel.

Multi-Station Management

Charging station owners manage multiple locations, staff schedules, and shift-wise earnings from one app. Real-time performance per station.

Smart Notifications

Session start/end, low balance alerts, unauthorized swap detection, NPT expiry - instant push and SMS so nothing is missed.

Battery Charging Eco-System

Charging different type of vehicles battery and other gadgets at any Charging station using the same point wallet. Select by hour, points, or full charge.



Lets Build The
**Future Portable
Charging & Swapping
Ecosystem.**

Hong Kong Center, House No-12,
Sonargaon Janapath Road, Sector No-12,
Uttara West, Dhaka - 1230, Bangladesh

Email:
info@irinfosys.com

Phone:
+880 1957 244 741

www.irinfosys.com