

CDATA GPON OLT

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1 Main Configuration

1.1 Traffic Profile Configuration

```
Mojumdari.GPON.2(config)# traffic-profile profile-id 250 profile-name 250Mb cir 256000 pir 256000 cbs 2000 pbs 2000
```

- cir-Committed Information Rate
- pir-Peek Information Rate
- cbs-Committed Burst Size
- pbs-Peek Burst Size

1.2 DBA Profile Configuration

1.2.1 Configuration DBA Profile

```
Mojumdari.GPON.2(config)# dba-profile profile-id 10 profile-name dba_profile.10
```

```
Mojumdari.GPON.2(config-dba-profile-10)# type
```

- type1 - Fixed bandwidth
- type2 - Assured bandwidth
- type3 - Assured bandwidth, Maximum bandwidth
- type4 - Maximum bandwidth
- type5 - Fixed bandwidth, Assured bandwidth, Maximum bandwidth

```
Mojumdari.GPON.2(config-dba-profile-10)# type4 max 300
```

- Attention: DBA-profile bandwidth value 300 has been adjusted to 256

1.2.2 Delete DBA Profile

```
Mojumdari.GPON.2(config)# no dba-profile profile-id 10
```

1.3 Line Profile Configuration

1.3.1 Configuration Line Profile

```
Mojumdari.GPON.2(config)# ont-lineprofile gpon profile-id 304 profile-name lineprofile.304
```

```
Mojumdari.GPON.2(config-dba-profile-10)# commit
```

1.3.2 Delete Line Profile

```
Mojumdari.GPON.2(config)# no ont-lineprofile gpon profile-id 304
```

1.4 Service Profile Configuration

1.4.1 Configuration Service Profile

```
Mojumdari.GPON.2(config)# ont-srvprofile gpon profile-id 1 profile-name "4_port_ONU"
```

```
Mojumdari.GPON.2(config-ont-srvprofile-4)# ont-port eth 4 pots 0 catv 0
```

```
Mojumdari.GPON.2(config-ont-srvprofile-4)# port eth 1 max-mac-count 10
```

```
Mojumdari.GPON.2(config-ont-srvprofile-4)# port eth 2 max-mac-count 10
```

```
Mojumdari.GPON.2(config-ont-srvprofile-4)# port eth 3 max-mac-count 10
```

```
Mojumdari.GPON.2(config-ont-srvprofile-4)# port eth 4 max-mac-count 10
```

```
Mojumdari.GPON.2(config-ont-srvprofile-4)# port vlan eth 1 translation 1 user-vlan 1
```

```
Mojumdari.GPON.2(config-ont-srvprofile-4)# port vlan eth 2 translation 1 user-vlan 1
```

```
Mojumdari_GPON.2(config-ont-srvprofile-4)# port vlan eth 3 translation 1 user-vlan 1
Mojumdari_GPON.2(config-ont-srvprofile-4)# port vlan eth 4 translation 1 user-vlan 1
Mojumdari_GPON.2(config-ont-srvprofile-4)# commit
```

1.4.2 Delete Line Profile

```
Mojumdari_GPON.2(config)# no ont-srvprofile gpon profile-id 3
```

1.5 VLAN Tag in Line Profile

1.5.1 VLAN Add in Line Profile

```
Mojumdari_GPON.2(config)# ont-lineprofile gpon profile-id 103
Mojumdari_GPON.2(config-ont-lineprofile-103)# gem mapping 1 2 vlan 101
Mojumdari_GPON.2(config-ont-lineprofile-103)# gem mapping 1 2 vlan 101
Mojumdari_GPON.2(config-ont-lineprofile-103)# commit
Mojumdari_GPON.2(config-ont-lineprofile-103)# exit
```

1.5.2 VLAN Delete from Line Profile

```
Mojumdari_GPON.2(config-ont-lineprofile-103)# no gem mapping 1 2
```

1.6 VLAN TAG in Uplink Port

1.6.1 VLAN Tag in 10G Port

```
Mojumdari_GPON.6(config)# interface xge 0/0
Mojumdari_GPON.6(config-interface-xge-0/0)# vlan mode 1 trunk
Mojumdari_GPON.6(config-interface-xge-0/0)# vlan trunk 1 1800
Mojumdari_GPON.6(config-interface-xge-0/0)# exit
Mojumdari_GPON.6(config)# save
```

1.6.2 VLAN Delete from 10G Port

```
Mojumdari_GPON.6(config-interface-xge-0/0)# no vlan trunk 1 1800
Mojumdari_GPON.6(config-interface-xge-0/0)# exit
Mojumdari_GPON.6(config)# save
```

1.6.3 VLAN Tag in 1G Port

```
Mojumdari_GPON.6(config)# interface ge 0/0
Mojumdari_GPON.6(config-interface-ge-0/0)# vlan mode 1 trunk
Mojumdari_GPON.6(config-interface-ge-0/0)# vlan trunk 1 1800
Mojumdari_GPON.6(config-interface-ge-0/0)# exit
Mojumdari_GPON.6(config)# save
```

1.6.4 VLAN Delete from 1G Port

```
Mojumdari_GPON_6(config-interface-ge-0/0)# no vlan trunk 1 1800  
Mojumdari_GPON_6(config-interface-ge-0/0)# exit  
Mojumdari_GPON_6(config)# save
```

1.7 VLAN TAG in PON Port

1.7.1 VLAN Add in PON PORT

```
Mojumdari_GPON_6(config)# interface gpon 0/0  
Mojumdari_GPON_6(config-interface-gpon-0/0)# vlan trunk 1 1800  
Mojumdari_GPON_6(config-interface-gpon-0/0)# exit  
Mojumdari_GPON_6(config)# save
```

1.7.2 VLAN Delete from PON PORT

```
Mojumdari_GPON_6(config)# interface gpon 0/0  
Mojumdari_GPON_6(config-interface-gpon-0/0)# no vlan trunk 1 1800  
Mojumdari_GPON_6(config-interface-gpon-0/0)# exit  
Mojumdari_GPON_6(config)# save
```

1.8 Important Lines:::Have to Remind it

- ge and xge are uplink ports
- ge means 1G and xge means 10G
- vlan trunk 1 means xge port 1
- vlan trunk 2 means xge port 2
- The link type of VLAN is three parts
 - Access
 - Trunk
 - Hybrid
- Traffic Profile - The bandwidth allocation for a specific ONU or a group of ONUs
- DBA Profile - Allocate bandwidth dynamically to ONUs connected to the OLT.
- TCONT - Traffic Container that carry upstream traffic (traffic upload from ONT). TCONT is bounded to DBA-profile.
- Numbers of TCONT -TCONT configurations possible in OLT depends on the specific device and its capabilities. it is mentioned that Huawei OLT for one PON (Passive Optical Network) have 128 ONT (Optical Network Terminal) maximum (0-127). This implies that the number of TCONT configurations possible in Huawei OLT is also 128
- Gemport - a logical connection associated with a specific traffic flow between an OLT and ONU
- No of Gemport - We could configure 8 Gemport under 1 TCONT in CDATA
- No of VLANs - We could configure 8 VLANs under 1 Gem
- Line Profile - VLAN is associated under a Line Profile
- Service Profile - Associated with ONU. For our configuration, 1 Port ONU - 4, 2 Port ONU - 2, 4 Port ONU - 1

2 ONU Configuration Module

2.1 ONU Authentication Check

```
Mojumdari_GPON.6(config-interface-gpon-0/0)# show ont autofind all
```

2.2 ONU Configuration

2.2.1 ONU Configuration for 4 Port ONU

```
Mojumdari_GPON.6(config-interface-gpon-0/0)# ont add 2 6 sn-auth DE20E634DE57 ont-lineprofile-id 4 ont-srvprofile-id 1
```

```
Mojumdari_GPON.6(config-interface-gpon-0/0)# ont description 2 6 L3R12234
```

```
Mojumdari_GPON.6(config-interface-gpon-0/0)# ont port native-vlan 2 6 eth 1 vlan 1168 priority 0
```

```
Mojumdari_GPON.6(config-interface-gpon-0/0)# ont port car 2 6 eth 1 inbound 30 outbound 30
```

```
Mojumdari_GPON.6(config-interface-gpon-0/0)# ont port attribute 15 35 eth 2 operational-state off
```

```
Mojumdari_GPON.6(config-interface-gpon-0/0)# ont port attribute 15 35 eth 3 operational-state off
```

```
Mojumdari_GPON.6(config-interface-gpon-0/0)# ont port attribute 15 35 eth 4 operational-state off
```

```
Mojumdari_GPON.6(config-interface-gpon-0/0)# exit
```

```
Mojumdari_GPON.6(config)# service-port 15 vlan 1168 gpon 0/0 port 2 ont 6 gemport 1 multi-service user-vlan 1168 tag-action transparent
```

```
Mojumdari_GPON.6(config)# save
```

2.2.2 ONU Configuration for 1 Port ONU

```
Mojumdari_GPON.6(config-interface-gpon-0/0)# ont add 2 6 sn-auth DE20E634DE57 ont-lineprofile-id 4 ont-srvprofile-id 4
```

```
Mojumdari_GPON.6(config-interface-gpon-0/0)# ont description 2 6 L3R12234
```

```
Mojumdari_GPON.6(config-interface-gpon-0/0)# ont port native-vlan 2 6 eth 1 vlan 1168 priority 0
```

```
Mojumdari_GPON.6(config-interface-gpon-0/0)# ont port car 2 6 eth 1 inbound 30 outbound 30
```

```
Mojumdari_GPON.6(config-interface-gpon-0/0)# exit
```

```
Mojumdari_GPON.6(config)# service-port 15 vlan 1168 gpon 0/0 port 2 ont 6 gemport 1 multi-service user-vlan 1168 tag-action transparent
```

```
Mojumdari_GPON.6(config)# save
```

2.2.3 ONU Configuration for 2 Port ONU

```
Mojumdari_GPON.6(config-interface-gpon-0/0)# ont add 2 6 sn-auth DE20E634DE57 ont-lineprofile-id 4 ont-srvprofile-id 2
```

```
Mojumdari_GPON.6(config-interface-gpon-0/0)# ont description 2 6 L3R12234
```

```
Mojumdari_GPON.6(config-interface-gpon-0/0)# ont port native-vlan 2 6 eth 1 vlan 1168 priority 0
```

```
Mojumdari_GPON.6(config-interface-gpon-0/0)# ont port car 2 6 eth 1 inbound 30 outbound 30
```

```
Mojumdari_GPON.6(config-interface-gpon-0/0)# ont port attribute 15 35 eth 2 operational-state off
```

```
Mojumdari_GPON.6(config-interface-gpon-0/0)# ont wan add 8 3 1 bridge internet vlan-mode tag 1156 priority 0 binding eth 1
```

```
Mojumdari_GPON.6(config-interface-gpon-0/0)# exit
```

```
Mojumdari_GPON.6(config)# service-port 15 vlan 1168 gpon 0/0 port 2 ont 6 gemport 1 multi-service user-vlan 1168 tag-action transparent
```

```
Mojumdari_GPON.6(config)# save
```

2.3 New ONU Add in Existing Configuration(VLAN, LP and SP Unchanged)

```
Mojumdari_GPON.6(config-interface-gpon-0/0)# ont modify 2 6 auth-type sn-auth HWTC2D664592A
```

```
Mojumdari_GPON.6(config-interface-gpon-0/0)# exit
```

```
Mojumdari_GPON.6(config)# save
```

2.4 New ONU Add in Existing Configuration(LP Changed)

```
Mojumdari_GPON.6(config-interface-gpon-0/0)# ont modify 2 6 auth-type sn-auth HWTC2D664592A
```

```
Mojumdari_GPON.6(config-interface-gpon-0/0)# ont modify 2 6 ont-lineprofile-id 5
```

```
Mojumdari_GPON.6(config-interface-gpon-0/0)# exit
```

```
Mojumdari_GPON.6(config)# save
```

2.5 New ONU Add in Existing Configuration(SP Changed)

```
Mojumdari_GPON.6(config-interface-gpon-0/0)# ont modify 2 6 auth-type sn-auth HWTC2D664592A
```

```
Mojumdari_GPON.6(config-interface-gpon-0/0)# ont modify 2 6 ont-srvprofile-id 4
```

```
Mojumdari_GPON.6(config-interface-gpon-0/0)# exit
```

```
Mojumdari_GPON.6(config)# save
```

2.6 New ONU Add in Existing Configuration(LP and SP Changed)

```
Mojumdari_GPON.6(config-interface-gpon-0/0)# ont modify 2 6 auth-type sn-auth HWTC2D664592A
```

```
Mojumdari_GPON.6(config-interface-gpon-0/0)# ont modify 2 6 ont-lineprofile-id 5 ont-srvprofile-id 4
```

```
Mojumdari_GPON.6(config-interface-xge-0/0)# exit
```

```
Mojumdari_GPON.6(config)# save
```

2.7 VLAN TAG in ONU Port

2.7.1 VLAN Tag in 1 or 4 Port ONU

```
Mojumdari_GPON.6(config-interface-gpon-0/0)# ont port native-vlan 2 6 eth 1 vlan 1168 priority 0
```

```
Mojumdari_GPON.6(config-interface-gpon-0/0)# exit
```

```
Mojumdari_GPON.6(config)# service-port 15 vlan 1168 gpon 0/0 port 2 ont 6 gemport 1 multi-service user-vlan 1168 tag-action transparent
```

```
Mojumdari_GPON.6(config)# save
```

2.7.2 VLAN Tag in 2 Port ONU

```
Mojumdari.GPON.6(config-interface-gpon-0/0)# ont port native-vlan 2 6 eth 1 vlan 1168 priority 0
```

```
Mojumdari.GPON.6(config-interface-gpon-0/0)# ont wan add 8 3 1 bridge internet vlan-mode tag 1156 priority 0 binding  
eth 1
```

```
Mojumdari.GPON.6(config-interface-gpon-0/0)# exit
```

```
Mojumdari.GPON.6(config)# service-port 15 vlan 1168 gpon 0/0 port 2 ont 6 gempport 1 multi-service user-vlan 1168 tag-  
action transparent
```

```
Mojumdari.GPON.6(config)# save
```


3 OLT Configuration Show Commands

3.1 Check Traffic Profile Configuration

Mojumdari.GPON.6(config)# show traffic-profile all

3.2 Check DBA Profile Configuration

Mojumdari.GPON.6(config)# show dba-profile all

3.3 Check Line Profile Configuration

Mojumdari.GPON.6(config)# show ont-lineprofile gpon all

3.4 Check Service Profile Configuration

Mojumdari.GPON.6(config)# show ont-srvprofile gpon all

3.5 Check VLAN

Mojumdari.GPON.6(config)# show vlan all

3.6 PON Port Optical Laser

Mojumdari.GPON.6(config-interface-gpon-0/0)# show ont optical-info 2 all

3.7 SFP Temperature and Laser Check

Mojumdari.GPON.6(config-interface-gpon-0/0)# show port ddm-info 2

3.8 PON PORT Authentication or PON Status Check

Mojumdari.GPON.6(config-interface-gpon-0/0)# show ont register-statistics 2

3.9 OLT Client Status Count Check

: Mojumdari.GPON.6(config-interface-gpon-0/0)# show ont status-count brief

3.10 OLT PON PORT State Check

: Mojumdari.GPON.6(config-interface-gpon-0/0)# show port state all

3.11 Static MAC Address Add in OLT Uplink Port

Mojumdari.GPON.6(config)# mac-address static port xge 0/0/1 vlan 1800 AA::BB:CC:DD:EE:FF

3.12 Static MAC Address Delete from OLT Uplink Port

Mojumdari.GPON.6(config)# no mac-address static port xge 0/0/1 vlan 269 AA:BB:CC:DD:EE:FF

3.13 Static MAC Address Check in OLT

Mojumdari.GPON.6(config)# show mac-address static

4 Local ONU Configuration Commands

4.1 Enable & Disable ONU

4.1.1 ONT Enable Command

```
Khadim_GPON_4(config-interface-gpon-0/0)# ont enable 3 E067B366841C
```

4.1.2 ONT Disable Command

```
Khadim_GPON_4(config-interface-gpon-0/0)# ont disable 3 E067B366841C
```

4.2 Activate & Deactivate ONU

4.2.1 ONT Activate Command

```
Khadim_GPON_4(config-interface-gpon-0/0)# ont activate 2 6
```

4.2.2 ONT Deactivate Command

```
Khadim_GPON_4(config-interface-gpon-0/0)# ont deactivate 2 6
```

4.3 ONU Autofind Enable & Disbale

4.3.1 ONU Autofind Enable

```
Khadim_GPON_4(config-interface-gpon-0/0)# ont autofind 2 enable
```

```
Khadim_GPON_4(config-interface-gpon-0/0)# ont autofind all enable
```

4.3.2 ONU Autofind Disable

```
Khadim_GPON_4(config-interface-gpon-0/0)# ont autofind 2 disable
```

```
Khadim_GPON_4(config-interface-gpon-0/0)# ont autofind all disable
```

4.4 Automatically Found ONT Confirm& Delete Disable

4.4.1 Automatically Fount ONT Confirm

```
Khadim_GPON_4(config-interface-gpon-0/0)# ont confirm 2 sn-auth VSOL12345678 ont-lineprofile-id 5 ont-srvprofile-id 4
```

4.4.2 Automatically Fount ONT Delete

```
Khadim_GPON_4(config-interface-gpon-0/0)# ont cancel 2 sn E067B366841C
```

```
Khadim_GPON_4(config-interface-gpon-0/0)# ont autofind all disable
```

4.5 ONU Blacklist Enable & Disbale

4.5.1 ONU Blacklist Enable

```
Khadim_GPON_4(config-interface-gpon-0/0)# ont blacklist enable
```

4.5.2 ONU Blacklist Disable

```
Khadim_GPON_4(config-interface-gpon-0/0)# ont blacklist disable
```

5 Local ONU Configuration Show Commands

5.1 Check ONU Configuration

Mojumdari.GPON.6(config)# show current-config section ont 0/0 2 6

5.2 Check ONU Uptime

Mojumdari.GPON.6(config)# show ont run-info 2 6

5.3 Check ONU Laser

Mojumdari.GPON.6(config-interface-gpon-0/0)# show ont optical-info 2 6

5.4 Check Router MAC

Mojumdari.GPON.6(config-interface-gpon-0/0)# show ont learned-mac 2 7

Mojumdari.GPON.6(config)# show ont learned-mac 0/0 2 7

5.5 Check Disable ONU

Mojumdari.GPON.6(config-interface-gpon-0/0)# show ont disable-info

5.6 Check Blacklist ONU

Mojumdari.GPON.6(config-interface-gpon-0/0)# show ont blacklist