Restful API Basics

- Default port number is 443
- Restful API use JSON over HTTPS

1. Login / Logout

This example uses the default username and password, admin/gtadmin1. Upon successfully logging in the unit will return a Cookie / Session ID. The Session ID must be used as part of all additional commands sent to the unit.

```
POST https://xxx.xxx.xxx.xxx/login

Body Syntax

{"username":"admin","password":"gtadmin1","rememberme":true}
```

Example Session ID:

```
Set-Cookie: session=id=9iNS4gEJc0sQ9QcgVPd;path=/
```

Once a session has been established it is controlled by the Key Press Timeout value, 60 to 3600 seconds. The Key Press Timeout value can be modified using the "Edit Chassis Name / Key Press Timeout" option in Section 2. System. The Key Press Timeout may be displayed and reset using the following options.

**Display Public Information**

```
GET https://xxx.xxx.xxx.xxx/sysInfoPublic
```

**Display Key Press Timeout**

```
GET https://xxx.xxx.xxx.xxx/active
```

**Reset Key Press Timeout (60-3600 seconds)**

```
POST https://xxx.xxx.xxx.xxx/ping
```

**Logout**

```
POST https://xxx.xxx.xxx.xxx/logout
```
2. System

Display System Information

GET  https://xxx.xxx.xxx.xxx/sysInfo

Display General System Setting

GET  https://xxx.xxx.xxx.xxx/miscCfg

Edit Chassis Name / Key Press Timeout

PUT  https://xxx.xxx.xxx.xxx/miscCfg

Body Syntax

{"chassisName":"NewChassisName","keyPressTimeout":"60"}

Note – Key press timeout range 60-3600 seconds.

Display Authentication

GET  https://xxx.xxx.xxx.xxx/authentication

Enable TACACS

PUT  https://xxx.xxx.xxx.xxx/authentication

Body Syntax

{"local":true,"tacacs":{"on":true,"server":"xxx.xxx.xxx.xxx","secret":"abcd1234"}}

Disable TACACS

PUT  https://xxx.xxx.xxx.xxx/authentication

Body Syntax

{"local":true,"tacacs":{"on":false,"server":"xxx.xxx.xxx.xxx","secret":"abcd1234"}}

Display Privilege
GET https://xxx.xxx.xxx.xxx/availablePrivileges

Display Group
GET https://xxx.xxx.xxx.xxx/groups

Create Group
POST https://xxx.xxx.xxx.xxx/groupAdd

**Body Syntax**

```
{
  "name": "NewGroup",
}
```

*Note - Privileges may be added or removed as desired.*

AAA - authentication, authorization, account  
ADM - user administrator  
DTC - date, time, ntp configuration  
DTV - date, time, ntp view  
EXC – export/import  
IPC - maintenance network ip configuration  
IPV - maintenance network ip view  
LGC - syslog, snmp configuration  
LGV - syslog, snmp view  
MIS – miscellaneous  
PBC - packet broker configuration  
PBV - packet broker view  
PTC - port configuration  
PTV - port view  
RBT - chassis reboot  
TPC - tap config  
TPV - tap view  
UPG - software field upgrade  
USR - account configuration

Modify Group
POST https://xxx.xxx.xxx.xxx/groupChange

**Body Syntax**

```
{
  "name": "NewGroup",
  "privileges": ["MIS", "PBC", "PBV", "PTC"],
  "oldName": "NewGroup"
}
```

Delete Group
POST https://xxx.xxx.xxx.xxx/groupDelete
Body Syntax

{"name":"NewGroup"}

Display User

GET https://xxx.xxx.xxx.xxx/userAll

Create User

POST https://xxx.xxx.xxx.xxx/userAdd

Body Syntax

{"username":"NewUser","password":"NewUserPW","group":"NewGroup"}

Change User Password

POST https://xxx.xxx.xxx.xxx/userChange

Body Syntax

{"username":"User123","password":"NewPW","group":"Group","oldUsername":"User123"}

Delete User

POST https://xxx.xxx.xxx.xxx/userDelete

Body Syntax

{"username":"NewUser"}

Display Network Setting

GET https://xxx.xxx.xxx.xxx/maintNetwork

Display Date & Time

GET https://xxx.xxx.xxx.xxx/dateTime

Display Time Zone

GET https://xxx.xxx.xxx.xxx/timezones
Enable NTP

PUT

https://xxx.xxx.xxx.xxx/dateTime

Body Syntax

{"timeZone":"America/Chicago","ntp":{"on":true,"usePool":false,"ipAddress":"xxx.xxx.xxx.xxx"},"date":"2/10/2021","time":"15:32"}

Disable NTP

PUT

https://xxx.xxx.xxx.xxx/dateTime

Body Syntax

{"timeZone":"America/Chicago","ntp":{"on":false,"usePool":false,"ipAddress":"xxx.xxx.xxx.xxx"},"date":"2/10/2021","time":"15:33"}

Set Date/Time Manually

PUT

https://xxx.xxx.xxx.xxx/dateTime

Body Syntax

{"timeZone":"America/Chicago","ntp":{"on":false,"usePool":false,"ipAddress":"xxx.xxx.xxx.xxx"},"date":"6/15/2021","time":"12:20"}

Set Network Setting

PUT

https://xxx.xxx.xxx.xxx/maintNetwork

Body Syntax

{"dhcp":false,"loadedSslCertUsed":false,"sslCertLoaded":true,"address":"xxx.xxx.xxx.xxx","mask":"255.255.255.0","gateway":"xxx.xxx.xxx.xxx","dns1":"","dns2":""}

Display Syslog

GET

https://xxx.xxx.xxx.xxx/syslogCfg
Enable Syslog

PUT https://xxx.xxx.xxx.xxx/syslogCfg

Body Syntax

{"on":true,"useUnitId":false,"unitId":0,"ipAddress":"xxx.xxx.xxx.xxx","protocol":"UDP","port":"514"}

Syslog Test

POST https://xxx.xxx.xxx.xxx/syslogTest

Disable Syslog

PUT https://xxx.xxx.xxx.xxx/syslogCfg

Body Syntax

{"on":false,"useUnitId":false,"unitId":0,"ipAddress":"xxx.xxx.xxx.xxx","protocol":"UDP","port":"514"}

Display SNMP

GET https://xxx.xxx.xxx.xxx/snmpCfg

Enable SNMPv2rw

PUT https://xxx.xxx.xxx.xxx/snmpCfg

Body Syntax

{"on":true,"accessPort":"161","trapPort":"162","trapIpAddress":"xxx.xxx.xxx.xxx","v3user":"user1234","v3authType":"MD5","v3authPass":"auth1234","v3privPass":"priv1234","v3privProt":"DES","communityPassword":"public","mode":"V2rw"}

Enable SNMPv3 MD5/DES

PUT https://xxx.xxx.xxx.xxx/snmpCfg

Body Syntax

{"on":true,"accessPort":"161","trapPort":"162","trapIpAddress":"xxx.xxx.xxx.xxx","v3user":"user1234","v3authType":"MD5","v3authPass":"auth1234","v3privPass":"priv1234","v3privProt":"DES","communityPassword":"public","mode":"V3"}
Enable SNMPv3 SHA/AES

PUT https://xxx.xxx.xxx.xxx/snmpCfg

Body Syntax

{"on":true,"accessPort":"161","trapPort":"162","trapIpAddress":"xxx.xxx.xxx.xxx","v3user":"user1234","v3authType":"SHA","v3authPass":"auth1234","v3privPass":"priv1234","v3privProt":"AES","communityPassword":"public","mode":"V3"}

SNMP Test

POST https://xxx.xxx.xxx.xxx/snmpTest

Disable SNMP

PUT https://xxx.xxx.xxx.xxx/snmpCfg

Body Syntax

{"on":false,"accessPort":"161","trapPort":"162","trapIpAddress":"xxx.xxx.xxx.xxx","v3user":"user","v3authType":"MD5","v3authPass":"auth1234","v3privPass":"prov1234","v3privProt":"DES","communityPassword":"gtpublic","mode":"V2rw"}

Reboot

POST https://xxx.xxx.xxx.xxx/reboot

3. Packet Broker

Display Packet Broker Configuration

GET https://xxx.xxx.xxx.xxx/pbConfig

Display Filter Template

GET https://xxx.xxx.xxx.xxx/filtTemplates
Create Filter Template

POST https://xxx.xxx.xxx.xxx/filterTemplateAdd

Body Syntax

{"name":"NewFilterTemp","description":"","enabled":true,"filterType":"PASSBY","srcMac":"","srcMacMask":"ff:ff:ff:ff:ff:ff","dstMac":"","dstMacMask":"ff:ff:ff:ff:ff:ff","etherType":"","srcIp":"","srcIpMask":"255.255.255.255","dstIp":"","dstIpMask":"255.255.255.255","innerVlanId":"","outerVlanId":"","dscp":"","ipProtocol":"","l4SrcStartPort":"","l4SrcEndPort":"","l4DstStartPort":"","l4DstEndPort":"","egressFilterPort":""}

Note – The filter type may be PASSALL, PASSBY or DENBY.

Modify Filter Template

POST https://xxx.xxx.xxx.xxx/filterTemplateChange

Body Syntax

{"name":"NewTemplate","description":"","enabled":true,"filterType":"PASSBY","dstMac":"","dstMacMask":"ff:ff:ff:ff:ff:ff","srcMac":"","srcMacMask":"ff:ff:ff:ff:ff:ff","etherType":"","ipProtocol":"","srcIp":"10.10.10.11","srcIpMask":"255.255.255.255","dstIp":"","dstIpMask":"255.255.255.255","l4SrcStartPort":"","l4SrcEndPort":"","l4DstStartPort":"","l4DstEndPort":"","innerVlanId":"","outerVlanId":"","dscp":"","egressFilterPort":"","oldName":"NewTemplate"}

Delete Filter Template

POST https://xxx.xxx.xxx.xxx/filterTemplateRemove

Body Syntax

{"name":"NewFilterTemp"}

Display Load Balance Group

GET https://xxx.xxx.xxx.xxx/loadBalanceGroups

Create Load Balance Group
POST https://xxx.xxx.xxx.xxx/loadBalanceGroupAdd

Body Syntax

{"name":"NewLBGroup","description":null,"ports":["17","19","23","24"]}

Note – String all desired ports as shown in the example above.

Modify Load Balance Group

POST https://xxx.xxx.xxx.xxx/loadBalanceGroupChange

Body Syntax

{"name":"NewLBG","description":null,"ports":["21","22","23","24","26"],"oldName":"NewLBG"}

Delete Load Balance Group

POST https://xxx.xxx.xxx.xxx/loadBalanceGroupRemove

Body Syntax

{"name":"NewLBGroup"}

Display Load Balance Policy

GET https://xxx.xxx.xxx.xxx/lbPolicy

Modify Load Balance Policy

PUT https://xxx.xxx.xxx.xxx/lbPolicy

Body Syntax

{"ipv4Src":"YES","ipv4Dst":"YES","l4SrcPort":"NO","l4DstPort":"NO","macSrc":"NO","macDst":"NO"}

Note – The Load Balance Policy allows L2 to be enabled or L3 and/or L4 to be enabled.

Display Config Map Counts

GET https://xxx.xxx.xxx.xxx/configMapCounts
Create Config Map / Ingress Filter

POST https://xxx.xxx.xxx.xxx/configMapAdd

Body Syntax

```
{"loadBalanceGroup":{}, "configMap": {"ingressPorts": ["17"], "egress": {"ports": ["18"], "trunkGroup": ""}, "name": "NewConfigMap", "description": "", "enabled": true, "ingressFilters": ["name": "", "description": "", "enabled": true, "filterType": "PASSALL", "srcMac": "", "srcMacMask": "ff:ff:ff:ff:ff:ff", "dstMac": "", "dstMacMask": "ff:ff:ff:ff:ff:ff", "etherType": "", "srcIp": "", "srcIpMask": "255.255.255.255", "dstIp": "", "dstIpMask": "255.255.255.255", "innerVlanId": "", "outerVlanId": "", "dscp": "", "ipProtocol": "", "l4SrcStartPort": "", "l4SrcEndPort": "", "l4DstStartPort": "", "l4DstEndPort": "", "egressFilterPort": ""}], "egressFilters": {"18": []}}
```

Note - Multiple ingress ports, egress ports and ingress filters may be added.

Create Config Map / Ingress Filter / Egress Filter

POST https://xxx.xxx.xxx.xxx/configMapAdd

Body Syntax

```
{"loadBalanceGroup":{}, "configMap": {"ingressPorts": ["17"], "egress": {"ports": ["18"], "trunkGroup": ""}, "name": "NewConfigMap", "description": "", "enabled": true, "ingressFilters": ["name": "", "description": "", "enabled": true, "filterType": "PASSALL", "srcMac": "", "srcMacMask": "ff:ff:ff:ff:ff:ff", "dstMac": "", "dstMacMask": "ff:ff:ff:ff:ff:ff", "etherType": "", "srcIp": "", "srcIpMask": "255.255.255.255", "dstIp": "", "dstIpMask": "255.255.255.255", "innerVlanId": "", "outerVlanId": "", "dscp": "", "ipProtocol": "", "l4SrcStartPort": "", "l4SrcEndPort": "", "l4DstStartPort": "", "l4DstEndPort": "", "egressFilterPort": ""}], "egressFilters": {"18": [{"name": "NewEgressFilter", "description": "", "enabled": true, "filterType": "PASSBY", "srcMac": "", "srcMacMask": "ff:ff:ff:ff:ff:ff", "dstMac": "", "dstMacMask": "ff:ff:ff:ff:ff:ff", "etherType": "", "srcIp": "192.168.1.25", "srcIpMask": "255.255.255.255", "dstIp": "", "dstIpMask": "255.255.255.255", "innerVlanId": "", "outerVlanId": "", "dscp": "", "ipProtocol": "", "l4SrcStartPort": "", "l4SrcEndPort": "", "l4DstStartPort": "", "l4DstEndPort": "", "egressFilterPort": "18"}]}}
```

Note - Multiple ingress ports, egress ports, ingress filters and egress filters may be added.
Modify Config Map Priority

POST https://xxx.xxx.xxx.xxx/configMapPriorityEnableChange

Body Syntax

[{
"name":"CM1","enabled":true},
{"name":"CM2","enabled":true},
{"name":"CM3","enabled":true}]

Note – String the config maps as shown in the above example. The priority is established highest to lowest based on the order listed.

Enable/Disable Config Map

POST https://xxx.xxx.xxx.xxx/configMapPriorityEnableChange

Body Syntax

[{
"name":"CM1","enabled":true},
{"name":"CM2","enabled":false},
{"name":"CM3","enabled":true}]

Note – String the config maps as shown in the above example. Config maps may be enabled or disabled by modifying the “enabled” option true/false, true = enabled, false = disabled.

Delete Config Map

POST https://xxx.xxx.xxx.xxx/configMapRemove

Body Syntax

["CM1", "CM2", "CM3"]

Note – Identify the config map(s) using the “name”.

Clear Config Map Counters

POST https://xxx.xxx.xxx.xxx/configMapCountsClear

Refresh Config Map Counters

GET https://xxx.xxx.xxx.xxx/configMapCounts
5. Port Info

Display Port Configuration

GET  https://xxx.xxx.xxx.xxx/portConfigGet

Modify Port Configuration

PUT  https://xxx.xxx.xxx.xxx/portConfigPut

Body Syntax

```json
{"ports":[{"portNumber":"1","speedSet":"10G","mode":"normal","description":"port description","sfpVendorPn":"","split":"NO"},{"portNumber":"2","speedSet":"10G","mode":"normal","description":"port description","sfpVendorPn":"","split":"NO"},{"portNumber":"3","speedSet":"10G","mode":"normal","description":"port description","sfpVendorPn":"","split":"NO"},{"portNumber":"4","speedSet":"10G","mode":"normal","description":"port description","sfpVendorPn":"","split":"NO"},{"portNumber":"5","speedSet":"10G","mode":"normal","description":"port description","sfpVendorPn":"","split":"NO"},{"portNumber":"6","speedSet":"10G","mode":"normal","description":"port description","sfpVendorPn":"","split":"NO"},{"portNumber":"7","speedSet":"10G","mode":"normal","description":"port description","sfpVendorPn":"","split":"NO"},{"portNumber":"8","speedSet":"10G","mode":"normal","description":"port description","sfpVendorPn":"","split":"NO"},{"portNumber":"9","speedSet":"10G","mode":"normal","description":"port description","sfpVendorPn":"","split":"NO"},{"portNumber":"10","speedSet":"10G","mode":"normal","description":"port description","sfpVendorPn":"","split":"NO"},{"portNumber":"11","speedSet":"10G","mode":"normal","description":"port description","sfpVendorPn":"","split":"NO"},{"portNumber":"12","speedSet":"10G","mode":"normal","description":"port description","sfpVendorPn":"","split":"NO"},{"portNumber":"13","speedSet":"10G","mode":"normal","description":"port description","sfpVendorPn":"","split":"NO"},{"portNumber":"14","speedSet":"10G","mode":"normal","description":"port description","sfpVendorPn":"","split":"NO"},{"portNumber":"15","speedSet":"10G","mode":"normal","description":"port description","sfpVendorPn":"","split":"NO"},{"portNumber":"16","speedSet":"10G","mode":"normal","description":"port description","sfpVendorPn":"","split":"NO"},{"portNumber":"17","speedSet":"10G","mode":"normal","description":"port description","sfpVendorPn":"","split":"NO"},{"portNumber":"18","speedSet":"10G","mode":"normal","description":"port description","sfpVendorPn":"","split":"NO"},{"portNumber":"19","speedSet":"10G","mode":"normal","description":"port description","sfpVendorPn":"","split":"NO"},{"portNumber":"20","speedSet":"10G","mode":"normal"}]
```
}{"portNumber":21,"speedSet":"10G","mode":"normal","description":"port description","sfpVendorPn":"","split":"NO"},{"portNumber":22,"speedSet":"10G","mode":"normal","description":"port description","sfpVendorPn":"","split":"NO"},{"portNumber":23,"speedSet":"10G","mode":"normal","description":"port description","sfpVendorPn":"","split":"NO"},{"portNumber":24,"speedSet":"10G","mode":"normal","description":"port description","sfpVendorPn":"","split":"NO"},{"portNumber":25,"speedSet":"10G","mode":"normal","description":"port description","sfpVendorPn":"","split":"NO"},{"portNumber":26,"speedSet":"10G","mode":"normal","description":"port description","sfpVendorPn":"","split":"NO"},{"portNumber":27,"speedSet":"10G","mode":"normal","description":"port description","sfpVendorPn":"","split":"NO"},{"portNumber":28,"speedSet":"10G","mode":"normal","description":"port description","sfpVendorPn":"","split":"NO"},{"portNumber":29,"speedSet":"10G","mode":"normal","description":"port description","sfpVendorPn":"","split":"NO"},{"portNumber":30,"speedSet":"10G","mode":"normal","description":"port description","sfpVendorPn":"","split":"NO"},{"portNumber":31,"speedSet":"10G","mode":"normal","description":"port description","sfpVendorPn":"","split":"NO"},{"portNumber":32,"speedSet":"10G","mode":"normal","description":"port description","sfpVendorPn":"","split":"NO"},{"portNumber":33,"speedSet":"10G","mode":"normal","description":"port description","sfpVendorPn":"","split":"NO"},{"portNumber":34,"speedSet":"10G","mode":"normal","description":"port description","sfpVendorPn":"","split":"NO"},{"portNumber":35,"speedSet":"10G","mode":"normal","description":"port description","sfpVendorPn":"","split":"NO"},{"portNumber":36,"speedSet":"10G","mode":"normal","description":"port description","sfpVendorPn":"","split":"NO"},{"portNumber":37,"speedSet":"10G","mode":"normal","description":"port description","sfpVendorPn":"","split":"NO"},{"portNumber":38,"speedSet":"10G","mode":"normal","description":"port description","sfpVendorPn":"","split":"NO"},{"portNumber":39,"speedSet":"10G","mode":"normal","description":"port description","sfpVendorPn":"","split":"NO"},{"portNumber":40,"speedSet":"10G","mode":"normal","description":"port description","sfpVendorPn":"","split":"NO"},{"portNumber":41,"speedSet":"40G","mode":"normal","description":"port description","sfpVendorPn":"","split":"NO"},{"portNumber":42,"speedSet":"40G","mode":"normal","description":"port description","sfpVendorPn":"","split":"NO"},{"portNumber":43,"speedSet":"40G","mode":"normal","description":"port description","sfpVendorPn":"","split":"NO"},{"portNumber":44,"speedSet":"40G","mode":"normal","description":"port description","sfpVendorPn":"","split":"NO"}}

Note – Whenever modifying a port(s) all ports must be included in the body syntax.
Display Port Availability

GET https://xxx.xxx.xxx.xxx/portAvailability

Display Port Statistics

GET https://xxx.xxx.xxx.xxx/portCounterGet

Clear Port Statistics

PUT https://xxx.xxx.xxx.xxx/portCounterClear