

# API User Guide

## for SISPM1040-384-LRT-C and SISPM1040-362-LRT

### Contents

1. Login.....	2
2. Logout.....	3
3. Reboot.....	3
4. Get System Information.....	4
5. Set System Information.....	5
6. Get PoE Status.....	6
7. Get PoE Config.....	9
8. Set PoE Config.....	11
9. Get Port Statistics.....	14
10. Get Port Config.....	15
11. Set Port Config.....	16
12. Firmware Upgrade.....	17
13. Get Firmware Upgrade Status.....	17
14. Get Account Configuration.....	18
15. Set Account Configuration.....	18
16. Get MAC Table Information.....	19
17. Save Configuration.....	19
18. Get System Time.....	20
19. Set System Time.....	21
20. Get NTP Server.....	24
21. Set NTP Server.....	24
22. Get Syslog Server.....	25
23. Set Syslog Server.....	26
24. Get Vlan Config.....	27
25. Set Vlan Config.....	28
26. Get Mac Based Vlan Config.....	30
27. Get IP Address.....	31
28. Set IP Address.....	32
29. Get Mirror Config.....	33
30. Set Mirror Config.....	34
31. Cable Diagnostic.....	35
32. Device List Table.....	36
33. Get DI/DO Config.....	38
34. Set DI/DO Config.....	38
35. Get DI/DO Status.....	39
36. Set DO Relay.....	40
API cURL commands v1.3 for SISPM1040-384-LRT-C and -362-LRT.....	41
Record of Revisions.....	43

## 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": "VB7.20.0016 2020-07-03",
      "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"
      }
    }
  }
}
```

## 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:**

<b>Name</b>	<b>Data type</b>	<b>Unit</b>
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

## 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:**

<b>Name</b>	<b>Data type</b>	<b>Allowed / Value</b>	<b>Default Value</b>
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

## 9. 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
    }
},
... ..
]
}

```

## 10. 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": ""
    },
    ... ..
  ]
}

```

## 11. 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	
-------------	--------	-------------------	--

## 12. 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>	

## 13. Get Firmware Upgrade Status

**URL:** /api/get\_firmware\_upgrade\_status

**Method:** GET

**Request JSON:** null

**Response JSON:**

```
{
  "system": {
    "firmware": {
      "upgrade_status": "idle"
    }
  }
}
```

## 14. Get Account Configuration

**URL:** /api/get\_account\_config

**Method:** GET

**Request JSON:** null

**Response JSON:**

```
{
  "account": [{
    "username": "superuser",
    "privilege_level": 15
  },
  ... ..
  ]
}
```

## 15. 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

## 16. 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
  },
  ... ..
  ]
}
```

## 17. Save Configuration

**URL:** /api/save\_configuration

**Method:** GET

**Request JSON:** null

**Response JSON:**

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

## 18. 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
        }
      }
    }
  }
}
```

## 19. 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)

## 20. 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": ""
    }
  }
}
```

## 21. 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.	

**22. 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
    }
  }
}

```

## 23. 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

## 24. 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": ""
      }
    }
  ]
  ... ..
}
```

## 25. 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>	

## 26. 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"
    }
    ... ..
  ]
}
```

## 27. 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
        }
      }
      ... ..
    ]
  }
}
```

## 28. 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	

**29. 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"
    }]
  }
}

```

### 30. 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.

## 31. 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>	

## 32. 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

### 33. 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 (future release).

### 34. 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

### 35. 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"
    }
  }
}

```

**Section:**

Name	Data type	Allowed / Value	Default Value
di-status	String	"Normal" 、 "Abnormal"	Normal
do_status	String	"Normal" 、 "Abnormal"	Normal
do_relay_status	String	true	(support set only)

## 36. 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 (future release).



## 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\", \"ssid\":\"123456789\"}}" http://192.168.1.77/api/login
curl -v --cookie "seid=123456789" -d "{\"logout\":{\"ssid\":\"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.

### 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	v7.20.0016	V7.20.0016

**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

**Note:** get/set DI/DO are only supported in firmware v7.20.0016 (future release).