

VPD, VPS, VPM, and VPO REST API

V2.2

1.	Authentication	6
1.1.	Login	6
1.2.	Logout.....	7
1.3.	Get User Privilege	7
2.	Device Monitoring	10
2.1.	PDU.....	11
2.2.	Inlet	12
2.3.	Outlet	14
2.3.1.	Outlet Information	15
2.4.	EMD	15
2.5.	Network Connection	17
2.6.	Alarm List.....	18
3.	Device Management.....	19
3.1.	Management	19
3.2.	Inlet	22
3.3.	Outlet	24
3.3.1.	Clear Outlet Energy	26
3.4.	EMD	27
3.5.	Schedule	30
3.5.1.	Single Schedule	32
3.5.2.	Daily Schedule	34
3.5.3.	Weekly Schedule	36
3.6.	Grouping.....	38
3.6.1.	Grouping Setting	39
4.	Network Setting.....	41
4.1.	TCP/IP	41
4.2.	Dual Ethernet	42
4.3.	Accessible IP Setting	43

4.4.	Security.....	44
4.4.1.	CA Upload.....	46
4.5.	Network Service	48
4.6.	SNMP Setting.....	49
4.7.	SNMP Trap Setting.....	51
4.8.	SNMP Trap Test	53
5.	General Setting	54
5.1.	System Configuration	54
5.2.	Authentication Configuration.....	56
5.3.	iEC View Management	56
5.4.	Maintenance	58
5.4.1.	Firmware Update	61
5.5.	Import/Export.....	63
5.5.1.	Import	63
5.5.2.	Export.....	64
5.6.	Configure SMTP Server	64
5.7.	Email Notification Setting.....	65
5.8.	Send Test Mail	66
5.9.	Local User	68
5.10.	Radius User.....	69
6.	Logs.....	72
6.1.	System Log.....	72
6.2.	Event Log	73
6.3.	Inlet History Log.....	74
6.4.	Outlet History Log.....	75
6.5.	Environment Log	77
6.6.	Syslog Setting.....	78
6.7.	Clear and Save Log.....	79

6.7.1.	Save Log	79
6.7.2.	Save system log.....	79
6.7.3.	Save event log.....	79
6.7.4.	Save inlet log.....	80
6.7.5.	Save outlet log.....	80
6.7.6.	Save emd log.....	81
6.7.7.	Clear Log.....	81
7.	Advanced	83
7.1.	Multi-Language.....	83
7.1.1.	Web and Event string.....	83
7.1.2.	Upload/Download.....	85
7.2.	WiFi Configuration.....	87
7.3.	SMS Configuration.....	89
7.3.1.	SMS Setting	89
7.3.2.	SMS Test.....	90
8.	External Link.....	92
9.	Manufacture	93
9.1.	Manufacture Setting.....	93
9.1.1.	Upload the logo.....	93
9.2.	Inlet & Outlet Upgrade	93
9.2.1.	Upload inlet/outlet firmware.....	93
9.3.	EMD Upgrade	94
9.3.1.	Upload emd firmware	94
10.	Web Information	96
10.1.	Web Information	96
Appendix 2. Page String List.....		98
Appendix 3. Event String List		98

1. Authentication

1.1. Login

- Resource URL:
https://<snmp_ip>/api/login
- Curl Request:
curl -i -X POST -H "Content-Type: application/json" -H "Content-Length: 0" -H "Authorization: Digest nc=71217564; username=admin;nc=00000001;cnonce=a0b9ac23463677df;activation_code=954ab498ecb00175817c9291e78b7bf6;response=7dW2uQ3lVogn0b6ywupxcA==" -k http://[snmp_ip]/api/login
- Curl Response:
HTTP/1.1 200 OK
Set-Cookie: trackid=43a46d1edff84557b893947e736ef20d; Path=/; Version=1; Max-Age=1800
Set-Cookie: uid=0326a15927d3349f; Path=/; Version=1; Max-Age=1800
Date: [GMT Date]
{"auth":3}

Name	Description
Response	<p>A base64 "string" which proves that the user knows a password.</p> <p>response = base64(evp-aes-256-cbc(password, key_ascii_hex (activation_code), iv_ascii_hex (cnonce)))</p> <p>key: 256 bit, iv: 128 bit</p> <p>EX: assume password is "admin"</p> <p>response = base64(evp-aes-256-cbc(admin, key_ascii_hex("5a04ec902686fb05a6b7a338b6e07760"), iv_ascii_hex ("49153a7a0aed25a8")))</p> <p>For detailed encryption algorithms, please refer to the "rest api" example.</p> <p>Linux example:</p> <pre>\$ xxd -pu -l 16 <<< "49153a7a0aed25a8" 34393135336137613061656432356138</pre> <pre>\$ xxd -pu -l 32 <<< "5a04ec902686fb05a6b7a338b6e07760" 3561303465633930323638366662303561366237613333386236653037373630</pre> <pre>\$ echo -n "admin" openssl enc -aes-256-cbc -nosalt -base64 -K '3561303465633930323638366662303561366237613333386236653037373630' -iv '34393135336137613061656432356138' E3yFZ6uzvc1JOL+h2mBuSg==</pre> <pre>\$curl -i -X POST -H "Content-Type: application/json" -H "Content-Length: 0" -H</pre>

	<pre>"Authorization: Digest nc=00000001; username=admin;nc=00000001;cnonce=49153a7a0aed25a8;activation_code=5a04ec9 02686fb05a6b7a338b6e07760;response=E3yFZ6uzvc1JOL+h2mBuSg==" -k http://[IP]/api/login {"auth":3}</pre>
nc	The nc-value is the hexadecimal count of the number of requests that the client has sent with the nonce value in this request. nc has 8 digits. EX: 00000000 ~ 99999999
cnonce	The cnonce-value is an opaque quoted "string" value provided by the client and used by both client and server to avoid chosen plaintext attacks. It has 8 words. EX: a0b9ac23463677df
username	Login username
trackid	It is a 256-bit hex "string" converted from 128-bit integer number (UUID) used to authenticate user. EX: 43a46d1edff84557b893947e736ef20d
activation_code	It is a 256-bit hex "string" converted from 128-bit integer random number. It is the key of evp-aes-256-cbc during authentication. EX: 03b5f9b72582e6f5
uid	It is a 128-bit hex "string" to identify user. EX: 0326a15927d3349f
auth	3: admin, 2:Outlet Manager, 1:guest, 0: no privilege

1.2. Logout

- Resource URL:
https://<snmp_ip>/api/logout
- Curl Request:
curl -i -X POST -H "Content-Type: application/json" -H "Content-Length: 0" --cookie "trackid=43a46d1edff84557b893947e736ef20d;uid=0326a15927d3349f;nc=00000001;cnonce=a0b9ac23463677df" -k http://[snmp_ip]/api/logout
- Curl Response:
If user logout is successful, Response as below
HTTP/1.1 401 Unauthorized
Set-Cookie: trackid=; Path=/; Version=1; Max-Age=1800
Set-Cookie: uid=; Path=/; Version=1; Max-Age=1800
Content-type: application/json
Content-Length: 11
Date: [GMT Date]
{"error":1}

Name	Description
------	-------------

trackid	This is the cookie value, obtained when logging in
uid	This is the cookie value, obtained when logging in
nc	obtained when logging in
cnonce	obtained when logging in

1.3. Get User Privilege

■ Resource URL:

https://<snmp_ip>/api/usr_priv

■ Curl Request:

```
curl -i -X GET -H "Content-Length: 0" --cookie
```

```
"trackid=43a46d1edff84557b893947e736ef20d;uid=0326a15927d3349f;nc=00000001;cnonce=a0b9ac23463677df" -k http://[snmp_ip]/api/usr_priv
```

■ Curl Response:

HTTP/1.1 200 OK

Set-Cookie: trackid=43a46d1edff84557b893947e736ef20d; Path=/; Version=1; Max-Age=1800

Set-Cookie: uid=0326a15927d3349f; Path=/; Version=1; Max-Age=1800

```
{
  "usr_privilege":integer,      /*3: admin, 2:Outlet Manager, 1:guest, 0: no privilege*/
  "usr_logged":integer,       /* login status */
  "daisy_chain_salve":integer  /* daisy chain salve, 1: enable, 0: disable */
  "daisy_chain_mode":         /*Master mode: 1:enable, 0:disable*/
}
```

Name	Description
trackid	This is the cookie value, obtained when logging in
uid	This is the cookie value, obtained when logging in
nc	obtained when logging in
cnonce	obtained when logging in

2. Device Monitoring

- Resource URL:
https://<snmp_ip>/api/pdu_mon
- Curl Request:
curl -i -X GET -H "Content-Length: 0" --cookie
"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;cnonce=a0b9ac23463677df" -k http://[snmp_ip]/api/pdu_mon
- Curl Response:
http/1.1 200 OK
Set-Cookie: trackid=43a46d1edff84557b893947e736ef20d; Path=/; Version=1; Max-Age=1800
Set-Cookie: uid=034f1b705e094a04; Path=/; Version=1; Max-Age=1800
{
 "pdu_mon":{
 "local":{ /* refer section 2.1 */ },
 "daisy01":{ /* refer section 2.1 */ },

 "daisy15":{ /* refer section 2.1 */ },
 "inlet_status": {
 "valid":integer,
 "name": "string"
 },
 "net_connect":{ /* refer section 2.5*/ },
 "alarm":{ /*refer section 2.6 */ }
 }
}

2.1. PDU

- Resource URL:
`https://<snmp_ip>/api/pdu_mon/<local or daisy01~daisy15>`
- Curl Request:
`curl -i -X GET -H "Content-Length: 0" --cookie
"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;nonce=a0b
9ac23463677df" -k http://[snmp_ip]/api/pdu_mon/local`
- Curl Response:
`http/1.1 200 OK
Set-Cookie: trackid=43a46d1edff84557b893947e736ef20d; Path=/; Version=1; Max-Age=1800
Set-Cookie: uid=034f1b705e094a04; Path=/; Version=1; Max-Age=1800
{
 "local":{
 "inlet":{"/*refer section 2.2*/ },
 "outlet":{"/*refer section 2.3*/ },
 "emd":{"/*refer section 2.4*/ }
 }
}`

2.2. Inlet

- Resource URL:

`https://<snmp_ip>/api/pdu_mon/<local or daisy01~daisy15>/inlet`

- Curl Request:

```
curl -i -X GET -H "Content-Length: 0" --cookie
```

```
"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;cnonce=a0b9ac23463677df" -k http://[snmp_ip]/api/pdu_mon/local/inlet
```

- Curl Response:

```
http/1.1 200 OK
```

```
Set-Cookie: trackid=43a46d1edff84557b893947e736ef20d; Path=/; Version=1; Max-Age=1800
```

```
Set-Cookie: uid=034f1b705e094a04; Path=/; Version=1; Max-Age=1800
```

```
{  
  "valid":integer,  
  "name":"string",      /* maximum length is 31. */  
  "bid":integer,        /* Board ID*/  
                        /* Bit0: Force is 1 */  
                        /* Bit1: 1/3 Phase. 0 is 1-Phase, 1 is 3-Phase */  
                        /* Bit9: Inlet/Outlet. 0 is Inlet, 1 is Outlet */  
                        /* Bit10: CT Channel. 0 is 1CH, 1 is 2CH */  
                        /* Bit11: Current Breaker. 0 is 16A, 1 is 32A. */  
                        /* Bit15: A2 Format Bitmap, must is 1 */  
  
  "fw_type":integer,    /* Firmware Type */  
  "fw_ver":integer,     /* Firmware Version */  
  "volt_ph1":integer,   /* Unit:0.1V */  
  "volt_ph2":integer,  
  "volt_ph3":integer,  
  "freq_ph1":integer,   /* Unit:0.1Hz */  
  "freq_ph2":integer,  
  "freq_ph3":integer,  
  "pf_ph1_b1":integer, /* Unit:0.01 */  
  "pf_ph2_b1":integer,  
  "pf_ph3_b1":integer,  
  "pf_ph1_b2":integer,  
  "pf_ph2_b2":integer,  
  "pf_ph3_b2":integer,  
  "current_ph1_b1":integer, /* Unit:0.01A */  
  "current_ph1_b2":integer,  
  "current_ph2_b1":integer,
```

```

“current_ph2_b2”:integer,
“current_ph3_b1”:integer,
“current_ph3_b2”:integer,
“act_power_ph1”:integer, /* Unit:0.1W */
“act_power_ph2”:integer,
“act_power_ph3”:integer,
“app_power_ph1”:integer, /* Unit:0.1VA */
“app_power_ph2”:integer,
“app_power_ph3”:integer,
“ract_power_ph1”:integer, /* Unit:0.1Var */
“ract_power_ph2”:integer,
“ract_power_ph3”:integer,
“energy_ph1”:integer, /* Unit:1WH */
“energy_ph2”:integer,
“energy_ph3”:integer,
“energy_total”:integer,
“energy_time_ph1”:“string”,
“energy_time_ph2”:“string”,
“energy_time_ph3”:“string”,
“energy_time_total”:“string”,
“load_balance”:integer, /* Unit:% */
“evt_over_load”:integer, /* Bitmap bit0: critical , bit1: warning */

“evt_status_ph1”:integer, /* Bitmap bit0: critical , bit1: warning */
/* bit2: current b1 critical, bit3: current b1 warning */
/* bit4: voltage critical, bit5: voltage warning */
/* bit6: current b2 critical, bit7: current b2 warning */
/* bit8: balance critical, bit9: balance warning */
/* bit10: total current critical */
/* bit11: total current warning */

“evt_status_ph2”:integer, /* Bitmap bit0: critical , bit1: warning */
/* bit2: current b1 critical, bit3: current b1 warning */
/* bit4: voltage critical, bit5: voltage warning */
/* bit6: current b2 critical, bit7: current b2 warning */
/* bit8: balance critical, bit9: balance warning */
/* bit10: total current critical */
/* bit11: total current warning */

“evt_status_ph3”:integer, /* Bitmap bit0: critical , bit1: warning */

```

```

/* bit2: current b1 critical, bit3: current b1 warning */
/* bit4: voltage critical, bit5: voltage warning */
/* bit6: current b2 critical, bit7: current b2 warning */
/* bit8: total current critical */
/* bit9: total current warning */

"evt_load_balance":integer, /* Bitmap bit0: critical , bit1: warning */
"rcm_valid":integer, /* 1:valid, 0:invalid */
"rcm_current":integer, /* Unit: 0.1mA, Range is 0~600*/
"rcm_alarm":integer /* 1: alarm, 0 is normal*/
}

```

2.3. Outlet

- Resource URL:

https://<snmp_ip>/ap/pdu_mon/<local or daisy01~daisy15>/outlet

- Curl Request:

```
curl -i -X GET -H "Content-Length: 0" --cookie
```

```
"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;cnonce=a0b9ac23463677df" -k http://[snmp_ip]/api/pdu_mon/local/outlet/
```

- Curl Response:

http/1.1 200 OK

Set-Cookie: trackid=43a46d1edff84557b893947e736ef20d; Path=/; Version=1; Max-Age=1800

Set-Cookie: uid=034f1b705e094a04; Path=/; Version=1; Max-Age=1800

```

{
  "outlet":{
    "port_size":integer,
    "info":[
      /*refer section 2.3.1*/
    ],
  }
}

```

2.3.1. Outlet Information

- Resource URL:
https://<snmp_ip>/api/pdu_mon/<local or daisy01~daisy15>/outlet/info
- Curl Request:
curl -i -X GET -H "Content-Length: 0" --cookie
"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;cnonce=a0b9ac23463677df" -k http://[snmp_ip]/api/pdu_mon/local/outlet/info
- Curl Response:
http/1.1 200 OK
Set-Cookie: trackid=43a46d1edff84557b893947e736ef20d; Path=/; Version=1; Max-Age=1800
Set-Cookie: uid=034f1b705e094a04; Path=/; Version=1; Max-Age=1800
{
 "valid": [integer,],
 "name":["string",], /* maximum length is 31. */
 "bid": [integer,], /* Board ID */
 /* Bit0: Force is 1 */
 /* Bit1: 1/3 Phase. 0 is 1-Phase, 1 is 3-Phase */
 /* Bit9: Inlet/Outlet. 0 is Inlet, 1 is Outlet */
 /* Bit10: Outlet 2P/6P. 0 is 2-Port, 1 is 6-Port */
 /* Bit11: Relay Type. 0 is relay, 1 is non-relay */
 /* Bit12: Meter Type. 0 is meter, 1 is non-meter */
 /* Bit15: A2 Format Bitmap, must is 1 */

 "fw_type": [integer,], /* Firmware Type */
 "fw_ver": [integer,], /* Firmware Version */
 "rly_state": [integer,], /*0:relay off, 1:relay on*/
 "evt_status": [integer,], /* Bitmap bit0: critical , bit1: warning */
 /* bit2: current critical, bit3: current warning */
 /* bit4: power critical, bit5: power warning */

 "volt": [integer,], /* Unit:0.1V */
 "current": [integer,], /* Unit:0.01A */
 "pf": [integer,], /* Unit:0.01 */
 "act_power": [integer,], /* Unit:0.1W */
 "app_power": [integer,], /* Unit:0.1VA */
 "energy":[integer,], /* Unit:1WH */
 "energy_time": ["string",]
}

2.4. EMD

- Resource URL:
https://<snmp_ip>/api/deb_mon/<local or daisy01~daisy15>/emd
- Curl Request:
curl -i -X GET -H "Content-Length: 0" --cookie
"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;cnonce=a
0b9ac23463677df" -k http://[snmp_ip]/api/pdu_mon/local/emd
- Curl Response:
http/1.1 200 OK
Set-Cookie: trackid=43a46d1edff84557b893947e736ef20d; Path=/; Version=1; Max-Age=1800
Set-Cookie: uid=034f1b705e094a04; Path=/; Version=1; Max-Age=1800
{
 - "valid": [integer,], /* array size is 8 */
 - "version":["string",],
 - "type": [integer,],
 - "name":["string",],
 - "temp_name": ["string",],
 - "humi_name": ["string",],
 - "alarm1_name": ["string",],
 - "alarm2_name": ["string",],
 - "temp": [integer,], /* Unit:0.1C */
 - "humi": [integer,], /*Unit:0.1%*/
 - "temp_st": [integer,], /*bit0:Warning, bit1: Critical, bit2: High, bit3:Low*/
 - "humi_st": [integer,], /*bit0:Warning, bit1: Critical, bit2: High, bit3:Low*/
 - "alarm1": [integer,], /* 0:invalid, 1:alarm non-triggered, 2:alarm triggered */
 - "alarm2":[integer,] /* 0:invalid, 1:alarm non-triggered, 2:alarm triggered */

2.5. Network Connection

- Resource URL:

`https://<snmp_ip>/api/pdu_mon/net_connect`

- Curl Request:

```
curl -i -X GET -H "Content-Length: 0" --cookie
```

```
"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;cnonce=a0b9ac23463677df" -k http://[snmp_ip]/api/pdu_mon/local/emd
```

- Curl Response:

```
http/1.1 200 OK
```

```
Set-Cookie: trackid=43a46d1edff84557b893947e736ef20d; Path=/; Version=1; Max-Age=1800
```

```
Set-Cookie: uid=034f1b705e094a04; Path=/; Version=1; Max-Age=1800
```

```
{
  "net_connect":{
    "tcp":[
      {
        "pid":integer,
        "uid":integer,
        "type":"string",
        "local_addr":"string",
        "remote_addr":"string",
        "remote_port":integer,
        "status":"string"
      },
      .....
    ],
    "tcp6":[
      {
        "pid":integer,
        "uid":integer,
        "type":"string",
        "local_addr":"string",
        "remote_addr":"string",
        "remote_port":integer,
        "status":"string"
      },
      .....
    ],
    "total_connect":integer
  }
}
```

```
}
```

2.6. Alarm List

Get Alarm List

■ Request URL:

```
https://<snmp_ip>/api/pdu_mon/alarm?lang=<lang_tag>
```

■ Curl Request:

```
curl -i -X GET -H "Content-Length: 0" --cookie
```

```
"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;cnonce=a0b9ac23463677df" -k http://[snmp_ip]/api/pdu_mon/alarm?lang=en_US
```

■ Curl Response:

```
http/1.1 200 OK
```

```
Set-Cookie: trackid=43a46d1edff84557b893947e736ef20d; Path=/; Version=1; Max-Age=1800
```

```
Set-Cookie: uid=034f1b705e094a04; Path=/; Version=1; Max-Age=1800
```

```
{
  "last_alarm_id":integer,
  "last_alarm_time":"string",
  "last_alarm_desc":"string",
  "alarm_count":integer,
  "alarm_list":[
    {
      "alarm_id":integer,
      "alarm_time":"string",
      "alarm_desc":"string"
    },
    .....
  ]
}
```

Name	Description
lang	en_US, de_DE, es_ES, user_1, user_2

3. Device Management

3.1. Management

- POST

- Resource URL:

- https://<snmp_ip>/api/pdu_mgmt

- ~~■ Curl Request: (Example)~~

- Request:

- POST <snmp_ip>/api/pdu_mgmt HTTP / 1.1

- Host: localhost

- Cookie:

- trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;nc=00000002;cnonc
e=69153d25a8a7a0ae

- {
 - “pdu_mgmt”:{
 - “local”:{
 - “inlet”:{
 - /* refer section 3.1 */
 - },
 - “outlet”:{
 - /* refer section 3.2 */
 - },
 - “emd”:{
 - /* refer section 3.3 */
- },
- “daisy01”:{
 - “inlet”:{
 - /* refer section 3.1 */
- },
- “outlet”:{
 - /* refer section 3.2 */

- },
- “emd”:{
- /* refer section 3.3 */
- }
-,
- “daisy15”:{

```

        "inlet": {
            /* refer section 3.1 */
        },
        "outlet": {
            /* refer section 3.2 */
        },
        "emd": {
            /* refer section 3.3 */
        }
    },
    "schd":[
        {
            /* refer section 3.4 */
        },
        .....
    ],
    "grp":[
        {
            /* refer section 3.5 */
        },
        .....
    ]
}
}
}

```

- Curl Response:


```

http/1.1 200 OK
Set-Cookie: trackid=43a46d1edff84557b893947e736ef20d; Path=/; Version=1; Max-Age=1800
Set-Cookie: uid=034f1b705e094a04; Path=/; Version=1; Max-Age=1800
Content-type: application/json
{"error":0}      /* 0:success, 1:error */

```
- Resource URL


```

GET <snmp_ip>/api/pdu_mgmt

```
- Curl Request:


```

curl -i -X GET -H "Content-Length: 0" --cookie
"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;cnonce=a
0b9ac23463677df" -k http://[snmp_ip]/api/pdu_mgmt

```
- Curl Response:


```

http/1.1 200 OK
Set-Cookie: trackid=43a46d1edff84557b893947e736ef20d; Path=/; Version=1; Max-Age=1800

```

Set-Cookie: uid=034f1b705e094a04; Path=/; Version=1; Max-Age=1800

/* refer POST content */

3.2. Inlet

■ POST

■ Resource URL:

https://<snmp_ip>/api/pdu_mgmt/<local or daisy01~daisy15>/inlet

■ Curl Request: (Example: Energy clear & modify inlet name)

```
curl -i -X POST -H "Content-Type: application/json" --cookie  
"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;cnon  
ce=a0b9ac23463677df" -d '{"energy_clr":1,name:"test1"}' -k http://  
[snmp_ip]/api/pdu_mgmt/local/inlet
```

■ Curl Request: (Example: Energy clear)

```
curl -i -X POST -H "Content-Type: application/json" --cookie  
"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;cnon  
ce=a0b9ac23463677df" -d '{"energy_clr":1}' -k http:// [snmp_ip]/api/pdu_mgmt/local/inlet
```

■ Request:

POST <snmp_ip>/api/pdu_mgmt/<local or daisy01~daisy15>/inlet HTTP / 1.1

Host: localhost

Cookie:

trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;nc=00000002;cnonc
e=69153d25a8a7a0ae

```
{  
  "inlet":{  
    "energy_clr":integer,          /* [bit0]:clear phase1 energy*/  
                                   /* [bit1]:clear phase2 energy*/  
                                   /* [bit2]:clear phase3 energy*/  
                                   /* [bit3]:clear total energy */  
    "valid":integer,  
    "name":"string",  
    "over_load_warn":integer,  
    "over_load_crit":integer,  
    "load_balance_warn":integer,  
    "load_balance_crit":integer,  
    "over_volt_warn_ph1":integer,  /* Unit:0.1V */  
    "over_volt_warn_ph2":integer,  
    "over_volt_warn_ph3":integer,  
    "over_volt_crit_ph1":integer,  
    "over_volt_crit_ph2":integer,  
    "over_volt_crit_ph3":integer,  
    "over_curr_total_warn_ph1":integer, /* Unit:0.01A */  
    "over_curr_total_warn_ph2":integer,
```

```

    "over_curr_total_warn_ph3":integer,
    "over_curr_total_crit_ph1":integer,
    "over_curr_total_crit_ph2":integer,
    "over_curr_total_crit_ph3":integer,
    "over_curr_b1_warn_ph1":integer,
    "over_curr_b1_warn_ph2":integer,
    "over_curr_b1_warn_ph3":integer,
    "over_curr_b1_crit_ph1":integer,
    "over_curr_b1_crit_ph2":integer,
    "over_curr_b1_crit_ph3":integer,
    "over_curr_b2_warn_ph1":integer,
    "over_curr_b2_warn_ph2":integer,
    "over_curr_b2_warn_ph3":integer,
    "over_curr_b2_crit_ph1":integer,
    "over_curr_b2_crit_ph2":integer,
    "over_curr_b2_crit_ph3":integer,
    "rcm_current_thld":integer      /*Unit is 1mA, Range 3~50 */
}
}

```

- Response:

http/1.1 200 OK

Set-Cookie: trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;Max-Age=1800

Accept: application/json

Content-type: application/json

{ "error":0 } /* 0:success, 1:error */

- GET

- Resource URL:

GET <snmp_ip>/api/pdu_mgmt/<local or daisy01~daisy15>/inlet

- Curl Request:

curl -i -X GET -H "Content-Length: 0" --cookie

"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;cnonce=a0b9ac23463677df" -k http://[snmp_ip]/api/pdu_mgmt/local

- Curl Response:

http/1.1 200 OK

Set-Cookie: trackid=43a46d1edff84557b893947e736ef20d; Path=/; Version=1; Max-Age=1800

Set-Cookie: uid=034f1b705e094a04; Path=/; Version=1; Max-Age=1800

/* refer POST content */

3.3. Outlet

■ POST

■ Resource URL:

`https://<snmp_ip>/api/pdu_mgmt/<local or daisy01~daisy15>/outlet`

■ Curl Request: (Example: Modify outlet name)

```
curl -i -X POST -H "Content-Type: application/json" --cookie
```

```
"trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;nc=00000001;cnonce=a0b9ac23463677df" -d '{"name":["modyfi_outlet1","outlet 02","outlet 03","outlet 04","outlet 05","outlet 06","outlet 07","outlet 08","outlet 09","outlet 10","outlet 11","outlet 12","outlet 13","outlet 14","outlet 15","outlet 16","outlet 17","outlet 18","outlet 19","outlet 20","outlet 21","outlet 22","outlet 23","outlet 24","outlet 25","outlet 26","outlet 27","outlet 28","outlet 29","outlet 30","outlet 31","outlet 32","outlet 33","outlet 34","outlet 35","outlet 36","outlet 37","outlet 38","outlet 39","outlet 40","outlet 41","outlet 42","outlet 43","outlet 44","outlet 45","outlet 46","outlet 47","outlet 48","outlet 49","outlet 50","outlet 51","outlet 52","outlet 53","outlet 54","outlet 55","outlet 56","outlet 57","outlet 58","outlet 59","outlet 60","outlet 61","outlet 62","outlet 63","outlet 64"]}' -k
```

```
http://[snmp_ip]/api/pdu_mgmt/local/outlet/setting
```

■ Request:

POST <snmp_ip>/api/pdu_mgmt/<local or daisy01~daisy15>/outlet HTTP / 1.1

Host: localhost

Cookie:

```
trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;nc=00000002;cnonce=69153d25a8a7a0ae
```

```
{
  "outlet":{
    "port_size":integer,
    "setting":{ /* array size is 64 */
      "valid":[integer, .....] /* device valid */
      "energy_clr":[integer, .....] /* 1:clear energy, 0:no action*/
      "name":["string", .....],
      "on_delay":[integer, .....], /*bit7: 1 is enable delay */
      "off_delay":[integer, .....], /*bit7: 1 is enable delay */
      "reboot_time":[integer, .....],
      "over_curr_warn":[integer, .....], /* Unit:0.01A */
      "over_curr_crit":[integer, .....],
      "over_power_warn":[integer, .....], /* Unit:1 */
      "over_power_crit":[integer, .....]
    },
  },
}
```



```

    "rly_ctrl":{ /* array size is 8, 64Port = 8 * 8 bits */
        "imm_on":[integer, .....],
        "delay_on":[integer, .....],
        "imm_off":[integer, .....],
        "delay_off":[integer, .....],
        "cycle":[integer, .....],
        "delay_cycle":[integer, .....],
    }
}
}

```

- Response:

http/1.1 200 OK

Set-Cookie: trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;Max-Age=1800

Accept: application/json

Content-type: application/json

{ "error":0 } /* 0:success, 1:error */

- GET

- Resource URL:

GET <snmp_ip>/api/pdu_mgmt/<local or daisy01~daisy15>/outlet

- Curl Request:

curl -i -X GET -H "Content-Length: 0" --cookie

"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;cnonce=a0b9ac23463677df" -k http://[snmp_ip]/api/pdu_mgmt/local/outlet

- Curl Response:

http/1.1 200 OK

Set-Cookie: trackid=43a46d1edff84557b893947e736ef20d; Path=/; Version=1; Max-Age=1800

Set-Cookie: uid=034f1b705e094a04; Path=/; Version=1; Max-Age=1800

/* refer POST content */

3.4. EMD

■ POST

■ Resource URL:

https://<snmp_ip>/api/pdu_mgmt/<local or daisy01~daisy15>/emd

■ Curl Request: (Example: Modify outlet name)

```
curl -i -X POST -H "Content-Type: application/json" --cookie
```

```
"trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;nc=00000001;cnon
```

```
ce=a0b9ac23463677df" -d '{"name":["EMD1-
```

```
1","EMD2","EMD3","EMD4","EMD5","EMD6","EMD7","EMD8"]}' -k
```

```
http://[snmp_ip]/api/pdu_mgmt/local/emd/name
```

■ Request:

```
POST <snmp_ip>/api/pdu_mgmt/<local or daisy01~daisy15>/emd HTTP / 1.1
```

```
Host: localhost
```

```
Cookie:
```

```
trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;nc=00000002;cnonc
```

```
e=69153d25a8a7a0ae
```

```
{
```

```
  "emd":{ /* array size is 8 */
```

```
    "valid": [integer, .....],
```

```
    "version":["string", .....],
```

```
    "type": [integer, .....],
```

```
    "name": ["string", .....],
```

```
    "temp_name": ["string", .....],
```

```
    "humi_name": ["string", .....],
```

```
    "alarm1_name": ["string", .....],
```

```
    "alarm2_name":["string", .....],
```

```
    "temp": [integer, .....], /* Unit: 0.1C */
```

```
    "humi": [integer, .....], /* Unit: 0.1% */
```

```
    "temp_st": [integer, .....],
```

```
    "humi_st": [integer, .....],
```

```
    "temp_high_warn_en": [integer, .....], /* 0:disabled, 1:enabled */
```

```
    "temp_low_warn_en": [integer, .....], /* 0:disabled, 1:enabled */
```

```
    "temp_high_crit_en": [integer, .....], /* 0:disabled, 1:enabled */
```

```
    "temp_low_crit_en": [integer, .....], /* 0:disabled, 1:enabled */
```

```
    "temp_high_warn": [integer, .....],
```

```
    "temp_low_warn": [integer, .....],
```

```
    "temp_high_crit": [integer, .....],
```

```
    "temp_low_crit": [integer, .....],
```

```
    "temp_cal": [integer, .....], /* 0:+5.4C, 1:+4.5C, 2:+3.6C 3:+2.7C 4:+1.8C */
```

```

/* 5:+0.9C, 6:+0C, 7:-0.9C, 8:-1.8C, 9:-2.7C */
/* 10:-3.2C, 11:-4.5C, 12:-5.4C */
"temp_hyst": [integer, .....], /* Unit:1C, Range is 0 ~ 20 */
"humid_high_warn_en": [integer, .....], /* 0:disabled, 1:enabled */
"humid_low_warn_en": [integer, .....], /* 0:disabled, 1:enabled */
"humid_high_crit_en": [integer, .....], /* 0:disabled, 1:enabled */
"humid_low_crit_en": [integer, .....], /* 0:disabled, 1:enabled */
"humid_high_warn": [integer, .....],
"humid_low_warn": [integer, .....],
"humid_high_crit": [integer, .....],
"humid_low_crit": [integer, .....],
"humid_cali": [integer, .....], /*0:+6%, 1:+5% 2:+4%, 3:+3%, 4:+2%, 5:+1% */
/* 6:+0%, 7:-1%, 8:-2%, 9:-3%, 10:-4%*/
/* 11:-5%, 12:-6% */
"humid_hyst": [integer, .....], /* Unit:1%, Range is 0 ~ 20 */
"alarm1": [integer, .....], /* 0:invalid, 1:normal, 2:alarm*/
"alarm2": [integer, .....], /* 0:invalid, 1:normal, 2:alarm*/
"alarm1_setup": [integer, .....], /* 0:disabled, 1:normal open, */
/* 2:normal close */
"alarm2_setup": [integer, .....], /* 0:disabled, 1:normal open, */
/* 2:normal close */
"lt_close": [integer, .....] /* Read only, 0:disabled, 1:enabled */
"set_lt_close": [integer, .....] /* 0:disabled, 1:enabled */
}
}

```

■ Response:

http/1.1 200 OK

Set-Cookie: trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;Max-Age=1800

Accept: application/json

Content-type: application/json

```
{ "error": 0 } /* 0:success, 1:error */
```

■ GET

■ Resource URL:

GET <snmp_ip>/api/dev_mgmt/<local or daisy01~daisy15>/emd

■ Curl Request:

curl -i -X GET -H "Content-Length: 0" --cookie

"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;cnonce=a0b9ac23463677df" -k http://[snmp_ip]/api/pdu_mgmt/local/emd

■ Curl Response:

http/1.1 200 OK

Set-Cookie: trackid=43a46d1edff84557b893947e736ef20d; Path=/; Version=1; Max-Age=1800

Set-Cookie: uid=034f1b705e094a04; Path=/; Version=1; Max-Age=1800

/* refer POST content */

3.5. Schedule

■ POST

■ Resource URL:

https://<snmp_ip>/api/pdu_mgmt/sched

■ Request:

POST <snmp_ip>/api/pdu_mgmt/sched HTTP / 1.1

■ ~~Curl Request:~~

■ Response:

http/1.1 200 OK

Set-Cookie: trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;Max-Age=1800

Accept: application/json

Content-type: application/json

```
{
  "sched":{
    "ad":{
      "one":{"/* refer section 3.5.1 */},
      "day":{"/* refer section 3.5.2 */},
      "week":{"/* refer section 3.5.3 */},
    },
    "u1":{
      "one":{"/* refer section 3.5.1 */},
      "day":{"/* refer section 3.5.2 */},
      "week":{"/* refer section 3.5.3 */},
    },
    .....,
    "u8":{
      "one":{"/* refer section 3.5.1 */},
      "day":{"/* refer section 3.5.2 */},
      "week":{"/* refer section 3.5.3 */},
    },
    "r1":{
      "one":{"/* refer section 3.5.1 */},
      "day":{"/* refer section 3.5.2 */},
      "week":{"/* refer section 3.5.3 */},
    },
    .....,
    "r8":{
      "one":{"/* refer section 3.5.1 */},
```

```
    "day":{ /* refer section 3.5.2 */ },
    "week":{ /* refer section 3.5.3 */ },
  }
}
```

```
}
```

■ GET

■ Resource URL:

GET <snmp_ip>/api/pdu_mgmt/sched

■ Curl Request:

```
curl -i -X GET -H "Content-Length: 0" --cookie
```

```
"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;nonce=a0b9ac23463677df" -k http://[snmp_ip]/api/pdu_mgmt/sched
```

■ Curl Response:

```
http/1.1 200 OK
```

```
Set-Cookie: trackid=43a46d1edff84557b893947e736ef20d; Path=/; Version=1; Max-Age=1800
```

```
Set-Cookie: uid=034f1b705e094a04; Path=/; Version=1; Max-Age=1800
```

```
/* refer POST content */
```

3.5.1. Single Schedule

■ POST

■ Resource URL:

https://<snmp_ip>/api/pdu_mgmt/sched/<ad or u1~u8 or r1~r8 >/one

■ Curl Request: (Example: Single schedule 1 control)

```
curl -i -X POST -H "Content-Type: application/json" --cookie  
"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;  
cnonce=a0b9ac23463677df" -d '{"one":{"ctrl":[1,0,0,0,0,0,0,0]}}' -k  
http://[snmp_ip]/api/pdu_mgmt/sched/ad
```

■ Request:

POST <snmp_ip>/api/pdu_mgmt/sched/<ad or u1~u8 or r1~r8 >/one HTTP / 1.1

Host: localhost

Cookie:

trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;nc=00000002;c
nonce=69153d25a8a7a0ae

```
{  
  "one":{ /* array size is 8 */  
    "ctrl":integer,          /*[Control] 1:enable, 0:disable*/  
    "name":" string",  
    "action":integer,       /*1:OnImm, 2:OnDelay, 3:OffImm, 4:OffDelay,  
                           5:CycleImm, 6:CycleDelay */  
    "date":"string",        /* dd/mm/yyyy hh:mm:ss */  
    "bitmap":[[integer, .....],.....[integer, .....]] /* array size 8 * 128 */  
                                                    /* 16PDU * 64Port = 1024bits = 8 * 128 */  
  }  
}
```

■ Response:

http/1.1 200 OK

Set-Cookie:

trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;Max-Age=1800

Accept: application/json

Content-type: application/json

```
{ "error":0 } /* 0:success, 1:error */
```

■ GET

■ Resource URL:

GET <snmp_ip>/api/pdu_mgmt/sched/<ad or u1~u8 or r1~r8 >/one HTTP / 1.1

■ Curl Request:

```
curl -i -X GET -H "Content-Length: 0" --cookie
```



```
"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;  
cnonce=a0b9ac23463677df" -k http://[snmp_ip]/api/pdu_mgmt/sched/ad
```

■ Curl Response:

```
http/1.1 200 OK
```

```
Set-Cookie: trackid=43a46d1edff84557b893947e736ef20d; Path=/; Version=1; Max-  
Age=1800
```

```
Set-Cookie: uid=034f1b705e094a04; Path=/; Version=1; Max-Age=1800
```

```
/* refer POST content */
```

3.5.2. Daily Schedule

■ POST

■ Resource URL:

https://<snmp_ip>/api/pdu_mgmt/sched/<ad or u1~u8 or r1~r8 >/day

■ Curl Request: (Example: Day schedule 1 control)

```
curl -i -X POST -H "Content-Type: application/json" --cookie  
"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;  
cnonce=a0b9ac23463677df" -d '{"day":{"ctrl":[1,0,0,0,0,0,0,0]}}' -k http://  
[snmp_ip]/api/pdu_mgmt/sched/ad
```

■ Request:

POST <snmp_ip>/api/pdu_mgmt/sched/<ad or u1~u8 or r1~r8 >/day HTTP / 1.1

Host: localhost

Cookie:

trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;nc=00000002;c
nonce=69153d25a8a7a0ae

```
{  
  "day":{  
    "ctrl":integer,          /*1:enable, 0:disable*/  
    "name":" string",  
    "action":integer,       /*1:OnImm, 2:OnDelay, 3:OffImm, 4:OffDelay,  
                           5:CycleImm, 6:CycleDelay */  
    "time":"string",       /* hh:mm */  
    "bitmap":[[integer, .....],.....[integer, .....]] /* array size 8 * 128 */  
                                           /* 16PDU * 64Port = 1024bits = 8 * 128 */  
  }  
}
```

■ Response:

http/1.1 200 OK

Set-Cookie:

trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;Max-Age=1800

Accept: application/json

Content-type: application/json

```
{ "error":0 } /* 0:success, 1:error */
```

■ GET

■ Resource URL:

GET <snmp_ip>/api/pdu_mgmt/sched/<ad or u1~u8 or r1~r8 >/day

■ Curl Request:

```
curl -i -X GET -H "Content-Length: 0" --cookie
```

```
"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;  
cnonce=a0b9ac23463677df" -k http://[snmp_ip]/api/pdu_mgmt/sched/ad/day
```

■ Curl Response:

```
http/1.1 200 OK
```

```
Set-Cookie: trackid=43a46d1edff84557b893947e736ef20d; Path=/; Version=1; Max-  
Age=1800
```

```
Set-Cookie: uid=034f1b705e094a04; Path=/; Version=1; Max-Age=1800
```

```
/* refer POST content */
```

3.5.3. Weekly Schedule

■ POST

■ Resource URL:

https://<snmp_ip>/api/pdu_mgmt/sched/<ad or u1~u8 or r1~r8 >/week

■ Curl Request: (Example: Week schedule 1 control)

```
curl -i -X POST -H "Content-Type: application/json" --cookie  
"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;  
cnonce=a0b9ac23463677df" -d '{"week":{"ctrl":[1,0,0,0,0,0,0,0]}}' -k http://  
[snmp_ip]/api/pdu_mgmt/sched/ad
```

■ Request:

POST <snmp_ip>/api/pdu_mgmt/sched/<ad or u1~u8 or r1~r8 >/week HTTP / 1.1

Host: localhost

Cookie:

trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;nc=00000002;c
nonce=69153d25a8a7a0ae

```
{  
  "week":{  
    "ctrl":integer,          /*1:enable, 0:disable*/  
    "name": "string",  
    "action":integer,       /*1:OnImm, 2:OnDelay, 3:OffImm, 4:OffDelay,  
                           5:CycleImm, 6:CycleDelay */  
    "date":integer,        /* (0 ~ 6, Sunday is 0) */  
    "time": "string",      /* hh:mm */  
    "bitmap":[[integer, .....],.....[integer, .....]] /* array size 8 * 128 */  
                                                    /* 16PDU * 64Port = 1024bits = 8 * 128 */  
  }  
}
```

■ Response:

http/1.1 200 OK

Set-Cookie:

trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;Max-Age=1800

Accept: application/json

Content-type: application/json

```
{ "error":0 } /* 0:success, 1:error */
```

■ GET

■ Resource URL:

GET <snmp_ip>/api/pdu_mgmt/sched/<ad or u1~u8 or r1~r8 >/week

■ Curl Request:

```
curl -i -X GET -H "Content-Length: 0" --cookie  
"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;  
cnonce=a0b9ac23463677df" -k http://[snmp_ip]/api/pdu_mgmt/sched/ad/week
```

■ Curl Response:

```
http/1.1 200 OK
```

```
Set-Cookie: trackid=43a46d1edff84557b893947e736ef20d; Path=/; Version=1; Max-  
Age=1800
```

```
Set-Cookie: uid=034f1b705e094a04; Path=/; Version=1; Max-Age=1800
```

```
/* refer POST content */
```

3.6. Grouping

■ POST

■ Resource URL:

https://<snmp_ip>/api/pdu_mgmt/group

■ ~~Curl Request:~~

■ Request:

POST <snmp_ip>/api/pdu_mgmt/group HTTP / 1.1

■ Response:

http/1.1 200 OK

Set-Cookie: trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;Max-Age=1800

Accept: application/json

Content-type: application/json

```
{
  "group":{
    "ad": { /* refer section 3.5.1 */ },
    "u1":{ /* refer section 3.5.1 */ },
    .....,
    "u8":{ /* refer section 3.5.1 */ },
    "r1":{ /* refer section 3.5.1 */ },
    .....,
    "r8":{ /* refer section 3.5.1 */ }
  }
}
```

■ GET

■ Resource URL:

GET <snmp_ip>/api/pdu_mgmt/group

■ Curl Request:

curl -i -X GET -H "Content-Length: 0" --cookie

"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;cnonce=a0b9ac23463677df" -k http://[snmp_ip]/api/pdu_mgmt/group

■ Curl Response:

http/1.1 200 OK

Set-Cookie: trackid=43a46d1edff84557b893947e736ef20d; Path=/; Version=1; Max-Age=1800

Set-Cookie: uid=034f1b705e094a04; Path=/; Version=1; Max-Age=1800

/* refer POST content */

3.6.1. Grouping Setting

■ POST

■ Resource URL:

https://<snmp_ip>/api/dev_mgmt/group/<ad or u1~u8 or r1~r8>

■ Curl Request: (Example: Modify Group1 name)

```
curl -i -X POST -H "Content-Type: application/json" --cookie
"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;
cnonce=a0b9ac23463677df" -d '{"name":["group1", "", "", "", "", "", "", ""]}' -k http://
[snmp_ip]/api/pdu_mgmt/group/ad
```

■ Request:

POST <snmp_ip>/api/dev_mgmt/grp/setting HTTP / 1.1

Host: localhost

Cookie:

trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;nc=00000002;c
nonce=69153d25a8a7a0ae

```
{
  "ad":{
    "name": "string",
    "bitmap": [[integer, .....],.....[integer, .....]] /* array size 8 * 128 */
                                     /* 16PDU*64 = 1024bits = 8 * 128 */
  }
}
```

■ Response:

http/1.1 200 OK

Set-Cookie:

trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;Max-Age=1800

Accept: application/json

Content-type: application/json

```
{ "error":0 } /* 0:success, 1:error */
```

■ GET

■ Resource URL:

GET <snmp_ip>/api/pdu_mgmt/group/<ad or u1~u8 or r1~r8>

■ Curl Request:

```
curl -i -X GET -H "Content-Length: 0" --cookie
"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;
cnonce=a0b9ac23463677df" -k http://[snmp_ip]/api/pdu_mgmt/group/ad
```

■ Curl Response:

http/1.1 200 OK

Set-Cookie: trackid=43a46d1edff84557b893947e736ef20d; Path=/; Version=1; Max-

Age=1800

Set-Cookie: uid=034f1b705e094a04; Path=/; Version=1; Max-Age=1800

/* refer POST content */

4. Network Setting

4.1. TCP/IP

■ POST

■ Resource URL:

https://<snmp_ip>/api/net/tcpip

■ Curl Request: (Example: Enable DHCP)

```
curl -i -X POST -H "Content-Type: application/json" --cookie
```

```
"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;cnonce=a0b9ac23463677df" -d '{"bootp_dhcp":1}' -k http://[snmp_ip]/api/net/tcpip/ipv4
```

■ Request:

POST <snmp_ip>/api/net/tcpip HTTP / 1.1

Host: localhost

Cookie:

```
trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;nc=00000002;cnonce=69153d25a8a7a0ae
```

```
{
  "tcpip":{
    "ipv4":{
      "bootp_dhcp":integer,          /* 0:disabled, 1:enabled */
      "ip_address":"string",
      "gateway_address":"string",
      "subnet_mask":"string",
      "dns_address":["string","string"]
    },
    "ipv6":{
      "ipv6_en":integer,             /* 0:disabled, 1:enabled */
      "config_auto":integer,        /* 0:automatic, 1:DHCPV6 */
                                      /* 2>manual, 3:disable IPV6 */
      "ip_address":"string",
      "prefix_len":integer,
      "router_address":"string",
      "dns_address":["string", "string"]
    }
  }
}
```

■ Response:

http/1.1 200 OK

Set-Cookie: trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;Max-

Age=1800
Accept: application/json
Content-type: application/json
{ "error":0 } /* 0:success, 1:error */

■ GET

■ Resource URL:

GET <snmp_ip>/api/net/tcpip

■ Curl Request:

curl -i -X GET -H "Content-Length: 0" --cookie

"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;cnonce=a0b9ac23463677df" -k http://[snmp_ip]/api/net/tcpip

■ Curl Response:

http/1.1 200 OK

Set-Cookie: trackid=43a46d1edff84557b893947e736ef20d; Path=/; Version=1; Max-Age=1800

Set-Cookie: uid=034f1b705e094a04; Path=/; Version=1; Max-Age=1800

/* refer POST content */

4.2. Dual Ethernet

■ POST

■ Resource URL:

https://<snmp_ip>/api/net/dual_eth

■ Curl Request: (Example: Modify ethernet mode)

curl -i -X POST -H "Content-Type: application/json" --cookie

"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;cnonce=a0b9ac23463677df" -d '{"eth_mode":0}' -k http://[snmp_ip]/api/net/dual_eth

■ Request:

POST <snmp_ip>/api/net/dual_eth HTTP / 1.1

Host: localhost

Cookie:

trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;nc=00000002;cnonce=69153d25a8a7a0ae

{

 "dual_eth":{

 "eth_mode":integer,

 /* Ethernet Mode, range 0 ~ 3 */

 /* 0 is Active-Backup */

 /* 1 is 802.3ad */

 /* 2 is Balance alb */

```

        "eth_down_delay":integer, /* 3 is Bridge */
        "eth_up_delay":integer, /* Down delay, range 0 ~ 65535 */
        "eth_miimon":integer, /* Up delay, range 0 ~ 65535 */
        "eth_primary":integer, /* Miimon(MII monitoring), range 1 ~ 65535 */
        /* Primary device, Only valid Active-Backup */
        /* 0 is eth0, 1 is eth1 */
    }
}

```

- Response:

http/1.1 200 OK

Set-Cookie: trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;Max-Age=1800

Accept: application/json

Content-type: application/json

{ "error":0 } /* 0:success, 1:error */

- GET

- Resource URL:

GET <snmp_ip>/api/net/dual_eth

- Curl Request:

curl -i -X GET -H "Content-Length: 0" --cookie

"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;cnonce=a0b9ac23463677df" -k http://[snmp_ip]/api/net/dual_eth

- Curl Response:

http/1.1 200 OK

Set-Cookie: trackid=43a46d1edff84557b893947e736ef20d; Path=/; Version=1; Max-Age=1800

Set-Cookie: uid=034f1b705e094a04; Path=/; Version=1; Max-Age=1800

/* refer POST content */

4.3. Accessible IP Setting

- POST

- Resource URL:

https://<snmp_ip>/api/net/accessip

- Curl Request: (Example: Modify priority)

curl -i -X POST -H "Content-Type: application/json" --cookie

"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;cnonce=a0b9ac23463677df" -d '{"priority":[0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0]}' -k

http://[snmp_ip]/api/net/accessip

- Request:

POST <snmp_ip>/api/net/accessip HTTP / 1.1

Host: localhost

Cookie:

trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;nc=00000002;cnonc
e=69153d25a8a7a0ae

```
{
  "accessip":{ /* array size is 16 */
    "priority" :[integer, ....., /*range 0~4, 0 is disable */
    "ip_address":["string", .....,
    "prefix_len":[integer, .....,
    "action": [integer, .....] /* 1:Deny, 0:Allow */
  }
}
```

■ Response:

http/1.1 200 OK

Set-Cookie: trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;Max-
Age=1800

Accept: application/json

Content-type: application/json

```
{ "error":0 } /* 0:success, 1:error */
```

■ GET

■ Resource URL:

GET <snmp_ip>/api/net/accessip

■ Curl Request:

curl -i -X GET -H "Content-Length: 0" --cookie

"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;cnonc
e=a0b9ac23463677df" -k http://[snmp_ip]/api/net/accessip

■ Curl Response:

http/1.1 200 OK

Set-Cookie: trackid=43a46d1edff84557b893947e736ef20d; Path=/; Version=1; Max-
Age=1800

Set-Cookie: uid=034f1b705e094a04; Path=/; Version=1; Max-Age=1800

/* refer POST content */

4.4. Security

■ POST

■ Resource URL:

https://<snmp_ip>/api/net/security

■ Curl Request: (Example: Enable Security)

```
curl -i -X POST -H "Content-Type: application/json" --cookie
```

```
"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;cnonce=a0b9ac23463677df" -d '{"access_protect_en":1}' -k http:// [snmp_ip]/api/net/security
```

■ Request:

POST <snmp_ip>/api/net/security HTTP / 1.1

Host: localhost

Cookie:

```
trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;nc=00000002;cnonce=69153d25a8a7a0ae
```

```
{  
  "security":{  
    "access_protect_en":integer, /* 0:Disabled, 1:Enable */  
    "ssh_en":integer, /* 0:Disabled, 1:Enable */  
    "ssh_interval":integer, /* 0:1min, 1:5min, 2:10min, 3:30min */  
    "ssh_time":integer, /* 0:5, 1:10, 2:20, 3:30, 4:100 */  
    "ssh_block":integer, /* 0:5min, 1:30min, 2:1hour, 3:1day */  
    "snmp_en":integer, /* 0:Disabled, 1:Enable */  
    "snmp_interval":integer, /* 0:1min, 1:5min, 2:10min, 3:30min */  
    "snmp_time":integer, /* 0:5, 1:10, 2:20, 3:30, 4:100 */  
    "snmp_block":integer, /* 0:5min, 1:30min, 2:1hour, 3:1day */  
    "http_en":integer, /* 0:Disabled, 1:Enable */  
    "http_interval":integer, /* 0:1min, 1:5min, 2:10min, 3:30min */  
    "http_time":integer, /* 0:5, 1:10, 2:20, 3:30, 4:100 */  
    "http_block":integer, /* 0:5min, 1:30min, 2:1hour, 3:1day */  
  },  
  "ca_upload":{ /* refer section 4.3.1 */  
}
```

■ Response:

http/1.1 200 OK

Set-Cookie: trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;Max-Age=1800

Accept: application/json

Content-type: application/json

```
{ "error":0 } /* 0:success, 1:error */
```

- GET

- Resource URL:

- GET <snmp_ip>/api/net/security

- Curl Request:

- curl -i -X GET -H "Content-Length: 0" --cookie

- "trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;nonce=a0b9ac23463677df" -k http://[snmp_ip]/api/net/security

- Curl Response:

- http/1.1 200 OK

- Set-Cookie: trackid=43a46d1edff84557b893947e736ef20d; Path=/; Version=1; Max-Age=1800

- Set-Cookie: uid=034f1b705e094a04; Path=/; Version=1; Max-Age=1800

- /* refer POST content */

4.4.1. CA Upload

■ POST

■ Request:

POST <snmp_ip>/api/net/security/ca_upload HTTP / 1.1

Host: localhost

Cookie:

trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;nc=00000002;c
nonce=69153d25a8a7a0ae

Content-Type: multipart/form-data; boundary=-----xxxxxx...

Content-Disposition: form-data; filename=ca.sct

/* file content */

■ Response:

http/1.1 200 OK

Set-Cookie:

trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;Max-Age=1800

Accept: application/json

Content-type: application/json

{ "error":0 }

■ GET

■ Resource URL:

GET <snmp_ip>/api/net/security/ca_upload

■ Curl Request:

curl -i -X GET -H "Content-Length: 0" --cookie

"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;
cnonce=a0b9ac23463677df" -k http://[snmp_ip]/api/net/security/ca_upload

■ Curl Response:

http/1.1 200 OK

Set-Cookie: trackid=43a46d1edff84557b893947e736ef20d; Path=/; Version=1; Max-
Age=1800

Set-Cookie: uid=034f1b705e094a04; Path=/; Version=1; Max-Age=1800

{ "progress":integer } /* the uploading % */

4.5. Network Service

■ POST

■ Resource URL:

https://<snmp_ip>/api/net/service

■ Curl Request: (Example: Enable SSH)

```
curl -i -X POST -H "Content-Type: application/json" --cookie  
"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;cnon  
ce=a0b9ac23463677df" -d '{"ssh_en":1}' -k http:// [snmp_ip]/api/net/service
```

■ Request:

POST <snmp_ip>/api/net/service HTTP / 1.1

Host: localhost

Cookie:

trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;nc=00000002;cnonc
e=69153d25a8a7a0ae

```
{  
  "service":{  
    "ssh_en":integer,          /* 0:Disabled, 1:Enable */  
    "ssh_port":integer,  
    "https_en":integer,       /* 0:Disabled, 1:Enable */  
    "https_port":integer,  
    "force_https":integer,    /* 0:Disabled, 1:Enable */  
    "ping_en":integer,        /* 0:Disabled, 1:Enable */  
    "modbus_tcp_en":integer   /* 0:Disabled, 1:Enable */  
    "modbus_tcp_port":integer  
    "radius_en":integer,      /* 0:Disabled, 1:Enable */  
    "radius_ip":"string",  
    "radius_port":integer,  
    "radius_seckey":"string",  
    "radius_timeout":integer,  
    "radius_retry":integer  
  },  
}
```

■ Response:

http/1.1 200 OK

Set-Cookie: trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;Max-
Age=1800

Accept: application/json

Content-type: application/json

```
{ "error":0 }          /* 0:success, 1:error */
```


■ GET

■ Resource URL:

GET <snmp_ip>/api/net/service

■ Curl Request:

```
curl -i -X GET -H "Content-Length: 0" --cookie
```

```
"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;cnonce=a0b9ac23463677df" -k http://[snmp_ip]/api/net/service
```

■ Curl Response:

```
http/1.1 200 OK
```

```
Set-Cookie: trackid=43a46d1edff84557b893947e736ef20d; Path=/; Version=1; Max-Age=1800
```

```
Set-Cookie: uid=034f1b705e094a04; Path=/; Version=1; Max-Age=1800
```

```
/* refer POST content */
```

4.6. SNMP Setting

■ POST

■ Resource URL:

https://<snmp_ip>/api/net/snmp_setting

■ Curl Request: (Example: Enable SNMP)

```
curl -i -X POST -H "Content-Type: application/json" --cookie
```

```
"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;cnonce=a0b9ac23463677df" -d '{"snmp_en":1}' -k http://[snmp_ip]/api/net/snmp_setting
```

■ Request:

```
POST <snmp_ip>/api/net/snmp_setting HTTP / 1.1
```

```
Host: localhost
```

```
Cookie:
```

```
trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;nc=00000002;cnonce=69153d25a8a7a0ae
```

```
Accept: application/json
```

```
Content-type: application/json
```

```
{
```

```
  "snmp_setting":{
```

```
    "snmp_en":integer,                /* 0:Disabled, 1:Enable */
```

```
    "snmp_port":integer,
```

```
    "snmp_ver":integer,              /* 0:v1, 1:v2c, 2:v3 */
```

```
    "v1v2c_read": "string",          /* base64(esp-aes-256-cbc) */
```

```
    "v1v2c_write": "string",         /* base64(esp-aes-256-cbc) */
```

```
    "v3_user": "string",
```

```
    "v3_sec_level":integer,          /* 0:noAuthNoPriv, */
```

```

        "v3_auth_mode":integer,          /* 1:authNoPriv, 2:authPriv */
        "v3_auth_passwd":"string",      /* 0:MD5, 1:SHA */
        "v3_privacy_mode":integer,      /* base64(esp-aes-256-cbc) */
        "v3_privacy_passwd":"string"    /* 0:DES, 1:AES */
    }
}

```

■ Note 1 :

base64(esp-aes-256-cbc) = base64(EVP-AES-256-CBC(password, key(trackid), iv(cnonce)))

■ Response:

http/1.1 200 OK

Set-Cookie: trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;Max-Age=1800

Accept: application/json

Content-type: application/json

```
{ "error":0 }          /* 0:success, 1:error */
```

■ GET

■ Resource URL:

GET <snmp_ip>/api/net/snmp_setting

■ Curl Request:

curl -i -X GET -H "Content-Length: 0" --cookie

"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;cnonce=a0b9ac23463677df" -k http://[snmp_ip]/api/net/snmp_setting

■ Curl Response:

http/1.1 200 OK

Set-Cookie: trackid=43a46d1edff84557b893947e736ef20d; Path=/; Version=1; Max-Age=1800

Set-Cookie: uid=034f1b705e094a04; Path=/; Version=1; Max-Age=1800

/* refer POST content */

4.7. SNMP Trap Setting

■ POST

■ Resource URL:

https://<snmp_ip>/api/net/snmp_trap

■ Curl Request: (Example: Modify tarp 1 ip address)

```
curl -i -X POST -H "Content-Type: application/json" --cookie
```

```
"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;cnonce=a0b9ac23463677df" -d '{"ip_address":["127.0.0.1","","","","","","","","","","","","","","","","",""]}' -k http://[snmp_ip]/api/net/snmp_trap
```

■ Request:

POST <snmp_ip>/api/net/snmp_trap HTTP / 1.1

Host: localhost

Cookie:

```
trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;nc=00000002;cnonce=69153d25a8a7a0ae
```

Accept: application/json

Content-type: application/json

```
{
  "snmp_trap":{      /* array size is 16 */
    "ip_address":["string", .....],
    "evt_lev":[integer, .....],          /* 0: Critical, 1:Warning, 2: Information */
    "trap_ver":[integer, .....],        /* 0:v1, 1:v2c, 2:v3 */
    "desc":["string", .....]
  }
}
```

■ Response:

http/1.1 200 OK

```
Set-Cookie: trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;Max-Age=1800
```

Accept: application/json

Content-type: application/json

```
{"error":0}          /* 0:success, 1:error */
```

■ GET

■ Resource URL:

GET <snmp_ip>/api /net/snmp_trap

■ Curl Request:

```
curl -i -X GET -H "Content-Length: 0" --cookie
```

```
"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;cnonce=a0b9ac23463677df" -k http://[snmp_ip]/api/net/snmp_trap
```

■ Curl Response:

http/1.1 200 OK

Set-Cookie: trackid=43a46d1edff84557b893947e736ef20d; Path=/; Version=1; Max-Age=1800

Set-Cookie: uid=034f1b705e094a04; Path=/; Version=1; Max-Age=1800

/* refer POST content */

4.8. SNMP Trap Test

■ POST

■ Resource URL:

https://<snmp_ip>/api/net/snmp_test

■ Curl Request: (Example: Send test trap 1)

```
curl -i -X POST -H "Content-Type: application/json" --cookie  
"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;cnon  
ce=a0b9ac23463677df" -d '{"send":1}' -k http://[snmp_ip]/api/net/snmp_test
```

■ Request:

POST <snmp_ip>/api/net/snmp_test HTTP / 1.1

Host: localhost

Cookie:

trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;nc=00000002;cnonc
e=69153d25a8a7a0ae

Accept: application/json

Content-type: application/json

```
{  
  "send":integer /*0:nothing, 1~16: send test trap index (0 ~ 15). */  
}
```

■ Response:

http/1.1 200 OK

Set-Cookie: trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;Max-
Age=1800

Accept: application/json

Content-type: application/json

```
{"error":0 } /* 0:success, 1:error */
```

5. General Setting

5.1. System Configuration

■ POST

■ Resource URL:

`https://<snmp_ip>/api/setting/sys_config`

■ Curl Request: (Example: Send test trap 1)

```
curl -i -X POST -H "Content-Type: application/json" --cookie
```

```
"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;cnonce=a0b9ac23463677df" -d '{"sys_name":"SystemName"}' -k
```

```
http://[snmp_ip]/api/setting/sys_config
```

■ Request:

```
POST <snmp_ip>/api/setting/sys_config HTTP / 1.1
```

```
Host: localhost
```

```
Cookie:
```

```
trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;nc=00000002;cnonce=69153d25a8a7a0ae
```

```
Accept: application/json
```

```
Content-type: application/json
```

```
{
```

```
  "sys_config":{
```

```
    "sys_name":"string",
```

```
    "sys_contact":"string",
```

```
    "sys_location":"string",
```

```
    "log_interval":integer,
```

```
    "web_refresh_interval":integer,
```

```
    "web_timeout_en":integer,          /* 0:Enabled, 1:Disabled */
```

```
    "web_timeout_interval":integer,   /* range is 1-3600S */
```

```
    "time_zone":integer,
```

```
    "time_format":integer,            /* 0:dd/mm/yyyy, 1:mm/dd/yyyy, */
```

```
    /* 2:yyyy/mm/dd */
```

```
    "time_set":integer,
```

```
    /* 0:24hr, 1:12hr */
```

```
    "now_time":"string",
```

```
    /* dd/mm/yy */
```

```
    "now_date":"string",
```

```
    /* hh:mm:ss */
```

```
    "ntp_en":integer,
```

```
    /* 0:Enabled, 1:Disabled */
```

```
    "ntp_server":"string",
```

```
    "ntp_sync_interval":integer,
```

```
    "ntp_sync_interval_unit":integer, /* 0:day, 1:month */
```

```
    "daylight_save_en":integer
```

```
}  
}
```

■ Response:

http/1.1 200 OK

Set-Cookie: trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;Max-Age=1800

Accept: application/json

Content-type: application/json

{ "error":0 } /* 0:success, 1:error */

■ GET

■ Resource URL:

GET <snmp_ip>/api /setting/sys_config

■ Curl Request:

curl -i -X GET -H "Content-Length: 0" --cookie

"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;nonce=a0b9ac23463677df" -k http://[snmp_ip]/api/setting/sys_config

■ Curl Response:

http/1.1 200 OK

Set-Cookie: trackid=43a46d1edff84557b893947e736ef20d; Path=/; Version=1; Max-Age=1800

Set-Cookie: uid=034f1b705e094a04; Path=/; Version=1; Max-Age=1800

/* refer POST content */

5.2. Authentication Configuration

■ POST

■ Resource URL:

`https://<snmp_ip>/api/setting/auth_config`

■ Curl Request: (Example: Send test trap 1)

```
curl -i -X POST -H "Content-Type: application/json" --cookie  
"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;cnon  
ce=a0b9ac23463677df" -d '{"admin":"admin"}' -k http://[snmp_ip]/api/setting/auth_config
```

■ Request:

`POST <snmp_ip>/api/setting/auth_config HTTP / 1.1`

Host: localhost

Cookie:

`trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;nc=00000002;cnonc
e=69153d25a8a7a0ae`

Accept: application/json

Content-type: application/json

```
{  
  "auth_config":{  
    "admin_name":"string",  
    "admin_password":"string" /* base64(esp-aes-256-cbc) */  
  }  
}
```

■ Response:

`http/1.1 200 OK`

`Set-Cookie: trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;Max-
Age=1800`

Accept: application/json

Content-type: application/json

```
{ "error":0 } /* 0:success, 1:error */
```

■ GET

■ Resource URL:

`GET <snmp_ip>/api /setting/auth_config`

■ Curl Request:

```
curl -i -X GET -H "Content-Length: 0" --cookie  
"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;cnon  
ce=a0b9ac23463677df" -k http://[snmp_ip]/api/setting/auth_config
```

■ Curl Response:

`http/1.1 200 OK`

`Set-Cookie: trackid=43a46d1edff84557b893947e736ef20d; Path=/; Version=1; Max-`

Age=1800

Set-Cookie: uid=034f1b705e094a04; Path=/; Version=1; Max-Age=1800

/* refer POST content */

5.3. iEC View Management

■ POST

■ Resource URL:

`https://<snmp_ip>/api/setting/iec_mgmt`

■ Curl Request: (Example: Send test trap 1)

```
curl -i -X POST -H "Content-Type: application/json" --cookie  
"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;cnon  
ce=a0b9ac23463677df" -d '{"iec_en":1}' -k http:// [snmp_ip]/api/setting/iec_mgmt
```

■ Request:

`POST <snmp_ip>/api/setting/iec_mgmt HTTP / 1.1`

Host: localhost

Cookie:

`trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;nc=00000002;cnonc
e=69153d25a8a7a0ae`

Accept: application/json

Content-type: application/json

```
{  
  "auth_config": [  
    "iec_en":integer, /* 0:Disabled, 1:Enable */  
    "iec_server_ip":"string",  
    "iec_server_port":"integer",  
    "iec_server_password":"string" /* base64(esp-aes-256-cbc) */  
  ]  
}
```

■ Response:

`http/1.1 200 OK`

`Set-Cookie: trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;Max-
Age=1800`

Accept: application/json

Content-type: application/json

```
{ "error":0 } /* 0:success, 1:error */
```

■ GET

■ Resource URL:

`GET <snmp_ip>/api /setting/iec_mgmt`

■ Curl Request:

```
curl -i -X GET -H "Content-Length: 0" --cookie  
"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;cnon  
ce=a0b9ac23463677df" -k http://[snmp_ip]/api/setting/iec_mgmt
```

■ Curl Response:

http/1.1 200 OK

Set-Cookie: trackid=43a46d1edff84557b893947e736ef20d; Path=/; Version=1; Max-Age=1800

Set-Cookie: uid=034f1b705e094a04; Path=/; Version=1; Max-Age=1800

/* refer POST content */

5.4. Maintenance

■ POST

■ Resource URL:

https://<snmp_ip>/api/setting/maintenance

■ Curl Request: (Example: reboot)

```
curl -i -X POST -H "Content-Type: application/json" --cookie "trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;nonce=a0b9ac23463677df" -d '{"reset_default":2}' -k http://[snmp_ip]/api/setting/maintenance
```

■ Curl Request:(Example:Firmware upgrade)

```
curl -X POST -H "Accept: application/json" --cookie "trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;nonce=a0b9ac23463677df" -F upload_file=@[file_path]/pdu.bin -k http://[snmp_ip]/api/setting/maintenance/fw_update
```

■ Request:

POST <snmp_ip>/api/setting/maintenance HTTP / 1.1

Host: localhost

Cookie:

trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;nc=00000002;nonce=69153d25a8a7a0ae

Accept: application/json

Content-type: application/json

```
{
  "maintenance":{
    "fw_update":{ /* refer section 5.4.1 */ },
    "reset_default":integer,      /* 0:do nothing, 1:reset to default without IP */
                                   /* 2:reboot */
    "suspend_schd":integer,
    "sys_version":"string"      /*Read only*/
  }
}
```

■ Response:

http/1.1 200 OK

Set-Cookie: trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;Max-Age=1800

Accept: application/json

Content-type: application/json

```
{ "error":0 }      /* 0:success, 1:error */
```

■ GET

- Resource URL:
GET <snmp_ip>/api /setting/maintenance
- Curl Request:
curl -i -X GET -H "Content-Length: 0" --cookie
"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;nonce=a0b9ac23463677df" -k http://[snmp_ip]/api/setting/maintenance
- Curl Response:
http/1.1 200 OK
Set-Cookie: trackid=43a46d1edff84557b893947e736ef20d; Path=/; Version=1; Max-Age=1800
Set-Cookie: uid=034f1b705e094a04; Path=/; Version=1; Max-Age=1800

/* refer POST content */

5.4.1. Firmware Update

■ POST

■ Request:

POST <snmp_ip>/api/setting/maintenance/fw_update HTTP / 1.1

Host: localhost

Cookie:

trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;nc=00000002;c
nonce=69153d25a8a7a0ae

Content-Type: multipart/form-data; boundary=-----xxxxxx...

Content-Disposition: form-data; filename=fw.bin

/* file content */

■ Response:

http/1.1 200 OK

Set-Cookie:

trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;Max-Age=1800

Accept: application/json

Content-type: application/json

{ "error":0 }

■ GET

■ Resource URL:

GET <snmp_ip>/api/setting/maintenance/fw_update

■ Curl Request:

curl -i -X GET -H "Content-Length: 0" --cookie

"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;
cnonce=a0b9ac23463677df" -k http://[snmp_ip]/api/setting/maintenance/fw_update

■ Curl Response:

http/1.1 200 OK

Set-Cookie: trackid=43a46d1edff84557b893947e736ef20d; Path=/; Version=1; Max-
Age=1800

Set-Cookie: uid=034f1b705e094a04; Path=/; Version=1; Max-Age=1800

{ "progress":integer } /* the uploading % */

5.5. Import/Export

5.5.1. Import

■ POST

■ Request:

POST <snmp_ip>/api/setting /import HTTP / 1.1

Host: localhost

Cookie:

trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;nc=00000002;c
nonce=69153d25a8a7a0ae

Content-Type: multipart/form-data; boundary=-----xxxxxx...

Content-Disposition: form-data; filename=config.xml

/* file content */

■ Response:

http/1.1 200 OK

Set-Cookie:

trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;Max-Age=1800

Accept: application/json

Content-type: application/json

{ "error":0 }

■ GET

■ Resource URL:

GET <snmp_ip>/api/setting/import

■ Curl Request:

curl -i -X GET -H "Content-Length: 0" --cookie

"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;
cnonce=a0b9ac23463677df" -k http://[snmp_ip]/api/setting/import

■ Curl Response:

http/1.1 200 OK

Set-Cookie: trackid=43a46d1edff84557b893947e736ef20d; Path=/; Version=1; Max-
Age=1800

Set-Cookie: uid=034f1b705e094a04; Path=/; Version=1; Max-Age=1800

Content-type: application/json

{ "progress":integer } /* the uploading % */

5.5.2. Export

- GET

- Resource URL:

GET <snmp_ip>/api/setting /export

Host: localhost

Cookie:

trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;nc=00000002;cnonce=69153d25a8a7a0ae

- Response:

http/1.1 200 OK

Set-Cookie:

trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;Max-Age=1800

Accept: application/json

Content-type: application/json

Contact-Disposition: attachment; filename=conf_file.xml

/* file content */

5.6. Configure SMTP Server

- POST

- Resource URL:

https://<snmp_ip>/api/setting/smtp

- Curl Request: (Example: Modify smtp ip address)

curl -i -X POST -H "Content-Type: application/json" --cookie

"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;cnonce=a0b9ac23463677df" -d '{"smtp_ip":"120.0.0.1"}' -k http://[snmp_ip]/api/setting/smtp

- Request:

POST <snmp_ip>/api/setting/smtp HTTP / 1.1

Host: localhost

Cookie:

trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;nc=00000002;cnonce=69153d25a8a7a0ae

Accept: application/json

Content-type: application/json

{

 "smtp":{

 "smtp_ip":"string" /* string length is 63 */

 "smtp_port":integer,

 "smtp_sender":"string" /* string length is 63 */

 "smtp_subject":"string" /* string length is 31 */


```

    "smtp_auth_en":integer,
    "smtp_auth_user":"string",      /* string length is 31 */
    "smtp_auth_passwd":"string"    /* string length is 31, base64(esp-aes-256-cbc) */
  }
}

```

- Response:

http/1.1 200 OK

Set-Cookie: trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;Max-Age=1800

Accept: application/json

Content-type: application/json

```
{ "error":0 }      /* 0:success, 1:error */
```

- GET

- Resource URL:

GET <snmp_ip>/api /setting/smtp

- Curl Request:

```
curl -i -X GET -H "Content-Length: 0" --cookie
```

```
"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;nonce=a0b9ac23463677df" -k http://[snmp_ip]/api/setting/smtp
```

- Curl Response:

http/1.1 200 OK

Set-Cookie: trackid=43a46d1edff84557b893947e736ef20d; Path=/; Version=1; Max-Age=1800

Set-Cookie: uid=034f1b705e094a04; Path=/; Version=1; Max-Age=1800

```
/* refer POST content */
```

5.7. Email Notification Setting

■ POST

■ Resource URL:

https://<snmp_ip>/api/setting/mail_notify

■ Curl Request: (Example: modify mail 1 type)

```
curl -i -X POST -H "Content-Type: application/json" --cookie
```

```
"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;cnon
```

```
ce=a0b9ac23463677df" -d '{"reset_mail_type":[1,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0]}' -k
```

```
http://[snmp_ip]/api/setting/mail_notify
```

■ Request:

POST <snmp_ip>/api/setting/mail_notify HTTP / 1.1

Host: localhost

Cookie:

```
trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;nc=00000002;cnonc
```

```
e=69153d25a8a7a0ae
```

Accept: application/json

Content-type: application/json

```
{
```

```
  "mail_notify":{ /* array size is 16 *
```

```
    "recv_address":["string", .....],
```

```
    "mail_type": [integer, .....], /*0:none, 1:events, 2:events/status*/
```

```
    "evt_lev":[integer, .....], /* 0: Critical, 1:Warning, 2: Information */
```

```
    "desc":["string", .....]
```

```
  }
```

```
}
```

■ Response:

http/1.1 200 OK

```
Set-Cookie: trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;Max-
```

```
Age=1800
```

Accept: application/json

Content-type: application/json

```
{ "error":0 } /* 0:success, 1:error */
```

■ GET

■ Resource URL:

GET <snmp_ip>/api /setting/email_notify

■ Curl Request:

```
curl -i -X GET -H "Content-Length: 0" --cookie
```

```
"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;cnon
```

```
ce=a0b9ac23463677df" -k http://[snmp_ip]/api/setting/email_notify
```

■ Curl Response:

http/1.1 200 OK

Set-Cookie: trackid=43a46d1edff84557b893947e736ef20d; Path=/; Version=1; Max-Age=1800

Set-Cookie: uid=034f1b705e094a04; Path=/; Version=1; Max-Age=1800

/* refer POST content */

5.8. Send Test Mail

■ POST

■ Resource URL:

https://<snmp_ip>/api/setting/test_mail

■ Curl Request: (Example: send test mail 1)

```
curl -i -X POST -H "Content-Type: application/json" --cookie  
"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;cnon  
ce=a0b9ac23463677df" -d '{"send":1}' -k http://[snmp_ip]/api/setting/test_mail
```

■ Request:

POST <snmp_ip>/api/net/snmp_test HTTP / 1.1

Host: localhost

Cookie:

trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;nc=00000002;cnonc
e=69153d25a8a7a0ae

Accept: application/json

Content-type: application/json

```
{  
    "send":integer    /*0:nothing, 1~16: send test trap index (0 ~ 15). */  
}
```

■ Response:

http/1.1 200 OK

Set-Cookie: trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;Max-
Age=1800

Accept: application/json

Content-type: application/json

```
{"error":0}    /* 0:success, 1:error */
```

5.9. Local User

■ POST

■ Resource URL:

https://<snmp_ip>/api/setting/local_user

■ Curl Request: (Example: send test mail 1)

```
curl -i -X POST -H "Content-Type: application/json" --cookie  
"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;cnon  
ce=a0b9ac23463677df" -d '{"name":["test1","","","","","","",""]}' -k  
http://[snmp_ip]/api/setting/local_user
```

■ Request:

POST <snmp_ip>/api/setting/local_user HTTP / 1.1

Host: localhost

Cookie:

trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;nc=00000002;cnonc
e=69153d25a8a7a0ae

Accept: application/json

Content-type: application/json

```
{
  "local_user":{
    "name":["string", .....], /* array size 8 */
    "password":"string", /* base64(esp-aes-256-cbc) */
    "privilege":integer, /* 2: Outlet Manager, 1:User */
    "bitmap":[[integer, .....],.....[integer, .....]] /* array size 8 * 128 */
/* 16PDU * 64Port = 1024bits = 8 * 128 */
  }
}
```

■ Response:

http/1.1 200 OK

Set-Cookie: trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;Max-
Age=1800

Accept: application/json

Content-type: application/json

{ "error":0 } /* 0:success, 1:error */

■ GET

■ Resource URL:

GET <snmp_ip>/api /setting/local_user

■ Curl Request:

curl -i -X GET -H "Content-Length: 0" --cookie

"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;cnonc
e=a0b9ac23463677df" -k http://[snmp_ip]/api/setting/local_user

■ Curl Response:

http/1.1 200 OK

Set-Cookie: trackid=43a46d1edff84557b893947e736ef20d; Path=/; Version=1; Max-
Age=1800

Set-Cookie: uid=034f1b705e094a04; Path=/; Version=1; Max-Age=1800

/* refer POST content */

5.10. Radius User

■ POST

■ Resource URL:

https://<snmp_ip>/api/setting/radius_user

■ Curl Request: (Example: send test mail 1)

```
curl -i -X POST -H "Content-Type: application/json" --cookie  
"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;cnon  
ce=a0b9ac23463677df" -d '{"name":["test1","","","","","","","",""]}' -k  
http://[snmp_ip]/api/setting/radius_user
```

■ Request:

POST <snmp_ip>/api/setting/radius_user HTTP / 1.1

Host: localhost

Cookie:

trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;nc=00000002;cnonc
e=69153d25a8a7a0ae

Accept: application/json

Content-type: application/json

```
{  
  "radius_user":{  
    "name":"string",  
    "privilege":integer,      /* 2: Outlet Manager, 1:User */  
    "bitmap":[[integer, .....],.....[integer, .....]] /* array size 8 * 128 */  
                                     /* 16PDU * 64Port = 1024bits = 8 * 128 */  
  }  
}
```

■ Response:

http/1.1 200 OK

Set-Cookie: trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;Max-
Age=1800

Accept: application/json

Content-type: application/json

```
{ "error":0 } /* 0:success, 1:error */
```

■ GET

■ Resource URL:

GET <snmp_ip>/api /setting/radius_user

■ Curl Request:

```
curl -i -X GET -H "Content-Length: 0" --cookie
```

```
"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;cnon
```

ce=a0b9ac23463677df" -k http://[snmp_ip]/api/setting/radius_user

■ Curl Response:

http/1.1 200 OK

Set-Cookie: trackid=43a46d1edff84557b893947e736ef20d; Path=/; Version=1; Max-Age=1800

Set-Cookie: uid=034f1b705e094a04; Path=/; Version=1; Max-Age=1800

/* refer POST content */

5. Logs

6.1. System Log

Get system log.

- Request URL:

https://<snmp_ip>/api/logs/sys_log

- Request:

GET

<snmp_ip>/api/logs/sys_log?startIdx=integer&displayNum=integer&eventLevel=integer&lang=en_US&time1=dd/mm/yyyy&time2=dd/mm/yyyy HTTP 1.1

Host: localhost

Cookie:

trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;nc=00000002;nonce=69153d25a8a7a0ae

Name	Description
startIdx	the offset of log from specific datetime
displayNum	log count, which will be displayed on the web page
eventLevel	2:Information(include Warning and Critical), 1:Warning(include Critical), 0:Critical
lang	en_US, de_DE, es_ES, user_1, user_2
time1	start date (if there is no time1, read from the last log)
time2	end date (time1 and time2 must be paired, otherwise an error will be returned)

- Request:

HTTP/1.1 200 OK

Set-Cookie: trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;Max-Age=1800

Accept: application/json

Content-type: application/json

```
{
  "total_count":integer,
  "return_count":integer,
  "log_data":[
    {
      "date":"string",          /* data is returned from startIdx */
      "time":"string",
      "log_level":integer,     /* refer eventLevel */
      "description":"string"
    },
    .....
  ]
}
```


}

6.2. Event Log

Get event log.

■ Request URL:

https://<snmp_ip>/api/logs/evt_log

■ Request:

GET

<snmp_ip>/api/logs/evt_log?startIdx=integer&displayNum=integer&eventLevel=integer&dev=string&lang=en_US&time1=dd/mm/yyyy&time2=dd/mm/yyyy HTTP 1.1

Host: localhost

Cookie:

trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;nc=00000002;nonce=69153d25a8a7a0ae

Name	Description
startIdx	the offset of log from specific datetime
displayNum	log count, which will be displayed on the web page
eventLevel	2:Information(include Warning and Critical), 1:Warning(include Critical), 0:Critical
dev	device name
lang	en_US, de_DE, es_ES, user_1, user_2
time1	start date (if there is no time1, read from the last log)
time2	end date (time1 and time2 must be paired, otherwise an error will be returned)

■ Request:

HTTP/1.1 200 OK

Set-Cookie: trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;Max-Age=1800

Accept: application/json

Content-type: application/json

```
{
  "total_count":integer,
  "return_count":integer,
  "log_data":[
    {
      "date":"string",          /* data is returned from startIdx */
      "time":"string",
      "log_level":integer,     /* refer eventLevel */
      "description":"string"
    },
    .....
  ]
}
```

}

6.3. Inlet History Log

Get inlet event log.

■ Request URL:

https://<snmp_ip>/api/logs/inlet_log

■ Request:

GET

<snmp_ip>/api/logs/inlet_log?startIdx=integer&displayNum=integer&eventLevel=integer&dev_idx=integer&lang=en_US&time1=dd/mm/yyyy&time2=dd/mm/yyyy HTTP 1.1

Host: localhost

Cookie:

trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;nc=00000002;nonce=69153d25a8a7a0ae

Name	Description
startIdx	the offset of log from specific datetime
displayNum	log count, which will be displayed on the web page
eventLevel	2:Information(include Warning and Critical), 1:Warning(include Critical), 0:Critical
dev_idx	pdu device index. 0 is master, 1 is salve01 ... 15 is salve15.
lang	en_US, de_DE, es_ES, user_1, user_2
time1	start date (if there is no time1, read from the last log)
time2	end date (time1 and time2 must be paired, otherwise an error will be returned)
drawUi	Draw UI (Option)

■ Request:

HTTP/1.1 200 OK

Set-Cookie: trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;Max-Age=1800

Accept: application/json

Content-type: application/json

{

 "total_count":integer,

 "return_count":integer,

 "log_data":[

 {

 "date":"string", /* data is returned from startIdx */

 "time":"string",

 "pdu":"string",

 "power":integer,

 "power_max":integer,

 "energy":integer,

```

        "current_ph1_b1":integer,
        " current_ph1_b2":integer,
        " current_ph1":integer,
        " current_ph1_max":integer,
        "current_ph2_b1":integer,
        " current_ph2_b2":integer,
        " current_ph2":integer,
        " current_ph2_max":integer,
        "current_ph3_b1":integer,
        " current_ph3_b2":integer,
        " current_ph3":integer,
        " current_ph3_max":integer,
        "volt_ph1":integer,
        "volt_ph2":integer,
        "volt_ph3":integer,
        "pf_ph1_b1":integer,
        "pf_ph1_b2":integer,
        "pf_ph2_b1":integer,
        "pf_ph2_b2":integer,
        "pf_ph3_b1":integer,
        "pf_ph3_b2":integer,
        "freq_ph1":integer,
        "freq_ph2":integer,
        "freq_ph3":integer,
        "dev_idx":integer      /* When draw UI = 1*/
    },
    .....
]
}

```

6.4. Outlet History Log

Get outlet event log.

- Request URL:

https://<snmp_ip>/api/logs/outlet_log

- Request:

GET

<snmp_ip>/api/

logs/outlet_log?startIdx=integer&displayNum=integer&eventLevel=integer&dev_idx=integer&ole
t_dev=integer&lang=en_US&time1=dd/mm/yyyy&time2=dd/mm/yyyy HTTP 1.1

Host: localhost

Cookie:

trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;nc=00000002;cnonce=69153d25a8a7a0ae

Name	Description
startIdx	the offset of log from specific datetime
displayNum	log count, which will be displayed on the web page
eventLevel	2:Information(include Warning and Critical), 1:Warning(include Critical), 0:Critical
dev_idx	pdu device index. 0 is master, 1 is salve01 ... 15 is salve15.
olet_idx	outlet index.
lang	en_US, de_DE, es_ES, user_1, user_2
time1	start date (if there is no time1, read from the last log)
time2	end date (time1 and time2 must be paired, otherwise an error will be returned)
drawUi	Draw UI (Option)

■ Request:

HTTP/1.1 200 OK

Set-Cookie: trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;Max-Age=1800

Accept: application/json

Content-type: application/json

```
{
  "total_count":integer,
  "return_count":integer,
  "log_data":[
    {
      "date":"string",          /* data is returned from startIdx */
      "time":"string",
      "pdu":"string",
      "outlet":"string",
      "power":integer,
      "power_max":integer
      "energy":integer,
      "current":integer,
      "pf":integer,
      "freq":integer,
      "dev_idx":integer,       /* When draw UI = 1*/
      "olet_idx":integer      /* When draw UI = 1*/
    },
    .....
  ]
}
```

6.5. Environment Log

Get inlet event log.

■ Request URL:

`https://<snmp_ip>/api/logs/emd_log`

■ Request:

GET

`<snmp_ip>/api/logs/emd_log?startIdx=integer&displayNum=integer&eventLevel=integer&dev_idx=integer&emd_idx=integer&lang=en_US&time1=dd/mm/yyyy&time2=dd/mm/yyyy HTTP 1.1`

Host: localhost

Cookie:

`trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;nc=00000002;nonce=69153d25a8a7a0ae`

Name	Description
startIdx	the offset of log from specific datetime
displayNum	log count, which will be displayed on the web page
eventLevel	2:Information(include Warning and Critical), 1:Warning(include Critical), 0:Critical
dev_idx	pdu device index. 0 is master, 1 is salve01 ... 15 is salve15. -1 is all
emd_idx	emd device index, 0 is emd-1, ..., 7 is emd-8, -1 is all
lang	en_US, de_DE, es_ES, user_1, user_2
time1	start date (if there is no time1, read from the last log)
time2	end date (time1 and time2 must be paired, otherwise an error will be returned)

■ Request:

HTTP/1.1 200 OK

Set-Cookie: trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;Max-Age=1800

Accept: application/json

Content-type: application/json

{

 "total_count":integer,

 "return_count":integer,

 "log_data":[

 {

 "date":"string", /* data is returned from startIdx */

 "time":"string",

 "dev_idx":integer,

 "emd_idx":integer,

 "temp":integer,

 "humi":integer,

 },

```

.....
]
}

```

6.6. Syslog Setting

■ POST

■ Resource URL:

https://<snmp_ip>/api/logs/syslog_setting

■ Curl Request: (Example: enable syslog)

```
curl -i -X POST -H "Content-Type: application/json" --cookie
```

```
"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;cnon
ce=a0b9ac23463677df" -d '{"sys_evt_log":{"sys_evt_log_en":0}}' -k
```

```
http://[snmp_ip]/api/logs/syslog_setting
```

■ Request:

```
POST <snmp_ip>/api/logs/syslog_setting HTTP / 1.1
```

```
Host: localhost
```

```
Cookie:
```

```
trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;nc=00000002;cnonc
e=69153d25a8a7a0ae
```

```
Accept: application/json
```

```
Content-type: application/json
```

```
{
  "syslog_settting":{
    "sys_evt_log":{
      "sys_evt_log_en":integer, /* 0:Disabled, 1:Enable */
      "ip_address":"string",
      "port":integer
    },
    "his_log":{
      "his_log_en":integer, /* 0:Disabled, 1:Enable */
      "ip_address":"string",
      "port":integer
    }
  }
}
```

■ Response:

```
http/1.1 200 OK
```

```
Set-Cookie: trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;Max-
Age=1800
```

```
Accept: application/json
```

Content-type: application/json
{ "error":0 } /* 0:success, 1:error */

■ GET

■ Resource URL:

GET <snmp_ip>/api /logs/syslog_setting

■ Curl Request:

curl -i -X GET -H "Content-Length: 0" --cookie

"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;cnonce=a0b9ac23463677df" -k http://[snmp_ip]/api/logs/syslog_setting

■ Curl Response:

http/1.1 200 OK

Set-Cookie: trackid=43a46d1edff84557b893947e736ef20d; Path=/; Version=1; Max-Age=1800

Set-Cookie: uid=034f1b705e094a04; Path=/; Version=1; Max-Age=1800

/* refer POST content */

6.7. Clear and Save Log

6.7.1. Save Log

6.7.2. Save system log.

■ Resource URL:

https://<snmp_ip>/api/ logs/save_log/sys_log

■ Request:

GET < snmp_ip>/api/logs/save_log/sys_log?lang=en_US HTTP 1.1

Host: localhost

Cookie:

trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;nc=00000002;cnonce=69153d25a8a7a0ae

Name	Description
lang	en_US, de_DE, es_ES, user_1, user_2

■ Response:

HTTP/1.1 200 OK

Set-Cookie:

trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;Max-Age=1800

Content-type: text/csv

Content-Disposition: attachment; filename=SystemLog.csv

/* file content */

6.7.3. Save event log.

- Resource URL:
https://<snmp_ip>/api/logs/save_log/evt_log
 - Resource URL:
GET < snmp_ip>/api/logs/save_log/evt_log?lang=en_US HTTP 1.1
Host: localhost
Cookie:
trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;nc=00000002;c
nonce=69153d25a8a7a0ae
- | Name | Description |
|------|-------------------------------------|
| lang | en_US, de_DE, es_ES, user_1, user_2 |
- Response:
HTTP/1.1 200 OK
Set-Cookie:
trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;Max-Age=1800
Content-type: text/csv
Content-Disposition: attachment; filename=EventLog.csv
/* file content

6.7.4. Save inlet log.

- Resource URL:
https://<snmp_ip>/api/logs/save_log/inlet_log
 - Resource URL:
GET < snmp_ip>/api/logs/save_log/inlet_log?lang=en_US HTTP 1.1
Host: localhost
Cookie:
trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;nc=00000002;c
nonce=69153d25a8a7a0ae
- | Name | Description |
|------|-------------------------------------|
| lang | en_US, de_DE, es_ES, user_1, user_2 |
- Response:
HTTP/1.1 200 OK
Set-Cookie:
trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;Max-Age=1800
Content-type: text/csv
Content-Disposition: attachment; filename=InletHistoryLog.csv
/* file content

6.7.5. Save outlet log.

- Resource URL:
https://<snmp_ip>/api/logs/save_log/outlet_log

- Resource URL:
GET < snmp_ip>/api/logs/save_log/outlet_log?lang=en_US HTTP 1.1
Host: localhost
Cookie:
trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;nc=00000002;c
nonce=69153d25a8a7a0ae

Name	Description
lang	en_US, de_DE, es_ES, user_1, user_2

- Response:
HTTP/1.1 200 OK
Set-Cookie:
trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;Max-Age=1800
Content-type: text/csv
Content-Disposition: attachment; filename=OutletHistoryLog.csv
/* file conctect

6.7.6. Save emd log.

- Resource URL:
https://<snmp_ip>/api/logs/save_log/emd_log
- Resource URL:
GET < snmp_ip>/api/logs/save_log/emd_log?lang=en_US HTTP 1.1
Host: localhost
Cookie:
trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;nc=00000002;c
nonce=69153d25a8a7a0ae

Name	Description
lang	en_US, de_DE, es_ES, user_1, user_2

- Response:
HTTP/1.1 200 OK
Set-Cookie:
trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;Max-Age=1800
Content-type: text/csv
Content-Disposition: attachment; filename=EmdHistoryLog.csv
/* file conctect

6.7.7. Clear Log

Clear system log, event log and inlet history log and outlet history log and env log.

- Resource URL:
https://<snmp_ip>/api/logs/delete_log
- Resource URL:

DELETE < snmp

_ip>/api/logs/delete_log?sys_log=integer&evt_log=integer&inlet_log=integer&outlet_log=integer&emd_log=integer HTTP 1.1

Host: localhost

Cookie:

trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;nc=00000002;cnonce=69153d25a8a7a0ae

Name	Description
integer	0:doesn't delete, 1:delete

■ Response:

HTTP/1.1 200 OK

Set-Cookie: trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;Max-Age=1800

Content-type: application/json

Accept: application/json

Content-type: application/json

{ "error":integer } /* 0:success, 1:error */

7. Advanced

7.1. Multi-Language

7.1.1. Web and Event string

- POST language #1

- Resource URL:

- https://<snmp_ip>/api/advance/multi_lang/string_conf?lang=1

- Request:

- POST <snmp_ip>/api advance/multi_lang/string_conf?lang=1 HTTP / 1.1

- Host: localhost

- Cookie:

- trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;nc=00000002;c

- nonce=69153d25a8a7a0ae

- Accept: application/json

- Content-type: application/json

- {
 - “lang_config”:{
 - “usr_1_name”:”string”,
 - “usr_1_enable”:integer, /* 0:disabled, 1:enabled */
 - “serial”:integer
 - “timestamp”:”string” /* 2020-02-06T03:32:34.519Z */
 - },
 - “web”:{
 - “key1”:”string”,
 - “key2”:”string”,
 -
 - },
 - “event”:{
 - “key1”:”string”,
 - “key2”:”string”,
 -
 - }

- key1 to keyn in web object will be replaced by Appendix 2. Page String List.

- key1 to keyn in event object will be replaced by id field of langEventList in Appendix 3.

- Response:

- http/1.1 200 OK

- Set-Cookie:

```
trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;Max-Age=1800
Accept: application/json
Content-type: application/json
{ "error":0 }      /* 0:success, 1:error */
```

■ POST language #2

■ Resource URL:

```
https://<snmp_ip>/api/advance/multi_lang/string_conf?lang=2
```

■ Request:

```
POST <snmp_ip>/api advance/multi_lang/string_conf?lang=2 HTTP / 1.1
```

```
Host: localhost
```

```
Cookie:
```

```
trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;nc=00000002;c
nonce=69153d25a8a7a0ae
```

```
Accept: application/json
```

```
Content-type: application/json
```

```
{
  "lang_config":{
    "usr_2_name":"string",
    "usr_2_enable":integer,      /* 0:disabled, 1:enabled */
    "serial":integer
    "timestamp":"string"      /* 2020-02-06T03:32:34.519Z */
  },
  "web":{
    "key1":"string",
    "key2":"string",
    .....
  },
  "event":{
    "key1":"string",
    "key2":"string",
    .....
  }
}
```

key1 to keyn in web object will be replaced by Appendix 2. Page String List.

key1 to keyn in event object will be replaced by id field of langEventList in Appendix 3.

■ Response:

```
http/1.1 200 OK
```

```
Set-Cookie:
```

```
trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;Max-Age=1800
```

```
Accept: application/json
```

Content-type: application/json
{ "error":0 } /* 0:success, 1:error */

- Get language #2
 - Resource URL:
https://<snmp_ip>/api/advance/multi_lang/string_conf?lang=n
 - Request:
GET <snmp_ip>/api advance/multi_lang/string_conf?lang=n HTTP / 1.1
Cookie:
trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;nc=00000002;c
nonce=69153d25a8a7a0ae
 - Response:
http/1.1 200 OK
Set-Cookie:
trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;Max-Age=1800
Accept: application/json
Content-type: application/json
/* refer POST content */

7.1.2. Upload/Download

- Download language #1
 - Resource URL:
https://<snmp_ip>/api/advance/multi_lang/download?lang=1
 - Request:
GET <snmp_ip>/api advance/multi_lang/download?lang=1 HTTP / 1.1
Cookie:
trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;nc=00000002;c
nonce=69153d25a8a7a0ae
 - Response:
http/1.1 200 OK
Set-Cookie:
trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;Max-Age=1800
Accept: application/octet-stream
Content-Disposition: attachment; filename=sps_lang1
/* file content */
- Download language #2
 - Resource URL:
https://<snmp_ip>/api/advance/multi_lang/download?lang=2
 - Request:
GET <snmp_ip>/api advance/multi_lang/download?lang=2 HTTP / 1.1
Cookie:

trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;nc=00000002;c
nonce=69153d25a8a7a0ae

■ Response:

http/1.1 200 OK

Set-Cookie:

trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;Max-Age=1800

Accept: application/octet-stream

Content-Disposition: attachment; filename=sps_lang2

/* file content */

■ Upload language

■ Resource URL:

https://<snmp_ip>/api/advance/multi_lang/upload

■ Request:

POST <snmp_ip>/api/advance/multi_lang/upload HTTP / 1.1

Host: localhost

Cookie:

trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;nc=00000002;c
nonce=69153d25a8a7a0ae

Content-Type: multipart/form-data; boundary=-----xxxxxx...

Content-Disposition: form-data; filename=sps_lang

/* file content */

■ Response:

http/1.1 200 OK

Set-Cookie:

trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;Max-Age=1800

Accept: application/json

Content-type: application/json

{ "error":integer } /* 0:success, 1:error */

■ Get upload status

■ Resource URL:

https://<snmp_ip>/api/advance/multi_lang/upload

■ Resource URL:

GET <snmp_ip>/api/advance/multi_lang/upload

■ Curl Request:

curl -i -X GET -H "Content-Length: 0" --cookie

"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;
cnonce=a0b9ac23463677df" -k http://[snmp_ip]/api/advance/multi_lang/upload

■ Curl Response:

http/1.1 200 OK

```

Set-Cookie: trackid=43a46d1edff84557b893947e736ef20d; Path=/; Version=1; Max-Age=1800
Set-Cookie: uid=034f1b705e094a04; Path=/; Version=1; Max-Age=1800
Content-type: application/json
{ "progress":integer }          /* the uploading % */

```

7.2. WiFi Configuration

- POST

- Resource URL:

```
https://<snmp_ip>/api/advance/wifi_conf
```

- Curl Request: (Example: enable wifi control)

```

curl -i -X POST -H "Content-Type: application/json" --cookie
"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;
cnonce=a0b9ac23463677df" -d '{"manu_setting":{"wifi_ctrl":1}}' -k
http://[snmp_ip]/api/advance/wifi_conf

```

- Request:

```
POST <snmp_ip>/api/advance/wifi_conf HTTP / 1.1
```

```
Host: localhost
```

```
Cookie:
```

```
trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;nc=00000002;c
nonce=69153d25a8a7a0ae
```

```
Accept: application/json
```

```
Content-type: application/json
```

```

{
  "manu_setting":{
    "wifi_ctrl":integer,          /* 0:disabled, 1:enabled */
    "wifi_ssid":"string",
    "wifi_psw":"string",         /* refer note 1 */
    "wifi_encryption":integer,   /* 0:none, 1:WEP, 2:WPA-PSK, 3:WPA2-PSK */
    "wifi_security":integer,     /* 0:none, 1:TKIP, 2:AES, 3:TKIP + AES */
    "wifi_set":integer           /* setting index, manual setting is 16 */
  },
  "status":{
    "conn_status":integer,       /* 0:disconnection, 1:Associated, 2:connection
*/
    "ip_addr":"string",
    "net_mask":"string",
    "gw_addr":"string",
    "mac_addr":"string"
  },

```

"reconnect":integer

 }

■ Response:

http/1.1 200 OK

Set-Cookie:

trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;Max-Age=1800

Accept: application/json

Content-type: application/json

{ "error":integer } /* 0:success, 1:error */

■ Get

■ Resource URL:

https://<snmp_ip>/api/advance/wifi_conf

■ Curl Request:

curl -i -X GET -H "Content-Length: 0" --cookie

"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;
cnonce=a0b9ac23463677df" -k http://[snmp_ip]/api/advance/wifi_conf

■ Curl Response:

http/1.1 200 OK

Set-Cookie: trackid=43a46d1edff84557b893947e736ef20d; Path=/; Version=1; Max-Age=1800

Set-Cookie: uid=034f1b705e094a04; Path=/; Version=1; Max-Age=1800

/* refer POST content */

7.3. SMS Configuration

7.3.1. SMS Setting

■ POST

■ Resource URL:

https://<snmp_ip>/api/advance/sms_conf/setting

■ Curl Request: (Example: enable sms control)

```
curl -i -X POST -H "Content-Type: application/json" --cookie  
"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;  
cnonce=a0b9ac23463677df" -d '{"sms_ctrl":1}' -k  
http://[snmp_ip]/api/advance/sms_conf
```

■ Request:

POST <snmp_ip>/api advance/sms_conf/setting HTTP / 1.1

Host: localhost

Cookie:

trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;nc=00000002;c
nonce=69153d25a8a7a0ae

Accept: application/json

Content-type: application/json

```
{  
    "sms_ctrl":integer,          /* 0:disabled, 1:enabled */  
    "sms_auth":integer,         /* 0:disabled, 1:enabled */  
    "pin_code"::"string",       /* base64(aes-cbc-256(pin_code)) */  
    "phone":["string", .....], /* array size is 16, the order in object, start from 0 */  
    "severity":[integer, .....], /* 0:information, 1:warning, 2:critical */  
    "body":["string", .....], /* prefix body */  
    "action":[integer, .....] /* 0:disabled, 1:enabled */  
    "condition":[integer, .....] /* prefix checkbox, 0:disabled, 1:enabled */  
    "filter":[[integer, .....], .....] /* event filter, array size is 8 * 32 */  
}
```

condition	bit0:prefix
-----------	-------------

■ Note 1 :

base64(evpc-aes-256-cbc) = base64(EVP-AES-256-CBC(password, key(trackid), iv(cnonce)))

■ Response:

http/1.1 200 OK

Set-Cookie:

trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;Max-Age=1800

Accept: application/json

Content-type: application/json

```
{ "error":integer } /* 0:success, 1:error */
```

- Get

- Resource URL:

- https://<snmp_ip>/api/advance/sms_conf/setting

- Curl Request:

- curl -i -X GET -H "Content-Length: 0" --cookie

- "trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;
cnonce=a0b9ac23463677df" -k http://[snmp_ip]/api/advance/sms_conf/setting

- Curl Response:

- http/1.1 200 OK

- Set-Cookie: trackid=43a46d1edff84557b893947e736ef20d; Path=/; Version=1; Max-Age=1800

- Set-Cookie: uid=034f1b705e094a04; Path=/; Version=1; Max-Age=1800

```
/* refer POST content */
```

7.3.2. SMS Test

■ POST

■ Resource URL:

https://<snmp_ip>/api/advance/sms_conf/test

■ Curl Request: (Example: send test sms 1)

```
curl -i -X POST -H "Content-Type: application/json" --cookie  
"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;  
cnonce=a0b9ac23463677df" -d '{"send":1}' -k  
http://[snmp_ip]/api/advance/sms_conf/test
```

■ Request:

POST <snmp_ip>/api advance/sms_conf/test HTTP / 1.1

Host: localhost

Cookie:

trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;nc=00000002;c
nonce=69153d25a8a7a0ae

Accept: application/json

Content-type: application/json

{

 "snd":integer /*0:nothing, 1~16: send test trap index (0 ~ 15). */

}

■ Response:

http/1.1 200 OK

Set-Cookie:

trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;Max-Age=1800

Accept: application/json

Content-type: application/json

{ "error":integer } /* 0:success, 1:error */

3. External Link

Get external link.

- Resource URL:

`https://< snmp _ip>/api/external_link`

- Request:

`GET <sps_ip>/api/external_link HTTP 1.1`

Host: localhost

Cookie:

`trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;nc=00000002;cnonce=69153d25a8a7a0ae`

- Response:

`HTTP/1.1 200 OK`

`Set-Cookie: trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;Max-Age=1800`

`Accept: application/json`

`Content-type: application/json`

```
{
  "screen_text":["string",.....],          /* array size is 4 */
  "link_addr":["string", .....],
  "status":[integer, .....]              /* 0:hide, 1:show */
}
```

9. Manufacture

9.1.1. Upload inlet/outlet firmware

■ POST

■ Request:

POST <snmp_ip>/api/manufacture/fw_dev/upload HTTP / 1.1

Host: localhost

Cookie:

trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;nc=00000002;c
nonce=69153d25a8a7a0ae

Content-Type: multipart/form-data; boundary=-----xxxxxx...

Content-Disposition: form-data; filename=fw.485

/* file content */

■ Response:

http/1.1 200 OK

Set-Cookie:

trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;Max-Age=1800

Accept: application/json

Content-type: application/json

{ "error":0 }

■ GET

■ Resource URL:

GET <snmp_ip>/api/manufacture/fw_dev/upload

■ Curl Request:

curl -i -X GET -H "Content-Length: 0" --cookie

"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;
cnonce=a0b9ac23463677df" -k http://[snmp_ip]/api/fw_dev/upload

■ Curl Response:

http/1.1 200 OK

Set-Cookie: trackid=43a46d1edff84557b893947e736ef20d; Path=/; Version=1; Max-
Age=1800

Set-Cookie: uid=034f1b705e094a04; Path=/; Version=1; Max-Age=1800

Content-type: application/json

{

 "upload_progress":integer, /* the uploading % */

 "img_size":integer,

 "img_type":[integer,],

 "img_ver":[integer,],

 "precent":[integer,],

```
    "status":[integer, .....],
    "ver":[integer, .....],
    "addr":[integer, .....],
    "type":[integer, .....]
}
```

9.2. EMD Upgrade

9.2.1. Upload emd firmware

■ POST

■ Request:

```
POST <snmp_ip>/api/manufacture/fw_emd/upload_fw HTTP / 1.1
```

```
Host: localhost
```

```
Cookie:
```

```
trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;nc=00000002;c  
nonce=69153d25a8a7a0ae
```

```
Content-Type: multipart/form-data; boundary=-----xxxxxx...
```

```
Content-Disposition: form-data; filename=fw.485
```

```
/* file content */
```

■ Response:

```
http/1.1 200 OK
```

```
Set-Cookie:
```

```
trackid=ddc8369e9c91ae4dfba1d51441588a1d;uid=7a0aedfba1d514c9;Max-Age=1800
```

```
Accept: application/json
```

```
Content-type: application/json
```

```
{ "error":0 }
```

■ GET

■ Resource URL:

```
GET <snmp_ip>/api/manufacture/fw_emd/upload
```

■ Curl Request:

```
curl -i -X GET -H "Content-Length: 0" --cookie
```

```
"trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;  
cnonce=a0b9ac23463677df" -k http://[snmp_ip]/api/fw_emd/upload
```

■ Curl Response:

```
http/1.1 200 OK
```

```
Set-Cookie: trackid=43a46d1edff84557b893947e736ef20d; Path=/; Version=1; Max-  
Age=1800
```

```
Set-Cookie: uid=034f1b705e094a04; Path=/; Version=1; Max-Age=1800
```

```
Content-type: application/json
```

```
{
```

```
    "upload_progress":integer,          /* the uploading % */
    "upload_version"::"string",
    "update_percent":[integer,.....],
    "update_ver":["string",.....],
    "update_addr":[integer,.....],
    "update_type":[integer,.....],
    "update_status":[integer, .....]
}
```

10. Web Information

10.1. Web Information

- GET

- Resource URL:

- GET <snmp_ip>/api/web_info

- Curl Request:

- curl -i -X GET -H "Content-Length: 0" --cookie

- "trackid=43a46d1edff84557b893947e736ef20d;uid=034f1b705e094a04;nc=00000001;
cnonce=a0b9ac23463677df" -k http://[snmp_ip]/api/web_info

- Curl Response:

- http/1.1 200 OK

- Set-Cookie: trackid=43a46d1edff84557b893947e736ef20d; Path=/; Version=1; Max-Age=1800

- Set-Cookie: uid=034f1b705e094a04; Path=/; Version=1; Max-Age=1800

- Content-type: application/json

- {

- "web_refersh_interval":integer,

- "web_timeout_en":integer,

- "web_timeout_interval":integer

- }

Appendix 1. Resource Mapping

TBD

Appendix 2. Page String List

TBD

Appendix 3. Event String List

TBD

History:

Date	Version	Description
12/16/2020	1.0	First record.
12/16/2020	1.1	Delete "lt_close" & "set_lt_close" of EMD. Add temperature & humidity hysteresis description of EMD. Modify the length of the outlet bitmap from 8 * 64 to 16 * 64.
12/21/2020	1.2	Modify one schedule date format (string -> integer). Add a field for the week schedule date.
12/22/2020	1.3	Modify local/radius user privilege define. Add "inlet total energy clear" Modify inlet & outlet log parameter name, (dev_idx, olet_idx)
12/29/2020	1.4	Add MFG function.
01/05/2021	1.5	Modify EMD log filter field. (dev_idx, emd_idx). Add firmware version of inlet & outlet.
01/13/2021	1.6	Add Web information. Modify one schedule date format. Modify unit value of voltage current PF.
01/25/2021	1.7	Modify the definition of event level description. Modify energy unit.
02/09/2021	1.8	Modify the RCM current description.
03/09/2021	1.9	Modify send test mail. Add mail type & mail event level comment. Add send test mail/trap/sms index field.
04/16/2021	2.0	Modify temperature and humidity calibration to define EMD index. (position) Modify outlet on/off delay description. (position) Modify the security interval and time field mapping definition. (position) Modify the RCM current unit. (position)
05/05/2021	2.1	Modify the Dual Ethernet setting range. (position) Add priority field of accessible IP. (position) Modify the IPv6 config range. (position)
28/03/2024	2.2	Modify action define of accessible IP. (position) Add daisy chain status of User Privilege. (position) Add non-meter of Outlet BID. (position)