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.

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

Body Syntax

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

Example Session ID:

```text
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

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

Display Key Press Timeout

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

Reset Key Press Timeout (60-3600 seconds)

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

Logout

```text
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","privileges":["AAA","USR","DTC","DTV","EXC","IPV","LGC","LGV","MIS","PBC","PBV","PTC","PTV","RBT","TPC","TPV","UPG","ADM"]}

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.x 
xx.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.x 
xx","mask":"255.255.255.0","gateway":"xxx.xxx.xxx.xxx","dns1":","dns2":"
}
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. Bypass Taps

Display Bypass Taps Options (Heartbeat Setting)

GET https://xxx.xxx.xxx.xxx/gettapoptions

Modify Bypass Taps Options (Heartbeat Setting)

PUT https://xxx.xxx.xxx.xxx/settapoptions

Body Syntax

{"hbPacketWindow":10,"hbPerSecond":10}

Note – No. of Lost Heartbeat Packets, 10-100 / Heartbeats per Second, 10-100.
Display Bypass Tap Configuration

GET https://xxx.xxx.xxx.xxx/tapGet

Modify Tap Configuration

PUT https://xxx.xxx.xxx.xxx/tapPut

Body Syntax

{"description":"element","isGroup":false,"monitorPortsE":[]","monitorPortsI":[]","portA":2","portB":2"}]}

Modify Tap Configuration (Add Secondary Inline Appliance)

PUT https://xxx.xxx.xxx.xxx/tapPut

Body Syntax


Modify Tap Configuration (Remove Secondary Inline Appliance)

PUT https://xxx.xxx.xxx.xxx/tapPut

Body Syntax

Switch To Primary

**PUT**
https://xxx.xxx.xxx.xxx/tapPut

**Body Syntax**
```
{"ForcePrimary":true,"description":null,"gElements":[{"portA":3,"portB":4}]
,"portA":5,"portB":6],"groupName":null,"isCoupled":false,"isGroup":false,"monitorPortsE":[]},"monitorPortsI":[]},"portA":2,"portB":2}]
```

4. 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**
```
```

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

**Modify Filter Template**

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

**Body Syntax**
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":"","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":"","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":["07"],"egress":{"ports":["08"],"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":null,"outerVlanId":null,"dscp":null,"ipProtocol":null,"l4SrcStartPort":null,"l4SrcEndPort":null,"l4DstStartPort":null,"l4DstEndPort":null,"egressFilters":null,"egressFilters":null,"egressFilters":null}
```

Note - Multiple ingress ports, egress ports and ingress filters may be added. If the Bypass Tap has a Primary Inline Appliance only the Packet Broker port range is 5 to 12. If the Bypass Tap has a Primary Inline Appliance and Secondary Inline Appliance the Packet Broker port range is 7 to 12.
Create Config Map / Ingress Filter / Egress Filter

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

Body Syntax

```json
{"loadBalanceGroup":{}, "configMap": {"ingressPorts": ["05"], "egress": {"ports": ["08"], "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": ""}, "egressFilters": ["08": [{"name": "", "description": "", "enabled": true, "filterType": "PASSBY", "srcMac": "", "srcMacMask": "ff:ff:ff:ff:ff:ff", "dstMac": "", "dstMacMask": "ff:ff:ff:ff:ff:ff", "etherType": "", "srcIp": "10.10.10.10", "srcIpMask": "255.255.255.255", "dstIp": "", "dstIpMask": "255.255.255.255", "innerVlanId": "", "outerVlanId": "", "dscp": "", "ipProtocol": "", "l4SrcStartPort": "", "l4SrcEndPort": "", "l4DstStartPort": "", "l4DstEndPort": "", "egressFilterPort": "08"}]]}
```

**Note** - Multiple ingress ports, egress ports, ingress filters and egress filters may be added. If the Bypass Tap has a Primary Inline Appliance only the Packet Broker port range is 5 to 12. If the Bypass Tap has a Primary Inline Appliance and Secondary Inline Appliance the Packet Broker port range is 7 to 12.

Modify Config Map Priority

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

Body Syntax

```json
[{"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

```json
[{"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

```
{"ports":[{"portNumber":"1","speedSet":"10G","mode":"normal","description":"description","sfpVendorPn":"","split":"NO"},{"portNumber":"2","speedSet":"10G","mode":"normal","description":"description","sfpVendorPn":"","split":"NO"},{"portNumber":"3","speedSet":"10G","mode":"normal","description":"description","sfpVendorPn":"","split":"NO"},{"portNumber":"4","speedSet":"10G","mode":"normal","description":"description","sfpVendorPn":"","split":"NO"},{"portNumber":"5","speedSet":"10G","mode":"normal","description":"description","sfpVendorPn":"","split":"NO"},{"portNumber":"6","speedSet":"10G","mode":"normal","description":"description","sfpVendorPn":"","split":"NO"},{"portNumber":"7","speedSet":"10G","mode":"normal","description":"description","sfpVendorPn":"","split":"NO"},{"portNumber":"8","speedSet":"10G","mode":"normal","description":"description","sfpVendorPn":"","split":"NO"},{"portNumber":"9","speedSet":"10G","mode":"normal","description":"description","sfpVendorPn":"","split":"NO"},{"portNumber":"10","speedSet":"10G","mode":"normal","description":"description","sfpVendorPn":"","split":"NO"},{"portNumber":"11","speedSet":"10G","mode":"normal","description":"description","sfpVendorPn":"","split":"NO"},{"portNumber":"12","speedSet":"10G","mode":"normal","description":"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