



CCMS Service Guide
Cloud Charging Management System

Table of Contents

Introduction.....	2
Key features.....	3
Technical points.....	4
Home.....	4
Live Monitoring.....	5
Load Balancing.....	6
Finance.....	7
Assets.....	8
Operational maintenance	10
Users.....	12
System Management	14
Sub-Operator.....	16
Mobile APP.....	17

Introduction

IoCharger CCMS is a cloud-based charging management platform that allows operators & sub-operators to optimize the users' charging experience.

Operators can easily manage accessibility and remotely monitor stations and bill users easily through a single background management system, and generate a variety of valuable data on how your stations are being used.

The IoCharger dynamic end-to-end EV charging management platform, with unique and powerful software capabilities, is enabling EV Charging operators to manage and control assets while maximizing revenues and user satisfaction.

The solution also streamlines collaboration with partners and third parties.

Our platform offers all the capabilities you need to effectively manage your EV Charging network, this CCMS Service Guide provides you an overview of our basic charging management platform and the features available.

Key Features

1. Intimate operation management framework

- a. Easy for network expansion, under main operator & sub-operator two-tier operation management framework
- b. Modular & Open Platform with customizable logo, dashboards, and role management
- c. Smart Load Balancing available for charging station with limited capacity
- d. Payment via mobile app or RFID card, and both a pay-as-you-go with credit card or subscription membership available
- e. Flexible billing plans available with electricity fee, service fee, reservation fee and idle fee
- f. Capable of using a simple, standard process to certify any OCPP capable charging stations
- g. Taking data protection and security of data very seriously with encryption and anonymization

2. Effective EV Driver self service

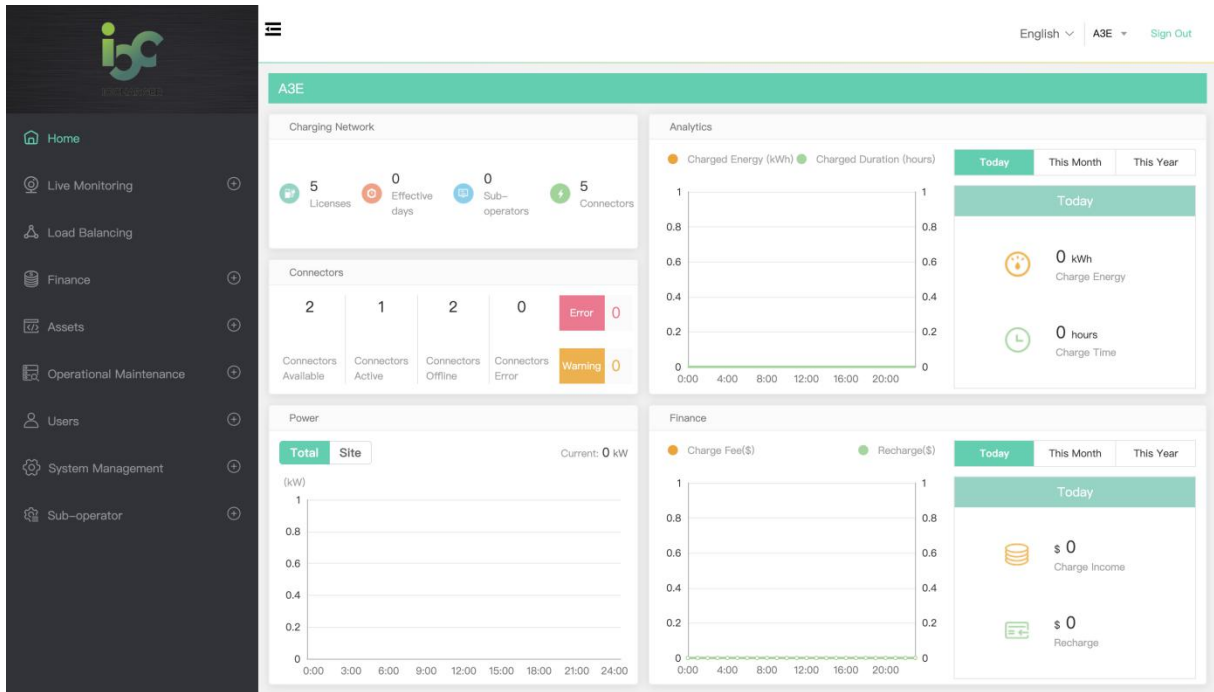
- a. Easy to manage the charging, account, and billing from native iOS and Android Apps
- b. Charger availability visible from the map
- c. Remote charging control
- d. Online charger reservation

3. Powerful value-added service support

- a. White label CCMS portal & App
- b. Advertising system integration
- c. Local POS integration
- d. Seamless roaming within OCPI platforms
- e. EV fleet management
- f. Powerful energy management V2G

Technical Points

1. Home



Graphic information is available with the home menu, and operators can easily to get the major information about,

1. Charging Network

License and Effective days, which is related to the agreement terms
sub-operators and connectors, which is related to the charging network scale

2. Connectors

Live connector status monitoring for easy management and maintenance

3. Power

Live power status monitoring with whole charging network and separate site

4. Charging Analytics

Easy to get the charging data by day, month, or year

5. Finance

Finance information available by day, month, or year

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2. Live Monitoring

English | A3E | Sign Out

Live Monitoring / Charge Point Status

Charging Station: Name:

Charging Station	Name	Serial Number	Connector Numbers	Online Status	Charger Type	Point Status
A3E_station	Point_0	IOC_CL_A3E_0	1	No	AC	OFFLINE
A3E_station	Point_1	IOC_CL_A3E_1	1	No	AC	OFFLINE
A3E_station	Point_2	IOC_CL_A3E_2	2	No	DC Fast	OFFLINE
A3E_station	point_3	IOC_CL_A3E_3	1	No	AC	OFFLINE

Charge Point Status for live status check and management

English | A3E | Sign Out

Live Monitoring / Live charging Monitoring

Charging Station: Name:

Charging Station	Name	Transaction ID	User	Mobile Number	EV Type	Start Time	Current(A)	Voltage(V)	SOC(%)	Connector Status	Operation
IoCharger Station	DC120kw_1	883	Min Qian	ming@iocharger.com	EV450	2019-09-01 02:38:29	55.800000	339.300000	83	Charging	<input type="button" value="Refresh"/>

Live Charging monitoring with details like Voltage, Current, etc.

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Charging Station	Point Name	Connector Name	Warning	Level	Type	Time	Point Status
A3E_station	Point_0	0	point offline	ERROR	OFFLINE	2019-09-18 15:47:36	OFFLINE
A3E_station	Point_0	0	point offline	ERROR	OFFLINE	2019-09-18 15:29:45	OFFLINE
A3E_station	Point_0	1		ERROR	Internal Error	2019-09-18 15:19:16	Connector Error
A3E_station	Point_0			ERROR	Internal Error	2019-09-18 15:19:16	Connector Error
A3E_station	point_3	0	point offline	ERROR	OFFLINE	2019-09-18 14:52:38	OFFLINE
A3E_station	point_3	1	Abnormal bill	ERROR	Charge Record Error	2019-09-18 14:34:26	OFFLINE
A3E_station	point_3	0	point offline	ERROR	OFFLINE	2019-09-18 14:34:00	OFFLINE
A3E_station	point_3	1	Abnormal bill	ERROR	Charge Record Error	2019-09-18 14:32:09	OFFLINE
A3E_station	point_3	0	point offline	ERROR	OFFLINE	2019-09-18 14:30:00	OFFLINE

Live Warning list for fast online support and maintenance

3. Load Balancing

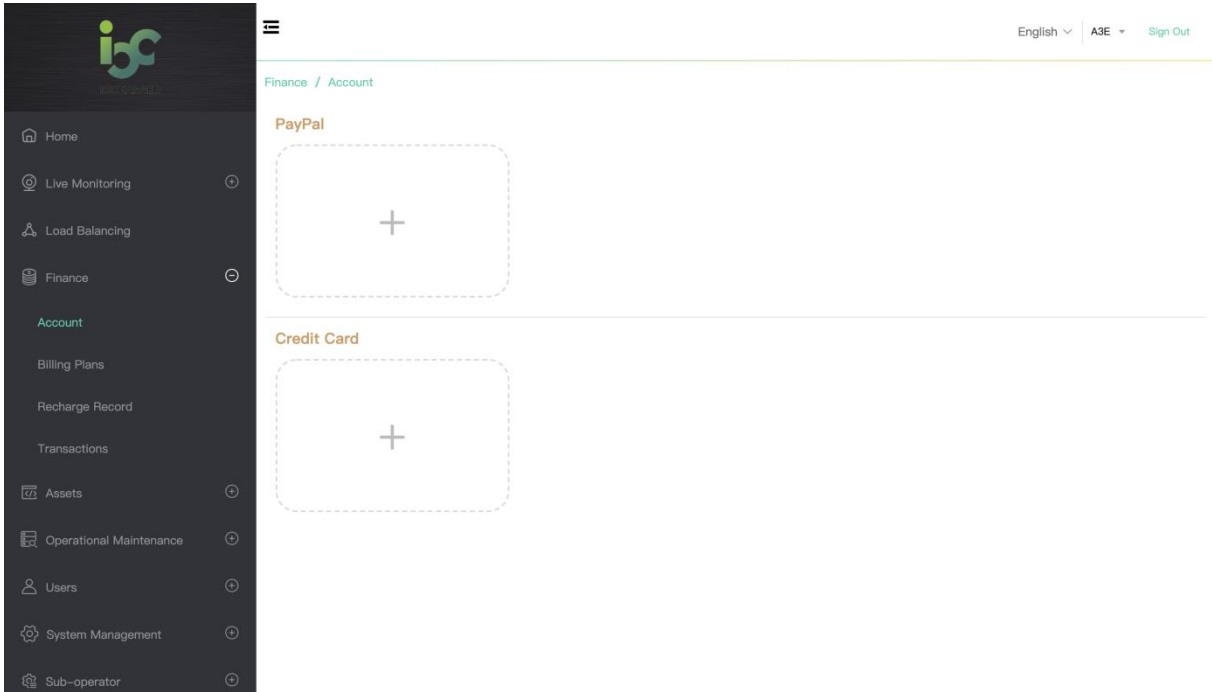
1.Power: 0kw

StartTime: 00:00

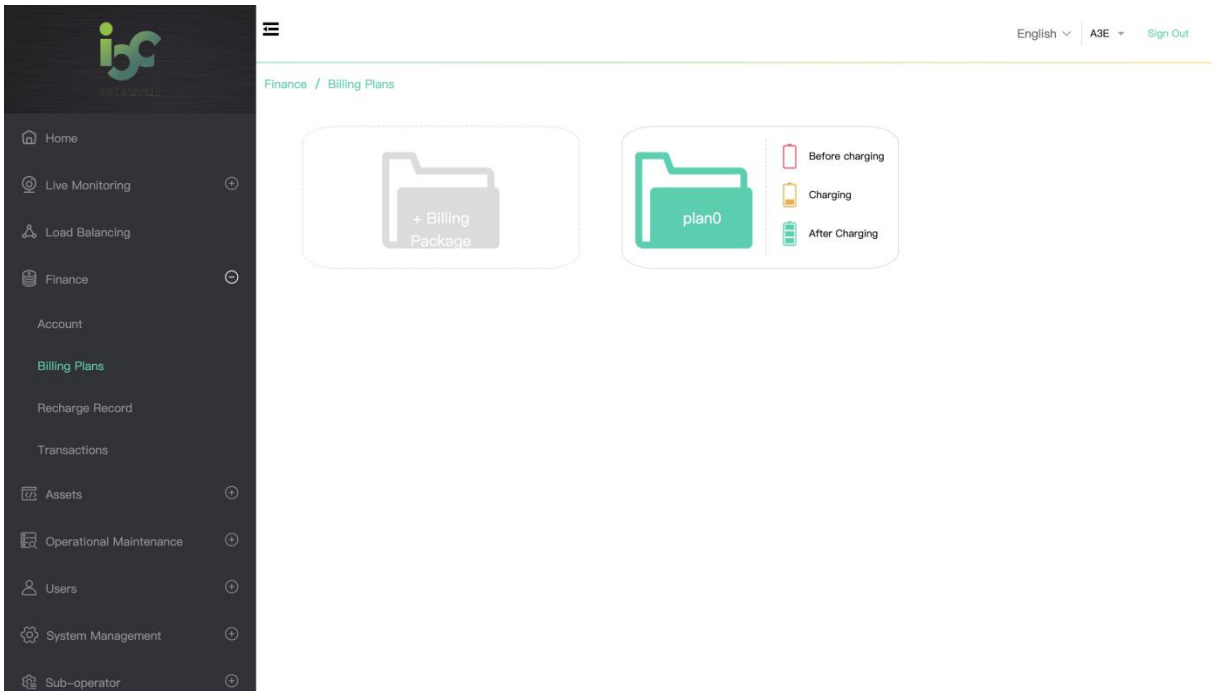
StopTime: 00:30

Loading balancing is specially designed for the station with limited energy supply, by distributing the available capacity automatically. Operators may create different stack level load balancing plan for each location, during the specific time or regularly.

4. Finance



Flexible payment options are available with Paypal, credit card or other local options.



Flexible billing plans available with electricity fee, service fee, reservation fee and idle fee, during different charging stage, before charging, in charging, and after charging, operators may create different plans for different market strategy or promotion plans.

IoCharger CCMS Service Guide

English | A3E | Sign Out

Finance / Recharge Record

Transaction ID More Export Search

Time	User	Account	Transaction ID	Email	Recharge From	Amount	Operation
2019-09-18 15:27:31		13000000003	2190918152731000501000000	3@0.com	Admin	10000.00	⊖
2019-09-18 15:26:02		13400000005	2190918152601000401000000	5@0.com	Admin	10000.00	⊖
2019-09-18 15:25:56		13000000004	2190918152556000301000000	4@0.com	Admin	10000.00	⊕
2019-09-18 15:25:50		13000000002	2190918152550000201000000	2@0.com	Admin	10000.00	⊖
2019-09-18 15:25:45		13000000002	2190918152544000101000000	2@0.com	Admin	10000.00	⊖
2019-09-12 11:04:15		13000000001	2190912110415000201000000	a@a.com	Admin	10000.00	⊖
2019-09-12 11:04:15		13000000001	2190912110415000201000000	2@2.com	Admin	10000.00	⊕
2019-09-12 10:55:53		13000000000	2190912105552000101000000	1@1.com	Admin	10000.00	⊖

Recharge history available for record

English | A3E | Sign Out

Finance / Recharge Record

Transaction ID More Export Search

Time	User	Account	Transaction ID	Email	Recharge From	Amount	Operation
2019-09-18 15:27:31		13000000003	2190918152731000501000000	3@0.com	Admin	10000.00	⊖
2019-09-18 15:26:02		13400000005	2190918152601000401000000	5@0.com	Admin	10000.00	⊖
2019-09-18 15:25:56		13000000004	2190918152556000301000000	4@0.com	Admin	10000.00	⊕
2019-09-18 15:25:50		13000000002	2190918152550000201000000	2@0.com	Admin	10000.00	⊖
2019-09-18 15:25:45		13000000002	2190918152544000101000000	2@0.com	Admin	10000.00	⊖
2019-09-12 11:04:15		13000000001	2190912110415000201000000	a@a.com	Admin	10000.00	⊖
2019-09-12 11:04:15		13000000001	2190912110415000201000000	2@2.com	Admin	10000.00	⊕
2019-09-12 10:55:53		13000000000	2190912105552000101000000	1@1.com	Admin	10000.00	⊖

Charging history available for transaction record

5. Assets

Assets / Charging Station

Connector Numbers: 5 Remaining Number: 0

Name: Status:

Name	Name	Used Number	Address	Customer Care	Status	Operating
A3E_station	A3E	5	C-333, Dulcinea, Copiapó, Región de Atacama, Chile	0000000000	VALID	

Charging Station management for all the locations

Assets / Charge Point

Charging Station:

Charging Station	Name	Code	Connector Type	Max Power(kWh)	Status	Operating
A3E_station	Point_0	1000	AC	7	VALID	
A3E_station	Point_1	1001	AC	7	VALID	
A3E_station	Point_2	1002	DC Fast	60	VALID	
A3E_station	point_3	1003	AC	7	VALID	

Charge Point management available with the detailed information like connector type, max power and status.

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6. Operational Maintenance

Operational Maintenance / Worksheets Processing

Charging Station More Add Search

Charging Station	Point Name	Pile serial number	Connector Name	Fault Code	Handler	Work order status	Abnormal Time	Operating
No Data								

Worksheets Processing record

Operational Maintenance / Maintenance Personnel

Account More Search

No.	Account	NickName	Mobile Number	Email	Status	Operating
OCL001	maintainer			maintainer@maintainer_a3e.com	VALID	🔄 🔗

Maintenance people management

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Operational Maintenance / Operation fault management

Fault Code More Add Search

Fault Code	Count	Time(Minute)	Fault Type	Status	Operating
No Data					

Operation Fault Management

8. Users

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Users / Profiles

Account

More Add Search

Account	NickName	Membership Level	Charging Account	Mobile Number	Status	Operating
13400000005		Regular Member	10100000014	13400000005	VALID	↗ ↻ ✎ ✖ ⌵
13000000004		Regular Member	10100000013	13000000004	VALID	↗ ↻ ✎ ✖ ⌵
13000000003		Regular Member	10100000012	13000000003	VALID	↗ ↻ ✎ ✖ ⌵
13000000002		Regular Member	10100000011	13000000002	VALID	↗ ↻ ✎ ✖ ⌵
13000000001		Regular Member	10100000055	13000000001	VALID	↗ ↻ ✎ ✖ ⌵
13000000000		Regular Member	10100000054	13000000000	VALID	↗ ↻ ✎ ✖ ⌵

User Profiles

English | A3E | Sign Out

Users / User Groups

Name

More Add Search

Group Name	Group ID	Group Leader	Account Number	Credit	Payment	Operation
No Data						

User group with group account and group price available, group member may manage the EV charging of other members with authorization

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English | A3E | Sign Out

Users / RFID Cards

Charging Account More Add Search

Account	Charging Account	RFID Card	Card Status	Delivery Type	Operation
13000000001	10100000055	13ADF65A	ENABLE	Pick-up	⊖
13000000000	10100000054	144E7EDA	ENABLE	Pick-up	⊖
13000000002	10100000011	142FA77A	ENABLE	Pick-up	⊖
13000000003	10100000012	136E8CDA	ENABLE	Pick-up	⊖
13000000004	10100000013	146DA4CA	ENABLE	Pick-up	⊖
13400000005	10100000014	142E325A	ENABLE	Pick-up	⊖

Physical RFID Card management

English | A3E | Sign Out

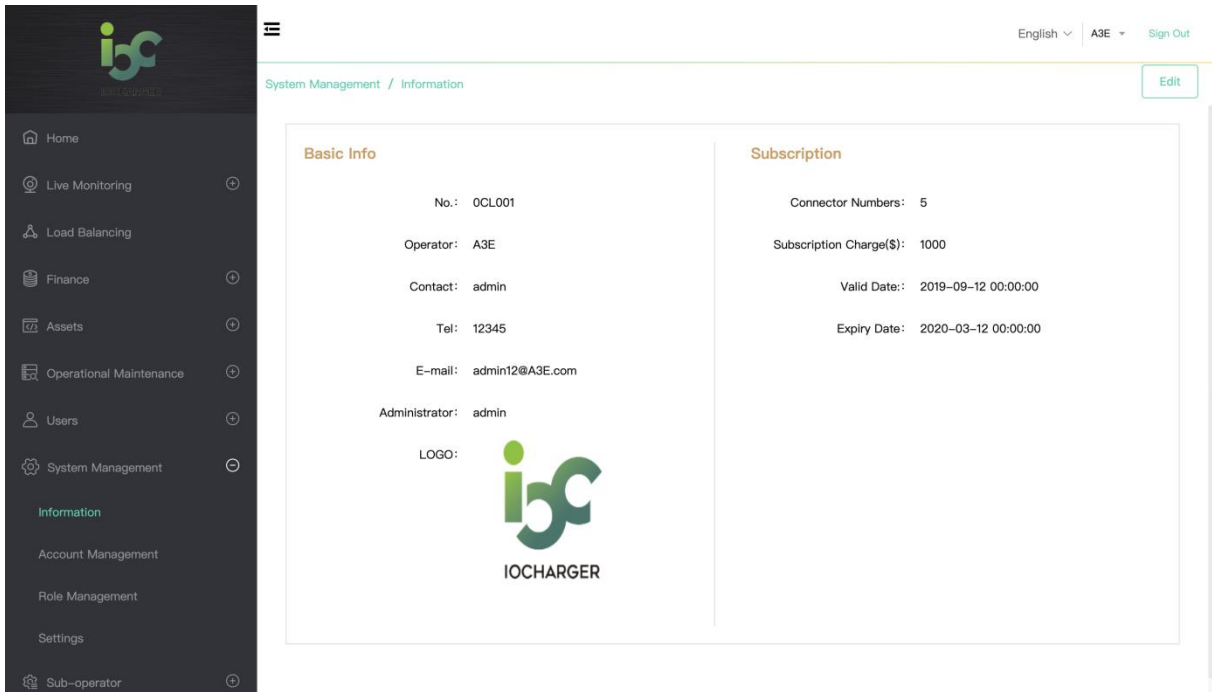
Users / Local Authorization List

Local Authorization List More Add Search

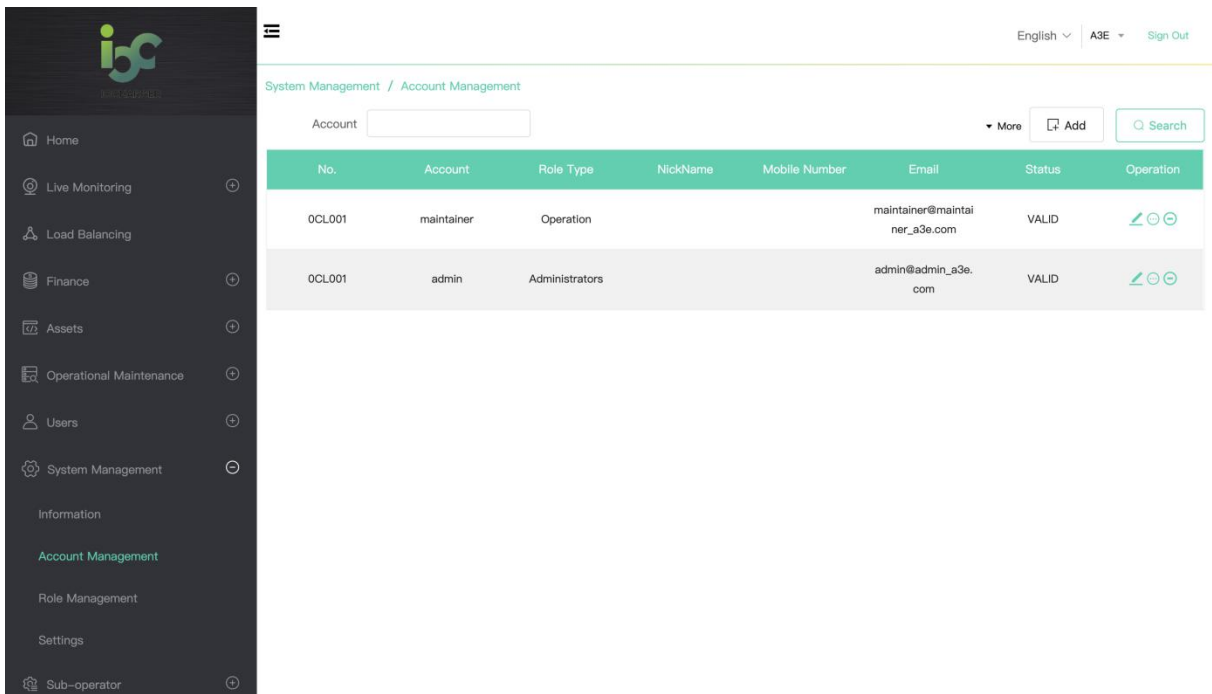
Local Authorization List	Pushing Time	Status	Quantity	Number of piles pushed	User Number	Number of users pushed	Status	Operating
No Data								

Local authorization list for offline local charging management which is defined in OCPP1.6J

8. System Management

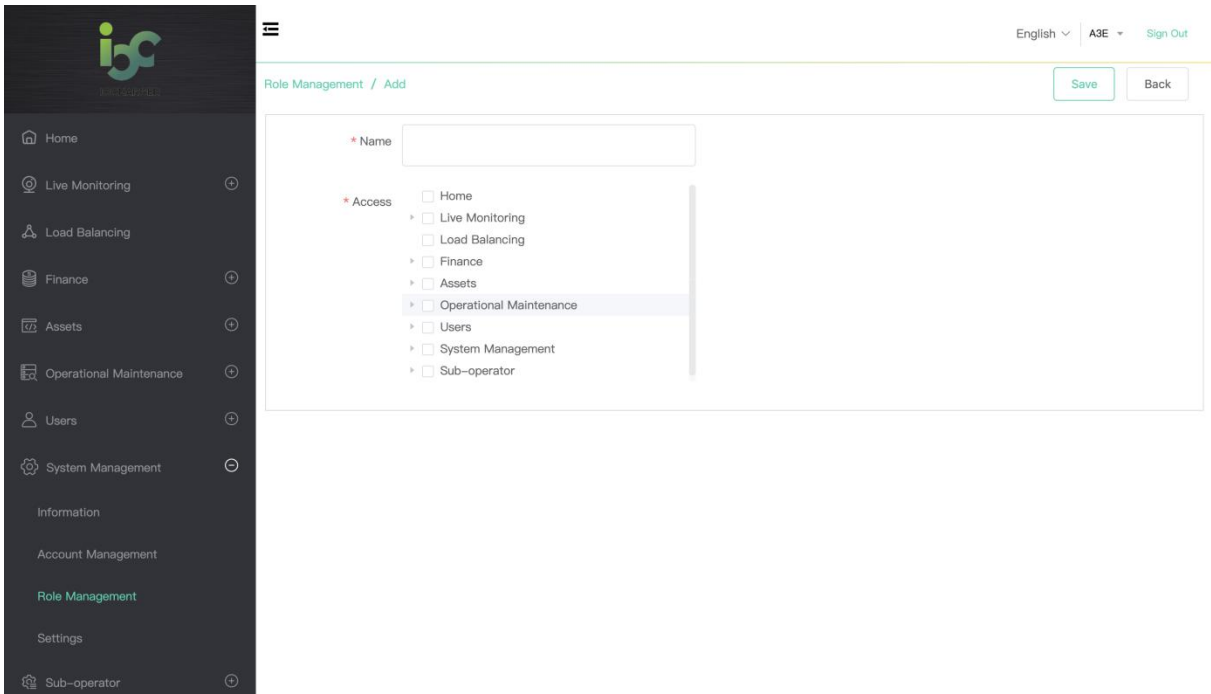


Operator basic information and subscription data, customized logo support

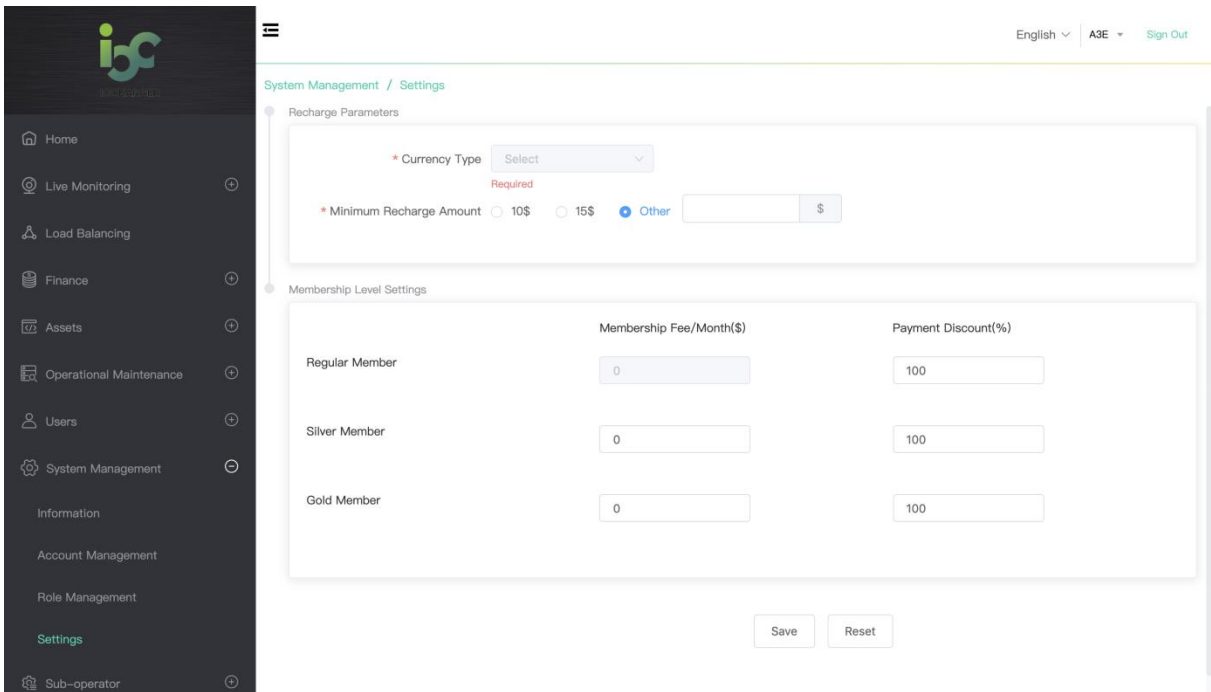


Management of different account

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Different Role Manager may have access of different management modules



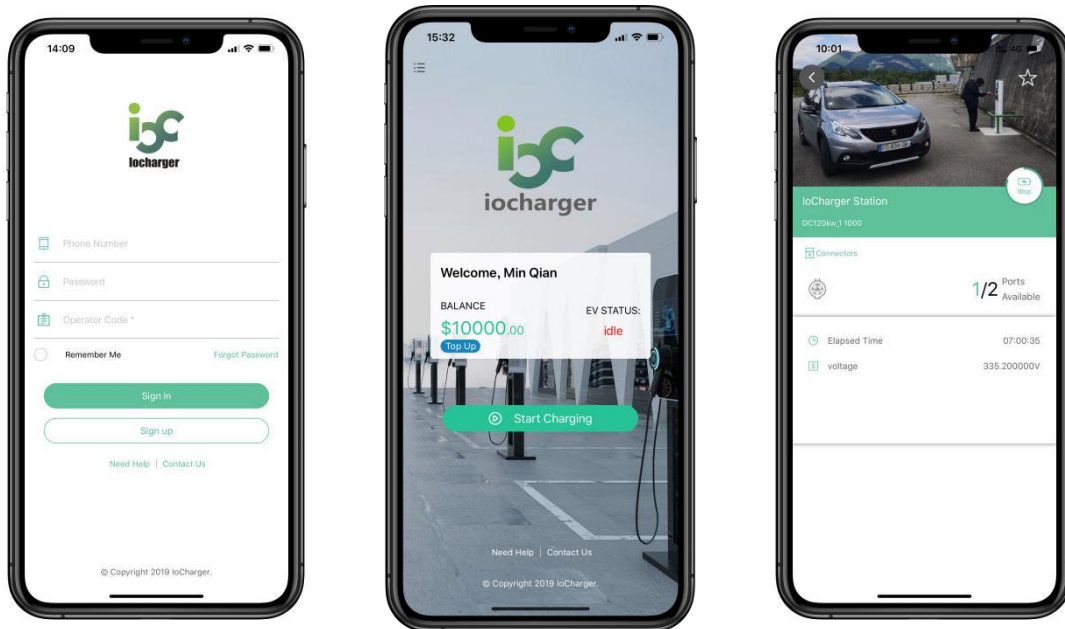
System settings for currency type, recharge amount, and also membership

9. Sub-operator

The screenshot shows the 'Sub-operator / Sub-Operator' management page. On the left is a dark sidebar with the 'i3c' logo and a menu of options: Home, Live Monitoring, Load Balancing, Finance, Assets, Operational Maintenance, Users, System Management, and Sub-operator (highlighted). The main content area has a header with 'English', 'A3E', and 'Sign Out'. Below the header, there are search filters for 'No.' and 'Name', and buttons for 'More', 'Add', and 'Search'. A table with columns 'No.', 'Name', 'Email', 'Status', and 'Operating' is shown, containing the text 'No Data'.

Sub-operator Management

10. Mobile APP



Mobile APP with navigation, payment, remote start/stop charging, recharging, history records, favorite, reservation, membership,