ANT-375000 / Spotbox3 API guide for firmware 3.2.x

Contents

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Document info

Version	date	author	Comments
0.1	15-Feb-23	David M	Initial draft
0.2	15-Feb-23	David M	Install python section – from ANT-37000A v1.0.6

Spotbox API Version 3.2.x

Table of Contents

1. Introduction

The Spotbox provides an API for managing the device through HTTP requests. The API methods are implemented as a set of http routes.

Each method take parameters as part of the URL or as a JSON object in the body of the request.

All calls will return a JSON object with one of two properties:

```
{"result": <result object> }    // Successful result
```

or

```
{"error": "ERROR_CODE", "msg": "message"}    // Error result
```

The API is protected with a basic authorisation mechanism which requires the "/api/login" method to be called before any other methods are used.

On successful login a cookie is returned which must be provided for subsequent calls to be successful. The cookie will be removed by the "/api/logout" method.

2. EXAMPLE PYTHON CODE (v2.7.13)

There is a simple python application "spotbox_api.py" provided to demonstrate sending API commands to the Spotbox.

2.1. Installing on Windows

The application requires python and an extra python module to be installed. To install python on you host computer download and install the following file:

https://www.python.org/ftp/python/2.7.13/python-2.7.13.msi

NOTE: Make sure the option to add python.exe to Path is selected:

The open a command prompt and confirm python is installed correctly:

```
c:\spotbox>python -V
Python 2.7.13

c:\spotbox>
```

Next install the "requests" module:

```
c:\spotbox>pip install  -sprequests
Collecting requests
  Downloading requests-2.18.1-py2.py3-none-any.whl (88kB)
    100% |################################| 92kB 1.5MB/s
Collecting chardet<3.1.0,>=3.0.2 (from requests)
  Downloading chardet-3.0.4-py2.py3-none-any.whl (133kB)
    100% |################################| 143kB 1.3MB/s
Collecting certifi>=2017.4.17 (from requests)
  Downloading certifi-2017.4.17-py2.py3-none-any.whl (375kB)
    100% |################################| 378kB 1.6MB/s
Collecting idna<2.6,>=2.5 (from requests)
  Downloading idna-2.5-py2.py3-none-any.whl (55kB)
    100% |################################| 61kB 1.3MB/s
Collecting urllib3<1.22,>=1.21.1 (from requests)
  Downloading urllib3-1.21.1-py2.py3-none-any.whl (131kB)
    100% |################################| 133kB 1.1MB/s
Installing collected packages: chardet, certifi, idna, urllib3, requests
Successfully installed certifi-2017.4.17 chardet-3.0.4 idna-2.5 requests-2.18.1 urllib3-1.21.1

c:\spotbox>
```

You should now be able to send commands to the Spotbox.

Running the command provides an interactive prompt. To send and API request type in the HTTP command ('get', 'put', 'post', 'delete') followed by the api route then the JSON parameter if required.

NOTE: Don't forget to always log into the spotbox as the first command.

For example:

```
c:\spotbox>spotbox_api.py -h 10.0.1.133
> post /api/login {"user":"admin", "password":"admin"}
request URL:
http://10.0.1.133/api/login

response:

> get /api/view/mode
request URL:
http://10.0.1.133/api/view/mode

response:
{"result": "grid_2x2"}
> put /api/view/mode {"mode":"grid_4x4"}
request URL:
http://10.0.1.133/api/view/mode

response:
{"result": "OK"}
> get /api/view/mode
request URL:
http://10.0.1.133/api/view/mode

response:
{"result": "grid_4x4"}
>
```

3. Changes

3.1. V.1.1.1

The following routes have been added:

```
GET /api/display/modes
POST /api/system/config
POST /api/system/ssl/key
POST /api/system/ssl/cert
```

3.2. V.2.0.x

The following routes have been added:

```
DELETE /api/system/ssl
```

3.3. V.3.1.x

The following routes have been added:

```
PUT /api/network/<iface>
PUT /api/network/restart/<iface>
GET /api/network/wifi/scan
PUT /api/network/wifi/connect/<iface>
```

Also to support WIFI the format of the 'network' config value has been changed. The old network config will be accepted and be transformed to the new format.

3.4. V.3.2.x

Addition of **rtsp_src** to system configuration when supported by the device

4. POST /api/login

login to session

4.1. request (*json object*):

- ***user*** *(string)*
- ***password*** *(string)*

4.2. response (*json object*):

- ***result***: *OK*.

4.3. Example:

4.3.1. request:

```
POST /api/login
{"user": "admin", "password": "1234"}
```

4.3.2. response:

```
200 OK
Content-Type: application/json
{"result": "OK"}
```

5. POST /api/logout

Logout of a session

5.1. response (*json object*):

- ***result***: *OK*.

5.2. Example:

5.2.1. request:

```
POST /api/logout
```

5.2.2. response:

```
200 OK
Content-Type: application/json
{"result": "OK"}
```

6. GET /api/view

List of possible view modes

6.1. response (*json object*):

- ***result*** *(array)*
  - **Items**: Refer to *#/definitions/grid_modes*.

6.2. Example:

6.2.1. request:

```
GET /api/view
```

6.2.2. response:

```
200 OK
Content-Type: application/json
{"result": ["fullscreen", "grid_1x1", "grid_2x2", "grid_3x3", "grid_4x4"]}
```

7. GET /api/views

Get list of cameras in each view

7.1. response (*json object*):

- ***result*** *(array)*
  - **Items** *(array)*
    - **Items** *(object)*: Cannot contain additional properties.
      - ***cnum*** *(integer)*
      - ***url*** *([‘string’, ‘null’])*
      - ***profile*** *([‘integer’, ‘null’])*

7.2. Example:

7.2.1. request:

```
GET /api/views
```

7.2.2. response:

```
200 OK
Content-Type: application/json
{"result": [[{"cnum": 0, "url": "rtsp://user:a1b2c3d4@192.168.86.10", "profile
": null}]]}
```

8. GET /api/view/mode

Get current view mode

8.1. response (*json object*):

- ***result***: Refer to *#/definitions/grid_modes*.

8.2. Example:

8.2.1. request:

```
GET /api/view/mode
```

8.2.2. response:

```
200 OK
Content-Type: application/json
{"result": "grid_1x1"}
```

9. PUT /api/view/mode

Change current view mode

9.1. request (*json object*):

- ***mode***: Refer to *#/definitions/grid_modes*.
- ***camera*** *(integer)*

9.2. response (*json object*):

- ***result***: *OK*.

9.3. Example:

9.3.1. request:

```
PUT /api/view/mode
{"mode": "grid_1x1"}
```

9.3.2. response:

```
200 OK
Content-Type: application/json
{"result": "OK"}
```

10.GET /api/view/default

Get default view mode

10.1. response (*json object*):

- ***result***: Refer to *#/definitions/default_view*.

10.2. Example:

10.2.1. request:

```
GET /api/view/default
```

10.2.2. response:

```
200 OK
Content-Type: application/json
{"result": {"mode": "grid_1x1", "camera": 0}}
```

11.PUT /api/view/default

Set default view mode

11.1. request (*json object*):

11.2. response (*json object*):

- ***result***: *OK*.

11.3. Example:

11.3.1. request:

```
PUT /api/view/default
{"mode": "grid_1x1"}
```

11.3.2. response:

```
200 OK
Content-Type: application/json
{"result": "OK"}
```

12.GET /api/view/status

Return current status of cameras displayed

12.1. response (*json object*):

- ***result*** *(array)*
  - **Items**
    - **Any of**
      - *object*: Cannot contain additional properties.
        - ***status*** *(integer)*
        - ***status_exit*** *(integer)*
        - ***time_start*** *(number)*
        - ***time_duration*** *(number)*
        - ***time_update*** *(number)*
        - ***uri*** *(['string', 'null'])*
      - *null*

12.2. Example:

12.2.1. request:

```
GET /api/view/status
```

12.2.2. response:

```
200 OK
Content-Type: application/json
{"result": [{"status": 4, "status_exit": 0, "time_start": 1663261703, "time_du
ration": 6, "time_update": 1663261709, "uri": "rtsp://user:a1b2c3d4@192.168.86.10"
}]}
```

13.GET /api/view/<v:int>

Get list of cameras playing on view *v*

13.1. response (*json object*):

- ***result*** *(array)*
  - **Items**
    - **Any of**
      - *object*: Cannot contain additional properties.
        - ***cnum*** *(integer)*
        - ***url*** *(['string', 'null'])*
        - ***profile***
          - **Any of**
            - : Refer to *#/definitions/profile*.
            - *null*
      - *null*

13.2. Example:

13.2.1. request:

```
GET /api/view/0
```

13.2.2. response:

```
200 OK
Content-Type: application/json
{"result": [{"cnum": 0, "url": "rtsp://user:a1b2c3d4@192.168.86.10", "profile"
: null}]}
```

14.PUT /api/view/<v:int>/play

Play list of cameras on specific view *v* .

14.1. request (*json object*):

- ***cameras*** *(array)*
  - **Items** *(integer)*: Minimum: *0*.
- ***period*** *(integer)*: Minimum: *0*.

14.2. response (*json object*):

- ***result***: *OK*.

14.3. Example:

14.3.1. request:

```
PUT /api/view/0/play
{"cameras": [0, 1], "period": 10}
```

14.3.2. response:

```
200 OK
Content-Type: application/json
{"result": "OK"}
```

15.GET /api/cameras

Get list of camera settings

15.1. response (*json object*):

- ***result*** *(array)*
  - **Items**: Refer to *#/definitions/camera*.

15.2. Example:

15.2.1. request:

```
GET /api/cameras
```

15.2.2. response:

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


```
{"result": [{"username": "user", "password": "a1b2c3d4", "label": "C1", "uri": "rtsp://192.168.86.10", "period": 0, "restart": 0, "lab_position": 0, "zoom": 0, "props": {"latency": 0, "timeout": 0, "protocols": 0, "audio": 0}, "profiles": [], "grids": {"grid_1x1": 0, "grid_2x2": 0, "grid_3x3": null, "grid_4x4": null}, "idx": 0}, {"username": "user", "password": "a1b2c3d4", "label": "C2", "uri": "rtsp://192.168.86.11:554/Streaming/Channels/101", "period": 0, "restart": 0, "lab_position": 0, "zoom": 0, "props": {"latency": 0, "timeout": 0, "protocols": 0, "audio": 0}, "profiles": [], "grids": {"grid_1x1": null, "grid_2x2": 1, "grid_3x3": null, "grid_4x4": null}, "idx": 1}, {"username": "user", "password": "a1b2c3d4", "label": "C3", "uri": "rtsp://192.168.86.11:554/Streaming/Channels/101", "period": 0, "restart": 0, "lab_position": 0, "zoom": 0, "props": {"latency": 0, "timeout": 0, "protocols": 0, "audio": 0}, "profiles": [], "grids": {"grid_1x1": null, "grid_2x2": 3, "grid_3x3": null, "grid_4x4": null}, "idx": 2}]}
```

16.PUT /api/cameras

Set new list of cameras to be displayed

16.1. request (*json object*):

- ***cameras*** *(array)*
  - **Items**: Refer to *#/definitions/camera*.

16.2. response (*json object*):

- ***result***: *OK*.

16.3. Example:

16.3.1. request:

```
PUT /api/cameras
{"cameras": [{"label": "C1", "grids": {"grid_1x1": 0, "grid_2x2": 0}, "props": {"audio": 0}, "uri": "rtsp://192.168.86.10", "username": "user", "password": "a1b2c3d4"}, {"label": "C2", "grids": {"grid_2x2": 1}, "uri": "rtsp://192.168.86.11:554/Streaming/Channels/101", "username": "user", "password": "a1b2c3d4"}]}
```

16.3.2. response:

```
200 OK
Content-Type: application/json
{"result": "OK"}
```

17.DELETE /api/cameras

Delete existing list of cameras

17.1. response (*json object*):

- ***result***: *0*.

17.2. Example:

17.2.1. request:

```
DELETE /api/cameras
```

17.2.2. response:

```
200 OK
Content-Type: application/json
{"result": 0}
```

18.PUT /api/cameras/restart

restart playing cameras in a view

18.1. response (*json object*):

- ***result***: *OK*.

18.2. Example:

18.2.1. request:

```
PUT /api/cameras/restart
```

18.2.2. response:

```
200 OK
Content-Type: application/json
{"result": "OK"}
```

19.PUT /api/camera

Append new camera to camera list, return camera number

19.1. request (*json object*):

- ***camera***: Refer to *#/definitions/camera*.

19.2. response (*json object*):

- ***result*** *(integer)*

19.3. Example:

19.3.1. request:

```
PUT /api/camera
{"camera": {"label": "C3", "grids": {"grid_2x2": 3}, "uri": "rtsp://192.168.86
.11:554/Streaming/Channels/101", "username": "user", "password": "a1b2c3d4"}}
```

19.3.2. response:

```
200 OK
Content-Type: application/json
{"result": 2}
```

20.GET /api/camera/<n:int>

Get camera definition for camera *n*

20.1. response (*json object*):

- ***result***: Refer to *#/definitions/camera*.

20.2. Example:

20.2.1. request:

```
GET /api/camera/0
```

20.2.2. response:

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


```
{"result": {"username": "user", "password": "a1b2c3d4", "label": "C1", "uri":
"rtsp://192.168.86.10", "period": 0, "restart": 0, "lab_position": 0, "zoom": 0, "
props": {"latency": 0, "timeout": 0, "protocols": 0, "audio": 0}, "profiles": [],
"grids": {"grid_1x1": 0, "grid_2x2": 0, "grid_3x3": null, "grid_4x4": null}, "idx"
: 0}}
```

21.PUT /api/camera/<n:int>

Update camera definition for camera *n*

21.1. request (*json object*):

- ***camera***: Refer to *#/definitions/camera*.

21.2. response (*json object*):

- ***result*** *(integer)*

21.3. Example:

21.3.1. request:

```
PUT /api/camera/2
{"camera": {"label": "NEW LABEL", "grids": {"grid_2x2": 2}, "uri": "rtsp://192
.168.86.10", "username": "user", "password": "a1b2c3d4"}}
```

21.3.2. response:

```
200 OK
Content-Type: application/json
{"result": 2}
```

22.DELETE /api/camera/<n:int>

Delete camera *n*

22.1. response (*json object*):

- ***result***
  - **Any of**
    - *integer*
    - *null*

22.2. Example:

22.2.1. request:

```
DELETE /api/camera/2
```

22.2.2. response:

```
200 OK
Content-Type: application/json
{"result": 2}
```

23.GET /api/display

Get current display resolution

23.1. response (*json object*):

- ***result*** *(string)*

23.2. Example:

23.2.1. request:

```
GET /api/display
```

23.2.2. response:

```
200 OK
Content-Type: application/json
{"result": "1920x1080@60"}
```

24.GET /api/display/modes

Get current resolutions supported by display

24.1. response (*json object*):

- ***result*** *(array)*
  - **Items** *(string)*

24.2. Example:

24.2.1. request:

```
GET /api/display/modes
```

24.2.2. response:

```
200 OK
Content-Type: application/json
{"result": ["640x480@73", "640x480@67", "640x480@60", "640x480@75", "720x480@6
0", "720x400@70", "720x576@50", "800x600@60", "800x600@75", "800x600@72", "800x600
@56", "832x624@75", "1024x768@70", "1024x768@75", "1024x768@60", "1280x720@50", "1
280x1024@75", "1280x960@60", "1280x720@60", "1280x1024@60", "1440x900@60", "1680x1
050@60", "1920x1080@50", "1920x2160@60", "1920x1080@60", "2560x1440@60", "3840x216
0@60", "3840x2160@24", "3840x2160@25", "3840x2160@30", "3840x2160@50"]}
```

25.GET /api/onvif/cameras

Search network for available onvif cameras

25.1. response (*json object*):

- ***result*** *(array)*
  - **Items** *(string)*

25.2. Example:

25.2.1. request:

```
GET /api/onvif/cameras
```

25.2.2. response:

```
200 OK
Content-Type: application/json
{"result": ["192.168.86.10", "192.168.86.11"]}
```

26.GET /api/onvif/profiles

Query onvif cameras for available proifiles

26.1. params:

- ***uri*** *(string)*
- ***username*** *(string)*
- ***password*** *(string)*

26.2. response (*json object*):

- ***result*** *(array)*
  - **Items**: Refer to *#/definitions/profile*.

26.3. Example:

26.3.1. request:

```
GET /api/onvif/profiles?uri=192.168.86.10&username=user&password=a1b2c3d4
```

26.3.2. response:

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


```
{"result": [{"name": "Multicast:mainStream", "codec": "H264", "res_width": "19
20", "res_height": "1080", "fps": "15", "uri": "rtsp://192.168.86.10:554/Streaming
/Channels/101?transportmode=mcast&profile=Profile_1"}, {"name": "Multicast:subStre
am", "codec": "H264", "res_width": "640", "res_height": "480", "fps": "20", "uri":
"rtsp://192.168.86.10:554/Streaming/Channels/102?transportmode=mcast&profile=Profi
le_2"}, {"name": "Unicast:mainStream", "codec": "H264", "res_width": "1920", "res_
height": "1080", "fps": "15", "uri": "rtsp://192.168.86.10:554/Streaming/Channels/
101?transportmode=unicast&profile=Profile_1"}, {"name": "Unicast:subStream", "code
c": "H264", "res_width": "640", "res_height": "480", "fps": "20", "uri": "rtsp://1
92.168.86.10:554/Streaming/Channels/102?transportmode=unicast&profile=Profile_2"}]
}
```

27.GET /api/network/<iface>

Get network configuration for *iface*

27.1. response (*json object*):

- ***result***: Refer to *#/definitions/network_interface*.

27.2. Example:

27.2.1. request:

```
GET /api/network/eth0
```

27.2.2. response:

```
200 OK
Content-Type: application/json
{"result": {"Enabled": true, "Type": "Wired", "DNS": "192.168.86.1", "NTP": "1
92.168.86.1", "IPv4": {"Netmask": "255.255.255.0", "Address": "192.168.86.221", "G
ateway": "192.168.86.1", "Method": "static"}, "State": "ready", "Address": "CA:33:
6D:C6:FD:AD"}}
```

28.PUT /api/network/<iface>

Set network configuration for *iface*

28.1. request (*json object*):

- ***config***: Refer to *#/definitions/network_interface*.

28.2. response (*json object*):

- ***result***: *OK*.

28.3. Example:

28.3.1. request:

```
PUT /api/network/wlan0
{"config":{"Enabled": true, "Connect": null, "AgentParams": [{"ssid":"localwif
i", "passphrase":"password"}]}}
```

28.3.2. response:

```
200 OK
Content-Type: application/json
{"result": "OK"}
```

29.PUT /api/network/restart/<iface>

Restart network interface *iface*

29.1. response (*json object*):

- ***result***: *OK*.

29.2. Example:

29.2.1. request:

```
PUT /api/network/restart/wlan0
```

29.2.2. response:

```
200 OK
Content-Type: application/json
{"result": "OK"}
```

30.PUT /api/network/wifi/connect/<iface>

Attempt connection for interface *iface*

30.1. request (*json object*):

- ***connect*** *(['string', 'null'])*

30.2. response (*json object*):

- ***result***: *OK*.

30.3. Example:

30.3.1. request:

```
PUT /api/network/wifi/connect/wlan0
{"connect": "localwifi"}
```

30.3.2. response:

```
200 OK
Content-Type: application/json
{"result": "OK"}
```

31.GET /api/network/wifi/scan

Return available wifi networks

31.1. response (*json object*):

- ***result***
  - **Any of**
    - *object*: Cannot contain additional properties.
      - ***wlan0*** *(array)*
        - **Items** *(object)*: Cannot contain additional properties.
          - ***Name*** *(string)*
          - ***State***: Refer to *#/definitions/net_state*.
          - ***Strength*** *(integer)*
          - ***Security*** *(array)*
            - **Items**: One of: *['none', 'wep', 'psk', 'ieee8021x', 'wps']*.
    - *null*

31.2. Example:

31.2.1. request:

```
GET /api/network/wifi/scan
```

31.2.2. response:

```
200 OK
Content-Type: application/json
{"result": {"wlan0": [{"Name": "localwifi", "State": "ready", "Strength": 49, "Security": ["psk"]}]}}
```

32.GET /api/system/info

Get sytem info

32.1. response (*json object*):

- ***result*** *(object)*: Can contain additional properties.
  - ***cpu*** *(object)*: Cannot contain additional properties.
    - ***temp*** *(number)*
  - ***date*** *(string)*
  - ***version*** *(object)*: Cannot contain additional properties.
    - ***SW_VERSION*** *(string)*
    - ***IMAGE_BUILD_DATE*** *(string)*
    - ***HW_REVISION*** *(string)*

32.2. Example:

32.2.1. request:

```
GET /api/system/info
```

32.2.2. response:

```
200 OK
Content-Type: application/json
{"result": {"version": {"SW_VERSION": "spotbox 3.1.3", "IMAGE_BUILD_DATE": "We
d  3 Aug 23:25:20 BST 2022", "HW_REVISION": "spotbox rk3566-pc"}, "sn": "", "sys":
{"cpu_temp": 37.777, "gpu_temp": 38.888, "boot_time": "15-09-2022 09:11:31", "cpu_
freq": 1608.0, "mem": 35.1, "cpu_times": 9.6}, "date": "Thu Sep 15 17:08:47 2022"}
}
```

33.PUT /api/system/reboot

reboot device

33.1. response (*json object*):

- ***result***: *OK*.

33.2. Example:

33.2.1. request:

```
PUT /api/system/reboot
```

33.2.2. response:

```
200 OK
Content-Type: application/json
{"result": "OK"}
```

34.PUT /api/system/restart

restart spotbox application

34.1. response (*json object*):

- ***result***: *OK*.

34.2. Example:

34.2.1. request:

```
PUT /api/system/restart
```

34.2.2. response:

```
200 OK
Content-Type: application/json
{"result": "OK"}
```

35.PUT /api/system/factoryreset

Reset device to factory defaults

35.1. response (*json object*):

- ***result***: *OK*.

35.2. Example:

35.2.1. request:

```
PUT /api/system/factoryreset
```

35.2.2. response:

```
200 OK
Content-Type: application/json
{"result": "OK"}
```

36.PUT /api/system/user

Update login password for admin

36.1. request (*json object*):

- ***user*** *(object)*: Cannot contain additional properties.
  - ***username*** *(string)*
  - ***password*** *(string)*

36.2. response (*json object*):

- ***result***: *OK*.

36.3. Example:

36.3.1. request:

```
PUT /api/system/user
{"user": {"username": "admin", "password": "admin"}}
```

36.3.2. response:

```
200 OK
Content-Type: application/json
{"result": "OK"}
```

37.GET /api/system/config

Get current system configuration

37.1. response (*json object*):

- ***result*** *(object)*: Cannot contain additional properties.
  - ***cameras*** *(array)*
    - **Items**: Refer to *#/definitions/camera*.
  - ***network*** *(object)*: Cannot contain additional properties.
    - ***eth0***: Refer to *#/definitions/network_interface*.
    - ***wlan0***: Refer to *#/definitions/network_interface*.
    - ***lo0***: Refer to *#/definitions/network_interface*.
  - ***display*** *(string)*
  - ***default_view***: Refer to *#/definitions/default_view*.
  - ***grid_font***: Refer to *#/definitions/grid_font*.
  - ***https_enable*** *(boolean)*
  - ***user_config*** *(object)*
  - ***rtsp_svr***: Refer to *#/definitions/rtsp_svr*.
  - ***web_ui***: Refer to *#/definitions/web_ui*.

37.2. Example:

37.2.1. request:

```
GET /api/system/config
```

37.2.2. response:

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


```
{"result": {"cameras": [{"username": "user", "password": "a1b2c3d4", "label":
"C1", "uri": "rtsp://192.168.86.10", "period": 0, "restart": 0, "lab_position": 0,
"zoom": 0, "props": {"latency": 0, "timeout": 0, "protocols": 0, "audio": 0}, "pro
files": [], "grids": {"grid_1x1": 0, "grid_2x2": 0, "grid_3x3": null, "grid_4x4":
null}, "idx": 0}, {"username": "user", "password": "a1b2c3d4", "label": "C2", "uri
": "rtsp://192.168.86.11:554/Streaming/Channels/101", "period": 0, "restart": 0, "
lab_position": 0, "zoom": 0, "props": {"latency": 0, "timeout": 0, "protocols": 0,
"audio": 0}, "profiles": [], "grids": {"grid_1x1": null, "grid_2x2": 1, "grid_3x3"
: null, "grid_4x4": null}, "idx": 1}], "network": {"eth0": {"Enabled": true, "Type
": "Wired", "DNS": "192.168.86.1", "NTP": "192.168.86.1", "IPv4": {"Method": "stat
ic", "Address": "192.168.86.221", "Gateway": "192.168.86.1", "Netmask": "255.255.2
55.0"}}, "wlan0": {"Enabled": true, "Type": "WiFi", "DNS": "192.168.0.1", "NTP": "
192.168.0.1", "IPv4": {"Method": "dhcp"}, "AgentParams": [{"ssid": "localwifi", "p
assphrase": "password"}], "Connect": null}, "lo0": {"Type": "Loopback"}}, "display
": "1920x1080", "default_view": {"mode": "grid_1x1"}, "grid_font": {"fullscreen":
"s", "grid_1x1": "s", "grid_2x2": "s", "grid_3x3": "s", "grid_4x4": "s"}, "user_co
nfig": {"location": "Bristol"}, "web_ui": {"iface": "eth0", "host": "0.0.0.0", "ht
tps_enable": false, "https_port": 443, "http_port": 80}}}
```

38.PUT /api/system/config

Update current system configuration (requires restart to apply)

38.1. request (*json object*):

- ***config*** *(object)*: Cannot contain additional properties.
  - ***cameras*** *(array)*
    - **Items**: Refer to *#/definitions/camera*.
  - ***network*** *(object)*: Cannot contain additional properties.
    - ***eth0***: Refer to *#/definitions/network_interface*.
    - ***wlan0***: Refer to *#/definitions/network_interface*.
    - ***lo0***: Refer to *#/definitions/network_interface*.
  - ***display*** *(string)*
  - ***default_view***: Refer to *#/definitions/default_view*.
  - ***grid_font***: Refer to *#/definitions/grid_font*.
  - ***https_enable*** *(boolean)*
  - ***user_config*** *(object)*
  - ***rtsp_svr***: Refer to *#/definitions/rtsp_svr*.
  - ***web_ui***: Refer to *#/definitions/web_ui*.

38.2. response (*json object*):

- ***result***: *OK*.

38.3. Example:

38.3.1. request:

```
PUT /api/system/config
{"config": {"user_config": {"location": "Bristol"}}}
```

38.3.2. response:

```
200 OK
Content-Type: application/json
{"result": "OK"}
```

39.POST /api/system/config

Update system configuration from a file (requires restart to apply)

39.1. request (Multipart-Encoded JSON File):

- ***config*** *(object)*: Cannot contain additional properties.
  - ***cameras*** *(array)*
    - **Items**: Refer to *#/definitions/camera*.
  - ***network*** *(object)*: Cannot contain additional properties.
    - ***eth0***: Refer to *#/definitions/network_interface*.
    - ***wlan0***: Refer to *#/definitions/network_interface*.
    - ***lo0***: Refer to *#/definitions/network_interface*.
  - ***display*** *(string)*
  - ***default_view***: Refer to *#/definitions/default_view*.
  - ***grid_font***: Refer to *#/definitions/grid_font*.
  - ***https_enable*** *(boolean)*
  - ***user_config*** *(object)*
  - ***rtsp_svr***: Refer to *#/definitions/rtsp_svr*.
  - ***web_ui***: Refer to *#/definitions/web_ui*.

39.2. response (*json object*):

- ***result***: *OK*.

39.3. Example:

39.3.1. request:

```
{ "files" : { "file": "<binary...data>"}}
```

39.3.2. response:

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

40.DELETE /api/system/ssl

Delete current ssl certificate and key

40.1. response (*json object*):

- ***result***: *OK*.

40.2. Example:

40.2.1. request:

```
DELETE /api/system/ssl
```

40.2.2. response:

```
200 OK
Content-Type: application/json
{"result": "OK"}
```

41.POST /api/system/ssl/key

Load new ssl key from file

41.1. request (Multipart-Encoded File):

41.2. response (*json object*):

- ***result***: *OK*.

41.3. Example:

41.3.1. request:

```
POST /api/system/ssl/key
```

41.3.2. response:

```
200 OK
Content-Type: application/json
{"result": "OK"}
```

42. POST /api/system/ssl/cert

Load new ssl certificate from file

42.1. request (Multipart-Encoded File):

42.2. response (*json object*):

- ***result***: *OK*.

42.3. Example:

42.3.1. request:

```
POST /api/system/ssl/cert
```

42.3.2. response:

```
200 OK
Content-Type: application/json
{"result": "OK"}
```

43. Definitions

43.1. profile

- *object*: Cannot contain additional properties.
  - ***uri*** *(string)*
  - ***name*** *(string)*
  - ***codec*** *(string)*
  - ***res_width*** *(string)*
  - ***res_height*** *(string)*
  - ***fps*** *(string)*
  - ***enabled*** *(boolean)* ## view
- *object*: Cannot contain additional properties.
  - ***grid*** *(string)*
  - ***cameras*** *(array)*
    - **Items** *(object)*: Cannot contain additional properties.
      - ***camera*** *(integer)*
      - ***profile*** *(['integer', 'null'])* ## camera
- *object*: Cannot contain additional properties.
  - ***grids*** *(object)*: Cannot contain additional properties.
    - ***fullscreen*** *(['integer', 'null'])*
    - ***grid_1x1*** *(['integer', 'null'])*
    - ***grid_2x2*** *(['integer', 'null'])*
    - ***grid_3x3*** *(['integer', 'null'])*
    - ***grid_4x4*** *(['integer', 'null'])*
  - ***label*** *(string)*
  - ***username*** *(string)*
  - ***password*** *(string)*
  - ***uri*** *(string)*
  - ***period*** *(integer)*
  - ***restart*** *(integer)*
  - ***lab_position*** *(integer)*
  - ***view*** *(['integer', 'null'])*
  - ***props*** *(object)*: Cannot contain additional properties.
    - ***audio*** *(integer)*
    - ***latency*** *(integer)*
    - ***timeout*** *(integer)*
    - ***protocols*** *(integer)*
    - ***drop_on_latency*** *(integer)*
    - ***debug*** *(integer)*
  - ***zoom*** *(integer)*
  - ***onvif*** *(boolean)*
  - ***profiles*** *(array)*
    - **Items**: Refer to *#/definitions/profile*.
  - ***idx*** *(integer)*: Minimum: *0*. ## net_state

- : One of: *['idle', 'failure', 'association', 'configuration', 'ready', 'disconnect', 'offline', 'online']*. ## network_interface
- *object*: Cannot contain additional properties.
  - ***Available*** *(boolean)*
  - ***Enabled*** *(boolean)*
  - ***Type***: One of: *['Wired', 'Loopback', 'WiFi']*.
  - ***State***: Refer to *#/definitions/net_state*.
  - ***AgentParams*** *(array)*
    - **Items** *(object)*: Cannot contain additional properties.
      - ***name*** *(['string', 'null'])*
      - ***ssid*** *(['string', 'null'])*
      - ***identity*** *(['string', 'null'])*
      - ***passphrase*** *(['string', 'null'])*
      - ***wpspin*** *(['string', 'null'])*
  - ***Connect*** *(['string', 'null'])*
  - ***Address*** *(['string', 'null'])*
  - ***DNS***
    - **Any of**
      - *string*: *ipv4*
      - *string*: Maxlength: *0*
  - ***NTP***
    - **Any of**
      - *string*: *ipv4*
      - *string*: Maxlength: *0*
  - ***IPv4*** *(object)*: Cannot contain additional properties.
    - ***Method***: One of: *['manual', 'dhcp', 'static']*.
    - ***Netmask***
      - **Any of**
        - *string*: *ipv4*
        - *string*: Maxlength: *0*
    - ***Address***
      - **Any of**
        - *string*: *ipv4*
        - *string*: Maxlength: *0*
    - ***Gateway***
      - **Any of**
        - *string*: *ipv4*
        - *string*: Maxlength: *0*
  - ***Method*** *(string)*: *Deprecated*
  - ***Netmask*** *(string)*: *Deprecated*
  - ***Gateway*** *(string)*: *Deprecated* ## grid_modes
- : One of: *['fullscreen', 'grid_1x1', 'grid_2x2', 'grid_3x3', 'grid_4x4']*. ## grid_font
- *object*: Cannot contain additional properties.

  - ***fullscreen***: One of: *['s', 'm', 'l']*.
  - ***grid_1x1***: One of: *['s', 'm', 'l']*.
  - ***grid_2x2***: One of: *['s', 'm', 'l']*.
  - ***grid_3x3***: One of: *['s', 'm', 'l']*.
  - ***grid_4x4***: One of: *['s', 'm', 'l']*. ## default_view
- *object*: Cannot contain additional properties.

  - ***mode***: Refer to *#/definitions/grid_modes*.
  - ***camera*** *(integer)* ## web_ui
- *object*: Cannot contain additional properties.

  - ***iface***: *eth0*.
  - ***host***
    - **Any of**
      - *string*: *ipv4*
      - *string*: Maxlength: *0*
  - ***https_enable*** *(boolean)*
  - ***https_port*** *(integer)*: Minimum: *0*.
  - ***http_port*** *(integer)*: Minimum: *0*. ## rtsp_stream
- *object*: Cannot contain additional properties.

  - ***name*** *(string)*
  - ***enc_props*** *(object)*: Cannot contain additional properties.
    - ***bps*** *(integer)*
    - ***profile***: One of: *['baseline', 'main', 'high']*.
    - ***width*** *(integer)*
    - ***height*** *(integer)*
    - ***gop*** *(integer)*
    - ***rc-mode***: One of: *['cbr', 'vbr']*.
  - ***framerate*** *(integer)*
  - ***transport***: One of: *['UNICAST', 'MCAST', 'UDP', 'TCP', 'ANY']*.
  - ***stream_address*** *(object)*: Cannot contain additional properties.
    - ***address***
      - **Any of**
        - *string*: *ipv4*
        - *string*: Maxlength: *0*
    - ***port*** *(integer)*
    - ***ttl*** *(integer)* ## rtsp_svr
- *object*: Cannot contain additional properties.

  - ***available*** *(boolean)*
  - ***enabled*** *(boolean)*
  - ***onvif*** *(boolean)*
  - ***port*** *(integer)*
  - ***username*** *(['string', 'null'])*
  - ***password*** *(['string', 'null'])*
  - ***streams*** *(array)*

- **Items**: Refer to *#/definitions/rtsp_stream*.