

API V1.0

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API Server

- Dev Server: <http://10.252.96.247>
- EPD Dev Server: <http://10.10.97.88>

API response format

- OK format

```
{  
  "status": "ok",  
  "data" {
```

```
}  
}
```

- Error Format

```
{  
  "status": "err",  
  "code": "error_code",  
  "msg": "error description"  
}
```

API list

Authorization

Login (V1.0)

- URL:

```
{HOST}/iot/api/v1/auth/login POST
```

- PARAMS:

```
{  
  "user": "admin",  
  "password": "admin"  
}
```

- RESPONSE:

```
{  
  "status": "ok",  
  "data": {  
    "user": {  
      "user": "admin",  
      "roles": [  
        "admin"  
      ],  
      "privileges": [  
        "admin",  
        "view"  
      ]  
    },  
  },  
}
```

```
    "token":  
    "625472c75d104a56c0265b1ea1be0ae181eec32943366c86fa357906034c420d"  
  }  
}
```

MQTT Monitoring

Get MQTT broker running status (V1.0)

- URL:

```
{HOST}/iot/api/v1/monitor/brokers/stats GET
```

- PARAMS:

```
NONE
```

- RESPONSE:

```
{  
  "status": "ok",  
  "data": {  
    "metrics": {  
      "messageSentCount": 23247,  
      "messageReceivedCount": 66452,  
      "packetSentCount": 58174,  
      "packetReceivedCount": 101347,  
      "byteSentCount": 3315420,  
      "byteReceivedCount": 9280059  
    },  
    "stats": {  
      "nodeCount": 1,  
      "sessionCount": 1,  
      "connectionCount": 1  
    }  
  }  
}
```

Get MQTT broker node list (V1.0)

- URL:

```
{HOST}/iot/api/v1/monitor/brokers GET
```

- PARAMS:

```
NONE
```

- RESPONSE:

```
{
  "status": "ok",
  "data": {
    "count": 1,
    "list": [
      {
        "datetime": "2018-09-12 10:42:57",
        "node": "emqx@127.0.0.1",
        "node_status": "Running",
        "otp_release": "R21/10.0.5",
        "sysdescr": "EMQ X Broker",
        "uptime": "1 days,18 hours, 45 minutes, 1
seconds",
        "version": "3.0"
      }
    ]
  }
}
```

Get connection list (V1.0)

- URL:

```
{HOST}/iot/api/v1/monitor/brokers/connections GET
```

- PARAMS:

```
?page=1&limit=100
```

- RESPONSE:

```
{
  "status": "ok",
  "data": {
    "total": 2,
    "count": 2,
    "page": 1,
    "limit": 100,
    "list": [
      {
        "clean_start": true,
        "client_id": "emqx-api-test:v1",
        "connected_at": "2018-09-12 10:42:57",
        "ipaddress": "127.0.0.1",
        "is_bridge": false,
        "is_super": false,
        "keepalive": 60,
        "mountpoint": "undefined",
        "node": "emqx@127.0.0.1",
        "peercert": "noss1",
        "port": 64594,
        "proto_name": "MQTT",
        "proto_ver": 4,
        "username": "emqx-api-test:v1",
        "will_topic": "undefined",
        "zone": "external"
      },
      {
        "clean_start": true,
        "client_id": "mqttjs_406e3f9a",
        "connected_at": "2018-09-12 10:42:57",
        "ipaddress": "127.0.0.1",
        "is_bridge": false,
        "is_super": false,
        "keepalive": 60,
        "mountpoint": "undefined",
        "node": "emqx@127.0.0.1",
        "peercert": "noss1",
        "port": 64593,
        "proto_name": "MQTT",
        "proto_ver": 4,
        "username": "undefined",
        "will_topic": "undefined",
        "zone": "external"
      }
    ]
  }
}
```

Get session list (V1.0)

- URL:

```
{HOST}/iot/api/v1/monitor/brokers/sessions GET
```

- PARAMS:

```
?page=1&limit=100
```

- RESPONSE:

```
{
  "status": "ok",
  "data": {
    "total": 2,
    "count": 2,
    "page": 1,
    "limit": 100,
    "list": [
      {
        "awaiting_rel_len": 0,
        "binding": "local",
        "clean_start": true,
        "client_id": "emqx-api-test:v1",
        "created_at": "2018-09-12 10:42:57",
        "deliver_msg": 0,
        "enqueue_msg": 0,
        "expiry_interval": 7200,
        "heap_size": 376,
        "inflight_len": 0,
        "mailbox_len": 0,
        "max_awaiting_rel": 100,
        "max_inflight": 32,
        "max_mqueue": 1000,
        "max_subscriptions": 0,
        "mqueue_dropped": 0,
        "mqueue_len": 0,
        "node": "emqx@127.0.0.1",
        "reductions": 203,
        "subscriptions_count": 0,
        "username": "emqx-api-test:v1"
      },
      {
        "awaiting_rel_len": 0,
        "binding": "local",
```

```
        "clean_start": true,
        "client_id": "mqttjs_406e3f9a",
        "created_at": "2018-09-12 10:42:57",
        "deliver_msg": 0,
        "enqueue_msg": 0,
        "expiry_interval": 7200,
        "heap_size": 233,
        "inflight_len": 0,
        "mailbox_len": 0,
        "max_awaiting_rel": 100,
        "max_inflight": 32,
        "max_mqueue": 1000,
        "max_subscriptions": 0,
        "mqueue_dropped": 0,
        "mqueue_len": 0,
        "node": "emqx@127.0.0.1",
        "reductions": 188,
        "subscriptions_count": 0,
        "username": "undefined"
    }
}
]
```

Device Monitoring

Get device list (V1.0)

- URL:

```
{HOST}/iot/api/v1/monitor/devices GET
```

- PARAMS:

```
?page=1&limit=100
```

- RESPONSE:

```
{
  "status": "ok",
  "data": {
    "count": 2,
    "limit": 100,
    "list": [
```

```

        {
            "activeTime": 1542188584,
            "bootTime": -1,
            "dur": 5,
            "offlineTime": 1542188181,
            "online": true,
            "onlineTime": 1542188264,
            "procs": "{\\\"d\\\": [{\\\"mem\\\":1088,\\\"n\\\":\\\"monitor\\\"},
{\\\"mem\\\":1140,\\\"n\\\":\\\"msghub\\\"},
{\\\"mem\\\":844,\\\"n\\\":\\\"cmdhandler\\\"}],\\\"revtime\\\":1542188564,\\\"sn\\\":\\\"8CFCA010
7D1B\\\",\\\"time\\\":1295556987}",
            "sn": "8CFCA0107D1B",
            "sys": "",
            "versions": "{\\\"d\\\": [{\\\"n\\\":\\\"monitor\\\",\\\"v\\\":\\\"1.0.0
20181114-173644\\\"}, {\\\"n\\\":\\\"msghub\\\",\\\"v\\\":\\\"1.0.0 20181114-173644\\\"},
{\\\"n\\\":\\\"cmdhandler\\\",\\\"v\\\":\\\"1.0.0 20181114-173644\\\"},
{\\\"n\\\":\\\"upgrade.cmd\\\",\\\"v\\\":\\\"1.4.0 20181114-173644\\\"},
{\\\"n\\\":\\\"android.cmd\\\",\\\"v\\\":\\\"1.4.0 20181114-
173644\\\"}],\\\"revtime\\\":1542188269,\\\"sn\\\":\\\"8CFCA0107D1B\\\",\\\"time\\\":129555669
2}"
        },
        {
            "activeTime": 1542188574,
            "bootTime": 0,
            "dur": 15,
            "offlineTime": 1542173903,
            "online": true,
            "onlineTime": 1542173904,
            "procs": "{\\\"d\\\": [{\\\"mem\\\":3832,\\\"n\\\":\\\"monitor\\\"},
{\\\"mem\\\":2652,\\\"n\\\":\\\"daemon\\\"}, {\\\"cpu\\\":0.2,\\\"mem\\\":2408,\\\"n\\\":\\\"msghub\\\"},
{\\\"mem\\\":2356,\\\"n\\\":\\\"dma.cmdhandler\\\"}],\\\"revtime\\\":1542188544,\\\"sn\\\":\\\"RPI
B827EBF24B9D\\\",\\\"time\\\":31853}",
            "sn": "RPIB827EBF24B9D",
            "sys": "{\\\"d\\\":
{\\\"free\\\":848988,\\\"load\\\":0.21,\\\"used\\\":47000},\\\"revtime\\\":1542188544,\\\"sn\\\"
:\\\"RPIB827EBF24B9D\\\",\\\"time\\\":31853}",
            "versions": "{\\\"d\\\": [{\\\"n\\\":\\\"monitor\\\",\\\"v\\\":\\\"1.0.0
20181114-133734\\\"}, {\\\"n\\\":\\\"msghub\\\",\\\"v\\\":\\\"1.0.0 20181114-104110\\\"},
{\\\"n\\\":\\\"dma.cmdhandler\\\",\\\"v\\\":\\\"1.0.0 20181114-104110\\\"},
{\\\"n\\\":\\\"upgrade.cmd\\\",\\\"v\\\":\\\"1.4.0 20181114-
104110\\\"}],\\\"revtime\\\":1542188485,\\\"sn\\\":\\\"RPIB827EBF24B9D\\\",\\\"time\\\":31793}
"
        }
    ],
    "page": 1,
    "total": 2
}
}

```


Get devices count (V1.0)

- URL:

```
{HOST}/iot/api/v1/monitor/devices/count GET
```

- PARAMS:

None

- RESPONSE:

```
{
  "status": "ok",
  "data": {
    "offline": 1,
    "online": 2,
    "total": 3
  }
}
```

Get peripherals list (V1.0)

- URL:

```
{HOST}/iot/api/v1/monitor/devices/peripherals GET
```

- PARAMS:

```
?page=1&limit=100
```

- RESPONSE:

```
{
  "status": "ok",
  "data": {
    "count": 2,
    "limit": 100,
    "list": [
      {

```

```
        "nId": "PH3223881",
        "gwId": "GW8399438",
        "sn": "RPIB827EBF24B9D",
        "online": true,
        "activeTime": 1542188574,
        "revTime": 1542188579,
        "msg": "{...}"
      },
      {
        "nId": "PH3223882",
        "gwId": "GW8399438",
        "sn": "RPIB827EBF24B9D",
        "online": true,
        "activeTime": 1542188574,
        "revTime": 1542188579,
        "msg": "{...}"
      }
    ],
    "page": 1,
    "total": 2
  }
}
```

Get peripheral Count (V1.0)

- URL:

```
{HOST}/iot/api/v1/monitor/devices/peripherals/count GET
```

- PARAMS:

None

- RESPONSE:

```
{
  "status": "ok",
  "data": {
    "offline": 1,
    "online": 2,
    "total": 3
  }
}
```

get device status change callbacks (V1.0)

- URL:

```
{HOST}/iot/api/v1/monitor/devices/callbacks GET
```

- PARAMS:

None

- RESPONSE:

```
{
  "status": "ok",
  "data": {
    "count": 2,
    "list": [
      {
        "id": 1,
        "type": "device"
        "url":
"http://127.0.0.1:5000/devicecallback",
        "enabled": true,
        "createTime":1542188579,
        "updateTime":1542188579,
        "succCount":389,
        "failedCount":0
      },
      {
        "id": 1,
        "type": "peripheral",
        "url":
"http://127.0.0.1:5000/peripheralcallback",
        "enabled": true,
        "createTime":1542188579,
        "updateTime":1542188579,
        "succCount":0,
        "failedCount":0,
      }
    ]
  }
}
```

set device status change callbacks (V1.0)

- URL:

```
{HOST}/iot/api/v1/monitor/devices/callbacks POST
```

- PARAMS:

```
{
  "type": "device",
  "url": "http://127.0.0.1:5000/devicecallback",
  "enabled": true
}
```

- RESPONSE:

```
{
  "status": "ok",
  "data": {
    "id": 1,
    "type": "device",
    "url": "http://127.0.0.1:5000/devicecallback",
    "enabled": true,
    "createTime": 1542188579,
    "updateTime": 1542188579
  }
}
```

enable device status change callback (V1.0)

- URL:

```
{HOST}/iot/api/v1/monitor/devices/callbacks/enable POST
```

- PARAMS:

```
{
  "id": 1,
  "enabled": true
}
```

- RESPONSE:

```
{
  "status": "ok",
  "data": {
    "id": 1,
    "type": "device",
    "url": "http://127.0.0.1:5000/devicecallback",
    "enabled": true,
    "createTime": 1542188579,
    "updateTime": 1542188579
  }
}
```

callbacks statistics (V1.0)

- URL:

```
{HOST}/iot/api/v1/monitor/devices/callbacks/{device | peripheral}/stats
GET
```

- PARAMS:
- RESPONSE:

```
{
  "status": "ok",
  "data": {
    "failed": 0,
    "succ": 0
  }
}
```

Message Route

Get message route configs (V1.0)

- URL:

```
{HOST}/iot/api/v1/msgroute/configs GET
```

- PARAMS:

None

- RESPONSE:

```
{
  "status": "ok",
  "data": {
    "count": 1,
    "list": [
      {
        "createTime": 1542089125,
        "failedCount": 16,
        "id": 1,
        "name": "test",
        "succCount": 4,
        "topic": "dma/resp/cmd",
        "updateTime": 1542089125,
        "url": "http://127.0.0.1:5000/cmdrespcallback"
      }
    ]
  }
}
```

Add message route config (V1.0)

- URL:

```
{HOST}/iot/api/v1/msgroute/configs POST
```

- PARAMS:

```
{
  "topic", "dma/mem",
  "name": "Forward topic test",
  "url": "http://xxx/xxx"
}
```

- RESPONSE:

```
{
  "status": "ok",
  "data": {
    "id": 1
    "topic", "dma/mem",
  }
}
```

```
        "name": "Forward topic test",
        "url": "http://xxx/xxx",
        "createTime": 1542089125,
        "updateTime": 1542089125
    }
}
```

Update message route config (V1.0)

- URL:

```
{HOST}/iot/api/v1/msgroute/configs PUT
```

- PARAMS:

```
{
    "id": 1,
    "name": "Forward topic test",
    "url": "http://xxx/xxx"
}
```

- RESPONSE:

```
{
    "status": "ok",
    "data": {
        "id": 1
        "topic": "dma/mem",
        "name": "Forward topic test",
        "url": "http://xxx/xxx",
        "createTime": 1542089125,
        "updateTime": 1542089125
    }
}
```

Delete message route config (V1.0)

- URL:

```
{HOST}/iot/api/v1/msgroute/configs DELETE
```

- PARAMS:

```
?id=1
```

- RESPONSE:

```
{
  "status": "ok",
  "data": {
    "rows": 1
  }
}
```

Remote Control

Publish command to devices (V1.0)

- URL:

```
{HOST}/iot/api/v1/remotectl/commands POST
```

- PARAMS:

```
{
  "from": "iot_web_console",
  "to": [
    {
      "sn": "8CFCA0107D1B"
    },
    {
      "sn": "6FSDA0108789"
    }
  ],
  "command": "sh",
  "method": "",
  "body": {
    "shcmd": "whoami"
  },
  "publishNow": true,
  "maxRetries": 3,
  "expires": 38400,
  "detached": true
}
```

- RESPONSE:


```
{
  "status": "ok",
  "data": {
    "to": [
      {
        "id": 201811260000000001,
        "sn": "8CFCA0107D1B"
      },
      {
        "id": 201811260000000002,
        "sn": "6FSDA0108789"
      }
    ]
  }
}
```

- NOTE:

- "from": 不需要输入, JS直接设置为 "iot_web_console"
- "to": 从web ui发送一个设备即可
- "method": 可以为 "", "get", "set"
- "command": 命令名称, 一个字符串
- "body": 命令体, 一个json字符串
- "publishNow": 如果设为true, 表示立即发送。如果false, 表示收到设备在线消息再发送
- "maxRetries": 命令处理失败的情况, 最大尝试的次数
- "expires": 超时时间(seconds), 过了这个时间无论成功还是失败, 命令记录被清除。若失败也不在尝试重新发送
- "detached": 命令处理程序是否在单独的进程运行

Query command status (V1.0)

- URL:

```
{HOST}/iot/api/v1/remotectl/commands GET
```

- PARAMS:

```
?id={id}
?from={from}
?page={page} 默认1
?limit={limit} 默认100
```

- RESPONSE:

- 如果传入了id, 返回一个结果, 此时忽略page和limit参数

```
{
  "status": "ok",
  "data": {
    "command": "sh",
    "d": {
      "shcmd": "ls /tmp"
    },
    "detached": 0,
    "expires": 7200,
    "failedTime": 0,
    "finishTime": 1542604401,
    "from": "test",
    "id": 789,
    "maxRetries": 3,
    "method": "",
    "publishNow": false,
    "publishTime": 1542604400,
    "sn": "RPIB827EBF24B9D",
    "state": 2,
    "tryTimes": 2
  }
}
```

- 没有传入id, 返回列表

```
{
  "status": "ok",
  "data": {
    "count": 2,
    "limit": 2,
    "list": [
      {
        "command": "sh",
        "createTime": 1542685518,
        "d": {
          "shcmd": "ps|grep dma"
        },
        "detached": 0,
        "expires": 180,
        "failedTime": 0,
        "finishTime": 1542685532,
        "from": "test",
        "id": 16,
        "maxRetries": 3,
        "method": "",
        "publishNow": false,

```

```
        "publishTime": 1542685532,
        "sn": "RPIB827EBF24B9D",
        "state": 2,
        "tryTimes": 1
      },
      {
        "command": "sh",
        "createTime": 1542684264,
        "d": {
          "shcmd": "ls /tmp"
        },
        "detached": 0,
        "expires": 7200,
        "failedTime": 0,
        "finishTime": 1542684275,
        "from": "test",
        "id": 1,
        "maxRetries": 3,
        "method": "",
        "publishNow": false,
        "publishTime": 1542684272,
        "sn": "RPIB827EBF24B9D",
        "state": 2,
        "tryTimes": 3
      }
    ],
    "page": 1,
    "total": 7
  }
}
```

- NOTE:
 - "state" 0: 就绪 1: 进行中 2: 成功 3: 失败

Query command result (V1.0)

- URL:

```
{HOST}/iot/api/v1/remotectl/commands/responses GET
```

- PARAMS:

```
?id={id}
?from={from}
```

- RESPONSE:

```
{
  "status": "ok",
  "data": {
    "command": "sh",
    "d": {
      "exestatus": "ok",
      "msg": "",
      "result": "cm9vdA==",
      "status": "ok"
    },
    "from": "iot_demo_web",
    "id": 20181203000000004,
    "revtime": 1543818336,
    "sn": "RPIB827EBF24B9D",
    "status": "ok",
    "time": 18423
  }
}
```

- NOTE:

- if "command" is "sh", please decode base64 "result" in web UI