EVchargers

Descriptive specification for a digital charging system for electric vehicle charging.

• Software for coordinating stations intended for charging electric vehicles.

• The system must provide functionalities for the administrator, clients (who can be individuals and legal entities) as well as for the heads of companies using our services.

• Creating a personal account on the system is mandatory. Unregistered users cannot use it in any way.

• Depending on the type of account, the user has access to different functionalities.

• The administrator receives information about the correctness of the charging points of all stations via the OCPP protocol, and if a malfunction occurs, it is necessary to point it out to him as soon as possible.

• The administrator also has an insight into the occupancy of all system stations, both in real time and for a certain period of time in the past (on a weekly, monthly and annual basis).

• The administrator can view reports related to the quantity and price of electricity purchased and sold.

• The administrator creates an account for the branch manager of the new client company after signing the cooperation agreement and assigns him a unique code with which the boss logs in to the system for the first time (before setting his own username and password) and with which the boss can connect orders of employees with the order of the company.

• The administrator has an insight into all companies with which we have a contract.

• Registration on the system includes the entry of basic personal information, username and password, data related to the bank account from which the user wants to make payments, as well as optional information about the car he is driving.

• The system supports changing passwords, basic personal information and deactivating accounts.

• Individuals register for their own account, while the registration of employees is done by the head of the branch that has a contract with us.

• It is possible to conclude various contractual packages with legal entities.

• An individual has the option of adding additional cars within their account. The first car that is added either during registration or later will be marked with the category "primary", and the user adds the category of choice to other cars.

• The registered user has an insight into the history of their charges and payments.

• The registered user can deposit funds to his account and thus receive a 5% discount on future payments in pre-paid mode.

• A registered user can reserve a charging point a maximum of one month in advance.

• Also, if he changes his mind, he can cancel the reservation no later than 15 minutes before the scheduled date or receive a penalty.

• If there are no funds paid in the account, at the end of the top-up the requested amount is automatically calculated from the payment account entered during registration.

• If the client notices any irregularities in the operation of the device, he can report it to the system, which notifies the administrator.

• The registered user has an insight into the current prices of all stations that interest him.

• The head of the company creates orders for his employees.

• The boss has insight into the charges and transactions of all employees.

• The system suggests free stations in the user's vicinity.

• If the user is late for the reservation, the system waits for him for 15 minutes and if he does not show up,

penalizes him.

• If the user collects 5 penalties, he is blocked.

• A system alerts the user if the device is reserved in the near future and does not allow him to charge half an hour before someone's reservation.

• The charging price is calculated based on a predefined formula. The formula represents the price of the level multiplied by the amount of current. The price of the level is calculated based on the coefficients of the charging speed, the time of day, the day of the week and the demand at that station.

• The system sends a notification to the user about the end of charging.