API User Guide

SISPM1040-384-LRT-C and SISPM1040-362-LRT

Contents

1. Login

URL: /api/login

Method: POST

Request JSON:

```
{
        “login”: {
              “username” : “admin”,
              “password” : “admin”,
              “user_ip”:”192.168.1.77”,
              “sessid”: “123456789”
        }
}
```

Response JSON:

```
{
        “response”:{
              “status”:”success”,
              “message”:””
        }
}
```

Section:

Name	Data type	Allowed / Value	Default Value
username	String	1-31 alphanumeric	
password	String	0-31 alphanumeric	
user_ip	String	<ip4 address>	
sessid	String	<cookie>	

2. Logout

URL: /api/logout

Method: POST

Request JSON:

```
{
“ logout”: {
“sessid”: “123456789”
}
}
```

Response JSON:

```
{
“response”:{
“status”:”success”
}
}
```

Section:

Name	Data type	Allowed / Value	Default Value
sessid	String	<cookie>	

3. Reboot

URL: /api/reboot

Method: POST

Request JSON:

```
{
“system”: {
“warm”: “Yes”
}
}
```

Response JSON: null

Section:

Name	Data type	Allowed / Value	Default Value
warm	String	“Yes”	

4. Get System Information

URL: /api/get_sysinfo

Method: GET

Request JSON: null

Response JSON:


```
{
    “system”:    {
        “information”: {
            “model_name”:  “SISPM1040-384-LRT-C”,
            “description”: “Managed Hardened PoE+ Switch, (8) 10/100/1000Base-T PoE+ Ports
            + (4) 100/1000Base-X SFP”,
            “hardware_version”:   “v1.01”,
            “mechanical_version”:  “v1.01”,
            “firmware_version”:   “VB7.20.0063 2021-03-29”,
            “mac_addr”:   “00-40-c7-1c-c7-2c”,
            “serial_number”:     “A074117AR0100002”,
            “system_name”: “SISPM1040-384-LRT-C”,
            “location”:   “”,
            “contact”:    “”,
            “system_date”: “2011-01-01T00:03:26+00:00”,
            “uptime”:     “00:03:27”,
            “cpu_load”:   “14%, 5%, 6%”,
            “ram”: {
                “total”:     “43584 Kbytes”,
                “free”: “23260 Kbytes”
            }
            "temperature_1":50,
            "temperature_2":64
        }
    }
}
```

5. Set System Information

URL: /api/set_sysinfo

Method: POST

Request JSON:

```
{
        “system”: {
            “information”: {
                “system_name”: “SISPM1040-384-LRT-C”,
                “location”: “Test Location”,
                “contact”: “Test Contact”
            }
        }
}
```

Response JSON:

```
{
        “system”: {
            “information”: {
                “system_name”: “SISPM1040-384-LRT-C”,
                “location”: “Test Location”,
                “contact”: “Test Contact”
            }
        }
}
```

Section:

Name	Data type	Allowed / Value	Default Value
system_name	String	0-128 alphanumeric	
location	String	0-128 alphanumeric	
contact	String	0-128 alphanumeric	

6. Get PoE Status

URL: /api/get_poe_status

Method: GET

Request JSON: null

Response JSON:


```
{
    “poe”: {
        “total_power_allocate”: 40,
        “total_power_used”:    19,
        “total_current_used”:  36
    },
    “ports”:      [{
            “id”:  1,
            “poe”: {
                “pd_class”:    “1”,
                “priority”:    “Low”,
                “port_status”: “PoE turned ON”,
                “power_allocate”:      40,
                “power_used”:  19,
                “current_used”: 36
            }
        }, {
            “id”:  2,
            “poe”: {
                “pd_class”:    “-“,
                “priority”:    “Low”,
                “port_status”: “No PD detected”,
                “power_allocate”:      0,
                “power_used”:  0,
                “current_used”: 0
            }
        }, {
            “id”:  3,
            “poe”: {
                “pd_class”:    “-“,
                “priority”:    “Low”,
                “port_status”: “No PD detected”,
                “power_allocate”:      0,
                “power_used”:  0,
                “current_used”: 0
            }
        }, {
            “id”:  4,
            “poe”: {
                “pd_class”:    “-“,
                “priority”:    “Low”,
                “port_status”: “No PD detected”,
```

```
                "power_allocate":    0,
                "power_used":  0,
                "current_used": 0
            }
        }, {
            "id":  5,
            "poe":  {
                "pd_class":    "-",
                "priority":    "Low",
                "port_status":  "No PD detected",
                "power_allocate":    0,
                "power_used":  0,
                "current_used": 0
            }
        }, {
            "id":  6,
            "poe":  {
                "pd_class":    "-",
                "priority":    "Low",
                "port_status":  "No PD detected",
                "power_allocate":    0,
                "power_used":  0,
                "current_used": 0
            }
        }, {
            "id":  7,
            "poe":  {
                "pd_class":    "-",
                "priority":    "Low",
                "port_status":  "No PD detected",
                "power_allocate":    0,
                "power_used":  0,
                "current_used": 0
            }
        }, {
            "id":  8,
            "poe":  {
                "pd_class":    "-",
                "priority":    "Low",
                "port_status":  "PoE turned OFF – PoE disabled",
                "power_allocate":    0,
                "power_used":  0,
                "current_used": 0
            }
        }]
}
```

Section:

Name	Data type	Unit
total_power_allocate	Integer	0.1 watt
total_power_used	Integer	0.1 watt
total_current_used	Integer	mA
power_allocate	Integer	0.1 watt
power_used	Integer	0.1 watt
current_used	Integer	mA

7. Get PoE Config

URL: /api/get_poe_config

Method: GET

Request JSON: null

Response JSON:


```
{
    “poe”: {
        “total_power_watts”:  240,
        “power_determined_mode”:  “Class”,
        “power_management_mode”:  “Reserved Power”,
        “capacitor_detection”: true
    },
    “ports”:  [{
            “id”:  1,
            “poe”: {
                “mode”: “Enabled”,
                “priority”:  “Low”,
                “power_limit_user”:  15,
                “schedule”:  “Disabled”
            }
        }, {
            “id”:  2,
            “poe”: {
                “mode”: “Enabled”,
                “priority”:  “Low”,
                “power_limit_user”:  40,
                “schedule”:  “Disabled”
            }
        }, {
            “id”:  3,
            “poe”: {
                “mode”: “Enabled”,
                “priority”:  “Low”,
                “power_limit_user”:  40,
                “schedule”:  “Disabled”
            }
        }, {
            “id”:  4,
            “poe”: {
                “mode”: “Enabled”,
                “priority”:  “Low”,
                “power_limit_user”:  40,
                “schedule”:  “Disabled”
            }
        }, {
            “id”:  5,
            “poe”: {
```

```
                    “mode”: “Enabled”,
                    “priority”:    “Low”,
                    “power_limit_user”:    40,
                    “schedule”:    “Disabled”
               }
          }, {
               “id”:  6,
               “poe”: {
                    “mode”: “Enabled”,
                    “priority”:    “Low”,
                    “power_limit_user”:    40,
                    “schedule”:    “Disabled”
               }
          }, {
               “id”:  7,
               “poe”: {
                    “mode”: “Enabled”,
                    “priority”:    “Low”,
                    “power_limit_user”:    40,
                    “schedule”:    “Disabled”
               }
          }, {
               “id”:  8,
               “poe”: {
                    “mode”: “Disabled”,
                    “priority”:    “Low”,
                    “power_limit_user”:    40,
                    “schedule”:    “Disabled”
               }
          }]
}
```

Section:

Name	Data type	Unit
total_power_watts	Integer	0.1 watt
power_limi_user	Integer	0.1 watt

Response JSON: (BT Version)

```
{
          "poe": {
               "poe_firmware_version": "104-100",
               "total_power_watts": 2000,
               "profile_list": [
               {
                    "id": 1,
                    "name": "profile1"
               },
               … … …
               ]
```

```
        },
        "ports": [
        {
              "id": 1,
              "poe":{
                    "mode": "8023bt60w",
                    "priority": "Low",
                    "schedule": "Disabled",
                    "lldp": true,
                    "legacy": false
              }
        },
        … … …
        ]
}
```

Section:

Name	Data type	Unit
total_power_watts	Integer	watts

8. Set PoE Config

URL: /api/set_poe_config

Method: POST

Request JSON:

```
{
        “poe”: {
            “power_determined_mode”: “Class”,
            “power_management_mode”: “Reserved Power”,
            “capacitor_detection”: true
        },
        “ports”: [
        {
            “id”: 1,
            “poe”:{
                “mode”: “Enabled”,
                “priority”: “Low”,
                “power_limit_user”: 30,
                “schedule”: “Disabled”
            }
        },
        … … …
        ]
}
```

Response JSON:

```
{
    “poe”: {
        “total_power_watts”: 240,
        “power_determined_mode”: “Class”,
        “power_management_mode”: “Reserved Power”,
        “capacitor_detection”: true
    },
    “ports”: [{
            “id”: 1,
            “poe”: {
                “mode”: “Enabled”,
                “priority”: “Low”,
                “power_limit_user”: 15,
                “schedule”: “Disabled”
            }
        }, {
            “id”: 2,
            “poe”: {
                “mode”: “Enabled”,
                “priority”: “Low”,
                “power_limit_user”: 40,
                “schedule”: “Disabled”
            }
        }, {
```

```
            "id": 3,
            "poe": {
                "mode": "Enabled",
                "priority": "Low",
                "power_limit_user": 40,
                "schedule": "Disabled"
            }
        }, {
            "id": 4,
            "poe": {
                "mode": "Enabled",
                "priority": "Low",
                "power_limit_user": 40,
                "schedule": "Disabled"
            }
        }, {
            "id": 5,
            "poe": {
                "mode": "Enabled",
                "priority": "Low",
                "power_limit_user": 40,
                "schedule": "Disabled"
            }
        }, {
            "id": 6,
            "poe": {
                "mode": "Enabled",
                "priority": "Low",
                "power_limit_user": 40,
                "schedule": "Disabled"
            }
        }, {
            "id": 7,
            "poe": {
                "mode": "Enabled",
                "priority": "Low",
                "power_limit_user": 40,
                "schedule": "Disabled"
            }
        }, {
            "id": 8,
            "poe": {
                "mode": "Disabled",
                "priority": "Low",
                "power_limit_user": 40,
                "schedule": "Disabled"
            }
        }]
}
```

Section:

Name	Data type	Allowed / Value	Default Value
power_determined_mode	String	“Class”, ”Allocation”, ”LLDP-Med”	Allocation
power_management_mode	String	“Actual Consumption”, ”Reserved Power”	Actual Consumption
capacitor_detection	Boolean		false
id	Integer	<Port number>	
mode	String	“Enabled”, ”Disabled”, ”Force”	Enabled
priority	String	“Low”, ”High”, ”Critical”	Low
power_limit_user	Integer	1-30 watt	30
schedule	String	“Disabled”, <Profile Name>	Disabled

Request JSON: (BT Version)

```
{
        "ports": [
        {
              "id": 1,
              "poe":{
                    "mode": "8023bt60w",
                    "priority": "Low",
                    "schedule": "Disabled",
                    "lldp": true,
              }
        },
        … … …
        ]
}
```

Response JSON: (BT Version)

```
{
        "poe": {
              "poe_firmware_version": "104-100",
              "total_power_watts": 2000,
              "profile_list": [
              {
                    "id": 1,
                    "name": "profile1"
              },
              … … …
              ]
        },
        "ports": [
        {
              "id": 1,
              "poe":{
                    "mode": "8023bt60w",
                    "priority": "Low",
                    "schedule": "Disabled",
```

```
                "lldp": true,
                "legacy": false
            }
        },
        … … …
        ]
}
```

Section: (BT Version)

Name	Data type	Allowed / Value	Default Value
id	Integer	<Port number>	
mode	String	"Disabled", "8023bt90w", "8023bt60w", "8023bt30w", "4pair90w", "4pair60w", "force90w", "force60w"	8023bt60w
priority	String	“Low”, ”High”, ”Critical”	Low
schedule	String	“Disabled”, <Profile Name>	Disabled
lldp	Boolean		true
legacy	Boolean		false

9. Get PoE Auto Power Reset

URL: /api/get_poe_auto_reset

Method: GET

Request JSON: null

Response JSON:

```
{
        "poe": {
            "auto_checking": false,
        },
        "ports": [
        {
            "id": 1,
            "poe_auto_reset":{
                "ip": "0.0.0.0",
                "startup_time": 60,
                "interval_time": 30,
                "retry_time": 3,
                "error": 0,
                "total": 0,
                "failure_reboot": false,
                "reboot_time": 15,
                "max_reboot_times": 3
            }
        },
        … … …
        ]
}
```

Section:

Name	Data type
error	Integer
total	Integer

10. Set PoE Auto Power Reset

URL: /api/set_poe_auto_reset

Method: POST

Request JSON:

```
{
        "poe": {
            "auto_checking": false,
        },
        "ports": [
        {
            "id": 1,
            "poe_auto_reset":{
                "ip": "0.0.0.0",
                "startup_time": 60,
                "interval_time": 30,
                "retry_time": 3,
                "failure_reboot": false,
                "reboot_time": 15,
                "max_reboot_times": 3
            }
        },
        … … …
        ]
}
```

Response JSON:

```
{
        "poe": {
            "auto_checking": false,
        },
        "ports": [
        {
            "id": 1,
            "poe_auto_reset":{
                "ip": "0.0.0.0",
                "startup_time": 60,
                "interval_time": 30,
                "retry_time": 3,
                "failure_reboot": false,
                "reboot_time": 15,
                "max_reboot_times": 3
            }
        },
        … … …
        ]
```

```
}
```

Section:

Name	Data type	Allowed / Value	Default Value
auto_checking	Boolean		false
id	Integer	<Port number>	
ip	String	"<ip4 address>	
startup_time	Integer	30-600	60
interval_time	Integer	10-120	30
retry_time	Integer	1-5	3
failure_reboot	Boolean		false
reboot_time	Integer	3-120	15
max_reboot_times	Integer	0-10	3

11. Get Port Statistics

URL: /api/get_port_statistics

Method: GET

Request JSON: null

Response JSON:


```
{
        “ports”: [
            {
                “id”: 1,
                “statistics”: {
                    “rx_packets”: {
                        “all”: 93536,
                        “octets”: 11676072,
                        “unicast”: 44332,
                        “multicast”: 37536,
                        “broadcast”: 11672,
                        “pause”: 26816,
                        “64 bytes”: 55171,
                        “65-127 bytes”: 6235,
                        “128-255 bytes”: 5317,
                        “256-511 bytes”: 5841,
                        “512-1023 bytes”: 3493,
                        “1024-1526 bytes”: 1,
                        “1527-max bytes”: 0,
                        “Q0”:0,
                        “Q1”:0,
                        “Q2”:0,
                        “Q3”:0,
                        “Q4”:0,
                        “Q5”:0,
                        “Q6”:0,
                        “Q7”:0,
                        “drop”: 26816,
                        “crc_alignment”: 0,
                        “oversize”: 0,
                        “undersize”: 0,
                        “fragments”: 0,
                        “jabber”: 0,
                         “filtered”: 0
                    },
                    “tx_packets”: {
                         “all”: 130311,
                         “octets”: 14036132,
                         “unicast”: 9516,
                         “multicast”: 1123,
                         “broadcast”: 119672,
                         “pause”: 0,
```

```
                                    “64 bytes”: 77115,
                                    “65-127 bytes”: 9511,
                                    “128-255 bytes”: 336,
                                    “256-511 bytes”: 302,
                                    “512-1023 bytes”: 1251,
                                    “1024-1526 bytes”: 2668,
                                    “1527-max bytes”: 0,
                                    “Q0”:0,
                                    “Q1”:0,
                                    “Q2”:0,
                                    “Q3”:0,
                                    “Q4”:0,
                                    “Q5”:0,
                                    “Q6”:0,
                                    “Q7”:0,
                                    “drop”: 0,
                                     “late_excessive_collision”: 0
                                }
                            }
                        },
                        … …
                ]
}
```

12. Get Port Config

URL: /api/get_port_config

Method: GET

Request JSON: null

Response JSON:

```
{
        “ports”: [
                {
                        “id”: 1,
                        “link”: “1Gfdx”,
                        “media”: “copper”,
                        “speed_mode”: “Auto”,
                        “flow_control”: false,
                        “jumbo_frames”: 9600,
                        “description”: “”
                },
                … …
        ]
}
```

13. Set Port Config

URL: /api/set_port_config

Method: POST

Request JSON:

```
{
        “ports”: [
            {
                “id”: 1,
                “link”: “down”,
                “media”: “copper”,
                “speed_mode”: “Auto”,
                “flow_control”: false,
                “jumbo_frames”: 9600,
                “description”: “test description”
            },
            … …
        ]
}
```

Response JSON:

```
{
        “ports”: [
            {
                “id”: 1,
                “link”: “down”,
                “media”: “copper”,
                “speed_mode”: “Auto”,
                “flow_control”: false,
                “jumbo_frames”: 9600,
                “description”: “test description”
            },
            … …
        ]
}
```

Section:

Name	Data type	Allowed / Value	Default Value
id	Integer	<Port number>	
speed_mode	String	“Disabled” “Auto” “10Mbps HDX” “10Mbps FDX” “100Mbps HDX” “100Mbps FDX” "1Gbps FDX"	Auto
flow_control	Boolean		false
jumbo_frames	Integer	1518-9600	9600

description	String	0-63 alphanumeric	

14. Firmware Upgrade

URL: /api/firmware_upgrade

Method: POST

Request JSON:

```
{
        “system”: {
            “firmware”: {
                “upgrade_url”:” http://192.168.5.46/test.tar.gz”
            }
        }
}
```

```
{
        “system”: {
            “firmware”: {
                “upgrade_url”:”http://192.168.5.46/test.tar.gz”
            }
        }
}
```

Response JSON: null

Section:

Name	Data type	Allowed / Value	Default Value
upgrade_url	String	<URL>	

15. Get Firmware Upgrade Status

URL: /api/get_firmware_upgrade_status

Method: GET

Request JSON: null

Response JSON:

```
{
        “system”: {
            “firmware”: {
                “upgrade_status”: “idle”
            }
        }
}
```

16. Get Account Configuration

URL: /api/get_account_config

Method: GET

Request JSON: null

Response JSON:

```
{
        “account”: [{
              “username” : “superuser”,
              “privilege_level” : 15
        },
        … …
        ]
}
```

17. Set Account Configuration

URL: /api/set_account_config

Method: POST

Request JSON:

```
{
        “account”: {
              “status” : “NEW”,
              “username” : “superuser”,
              “password” : “superuser”,
              “privilege_level” : 15
        }
}
```

Response JSON:

```
{
        “account”: [{
              “username” : “superuser”,
              “privilege_level” : 15
        },
        … …
        ]
}
```

Section: ***Note***: Only modify one at a time:

Name	Data type	Allowed / Value	Default Value
status	String	“EDIT”, ”NEW”, ”DEL”	
username	String	1-31 alphanumeric	
password	String	0-31 alphanumeric	
privilege_level	Integer	0-15	0

18. Get MAC Table Information

URL: /api/get_dynamic_mac_table

Method: GET

Request JSON: null

Response JSON:

```
{
        “mac_table”: [{
                “type”: “Dynamic”,
                “mac”: “00-40-C7-29-AA-22”,
                “vid”: 1,
                “port”: 9
        },
        … …
        ]
}
```

19. Save Configuration

URL: /api/save_configuration

Method: GET

Request JSON: null

Response JSON:

```
{
        “ response “: {
                “status”:”success”,
                “message”:”startup-config saved successfully.”
        }
}
```

20. Get System Time

URL: /api/get_system_time

Method: GET

Request JSON: null

Response JSON:


```
{
        “system”: {
            “time”: {
                “clock_source”:”Local Setting”,
                “system_date”:”2017-01-01 01:01:30”,
                “time_zone”:”5400”,
                “acronym”:””,
                “daylight”:{
                    “mode”: “disable”,
                    “offset”:60,
                    “start_time”: {
                        “year”: 0,
                        “month”: “Jan”,
                        “week”: 1,
                        “day”: “Mon”,
                        “date”: 1,
                        “hour”: 1,
                        “minute”: 0
                    },
                    “end_time”: {
                        “year”: 0,
                        “month”: “Jan”,
                        “week”: 1,
                        “day”: “Mon”,
                        “date”: 1,
                        “hour”: 1,
                        “minute”: 0
                    }
                }
            }
        }
}
```

21. Set System Time

URL: /api/set_system_time

Method: POST

Request JSON:

```
{
        “system”: {
            “time”: {
                “clock_source”:”Local Setting”,
                “system_date”:”2017-01-01 01:01:30”,
                “time_zone”:”5400”,
                “acronym”:””,
                “daylight”:{
                    “mode”: “disable”,
                    “offset”:60,
                    “start_time”: {
                        “year”: 2001,
                        “month”: “Jan”,
                        “week”: 1,
                        “day”: “Mon”,
                        “date”: 1,
                        “hour”: 1,
                        “minute”: 0
                    },
                    “end_time”: {
                        “year”: 2002,
                        “month”: “Jan”,
                        “week”: 1,
                        “day”: “Mon”,
                        “date”: 1,
                        “hour”: 1,
                        “minute”: 0
                    }
                }
            }
        }
}
```

Response JSON:


```
{
        “system”: {
            “time”: {
                “clock_source”:”Local Setting”,
                “system_date”:”2017-01-01 01:01:30”,
                “time_zone”:”5400”,
                “acronym”:””,
                “daylight”:{
                    “mode”: “disable”,
                    “offset”:60,
                    “start_time”: {
                        “year”: 2001,
                        “month”: “Jan”,
                        “week”: 1,
                        “day”: “Mon”,
                        “date”: 1,
                        “hour”: 1,
                        “minute”: 0
                    },
                    “end_time”: {
                        “year”: 2002,
                        “month”: “Jan”,
                        “week”: 1,
                        “day”: “Mon”,
                        “date”: 1,
                        “hour”: 1,
                        “minute”: 0
                    }
                }
            }
        }
}
```


Section:

Name	Data type	Allowed / Value	Default Value
clock_source	String	“Use Local Setting” , ”Use NTP Server”	Use Local Setting
system_date	String	“[Year]-[Month]-[Day] [Hour]:[Minute]:[Second]”	
time_zone	String	See “Time Zone Mapping Table” below	
acronym	String	0-16 alphanumeric	
mode	String	“disable”, ”recurring”, ”non-recurring”	disable
offset	Integer	1-720 Min	60
year	Integer	2000-2097	2001
month	String	“Jan”, ”Feb”, ”Mar” “Apr”, ”May”, ”Jun” “Jul”, ”Aug”, ”Sep” “Oct”, ”Nov”, ”Dec”	Jan

week	Integer	1-5	1
day	String	“Mon”, ”Tue”, ”Wed” “Thu”, ”Fri”, ”Sat”, ”Sun”	Mon
date	Integer	1-31	1
hour	Integer	0-23	0
minute	Integer	0-59	0

Time Zone Mapping Table:

Value	Note
-7200	(GMT-12:00)
-6600	(GMT-11:00)
-6000	(GMT-10:00)
-5400	(GMT-09:00)
-4800	(GMT-08:00)
-4200	(GMT-07:00)
-3600	(GMT-06:00)
-3000	(GMT-05:00)
-2700	(GMT-04:30)
-2400	(GMT-04:00)
-2100	(GMT-03:30)
-1800	(GMT-03:00)
-1200	(GMT-02:00)
-600	(GMT-01:00)
0	(GMT+00:00)
600	(GMT+01:00)
1200	(GMT+02:00)
1800	(GMT+03:00)
2100	(GMT+03:30)
2400	(GMT+04:00)
2700	(GMT+04:30)
3000	(GMT+05:00)
3300	(GMT+05:30)
3450	(GMT+05:45)
3600	(GMT+06:00)
3900	(GMT+06:30)
4200	(GMT+07:00)
4800	(GMT+08:00)
5400	(GMT+09:00)
5700	(GMT+09:30)
6000	(GMT+10:00)
6600	(GMT+11:00)
7200	(GMT+12:00)

22. Get NTP Server

URL: /api/get_ntp_server

Method: GET

Request JSON: null

Response JSON:

```
{
        “system”: {
            “ntp”:      {
                “automatic”:      true,
                “interval”: 60,
                “server1”: “ntp1.transition.com”,
                “server2”: “ntp2.transition.com”,
                “server3”: “”,
                “server4”: “”,
                “server5”: “”
            }
        }
}
```

23. Set NTP Server

URL: /api/set_ntp_server

Method: POST

Request JSON:

```
{
“system”: {
    “ntp”:      {
        “automatic”:      true,
        “interval”: 60,
        “server1”: “ntp1.transition.com”,
        “server2”: “ntp2.transition.com”,
        “server3”: “”,
        “server4”: “”,
        “server5”: “”
    }
}
}
```

Response JSON:

```
{
“system”: {
    “ntp”:      {
        “automatic”:      true,
        “interval”: 60,
```

```
            “server1”: “ntp1.transition.com”,
            “server2”: “ntp2.transition.com”,
            “server3”: “”,
            “server4”: “”,
            “server5”: “”
        }
}
}
```

Section:

Name	Data type	Allowed / Value	Default Value
automatic	Boolean		False
interval	Integer	5, 10, 15, 30, 60, 120 min	60
server1	String	Provide the Ipv4 or Ipv6 address of a NTP server.	
server2	String	Provide the Ipv4 or Ipv6 address of a NTP server.	
server3	String	Provide the Ipv4 or Ipv6 address of a NTP server.	
server4	String	Provide the Ipv4 or Ipv6 address of a NTP server.	
server5	String	Provide the Ipv4 or Ipv6 address of a NTP server.	

24. Get Syslog Server

URL: /api/get_syslog_server

Method: GET

Request JSON: null

Response JSON:

```
{
        “system”:{
                “syslog”:{
                        “mode”: false,
                        “server_address”: “192.168.111.188”,
                        “server_port”: 514
                }
        }
}
```

25. Set Syslog Server

URL: /api/set_syslog_server

Method: POST

Request JSON:

```
{
        “system”:{
            “syslog”:{
            “mode”: true,
            “server_address”: “192.168.111.188”,
            “server_port”: 514
            }
        }
}
```

Response JSON:

```
{
        “system”:{
            “syslog”:{
            “mode”: true,
            “server_address”: “192.168.111.188”,
            “server_port”: 514
            }
        }
}
```

Section:

Name	Data type	Allowed / Value	Default Value
mode	Boolean		false
server_address	String	<Ipv4 address>	
server_port	Integer	1-65535	514

26. Get Vlan Config

URL: /api/get_vlan_config

Method: GET

Request JSON: null

Response JSON:


```
{
        “vlan”: {
            “allowed_access_vlans”: “1”,
            “ethertype_custom_s_ports”: “88a8”
        },
        “ports”: [{
            “id”: 1,
            “vlan”: {
                “mode”: “Access”,
                “access”: {
                    “pvid”: 1,
                    “forbidden_vlan”: “3,5”
                },
                “trunk”: {
                    “pvid”: 1,
                    “egress_tagging”: “Untag Port VLAN”,
                    “allowed_vlan”: “1”,
                    “forbidden_vlan”: “”
                },
                “hybrid”: {
                    “pvid”: 1,
                    “port_type”: “C-Port”,
                    “ingress_filter”: false,
                    “ingress_accept”: “Tagged and Untagged”,
                    “egress_tagging”: “Untag Port VLAN”,
                    “allowed_vlan”: “1”,
                    “forbidden_vlan”: “”
                }
            }
        },
        … …
        ]
}
```

27. Set Vlan Config

URL: /api/set_vlan_config

Method: POST

Request JSON:

```
{
        “vlan”: {
            “allowed_access_vlans”: “1”,
            “ethertype_custom_s_ports”: “88a8”
        },
        “ports”: [{
            “id”: 2,
            “vlan”: {
                “mode”: “Access”,
                “access”: {
                    “pvid”: 1,
                    “forbidden_vlan”: “3,5”
                }
            }
        },{
            “id”: 3,
            “vlan”: {
                “mode”: “Trunk”,
            “trunk”: {
                    “pvid”: 1,
                    “egress_tagging”: “Untag Port VLAN”,
                    “allowed_vlan”: “1”,
                    “forbidden_vlan”: “3,5”
                }
            }
        },{
            “id”: 4,
            “vlan”: {
                “mode”: “Hybrid”,
                “hybrid”: {
                    “pvid”: 1,
                    “port_type”: “C-Port”,
                    “ingress_filter”: false,
                    “ingress_accept”: “Tagged and Untagged”,
                    “egress_tagging”: “Untag Port VLAN”,
                    “allowed_vlan”: “1”,
                    “forbidden_vlan”: “3-5”
                }
            }
        },
```

```
        … …
        ]
}
```

Response JSON:

```
{
        “vlan”: {
            “allowed_access_vlans”: “1”,
            “ethertype_custom_s_ports”: “88a8”
        },
        “ports”: [{
            “id”: 1,
            “vlan”: {
                “mode”: “Access”,
                “access”: {
                    “pvid”: 1,
                    “forbidden_vlan”: “3,5”
                },
                “trunk”: {
                    “pvid”: 1,
                    “egress_tagging”: “Untag Port VLAN”,
                    “allowed_vlan”: “1”,
                    “forbidden_vlan”: “3,5”
                },
                “hybrid”: {
                    “pvid”: 1,
                    “port_type”: “C-Port”,
                    “ingress_filter”: false,
                    “ingress_accept”: “Tagged and Untagged”,
                    “egress_tagging”: “Untag Port VLAN”,
                    “allowed_vlan”: “1”,
                    “forbidden_vlan”: “3,5”
                }
            }
        },
        … …
        ]
}
```

Section:

Name	Data type	Allowed / Value	Default Value
allowed_access_vlans	String	<port-list>	1
ethertype_custom_s_ports	String	<Ethertype>	88a8
id	Integer	<Port number>	
mode	String	“Access”, ”Trunk”, ”Hybrid”	Access
pvid	Integer	1-4095	1

port_type	String	“UNAWARE” “C-Port” “S-Port” “S-Custom-Port”	C-Port
ingress_filter	Boolean		false
ingress_accept	String	“Tagged and Untagged” “Tagged only” “Untagged only”	Tagged and Untagged
egress_tagging (in trunk)	String	“Untag Port VLAN” “Tag All”	Untag Port VLAN
egress_tagging (in hybrid)	String	“Untag Port VLAN” “Tag All” “Untag All”	Untag Port VLAN
allowed_vlan	String	<vlan-list>	1
forbidden_vlan	String	<vlan-list>	

28. Get Mac Based Vlan Config

URL: /api/get_mac_based_vlan

Method: GET

Request JSON: null

Response JSON:

```
{
        “vlan”:{
            “mac_based_vlan”: [{
                “mac”: “00-11-22-33-44-55”,
             “vid”: 15,
             “members”: “2,5-6”
            }
            … …
            ]
        }
}
```

29. Get IP Address

URL: /api/get_ip_address

Method: GET

Request JSON: null

Response JSON:

```
{
        “system”: {
            “ip”: {
                “interfaces”: [{
                    “vid”: 1,
                    “ipv4”: {
                        “dhcp”: false,
                        “fallback”: 0,
                        “current_lease”: “192.168.111.126/24”,
                        “static_addr”: “192.168.111.126”,
                        “static_mask”: 24
                    },
                    “ipv6”: {
                        “static_addr”: “”,
                        “static_mask”: 0
                    }
                }
                … …
                ]
            }
        }
}
```

30. Set IP Address

URL: /api/set_ip_address

Method: POST

Request JSON:

```
{
        “system”: {
            “ip”: {
                “interfaces”: [{
                    “vid”: 1,
                    “ipv4”: {
                                “dhcp”: false,
                                “fallback”: 0,
                                “static_addr”: “192.168.111.126”,
                                “static_mask”: 24
                    },
                    “ipv6”: {
                                “static_addr”: “”,
                                “static_mask”: 0
                    }
                }
                … …
                ]
            }
        }
}
```

Response JSON:

```
{
        “system”: {
            “ip”: {
                “interfaces”: [{
                    “vid”: 1,
                    “ipv4”: {
                            “dhcp”: false,
                            “fallback”: 0,
                            “current_lease”: “192.168.111.126/24”,
                            “static_addr”: “192.168.111.126”,
                            “static_mask”: 24
                    },
                    “ipv6”: {
                            “static_addr”: “”,
                            “static_mask”: 0
                    }
                }
                … …
```

```
                ]
            }
        }
}
```

Section:

Name	Data type	Allowed / Value	Default Value
dhcp	Boolean		
fallback	Integer	1-4294967295	
ipv4: static_addr	String	<ipv4 address>	
ipv4: static_mask	Integer	1-30	
ipv6: static_addr	String	<ipv6 address>	
ipv6: static_mask	Integer	1-128	

31. Get Mirror Config

URL: /api/get_mirror_config

Method: GET

Request JSON: null

Response JSON:

```
{
        “system”: {
            “mirror”: [{
                “destination_port”: 2,
                “source_tx”: “4,6-8”,
                “source_rx”: “3,5,7-8”
            }]
        }
}
```

32. Set Mirror Config

URL: /api/set_mirror_config

Method: POST

Request JSON:

```
{
        “system”: {
            “mirror”: [{
                “destination_port”: 2,
                “source_tx”: “4,6-8”,
                “source_rx”: “3,5,7-8”
            }]
        }
}
```

Response JSON:

```
{
        “system”: {
            “mirror”: [{
                “destination_port”: 2,
                “source_tx”: “4,6-8”,
                “source_rx”: “3,5,7-8”
            }]
        }
}
```

Section:

Name	Data type	Allowed / Value	Default Value
destination_port	Integer	<port number>, 0 means disable	0
source_tx	String	<port list>	
source_rx	String	<port list>	

Note: Only support mirror mode.

33. Cable Diagnostic

URL: /api/cable_diagnostics

Method: POST

Request JSON:

```
{
        “cable”: {
            “port”: 5
        }
}
```

Response JSON:

```
{
        “ports”: [
            “id”: 7,
            “cable_diagnostic”: {
                “link”: “1G”,
                “result”: “OK”,
                “length”: “6.00 (m)”
            }
        ]
}
```

Section:

Name	Data type	Allowed / Value	Default Value
port	Integer	<port number>	

34. Device List Table

URL: /api/dev_list_table

Method: GET

Request JSON: null

Response JSON:


```
{
        “device_list_table”:
        [{
            “switch_mac” : “00-C0-F2-47-A6-F8”,
            “switch_addr” : “192.168.90.3”,
            “device_name” : “Switch A”,
            “device_list” :
             [{
                “port_no” : 6,
                “poe_used”: 0,
                “status”: “on”,
                “device_type”: “SWITCH”,
                “model_name”: “SM8TAT2SA”,
                “device_name”: “Switch C”,
                “mac”: “00-C0-F2-47-A6-FA”,
                “ip_addr”: “192.168.90.5”,
                “rx_rate”: 1024,
                “link_partner_port_no”: 1,
                “number_of_alarm_events”: 2,
                “events”:
                 [{
                    “date”:”2010-01-01”,
                    “time”:”23 51”,
                    “message”:”Higher than maximum throughput limit”
                },
                {
                    “date”:”2010-01-01”,
                    “time”:”23 52”,
                    “message”:”Higher than maximum throughput limit”
                }]
            },
            {
                “port_no” : 10,
                “poe_used”: 0,
                “status”: “on”,
                “device_type”: “SWITCH”,
                “model_name”: “SM8TAT2SA”,
                “device_name”: “Switch B”,
                “mac”: “00-C0-F2-47-A6-F9”,
```

```
                "ip_addr": "192.168.90.4",
                "rx_rate": 1024,
                "link_partner_port_no": 2,
                "number_of_alarm_events": 0,
                "events":[]
            },
            {
                "port_no" : 26,
                "poe_used": 34,
                "status": "on",
                "device_type": "Camera",
                "model_name": "AXIS Camera",
                "device_name": "Camera A",
                "mac": "00-40-8C-7D-81-9A",
                "ip_addr": "192.168.90.203",
                "rx_rate": 1024,
                "link_partner_port_no": 0,
                "number_of_alarm_events": 0,
                "events":[]
            }]
        }]
}
```


Section:

Name	Data type	Default Value
poe_used	Integer	0.1 watt
rx_rate	Integer	byte

35. Get ACL Config

URL: /api/get_acl_config

Method: GET

Request JSON: null

Response JSON:


```
{
        "acl":  {
                "ace":  [{
                        "id":   1,
                        "ingress_port":         "1-12",
                        "policy":       {
                                "filter":       "Any",
                                "value":        0,
                                "bitmask":      "FF"
                        },
                        "action":       {
                                "mode":         "Permit",
                                "rate_limiter": 0,
                                "evc_policer": false,
                                "evc_policer_id":       1,
                                "mirror":       false,
                                "logging":      false,
                                "shutdown":     false,
                                "counter":      5146,
                                "deny_port_redirect":"0",
                                "filter_port":  "1-12"
                        },
                        "vlan": {
                                "tagged":       "Any",
                                "filter":       "Any",
                                "id":   0,
                                "tag_priority": "Any"
                        },
                        "frame_type": "any"
                }, {
                        "id":   2,
                        "ingress_port":         "1",
                        "policy":       {
                                "filter":       "Specific",
                                "value":        0,
                                "bitmask":      "FF"
                        },
                        "action":       {
```

```
                        "mode":         "Permit",
                        "rate_limiter": 0,
                        "evc_policer": true,
                        "evc_policer_id":       1,
                        "mirror":       false,
                        "logging":      false,
                        "shutdown":     true,
                        "counter":      0,
                        "deny_port_redirect":"0",
                        "filter_port":  "1-12"
                },
                "vlan": {
                        "tagged":       "Enabled",
                        "filter":       "Specific",
                        "id":   1,
                        "tag_priority": "4-7"
                },
                "frame_type": "ethernet",
                "ethernet":     {
                        "smac_filter":  "Specific",
                        "smac":         "00-00-00-00-00-01",
                        "smac_mask": "ffff",
                        "dmac_filter": "Specific",
                        "dmac":         "00-00-00-00-00-02",
                        "dmac_mask":"2",
                        "ether_type_filter":    "Specific",
                        "ether_type":  "ffff"
                }
        }, {
                "id":   3,
                "ingress_port":         "2-3",
                "policy":       {
                        "filter":       "Any",
                        "value":        0,
                        "bitmask":      "FF"
                },
                "action":       {
                        "mode":         "Permit",
                        "rate_limiter": 10,
                        "evc_policer": false,
                        "evc_policer_id":       1,
                        "mirror":       false,
                        "logging":      false,
                        "shutdown":     false,
                        "counter":      0,
```

```
                "deny_port_redirect":"0",
                "filter_port":  "1-12"
            },
            "vlan": {
                "tagged":       "Enabled",
                "filter":       "Specific",
                "id":   1,
                "tag_priority": "0"
            },
            "frame_type": "arp",
            "arp":  {
                "smac_filter":  "Specific",
                "smac":         "00-00-00-00-00-01",
                "dmac_filter": "BC",
                "parameters": {
                    "type":"Other",
                    "op":   "Any",
                    "sender":       {
                        "filter":       "Network",
                        "address":      "0.0.0.0",
                        "mask":         "255.255.255.0"
                    },
                    "target":       {
                        "filter":       "Network",
                        "address":      "0.0.0.0",
                        "mask":         "255.255.255.0"
                    }
                },
                "arp_smac_match":   "Any",
                "rarp_dmac_match":  "Any",
                "arp_ip_eth_len":       "Any",
                "arp_ip":       "Any",
                "arp_eth":      "Any"
            }
        }, {
            "id":   4,
            "ingress_port":         "10-12",
            "policy":       {
                "filter":       "Any",
                "value":        0,
                "bitmask":      "FF"
            },
            "action":       {
                "mode":         "Permit",
                "rate_limiter": 0,
```

```
                "evc_policer": false,
                "evc_policer_id":       1,
                "mirror":       false,
                "logging":      false,
                "shutdown":     false,
                "counter":      0,
                "deny_port_redirect":"0",
                "filter_port":  "1-12"
        },
        "vlan": {
                "tagged":       "Any",
                "filter":       "Any",
                "id":   0,
                "tag_priority": "Any"
        },
        "frame_type": "ipv4",
        "ipv4": {
                "dmac_filter": "MC",
                "protocol_filter":      "ICMP",
                "protocol_value":       1,
                "ip_ttl":       "Non-zero",
                "ip_fragment":          "No",
                "ip_option":    "Any",
                "sip_filter":   "Network",
                "sip_address": "0.0.0.0",
                "sip_mask":     "255.255.255.0",
                "dip_filter":   "Network",
                "dip_address":"0.0.0.0",
                "dip_mask":     "255.255.255.0",
                "icmp":         {
                        "type_filter":  1,
                        "type_value":  255,
                        "code_filter":  1,
                        "code_value": 255
                },
                "udp": {
                        "sport_filter": 0,
                        "sport_start":  0,
                        "sport_end":    0,
                        "dport_filter": 0,
                        "dport_start": 0,
                        "dport_end":    0
                },
                "tcp":  {
                        "sport_filter": 0,
```

```
                                "sport_start": 0,
                                "sport_end":   0,
                                "dport_filter": 0,
                                "dport_start": 0,
                                "dport_end":   0,
                                "fin":   0,
                                "syn":   0,
                                "rst":   0,
                                "psh":   0,
                                "ack":   0,
                                "urg":   0
                        }
                }
        }, {
                "id":    5,
                "ingress_port":          "1-12",
                "policy":        {
                        "filter":        "Any",
                        "value":         0,
                        "bitmask":       "FF"
                },
                "action":        {
                        "mode":          "Permit",
                        "rate_limiter": 0,
                        "evc_policer": false,
                        "evc_policer_id":        1,
                        "mirror":        false,
                        "logging":       false,
                        "shutdown":    false,
                        "counter":       0,
                        "deny_port_redirect":"0",
                        "filter_port":   "1-12"
                },
                "vlan": {
                        "tagged":        "Any",
                        "filter":        "Any",
                        "id":    0,
                        "tag_priority": "Any"
                },
                "frame_type": "ipv4",
                "ipv4": {
                        "dmac_filter": "Any",
                        "protocol_filter":       "UDP",
                        "protocol_value":        2,
                        "ip_ttl":        "Any",
```

```
                        "ip_fragment":          "Any",
                        "ip_option":    "Any",
                        "sip_filter":     "Any",
                        "sip_address": "0.0.0.0",
                        "sip_mask":     "0.0.0.0",
                        "dip_filter":     "Any",
                        "dip_address":"0.0.0.0",
                        "dip_mask":     "0.0.0.0",
                        "icmp":          {
                                "type_filter":  0,
                                "type_value":  0,
                                "code_filter":  0,
                                "code_value": 0
                        },
                        "udp": {
                                "sport_filter": 2,
                                "sport_start":  1,
                                "sport_end":   22,
                                "dport_filter": 2,
                                "dport_start": 2,
                                "dport_end":  33
                        },
                        "tcp":  {
                                "sport_filter": 0,
                                "sport_start":  0,
                                "sport_end":   0,
                                "dport_filter": 0,
                                "dport_start": 0,
                                "dport_end":  0,
                                "fin":   0,
                                "syn":  0,
                                "rst":   0,
                                "psh":  0,
                                "ack":  0,
                                "urg":  0
                        }
                }
        }, {
                "id":    6,
                "ingress_port":          "1-12",
                "policy":        {
                        "filter":          "Any",
                        "value":          0,
                        "bitmask":       "FF"
                },
```

```
"action":       {
        "mode":         "Permit",
        "rate_limiter": 0,
        "evc_policer": false,
        "evc_policer_id":       1,
        "mirror":       false,
        "logging":      false,
        "shutdown":     false,
        "counter":      0,
        "deny_port_redirect":"0",
        "filter_port":   "1-12"
},
"vlan": {
        "tagged":       "Any",
        "filter":       "Any",
        "id":    0,
        "tag_priority": "Any"
},
"frame_type": "ipv4",
"ipv4": {
        "dmac_filter": "Any",
        "protocol_filter":      "TCP",
        "protocol_value":       2,
        "ip_ttl":       "Any",
        "ip_fragment":          "Any",
        "ip_option":    "Any",
        "sip_filter":   "Any",
        "sip_address": "0.0.0.0",
        "sip_mask":    "0.0.0.0",
        "dip_filter":   "Any",
        "dip_address":"0.0.0.0",
        "dip_mask":    "0.0.0.0",
        "icmp":         {
                "type_filter":  0,
                "type_value":  0,
                "code_filter":  0,
                "code_value": 0
        },
        "udp": {
                "sport_filter": 0,
                "sport_start":  0,
                "sport_end":    0,
                "dport_filter": 0,
                "dport_start": 0,
                "dport_end":    0
```

```
                        },
                        "tcp":  {
                                "sport_filter": 2,
                                "sport_start":  1,
                                "sport_end":    22,
                                "dport_filter": 2,
                                "dport_start":  2,
                                "dport_end":    33,
                                "fin":  0,
                                "syn":  2,
                                "rst":  2,
                                "psh":  2,
                                "ack":  1,
                                "urg":  2
                        }
                }
        }, {
                "id":   7,
                "ingress_port":         "1-12",
                "policy":       {
                        "filter":       "Any",
                        "value":        0,
                        "bitmask":      "FF"
                },
                "action":       {
                        "mode":         "Permit",
                        "rate_limiter": 0,
                        "evc_policer": false,
                        "evc_policer_id":       1,
                        "mirror":       false,
                        "logging":      false,
                        "shutdown":     false,
                        "counter":      0,
                        "deny_port_redirect":"0",
                        "filter_port":  "1-12"
                },
                "vlan": {
                        "tagged":       "Any",
                        "filter":       "Any",
                        "id":   0,
                        "tag_priority": "Any"
                },
                "frame_type": "ipv4",
                "ipv4": {
                        "dmac_filter": "Any",
```

```
                        "protocol_filter":      "Specific",
                        "protocol_value":       2,
                        "ip_ttl":       "Any",
                        "ip_fragment":          "Any",
                        "ip_option":    "Any",
                        "sip_filter":   "Any",
                        "sip_address":"0.0.0.0",
                        "sip_mask":    "0.0.0.0",
                        "dip_filter":   "Any",
                        "dip_address":"0.0.0.0",
                        "dip_mask":    "0.0.0.0",
                        "icmp":         {
                                "type_filter":  0,
                                "type_value":  0,
                                "code_filter":  0,
                                "code_value": 0
                        },
                        "udp": {
                                "sport_filter": 0,
                                "sport_start":  0,
                                "sport_end":   0,
                                "dport_filter": 0,
                                "dport_start": 0,
                                "dport_end":   0
                        },
                        "tcp":  {
                                "sport_filter": 0,
                                "sport_start":  0,
                                "sport_end":   0,
                                "dport_filter": 0,
                                "dport_start": 0,
                                "dport_end":   0,
                                "fin":   0,
                                "syn":  0,
                                "rst":   0,
                                "psh":  0,
                                "ack":  0,
                                "urg":  0
                        }
                }
        }, {
                "id":    8,
                "ingress_port":         "1-12",
                "policy":       {
                        "filter":       "Any",
```

```
                "value":        0,
                "bitmask":      "FF"
        },
        "action":       {
                "mode":         "Permit",
                "rate_limiter": 0,
                "evc_policer":  false,
                "evc_policer_id":       1,
                "mirror":       false,
                "logging":      false,
                "shutdown":     false,
                "counter":      0,
                "deny_port_redirect":"0",
                "filter_port":  "1-12"
        },
        "vlan": {
                "tagged":       "Any",
                "filter":       "Any",
                "id":   0,
                "tag_priority": "Any"
        },
        "frame_type": "ipv6",
        "ipv6": {
                "dmac_filter": "Any",
                "next_header_filter":  "ICMP",
                "next_header_value":58,
                "sip_filter":   "Specific",
                "sip_address":  "::",
                "sip_bitmask":"FFFFFFFF",
                "hop_limit":    "1",
                "icmp":         {
                        "type_filter":  1,
                        "type_value":  255,
                        "code_filter":  1,
                        "code_value": 255
                },
                "udp": {
                        "sport_filter": 0,
                        "sport_start":  0,
                        "sport_end":    0,
                        "dport_filter": 0,
                        "dport_start": 0,
                        "dport_end":    0
                },
                "tcp":  {
```

```
                        "sport_filter": 0,
                        "sport_start": 0,
                        "sport_end":  0,
                        "dport_filter": 0,
                        "dport_start": 0,
                        "dport_end":  0,
                        "fin":  0,
                        "syn":  0,
                        "rst":  0,
                        "psh":  0,
                        "ack":  0,
                        "urg":  0
                    }
                }
            }, {
                "id":   9,
                "ingress_port":         "1-12",
                "policy":       {
                    "filter":       "Any",
                    "value":        0,
                    "bitmask":      "FF"
                },
                "action":       {
                    "mode":         "Permit",
                    "rate_limiter": 0,
                    "evc_policer": false,
                    "evc_policer_id":       1,
                    "mirror":       false,
                    "logging":      false,
                    "shutdown":     false,
                    "counter":      0,
                    "deny_port_redirect":"0",
                    "filter_port":  "1-12"
                },
                "vlan": {
                    "tagged":       "Any",
                    "filter":       "Any",
                    "id":   0,
                    "tag_priority": "Any"
                },
                "frame_type": "ipv6",
                "ipv6": {
                    "dmac_filter": "Any",
                    "next_header_filter": "UDP",
                    "next_header_value": 17,
```

```
                        "sip_filter":     "Specific",
                        "sip_address":"::",
                        "sip_bitmask":"FFFFFFFF",
                        "hop_limit":    "Any",
                        "icmp":          {
                                "type_filter":  0,
                                "type_value":  0,
                                "code_filter":  0,
                                "code_value": 0
                        },
                        "udp": {
                                "sport_filter": 1,
                                "sport_start":  33,
                                "sport_end":   33,
                                "dport_filter": 2,
                                "dport_start": 2,
                                "dport_end":   33
                        },
                        "tcp":  {
                                "sport_filter": 0,
                                "sport_start":  0,
                                "sport_end":   0,
                                "dport_filter": 0,
                                "dport_start": 0,
                                "dport_end":   0,
                                "fin":   0,
                                "syn":  0,
                                "rst":   0,
                                "psh":  0,
                                "ack":  0,
                                "urg":  0
                        }
                }
        }, {
                "id":    10,
                "ingress_port":          "1-12",
                "policy":        {
                        "filter":          "Any",
                        "value":          0,
                        "bitmask":       "FF"
                },
                "action":        {
                        "mode":          "Permit",
                        "rate_limiter":0,
                        "evc_policer": false,
```

```
                "evc_policer_id":       1,
                "mirror":       false,
                "logging":      false,
                "shutdown":     false,
                "counter":      0,
                "deny_port_redirect":"0",
                "filter_port":  "1-12"
        },
        "vlan": {
                "tagged":       "Any",
                "filter":       "Any",
                "id":   0,
                "tag_priority": "Any"
        },
        "frame_type": "ipv6",
        "ipv6": {
                "dmac_filter": "Any",
                "next_header_filter": "TCP",
                "next_header_value":6,
                "sip_filter":   "Any",
                "sip_address":" ",
                "sip_bitmask":"0",
                "hop_limit":    "Any",
                "icmp":         {
                        "type_filter":  0,
                        "type_value":  0,
                        "code_filter":  0,
                        "code_value": 0
                },
                "udp": {
                        "sport_filter": 0,
                        "sport_start":  0,
                        "sport_end":    0,
                        "dport_filter": 0,
                        "dport_start": 0,
                        "dport_end":    0
                },
                "tcp":  {
                        "sport_filter": 1,
                        "sport_start":  2,
                        "sport_end":    2,
                        "dport_filter": 2,
                        "dport_start": 2,
                        "dport_end":    33,
                        "fin":  1,
```

```
                                "syn":  2,
                                "rst":  2,
                                "psh":  2,
                                "ack":  2,
                                "urg":  2
                        }
                }
        }, {
                "id":   11,
                "ingress_port":         "1-12",
                "policy":       {
                        "filter":       "Any",
                        "value":        0,
                        "bitmask":      "FF"
                },
                "action":       {
                        "mode":         "Permit",
                        "rate_limiter": 0,
                        "evc_policer": false,
                        "evc_policer_id":       1,
                        "mirror":       false,
                        "logging":      false,
                        "shutdown":     false,
                        "counter":      0,
                        "deny_port_redirect":"0",
                        "filter_port":  "1-12"
                },
                "vlan": {
                        "tagged":       "Any",
                        "filter":       "Any",
                        "id":   0,
                        "tag_priority": "Any"
                },
                "frame_type": "ipv6",
                "ipv6": {
                        "dmac_filter": "Any",
                        "next_header_filter": "Specific",
                        "next_header_value":255,
                        "sip_filter":   "Any",
                        "sip_address": " ",
                        "sip_bitmask":"0",
                        "hop_limit":    "Any",
                        "icmp":         {
                                "type_filter":  0,
                                "type_value":  0,
```

```
                        "code_filter":  0,
                        "code_value": 0
                },
                "udp": {
                        "sport_filter": 0,
                        "sport_start":  0,
                        "sport_end":    0,
                        "dport_filter": 0,
                        "dport_start": 0,
                        "dport_end":    0
                },
                "tcp":  {
                        "sport_filter": 0,
                        "sport_start":  0,
                        "sport_end":    0,
                        "dport_filter": 0,
                        "dport_start": 0,
                        "dport_end":    0,
                        "fin":  0,
                        "syn":  0,
                        "rst":  0,
                        "psh":  0,
                        "ack":  0,
                        "urg":  0
                }
        }
}, {
        "id":   12,
        "ingress_port":         "1-8",
        "policy":       {
                "filter":       "Any",
                "value":        0,
                "bitmask":      "FF"
        },
        "action":       {
                "mode":         "Filter",
                "rate_limiter": 0,
                "evc_policer": false,
                "evc_policer_id":       1,
                "mirror":       false,
                "logging":      false,
                "shutdown":     false,
                "counter":      0,
                "deny_port_redirect":"0",
                "filter_port":  "1-12"
```

```
},
"vlan": {
        "tagged":       "Any",
        "filter":       "Any",
        "id":   0,
        "tag_priority": "5"
},
"frame_type": "ipv6",
"ipv6": {
        "dmac_filter": "Any",
        "next_header_filter": "Any",
        "next_header_value":0,
        "sip_filter":   "Any",
        "sip_address":" ",
        "sip_bitmask":"0",
        "hop_limit":    "1",
        "icmp":         {
                "type_filter":  0,
                "type_value":  0,
                "code_filter":  0,
                "code_value": 0
        },
        "udp": {
                "sport_filter": 0,
                "sport_start":  0,
                "sport_end":    0,
                "dport_filter": 0,
                "dport_start": 0,
                "dport_end":   0
        },
        "tcp":  {
                "sport_filter": 0,
                "sport_start":  0,
                "sport_end":    0,
                "dport_filter": 0,
                "dport_start": 0,
                "dport_end":   0,
                "fin":    0,
                "syn":   0,
                "rst":    0,
                "psh":   0,
                "ack":   0,
                "urg":   0
        }
}
```

```
                    }]
        }
}
```

36. Add ACL Config

URL: /api/add_acl_config

Method: POST

Request JSON:

Frame_type:

Frame_type : any

```
{
  "acl": {
    "add": [{
      "any": {
        "ingress_port": "1-5",
        "policy": {
          "filter": "Any",
          "value": 0,
          "bitmask": "FF"
        },
        "action": {
          "mode": "Permit",
          "rate_limiter": 0,
          "evc_policer": true,
          "evc_policer_id": 1,
          "mirror": false,
          "logging": true,
          "shutdown": false,
          "deny_port_redirect": "0",
          "filter_port": "1-12"
        },
        "vlan": {
          "tagged": "Any",
          "filter": "Any",
          "vid": 0,
          "tag_priority": "Any"
        },
        "frame_type": "any"
      }
    }]
  }
}
```

Frame_type : ethernet


```
{
        "acl": {
                "add": [{
                        "ethernet": {
                                "ingress_port": "1-5",
                                "action": {
                                        "mode": "filter",
                                        "deny_port_redirect": "6-10",
                                        "filter_port": "9-10",
                                        "logging": true,
                                        "mirror": true,
                                        "rate_limiter": 0,
                                        "evc_policer": false,
                                        "evc_policer_id": 1,
                                        "shutdown": false
                                },
                                "ethernet": {
                                        "dmac": "00-00-00-00-00-02",
                                        "dmac_filter": "Specific",
                                        "ether_type": "ffff",
                                        "ether_type_filter": "Any",
                                        "smac": "00-00-00-00-00-01",
                                        "smac_filter": "Specific"
                                },
                                "frame_type": "ethernet",
                                "policy": {
                                        "bitmask": "7F",
                                        "filter": "Any",
                                        "value": 0
                                },
                                "vlan": {
                                        "filter": "Specific",
                                        "vid": 20,
                                        "tag_priority": "Any",
                                        "tagged": "Any"
                                }
                        }
                }]
        }
}
```

Frame_type : arp


```
{
        "acl": {
                "add": [{
                        "arp": {
                                "ingress_port": "1-4",
                                "policy": {
                                        "filter": "Any",
                                        "value": 0,
                                        "bitmask": "7F"
                                },
                                "action": {
                                        "mode": "Permit",
                                        "rate_limiter": 0,
                                        "evc_policer": false,
                                        "evc_policer_id": 1,
                                        "mirror": false,
                                        "logging": false,
                                        "shutdown": false,
                                        "deny_port_redirect": "0",
                                        "filter_port": "1-12"
                                },
                                "vlan": {
                                        "tagged": "Any",
                                        "filter": "Any",
                                        "vid": 0,
                                        "tag_priority": "Any"
                                },
                                "frame_type": "arp",
                                "arp": {
                                        "smac_filter": "Any",
                                        "smac": "",
                                        "dmac_filter": "Any",
                                        "parameters": {
                                                "type": "ARP",
                                                "op": "Any",
                                                "sender": {
                                                        "filter": "Host",
                                                        "address": "0.0.0.0",
                                                        "mask": ""
                                                },
                                                "target": {
                                                        "filter": "Network",
                                                        "address": "0.0.0.0",
                                                        "mask": "255.255.255.0"
```

```
                                        }
                                }
                        },
                        "arp_smac_match": "Any",
                        "rarp_dmac_match": "Any",
                        "arp_ip_eth_len": "Any",
                        "arp_ip": "Any",
                        "arp_eth": "Any"
                }
        }]
    }
}
```


Frame_type : ipv4(Any)


```
{
    "acl": {
        "add": [{
            "ipv4": {
                "ingress_port": "1-8",
                "policy": {
                    "filter": "Any",
                    "value": "0",
                    "bitmask": "7F"
                },
                "action": {
                    "mode": "Filter",
                    "rate_limiter": 0,
                    "evc_policer": false,
                    "evc_policer_id": 1,
                    "mirror": false,
                    "logging": false,
                    "shutdown": false,
                    "deny_port_redirect": "",
                    "filter_port": "1-12"
                },
                "vlan": {
                    "tagged": "Any",
                    "filter": "Any",
                    "vid": 0,
                    "tag_priority": "5"
                },
                "frame_type": "ipv4",
                "ipv4": {
                    "dmac_filter": "Any",
                    "protocol_filter": "Any",
```

```
                                        "ip_ttl": "Zero",
                                        "ip_fragment": "Yes",
                                        "ip_option": "No",
                                        "sip_filter": "Any",
                                        "sip_address": "0.0.0.0",
                                        "sip_mask": "0.0.0.0",
                                        "dip_filter": "Any",
                                        "dip_address": "0.0.0.0",
                                        "dip_mask": "255.255.255.0"
                                }
                        }
                }]
        }
}
```


Frame_type : ipv4(ICMP)


```
{
        "acl": {
                "add": [{
                        "ipv4": {
                                "ingress_port": "1-10",
                                "policy": {
                                        "filter": "Any",
                                        "value": 0,
                                        "bitmask": "7F"
                                },
                                "action": {
                                        "mode": "Permit",
                                        "rate_limiter": 0,
                                        "mirror": false,
                                        "logging": false,
                                        "shutdown": false,
                                        "deny_port_redirect": "",
                                        "filter_port": "1-12"
                                },
                                "vlan": {
                                        "tagged": "Any",
                                        "filter": "Any",
                                        "vid": 0,
                                        "tag_priority": "Any"
                                },
                                "frame_type": "ipv4",
                                "ipv4": {
                                        "dmac_filter": "Any",
                                        "protocol_filter": "ICMP",
```

```
                                        "protocol_value": 1,
                                        "ip_ttl": "Any",
                                        "ip_fragment": "Any",
                                        "ip_option": "Any",
                                        "sip_filter": "Host",
                                        "sip_address": "192.168.1.3",
                                        "sip_mask": "255.255.255.255",
                                        "dip_filter": "Host",
                                        "dip_address": "192.168.1.4",
                                        "dip_mask": "255.255.255.255",
                                        "icmp": {
                                                "type_filter": 0,
                                                "type_value": 1,
                                                "code_filter": 1,
                                                "code_value": 2
                                        }
                                }
                        }
                }]
        }
}
```


Frame_type : ipv4(UDP)


```
{
        "acl": {
                "add": [{
                        "ipv4": {
                                "ingress_port": "1-10",
                                "policy": {
                                        "filter": "Any",
                                        "value": 0,
                                        "bitmask": "7F"
                                },
                                "action": {
                                        "mode": "Permit",
                                        "rate_limiter": 0,
                                        "mirror": false,
                                        "logging": false,
                                        "shutdown": false,
                                        "deny_port_redirect": "",
                                        "filter_port": "1-12"
                                },
                                "vlan": {
                                        "tagged": "Any",
                                        "filter": "Any",
```

```
                                        "vid": 0,
                                        "tag_priority": "Any"
                                },
                                "frame_type": "ipv4",
                                "ipv4": {
                                        "dmac_filter": "Any",
                                        "protocol_filter": "UDP",
                                        "protocol_value": 1,
                                        "ip_ttl": "Any",
                                        "ip_fragment": "Any",
                                        "ip_option": "Any",
                                        "sip_filter": "Host",
                                        "sip_address": "192.168.1.3",
                                        "sip_mask": "255.255.255.255",
                                        "dip_filter": "Network",
                                        "dip_address": "192.168.1.4",
                                        "dip_mask": "255.255.255.0",
                                        "udp": {
                                                "sport_filter": 1,
                                                "sport_start": 10,
                                                "sport_end": 65535,
                                                "dport_filter": 2,
                                                "dport_start": 100,
                                                "dport_end": 65535
                                        }
                                }
                        }
                }]
        }
}
```


Frame_type : ipv4(TCP)


```
{
        "acl": {
                "add": [{
                        "ipv4": {
                                "ingress_port": "1-10",
                                "policy": {
                                        "filter": "Any",
                                        "value": 0,
                                        "bitmask": "7F"
                                },
                                "action": {
                                        "mode": "Permit",
                                        "rate_limiter": 0,
```

```
                                        "mirror": false,
                                        "logging": false,
                                        "shutdown": false,
                                        "deny_port_redirect": "",
                                        "filter_port": "1-12"
                                },
                                "vlan": {
                                        "tagged": "Any",
                                        "filter": "Any",
                                        "vid": 0,
                                        "tag_priority": "Any"
                                },
                                "frame_type": "ipv4",
                                "ipv4": {
                                        "dmac_filter": "Any",
                                        "protocol_filter": "TCP",
                                        "protocol_value": 1,
                                        "ip_ttl": "Any",
                                        "ip_fragment": "Any",
                                        "ip_option": "Any",
                                        "sip_filter": "Host",
                                        "sip_address": "192.168.1.3",
                                        "sip_mask": "255.255.255.255",
                                        "dip_filter": "Network",
                                        "dip_address": "192.168.1.4",
                                        "dip_mask": "255.255.255.0",
                                        "tcp": {
                                                "sport_filter": 1,
                                                "sport_start": 10,
                                                "sport_end": 65535,
                                                "dport_filter": 2,
                                                "dport_start": 100,
                                                "dport_end": 65535,
                                                "fin": 0,
                                                "syn": 1,
                                                "rst": 2,
                                                "psh": 2,
                                                "ack": 1,
                                                "urg": 0
                                        }
                                }
                        }
                }]
        }
}
```

Frame_type : ipv4(Specific)


```
{
        "acl": {
                "add": [{
                        "ipv4": {
                                "ingress_port": "1-10",
                                "policy": {
                                        "filter": "Any",
                                        "value": 0,
                                        "bitmask": "7F"
                                },
                                "action": {
                                        "mode": "Permit",
                                        "rate_limiter": 0,
                                        "mirror": false,
                                        "logging": false,
                                        "shutdown": false,
                                        "deny_port_redirect": "",
                                        "filter_port": "1-12"
                                },
                                "vlan": {
                                        "tagged": "Any",
                                        "filter": "Any",
                                        "vid": 0,
                                        "tag_priority": "Any"
                                },
                                "frame_type": "ipv4",
                                "ipv4": {
                                        "dmac_filter": "Any",
                                        "protocol_filter": "Specific",
                                        "protocol_value": 55,
                                        "ip_ttl": "Any",
                                        "ip_fragment": "Any",
                                        "ip_option": "Any",
                                        "sip_filter": "Host",
                                        "sip_address": "192.168.1.3",
                                        "sip_mask": "255.255.255.255",
                                        "dip_filter": "Network",
                                        "dip_address": "192.168.1.4",
                                        "dip_mask": "255.255.255.0"
                                }
                        }
                }]
        }
}
```

Frame_type : ipv6(Any)


```
{
        "acl": {
                "add": [{
                        "ipv6": {
                                "ingress_port": "1-8",
                                "policy": {
                                        "filter": "Any",
                                        "value": "0",
                                        "bitmask": "7F"
                                },
                                "action": {
                                        "mode": "Filter",
                                        "rate_limiter": 0,
                                        "evc_policer": false,
                                        "evc_policer_id": 1,
                                        "mirror": false,
                                        "logging": false,
                                        "shutdown": false,
                                        "deny_port_redirect": "",
                                        "filter_port": "1-12"
                                },
                                "vlan": {
                                        "tagged": "Any",
                                        "filter": "Any",
                                        "vid": 0,
                                        "tag_priority": "5"
                                },
                                "frame_type": "ipv6",
                                "ipv6": {
                                        "dmac_filter": "Any",
                                        "next_header_filter": "Any",
                                        "next_header_value": 1,
                                        "sip_filter": "Specific",
                                        "sip_address": "::",
                                        "sip_bitmask": "FFFFFFF2",
                                        "hop_limit": 1
                                }
                        }
                }]
        }
}
```

Frame_type : ipv6(ICMP)


```
{
        "acl": {
                "add": [{
                        "ipv6": {
                                "ingress_port": "1-8",
                                "policy": {
                                        "filter": "Any",
                                        "value": "0",
                                        "bitmask": "7F"
                                },
                                "action": {
                                        "mode": "Filter",
                                        "rate_limiter": 0,
                                        "evc_policer": false,
                                        "evc_policer_id": 1,
                                        "mirror": false,
                                        "logging": false,
                                        "shutdown": false,
                                        "deny_port_redirect": "",
                                        "filter_port": "1-12"
                                },
                                "vlan": {
                                        "tagged": "Any",
                                        "filter": "Any",
                                        "vid": 0,
                                        "tag_priority": "5"
                                },
                                "frame_type": "ipv6",
                                "ipv6": {
                                        "dmac_filter": "Any",
                                        "next_header_filter": "Any",
                                        "next_header_value": 1,
                                        "sip_filter": "Specific",
                                        "sip_address": "::",
                                        "sip_bitmask": "FFFFFFF2",
                                        "hop_limit": 1
                                }
                        }
                }]
        }
}
```

Frame_type : ipv6(UDP)


```
{
        "acl": {
                "add": [{
                        "ipv6": {
                                "ingress_port": "1-8",
                                "policy": {
                                        "filter": "Any",
                                        "value": "0",
                                        "bitmask": "7F"
                                },
                                "action": {
                                        "mode": "Filter",
                                        "rate_limiter": 0,
                                        "evc_policer": false,
                                        "evc_policer_id": 1,
                                        "mirror": false,
                                        "logging": false,
                                        "shutdown": false,
                                        "deny_port_redirect": "",
                                        "filter_port": "1-12"
                                },
                                "vlan": {
                                        "tagged": "Any",
                                        "filter": "Any",
                                        "vid": 0,
                                        "tag_priority": "5"
                                },
                                "frame_type": "ipv6",
                                "ipv6": {
                                        "dmac_filter": "Any",
                                        "next_header_filter": "UDP",
                                        "next_header_value": 1,
                                        "sip_filter": "Specific",
                                        "sip_address": "::",
                                        "sip_bitmask": "FFFFFFF2",
                                        "hop_limit": 1,
                                        "udp": {
                                                "sport_filter": 1,
                                                "sport_start": 10,
                                                "sport_end": 65535,
                                                "dport_filter": 2,
                                                "dport_start": 100,
                                                "dport_end": 65535
                                        }
```

```
                                }
                        }
                }]
        }
}
```

Frame_type : ipv6(TCP)

```
{
        "acl": {
                "add": [{
                        "ipv6": {
                                "ingress_port": "1-8",
                                "policy": {
                                        "filter": "Any",
                                        "value": "0",
                                        "bitmask": "7F"
                                },
                                "action": {
                                        "mode": "Filter",
                                        "rate_limiter": 0,
                                        "evc_policer": false,
                                        "evc_policer_id": 1,
                                        "mirror": false,
                                        "logging": false,
                                        "shutdown": false,
                                        "deny_port_redirect": "",
                                        "filter_port": "1-12"
                                },
                                "vlan": {
                                        "tagged": "Any",
                                        "filter": "Any",
                                        "vid": 0,
                                        "tag_priority": "5"
                                },
                                "frame_type": "ipv6",
                                "ipv6": {
                                        "dmac_filter": "Any",
                                        "next_header_filter": "TCP",
                                        "next_header_value": 1,
                                        "sip_filter": "Specific",
                                        "sip_address": "::",
                                        "sip_bitmask": "FFFFFFF2",
                                        "hop_limit": 1,
                                        "tcp": {
                                                "sport_filter": 1,
```

```
                                        "sport_start": 10,
                                        "sport_end": 65535,
                                        "dport_filter": 2,
                                        "dport_start": 100,
                                        "dport_end": 65535,
                                        "fin": 0,
                                        "syn": 1,
                                        "rst": 2,
                                        "psh": 2,
                                        "ack": 1,
                                        "urg": 0
                                }
                        }
                }
        }]
    }
}
```


Frame_type : ipv6(Specific)


```
{
    "acl": {
        "add": [{
            "ipv6": {
                "ingress_port": "1-8",
                "policy": {
                    "filter": "Any",
                    "value": "0",
                    "bitmask": "7F"
                },
                "action": {
                    "mode": "Filter",
                    "rate_limiter": 0,
                    "evc_policer": false,
                    "evc_policer_id": 1,
                    "mirror": false,
                    "logging": false,
                    "shutdown": false,
                    "deny_port_redirect": "",
                    "filter_port": "1-12"
                },
                "vlan": {
                    "tagged": "Any",
                    "filter": "Any",
                    "vid": 0,
                    "tag_priority": "5"
```

```
                                },
                                "frame_type": "ipv6",
                                "ipv6": {
                                        "dmac_filter": "Any",
                                        "next_header_filter": "Specific",
                                        "next_header_value": 55,
                                        "sip_filter": "Specific",
                                        "sip_address": "::",
                                        "sip_bitmask": "FFFFFFF2",
                                        "hop_limit": 1
                                }
                        }
                }]
        }
}
```


Response JSON:

Frame_type:

Frame_type : any


```
{
        "acl": {
                "ace": [{
                        "id": 1,
                        "ingress_port": "1-5",
                        "policy": {
                                "filter": "Any",
                                "value": 0,
                                "bitmask": "FF"
                        },
                        "action": {
                                "mode": "Permit",
                                "rate_limiter": 0,
                                "evc_policer": true,
                                "evc_policer_id": 1,
                                "mirror": false,
                                "logging": true,
                                "shutdown": false,
                                "counter": 0,
                                "deny_port_redirect": "0",
                                "filter_port": "1-12"
                        },
                        "vlan": {
                                "tagged": "Any",
                                "filter": "Any",
```

```
                                "vid": 0,
                                "tag_priority": "Any"
                            },
                            "frame_type": "any"
                    }]
            }
}
```

Frame_type : ethernet


```
{
    "acl":    {
            "ace":  [{
                    "id":    1,
                    "ingress_port":         "1-5",
                    "policy":       {
                            "filter":       "Any",
                            "value":        0,
                            "bitmask":      "FF"
                    },
                    "action":       {
                            "mode":         "Filter",
                            "rate_limiter": 0,
                            "evc_policer": false,
                            "evc_policer_id":       1,
                            "mirror":       true,
                            "logging":      true,
                            "shutdown":     false,
                            "counter":      0,
                            "deny_port_redirect":"0",
                            "filter_port":  "9-10"
                    },
                    "vlan": {
                            "tagged":       "Any",
                            "filter":       "Specific",
                            "vid":  20,
                            "tag_priority": "Any"
                    },
                    "frame_type": "ethernet",
                    "ethernet":    {
                            "smac_filter":  "Specific",
                            "smac":         "00-00-00-00-00-01",
                            "smac_mask": "0",
                            "dmac_filter": "Specific",
                            "dmac":         "00-00-00-00-00-02",
                            "dmac_mask":"0",
                            "ether_type_filter":    "Any",
                            "ether_type":  "0"
                    }
                }]
        }
}
```

Frame_type : arp


```
{
        "acl": {
                "ace": [{
                        "id": 1,
                        "ingress_port": "1-4",
                        "policy": {
                                "filter": "Any",
                                "value": 0,
                                "bitmask": "FF"
                        },
                        "action": {
                                "mode": "Permit",
                                "rate_limiter": 0,
                                "evc_policer": false,
                                "evc_policer_id": 1,
                                "mirror": false,
                                "logging": false,
                                "shutdown": false,
                                "counter": 0,
                                "deny_port_redirect": "0",
                                "filter_port": "1-12"
                        },
                        "vlan": {
                                "tagged": "Any",
                                "filter": "Any",
                                "vid": 0,
                                "tag_priority": "Any"
                        },
                        "frame_type": "arp",
                        "arp": {
                                "smac_filter": "Any",
                                "smac": "00-00-00-00-00-01",
                                "dmac_filter": "Any",
                                "parameters": {
                                        "type": "ARP",
                                        "op": "Any",
                                        "sender": {
                                                "filter": "Host",
                                                "address": "0.0.0.0",
                                                "mask": "255.255.255.255"
                                        },
                                        "target": {
                                                "filter": "Network",
                                                "address": "0.0.0.0",
```

```
                                        "mask": "255.255.255.0"
                                }
                        },
                        "arp_smac_match": "Any",
                        "rarp_dmac_match": "Any",
                        "arp_ip_eth_len": "Any",
                        "arp_ip": "Any",
                        "arp_eth": "Any"
                }
        }]
    }
}
```


Frame_type : ipv4(Any)


```
{
    "acl":  {
        "ace":  [{
                "id":   1,
                "ingress_port":         "1-8",
                "policy":       {
                        "filter":       "Any",
                        "value":        0,
                        "bitmask":      "FF"
                },
                "action":       {
                        "mode":         "Filter",
                        "rate_limiter": 0,
                        "evc_policer": false,
                        "evc_policer_id":       1,
                        "mirror":       false,
                        "logging":      false,
                        "shutdown":     false,
                        "counter":      0,
                        "deny_port_redirect":"0",
                        "filter_port":  "1-12"
                },
                "vlan": {
                        "tagged":       "Any",
                        "filter":       "Any",
                        "vid":  0,
                        "tag_priority": "5"
                },
                "frame_type": "ipv4",
                "ipv4": {
                        "dmac_filter": "Any",
```

```
                                    "protocol_filter":      "Any",
                                    "protocol_value":       0,
                                    "ip_ttl":           "Zero",
                                    "ip_fragment":          "Yes",
                                    "ip_option":    "No",
                                    "sip_filter":     "Any",
                                    "sip_address": "0.0.0.0",
                                    "sip_mask":     "0.0.0.0",
                                    "dip_filter":     "Any",
                                    "dip_address":"0.0.0.0",
                                    "dip_mask":    "0.0.0.0",
                                    "icmp":          {
                                            "type_filter":  0,
                                            "type_value":  0,
                                            "code_filter":  0,
                                            "code_value": 0
                                    },
                                    "udp": {
                                            "sport_filter": 0,
                                            "sport_start":  0,
                                            "sport_end":   0,
                                            "dport_filter": 0,
                                            "dport_start": 0,
                                            "dport_end":  0
                                    },
                                    "tcp":  {
                                            "sport_filter": 0,
                                            "sport_start":  0,
                                            "sport_end":   0,
                                            "dport_filter": 0,
                                            "dport_start": 0,
                                            "dport_end":  0,
                                            "fin":   0,
                                            "syn":  0,
                                            "rst":   0,
                                            "psh":  0,
                                            "ack":  0,
                                            "urg":  0
                                    }
                            }
                    }]
        }
}
```

Frame_type : ipv4(ICMP)


```
{
        "acl": {
                "ace": [{
                        "id": 1,
                        "ingress_port": "1-10",
                        "policy": {
                                "filter": "Any",
                                "value": 0,
                                "bitmask": "FF"
                        },
                        "action": {
                                "mode": "Permit",
                                "rate_limiter": 0,
                                "evc_policer": false,
                                "evc_policer_id": 1,
                                "mirror": false,
                                "logging": false,
                                "shutdown": false,
                                "counter": 0,
                                "deny_port_redirect": "0",
                                "filter_port": "1-12"
                        },
                        "vlan": {
                                "tagged": "Any",
                                "filter": "Any",
                                "vid": 0,
                                "tag_priority": "Any"
                        },
                        "frame_type": "ipv4",
                        "ipv4": {
                                "dmac_filter": "Any",
                                "protocol_filter": "ICMP",
                                "protocol_value": 2,
                                "ip_ttl": "Any",
                                "ip_fragment": "Any",
                                "ip_option": "Any",
                                "sip_filter": "Host",
                                "sip_address": "192.168.1.3",
                                "sip_mask": "255.255.255.255",
                                "dip_filter": "Host",
                                "dip_address": "192.168.1.4",
                                "dip_mask": "255.255.255.255",
                                "icmp": {
                                        "type_filter": 0,
```

```
                                        "type_value": 0,
                                        "code_filter": 1,
                                        "code_value": 2
                                },
                                "udp": {
                                        "sport_filter": 0,
                                        "sport_start": 0,
                                        "sport_end": 0,
                                        "dport_filter": 0,
                                        "dport_start": 0,
                                        "dport_end": 0
                                },
                                "tcp": {
                                        "sport_filter": 0,
                                        "sport_start": 0,
                                        "sport_end": 0,
                                        "dport_filter": 0,
                                        "dport_start": 0,
                                        "dport_end": 0,
                                        "fin": 0,
                                        "syn": 0,
                                        "rst": 0,
                                        "psh": 0,
                                        "ack": 0,
                                        "urg": 0
                                }
                        }
                }]
        }
}
```


Frame_type : ipv4(UDP)


```
{
        "acl": {
                "ace": [{
                        "id": 1,
                        "ingress_port": "1-10",
                        "policy": {
                                "filter": "Any",
                                "value": 0,
                                "bitmask": "FF"
                        },
                        "action": {
                                "mode": "Permit",
                                "rate_limiter": 0,
```

```
                "evc_policer": false,
                "evc_policer_id": 1,
                "mirror": false,
                "logging": false,
                "shutdown": false,
                "counter": 0,
                "deny_port_redirect": "0",
                "filter_port": "1-12"
        },
        "vlan": {
                "tagged": "Any",
                "filter": "Any",
                "vid": 0,
                "tag_priority": "Any"
        },
        "frame_type": "ipv4",
        "ipv4": {
                "dmac_filter": "Any",
                "protocol_filter": "UDP",
                "protocol_value": 2,
                "ip_ttl": "Any",
                "ip_fragment": "Any",
                "ip_option": "Any",
                "sip_filter": "Host",
                "sip_address": "192.168.1.3",
                "sip_mask": "255.255.255.255",
                "dip_filter": "Network",
                "dip_address": "192.168.1.4",
                "dip_mask": "255.255.255.0",
                "icmp": {
                        "type_filter": 0,
                        "type_value": 0,
                        "code_filter": 0,
                        "code_value": 0
                },
                "udp": {
                        "sport_filter": 1,
                        "sport_start": 10,
                        "sport_end": 10,
                        "dport_filter": 2,
                        "dport_start": 100,
                        "dport_end": 65535
                },
                "tcp": {
                        "sport_filter": 0,
```

```
                                        "sport_start": 0,
                                        "sport_end": 0,
                                        "dport_filter": 0,
                                        "dport_start": 0,
                                        "dport_end": 0,
                                        "fin": 0,
                                        "syn": 0,
                                        "rst": 0,
                                        "psh": 0,
                                        "ack": 0,
                                        "urg": 0
                                }
                        }
                }]
        }
}
```


Frame_type : ipv4(TCP)


```
{
        "acl": {
                "ace": [{
                        "id": 1,
                        "ingress_port": "1-10",
                        "policy": {
                                "filter": "Any",
                                "value": 0,
                                "bitmask": "FF"
                        },
                        "action": {
                                "mode": "Permit",
                                "rate_limiter": 0,
                                "evc_policer": false,
                                "evc_policer_id": 1,
                                "mirror": false,
                                "logging": false,
                                "shutdown": false,
                                "counter": 0,
                                "deny_port_redirect": "0",
                                "filter_port": "1-12"
                        },
                        "vlan": {
                                "tagged": "Any",
                                "filter": "Any",
                                "vid": 0,
                                "tag_priority": "Any"
```

```
                },
                "frame_type": "ipv4",
                "ipv4": {
                        "dmac_filter": "Any",
                        "protocol_filter": "TCP",
                        "protocol_value": 2,
                        "ip_ttl": "Any",
                        "ip_fragment": "Any",
                        "ip_option": "Any",
                        "sip_filter": "Host",
                        "sip_address": "192.168.1.3",
                        "sip_mask": "255.255.255.255",
                        "dip_filter": "Network",
                        "dip_address": "192.168.1.4",
                        "dip_mask": "255.255.255.0",
                        "icmp": {
                                "type_filter": 0,
                                "type_value": 0,
                                "code_filter": 0,
                                "code_value": 0
                        },
                        "udp": {
                                "sport_filter": 0,
                                "sport_start": 0,
                                "sport_end": 0,
                                "dport_filter": 0,
                                "dport_start": 0,
                                "dport_end": 0
                        },
                        "tcp": {
                                "sport_filter": 1,
                                "sport_start": 10,
                                "sport_end": 10,
                                "dport_filter": 2,
                                "dport_start": 100,
                                "dport_end": 65535,
                                "fin": 0,
                                "syn": 1,
                                "rst": 2,
                                "psh": 2,
                                "ack": 1,
                                "urg": 0
                        }
                }
        }]
```

```
        }
}
```

Frame_type : ipv4(Specific)

```
{
        "acl": {
                "ace": [{
                        "id": 1,
                        "ingress_port": "1-10",
                        "policy": {
                                "filter": "Any",
                                "value": 0,
                                "bitmask": "FF"
                        },
                        "action": {
                                "mode": "Permit",
                                "rate_limiter": 0,
                                "evc_policer": false,
                                "evc_policer_id": 1,
                                "mirror": false,
                                "logging": false,
                                "shutdown": false,
                                "counter": 0,
                                "deny_port_redirect": "0",
                                "filter_port": "1-12"
                        },
                        "vlan": {
                                "tagged": "Any",
                                "filter": "Any",
                                "vid": 0,
                                "tag_priority": "Any"
                        },
                        "frame_type": "ipv4",
                        "ipv4": {
                                "dmac_filter": "Any",
                                "protocol_filter": "Specific",
                                "protocol_value": 55,,
                                "ip_ttl": "Any",
                                "ip_fragment": "Any",
                                "ip_option": "Any",
                                "sip_filter": "Host",
                                "sip_address": "192.168.1.3",
                                "sip_mask": "255.255.255.255",
                                "dip_filter": "Network",
                                "dip_address": "192.168.1.4",
```

```
                                "dip_mask": "255.255.255.0",
                                "icmp": {
                                        "type_filter": 0,
                                        "type_value": 0,
                                        "code_filter": 0,
                                        "code_value": 0
                                },
                                "udp": {
                                        "sport_filter": 0,
                                        "sport_start": 0,
                                        "sport_end": 0,
                                        "dport_filter": 0,
                                        "dport_start": 0,
                                        "dport_end": 0
                                },
                                "tcp": {
                                        "sport_filter": 0,
                                        "sport_start": 0,
                                        "sport_end": 0,
                                        "dport_filter": 0,
                                        "dport_start": 0,
                                        "dport_end": 0,
                                        "fin": 0,
                                        "syn": 0,
                                        "rst": 0,
                                        "psh": 0,
                                        "ack": 0,
                                        "urg": 0
                                }
                        }
                }]
        }
}
```


Frame_type : ipv6(Any)


```
{
        "acl": {
                "ace": [{
                        "id": 1,
                        "ingress_port": "1-8",
                        "policy": {
                                "filter": "Any",
                                "value": 0,
                                "bitmask": "FF"
                        },
```

```
                "action": {
                        "mode": "Filter",
                        "rate_limiter": 0,
                        "evc_policer": false,
                        "evc_policer_id": 1,
                        "mirror": false,
                        "logging": false,
                        "shutdown": false,
                        "counter": 0,
                        "deny_port_redirect": "0",
                        "filter_port": "1-12"
                },
                "vlan": {
                        "tagged": "Any",
                        "filter": "Any",
                        "vid": 0,
                        "tag_priority": "5"
                },
                "frame_type": "ipv6",
                "ipv6": {
                        "dmac_filter": "Any",
                        "next_header_filter": "Any",
                        "next_header_value": 0,
                        "sip_filter": "Specific",
                        "sip_address": "::",
                        "sip_bitmask": "FFFFFFF2",
                        "hop_limit": "1",
                        "icmp": {
                                "type_filter": 0,
                                "type_value": 0,
                                "code_filter": 0,
                                "code_value": 0
                        },
                        "udp": {
                                "sport_filter": 0,
                                "sport_start": 0,
                                "sport_end": 0,
                                "dport_filter": 0,
                                "dport_start": 0,
                                "dport_end": 0
                        },
                        "tcp": {
                                "sport_filter": 0,
                                "sport_start": 0,
                                "sport_end": 0,
```

```
                                        "dport_filter": 0,
                                        "dport_start": 0,
                                        "dport_end": 0,
                                        "fin": 0,
                                        "syn": 0,
                                        "rst": 0,
                                        "psh": 0,
                                        "ack": 0,
                                        "urg": 0
                                }
                        }
                }]
        }
}
```


Frame_type : ipv6(ICMP)


```
{
        "acl": {
                "ace": [{
                        "id": 1,
                        "ingress_port": "1-8",
                        "policy": {
                                "filter": "Any",
                                "value": 0,
                                "bitmask": "FF"
                        },
                        "action": {
                                "mode": "Filter",
                                "rate_limiter": 0,
                                "evc_policer": false,
                                "evc_policer_id": 1,
                                "mirror": false,
                                "logging": false,
                                "shutdown": false,
                                "counter": 0,
                                "deny_port_redirect": "0",
                                "filter_port": "1-12"
                        },
                        "vlan": {
                                "tagged": "Any",
                                "filter": "Any",
                                "vid": 0,
                                "tag_priority": "5"
                        },
                        "frame_type": "ipv6",
```

```
                        "ipv6": {
                                "dmac_filter": "Any",
                                "next_header_filter": "ICMP",
                                "next_header_value": 58,
                                "sip_filter": "Specific",
                                "sip_address": "::",
                                "sip_bitmask": "FFFFFFF2",
                                "hop_limit": "1",
                                "icmp": {
                                        "type_filter": 1,
                                        "type_value": 1,
                                        "code_filter": 1,
                                        "code_value": 2
                                },
                                "udp": {
                                        "sport_filter": 0,
                                        "sport_start": 0,
                                        "sport_end": 0,
                                        "dport_filter": 0,
                                        "dport_start": 0,
                                        "dport_end": 0
                                },
                                "tcp": {
                                        "sport_filter": 0,
                                        "sport_start": 0,
                                        "sport_end": 0,
                                        "dport_filter": 0,
                                        "dport_start": 0,
                                        "dport_end": 0,
                                        "fin": 0,
                                        "syn": 0,
                                        "rst": 0,
                                        "psh": 0,
                                        "ack": 0,
                                        "urg": 0
                                }
                        }
                }]
        }
}
```

Frame_type : ipv6(UDP)


```
{
        "acl":  {
                "ace":  [{
                                "id":   1,
                                "ingress_port":         "1-8",
                                "policy":       {
                                        "filter":       "Any",
                                        "value":        0,
                                        "bitmask":      "FF"
                                },
                                "action":       {
                                        "mode":         "Filter",
                                        "rate_limiter": 0,
                                        "evc_policer": false,
                                        "evc_policer_id":       1,
                                        "mirror":       false,
                                        "logging":      false,
                                        "shutdown":     false,
                                        "counter":      0,
                                        "deny_port_redirect":"0",
                                        "filter_port":  "1-12"
                                },
                                "vlan": {
                                        "tagged":       "Any",
                                        "filter":       "Any",
                                        "vid":  0,
                                        "tag_priority": "5"
                                },
                                "frame_type": "ipv6",
                                "ipv6": {
                                        "dmac_filter": "Any",
                                        "next_header_filter":  "UDP",
                                        "next_header_value":17,
                                        "sip_filter":   "Specific",
                                        "sip_address": "::",
                                        "sip_bitmask":"FFFFFFF2",
                                        "hop_limit":    "1",
                                        "icmp":         {
                                                "type_filter":  0,
                                                "type_value":  0,
                                                "code_filter":  0,
                                                "code_value": 0
                                        },
                                        "udp": {
```

```
                                        "sport_filter": 1,
                                        "sport_start":  10,
                                        "sport_end":    10,
                                        "dport_filter": 2,
                                        "dport_start":  100,
                                        "dport_end":    65535
                                },
                                "tcp":  {
                                        "sport_filter": 0,
                                        "sport_start":  0,
                                        "sport_end":    0,
                                        "dport_filter": 0,
                                        "dport_start":  0,
                                        "dport_end":    0,
                                        "fin":  0,
                                        "syn":  0,
                                        "rst":  0,
                                        "psh":  0,
                                        "ack":  0,
                                        "urg":  0
                                }
                        }]
        }
}
```


Frame_type : ipv6(TCP)


```
{
        "acl":  {
                "ace":  [{
                        "id":   1,
                        "ingress_port":         "1-8",
                        "policy":       {
                                "filter":       "Any",
                                "value":        0,
                                "bitmask":      "FF"
                        },
                        "action":       {
                                "mode":         "Filter",
                                "rate_limiter": 0,
                                "evc_policer": false,
                                "evc_policer_id":       1,
                                "mirror":       false,
                                "logging":      false,
                                "shutdown":     false,
```

```
                "counter":      0,
                "deny_port_redirect":"0",
                "filter_port":   "1-12"
        },
        "vlan": {
                "tagged":       "Any",
                "filter":       "Any",
                "vid":   0,
                "tag_priority": "5"
        },
        "frame_type": "ipv6",
        "ipv6": {
                "dmac_filter": "Any",
                "next_header_filter":  "TCP",
                "next_header_value":6,
                "sip_filter":     "Specific",
                "sip_address": "::",
                "sip_bitmask":"FFFFFFF2",
                "hop_limit":    "1",
                "icmp":         {
                        "type_filter":   0,
                        "type_value":  0,
                        "code_filter":  0,
                        "code_value": 0
                },
                "udp": {
                        "sport_filter": 0,
                        "sport_start":  0,
                        "sport_end":   0,
                        "dport_filter": 0,
                        "dport_start": 0,
                        "dport_end":  0
                },
                "tcp":  {
                        "sport_filter":  1,
                        "sport_start":  10,
                        "sport_end":   10,
                        "dport_filter": 2,
                        "dport_start": 100,
                        "dport_end":  65535,
                        "fin":   0,
                        "syn":  1,
                        "rst":   2,
                        "psh":  2,
                        "ack":  1,
```

```
                                        "urg":  0
                                }
                        }
                }]
        }
}
```

Frame_type : ipv6(Specific)

```
{
        "acl":  {
                "ace":  [{
                        "id":   1,
                        "ingress_port":         "1-8",
                        "policy":       {
                                "filter":       "Any",
                                "value":        0,
                                "bitmask":      "FF"
                        },
                        "action":       {
                                "mode":         "Filter",
                                "rate_limiter": 0,
                                "evc_policer": false,
                                "evc_policer_id":       1,
                                "mirror":       false,
                                "logging":      false,
                                "shutdown":     false,
                                "counter":      0,
                                "deny_port_redirect":"0",
                                "filter_port":  "1-12"
                        },
                        "vlan": {
                                "tagged":       "Any",
                                "filter":       "Any",
                                "vid":  0,
                                "tag_priority": "5"
                        },
                        "frame_type": "ipv6",
                        "ipv6": {
                                "dmac_filter": "Any",
                                "next_header_filter":  "Specific",
                                "next_header_value":55,
                                "sip_filter":   "Specific",
                                "sip_address": "::",
                                "sip_bitmask":"FFFFFFF2",
                                "hop_limit":    "1",
```

```
                                "icmp":         {
                                        "type_filter":  0,
                                        "type_value":  0,
                                        "code_filter":  0,
                                        "code_value": 0
                                },
                                "udp": {
                                        "sport_filter": 0,
                                        "sport_start":  0,
                                        "sport_end":   0,
                                        "dport_filter": 0,
                                        "dport_start": 0,
                                        "dport_end":  0
                                },
                                "tcp":  {
                                        "sport_filter": 0,
                                        "sport_start":  0,
                                        "sport_end":   0,
                                        "dport_filter": 0,
                                        "dport_start": 0,
                                        "dport_end":  0,
                                        "fin":   0,
                                        "syn":  0,
                                        "rst":   0,
                                        "psh":  0,
                                        "ack":  0,
                                        "urg":  0
                                }
                        }
                }]
        }
}
```


Section:

Name	Data type	Allowed / Value	Default Value
id	Integer	1-256	
ingress_port	String	Port Ranges. "1,3,10" or "0": all ports	0
frame_type	String	"any", "ethernet", "arp", "ipv4", "ipv6"	any
policy->filter	String	"Any", "Specific"	Any
policy->value	Integer	0-255	0
policy->bitmask	String	0-FF	FF
action->mode	String	"Deny", "Permit", "Filter"	Permit
action->rate_limiter	Integer	1-16 or 0:Disabled	0
action->evc_policer	Boolean		false
action->evc_policer_id	Integer	1-256	1

action->mirror	Boolean		false
action->logging	Boolean		false
action->shutdown	Boolean		false
action->counter	Integer		
action->deny_port_redirect	String	deny mode used only. “1,3,10” or “0”: all ports	0
action->filter_port	String	filter mode used only. “1,3,10” or “0”: all ports	0
vlan->tagged	String	"Any", "Disabled", "Enabled"	Any
vlan->vid_filter	String	"Any", "Specific"	Any
vlan->vid	Integer	1-4095	1
vlan->tag_priority	String	"0", "1", "2", "3", "4", "5", "6", "7", "0-1", "2-3", "4-5", "6-7", " 0-3", "4-7", "Any"	Any
ethernet->smac_filter	String	"Any", "Specific"	Any
ethernet->smac	String	<mac address>	
ethernet->dmac_filter	String	"Any", "Specific", "MC", "BC", "UC"	Any
ethernet->dmac	String	<mac address>	
ethernet->ether_type_filter	String	"Any", "Specific"	Any
ethernet->ether_type	String	0000-FFFF	FFFF
arp->smac_filter	String	"Any", "Specific"	Any
arp->smac	String	<mac address>	
arp->dmac_filter	String	"Any", "MC", "BC", "UC"	Any
parameters->type	String	"Any", "ARP", "RARP", "Other"	Any
parameters->op	String	"Any", "Reply", "Request"	Any
sender->filter	String	"Any", "Host", "Network"	Any
sender->address	String	<ip address>	
sender->mask	String	<ip address>	
target->filter	String	"Any", "Host", "Network"	Any
target->address	String	<ip address>	
target->mask	String	<ip address>	
arp->arp_smac_match	String	"Any", "0", "1"	Any
arp->rarp_dmac_match	String	"Any", "0", "1"	Any
arp->arp_ip_eth_len	String	"Any", "0", "1"	Any
arp->arp_ip	String	"Any", "0", "1"	Any
arp->arp_eth	String	"Any", "0", "1"	Any
ipv4->dmac_filter	String	"Any", "MC", "BC", "UC"	Any
ipv4->protocol_filter	String	"Any", "ICMP", "UDP", "TCP", "Specific"	Any
ipv4->ip_ttl	String	"Any", "Non-zero", "Zero"	Any
ipv4->ip_fragment	String	"Any", "Yes", "No"	Any
ipv4->ip_option	String	"Any", "Yes", "No"	Any
ipv4->sip_filter	String	"Any", "Host", "Network"	Any
ipv4->sip_address	String	<ip address>	
ipv4->sip_mask	String	<ip address>	
ipv4->dip_filter	String	"Any", "Host", "Network"	Any
ipv4->dip_address	String	<ip address>	
ipv4->dip_mask	String	<ip address>	

ipv4->icmp->type_filter	Integer	0:"Any", 1:"Specific"	0
ipv4->icmp->type_value	Integer	0-255	0
ipv4->icmp->code_filter	Integer	0:"Any", 1:"Specific"	0
ipv4->icmp->code_value	Integer	0-255	0
ipv4->udp->sport_filter	Integer	0:"Any", 1:"Specific", 2:"Range"	0
ipv4->udp->sport_start	Integer	0-65535	0
ipv4->udp->sport_end	Integer	0-65535	65535
ipv4->udp->dport_filter	Integer	0:"Any", 1:"Specific", 2:"Range"	0
ipv4->udp->dport_start	Integer	0-65535	0
ipv4->udp->dport_end	Integer	0-65535	65535
ipv4->tcp->sport_filter	Integer	0:"Any", 1:"Specific", 2:"Range"	0
ipv4-> tcp->sport_start	Integer	0-65535	0
ipv4-> tcp->sport_end	Integer	0-65535	65535
ipv4-> tcp->dport_filter	Integer	0:"Any", 1:"Specific", 2:"Range"	0
ipv4-> tcp->dport_start	Integer	0-65535	0
ipv4-> tcp->dport_end	Integer	0-65535 65535	
ipv4->tcp->fin	Integer	2:"Any", 1, 0	2
ipv4->tcp->syn	Integer	2:"Any", 1, 0	2
ipv4->tcp->rst	Integer	2:"Any", 1, 0	2
ipv4->tcp->psh	Integer	2:"Any", 1, 0	2
ipv4->tcp->ack	Integer	2:"Any", 1, 0	2
ipv4->tcp->urg	Integer	2:"Any", 1, 0	2
ipv4->protocol_value	Integer	0-255	
ipv6->dmac_filter	String	"Any", "MC", "BC", "UC"	Any
ipv6->next_header_filter	String	"Any", "ICMP", "UDP", "TCP", "Specific"	Any
ipv6->sip_filter	String	"Any", "Specific"	Any
ipv6->sip_address	String	<ipv6 address>	
ipv6->sip_bitmask	String	0-FFFFFFFF	FFFFFFFF
ipv6->hop_limit	String	"Any", "1", "0"	Any
ipv6->icmp->type_filter	Integer	0:"Any", 1:"Specific"	0
ipv6->icmp->type_value	Integer	0-255	0
ipv6->icmp->code_filter	Integer	0:"Any", 1:"Specific"	0
ipv6->icmp->code_value	Integer	0-255	0
ipv6->udp->sport_filter	Integer	0:"Any", 1:"Specific", 2:"Range"	0
ipv6->udp->sport_start	Integer	0-65535	0
ipv6->udp->sport_end	Integer	0-65535	65535
ipv6->udp->dport_filter	Integer	0:"Any", 1:"Specific", 2:"Range"	0
ipv6->udp->dport_start	Integer	0-65535	0
ipv6->udp->dport_end	Integer	0-65535	65535
ipv6->tcp->sport_filter	Integer	0:"Any", 1:"Specific", 2:"Range"	0
ipv6-> tcp->sport_start	Integer	0-65535	0
ipv6-> tcp->sport_end	Integer	0-65535	65535
ipv6-> tcp->dport_filter	Integer	0:"Any", 1:"Specific", 2:"Range"	0
ipv6-> tcp->dport_start	Integer	0-65535	0
ipv6-> tcp->dport_end	Integer	0-65535	65535
ipv6->tcp->fin	Integer	2:"Any", 1, 0	2

ipv6->tcp->syn	Integer	2:"Any", 1, 0	2
ipv6->tcp->rst	Integer	2:"Any", 1, 0	2
ipv6->tcp->psh	Integer	2:"Any", 1, 0	2
ipv6->tcp->ack	Integer	2:"Any", 1, 0	2
ipv6->tcp->urg	Integer	2:"Any", 1, 0	2
ipv6->next_header_value	Integer	0-255	

37. Delete ACL Config

URL: /api/del_acl_config

Method: POST

Request JSON:

```
{
        "acl": {
            "delete": [{
                "id": 1
            }, {
                "id": 3
            }]
        }
}
```

Response JSON:

```
{
        "acl": {
            "ace": [{
                "id": 2,
                "ingress_port": "2",
                "policy": {
                    "filter": "Any",
                    "value": 0,
                    "bitmask": "FF"
                },
                "action": {
                    "mode": "Permit",
                    "rate_limiter": 0,
                    "evc_policer": false,
                    "evc_policer_id": 1,
                    "mirror": false,
                    "logging": false,
                    "shutdown": false,
                    "counter": 0,
                    "deny_port_redirect": "0",
                    "filter_port": "1-12"
                },
                "vlan": {
                    "tagged": "Any",
```

```
                    "filter": "Any",
                    "vid": 0,
                    "tag_priority": "Any"
                },
                "frame_type": "any"
            }]
        }
}
```


38. Set SSL Key

URL: /api/create_ssl_key

Method: POST

Request JSON:


```
{
        "ssl_key": {
            "cert_maintain": "Upload",
            "cert_pass_phrase": "",
            "url": "http://192.168.111.183/test.pem"
        }
}
```


Section:

Name	Data type	Allowed / Value	Default Value
cert_maintain	String	"Upload", "Generate"	Upload
cert_pass_phrase	String	0-64 alphanumeric	
url	String	<URL>	

39. Get SSL Key Status

URL: /api/get_ssl_key_status

Method: GET

Request JSON: null

Response JSON:


```
{
        "ssl_key": {
            "status": "Switch secure HTTP certificate is presented"
        }
}
```

40. Ping

URL: /api/ping

Method: POST

Request JSON:

```
{
        "ping": {
            "host" : "192.168.1.1",
            "version" : 4,
            "count" : 5,
            "length" : 56,
            "vlan" : 1 ,
            "interval" : 1
        }
}
```

Note: get action status used "Get Ping Status".

Section:

Name	Data type	Allowed / Value	Default Value
host	String	<IPv4 Address> <IPv6 Address> <Host Name>	
version	Integer	4 : "host" is <IPv4 Address>, <Host Name> 6 : "host" is <IPv6 Address>	4
count	Integer	1-60	5
length	Integer	2-1452 Bytes	56
vlan	Integer	<Vlan ID> (Note : "host" is <IPv6 Address> used.)	1

41. Get Ping Status

URL: /api/get_ping_status

Method: GET

Request JSON: null

Response JSON:


```
{
        "ping": {
            "status": "done",
            "message": "PING server 192.168.111.183, 56 bytes of data.\nrecvfrom: Operation timed out\nrecvfrom:
             Operation timed out\ nrecvfrom: Operation timed out\ nrecvfrom: Operation timed out\ nrecvfrom:
            Operation timed out\ nSent 5 packets,received 0 OK, 0 bad\ n "
        }
}
```


Section:

Name	Data type	Allowed / Value
status	String	"start", "processing", "done"

42. Traceroute

URL: /api/traceroute

Method: POST

Request JSON:

```
{
        "traceroute": {
                "host" : "192.168.1.1",
                "version" : 4,
                "ip_protocol" : "ICMP",
                "wait_time" : 5,
                "max_ttl" : 5,
                "count" : 3
        }
}
```

Note: get action status used "Get Traceroute Status".

Section:

Name	Data type	Allowed / Value	Default Value
host	String	<IPv4 Address> <IPv6 Address> <Host Name>	
version	Integer	4 : "host" is <IPv4 Address>, <Host Name> 6 : "host" is <IPv6 Address>	4
ip_protocol		"ICMP", "UDP", "TCP	ICMP
wait_time		1-60	5
max_ttl		1-255	30
count	Integer	1-10	3

43. Get Traceroute Status

URL: /api/get_traceroute_status

Method: GET

Request JSON: null

Response JSON:

```
{
        "traceroute": {
            "status": "done",
            "message": "traceroute to 192.168.1.1 (192.168.1.1), 5 hops max, 140 byte packets\n 1 * * *\n 2 * * *\n 3
            * * *\n 4 * * * \n 5 * * * \n"
        }
}
```

Section:

Name	Data type	Allowed / Value
status	String	"start", "processing", "done"

44. Activate Config

URL: /api/activate_config

Method: POST

Request JSON:

```
{
        "system": {
            "config": {
            "activate_file": "startup-config"
            }
        }
}
```

Response JSON:

```
{
        "response": {
            "status": "success",
            "message": "startup-config saved successfully."
        }
}
```

Section:

Name	Data type	Allowed / Value	Default Value	Note
activate_file	String	<File Name>		Special Filename: "default-config" "startup-config"

45. Get DI/DO Config

URL: /api/get_di_do_config

Method: GET

Request JSON: null

Response JSON:


```
{
    "system":    {
        "di_do":    {
            "digital_out_mode":    true,
            "di_normal_mode":    "Low",
            "di_normal_description":    "DI Normal",
            "di_abnormal_description":    "DI Abnormal",
            "do_normal_mode":    "Open",
            "auto_recovery":    true
        }
    }
}
```


Note: get/set DI/DO are only supported in firmware v7.20.0016 and above.

46. Set DI/DO Config

URL: /api/set_di_do_config

Method: POST

Request JSON:

```
{
    "system":    {
        "di_do":    {
            "digital_out_mode":    false,
            "di_normal_mode":    "High",
            "di_normal_description":    "",
            "di_abnormal_description":    "",
            "do_normal_mode":    "Open",
            "auto_recovery":    false
        }
    }
}
```

Response JSON:

```
{
    "system":    {
        "di_do":    {
            "digital_out_mode":    false,
            "di_normal_mode":    "High",
            "di_normal_description":    "",
            "di_abnormal_description":    "",
            "do_normal_mode":    "Open",
            "auto_recovery":    false
        }
    }
}
```

Section:

Name	Data type	Allowed / Value	Default Value
digital_out_mode	Boolean		false
di_normal_mode	String	"Low", "High"	High
di_normal_description	String		
di_abnormal_description	String		
do_normal_mode	String	"Open", "Close"	Open
auto_recovery	Boolean		false

47. Get DI/DO Status

URL: /api/get_di_do_status

Method: GET

Request JSON: null

Response JSON:

```
{
    "system":    {
        "di_do":    {
            "di_status":  "Normal",
            "do_status":  "Normal"
        }
    }
}
```

48. Set DO Relay

URL: /api/set_di_do_relay

Method: POST

Request JSON: null

Response JSON:

```
{
    "system":    {
        "di_do":    {
            "do_relay_status":    true
        }
    }
}
```

Note: get/set DI/DO are only supported in firmware v7.20.0016 and above.

49. Get SNMP Trap Config

URL: /api/get_snmp_trap_config

Method: GET

Request JSON: null

Response JSON:


```
{
        "snmp": {
            "trap_mode": false,
            "trap": [{
                "name": "123",
                "mode": "Disabled",
                "version": "SNMPv2c",
                "community": "public",
                "dest_addr": "",
                "dest_port": 162,
                "inform_mode": false,
                "inform_timeout": 3,
                "inform_retries": 5,
                "probe_engine_id": false,
                "secu_engine_id": "",
                "secu_name": "None"
            },
            … … …
            ]
        }
}
```

50. Add SNMP Trap Config

URL: /api/add_snmp_trap_config

Method: POST

Request JSON:

```
{
        "snmp": {
              "trap_mode": false,
              "trap": [{
                    "name": "123",
                    "mode": "Disabled",
                    "version": "SNMPv2c",
                    "community": "public",
                    "dest_addr": "",
                    "dest_port": 162,
                    "inform_mode": false,
                    "inform_timeout": 3,
                    "inform_retries": 5,
                    "probe_engine_id": false,
                    "secu_engine_id": "",
                    "secu_name": "None"
              },
              … … …
              ]
        }
}
```

Response JSON:

```
{
        "snmp": {
              "trap_mode": false,
              "trap": [{
                    "name": "test123",
                    "mode": "UDP",
                    "version": "SNMPv2c",
                    "community": "public",
                    "dest_addr": "123.123.123.123",
                    "dest_port": 55,
                    "inform_mode": true,
                    "inform_timeout": 10,
                    "inform_retries": 10,
                    "probe_engine_id": false,
                    "secu_engine_id": "",
                    "secu_name": "None"
              }]
        }
}
```

Section:

Name	Data type	Allowed / Value	Default Value
trap_mode	Boolean		false
name	String	length is 1 to 32, the allowed content is ASCII characters from 33 to 126	
mode	String	"TCP", "UDP", "Disabled"	Disabled
community	String	length is 0 to 255, the allowed content is ASCII characters from 33 to 126	
dest_addr	String	<IPv4 Address> <IPv6 Address> <Host Name>	
dest_port	Integer	1~65535	162
inform_mode	Boolean		false
inform_timeout	Integer	0-2147	3
inform_retries	Integer	0-255	5
probe_engine_id	Boolean		false
secu_engine_id	String	contain an even number(in hexadecimal format) with number of digits between 10 and 64, but all-zeros and all-'F's are not allowed.	
secu_name	String		None

51. Delete SNMP Trap Config

URL: /api/del_snmp_trap_config

Method: POST

Request JSON:

```
{
        "snmp": {
                "trap_mode": false,
                "trap": {
                        "delete": [{
                                "name": "test123"
                        }]
                }
        }
}
```

Response JSON:

```
{
        "snmp": {
                "trap_mode": false,
                "trap": []
        }
}
```

Section:

Name	Data type	Allowed / Value	Default Value
trap_mode	Boolean		false
name	String	length is 1 to 32, the allowed content is ASCII characters from 33 to 126	

52. Get System Log

URL: /api/get_syslog

Method: GET

Request JSON: null

Response JSON:

```
{
        "system": {
            "syslog": {
                "log": [{
                    "id": 1,
                    "level": "Warning",
                    "time": "2011-01-01T00:00:12+00:00",
                    "message": "DI 1 change to abnormal"
                },
                … … …
                ]
            }
        }
}
```

Note: Only get the latest 100 entries.

53. Clear System Log

URL: /api/clear_syslog

Method: GET

Request JSON: null

Response JSON:

```
{
        "system": {
            "syslog": {
                "log": []
            }
        }
}
```

54. Get SFP Port Detail

URL: /api/get_sfp_port_detail

Method: GET

Request JSON: null

Response JSON:


```
{
        "ports": [{
            "id": "11",
            "sfp": {
                "connector_type": "SFP or SFP Plus - LC",
                "fiber_type": "Reserved",
                "tx_central_wavelength": "850",
                "bit_rate": "10 Gbps",
                "vendor_oui": "00-17-2d",
                "vendor_name": "Axcen Photonics",
                "vendor_pn": "AXXE-5886-05B3",
                "vendor_revision": "V1.0",
                "vendor_serial_number": "AX20240007781",
                "date_code": "200612",
                "temperature": "46.41 C",
                "vcc": "3.34 V",
                "mon1_bias": "8 mA",
                "mon2_tx_pwr": "-2.09 dBm",
                "mon3_rx_pwr": "none"
            }
        }]
}
```


Note: Only get the info with port inserted module.

API cURL Commands v1.3 for SISPM1040-384-LRT-C and -362-LRT

curl -v -d "{\"login\":{\"username\":\"admin\", \"password\": \"admin\",\"user_ip\":\"192.168.1.77\", \"sessid\":\"123456789\"}}" http://192.168.1.77/api/login

curl -v --cookie "seid=123456789" -d "{\"logout\":{\"sessid\":\"123456789\"}}" http://192.168.1.77/api/logout

curl -v --cookie "seid=123456789" -d "{\"system\":{\"warm\":\"Yes\"}}" http://192.168.1.77/api/reboot

curl -v --cookie "seid=123456789" http://192.168.1.77/api/get_sysinfo

curl -v --cookie "seid=123456789" -d "{\"system\": {\"information\": {\"system_name\": \"SISPM1040-384-LRT-C\",\"location\": \"Minnetonka\",\"contact\": \"Tech supportt\"}}}" http://192.168.1.77/api/set_sysinfo

curl -v --cookie "seid=123456789" http://192.168.1.77/api/get_poe_status

curl -v --cookie "seid=123456789" http://192.168.1.77/api/get_poe_config

curl -v --cookie "seid=123456789" -d "{\"poe\":{\"power_determined_mode\":\"Class\",\"power_management_mode\": \"Reserved Power\",\"capacitor_detection\":true},\"ports\":[{\"id\":1,\"poe\":{\"Mode\":\"Enabled\",\"Priority\":\"Low\",\"power_limit_user\":30,\"schedule\":\"Disabled\"}}]}" http://192.168.1.77/api/set_poe_config

curl -v --cookie "seid=123456789" http://192.168.1.77/api/get_port_statistics

curl -v --cookie "seid=123456789" http://192.168.1.77/api/get_port_config

curl -v --cookie "seid=123456789" -d "{\"ports\": [{\"id\": 1,\"speed_mode\": \"Auto\",\"flow_control\": false,\"jumbo_frames\": 9600,\"description\": \"test\"}]}" http://192.168.1.77/api/set_port_config

curl -v --cookie "seid=123456789" -d "{\"system\": {\"firmware\": {\"upgrade_url\":\"http://192.168.5.46/test.tar.gz\"}}}" http://192.168.1.77/api/firmware_upgrade

curl -v --cookie "seid=123456789" http://192.168.1.77/api/get_firmware_upgrade_status

curl -v --cookie "seid=123456789" http://192.168.1.77/api/get_account_config

curl -v --cookie "seid=123456789" -d "{\"account\": {\"status\" : \"NEW\",\"username\" : \"superuser\",\"password\" : \"superuser\",\"privilege_level\" : 15}}" http://192.168.1.77/api/set_account_config

curl -v --cookie "seid=123456789" http://192.168.1.77/api/get_dynamic_mac_table

curl -v --cookie "seid=123456789" http://192.168.1.77/api/save_configuration

curl -v --cookie "seid=123456789" http://192.168.1.77/api/get_system_time

curl -v --cookie "seid=123456789" -d "{\"system\": {\"time\": {\"clock_source\":\"Local Setting\",\"system_date\":\"2020-07-013 01:01:30\",\"time_zone\":\"5400\",\"acronym\":\"\",\"daylight\":{\"mode\":false,\"offset\":60,\"start_time\":{\"year\": 2020,\"month\": \"Jan\",\"week\": 1,\"day\": \"Mon\",\"date\": 1,\"hour\": 1,\"minute\": 0},\"end_time\": {\"year\": 2021,\"month\": \"Jan\",\"week\": 1,\"day\": \"Mon\",\"date\": 1,\"hour\": 1,\"minute\": 0}}}}}" http://192.168.1.77/api/set_system_time

curl -v --cookie "seid=123456789" http://192.168.1.77/api/get_ntp_server

curl -v --cookie "seid=123456789" -d "{\"system\": {\"ntp\": {\"automatic\": true,\"interval\": 60,\"server1\":\"ntp1.transition.com\",\"server2\": \"ntp2.transition.com\",\"server3\": \"\",\"server4\": \"\",\"server5\": \"\"}}}" http://192.168.1.77/api/set_ntp_server

curl -v --cookie "seid=123456789" http://192.168.1.77/api/get_syslog_server

curl -v --cookie "seid=123456789" -d "{\"system\":{\"syslog\":{\"mode\": true,\"server_address\": \"192.168.111.188\",\"server_port\": 514}}}" http://192.168.1.77/api/set_syslog_server

curl -v --cookie "seid=123456789" http://192.168.1.77/api/get_vlan_config

curl -v --cookie "seid=123456789" -d "{\"vlan\": {\"allowed_access_vlans\": \"1\",\"ethertype_custom_s_ports\": \"88a8\"},\"ports\": [{\"id\": 2,\"vlan\": {\"mode\": \"Access\",\"access\": {\"pvid\": 1,\"forbidden_vlan\": \"3,5\"}}},{\"id\": 3,\"vlan\": {\"mode\": \"Trunk\",\"trunk\": {\"pvid\": 1,\"egress_tagging\": \"Untag Port VLAN\",\"allowed_vlan\": \"1\",\"forbidden_vlan\": \"3,5\"}}},{\"id\": 4,\"vlan\": {\"mode\": \"Hybrid\",\"hybrid\": {\"pvid\": 1,\"port_type\": \"C-Port\",\"ingress_filter\": false,\"ingress_accept\": \"Tagged and Untagged\",\"egress_tagging\": \"Untag Port VLAN\",\"allowed_vlan\": \"1\",\"forbidden_vlan\": \"3-5\"}}}]}" http://192.168.1.77//api/set_vlan_config

curl -v --cookie "seid=123456789" http://192.168.1.77/api/get_mac_based_vlan

curl -v --cookie "seid=123456789" http://192.168.1.77/api/get_ip_address

curl -v --cookie "seid=123456789" -d "{\"system\": {\"ip\": {\"interfaces\": [{\"vid\": 1,\"ipv4\": {\"dhcp\": false,\"fallback\": 0,\"static_addr\": \"192.168.111.126\",\"static_mask\": 24},\"ipv6\": {\"static_addr\": \"\",\"static_mask\": 0}}]}}}" http://192.168.1.77/api/set_ip_address

curl -v --cookie "seid=123456789" http://192.168.1.77/api/get_mirror_config

curl -v --cookie "seid=123456789" -d "{\"system\": {\"mirror\": [{\"destination_port\": 2,\"source_tx\": \"4,6-8\",\"source_rx\": \"3,5,7-8\"}]}}" http://192.168.1.77/api/set_mirror_config

curl -v --cookie "seid=123456789" -d "{\"cable\": {\"port\": 5}}" http://192.168.1.77/api/cable_diagnostics

curl -v --cookie "seid=123456789" http://192.168.1.77/api/dev_list_table

curl -v --cookie "seid=123456789" http://192.168.1.77/api/get_di_do_config

curl -v --cookie "seid=123456789" -d "{\"system\":{\"di_do\": {\"digital_out_mode\": false,\"di_normal_mode\": \"High\",\"di_normal_description\": \"\",\"di_abnormal_description\": \"\",\"do_normal_mode\": \"Open\",\"auto_recovery\": false}}}" http://192.168.1.77/api/set_di_do_config

curl -v --cookie "seid=123456789" http://192.168.1.77/api/get_di_do_status

curl -v --cookie "seid=123456789" -d "{\"system\":{\"di_do\": {\"do_relay_status\": true}}}" http://192.168.1.77/api/set_di_do_relay

Record of Revisions

Rev.	Date	Description
A	8/18/20	Initial release at API v1.3 for SISPM1040-384-LRT-C FW v7.10.2629. Update the format of "Device List Table" return and add 4 commands.
B	12/4/20	Add SISPM1040-362-LRT API. Upgrade to FW v7.10.2706, and then upgrade to v7.10.2710. Add cURL Commands v 1.0. Update for FW v7.20.0016; add support for get/set DI/DO via API and add cURL commands DIDO v1.0.
C	7/21/21	FW v7.20.0063: add Get ACL Config, ACL Config, Delete ACL Config, Set SSL Key, Get SSL Key Status, Ping, Get Ping Status, Traceroute, Get Traceroute Status, and Activate Config API commands. Add API commands Auto Power Reset, SNMP trap config, Show syslog, Clear syslog, and SFP port details. Fix Traceroute, SNMP Write community, and Set ACL via API issues. Modify API response structure for getting firmware upgrade, active config, Ping, Traceroute, set SSL key, and login and logout status. Fixes: make Traceroute data format consistent with UDP and ICMP, and make SNMP Trap Destination Port value range 1~65535.

Diffs:

Parameter	SISPM1040-362-LRT	SISPM1040-384-LRT-C
model_name	SISPM1040-362-LRT	SISPM1040-384-LRT-C
description	Managed Hardened PoE+ Switch, (4) 10/100/1000Base-T PoE+ Ports + (2) 10/100/1000Base-T Ports + (2) 100/1000Base-X SFP Ports	Managed Hardened PoE+ Switch, (8) 10/100/1000Base-T PoE+ Ports + (4) 100/1000Base-X SFP
system_name	SISPM1040-362-LRT	SISPM1040-384-LRT-C
firmware_version	v7.20.0063	V7.20.0063

Note: minimum version of firmware required:

- SISPM1040-384-LRT-C FW v7.10.2629
- SISPM1040-362-LRT FW v7.10.2706, then v7.10.2710