How to use CLI to configure SFU or HGU in GWO or GWOV image

The following instructions only apply for GWO or GWOV profiles (such as 96816GWO, 96818GWO, 96816GWOV, 96818GWOV) that can support virtual ethernet interface point (veip),

The single image that is built from any profiles above can support either ONU (aka SFU), or RG (aka HGU), or both.

Device that is considered as pure ONU should have all of its UNI (aka LAN) interfaces in ONU mode. In this mode, UNI should not be attached to default br0 bridge, and should be visible by OLT so that these UNI interfaces can be configured to join any Layer 2 bridge, and create a full data path from UNI to ANI (aka WAN) through pure Layer 2 bridge.

Device that is considered as pure RG should have all of its UNI interfaces in RG mode. In this mode, UNI should NOT be visible by OLT. Instead, these UNI interfaces should be attached to default bridge br0 so that they can be connected to any Layer 3 interfaces through veip in routed mode.

Device that is considered to support both ONU or RG should has some of its UNI interfaces are in ONU mode and some of them are in RG mode. The default br0 bridge is co-existed with other pure Layer 2 bridges that are created by OLT configurations in this device. UNI interfaces that are connected to the default br0 bridge should setup routed data paths. UNI interfaces that are connected to other Layer 2 bridges should create bridged data paths.

By default, any GWO or GWOV images have all UNI ports in RG mode. The following CLI command can be used to view what mode that UNI ports are in:

```
omci eth --show
```

```
> omci eth --show
  Ethernet 0 is member of RG bridge only
  Ethernet 1 is member of RG bridge only
  Ethernet 2 is member of RG bridge only
  Ethernet 3 is member of RG bridge only
```

Since any GWO or GWOV images have all UNI ports in RG mode by default, device is pure RG, none of UNI ports are reported as PPTPEthernetUNI MEs, and OLT cannot configure them.

To configure what UNI ports are in ONU mode or are in RG mode, any GWO or GWOV images should provide the following CLI commands:

omci eth --port <0..7> --type <rgont|rg|ont>

For example, to configure eth0 in ONU mode, the following CLI command should be used:

omci eth --port 0 --type ont

```
> omci eth --port 0 --type ont
  Ethernet 0 is member of ONT bridge only
  Ethernet 1 is member of RG bridge only
  Ethernet 2 is member of RG bridge only
  Ethernet 3 is member of RG bridge only
```

System reboot is necessary to make the above command be effected.

After reboot, eth0 should be detached from default br0 bridge. It should be also reported in MibUpload as PPTPEthernetUNI ME so that it can be configured later by OLT. Other UNI ports should still be attached to default br0 bridge, and should not be reported in MIbUpload as PPTPEthernetUNI MEs.

To configure eth0 back in RG mode, the following CLI command should be used:

omci eth --port 0 --type rg

```
> omci eth --port 0 --type rg
  Ethernet 0 is member of RG bridge only
  Ethernet 1 is member of RG bridge only
  Ethernet 2 is member of RG bridge only
  Ethernet 3 is member of RG bridge only
```

Beside of ont mode, or rg mode, the rgont mode is used when UNI port is connected to default br0 bridge, and is also available to OLT so that it can also be connected to pure Layer 2 bridge. This mode is complicated, and should be used as experience only.