## JuiceNet HTTP API

#### Revision 1.3

This document describes protocol for JuiceNet client applications. Current version of the API is implemented using POST requests over HTTP/HTTPS connection. Request and response message body is encoded in JSON format.

#### **Preliminary instructions:**

- Add all your devices to the EMW dashboard.
- When running you code make get\_account\_units call to get all tokens for your devices (see this call below). Use those token for further calls.
- Account token: click on the user profile and you will find it on the right left "eMotorWerks API Token"

## **Device Token**

To send requests to the specific JuiceNet device, client device should first obtain **device specific** token from the server. Each token is unique and bound to a pair {client device, JuiceNet device}. To obtain token client sends request to:

## Adding a unit to the account:

Client sends JuiceNet device API requests to:

https://jbv1-api.emotorwerks.com/box\_pin

The method add\_unit of the charging sessions.

| Key           | Туре   | Description  |
|---------------|--------|--|
| cmd           | string | JuiceNet device command                                |
| device_id     | string | ID of the client device sending request (like a phone) |
| device_name   | string | Device name  |
| account_token | string | Unique account identifier - token account              |
| ID            | string | JuiceNet device ID from request                        |

Request example:

```
{
    "cmd":"add_unit",
    "device_id":"type anything here",
    "device_name":"any name",
    "account_token":"4dd4e456-2304-4h05-67a6-3ghabc900660",
    "ID":"0814081508141535522516012129"
}
```

Response example:

```
{
    "success": true,
    "unit_id":"0814081508141535522516012129",
    "name":" JB device name",
    "token":"7bb8a909a4e14bf4b5c927e0669298b3"
}
```

#### Response contains following fields:

| Key     | Туре    | Description                     |
|---------|---------|---------------------------------|
| success | boolean | Status of add_unit response     |
| unit_id | string  | JuiceNet device ID from request |
| name    | string  | Name of unit in JuiceNet        |
| token   | string  | Token for device API requests   |

## Getting tokens of all units (JuiceBoxes) associated with the account:

Client sends JuiceNet device API requests to:

```
https://jbv1-api.emotorwerks.com/box_pin
```

The method get\_account\_units will provide the list of all JucieBox IDs and tokens associated with them.

| Key           | Туре   | Description  |
|---------------|--------|--|
| cmd           | string | JuiceNet device command                                |
| device_id     | string | ID of the client device sending request (like a phone) |
| account_token | string | Unique account identifier - token account              |

Request example:

```
{
    "cmd":"get_account_units",
    "device_id":"type anything here",
    "account_token":"4dd4e456-2304-4h05-67a6-3ghabc900660"
}
```

Response example:

#### Response contains following fields:

| Key     | Туре    | Description                          |
|---------|---------|--------------------------------------|
| success | boolean | Status of add_unit response          |
| units   | array   | Array of units in the chosen account |

## units array has following fields:

| Key     | Туре   | Description                     |
|---------|--------|---------------------------------|
| name    | string | Name of the JuiceBox            |
| token   | string | Token for device API requests   |
| unit_id | string | JuiceNet device ID from request |

## Device API

Client sends JuiceNet device API requests to:

## https://jbv1-api.emotorwerks.com/box\_api\_secure

...and includes at least following key-value pairs along with other, command specific key-values:

| Key       | Туре   | Description                             |
|-----------|--------|---|
| cmd       | string | JuiceNet device command                 |
| device_id | string | ID of the client device sending request |
| token     | string | Token for device API requests           |

If server response status code is 200\* OK, response message body includes following key-values:

| Key           | Туре    | Description   |
|---------------|---------|---|
| success       | boolean | Command executed successfuly (true) or not (false)  |
| error_message | string  | Error message string, if success = false [optional] |
| error_code    | integer | Error code, if success = false [optional]           |
| cmd           | string  | JuiceNet device command                             |

<sup>\*</sup> Other HTTP response status codes are possible.

Examples of specific request / response are included below.

## Getting JuiceBox state

Client sends JuiceNet device API requests to:

https://jbv1-api.emotorwerks.com/box\_api\_secure

```
Request example:
```

```
{
    "cmd":"get_state",
    "account_token":"4dd4e456-2304-4a05-88a6-3ghabc900660",
    "device_id":"BFA53EA9-ADE0-45CB-B8D3-C0BA025D451F",
    "token":"90f1efd7c1de4fdcb65b155cd7a58569"
}
```

```
"ID": "0814081508141535522516012129",
"info timestamp":1487107276,
"show override":false,
"state": "disconnect",
"charging":{
   "amps limit":40,
   "amps current":0,
   "voltage":215,
   "wh energy": 4134,
   "savings":140,
   "watt power":0,
   "seconds charging":2464,
   "wh_energy_at_plugin":0,
   "wh energy to add":0,
   "flags":0,
   "co2":{
      "nonstop": 0,
      "actual":0
"lifetime":{
   "wh energy": 430000,
   "savings": 14620,
   "co2":{
      "nonstop": 0,
      "actual":0
```

```
"charging_time_left":11936,
    "plug_unplug_time":1487207282,

"target_time":1487504483,

"override_time":0,
    "default_target_time":1487504483,

"time_last_ping":1487292952,

"utc_time":1487533283,

"unit_time":1487504483,

"update_interval":3,
    "temperature":30,
    "frequency":5999,
    "triggers_all":1,
    "triggers_blocking":0,
    "car_id":4025,
    "success":true
```

| Key                 | Туре    | Description  |
|---------------------|---------|--|
| ID                  | string  | JuiceNet device ID from request                                      |
| Info_timestamp      | integer | Timestamp (UTC)  |
| show_override       | boolean | Overrides smart charging (user defined)                              |
| state               | string  | See JSON State Value below (disconnect, charging, standby)           |
| charging            | object  | Contains parameters of current state of charging                     |
| lifetime            | object  | Statistics on aggregated value the during lifetime                   |
| charging_time_left  | integer | Seconds left to charge vehicle                                       |
| plug_unplug_time    | integer | Last time of either plug-in or plug-out timestamp (UTC)              |
| target_time         | integer | "Start charging" start time when overriding smart charging is chosen |
| override_time       | integer | Time of override "charge now" (UTC)                                  |
| default_target_time | integer | Start of TOU, timestamp (UTC)  |
| time_last_ping      | integer | Timestamp of the last ping (UTC)                                     |
| utc_time            | integer | Current UTC time   |
| unit_time           | integer | Current time on the unit timer (UTC)                                 |
| update_interval     | integer | Update interval  |
| temperature         | integer | Degree Celsius (C) in API spec                                       |
| frequency           | integer | Grid frequency (x 10 Hz)   |
| triggers_all        | integer | 1-when charging is ON, 9 - charging is Off                           |

| triggers_blocking | integer | 0 - When charging is ON, 1- waiting for time of use, 8- charging is Off |
|-------------------|---------|---|
| car_id            | integer | Car_ld in the JuiceNet if plugged, last Car_ld seen if unplugged        |
| success           | boolean | Status of get_state response  |

## **Charging** object contains parameters of current charging session

| Key                 | Туре    | Description  |
|---------------------|---------|--|
| amps_limit          | Integer | Max current allowed, (A)                                 |
| amps_current        | Integer | Current amperage value, (A)                              |
| voltage             | Integer | Voltage, (V)   |
| wh_energy           | Integer | Current amount of energy poured to the vehicle (Wh)      |
| savings             | Integer | EV driving saving (cents)                                |
| watt_power          | Integer | Current power value which a car charge at (kW)           |
| seconds_charging    | Integer | Charging time since plug-in time.                        |
| wh_energy_at_plugin | Integer | Energy value at the plugging time (Wh)                   |
| wh_energy_to_add    | integer | Amount of energy to be added (user defined, Wh)          |
| flags               | Integer | Flag parameter   |
| co2                 | object  | Contains information regarding co2 savings for a session |

## **Co2** object (in charging) contains the co2 values for the charging session.

| Key     | Туре    | Description  |
|---------|---------|--|
| nonstop | Integer | Dummy case: marginal CO2 level per kWh produced without smart charging |
| actual  | integer | Marginal CO2 level per kWh produced with smart charging                |

## lifetime object contains statistics on parameters during lifetime.

| Key       | Туре    | Description   |
|-----------|---------|---|
| wh_energy | Integer | Total energy poured to vehicles during lifetime (Wh). |
| savings   | Integer | EV driving saving (cents) during lifetime             |
| co2       | object  | Statistics CO2 saving values during lifetime          |

## Co2 object (in lifetime) contains the CO2 savings values during lifetime of the JuiceBox.

| Key     | Туре    | Description  |
|---------|---------|--|
| nonstop | Integer | Dummy case: marginal CO2 level per kWh produced without smart charging |

| actual integer Marginal CO2 level pe | er kWh produced with smart charging |
|--------------------------------------|-------------------------------------|
|--------------------------------------|-------------------------------------|

## Returned **state** field values interpretation:

| JSON State Value | Description   |
|------------------|---|
| standby          | J1772 state A - not connected                                   |
| plugged          | J1772 state B - connected but not charging                      |
| charging         | J1772 state C - connected and charging                          |
| error            | J1772 state INVALID / D / F / E                                 |
| disconnect       | JuiceNet device hasn't checked-in with the server for some time |

## Setting JuiceBox Maximum Charging Rate.

Set\_limit call allows to switch the charring off (amperage = 0 Amps) and on (from 0 Amp to 40 Amp). Client sends JuiceNet device API requests to:

#### https://jbv1-api.emotorwerks.com/box\_api\_secure

The method set the value of max allowed charging current. The result can be verified by get\_state method in amps\_limit field.

| Key       | Туре    | Description  |
|-----------|---------|--|
| cmd       | string  | JuiceNet device command  |
| device_id | string  | ID of the client device sending request (like a phone)                   |
| token     | string  | Unique account identifier - token account                                |
| amperage  | Integer | Max limit current (A); zero when JB is off, more than zero when JB is ON |

## Request example:

```
{
    "cmd":"set_limit",
    "device_id":"BFA53EA9-ADE0-45CB-B8D3-C0BA025D451F",
    "token":"90f1efd7c1de4fdcb65b155cd7a58569"
    "amperage": 15
}
```

```
{
    "success": true
```

```
}
```

#### Response contains following fields:

| Key     | Туре    | Description                  |
|---------|---------|------------------------------|
| success | boolean | Status of set_limit response |

## Getting JuiceBox Time-of-Use Schedule

Client sends JuiceNet device API requests to:

https://jbv1-api.emotorwerks.com/box\_api\_secure

## Request example:

```
{
    "cmd":"get_schedule",
    "account_token":"4dd4e456-2304-4a05-88a6-3ghabc900660",
    "device_id":"BFA53EA9-ADE0-45CB-B8D3-C0BA025D451F",
    "token":"90f1efd7c1de4fdcb65b155cd7a58569"
}
```

```
"type":"custom",
"weekday":{
    "start":960,
    "end":1260,
    "car_ready_by":1080
},
"weekend":{
```

```
"start":420,
    "end":1260,
    "car_ready_by":900
},
"info_timestamp":1487107276,
"success":true,
"ID":"0814081508141535522516012129"
}
```

#### Response contains following fields:

| Key            | Туре    | Description  |
|----------------|---------|--|
| type           | string  | Description below for type field                   |
| weekday        | object  | TOU parameters for weekdays                        |
| weekend        | object  | TOU parameters for weekends                        |
| Info_timestamp | integer | The time when the response received (UTC)          |
| success        | boolean | Command executed successfuly (true) or not (false) |
| ID             | string  | JuiceNet device ID                                 |

#### weekday/weekend object contains the time-of-use parameters (TOU) values, defined by a customer.

| Key          | Туре    | Description  |
|--------------|---------|--|
| start        | integer | Time of use start time, min (user defined)                   |
| end          | integer | Time of use end time, min (user defined)                     |
| car_ready_by | integer | Time by which a vehicle must be fully charged (user defined) |

Schedule **type** field can have one of two values:

- disabled: charging is unrestricted by time of the day
- custom: charging is enabled only during specified intervals

Time intervals are specified for weekdays and weekends separately. Time is specified in minutes of the day, ranging from 0 to 1440 (24 x 60). For example: 7 AM = 420 (60 \* 7). The **end** time which is less than **start** time specifies interval from **start** to midnight and from midnight to the **end** time.

In above response message, charging during weekdays is allowed from 16 PM till 21:00 AM, and on weekends from 7AM till 21PM.

## Updating JuiceBox Time-of-Use Schedule

Client sends JuiceNet device API requests to:

https://jbv1-api.emotorwerks.com/box\_api\_secure

#### Request example:

#### Request fields have following interpretation:

| Key           | Туре   | Description                               |
|---------------|--------|---|
| cmd           | string | JuiceNet device command                   |
| device_id     | string | ID of the client device sending request   |
| token         | string | Token for device API requests             |
| type          | string | Description is below                      |
| account_token | string | Token account                             |
| weekday       | object | Contains start and end of TOU for weekday |
| weekend       | object | Contains start and end of TOU for weekend |

## weekday/weekend object contains the time-of-use parameters (TOU) values, defined by a customer.

| Key          | Туре    | Description  |
|--------------|---------|--|
| start        | integer | Time of use start time, min (user defined)                   |
| end          | integer | Time of use end time, min (user defined)                     |
| car_ready_by | integer | Time by which a vehicle must be fully charged (user defined) |

Schedule **type** field can have one of two values:

- disabled: charging is unrestricted by time of the day
- custom: charging is enabled only during specified intervals

## Response example:

```
{
    "success": true
}
```

## Response contains following fields:

| Key     | Туре    | Description                     |
|---------|---------|---------------------------------|
| success | boolean | Status of set_schedule response |

See previous section for description of type and time values.

Getting the **history**: sending the historical data of charging sessions with energy amount value.

Client sends JuiceNet device API requests to:

```
https://jbv1-api.emotorwerks.com/box_api_secure
```

The method get\_history of the charging sessions.

| Key           | Туре   | Description  |
|---------------|--------|--|
| cmd           | string | JuiceNet device command                                |
| device_id     | string | ID of the client device sending request (like a phone) |
| token         | string | token  |
| account_token | string | Unique account identifier - token account              |

#### Request example:

```
{
    "cmd":"get_history",
    "device_id":"type anything here",
    "token":"90f1efd7c1de4fdcb65b155cd7a58569"
    "account_token":"4dd4e456-2304-4a05-88a6-3ghabc900660"
}
```

```
]
```

## Response contains following fields:

| Key      | Туре    | Description                              |
|----------|---------|--|
| success  | boolean | Status of get_history response           |
| sessions | array   | Array containing the history of sessions |

## Sessions array has following fields:

| Key        | Туре    | Description             |
|------------|---------|-------------------------|
| id         | integer | session id              |
| time_start | integer | start of the session    |
| time_end   | integer | end of the session      |
| duration   | integer | duration of the session |
| wh_energy  | integer | token account           |

## Getting the power timeseries for a JuiceBox: server sends back the timeseries with power vs time value.

Client sends JuiceNet device API requests to:

https://jbv1-api.emotorwerks.com/box\_api\_secure

The method get\_plot of the charging sessions.

| Key           | Туре   | Description  |
|---------------|--------|--|
| cmd           | string | JuiceNet device command                                    |
| device_id     | string | ID of the client device sending request (like a phone)     |
| token         | string | token  |
| account_token | string | Unique account identifier - token account                  |
| attribute     | string | Parameter for the value needed for                         |
| intervals     | number | Intervals of the time series                               |
| session_id    | number | The number session (can be received from get_history call) |

Request example:

```
{
    "cmd":"get_plot",
    "device_id":"type anything here",
    "token":"90f1efd7c1de4fdcb65b155cd7a58569",
    "account_token":"4dd4e456-2304-4a05-88a6-3ghabc900660",
    "attribute":"power",
    "intervals":100,
    "session_id":5678321
}
```

Response example:

## Response contains following fields:

| Key     | Туре    | Description                                |
|---------|---------|--|
| success | boolean | Status of get_plot response                |
| points  | array   | Array containing the historical power data |

## Sessions array has following fields:

| Key | Туре    | Description  |
|-----|---------|--------------|
| t   | integer | timestamp    |
| V   | integer | power, watts |

# Providing the **pin number** to an account that needs to add JB. get\_share\_pin:

Client sends JuiceNet device API requests to:

https://jbv1-api.emotorwerks.com/box api secure

The method get\_share\_pin of the charging sessions.

| Key           | Туре   | Description  |
|---------------|--------|--|
| cmd           | String | JuiceNet device command                                |
| account_token | String | Unique account identifier - token account              |
| device_id     | String | ID of the client device sending request (like a phone) |
| token         | String | Token for device API requests                          |

#### Request example:

```
{
    "cmd": "get_share_pin",
    "account_token": "c31a1e00-1017-4048-bobd-423da512f4c2",
    "device_id": "DEE328A7-B7F4-4235-9A6E-CF77C0C1FA74",
    "token":"2739f8604e4c4e30a749fe07801d8575"
}
```

#### Response example:

```
{
    "success":true,
    "pin": "8447"
}
```

#### Response contains following fields:

| Key     | Туре    | Description |
|---------|---------|-------------|
| success | Boolean | Status      |
| pin     | String  | Pin number  |

If JB owner want to share his device to another account the share\_device call used (having pin from get\_share\_pin call).

Client sends JuiceNet device API requests to:

```
https://jbv1-api.emotorwerks.com/box_pin
```

The method share\_device of the charging sessions.

| Key           | Туре   | Description  |
|---------------|--------|--|
| cmd           | String | JuiceNet device command                                |
| device_id     | String | ID of the client device sending request (like a phone) |
| device_name   | String | Name of unit in JuiceNet                               |
| account_token | String | Unique account identifier - token account              |
| ID            | String | JuiceNet device ID from request                        |
| pin           | String | Pin number received from get_share_pin                 |

## Request example:

```
{
    "cmd": "share_device",
    "device_id": "DEE328A7-B7F4-4235-9A6E-CF77C0C1FA74",
    "device_name": "string",
    "account_token": "c31a1e00-1017-4048-bobd-423da512f4c2",
    "ID": "0814081508141535522516012129",
    "pin": "1235"
}
```

```
{
    "success": true,
    "unit_id": " 0814081517181535522516012726",
    "name": "EMW Happy Hour JB 2.3 (#6)",
    "token": "2739f8604e4c4e30a749fe07801d8575"
}
```

| Кеу Туре | Description |
|----------|-------------|
|----------|-------------|

| success | Boolean | Status                          |
|---------|---------|---------------------------------|
| unit_id | String  | JuiceNet device ID from request |
| name    | String  | Name of unit in JuiceNet        |
| token   | String  | Token for device API requests   |

**get\_info** call provides detailed information about JuiceBox status: A policy that JB operates on, location, IP address, detail information about cars associated with JB, time zone of JB location, technical parameters of JB.

Client sends JuiceNet device API requests to:

https://jbv1-api.emotorwerks.com/box\_api\_secure

The method get\_info of the charging sessions.

| Key           | Туре   | Description  |
|---------------|--------|--|
| cmd           | String | JuiceNet device command                                |
| account_token | String | Unique account identifier - token account              |
| device_id     | String | ID of the client device sending request (like a phone) |
| token         | String | Token for device API requests                          |

```
Request example:
```

```
{
    "cmd": "get_info",
    "account_token": "c31a1e00-1017-4048-b0bd-423da512f4c2",
    "token": "2739f8604e4c4e30a749fe07801d8575",
    "device_id": "DEE328A7-B7F4-4235-9A6E-CF77C0C1FA74"
}
```

```
"name": "EMW Happy Hour JB 2.3 (#6)",
"address": "850 Bransten Rd",
"city": "San Calrol",
"zip": "94070",
"country code": "US",
"load group_id": "string",
"unit type id": 1,
"IP": "50.168.20.98",
"gascost": 350,
"mpg": 25,
"ecost": 12,
"whpermile": 300,
"timeZoneId": "Pacific Standard Time",
"amps wire rating": 60,
"amps unit rating": 32,
"info timestamp": 1498852150,
"garage id": "306a413e-40d2-4440-a867-77c94a3bd987",
"cars": [
      "car id": 6613,
      "description": "2016 Voklswagen e-Golf",
      "battery size wh": 144841,
      "battery range m": 24200,
      "charging rate w": 7200,
      "model id": "36834",
      "model info": {
            "model id": "36834",
            "description": "2016 Volkswagen e-Golf",
            "make": "Volkswagen",
            "model": "e-Golf",
            "year": 2016,
            "range m": 133575,
            "range city m": 143070,
            "range highway m": 121022,
```

```
"battery size wh": 24200,
                "charging rate w": 7200,
                "images": {
                     "charging": "string",
                    "default":
"htps://dashboard.emotorworks.com/Content/carmodels/volkswagen-e-golf.jpg",
                    "plugged": "string"
            }
 ],
    "policy": {
            "name": "Default",
            "user control allowed": false,
            "charge control type": "standby"
        },
    "restrictions":
        "set tou": {
              "message": "The function isn't available for your box. Upgrade
to Pro?",
              "activation url": "string"
        },
        "set notifications": {
              "message": "The function isn't available for your box. Upgrade
to Pro?",
              "activation url": "string"
       },
        "set override": {
              "message": "The function isn't available for your box. Upgrade
to Pro?",
              "activation url": "string"
        "history": {
              "message": "The function isn't available for your box. Upgrade
to Pro?",
              "activation url": "string"
       },
        "get share pin": {
              "message": "The function isn't available for your box. Upgrade
to Pro?",
              "activation url": "string"
```

## Response contains following fields:

| Key               | Туре    | Description   |
|-------------------|---------|---|
| name              | String  | Name of the JuiceBox  |
| zip               | String  | Zip code of the area  |
| country_code      | String  | Country code based on ISO - alpha 2                           |
| load_group_id     | String  | Optional parameter. Exists if the JNDevice in the load group. |
| unit_type_id      | Integer | Represent the unit type id (Pro, Classic). Not used for now   |
| IP                | String  | IP address of the JB  |
| gascost           | Integer | gascost   |
| mpg               | Integer | mpg   |
| ecost             | Integer | ecost   |
| whpermile         | Integer | watts per gallon  |
| timeZoneId        | String  | Time zone of JB location                                      |
| amps_wire_rating  | Integer | Max limit of amperage allowed for JB                          |
| amps_unit_rating  | Integer | Max limit of amperage allowed for hardware                    |
| info_timestamp    | Integer | Info timestamp  |
| garage_id         | String  | Garage ID which the JB associated with                        |
| cars              | Object  | Array having list of cars associated with JB                  |
| policy            | Object  | Detailed information regarding policy the JB operates on      |
| restrictions      | Object  | Optional, not used yet  |
| set_notifications | Object  | Optional, not used yet  |
| set_override      | Object  | Optional, not used yet  |
| history           | Object  | Optional, not used yet  |
| get_share_pin     | Object  | Optional, not used yet  |

## cars object has following fields:

| Key             | Туре    | Description                |
|-----------------|---------|----------------------------|
| car_id          | Integer | Id of the vehicle          |
| description     | String  | Description of the vehicle |
| battery_size_wh | Integer | Battery pack size, WH      |
| battery_range_m | Integer | Mailge range               |

| charging_rate_w | Integer | Charging rate, w                    |  |
|-----------------|---------|-------------------------------------|--|
| model_id        | String  | Id of the vehicle model in JN       |  |
| model_info      | Object  | Array with details on vehicle model |  |

## model\_info object has following fields:

| Key             | Туре    | Description                          |  |
|-----------------|---------|--------------------------------------|--|
| model_id        | String  | Id of the vehicle model in JN        |  |
| description     | String  | Description of the model             |  |
| make            | String  | Company that make a vehicle          |  |
| model           | String  | Full description of the model        |  |
| Year            | Integer | Year of vehicle release              |  |
| range_m         | Integer | Range according to the documentation |  |
| range_city_m    | Integer | Range when driving in city           |  |
| range_highway_m | Integer | Range when driving on the highway    |  |
| battery_size_wh | Integer | Battery pack size, WH                |  |
| charging_rate_w | Integer | Charging rate                        |  |
| Images          | Object  | Image of the vehicle                 |  |

## images object has following fields:

| Key      | Туре   | Description                |  |
|----------|--------|----------------------------|--|
| charging | String | images of charging vehicle |  |
| default  | String | default images of vehicle  |  |
| plugged  | String | image of plugged vehicle   |  |

## policy object has following fields:

| Key                  | Туре    | Description                          |  |
|----------------------|---------|--------------------------------------|--|
| name                 | String  | Name of the policy the JB belongs to |  |
| user_control_allowed | Boolean | Status of control                    |  |
| charge_control_type  | String  | The type of control                  |  |

## Set Override

set\_override call overrides any polices that JB operates on and when customer uses this option the JB will charge his vehicle in non-stop mode until fully charged.

Client sends JuiceNet device API requests to:

```
https://jbv1-api.emotorwerks.com/box_api_secure
```

The method set\_override of the charging sessions.

| Key              | Туре    | Description  |  |
|------------------|---------|--|--|
| cmd              | String  | JuiceNet device command  |  |
| account_token    | String  | Unique account identifier - token account                                    |  |
| token            | String  | Token for device API requests  |  |
| devicde_id       | String  | ID of the client device sending request                                      |  |
| energy_at_plugin | Integer | Energy the car came to station with  |  |
| override_time    | Integer | Time set to in past to charge the JB now, set to zero to switch off override |  |
| energy_to_add    | Integer | Energy to add to the battary - user defined in JN app                        |  |

#### Request example:

```
{
   "cmd": "set_override",
   "account_token": "c31a1e00-1017-4048-b0bd-423da512f4c2",
   "token": "2739f8604e4c4e30a749fe07801d8575",
   "device_id": "DEE328A7-B7F4-4235-9A6E-CF77C0C1FA74",
   "energy_at_plugin": 0,
   "override_time": 1501064278,
   "energy_to_add": 60000
}
```

## Response example:

```
{
    "success":false
}
```

## Response contains following fields:

| Key | Туре | Description |
|-----|------|-------------|
|-----|------|-------------|

|--|--|

## Prohibit default charging:

Client sends JuiceNet device API requests to:

```
https://jbv1-api.emotorwerks.com/box_api_sec_ure
```

The method set\_charging\_time designed to prohibit default charging when B2B needs to get control over the JuiceNet devices

| Key               | Туре       | Description  |  |
|-------------------|------------|--|--|
| cmd               | string     | JuiceNet device command                                |  |
| device_id         | string     | ID of the client device sending request (like a phone) |  |
| account_toke      | string     | Unique account identifier - token account              |  |
| token             | string     | Token for device API requests                          |  |
| charging_tim<br>e | numbe<br>r | time by which the default charging is prohibited       |  |

## Request example:

```
{
   "cmd":"set_charging_time",
   "device_id": "DEE328A7-B7F4-4235-9A6E-CF77C0C1FA74",
   "token": "2739f8604e4c4e30a749fe07801d8575",
   "account_token": "c31a1e00-1017-4048-b0bd-423da512f4c2",
   "charging_time": 1593348596
}
```

## Response example:

```
"success": true
}
```

## Response contains following fields:

| Key         | Туре        | Description                 |
|-------------|-------------|-----------------------------|
| succe<br>ss | boolea<br>n | status of set_charging_time |

## set\_info:

Client sends JuiceNet device API requests to:

https://jbv1-api.emotorwerks.com/box\_api\_sec ure

The method set\_info of the charging sessions.

| Key           | Туре        | Description  |  |
|---------------|-------------|--|--|
| cmd           | String      | JuiceNet device command                                |  |
| account_token | String      | Unique account identifier - token account              |  |
| device_id     | String      | ID of the client device sending request (like a phone) |  |
| Token         | String      | Token for device API requests                          |  |
| zip           | String      | Zip code   |  |
| country_code  | String      | Country code   |  |
| load_group_id | String      | load_group_id  |  |
| unit_type_id  | Intege<br>r | unit_type_id   |  |
| IP            | String      | IP   |  |

| gascost         | Intege<br>r | gascost  |
|-----------------|-------------|--|
| mpg             | Intege<br>r | mpg  |
| ecost           | Intege<br>r | ecost  |
| whpermile       | Intege<br>r | whpermile  |
| timezoneid      | String      | timezoneid   |
| amps_wire_ratin | Intege<br>r | max allowed current                                      |
| amps_unit_ratin | Intege<br>r | amp unit rating  |
| info_timestamp  | Intege<br>r | Info_ timestamp  |
| garage_id       | String      | Garage ID which the JB associated with                   |
| cars            | Objec<br>t  | Array having list of cars associated with JB             |
| policy          | Objec<br>t  | Detailed information regrading policy the JB operates on |

## policy object has following fields:

| Key                   | Туре        | Description             |
|-----------------------|-------------|-------------------------|
| name                  | String      | name                    |
| user_control_allow ed | Boolea<br>n | user_control_allow ed   |
| charge_control_typ e  | String      | charge_control_typ<br>e |

## cars object has following fields:

| Key                 | Туре        | Description                |
|---------------------|-------------|----------------------------|
| car_id              | Intege<br>r | Id of the vehicle          |
| description         | String      | Description of the vehicle |
| battery_size_w<br>h | Intege<br>r | Battery pack size, WH      |
| battery_range_<br>m | Intege<br>r | Mailge range               |

| charging_rate_<br>w | Intege<br>r | Charging rate ,w                    |
|---------------------|-------------|-------------------------------------|
| model_id            | String      | Id of the vehicle model in JN       |
| model_info          | Objec<br>t  | Array with details on vehicle model |

model\_info object has following fields:

| Key                 | Туре        | Description                          |
|---------------------|-------------|--------------------------------------|
| model_id            | String      | Id of the vehicle model in JN        |
| description         | String      | Description of the model             |
| make                | String      | Company that make a vehicle          |
| model               | String      | Full description of the model        |
| Year                | Intege<br>r | Year of vehicle release              |
| range_m             | Intege<br>r | Range according to the documentation |
| range_city_m        | Intege<br>r | Range when driving in city           |
| range_highway_<br>m | Intege<br>r | Range when driving on the highway    |
| battery_size_wh     | Intege<br>r | Battery pack size, WH                |
| charging_rate_w     | Intege<br>r | Charging rate                        |
| Images              | Objec<br>t  | Image of the vehicle                 |

## images object has following fields:

| Key          | Туре       | Descriptio<br>n |
|--------------|------------|-----------------|
| chargin<br>g | Strin<br>g | charging        |
| default      | Strin<br>g | default         |
| plugge<br>d  | Strin<br>g | plugged         |

## Request example:

```
"cmd": "set info",
   "account token": "4dd4e4c7-2304-4a05-88a6-3ffabc900660",
   "token": "b5e58aba6b414bfe9c435f9fb09d63ae",
   "device id": "linker",
   "name": "EMW Pro 75 JB 3.1 (#7)",
   "zip": "94070",
   "country code": "US",
  "load group_id": "string",
   "unit type id": 1,
   "IP": "50.168.20.98",
   "gascost": 350,
   "mpg": 25,
   "ecost": 12,
   "whpermile": 300,
   "timeZoneId": "Pacific Standard Time",
   "amps wire rating": 75,
  "amps unit rating": 75,
  "info timestamp": 1499586158,
   "garage id": "0bae0594-894f-486f-b962-2bc712d5d277",
   "cars": [
         "car id": 5528,
         "description": "2017 Chevrolet Bolt",
         "battery size wh": 383024,
         "battery range m": 60000,
         "charging rate w": 7200,
         "model id": "37066",
         "model info": {
               "model id": "37066",
               "description": "2017 Chevrolet Bolt",
               "make": "Chevrolet",
               "model": "Bolt",
               "year": 2017,
               "range m": 383023,
               "range city m": 399116,
               "range highway_m": 337961,
               "battery size wh": 60000,
               "charging rate w": 7200,
               "images": {
                   "charging": "string",
                   "default":
"https://dashboard.emotorwerks.com/Content/carmodels/chevy bolt.jpg",
                   "plugged": "string"
],
   "policy": {
           "name": "string",
           "user control allowed": false,
           "charge control type": "string"
```

```
}
```

#### Response example:

```
{
   "success": true
}
```

Response contains following fields:

| Key   | Туре        | Description                 |
|-------|-------------|-----------------------------|
| succe | boolea<br>n | Status of set_info response |

## **Get Notifications**

## get\_notifications:

Client sends JuiceNet device API requests to:

https://jbv1-api.emotorwerks.com/box\_api\_sec\_ure

The method get\_notifications of the charging sessions.

| Key          | Туре       | Description  |
|--------------|------------|--|
| cmd          | Strin<br>g | JuiceNet device command                                |
| account_toke | Strin<br>g | Unique account identifier - token account              |
| device_id    | Strin<br>g | ID of the client device sending request (like a phone) |
| token        | Strin<br>g | Token for device API requests                          |

## Request example:

```
{
    "cmd": "get_notifications",
    "account_token": "c31a1e00-1017-4048-b0bd-423da512f4c2",
    "device_id": "DEE328A7-B7F4-4235-9A6E-CF77C0C1FA74",
    "token": "2739f8604e4c4e30a749fe07801d8575"
}
```

```
"success":true,
"notifications": {
    "charging delayed due to ToU": {
             "email": false,
             "push": false
             },
    "start_charging ": {
             "email": false,
             "push": false
    "stop charging ": {
             "email": false,
             "push": false
    "is offline": {
             "email": false,
             "push": false
             },
    "is back online": {
             "email": false,
             "push": false
    "is_not_plugged_in_by": {
             "email": false,
             "push": false,
             "time": 0
```

#### Response contains following fields:

| Key               | Туре        | Description                 |
|-------------------|-------------|-----------------------------|
| success           | Boolea<br>n | Status                      |
| notification<br>s | Object      | Object having notifications |

## notifications object contains following fields:

| Key                          | Туре       | Description                                 |
|------------------------------|------------|---|
| charging_delayed_due_to_t oU | Objec<br>t | event on which he notification will be sent |
| start_Charging               | Objec<br>t | event on which he notification will be sent |

| stop_charging        | Objec<br>t | event on which he notification will be sent |
|----------------------|------------|---|
| is_offline           | Objec<br>t | event on which he notification will be sent |
| is_back_online       | Objec<br>t | event on which he notification will be sent |
| is_not_plugged_in_by | Objec<br>t | event on which he notification will be sent |

## charging\_delayed\_due\_to\_ToU object contains following fields:

| Key       | Туре        | Description                        |
|-----------|-------------|------------------------------------|
| emai<br>I | Boolea<br>n | method delivering the notification |
| Pus<br>h  | Boolea<br>n | method delivering the notification |

## start\_charging object contains following fields:

| Key       | Туре        | Description                        |
|-----------|-------------|------------------------------------|
| emai<br>I | Boolea<br>n | method delivering the notification |
| push      | Boolea<br>n | method delivering the notification |

## stop\_charging object contains following fields:

| Key       | Туре        | Description                        |
|-----------|-------------|------------------------------------|
| emai<br>I | Boolea<br>n | method delivering the notification |
| push      | Boolea<br>n | method delivering the notification |

## is\_offline object contains following fields:

| Key       | Туре        | Description                        |
|-----------|-------------|------------------------------------|
| emai<br>I | Boolea<br>n | method delivering the notification |
| push      | Boolea<br>n | method delivering the notification |

is\_back\_online object contains following fields:

| Key       | Туре        | Description                        |
|-----------|-------------|------------------------------------|
| emai<br>I | Boolea<br>n | method delivering the notification |
| push      | Boolea<br>n | method delivering the notification |

## is\_not\_plugged\_in\_by object contains following fields:

| Key       | Туре        | Description                        |
|-----------|-------------|------------------------------------|
| emai<br>I | Boolea<br>n | method delivering the notification |
| push      | Boolea<br>n | method delivering the notification |
| time      | Integer     | method delivering the notification |

## **Set Notifications**

## set\_notifications:

Client sends JuiceNet device API requests to:

https://jbv1-api.emotorwerks.com/box\_api\_sec\_ure

The method set\_otifications of the charging sessions.

| Key           | Туре       | Description  |  |
|---------------|------------|--|--|
| cmd           | String     | JuiceNet device command                                |  |
| account_toke  | String     | Unique account identifier - token account              |  |
| Token         | String     | Token for device API requests                          |  |
| device_id     | String     | ID of the client device sending request (like a phone) |  |
| notifications | Objec<br>t |  |  |

## notifications object contains following fields:

| Key        | Type | Description |  |
|------------|------|-------------|--|
| - <b>J</b> | 71   |             |  |

| charging_delayed_due_to_t oU | Objec<br>t | event on which he notification will be sent |
|------------------------------|------------|---|
| start_Charging               | Objec<br>t | event on which he notification will be sent |
| stop_charging                | Objec<br>t | event on which he notification will be sent |
| is_offline                   | Objec<br>t | event on which he notification will be sent |
| is_back_online               | Objec<br>t | event on which he notification will be sent |
| is_not_plugged_in_by         | Objec<br>t | event on which he notification will be sent |
| unplug                       | Objec<br>t | event on which he notification will be sent |
| plugin                       | Objec<br>t | event on which he notification will be sent |

## charging\_delayed\_due\_to\_ToU object contains following fields:

| Key         | Туре        | Description                        |
|-------------|-------------|------------------------------------|
| email       | Boolea<br>n | method delivering the notification |
| Push        | Boolea<br>n | method delivering the notification |
| webhoo<br>k | object      | webhook                            |

## webhook object contains following fields:

| Key                    | Туре       | Descriptio<br>n |
|------------------------|------------|-----------------|
| authorization_heade rs | string     | headers         |
| url                    | string     | url             |
| method                 | objec<br>t | PUT/POS<br>T    |

## start\_charging object contains following fields:

| Key | Туре | Description |  |
|-----|------|-------------|--|
|-----|------|-------------|--|

| emai<br>I | Boolea<br>n | method delivering the notification |
|-----------|-------------|------------------------------------|
| push      | Boolea<br>n | method delivering the notification |

## stop\_charging object contains following fields:

| Key       | Туре        | Description                        |
|-----------|-------------|------------------------------------|
| emai<br>I | Boolea<br>n | method delivering the notification |
| push      | Boolea<br>n | method delivering the notification |

## is\_offline object contains following fields:

| Key       | Туре        | Description                        |
|-----------|-------------|------------------------------------|
| emai<br>I | Boolea<br>n | method delivering the notification |
| push      | Boolea<br>n | method delivering the notification |

## is\_back\_online object contains following fields:

| Key       | Туре        | Description                        |
|-----------|-------------|------------------------------------|
| emai<br>I | Boolea<br>n | method delivering the notification |
| push      | Boolea<br>n | method delivering the notification |

## is\_not\_plugged\_in\_by object contains following fields:

| Key       | Туре        | Description                        |
|-----------|-------------|------------------------------------|
| emai<br>I | Boolea<br>n | method delivering the notification |
| push      | Boolea<br>n | method delivering the notification |
| time      | Integer     | time                               |

## Request example:

```
{
    "cmd": "set_notifications"
    "account_token": "c31a1e00-1017-4048-b0bd-423da512f4c2",
    "token": "2739f8604e4c4e30a749fe07801d8575",
```

```
"device id": "DEE328A7-B7F4-4235-9A6E-CF77C0C1FA74",
"notifications": {
    "charging delayed due to ToU": {
             "email": false,
             "push": false
    "start_charging ": {
             "email": false,
             "push": false
    "stop_charging ": {
             "email": false,
             "push": false
    "is offline": {
             "email": false,
             "push": false
    "is back online": {
             "email": false,
             "push": false
    "is_not_plugged_in_by": {
             "email": false,
             "push": false,
             "time": 0
```

## Response example:

```
"success":false,
}
```

## Response contains following fields:

| Key         | Туре        | Descriptio<br>n |
|-------------|-------------|-----------------|
| succe<br>ss | Boolea<br>n | Status          |