1. TCN100(2)

上报格式参照http://note.youdao.com/groupshare/?token=955BD742A148498E90FC73E6DD0C6211&gid=11341115

TCN100版本无需订阅,无上报

只有最外层及数组可选, 内层的全部要填充

即时设置的单独给接口设置

```
返回数据格式
   "version": 1, //固定参数,返回值版本号
   "code": 0,
                //固定参数,返回码
   "msg": "xxx", //可选参数,提示消息
   "data": {
                //可选参数,返回数据
      //...
例获取msata配置的返回:
   "version": "1",
   "code": 0,
   "data": {
      "num":2,
      "info":[{ //根据数组大小获取硬盘数量
                 " id":0,
                "fileFormat":"Ext"
                 "totalSize":3000, //总大小,单位Mb
                 "partNum":3, //分区个数
                 "partSize":[1000,1500,500] //每个分区大小
             },
                 " id":1,
                 "fileFormat":"Ext"
                 "totalSize":4000,
                "partNum":3,
                 "partSize":[1000,2500,500]
             }]
```

1.设备基本信息

功能	获取设备信息
URL path	/api/platform/cfg
Method	GET
Body	见"附1"

备注

• 该信息不需要登录即可获取

```
附1
{ "version": "1",
    "code": 0,
    "data": {
        "hardwareVersion": "1.1",
        "softwareVersion": "1.5.1",
        "systemVersion": "1.5.1",
        "devSN": "af9e937a-c09f-11d3-852e-7c669d63fc1a",
        "barcode": "af9e937a-c09f-11d3-852e-7c669d63fc1a",
        "devType": "edu-fd",
        "devModel": "edf-df.tcn100s",
        "buildDate": "Aug 17 2016 16:26:41",
```

2. 硬盘接口

功能	msata格式化
URL path	/dev/msata/cmd
Method	POST
Body	见"附2"

备注

• 文件系统格式有"Ext","Ext2","Ext3","JFS","XFS","ReiserFS"

功能	msata分区
URL path	/dev/msata/cmd
Method	POST
Body	见"附3"

备注

- 格式化后才可分区
- 分区大小单位为Mb

功能	获取msata配置
URL path	/dev/msata/cfg
Method	GET
Body	见"附4"

备注

• 文件系统格式有"Ext","Ext2","Ext3","JFS","XFS","ReiserFS"

功能	获取msata状态
URL path	/dev/msata/state
Method	GET
Body	见"附5"

```
附2
{
    "action":"HDFormat", //行为: 格式化
    "paramlist":{
        "_id":0, //硬盘id TCN100只有一个硬盘
        "fileSysFormat":"Ext" //分区格式
}

附3
{
    "action":"HDPartition",
    "paramlist":{
        "_id":0,
        "partNum":3, //分区个数
        "partSize":[1000,300] //每个分区大小
}}
```

```
附4
    "version": "1",
   "code": 0,
   "data": {
       "num":2,
       "info":[{ //根据数组大小获取硬盘数量
           "_id":0,
           "fileSysFormat":"Ext"
           "totalSize":3000, //总大小,单位Mb
           "partNum":3, //分区个数
           "partSize":[1000,1500,500] //每个分区大小
       },
           "_id":1,
           "fileSysFormat":"Ext"
           "totalSize":4000,
           "partNum":3,
           "partSize":[1000,2500,500]
       }]
   }
}
附5
   "version": "1",
   "code": 0,
    "data": {
       "HDFormatStatus":"idle" //"idle"空闲、"running"运行中、"error"错误
       "HDPartitionStatus":"idle" //"idle"空闲、"running"运行中、"error"错误
操作"idle"\"error"->"running"
操作失败"running"->"error"
操作成功"running"->"idle"
```

3. 系统接口

功能	系统配置
URL path	/dev/sys/cfg
Method	GET/PUT
Body	见"附6"

备注

• 网络设置netCfg、自动控制autoCfg、TCN设备名字devName: 可选设置上报

功能	系统命令
URL pat	/dev/sys/cmd
Method	POST
Body	无回复命令见"附7",测试见"附8",打包日志命令见"附9",获取打包状态命令:"附10"

- 无回复命令action:
- "shutdown"关机(不处理),"restart"重启,"restore"恢复出厂设置
- "stopNetTest"关闭测试"stopNetService"关闭测试服务
- 测试命令(带回复): "startNetTest"启动测试,, "startNetService"开启测试服务
- 打包命令action (带回复):
- 系统日志级别: "Oper", "Modif", "Alarm", "Init"、
- 操作日志级别: "Debug", "Info", "Notice", "Warn", "Error", "Fatal"
- "packingSysLog"打包系统日志,"packingOperLog"打包操作日志,"packingConfigFile"打包配置文件
- 获取打包任务状态: "GetPackStatus"

功能	系统状态
URL path	/dev/sys/state
Method	GET
Body	见"附11"

```
附6
   "version": "1",
   "code": 0,
   "data": {
       "netCfg":{ //可选
            "num":1, //网卡数量
            "info":[{ //可选
                    "ifname":"eth0", //"eth0","eth1" 目前只有eth0
                    "ipmethod":"dhcp", //"static"静态,"dhcp"动态
                    "ipaddr":"192.168.1.10",
                    "netmask":"255.255.255.255",
                    "gateway":"192.168.1.1"
               }]
       },
        "autoCfg":{ //可选
            "num":1 //自动控制数量
            "info":[{ //自动控制 //可选,可以只发一个
                    "autoControl":"autoAwait", //名字不可更改
                    "switch":"On",
                                    //开关 //"On","Off"
                    "awitTime":30,
                                    //分
               },
                    "autoControl":"autoShutdown", //名字不可更改
                                   //开关 //"On","Off"
                    "switch":"Off",
                    "awitTime":30,
                                    //分
               }]
        "portRange":{
                        //可选
            "beginPort":1000, //起始端口
            "endPort":2000,
                               //结束端口
        "devName":"多媒体教室", //可选
        "companyInfo":{ //不可设
            "logoUrl":""//去下载
            "companyName":""
            "companyAddr":""
            "companyWeb":""
   }}
附7
{
   "action":"shutdown" //"shutdown"关机,"restart"重启
                                    //"stopNetTest","stopNetService"
}
附8
{
   "action":"startNetTest", //开始网络测试
   "paramlist":{
        "ipaddr":"192.168.1.100", //IP地址
        "protocolType":"tcp", //"tcp", "udp", "tls", "utls" //协议类型
        "bandWidth":20 //2,10,20,50,100,300,500,800 //带宽(Mb)
        "testTime":20 //10,20,30 (秒) //测试时长
}
{
   "action":"startNetService" //"startNetService"开始测试服务
测试回复:
{ "version": "1",
```

```
"code": 0,
    "data": {
       "url":""//去下载
}
附9
{ //打包系统日志
   "action": "packingSysLog",
    "paramlist":{
        "logType":"Oper", //系统日志级别: "Oper", "Modif", "Alarm", "Init"
}
  //打包操作日志
    "action": "packingOperLog",
    "paramlist":{
       "logType":"Info",
                    //操作日志级别: "Debug", "Info", "Notice", "Warn", "Error", "Fatal"
   }
}
   //打包配置
{
    "action": "packingConfigFile"
打包回复:
    "version": "1",
    "code": 0,
    "data": {
       "url":""//去下载
附10
{ //查询打包状态
   "action": "getPackStatus",
    "paramlist":{
       "url":""//对应的URL
}
回复
打包回复:
{
    "version": "1",
    "code": 0,
   "data": {
       "packStatus":"nofind"
                   //"nofind"该任务不存在、"running"运行中、"finished"完成 、"error"失败
   }
打包"nofind"\"error"\"finished" ->"running"
打包失败"running" ->"error"
打包完成"running"->"finished"
附11
{
    "version": "1",
    "code": 0,
    "data": {
        "cpu":{
                          //占有率: 2.15%
            "rate":0.0215,
       },
        "ram":{
                  //内存
            "usedSize":2000,
            "totalSize":3000
        },
        "disk":{
                   //硬盘
            "num":1,
            "info":[{
                "usedSize":2000, //Mb
                "totalSize":3000 //Mb
            }]
       },
   }
}
4. 账户接口
```

功能	账户命令
URL path	/dev/account/cmd
Method	POST
Body	见"附12"

- 账户登录登出与旧接口一样
- 修改密码

```
附12
{
    "action":"alterPassWord",
    "paramlist":{
        "account":{
            "username":"admin",
            "password":"admin"
        },
        "newPassWord":"tendzone"
    }}
```

5. 上传下载资源

功能	上传资源
URL path	/api/storage/file?type={type}&path={filename}¶m={coversign}
Method	PUT
Body	

备注

- type:"protocol"上传协议、"picture"图片资源(视频输出背景图、开机图)、"config"配置文件
- coversign 0 不覆盖、1覆盖

功能	下载资源
URL path	见对应接口给的URL
Method	GET
Body	

备注

• 见对应接口给的URL下载

6. 中控接口

功能	中控配置
URL path	/dev/control/cfg
Method	GET/PUT
Body	见"附13"

备注

•

功能	中控命令
URL path	/dev/control/cmd
Method	POST
Body	见"附14","见"附15"

- 系统命令action: "persctrl"外设控制 (com、ir等等) 见"附14"
- 红外命令: "irStudyBegin"红外学习开始,"irStudyStudy"红外学习,
- "irStudyCancel"红外学习取消,"irStudyFinished"红外学习完成.见"附15"

功能	中控状态
URL path	/dev/control/state
Method	Get
Body	见"附16"

- 中控学习状态: "idle", "success", "wait", "error"(空闲时"idle", 学习成功时"success", 等待学习"wait", 该命令学习失败"error").
- irStudyBegin:"idle"->"success"
- irStudyStudy:"success"\"error"->"wait"
- irStudyCancel:"success"\"wait"->"idle"
- irStudyFinished:"success"\"wait"->"idle"
- 学习完一个命令: "wait"->"success"
- 学习失败一个命令: "wait"->"error"

功能	中控相关列表
URL path	/dev/control/items?listName={listname}&listType={listType}
Method	GET
Body	见"附17","附18"

- listType:"Protocol"协议、"ProtocolBtn"协议按钮、"ProtocolType"协议类型
- "Protocol"协议的listname有:
- IR协议列表: "irProtocol",见"附15"
- IO协议列表: "ioProtocol",见"附15"
- COM协议列表: "comProtocol",见"附15"
- relay协议列表:"relayProtocol",见"附15"
- 时序电源协议列表"timingPowerProtocol",见"附15"
- •
- "ProtocolBtn"协议按钮的listname是对应协议名
- 获取该协议拥有的命令, 见"附16"

```
附13
    "version": "1",
    "code": 0,
    "data": {
                   //可选
        "Uart":{
            "num":1, //GET时是总数量, PUT时是设置的数量
            "info":[{ //串口设置 //可选
                     "_id":0,
                     "serialMode": "RS232", // "RS232", "RS485", "RS422"
                     "baudRate ":"600",
                              //600,1200,2400,4800,9600,19200,38400,57600,115200
                     "dataBit ":"5", //"5","6","7","8"
                     "stopBit":"1", //"1","2"
                     "parityCheckRuleType":"NotParityCheck"
                                      //"NotParityCheck","EvenParityCheck","OddParityCheck"
                 }]
                 //不可设置
        "IO":{
```

```
"num":1,
       },
       "IR":{ //不可设置
           "num":1,
                 //不可设置
       "Relay":{
           "num":1,
       "TimingPower":{
                        //不可设置
           "num":1,
       },
       "protocol":{ //可选
           num:5, //GET是总协议数量, PUT是设置数量
           bindProtInfo:[{ //可选
              perType:"Uart", //类型
               _id:0, //该类型对应的id 即Uart0
               "protName:"" //协议
           },
           {
               perType:"IO", //类型
               _id:0,
               protName:"" //协议
               perType:"IR", //类型
               _id:0,
               protName:"" //协议
               perType:"Relay", //类型
               _id:0,
               protName:"" //协议
               perType:"TimingPower", //类型
               _id:0,
               protName:""//协议
           }]
附14
   "action":"persctrl" //根据协议控制
    "paramlist":{
       "perType":"IR" //"IR","Uart","Relay","IO","TimingPower"
       "_id":0,
       "cmd":"",
                 //根据协议
       "param":[1,2,3] //保留参数
附15
   "action":"irStudyBegin" //"irStudyBegin"红外学习开始
   "paramlist":\{
       "protocol":"comprotocol" //协议名称
       "isNew": 0 //是否是新的协议
       "isCover": 0 //是否覆盖: 不覆盖,文件已存在,则返回失败
   }
   "action":"irStudyCmdStudy" //红外学习命令 //"irStudyCmdCancel"红外取消学习命令(取消学习一条命令)
   "paramlist":{
       "protocol":"comprotocol" //协议名称
       "cmd":"left" //命令名称
   "action":"irStudyCancel"
       //"irStudyCancel"红外学习取消(取消整个协议学习),"irStudyFinished"红外学习完成}
```

}

{

}

}

```
{
    "action":"deletePrototol" //"deletePrototol"删除协议
    "paramlist":{
        "protocol":"comprotocol" //协议名称
}
{
    "action":"deleteProtCmd" //"deleteProtCmd"删除命令
    "paramlist":{
        "protocol":"comprotocol" //协议名称
        "cmd":"left" //命令名称
}
附16
{
    "version": "1",
    "code": 0,
   "data": {
       "irStatus":"idle"
   }
}
附17
    "version": "1",
    "code": 0,
    "data": {
        "num":3, //协议个数
        "list":[{
                    "protocol":"irprotocoll" //协议名称,不带文件后缀
                }, {}, {}, {}, {}, {}]
    }
}
附18
    "version": "1",
    "code": 0,
    "data": {
       "num":3, //命令个数
        "list":[{
                    "cmd":"left" //命令名称
                }, {}, {}, {}, {}]
```

7. 音频输入

功能	设置音频输入配置
URL path	/dev/audioin/cfg
Method	GET
Body	见"附19"

- 分别为设置输入音量、是否静音、是否幻象供电
- 音量的值为整数0~100
- 7路音频输入,实际根据数组大小判断

```
附19
{ "version": "1", "code": 0, "data": {
      "audInCfg":[{ //根据实际个数,数组大小决定个数,可选
          "_id":1,
          "type":"Hisilicon" //输入类型,"Hisilicon","AudioDeal","H2A","A2H" (不可更改)
          "name":"HDMI音频1" //名字
          "volume":50, //音量范围为0~100
          "AEC":0, //是否打开回声消除 保留
          "AGC":1, //是否打开自动增益 保留
          "ANC":1, //是否打开噪声抑制 保留
```

```
"mute":0, //是否静音
"supportEPCtrl":0, //是否支持幻象供电
"eidolonPower":0 //是否使用幻象供电
},{},{},}
}
```

功能	设置音频输入命令
URL path	/dev/audioin/cmd
Method	POST
Body	见"附20"

8. 音频输出

功能	设置音频输出配置
URL path	/dev/audioout/cfg
Method	GET/PUT
Body	见"附21"

- 分别设置输出音量、是否闭音
- 6路音频输出,实际根据数组大小判断

```
附21
   "version": "1",
   "code": 0,
   "data": {
       "audOutCfg":[{
           "_id":1, //根据实际个数,数组大小决定个数 //音频输出id
           "type":"Hisilicon" //输入类型,"Hisilicon","AudioDeal","H2A","A2H" (不可更改)
                      //AudioDeal时,AudioDeal和H2A的可混
                      //Hisilicon时,Hisilicon和A2H的可混
                      //H2A时,Hisilicon的可混
                      //A2H时,AudioDeal的可混
           "name":"吊麦1" //名字
           "volume":50, //音量
           "shield:0 //是否闭音
           "supportAmpCtrl":0, //是否支持功放 //不可改
           "ampCtrl":0 //是否启用功放
       },{},{}],
       "audOutMixCfg":[{ //可选
          "_id":1, //音频输出id
          "mix":[0,1,0,1,1,0,1] //混音
       },{},{}]
```

功能	设置音频输出命令
URL path	/dev/audioout/cmd
Method	POST
Body	见"附22"

9. 视频输入

功能	视频输入配置
URL path	/dev/videoin/cfg
Method	GET/PUT
Body	见"附23"

备注

• 4路视频输入,实际根据数组大小判断

```
附23
   "version": "1",
   "code": 0,
   "data": {
   "vidInCfg":[{ //可选
          "_id":0, //索引
           "name":"DVI2/HDMI", //名字
           "portParam":{
              "bright":50, //亮度
              "contrast":60, //对比度
              "tone":70, //色调
              "saturation":80 //饱和度
          },
           "portType":"VGA", //端口类型
                                    //VGA、YPbPr、DVI、HDMI、HDMI1、AUTO
      },{},{}]
```

功能	视频输入命令
URL path	/dev/videoin/cmd
Method	POST
Body	见"附24"

备注

• 4路视频输入,实际根据数组大小判断

```
"intValue":2
```

功能	视频输入状态
URL path	/dev/videoin/state
Method	GET
Body	见"附25"

• 4路视频输入,实际根据数组大小判断

```
附25
{
   "version": "1",
   "code": 0,
   "data": {
       "vidInInfo":{
           num:2,
           info:[{
               "_id":0, //索引
               "width":1920, //宽
               "height":1080, //高
               "frameRate":30 //帧率
               "portType":"VGA", //端口类型
                                    //VGA、YPbPr、DVI、HDMI、HDMI1
           },{},{}]
      }
```

10. 视频输出

功能	视频输出配置
URL path	/dev/videoout/cfg
Method	GET/PUT
Body	见"附26"

备注

• 3个视频输出,实际根据数组大小判断

```
附26
   "version": "1",
   "code": 0,
   "data": {
       "vidOutCfg":[{ //可选
          "_id":0, //索引
          "name":"HDMI", //名字
          "use":1, //是否启用 保留
          "portParam":{
              "bright":50, //亮度
              "contrast":60, //对比度
              "tone":70, //色调
              "saturation":80 //饱和度
          "audioType":"HDMI", //是否输出音频,有DVI(不带声音),HDMI(带声音),AUTO(自动检测)
      },{},{}]
  }
```

功能	视频输出命令
URL path	/dev/videoout/cmd
Method	POST
Body	见"附27"

11. 同源画面

功能	配置同源画面
URL path	/dev/vidcontent/cfg
Method	GET/PUT
Body	见"附28"

备注

• 2个同源画面

```
附28
   "version": "1",
   "code": 0,
   "data": {
      "vidContentCfg":[{ //可选
          "_id":0,
                    //显示ID
          "name":"画面1", //名字
          "vidOutId":[0,1]
                          //同源输出,视频输出索引
          "defaultPic":""
                            //背景图
          "outputParam":{
              "fmtType":"720p",
                                 //分辨率,有CIF,4CIF,720P,1080P,4K
              "frameRate":60, //帧率
          },
          "ScanningType":"Line" //"Line"逐行显示, "Interlaced"隔行显示
          "expandMode":"ScaleUp" //图像放大模式,有ScaleUp(比例放大),FillTo(填充)
       },
          //可选
          "_id":1,
                   //显示ID
          "name":"画面2", //名字
          "vidOutId":[2]
                         //同源输出,视频输出id
          "defaultPic":""
                            //背景图
           "outputParam":{
                                 //分辨率,有CIF,4CIF,720P,1080P,4K
              "fmtType":"720p",
              "frameRate":60, //帧率
          "ScanningType":"Line" //"Line"逐行显示,"Interlaced"隔行显示
          "expandMode":"ScaleUp" //图像放大模式,有ScaleUp(比例放大),FillTo(填充)
      }]
}
```

12. 编码

功能	编码配置
URL path	/dev/encode/cfg
Method	GET/PUT
Body	见"附29"

• 实际根据数组大小判断

```
附29
{
   "version": "1",
   "code": 0,
   "data": {
      "vidTncCfg":[{ //可选
          "channelType":"main", //通道类型, 有main,pub,preview
              "devType":"Chan",
             _id:0
          "vidEncParam":{
             "width":1920,
                           //编码宽
             "height":1080, //编码高
             "frameRate":60, //帧率 0-60
             "bitRate":8388608, //码率 128kb-8mb
             "IFrameInterval":30,
                                //I帧间隔 30-300
             "QPParam":{  //量化参数
                 "maxIQP":50, //I帧最大量化系数,范围10~50
                 "minIQP":50, //I帧最小量化系数,范围10~50
                 "maxPQP":50, //P帧最大量化系数,范围10~50
                 "minPQP":50, //P帧最小量化系数,范围10~50
      },{},{},{}]
```

13. 接入RTSP接口

```
功能 RTSP

URL path /dev/rtspc/cfg

Method GET/PUT

Body 见"附30"
```

```
备注 RtspC\RtspS可选设置
附30
{
   "version": "1",
   "code": 0,
   "data": {
       "RtspC":{
           num:2,
           info:[{ //可选
               "_id":0,
               "valid":1,
                           //是否启用
               "name":"教室1",  //名称
               "mainUrl": "rtsp://use:passwd@ip:port/path" //rtsp路径
               "previewUrl": "rtsp://use:passwd@ip:port/path" //rtsp路径
           },
           {}]
      }
   }
```

功能	RTSP
URL path	/dev/rtspc/cmd
Method	POST
Body	见"附32"

```
| 例32
{
          "action":"StopRtspC" //"StopRtspC","StartRtspC"
          "paramList":{
                "_id":2,
               }
}
```

RTSP接口

功能	RTSP
URL path	/dev/rtsps/cfg
Method	GET/PUT
Body	见"附33"

```
附33
{ "version": "1", "code": 0, "data": {
       "RtspS":{
          num:2,
          info:[{ //可选
              "_id":0,
                               //名称
              "name":"教室2",
              "valid":1, //是否启用
              "openMain":1, //是否启用主流
              "openSub":0,  //是否启用子流
              "openPreview":1, //是否启用预览流
              "username":"admin", //用户名
                                   //密码
              "password":"admin",
              "suffix":"path", //路径后缀
              "ipaddr":"0.0.0.0", //固定0.0.0.0
              "port":554, //固定554
              "sourceChn":{ //rtsp客户端源的来源
                  "devType":"RtspC", //来源类型
                                /\!/\!"RtspC", "AudIn", "VidOut", "VidOut", "VidContent"
                  "_id":2 //通道id
              },
          },
          {}]
   }}
```

功能	RTSP
URL path	/dev/rtsps/cmd
Method	POST
Body	见"附34"

功能	媒体配置
URL path	/dev/media/cfg
Method	GET/PUT
Body	见"附35"

功能	媒体命令
URL path	/dev/media/cmd
Method	POST
Body	见"附36"

备注 action:

音频测试:环回、默认-"StartAudLoop","StopAudPlayTest","StopAudPlayTest"

视频测试: \overline{x} 回、默认、编解码环回-"StartVidLoop,","StopVidLoop","StartVidDispTest","StopVidDispTest","StartCoderLoop"

功能	媒体状态
URL path	/dev/media/state
Method	GET
Body	见"附37"

```
备注 音频状态: "idle"空闲 "record"录制 "play"播放
     视频状态: "idle"空闲 "play"播放
附36
    "action": "StartAudPlayTest" // "StartAudPlayTest", "StartVidPlayTest"
    "paramList":{
        "outNum":2,
        "outId":[2,1]
}
    "action": "StopAudPlayTest"
                 //"StopAudPlayTest","StopAudLoop"
                 //"StopVidPlayTest","StopVidLoop","StopCoderLoop"
    "action":"StartAudLoop" //"StartAudLoop","StartVidLoop","StartCoderLoop"
    "paramList":{
        "inNum":2,
        "inId":[2,3],
        "outNum":2,
        "outId":[0,1]
}
```

```
附37
{
    "version": "1",
    "code": 0,
    "data": {
         "audStatus":"record" //"idle"空闲 "record"录制 "play"播放
         "vidStatus":"idle" //"idle"空闲 "play"播放
    }
}
```