InfraPower®

REST API User Guide

IP Dongle (IPD-03-S)

(Version 1.0)

(1st April, 2026)

InfraPower®

Content

< Part 1 > RESTful API

< 1.1 > Introduction

RESTful API is designed to provide developers and integrators an easy to use method to communicate with the device. All of the device's actions can be accessed through this API. It is all HTTPs POST with JSON as the underlying data structure.

URL : https://{device-ip}/api/v2/<path>
Request : POST
Header :
Authorization : Basic {base64-encoded}
Content-Type : application/json
Body :

```
{
    "token"    : <token>,
    "cmd"      : "get" | "set" | "login"
    "data"     : { ... }
}
```

Response :

```
{
    "ret-code": 0/<return-code>,
    "ret-msg" : null/"<return-message>",
    "data"    : { ... }
}
```

Definitions

<token> : A token is assigned to the session after successful authentication.
<login-name> : login user name
<login-pass> : login user password
<return-code> : The result of the request, 0: success, else it's the error code.
<return-msg> : A short description of the error if error is occurred.
<level> : The PDU level, Possible value is 1 to 32.
<circuit-index>: The circuit index, possible value is 1 to 12. (Depends on the PDU model)
<outlet-index>: The outlet index, possible value is 1 to 72. (Depends on the PDU model)
<sensor-index>: The sensor index, possible value is 1 to 2.

By default, RESful API is enabled with RW mode which requires authentication for Read / Write operation.

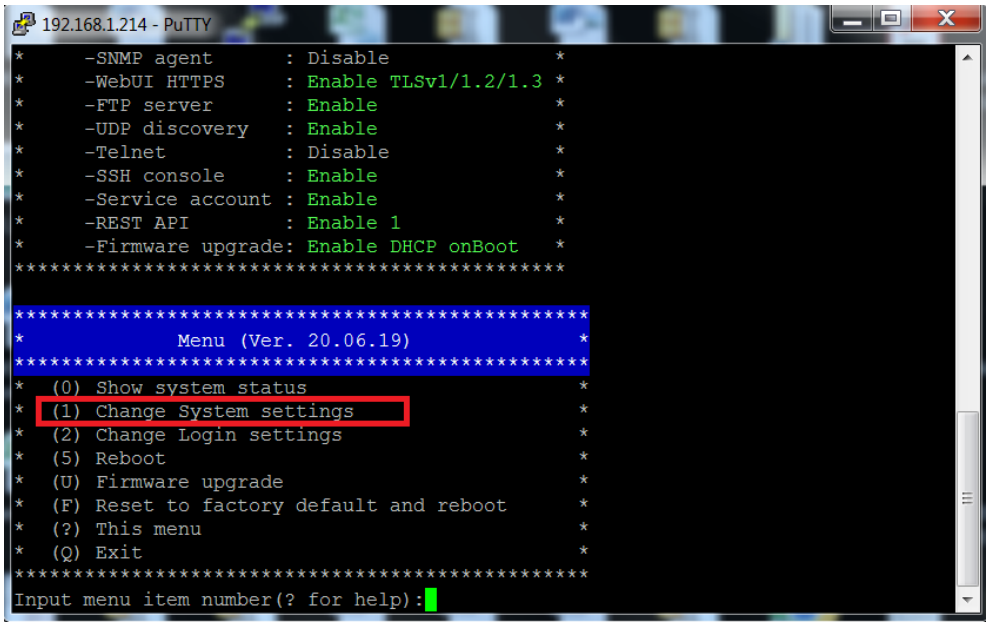
You can change different operation mode or disable RESTful API function using Command Line Interface (CLI) via SSH client such as PuTTY.

To change the RESTful API setting :

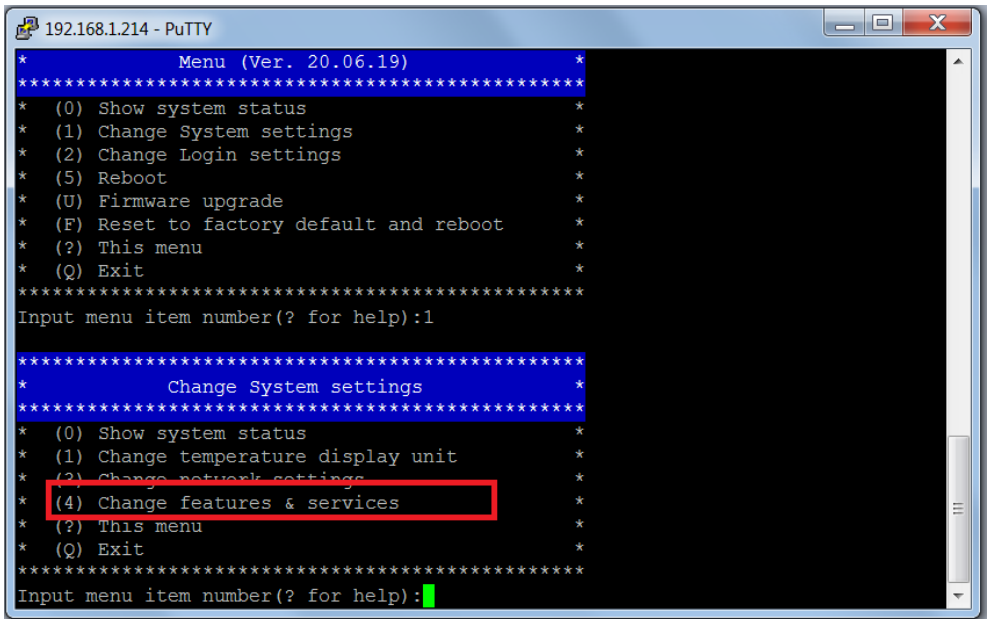
Step 1. Access the CLI using Putty.

Step 2. Input the local user's login name and password of PPS-03-S to login the CLI.

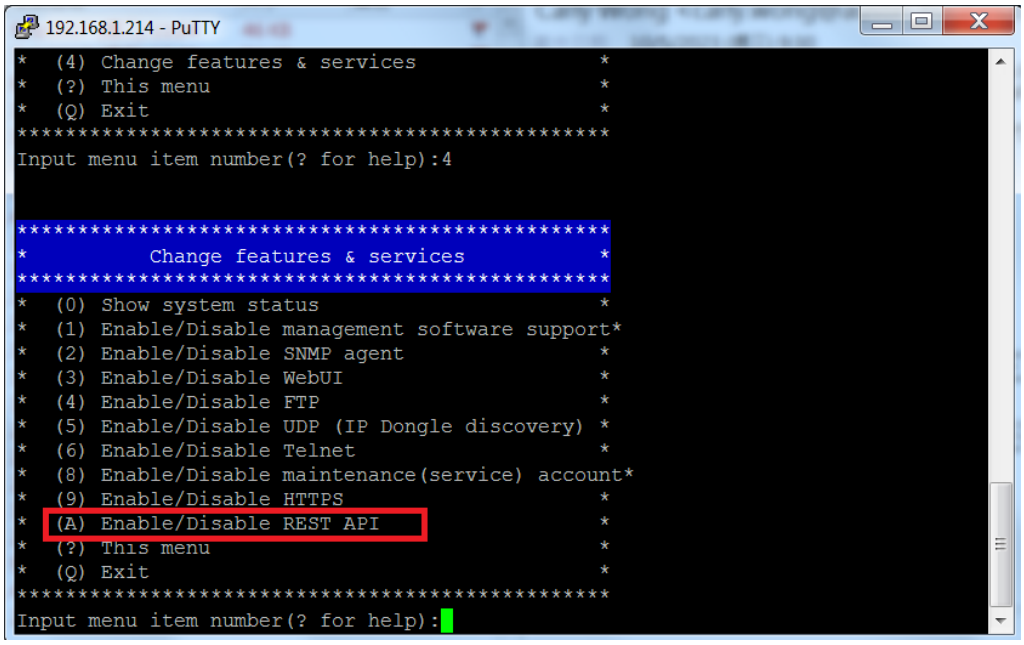
Step 3. Select " (1) Change System settings "



Step 4. Select " (4) Change features & services "

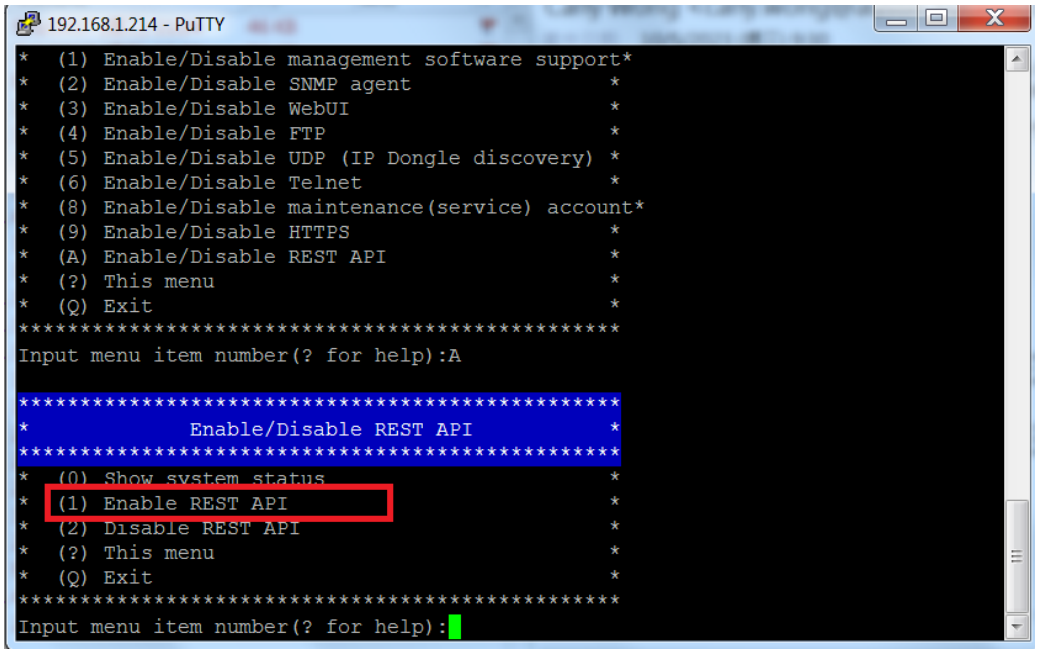


Step 5. Select " (A) Enable/Disable REST API "

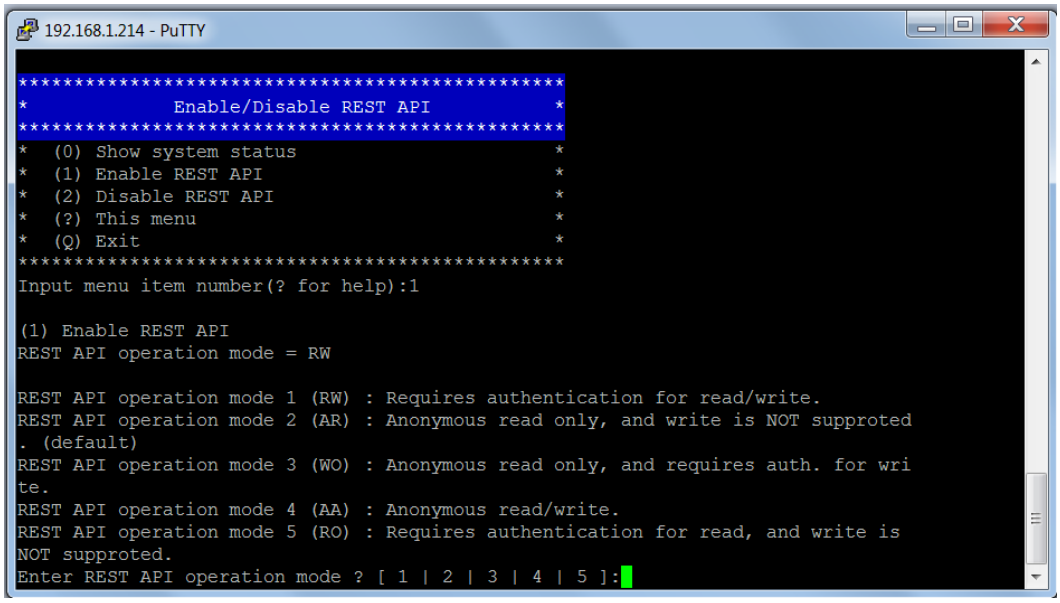


Step 6. If you want to disable RESTful API, Select " (2) Disable REST API ".

If you want to change the operation mode of the RESTful API, select " (1) Enable REST API ".



Step 7. You can select different operation mode based on the requirement.



< 1.2 > GET Operation

Path : <path>

Body :

```
{
    "token"    : "<token>",
    "cmd"      : "get"
    "data"     : { ... }
}
```

In order to perform a get, the client sends a post to the desired path on the server. The path can be arbitrary as long as it can be resolved to an object or component in
the API structures defined below. The get will return a JSON structure starting at the
depth indicated by the path and traversing down to the leaf objects.

Example 1 : get name of pdu level 1

Path : /pdu/1/name

Example GM1) get name of pdu at level 1

PATH: https://192.168.0.1/api/v2/pdus/1/name

BODY:

```
{
  "cmd"  : "get",
  "token": "<token>"
}
```

RESPONSE

```
{
  "ret-code": 0,
  "ret-msg": "",
  "data": {
    "pdus": [
      {
        "alive": 1,
        "level": 1,
        "setting": {
          "name": "default_pdu_name"
        }
      }
    ]
  }
}
```

< 1.3 > SET Operation

Path : <path>

Body :

```
{
    "token"    : "<token>",
    "cmd"      : "set",
    "data"     : { ... }
}
```

In order to perform a set, the client sends a post to the desired path on the server. The path can be arbitrary as long as it can be resolved to a settable object or component in the API structures defined below. The data field of the post contains a JSON structure indicating which objects are to be changed and what the new values are. Any missing objects are left unmodified on the server side. Sets can only be performed at a given depth and sub-objects are not allowed. The response object indicates if there were any errors and no extra data is returned.

Example SM1) set name of pdu at level 1

PATH: https://192.168.0.1/api/v2/pdus/1/name

BODY:

```
{
  "cmd"  : "set",
 "token": "<token>",
 "data" : { "name" : "my_pdu_name" }
}
```

RESPONSE

```
{
 "ret-code": 0,
 "ret-msg": ""
}
```

< 1.4 > RESET Operation

Path : <path>

Body :

```
{
    "token"    : "<access-token>",
    "cmd"      : "reset",
    "data"     : { ... }
}
```

In order to perform a reset, the client sends a post to the desired path on the server. The path can be arbitrary as long as it can be resolved to a resettable object or component in the API structures defined below. The data field of the post contains a JSON structure indicating which objects are to be changed and what the new values are. Any missing objects are left unmodified on the server side. Resets can only be performed at a given depth and sub-objects are not allowed. The response object indicates if there were any errors and no extra data is returned.

Example RM1) reset circuit 1's peak of pdu at level 16

PATH: https://192.168.0.1/api/v2/pdus/16/circuits/1/peak

BODY:

```
{
  "cmd"  : "reset",
 "token": "<token>"
}
```

RESPONSE

```
{
 "ret-code": 0,
 "ret-msg": ""
}
```

< 1.5 > Special(Login) Operation

Path : <path>

Header : Authorization : Basic <base64_encoded>

Body :

```
{
    "cmd"   : "login"
}
```

Special commands are used to perform other operations that are not covered by sets or gets. Each object may have a set of valid operations along with specific requirements for the data sent. The request and response format are the same as with the sets and gets. Special operations and their parameters are only valid on the path that defines them

< 1.6 > Return code

Return-code :

{

Success:{

0 – Success

},

Authentication-Errors:{

1001 - Not Authorized

1002 - Not Authorized: Session expired

1003 - Not Authorized: Not enough permissions

1004 - Not Authorized: Invalid password

1005 - User not found

1006 – Invalid token

1007 – Operation is not supported

}

Path Errors:{

3000 - Invalid path

3001 - Path not found

3002 - Identifier not found

3003 - Field not applicable

}

Validation Errors:{

4008 - Invalid url

4018 – Invalid method

4019 - Invalid operation

}

Device Errors:{

8000 - Invalid object

8001 - Invalid object-data

8002 - Invalid model or model unsupported

8003 – General error

8004 – Invalid input

8005 – operation is done with error(s)

8006 – Invalid object or unsupported operation

}

< Part 2 > Authentication (local-user)

Operation : login | set | get

Object : login-name | login-pass

login-name : the login name(account).

Max. Data Length is 16.

Valid input : 0 ~ 9, A ~ Z, a ~ z, (_), (-), (.)

login-pass: the login password

Max. Data Length is 16

Valid input : 0 ~ 9, A ~ Z, a ~ z & all special characters

except (\ ), ("), (`) & (')

Example L1) login the get the token

PATH: https://192.168.0.1/api/v2/auth/local-user

HEADER:

```
Content-Type: application/json
Authorization : Basic <base64_encoded>
```

BODY:

```
{
  "cmd"  : "login"
}
```

RESPONSE

```
{
  "ret-code": 0,
  "ret-msg": "",
  "data": {
    "token": "<token>"
  }
}
```

Example L2) logout

PATH: https://192.168.0.1/api/v2/auth/local-user

HEADER:

```
Content-Type: application/json
```

BODY:

```
{
  "cmd"  : "logout"
}
```

RESPONSE

```
{
  "ret-code": 0,
  "ret-msg": ""
}
```

Example L3) update the login name and password

PATH: https://192.168.0.1/api/v2/auth/local-user

HEADER:

```
Content-Type: application/json
```

BODY:

```
{
  "cmd"  : "set",
  "token": "<token>",
  "data" : { "login-name" : "<login-name>", "login-pass" : "<login-pass>" }
}
```

RESPONSE

```
{
  "ret-code": 0,
  "ret-msg": "",
  "data" : { "token" : "<token>" }
}
```

< Part 3 > System

Operation : reboot | reset | set | get

Object : name | location | temperature-unit | datetime | time-zone | time-setting | ntp-server | web-protocol | web-port | web-ssl-cert (get only) | firmware (get only)

name : the name of the IP DONGLE.

Location : the location of the IP DONGLE.

temperature-unit : the display unit for temperature data. Possible data is "C" or "F".

datetime : the calendar and time setting. Data format is "yyyy/mm/dd hh:nn:ss".

time-zone : the time zone setting. (Ref. to Appendix Timezone list)

time-sync : sync. with NTP server. Possible data is "disable" or "enable".

ntp-server : the NTP server to auto sync. System time of the IP Dongle.

web-protocol : HTTP or HTTPS support. Possible data is "HTTP" or "HTTPS".

web-port : web access port (default 80(HTTP), 443(HTTPS)).

web-ssl-cert : use default or custom SSL cert. Possible data is "default" or "custom".

Firmware : the firmware version.

Example S1) get system information of the IP Dongle

PATH: https://192.168.0.1/api/v2/system

HEADER:

```
Content-Type: application/json
```

BODY:

```
{
  "cmd"  : "get",
  "token": "<token>"
}
```

RESPONSE


```
{
  "ret-code": 0,
  "ret-msg": "",
  "data": {
    "system": {
      "name": "default_ipd_name",
      "location": "default_ipd_loc.",
      "temperature-unit": "C",
      "datetime": "2025-08-14 11:05:38",
      "time-zone": "GMT+08:00",
      "time-sync": "enable",
      "ntp-server": "hk.pool.ntp.org",
```

```
    "web-protocol": "HTTPS",
    "web-port": "443",
    "web-ssl-cert": "default",
    "firmware": "IPD-03-FW-v3.26"
   }
  }
}
```


Example S2) get system name of the IP DONGLE

PATH: https://192.168.0.1/api/v2/system/name

HEADER:

```
Content-Type: application/json
```

BODY:

```
{
  "cmd"  : "get",
  "token": "<token>"
}
```

RESPONSE


```
{
  "ret-code": 0,
  "ret-msg": "",
  "data": {
    "system": {
      "name": "default_ipd_name"
    }
  }
}
```

Example S3) update the system.name of the IP Dongle.

PATH: https://192.168.0.1/api/v2/system/name

HEADER:

```
Content-Type: application/json
```

BODY:

```
{
  "cmd"  : "set",
  "token": "<token>",
   "data": { "name": "my_ipd_name" }
}
```

RESPONSE

```
{
  "ret-code": 0,
  "ret-msg": ""
}
```

Example S4) reboot the IP Dongle.

PATH: https://192.168.0.1/api/v2/system

HEADER:

```
Content-Type: application/json
```

BODY:

```
{
  "cmd"  : "reboot",
  "token": "<token>"
}
```

RESPONSE

```
{
  "ret-code": 0,
  "ret-msg": ""
}
```

Example S5) reset the IP DONGLE to factory default state.

Warning!!

- Please don't power off the IP DONGLE while processing.
- You may have to change the default password via the WEBUI.
- The default user name and password are 8 zeroes "00000000".
- The default network config is dual lan mode:
  - LAN-1 : IPv4 DHCP
  - LAN-2 : IPv4 DHCP

  Remarks : 192.168.0.1 & 192.168.11.1 will be assigned automatically to LAN 1 & LAN 2 respectively if not connected to DHCP server)
- The reset process may take several minutes to be completed.

PATH: https://192.168.0.1/api/v2/system

HEADER:

```
Content-Type: application/json
```

BODY:

```
{
  "cmd"  : "reset",
  "token": "<token>"
}
```

RESPONSE

```
{
  "ret-code": 0,
  "ret-msg": ""
}
```

< Part 4 > Network

Operation : set | get

Object :

```
"lan-1",
"lan-2",
"wireless",
"lan",
"fail-over",
"dns",

"dns-server",
"auto-config",
"dns-1",
"dns-2",

"name",
"mac",
"link",
"speed",
"dhcp",
"ipv4",
"smv4",
"gwv4",
"ipv6",
```

Settable objects : dhcp, ipv4, smv4, gwv4

Example N1) get network information of the IP DONGLE

PATH: https://192.168.0.1/api/v2/network

HEADER:

```
Content-Type: application/json
```

BODY:

```
{
  "cmd"  : "get",
  "token": "<token>"
}
```

RESPONSE

```
{
  "ret-code": 0,
```

```
"ret-msg": "",
"data": {
  "network": {
    "mode": "dual",
    "fail-over": "0",
    "dns": {
      "auto-config": "disable",
      "dns-server": [
        {
          "name": "Primary DNS",
          "ipv4": "8.8.8.8"
        },
        {
          "name": "Seconday DNS",
          "ipv4": "0.0.0.0"
        }
      ]
    },
    "wired": [
      {
        "name": "lan-1",
        "mac": "20:0a:0d:ff:a6:1c",
        "link": "up",
        "speed": "1000",
        "dhcp": "disable",
        "ipv4": "192.168.11.1",
        "smv4": "255.255.255.0",
        "gwv4": "192.168.11.254",
        "ipv6": "::ffff:c0a8:b1/120"
      },
      {
        "name": "lan-2",
        "mac": "20:0a:0d:ff:99:3f",
        "link": "down",
        "speed": "10",
        "dhcp": "disable",
        "ipv4": "192.168.0.1",
        "smv4": "255.255.255.0",
        "gwv4": "192.168.0.254",
        "ipv6": "::ffff:c0a8:1/120"
```

```
      }
     ]
   }
 }
}
```

Example N2) set the network.lan-2 of the IP DONGLE.

Warning!!

- Network connection may be disconnected.

PATH: https://192.168.0.1/api/v2/network/lan-2

HEADER:

```
Content-Type: application/json
```

BODY:

```
{
  "cmd"  : "set",
  "token": "<token>",
  "data": {
         "ipv4": "192.168.0.11",
         "smv4": "255.255.255.0",
         "gwv4": "192.168.0.250"
       }
}
```

RESPONSE

```
{
  "ret-code": 0,
  "ret-msg": ""
}
```

< Part 5 > Device

< 5.1 > PDUs

Operation : set | get

<pdu-level> : the cascade level of the pdu, possible data are 1 to 32

Object :

```
"level",
"model",
"uid",
"serial-no",
"name",
"location",
"group-id",
"voltage",
"current",
"power-factor",
"active-power",
"apparent-power",
"cumulative-energy",
"real-time-clock",

"cirucits",
"sensors",
"outlets"
```

Settable objects : name, location

Example P1) get details of the pdu at level 16.

PATH: https://192.168.0.1/api/v2/pdus/16

HEADER:

```
Content-Type: application/json
```

BODY:

```
{
  "cmd"  : "get",
  "token": "<token>"
}
```

RESPONSE

```
{
  "ret-code": 0,
```

```
 "ret-msg": "",
 "data": {
  "pdus": [
   {
    "level": 16,
    "alive": 1,
    "setting": {
     "model": "V24C13/6C19-32A-Wi",
     "uid": "2E780016",
     "serial-no": "00020210708-0930-P07F",
     "name": "default_pdu_name",
     "location": "default_pdu_loc.",
     "group-id": "050"
    },
    "status": {
     "voltage": 219.9,
     "current": 0,
     "power-factor": 1,
     "active-power": 0,
     "apparent-power": 0,
     "cumulative-energy": 0,
     "real-time-clock": "1501172010306"
    }
   }
  ]
 }
}
```

Example P2) set name of pdu (name(test_pdu_name 16) of pdu level 16)

PATH: https://192.168.0.3/api/v2/pdus

HEADER:

```
Content-Type: application/json
```

BODY:

```
{
  "cmd" : "set",
   "token": "<token>",
  "data": {
    "pdus": [
      {
        "level": 16,
        "setting" :{
          "name" : "test_pdu_name 16"
        }
      }
    ]
  }
}
```

RESPONSE:

```
{
  "ret-code": 0,
  "ret-msg": ""
}
```

< 5.2 > Circuits

Operation : set | get | reset

<circuit-id> : the circuit id, possible data are 1 to 12

Object :

```
"index",
"rated-amp",
"rated-volt",
"name",
"amp-state",
"voltage",
"current",
"power-factor",
"active-power",
"apparent-power",
"peak",
"peak-timestamp",
"cumulative-energy",
"cum-timestamp",
"protection-state",
"alarm",
"rising-alert",
"low-alert"
```

Settable objects : alarm, rising-alert, low-alert

Resettable objects : peak, cumulative-energy

Example C1) get details of the circuits at pdu level 16.

PATH: https://192.168.0.1/api/v2/pdus/16/circuits

HEADER:

```
Content-Type: application/json
```

BODY:

```
{
  "cmd"  : "get",
  "token": "<token>"
}
```

RESPONSE


```
{
 "ret-code": 0,
 "ret-msg": "",
 "data": {
  "pdus": [
   {
    "level": 16,
    "alive": 1,
    "circuits": [
     {
      "index": 1,
      "setting": {
       "rated-amp": 16,
       "name": "Circuit A",
       "alarm": 12.8,
       "rising-alert": 0,
       "low-alert": 0
      },
      "status": {
       "amp-state": 0,
       "voltage": 216.1,
       "current": 0,
       "power-factor": 1,
       "active-power": 0,
       "apparent-power": 0,
       "peak": 0",
       "peak-timestamp": "150117172150",
       "cumulative-energy": 0,
       "cum-timestamp": "150101000000",
       "protection-state": 0
      }
     },
     {
      "index": 2,
      "setting": {
       "rated-amp": 16,
       "name": "Circuit B",
       "alarm": 10.0,
```

```
          "rising-alert": 0,
          "low-alert": 0
        },
        "status": {
          "amp-state": 0,
          "voltage": 216.2,
          "current": 0,
          "power-factor": 1,
          "active-power": 0,
          "apparent-power": 0,
          "peak": 0",
          "peak-timestamp": "150117172150",
          "cumulative-energy": 0,
          "cum-timestamp": "150101000000",
          "protection-state": 0
        }
      }
    ]
   }
  ]
 }
}
```

Example C2) reset peak of circuit (peak rest of circuit 1 on pdu level 16)

PATH: https://192.168.0.3/api/v2/pdus

HEADER:

```
Content-Type: application/json
```

BODY:

```
{
  "cmd" : "reset",
   "token": "<token>",
  "data": {
    "pdus": [
      {
        "level": 16,
        "circuits": [
          {
            "index": 1,
            "status": {
              "peak": "reset"
            }
          }
        ]
      }
    ]
  }
}
```

RESPONSE:

```
{
  "ret-code": 0,
  "ret-msg": ""
}
```

Example C3) reset kwh(cumulative-energy) of circuit (kwh reset of circuit 1 on pdu level 16)

PATH: https://192.168.0.3/api/v2/pdus

HEADER:

```
Content-Type: application/json
```

BODY:

```
{
  "cmd" : "reset",
   "token": "<token>",
  "data": {
    "pdus": [
      {
        "level": 16,
        "circuits": [
          {
            "index": 1,
            "status": {
              "cumulative-energy": "reset"
            }
          }
        ]
      }
    ]
  }
}
```

RESPONSE:

```
{
  "ret-code": 0,
  "ret-msg": ""
}
```

Example C4) set alarm threshold of circuit (alarm threshold(10A) of circuit 1 on pdu level 16)

PATH: https://192.168.0.3/api/v2/pdus

HEADER:

```
Content-Type: application/json
```

BODY:

```
{
  "cmd" : "set",
   "token": "<token>",
  "data": {
    "pdus": [
      {
        "level": 16,
        "circuits": [
          {
            "index": 1,
            "setting": {
              "alarm": 10
            }
          }
        ]
      }
    ]
  }
}
```

RESPONSE:

```
{
  "ret-code": 0,
  "ret-msg": ""
}
```

Example C5) set rising alert threshold of circuit (rising alert threshold(5A) of circuit 1 on pdu level 16)

PATH: https://192.168.0.3/api/v2/pdus

HEADER:

```
Content-Type: application/json
```

BODY:

```
{
  "cmd" : "set",
   "token": "<token>",
  "data": {
    "pdus": [
      {
        "level": 16,
        "circuits": [
          {
            "index": 1,
            "setting": {
              "rising-alert": 5
            }
          }
        ]
      }
    ]
  }
}
```

RESPONSE:

```
{
  "ret-code": 0,
  "ret-msg": ""
}
```

Example C6) set low alert threshold of circuit (low alert threshold(0.1A) of circuit 1 on pdu level 16)

PATH: https://192.168.0.3/api/v2/pdus

HEADER:

```
Content-Type: application/json
```

BODY:

```
{
  "cmd" : "set",
   "token": "<token>",
  "data": {
    "pdus": [
      {
        "level": 16,
        "circuits": [
          {
            "index": 1,
            "setting": {
              "low-alert": 0.1
            }
          }
        ]
      }
    ]
  }
}
```

RESPONSE:

```
{
  "ret-code": 0,
  "ret-msg": ""
}
```

< 5.3 > Outlets

Operation : set | get | reset |

<outlet-id> : the outlet id, possible data are 1 to 72.

Object :

```
"index",
"binding-circuit",
"type",
"name",
"rated-volt",
"rated-amp",
"relay-state",
"amp-state",
"voltage",
"current",
"power-factor",
"active-power",
"apparent-power",
"peak",
"cumulative-energy",
"power-up-sequence-delay",
"alarm",
"rising-alert",
"low-alert"
```

Settable objects : name,
relay-state (On / Off / Power-cycle), power-up-sequence-delay,
alarm, rising-alert, low-alert

Resettable objects : peak, cumulative-energy

Example O1) get details of the outlets at pdu level 16.

PATH: https://192.168.0.1/api/v2/pdus/16/outlets

HEADER:

```
Content-Type: application/json
```

BODY:

```
{
  "cmd"  : "get",
  "token": "<token>"
}
```

RESPONSE


```
{
 "ret-code": 0,
 "ret-msg": "",
 "data": {
  "pdus": [
   {
    "level": 16,
    "alive": 1,
    "outlets": [
     {
      "index": 1,
      "setting": {
       "binding-circuit": 1,
       "type": 1,
       "name": "outlet_name_01",
       "alarm": 5,
       "rising-alert": 0,
       "low-alert": 0,
       "power-up-sequence-delay": 1
      },
      "status": {
       "current": 0,
       "relay-state": "On",
       "amp-state": "Normal",
       "voltage": 216.3,
       "peak": 0,
       "power-factor": 1,
       "active-power": 0
       "apparent-power": 0,
       "cumulative-energy": 0,
      }
     }
    ]
   }
  ]
 }
}
```

Example O2) get specified object (name of outlet 2 on pdu level 16)

PATH: https://192.168.0.3/api/v2/pdus/16/outlets/2/name

HEADER:

```
Content-Type: application/json
```

BODY:

```
{
  "cmd" : "get",
  "token": "<token>"
}
```

RESPONSE:

```
{
  "ret-code": 0,
  "ret-msg": "",
  "data": {
    "pdus": [
      {
        "alive": 1,
        "level": 16,
        "outlets": [
          {
            "index": 2,
            "setting": {
              "name": "test_out_name02"
            }
          }
        ]
      }
    ]
  }
}
```

Example O3) set specified object (name of outlet 2 on pdu level 16)

PATH: https://192.168.0.3/api/v2/pdus/16/outlets/2/name

HEADER:

```
Content-Type: application/json
```

BODY:

```
{
  "cmd" : "set",
  "token": "<token>",
  "data" : { "name" : "test_out_name02" }
}
```

RESPONSE:

```
{
  "ret-code": 0,
  "ret-msg": ""
}
```

Example O4) set specified object using data (name of outlet 2 on pdu level 16)

PATH: https://192.168.0.3/api/v2/pdus

HEADER:

```
Content-Type: application/json
```

BODY:

```
{
  "cmd" : "set",
   "token": "<token>",
  "data": {
    "pdus": [
      {
        "level": 16,
        "outlets": [
          {
            "index": 2,
            "setting": {
              "name": "set_out_name02"
            }
          }
        ]
      }
    ]
  }
}
```

RESPONSE:

```
{
  "ret-code": 0,
  "ret-msg": ""
}
```

Example O5) set multiple objects using data (name of outlet 2, 3 on pdu level 16)

PATH: https://192.168.0.3/api/v2/pdus

HEADER:

```
Content-Type: application/json
```

BODY:

```
{
 "cmd" : "set",
  "token": "<token>",
 "data": {
  "pdus": [
   {
    "level": 16,
    "outlets": [
     {
      "index": 2,
      "setting": {
       "name": "set_out_name02"
      }
     },
     {
      "index": 3,
      "setting": {
       "name": "set_out_name03"
      }
     }
    ]
   }
  ]
 }
}
```

RESPONSE:

```
{
 "ret-code": 0,
 "ret-msg": ""
}
```

Example O6) set specified object using data (switch off relay of outlet 2 on pdu level 16)

PATH: https://192.168.0.3/api/v2/pdus

HEADER:

```
Content-Type: application/json
```

BODY:

```
{
  "cmd" : "set",
   "token": "<token>",
  "data": {
    "pdus": [
      {
        "level": 16,
        "outlets": [
          {
            "index": 2,
            "status": {
              "relay-state": "off"
            }
          }
        ]
      }
    ]
  }
}
```

RESPONSE:

```
{
  "ret-code": 0,
  "ret-msg": ""
}
```

Example O7) set specified object using data (alarm threshold to 8.5A of outlet 2 on pdu level 16)

PATH: https://192.168.0.3/api/v2/pdus

HEADER:

```
Content-Type: application/json
```

BODY:

```
{
  "cmd" : "set",
   "token": "<token>",
  "data": {
    "pdus": [
      {
        "level": 16,
        "outlets": [
          {
            "index": 2,
            "setting": {
              "alarm": 8.5
            }
          }
        ]
      }
    ]
  }
}
```

RESPONSE:

```
{
  "ret-code": 0,
  "ret-msg": ""
}
```

< 5.4 > Sensors

Operation : set | get

<sensor-id> : the sensor id, possible data are 1 to 2.

Object :

```
"index" ,
"name",
"location",
"type",
"activation",
"connect-state",
"alarm-state",
"temp-state",
"temp-measurement",
"temp-alarm",
"temp-rising-alert",
"temp-low-alert",
"humid-state",
"humid-measurement",
"humid-alarm",
"humid-rising-alert",
"humid-low-alert"
```

Settable objects : location,
activation
temp-alarm, temp-rising-alert,
humid-alarm, humid-rising-alert

Example S1) get details of the sensors at pdu level 16.

PATH: https://192.168.0.1/api/v2/pdus/16/sensors

HEADER:

```
Content-Type: application/json
```

BODY:

```
{
  "cmd"  : "get",
  "token": "<token>"
}
```

RESPONSE


```
{  "ret-code": 0,
  "ret-msg": "",
  "data": {
    "pdus": [
      {
        "level": 16,
        "alive": 1,
        "sensors": [
          {
            "index": 1,
            "setting": {
                        “type": 2,
              “name”: "Temp=humid senso",
              "location": "sensor_location",
              "temp-alarm": 40,
              "temp-rising-alert": 0,
              "temp-low-alert": 90,
              "humid-alarm": 0,
              "humid-rising-alert": 0,
              "humid-low-alert": 0
            },
            "status": {
              "activation": 1,
              "connect-state": 1,
              "alarm-state": 0,
              "temp-measurement": 277,
              "temp-state": "Normal",
              "humid-measurement": 467,
              "humid-state": "Normal"
            }
          },
          {
            "index": 2,
            "setting": {
                        “type": 2,
              “name”: "Temp=humid senso",
              "location": "sensor_location",
              "temp-alarm": 40,
```

```
          "temp-rising-alert": 0,
          "temp-low-alert": 90,
          "humid-alarm": 0,
          "humid-rising-alert": 0,
          "humid-low-alert": 0
        },
        "status": {
          "activation": 1
          "connect-state": 1,
          "alarm-state": 0,
          "temp-measurement": 277,
          "temp-state": "Normal",
          "humid-measurement": 467,
          "humid-state": "Normal"
        }
       }
     ]
    }
  ]
 }
}
```

Example S2) set temp alarm threshold of (alarm threshold(33.5 degree C) of sensor 1 on pdu level 16)

PATH: https://192.168.0.3/api/v2/pdus

HEADER:

```
Content-Type: application/json
```

BODY:

```
{
 "cmd" : "set",
  "token": "<token>",
 "data": {
  "pdus": [
   {
    "level": 16,
    "sensors": [
     {
      "index": 1,
      "setting": {
       "temp-alarm": 33.5
      }
     }
    ]
   }
  ]
 }
}
```

RESPONSE:

```
{
 "ret-code": 0,
 "ret-msg": ""
}
```