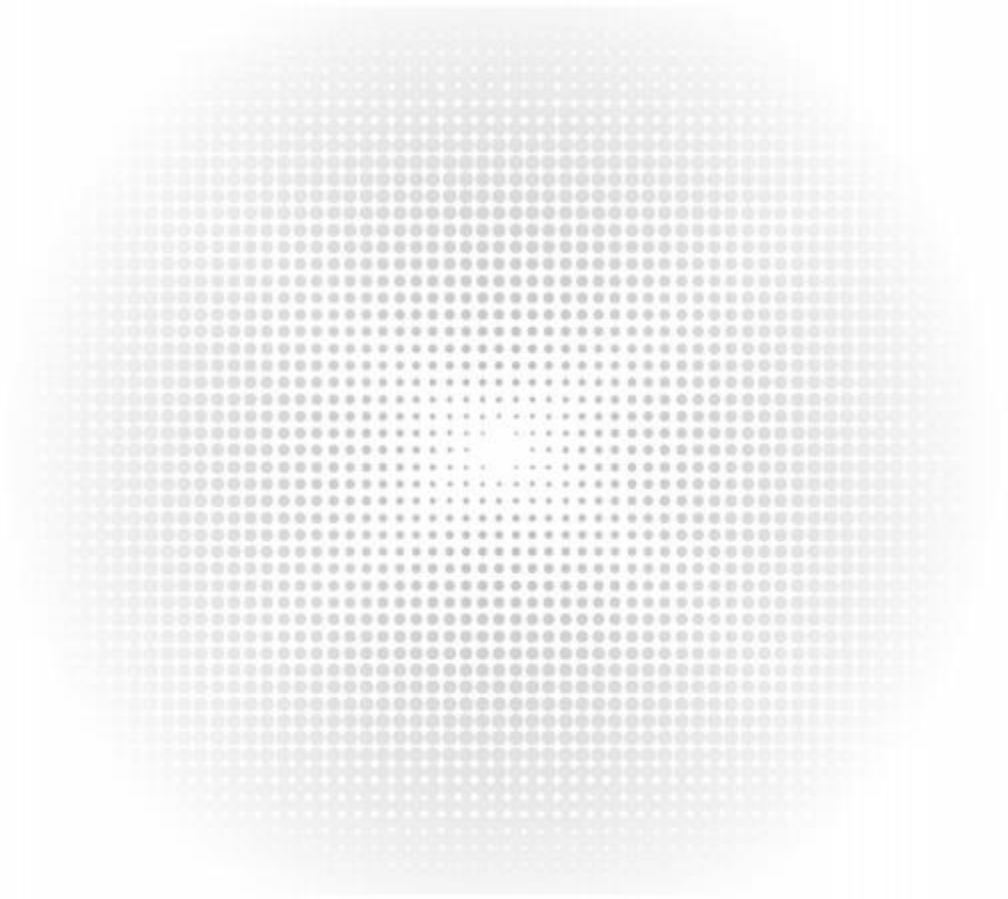
XGS-ONU-25-20NI Configuration Guide

XGS-ONU-25-20NI



CONFIGURATION GUIDE

Contents

Introduction

This manual provides a quick guide for users to know CLI of XGSPON Stick It is useful for local support test with OLT and doing some trouble shootings.

Overview

This manual is organized as following:

Section 1: Explain how to TELNET

Section 2: Provide the way to change local access settings

Section 3: List the most common commands

Section 4: Explain local software image upgrade and switch

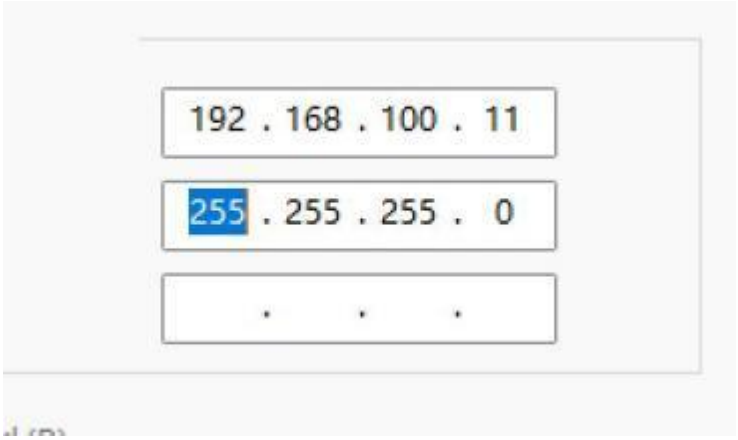
Section 5: Provide the way to OMCI mib command

Section 6: Common service debug information

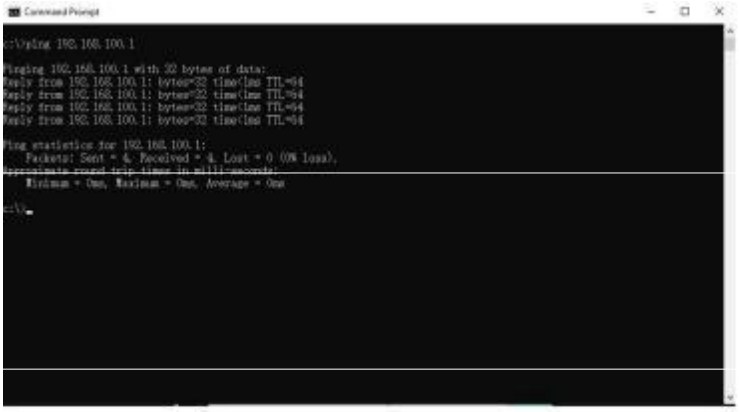
1. How to telnet

PC connection ont port 1 with cable， The manager IP Addr is :192.168.100.1

Steps 1 Set local IP address manually on laptop

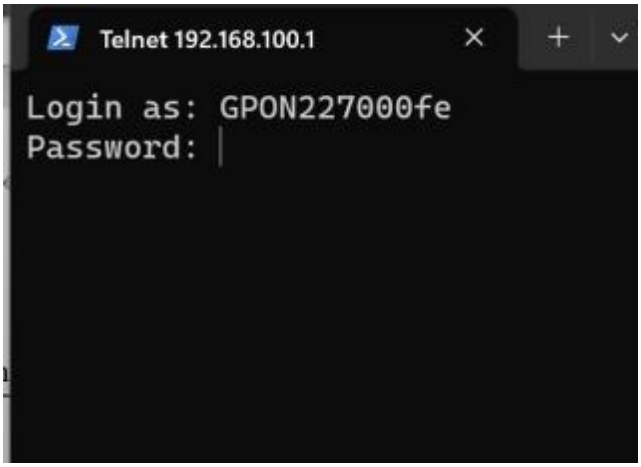


Steps 2 Ping Default Gateway IP 192.168.100.1

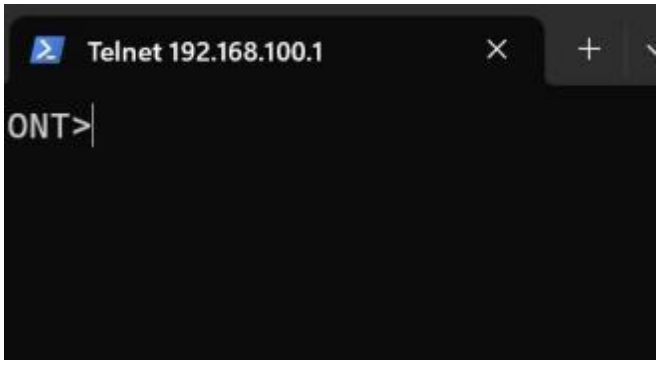


Steps 3 Use telnet tool to generate login password.

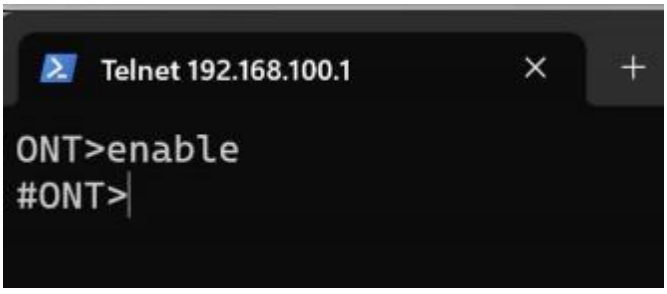
Steps 4 Telnet to ONT, username is “GPON227000fe”



Steps 5 The password is obtained telnet tool “mbdu7pVX”



Steps 6 Input “enable” to enter configure mode



2. Ont local commands

Here we list the most common commands for testing and troubleshooting.

2.1 Hardware and Software information

2.1.1 Software version

The command to check ont version
[Command]
/ system/ ontver
Example:
#ONT>/system/ontver
OntSwVer : R4.4.20.016
#ONT>

2.1.2 local ont series number command

- **Check local ont series number**

The command to read ont series number
[Command]
/ system/ misc/ eqsn get
Example:
#ONT/system/misc>eqsn get
eqsn: FTRO20210714

- **Set local ont series number**

The command to write ont series number
[Command]
/system/misc/eqsn set //comment: eqsn setting is like“FTRO12345678” format
Example:
#ONT/system/misc> eqsn set “FTRO12345678”

2.1.3 Stopreboot command

When ont abnormal, ont reboot all the time, the command can interrupt to reboot
[Command]
ONT/ system/ misc> stopreboot
Example:
#ONT/system/misc>stopreboot
Stop reboot command OK

2.2 Optics Parameters

2.2.1 Optics monitoring information

To check optics monitor info
[Command]
/ system/ misc/ show trans state
Example:
ONT/ system/ misc> show trans state
Power : 3V3 (3.3)
Temperature : 45.0 C
Data Rx Power : -14.3 dBm
Data Tx Power : 7.9 dBm
APD Prot : No
Data Tx bias : 12.8 mA
#ONT/system/misc>

2.3 PON and Service Connection

2.3.1 Link status

The command to check ont link status
[Command]
/traffic/pon/show link
Example:
ONT/ traffic/ pon> show link
---------- LINK STATE ----------
Link State: ACTIVE
Operation State Machine: OPERATION (O5)
---------- STATE END ---

2.3.2 ONU information

The command to check onu info
[Command]
/traffic/pon/show onu
Example:

#ONT/traffic/pon>show onu

---------- ONU INFO ----------

Onu id 256
sdThreshold: 0
sfThreshold: 0

TO1: 80000
TO2: 1
eqd: 617219
Serial Number(vendor code) : GPON
Serial Number(sn): 227000fe
Password: 41 42 43 44 45 46 47 48 49 4a
Registration ID:
0x44454641554c54000000000000000000000000000000000000000000000000000000000000

---------- INFO END ----------

#ONT/traffic/pon>

2.3.3 Traffic table

To check the traffic info about DS US gem flow and T-count table
[Command]
/ traffic/ pon/ show traffic all
Example:
ONT/ traffic/ pon> show traffic all

DS GEM FLOW Table

FlowId	GemIndex	PortId	TcontId	DQ Dst	EthFlow	EthFlow QosMap	Pri	Def
1	0xf01	1034	1		255			
2	0xb02	1035	1		255			
3	0x903	1036	1		255			
4	0xff7f	65533	1		255			
30	0xff7e	65534	1		255			

US GEM FLOW Table

FlowId	GemIndex	PortId	TcontId	UQ	AES	gemRuleIndex
1	0xf01	1034	1	7	1	15
2	0xb02	1035	1	3	1	16
3	0x903	1036	1	1	1	17

TCONT Table

Tcont number	alloc ID	traffic mgmt	State	Flow Id
1	1025	0	1	

#ONT/traffic/pon>

2.3.4 Service Connection

The check service connection info about bridge port

[Command]

/ traffic/ omci/ show connection all

Example:

```
# ONT/ traffic/ omci> show connection all

--------------------- Connection ID = 0 ----------------------

Completed = 1, Bridge Id = 0x0a01, valid = 1

Total Port Num      = 3
      Wan Port Num          = 2
            Unicast Port Num   = 0
            Multicast Port Num = 0
            Broadcast Port Num = 1
            802.1p Port Num    = 1
      Lan Port Num          = 1
            Iphost Port Num    = 0
            Eth Port Num       = 1
            EthFlow Port Num   = 0
            VirUni Port Num    = 0

Bridge Port Id = 0xa10b, type = BRCT, TP Ptr = 0xfffd
      Pon Info:
      IwTp    GemPort DsQ    UsQ    Mc Dir DFlow CPUQ UFlow Type  Tcont
      0xfffd 0xfffd 0x0000 0x0000 00 002 00000 0000 00000 ETH |
Bridge Port Id = 0xa102, type = 802.1p, TP Ptr = 0xa102
 802. 1 P Info:
 IwTp   GemPort DsQ   UsQ   Mc Dir DFlow CPUQ UFlow Type  Tcont
 0x0402 0x0402  0x0000 0x8000 00 003 00001 0000 00001 ETH | 0x0403
 0x0402 0x0402  0x0000 0x8000 00 003 00001 0000 00001 ETH | 0x0403
 0x0402 0x0402  0x0000 0x8000 00 003 00001 0000 00001 ETH | 0x0403
 0x0402 0x0402  0x0000 0x8000 00 003 00001 0000 00001 ETH | 0x0403
 0x0402 0x0402  0x0000 0x8000 00 003 00001 0000 00001 ETH | 0x0403
 0x0402 0x0402  0x0000 0x8000 00 003 00001 0000 00001 ETH | 0x0403
 0x0402 0x0402  0x0000 0x8000 00 003 00001 0000 00001 ETH | 0x0403
 0x0402 0x0402  0x0000 0x8000 00 003 00001 0000 00001 ETH | 0x0403

Bridge Port Id = 0x0a01, type = ETH, TP Ptr = 0x0a01, PortMode = BRIDGE

-------------------------- END [0] --------------------------
# ONT/ traffic/ omci>
```

Service Connection(Debug Mode)

This command show the configuration of EMR from MEC
[Command]
/ traffic/ omci/ debug/ showemrcfg [Connection ID]
Example:
ONT/ traffic/ omci/ debug> showemrcfg 0
Connection ID = 0
UNI Configuration:

```
. . . . . .
  < SLOT = 1, PORT = 1, TYPE = 1 >
** Vlan Op:
     US MODE: ASIS
       OLD ( NO_VID, ALL_ PRI) -> NEW ( NO_VID, ALL_ PRI)
     DS MODE: ASIS
       OLD ( NO_VID, ALL_ PRI) -> NEW ( NO_VID, ALL_ PRI)
     US MODE: ASIS
       OLD (ALL_VID, ALL_ PRI) -> NEW (ALL_VID, ALL_ PRI)
     DS MODE: ASIS
       OLD (ALL_VID, ALL_ PRI) -> NEW (ALL_VID, ALL_ PRI)

** Vlan Filter:
     Mode       : Forward all
     Number [2]: (ALL_VID, ALL_ PRI) (NO_VID, ALL_ PRI)
** MC Cfg          : usFlow 65535
     US Mode      : Unknown
     US TCI       : 0x0
     DS MC Mode   : ASIS
     DS MC TCI    : 0x0
     DS IGMP Mode : Unknown
     DS IGMP TCI  : 0x0
```

WAN Configuration:

```
. . . . . .
  < Ds Flow Id = 2, Us Flow Id = 65535, Serv Type = ETH | >
** Vlan Op:
     US MODE: Replace VID with the old PRI
       OLD (0x2BE, ALL_ PRI) -> NEW (0x2BE, ALL_ PRI)
     DS MODE: Replace VID with the old PRI
       OLD (0x2BE, ALL_ PRI) -> NEW (0x2BE, ALL_ PRI)

** Vlan Filter:
     Mode       : Forward all
     Number [2]: (ALL_VID, ALL_ PRI) (NO_VID, ALL_ PRI)
```

```
  < Ds Flow Id = 1, Us Flow Id = 1, Serv Type = ETH | >
** Vlan Op:
      US MODE:  Replace VID with the old PRI
         OLD (0x2BE, ALL_ PRI) -> NEW (0x2BE, ALL_ PRI)
      DS MODE:  Replace VID with the old PRI
         OLD (0x2BE, ALL_ PRI) -> NEW (0x2BE, ALL_ PRI)

** Vlan Filter:
      Mode       : Forward all
      Number [3]: (0x2BE, ALL_ PRI) (NO_VID, ALL_ PRI) (0x0, ALL_ PRI)
```

2.3.5 Performance counters

2.3.5.1 Gem port counter

The information of RX/TX packets in GemPort

[Command]

/traffic/pon/show pm gem all

Example:

```
# ONT/traffic/pon> show pm gem all

--------------port 1034 flow 0001----------------
RX GEM frames          :         611
RX GEM bytes           :        243164
Tx GEM frames          :         638
Tx GEM bytes           :        225814

--------------port 1035 flow 0002----------------
RX GEM frames          :         0
RX GEM bytes           :        0
Tx GEM frames          :         8
Tx GEM bytes           :        590

--------------port 1036 flow 0003----------------
RX GEM frames          :         3
RX GEM bytes           :        216
Tx GEM frames          :         54
Tx GEM bytes           :        3804

--------------port 65533 flow 0004----------------
RX GEM frames          :         751
RX GEM bytes           :        1 12106
Tx GEM frames          :         0
Tx GEM bytes           :        0
```

```
----------port 65534 flow 0030----------
RX GEM frames          :          153448
RX GEM bytes           :         196619932
Tx GEM frames          :          0
Tx GEM bytes           :         0
# ONT/ traffic/ pon>
```

2.4 Ethernet service

2.4.1 UNI port information

To check Ethernet port physical link
[Command]

```
# ONT/traffic/eth>show pack
build time Dec 26 2022: 06:45:47

---------- Line Pack -- PWR 0X0      --
Line Slot 10, NumOfPorts 1, type 49, subtype 75, state 2
---------- Configuration ----------
port  | enable  | loop  | Mode  | RL Type  | RL Us Rate| RL Ds Rate|
1      Yes     No      Auto          0       0       0

---------- Status ----------
1) link state: Up, link mode: 1G  Full

---------- Bridge Pack ----------
Type:       75
State:      2
MAC Table:  0
MAC Aging:  0
MTU:        0
---------- Chip Data ----------
eth Fd:          6
port Mask:      0x0018
type           28

********** DEBUG INFO **********
              EmrLogId  : 5
            EmrAdminEn  : 0
            EmrbeInited  : 1
            EmrDumpConn  : 0
           EmrPwrShedEn  : 0x0
          EmrConnItemNum   :  2
          EmrUsDsReverseEn  : 1
       EmrConnAllVidCheck  : 0
```

```
    EmrMcastGemVlanOp En  : 1
     g EmrSaveConnItemEn  : 1
    g EmrMcastCrossVlanEn : 1
   EmrUniExtractPriMatch  : 1
 EMR_DRV_PACK_DUMP_ITEM_EN : 0
********************************
#ONT/traffic/eth>
#ONT/traffic/eth>
```

2.4.2 IGMP information

- **IGMP Domain**

To check which groups have been joined at each UNI:

[Command]

/traffic/eth/show igmp domain

Example:

```
# ONT/ traffic/ eth> show igmp domain
p Domain Id 0 auto:0 vid 0x000 pri:0 Op:unknown       cfgver IGMP_V3
Stb     Query   v2Exist Querier    Snoop Fast  Host    Port   Proxy
Ver     Ver     Present           EN    LEAVE Track   Mask    Mode
-----------------------------------------------------------------
Unknown Unknown 0       0x00000000 1     1     1     0000003f DISABLE
wanIp        wanMac          lanIp        lanMac
0x00000000   0x000000000000   0x00000000   0x000000000000

       QRV      QQIC(ms) LMQI(ms) MaxResp(ms)
v2DefCfg 2       125000   1000     10000
v2RunCfg 0       0        0        0

v3DefCfg 2       125000   1000     10000
v3RunCfg 0       0        0        0
v3GSCfg  0       0        0        0

pDomain Id 1193 auto:0 vid 0x4a9 pri:0 Op:add & repri   cfgver IGMP_V3
Stb     Query   v2Exist Querier    Snoop Fast  Host    Port   Proxy
Ver     Ver     Present           EN    LEAVE Track   Mask    Mode
-----------------------------------------------------------------
IGMP_V2 IGMP_V3 33      0x0101a8c0 1     1     1     0000003f PROXY_RG
wanIp        wanMac          lanIp        lanMac
0x6f6f6f82   0x102012301032   0xc0a80101   0x102012301014

mldWanIp:   000.000.000.000
mldQuerierIp:   000.000.000.000
```

```
 QRV       QQIC(ms)  LMQI(ms)  MaxResp(ms)
v2DefCfg 2         125000   1000      10000
v2RunCfg 0         0        0         0

v3DefCfg 2         125000   1000      10000
v3RunCfg 2         125000   0         10000
v3GSCfg  0         0        0         0

 index   Group(all 11 )  |   portmask   |  age (sec)
 [000]   ff02:0000:0000:0000:0000:0000:0000:000c   0x0000000b   IP
0x0000000b 238
 [001]   ff02:0000:0000:0000:0000:0001:ffc5:c826   0x00000002   IP
0x00000002 104
 [002]   ff02:0000:0000:0000:0000:0001:ffce:4bfd   0x00000002   IP
0x00000002 33
 [003]   ff02:0000:0000:0000:0000:0001:ff56:b804   0x00000008   IP
0x00000008 236
 [004]   224.000.000.252   0x00000008   IP 0x00000008 237
 [005]   239.255.255.250   0x0000000b   IP 0x0000000b 237
 [006]   ff02:0000:0000:0000:0000:0000:0000:00fb   0x0000000b   IP
0x0000000b 237
 [007]   239.002.001.001   0x00000008   IP 0x00000008 241
 [008]   ff02:0000:0000:0000:0000:0001:ff5b:63fe   0x00000001   IP
0x00000001 239
 [009]   ff02:0000:0000:0000:0000:0000:0001:0003   0x00000008   IP
0x00000008 236
 [010]   224.000.000.251   0x0000000b   IP 0x0000000b 241
```

- **IGMP statistic**

To check RX/TX IGMP packet

[Command]

```
#ONT/traffic/eth>show igmp pm
===== IGMP Domain(   0) Counters =====

===== IGMP Domain(1193) Counters =====
++++++++++ wan port counters ++++++++++
Rx v3GeneralQuery             :   10
Tx v3GeneralQuery             :   10
Tx MLDv2GeneralQuery          :   10

++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
LanPortId        0  |       1  |       2  |       3
--------------------------------------------------------------
```

```
Rx MLDV1Join       0        1        0        0
Tx MLDV1Join       0        2        0        0
Tx MLDV1done       0        1        0        0
Rx MLDV2Join      29       17        0       37
Tx MLDV2Join       3        0        0        2
Rx MLDV2done       0        4        0        0
Tx MLDV2done       0        1        0        0
TxV2Join           1        1        0        6
RxV3Join          18       14        0       34
TxV3Join           6        0        0        5
RxV3Leave          0        4        0        0
GroupErr           0        2        0        0
#ONT/traffic/eth>show IGMP uni
To check IGMP all UNI configuration
[Command]
/ traffic/ eth/ show  igmp  uni
Example:
# ONT/ traffic/ eth> show  igmp  uni
================== Domain 0 Port config ================
lport  0  | maxGroup 128  | curGroup   0  | aclNum 0
       | maxBw      0  | exceedDeny 0  | curBw 0

lport  1  | maxGroup 128  | curGroup   0  | aclNum 0
       | maxBw      0  | exceedDeny 0  | curBw 0

lport  2  | maxGroup 128  | curGroup   0  | aclNum 0
       | maxBw      0  | exceedDeny 0  | curBw 0

lport  3  | maxGroup 128  | curGroup   0  | aclNum 0
       | maxBw      0  | exceedDeny 0  | curBw 0

lport  4  | maxGroup 128  | curGroup   0  | aclNum 0
       | maxBw      0  | exceedDeny 0  | curBw 0

lport  5  | maxGroup 128  | curGroup   0  | aclNum 0
       | maxBw      0  | exceedDeny 0  | curBw 0
================== Domain 1 193 Port config ================
lport  0  | maxGroup 128  | curGroup   5  | aclNum 0
       | maxBw      0  | exceedDeny 0  | curBw 0

lport  1  | maxGroup 128  | curGroup   0  | aclNum 0
       | maxBw      0  | exceedDeny 0  | curBw 0

lport  2  | maxGroup 128  | curGroup   0  | aclNum 0
       | maxBw      0  | exceedDeny 0  | curBw 0
```

lport 3 | maxGroup 128 | curGroup 8 | aclNum 0
| maxBw 0 | exceedDeny 0 | curBw 0

lport 4 | maxGroup 128 | curGroup 0 | aclNum 0
| maxBw 0 | exceedDeny 0 | curBw 0

lport 5 | maxGroup 128 | curGroup 0 | aclNum 0
| maxBw 0 | exceedDeny 0 | curBw 0

#ONT/traffic/eth>

2.4.3 Performance counter

- **Gem counter**

The show gem port PM data
[Command]
/ traffic/ omci/ show pm gem
Example:
ONT/ traffic/ omci> show pm gem
---------- gem port cfg----------

enable : 0
gem port id : 0xfffe
pm data me id: 0xfffe

Index: 0
lost packets : 0x00000000
misinsert packets: 0x00000000
rx packets : 0x000000000
rx blocks : 0x000000000
tx blocks : 0x000000000
impaired blocks : 0x00000000
tx packets : 0x00000000

enable : 0
gem port id : 0x40a
pm data me id: 0x40a

Index: 1
lost packets : 0x00000000
misinsert packets: 0x00000000
rx packets : 0x000000000
rx blocks : 0x000000000
tx blocks : 0x000000000

impaired blocks : 0x00000000
tx packets : 0x00000000

enable : 0
gem port id : 0x40b
pm data me id: 0x40b

Index: 2
lost packets : 0x00000000
misinsert packets: 0x00000000
rx packets : 0x000000000
rx blocks : 0x000000000
tx blocks : 0x000000000
impaired blocks : 0x00000000
tx packets : 0x00000000

enable : 0
gem port id : 0x40c
pm data me id: 0x40c

Index: 3
lost packets : 0x00000000
misinsert packets: 0x00000000
rx packets : 0x000000000
rx blocks : 0x000000000
tx blocks : 0x000000000
impaired blocks : 0x00000000
tx packets : 0x00000000

enable : 0
gem port id : 0xfffd
pm data me id: 0xfffd

Index: 4
lost packets : 0x00000000
misinsert packets: 0x00000000
rx packets : 0x000000000
rx blocks : 0x000000000
tx blocks : 0x000000000
impaired blocks : 0x00000000
tx packets : 0x00000000

ALU pm data me id: 0xffff

lost DS packets : 0x00000000
lost US packets : 0x00000000
rx packets : 0x00000000
rx blocks : 0x00000000
tx blocks : 0x00000000
impaired blocks : 0x00000000
tx packets : 0x00000000
rx bad headers : 0x00000000

ALU47 pm data me id: 0xffff

lost DS packets : 0x00000000
lost US packets : 0x00000000
rx packets : 0x000000000
rx blocks : 0x000000000
tx blocks : 0x000000000
impaired blocks : 0x00000000
tx packets : 0x008x
rx bad headers : 0x00000000

Arris pm data me id: 0xffff

lost packets : 0x00000000
rx packets : 0x0000000000000000
rx blocks : 0x0000000000000000
tx blocks : 0x0000000000000000
impaired blocks : 0x00000000
tx packets : 0x0000000000000000

GAL TDM pm data me id: 0xffff

GemFrmLoss : 0x00000000
BufUnderflows : 0x00000000
BufOverflows : 0x00000000

----------gem port cfg end----------
ONT/ traffic/ omci>

- **Eth counter**

The show eth PM data
[Command]
/ traffic/ omci/ show pm uni 1 0 1
Example:
ONT/ traffic/ eth> show pm uni 1 0 1

UNI slot 10 port 1 PM
=======Counters for phyport[4]=======
ifInOctets : 48139
ifInUcastPkts : 608
ifIn MulticastPkts : 46
ifOutOctets : 37430
ifOutUcastPkts : 373
Tx Pkts64Octets : 211
Tx Pkts65to127Octets : 149
Tx Pkts128to255Octets : 2
Tx Pkts256to511Octets : 2
Tx Pkts512to1023Octets : 2
Tx Pkts1024to1518Octet : 7
Rx Pkts64Octets : 600
Rx Pkts65to127Octets : 16
Rx Pkts128to255Octets : 38
#ONT/traffic/eth>

2.5 System Log

2.5.1 PON manager

To check PON implementation
[Command]
/ system/ log/ show pmr
Example:
ONT/ system/ log> show pmr
Log: pmr
tick upTime1 file line level message
c7f3c315 20 pmr_main_gpon.c 1 14 4 PMR_ Init OK
c7f3c6e 1 21 pmr_handler_gpo 423 4 rcv VOS_TIME_OUT
c7f3c6e2 21 pmr_handler_gpo 454 4 rcv
MEC_ MSG_ PACK_ MGR_ READY_ACK
c7f3c6e2 21 pmr_handler_gpo 457 4 kill Init timer [1], ret=[0]
c7f3d3c4 25 pmr_handler_gpo 555 4 rcv MEC_MSG_CFG_PACK_TYPE,
result = 0, hwType[62] MappingMode 1
c7f3d3c4 25 pmr_data_cortin 296 4 Open evt Fd[10], cnt[0]
c7f3e045 28 pmr_data_cortin 90 4 DBACfged 0
c7f3e045 28 pmr_handler_gpo 391 4 rcv PON_ MSG_CFG_ DBA_ ENABLE,
result = 0
c7f3e051 28 pmr_handler_gpo 632 4 rcv PON_ MSG_CFG_SDSF, result =
0
c7f3e0f3 28 pmr_data_cortin 163 4 report state transtion: Unknown -->
Init
c7f3e0f3 28 pmr_pack_cortin 293 1 Pon drv active ok

c7f3e0f4 28 pmr_handler_gpo 589 4 rcv MEC_MSG_ACTIVATE_PACK, result = 0
c7f3e6c7 29 pmr_event_corti 303 4 state transtion: 1 --> 3 event[assign onu_id message]
c7f3e6c7 29 pmr_data_cortin 163 4 report state transtion: Init --> Preparing
c7f3e6f5 2a pmr_handler_gpo 1000 4 rcv PON_MSG_LINK_ACTIVE, result = 0
c7f3e773 2a pmr_handler_gpo 495 4 Re-configure Pack slot = 128, actualType = 62
c7f3e7ec 2a pmr_data_cortin 90 4 DBACfged 0
c7f3e7ec 2a pmr_handler_gpo 391 4 rcv PON_ MSG_CFG_ DBA_ ENABLE, result = 0
c7f3e7f8 2a pmr_handler_gpo 632 4 rcv PON_MSG_CFG_SDSF, result = 0
c7f3e8af 2a pmr_handler_gpo 567 4 Re-act Pack slot = 128
c7f3e950 2a pmr_handler_gpo 1000 4 rcv PON_MSG_LINK_ACTIVE, result = 0
c7f42982 3b pmr_event_corti 224 4 default AllocId MSG: allocId = 0x0, status = 0
c7f42986 3b pmr_event_corti 303 4 state transtion: 3 --> 4 event[assign onu_id message]
c7f42ae9 3b pmr_event_corti 303 4 state transtion: 4 --> 5 event[ranging time message]
c7f42ca4 3b pmr_data_cortin 163 4 report state transtion: Preparing --> Ready
c7f42ca5 3b pmr_event_corti 351 1 recv omci, force report state change oldState 3
c7f42e64 3c pmr_handler_gpo 956 4 rcv MEC_MSG_PON_LINK_UP, result = 0
c7f42f9d 3c pmr_handler_gpo 936 4 rcv MEC_MSG_CFG_RESET, result = 0
c7f43452 3d pmr_event_corti 151 4 report assign Alloc-ID = 1025, Status = ALLOCATE
c8008c5c 3d pmr_handler_gpo 632 4 rcv PON_MSG_CFG_SDSF, result = 0
c8008c73 3d pmr_handler_gpo 632 4 rcv PON_MSG_CFG_SDSF, result = 0
c8008cf9 3e pmr_handler_gpo 796 4 rcv PON_MSG_CFG_TCONT, allocId = 65535 type =
1025 mgmt = 0 enable = 0 result = 1
c8008d12 3e pmr_handler_gpo 796 4 rcv PON_MSG_CFG_TCONT, allocId = 1025 type = 1 mgmt = 2 enable = 1 result = 0
c8008d7d 3e pmr_handler_gpo 689 4 rcv PON_MSG_CFG_US_FLOW act Rem, tcontQ = 7, flow = 1,gemport = 1034 result = 2
c8008d88 3e pmr_handler_gpo 689 4 rcv PON_MSG_CFG_US_FLOW act Add, tcontQ = 7, flow = 1,gemport = 1034 result = 0

```
c8008d91      3e  pmr_handler_gpo  663     4 rcv PON_MSG_CFG_DS_FLOW act
Rem, result = 1
c8008dcd      3e  pmr_handler_gpo  663     4 rcv PON_ MSG_CFG_ DS_ FLOW act
Add, result = 0
c8008dce      3e  pmr_handler_gpo  689     4 rcv PON_ MSG_CFG_US_ FLOW act
Rem, tcontQ = 3, flow = 2,gemport = 1035 result = 2
c8008dd8      3e  pmr_handler_gpo  689     4 rcv PON_ MSG_CFG_US_ FLOW act
Add, tcontQ = 3, flow = 2,gemport = 1035 result = 0
c8008de2      3e  pmr_handler_gpo  663     4 rcv PON_ MSG_CFG_ DS_ FLOW act
Rem, result = 1
c8008e1d      3e  pmr_handler_gpo  663     4 rcv PON_ MSG_CFG_ DS_ FLOW act
Add, result = 0
c8008e1f      3e  pmr_handler_gpo  689     4 rcv PON_ MSG_CFG_US_ FLOW act
Rem, tcontQ = 1, flow = 3,gemport = 1036 result = 2
c8008e29      3e  pmr_handler_gpo  689     4 rcv PON_ MSG_CFG_US_ FLOW act
Add, tcontQ = 1, flow = 3,gemport = 1036 result = 0
c8008e33      3e  pmr_handler_gpo  663     4 rcv PON_ MSG_CFG_ DS_ FLOW act
Rem, result = 1
c8008e6e      3e  pmr_handler_gpo  663     4 rcv PON_ MSG_CFG_ DS_ FLOW act
Add, result = 0
c8008f1a      3e  pmr_handler_gpo  663     4 rcv PON_ MSG_CFG_ DS_ FLOW act
Rem, result = 1
c8008f33      3e  pmr_handler_gpo  663     4 rcv PON_ MSG_CFG_ DS_ FLOW act
Add, result = 0
c8009032      3e  pmr_handler_gpo  663     4 rcv PON_ MSG_CFG_ DS_ FLOW act
Rem, result = 1
c800904b      3e  pmr_handler_gpo  663     4 rcv PON_ MSG_CFG_ DS_ FLOW act
Add, result = 0
c80091d4      3f  pmr_handler_gpo  796     4 rcv PON_ MSG_CFG_TCONT, allocId
= 1025 type = 1 mgmt = 2 enable = 1 result = 18
#ONT/system/log>
```

2.5.2 PON manager driver

To check PN manager driver
[Command]
/system/log/show pmr_drv
Example:

```
#ONT/system/log>show pmr_drv
Log: pmr_drv
    tick  upTime1            file line level message
 c7f3d2e 1       24  pmr_pack_cortin  244
 c7f3d3a9        25  pmr_pack_cortin  253     4 pon device is opened. fd[9], cnt[0]
 c7f3d3c2        25  pmr_pack_cortin  287     4 GPON driver init OK, pti[0xaa]
```

c7f3d3c4 25 pmr_pack_cortin 396 4 serial number: 46 54 52 30 20 21 07 14
c7f3d3c4 25 pmr_pack_cortin 421 4 password: 00 00 00 00 00 00 00 00 00 00
c7f3e051 28 pmr_pack_cortin 441 1 Succeed to SD threshold 9
c7f3e051 28 pmr_pack_cortin 462 1 Succeed to SF threshold 5
c7f3e6c4 29 pmr_pack_cortin 235 4 Disable Tx Laser Power Supply when SN-Disable

2.5.3 Misc manager

To check misc implementation
[Command]
/ system/ log/ show mmr
Example:
ONT/ system/ log> show mmr
Log: mmr
tick upTime1 file line level message
c800ac5b 46 mmr_led_cfg.c 1121 4 mmr_LedHandleEvent: event(800)
c800ac5b 46 mmr_led_cfg.c 1121 4 mmr_LedHandleEvent: event(1000000000000080)
c800ac5c 46 mmr_led_cfg.c 1121 4 mmr_ LedHandleEvent: event(1000000000000100)
c800ac5c 46 mmr_led_cfg.c 737 4 mmr_LedCfgSetState: type(phone) state(goff) c800ac5d 46 mmr_led_cfg.c 1121 4 mmr_LedHandleEvent: event(40000000000000)
c800ac5d 46 mmr_led_cfg.c 1121 4 mmr_ LedHandleEvent: event(1000000000000100)
c800ac5d 46 mmr_led_cfg.c 737 4 mmr_ LedCfgSetState: type(phone) state(goff)
c800ac5e 46 mmr_led_cfg.c 1121 4 mmr_ LedHandleEvent: event(1000000000000100)
c800ac5e 46 mmr_led_cfg.c 737 4 mmr_ LedCfgSetState: type(phone) state(goff)
c800ac5e 46 mmr_led_cfg.c 1121 4 mmr_LedHandleEvent: event(1000000000000100)

2.5.4 Ethernet manager

To check Ethernet implementation
[Command]
/ system/ log/ show emr
Example:
ONT/ system/ log> show emr
Log: emr

```
tick  upTime1          file  line  level  message
c8009325      3f      emr_main.c 7847      4 Send ACK message to 0x90009,
result -1, send 0
c800932c      3f      emr_main.c 7764      4 EMR_MSG_CFG_UNI_PKT_LIMIT
c800932c      3f      emr_main.c 7288      4 Config SLOT 14 PORT 1,
uniPktLimit. dhcp 10,  uniPktLimit. igmp 16,  uniPktLimit. arp 10

c800932c      3f      emr_main.c 7847      4 Send ACK message to 0x9000b, result
3, send 0
c800ab3a      45      emr_main.c 7770      4 EMR_MSG_CFG_L3_UNI_IGS
c800ab3a      45      emr_main.c 6426      1 mldQuerierIp error:
c800ab3a      45      emr_main.c 6433      1 mldQuerierIp error:
c800ab49      45      emr_igs.c  873      4 lport1 action1 vlan1193 ver3,
hostTrack1, funcMode3 imLeave3 wip6f6f6f9a queryc0a80101
c800ab49      45      emr_igs.c  878      4 cfg igmp : robust 2, qryInt 125,
qryResInt 100, maxMC 128, lastMem 10 ret 0
c800ab49      45      emr_igs.c  309      4 lport 1 action 1 vlan 1 193 maxGroup
128  maxBw 0  exceedDeny 0  rangCnt 0  multicastcnt 0

c800ab58      45  emr_pack_cortin 2721     4 Config RG Igmp Snooping
paramter. ret 0
c800ab59      45  emr_pack_cortin 2704     4 Configure RG lport 1  U/S flow for
IGMP wan 3 wanService 0x4 service 1 op 1 newOuterTci 0x4a9/0x0
c800ab59      45      emr_main.c 7847      4 Send ACK message to 0x9002f,
result 0, send 0
c800ab6c      45      emr_main.c 7770      4 EMR_MSG_CFG_L3_UNI_IGS
c800ab6c      45      emr_main.c 6426      1 mldQuerierIp error:
c800ab6c      45      emr_main.c 6433      1 mldQuerierIp error:
c800ab7a      45      emr_igs.c  873      4 lport2 action1 vlan1193 ver3,
hostTrack1,  funcMode3  imLeave3
wip6f6f6f9a queryc0a80101
c800ab7a      45      emr_igs.c  878      4 cfg igmp : robust 2, qryInt 125,
qryResInt 100,  maxMC 128,  lastMem 10  ret 1
c800ab7a      45      emr_igs.c  309      4 lport 2 action 1 vlan 1 193 maxGroup
128  maxBw 0  exceedDeny 0  rangCnt 0  multicastcnt 0
```

2.5.5 Downstream ploam

To check downstream ploam implementation

[Command]

/ system/ log/ show ds_ ploam

Example:

```
# ONT/ system/ log> show  ds_ ploam
Log:  ds_ ploam
    tick  upTime1          file line level message
 c7f42982      3b  pmr_event_corti  255     1 g PmrOntDefTcont = 0x0
```

```
c7f42982 3b pmr_event_corti 417 4 ONU-ID=0x3ff, Type=Assign ONU-
ID[0x03]:
c7f42982 3b pmr_event_corti 422 4 00 00 46 54 52 30 20 21 07 14
01 00
c7f42982 3b pmr_event_corti 422 4 00 00 00 00 00 00 00 00 00 00
00 00
c7f42982 3b pmr_event_corti 422 4 00 00 00 00 00 00 00 00 00 00
00 00
c7f42ae5 3b pmr_event_corti 417 4 ONU-ID=0x00, Type=Ranging
Time[0x04]:
c7f42ae5 3b pmr_event_corti 422 4 03 00 09 70 31 00 00 00 00 00
00 00
c7f42ae5 3b pmr_event_corti 422 4 00 00 00 00 00 00 00 00 00 00
00 00
c7f42ae5 3b pmr_event_corti 422 4 00 00 00 00 00 00 00 00 00 00
00 00
c7f42b54 3b pmr_event_corti 417 4 ONU-ID=0x00, Type=Key
Control[0x0d]:
c7f42b54 3b pmr_event_corti 422 4 00 00 01 10 00 00 00 00 00 00
00 00
c7f42b54 3b pmr_event_corti 422 4 00 00 00 00 00 00 00 00 00 00
00 00
c7f42b54 3b pmr_event_corti 422 4 00 00 00 00 00 00 00 00 00 00
00 00
c7f42b54 3b pmr_event_corti 417 4 ONU-ID=0x00, Type=Key
Control[0x0d]:
c7f42b54 3b pmr_event_corti 422 4 00 00 01 10 00 00 00 00 00 00
00 00
c7f42b54 3b pmr_event_corti 422 4 00 00 00 00 00 00 00 00 00 00
00 00
c7f42b54 3b pmr_event_corti 422 4 00 00 00 00 00 00 00 00 00 00
00 00
c7f42b54 3b pmr_event_corti 417 4 ONU-ID=0x00, Type=Key
Control[0x0d]:
c7f42b54 3b pmr_event_corti 422 4 00 01 01 10 00 00 00 00 00 00
00 00
c7f42b54 3b pmr_event_corti 422 4 00 00 00 00 00 00 00 00 00 00
00 00
c7f42b55 3b pmr_event_corti 422 4 00 00 00 00 00 00 00 00 00 00
00 00
c7f43451 3d pmr_event_corti 271 1 AllocId MSG: allocId = 0x401, status
= 0
c7f43452 3d pmr_event_corti 417 4 ONU-ID=0x00, Type=Assign Alloc-
ID[0x0a]:
```

c7f43452 3d pmr_event_corti 422 4 04 01 01 00 00 00 00 00 00 00 00 00
c7f43452 3d pmr_event_corti 422 4 00 00 00 00 00 00 00 00 00 00 00 00
c7f43452 3d pmr_event_corti 422 4 00 00 00 00 00 00 00 00 00 00 00 00

2.5.6 OMCI log

To check the OMCI message between OLT and ONT.

[Command]

/ system/ log/ show omci

Example:

ONT/ system/ log> show omci

Log: omci

tick upTime1 file line level message

c7f433b6 3d omci_msg.c 178 4 01 15 80 6f ff f0 00 0c cc 02 ee 00 00 00 00 80
c7f433b6 3d omci_msg.c 184 4 06 00 07 00 00 01 00 00 00 00 00 00 00 00 00 00
c7f433b6 3d omci_msg.c 187 4 zero: 0x0, len: 0x28 crc: 0xddd2b809
c7f433b7 3d omci_main.c 107 4 Receive OMCI message
c7f433b7 3d omci_msg.c 172 4 tick: 0x11ea06ab PRI: 0, TI: 0x1358, DID: 10, DB: 0, AR: 1, AK: 0, MT: 14, Class: 2, inst: 0x0
c7f433b8 3d omci_msg.c 178 4 00 ee 00 00 00 00 00 00 00 00 00 00 00 00
c7f433b8 3d omci_msg.c 184 4 00 00 00 00 00 00 00 00 00 00 00 00 00 00
c7f433b8 3d omci_msg.c 187 4 zero: 0x0, len: 0x28 crc: 0x9ef9315
c7f433b8 3d omci_msg.c 551 4 Send out OMCI msg
c7f433b8 3d omci_msg.c 172 4 tick: 0x11ea0828 PRI: 0, TI: 0x1358, DID: 10, DB: 0, AR: 0, AK: 1, MT: 14, Class: 2, inst: 0x0
c7f433b8 3d omci_msg.c 178 4 01 15 80 70 ff f0 00 0c cc 02 ee 00 00 00 00 80
c7f433b8 3d omci_msg.c 184 4 07 00 07 00 00 01 00 00 00 00 00 00 00 00 00 00
c7f433b8 3d omci_msg.c 187 4 zero: 0x0, len: 0x28 crc: 0xf4238696
c7f433b9 3d omci_main.c 107 4 Receive OMCI message
c7f433b9 3d omci_msg.c 172 4 tick: 0x11ea0e7b PRI: 0, TI: 0x1359, DID: 10, DB: 0, AR: 1, AK: 0, MT: 14, Class: 2, inst: 0x0
c7f433ba 3d omci_msg.c 178 4 00 ef 00 00 00 00 00 00 00 00 00 00 00 00
c7f433ba 3d omci_msg.c 184 4 00 00 00 00 00 00 00 00 00 00 00 00 00 00
c7f433ba 3d omci_msg.c 187 4 zero: 0x0, len: 0x28 crc: 0x46edb4cc

```
c7f433ba 3d omci_msg.c 551 4 Send out OMCI msg
c7f433ba 3d omci_msg.c 172 4 tick: 0x11ea0ff6 PRI: 0, TI: 0x1359,
DID: 10, DB: 0, AR: 0, AK: 1, MT: 14, Class: 2, inst: 0x0
c7f433ba 3d omci_msg.c 178 4 01 15 80 71 ff f0 00 0c cc 02 ee 00 00
00 00 80
c7f433ba 3d omci_msg.c 184 4 08 00 07 00 00 01 00 00 00 00 00 00
00 00 00 00
c7f433ba 3d omci_msg.c 187 4 zero: 0x0, len: 0x28 crc: 0xfb8c0e9e
c7f433bb 3d omci_main.c 107 4 Receive OMCI message
c7f433bb 3d omci_msg.c 172 4 tick: 0x11ea1620 PRI: 0, TI: 0x135a,
DID: 10, DB: 0, AR: 1, AK: 0, MT: 14, Class: 2, inst: 0x0
c7f433bb 3d omci_msg.c 178 4 00 f0 00 00 00 00 00 00 00 00 00 00
00 00 00 00
c7f433bc 3d omci_msg.c 184 4 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00
c7f433bc 3d omci_msg.c 187 4 zero: 0x0, len: 0x28 crc: 0x4d64b34b
c7f433bc 3d omci_msg.c 551 4 Send out OMCI msg
c7f433bc 3d omci_msg.c 172 4 tick: 0x11ea179a PRI: 0, TI: 0x135a,
DID: 10, DB: 0, AR: 0, AK: 1, MT: 14, Class: 2, inst: 0x0
c7f433bc 3d omci_msg.c 178 4 01 15 80 72 ff f0 00 0c cc 02 ee 00 00
00 00 80
c7f433bc 3d omci_msg.c 184 4 09 00 07 00 00 01 00 00 00 00 00 00
00 00 00 00
c7f433bc 3d omci_msg.c 187 4 zero: 0x0, len: 0x28 crc: 0xb7263d35
c7f433bd 3d omci_main.c 107 4 Receive OMCI message
c7f433bd 3d omci_msg.c 172 4 tick: 0x11ea1e0e PRI: 0, TI: 0x135b,
DID: 10, DB: 0, AR: 1, AK: 0, MT: 14, Class: 2, inst: 0x0
c7f433be 3d omci_msg.c 178 4 00 f1 00 00 00 00 00 00 00 00 00 00
00 00 00 00
c7f433be 3d omci_msg.c 184 4 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00
c7f433be 3d omci_msg.c 187 4 zero: 0x0, len: 0x28 crc: 0x96512982
c7f433be 3d omci_msg.c 551 4 Send out OMCI msg
c7f433be 3d omci_msg.c 172 4 tick: 0x11ea1f8b PRI: 0, TI: 0x135b,
DID: 10, DB: 0, AR: 0, AK: 1, MT: 14, Class: 2, inst: 0x0
c7f433be 3d omci_msg.c 178 4 01 15 80 73 ff f0 00 0c cc 02 ee 00 00
00 00 80
c7f433be 3d omci_msg.c 184 4 0a 00 07 00 00 01 00 00 00 00 00 00
00 00 00 00
c7f433be 3d omci_msg.c 187 4 zero: 0x0, len: 0x28 crc: 0xd5864143
c7f433bf 3d omci_main.c 107 4 Receive OMCI message
c7f433bf 3d omci_msg.c 172 4 tick: 0x11ea25cb PRI: 0, TI: 0x135c,
DID: 10, DB: 0, AR: 1, AK: 0, MT: 14, Class: 2, inst: 0x0
c7f433bf 3d omci_msg.c 178 4 00 f2 00 00 00 00 00 00 00 00 00 00 00
00 00 00
c7f433c0 3d omci_msg.c 184 4 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00
```

2.5.7 MEC log

To check implement of OMCI message
[Command]
/ system/ log/ show mec
Example:
ONT/ system/ log> show mec
Log: mec

```
tick   upTime1              file line level message
c7f3bf0b       1f       mec_main.c  474     4 Starting MEC
c7f3bfb0        1f  mec_alu_specifi 3390      4 ALU spec register
c7f3bfb2       1f  mec_alu_specifi 3414     4 This is ALU ISAM-based OLT 4.0
c7f3bfb4       1f      mec_main.c  415     4 Get major ID[0xe8] minor ID[0x1]
c7f3bfbb       1f      mec_main.c 2763     4 PON_TYPE 1
c7f3bfc8       20       mec_init.c  160     4 Get major ID[0xe8] minor ID[0x1]
c7f3bfc8       20       mec_init.c  172     4 Get active entity 0
c7f3bfcf       20       mec_init.c  188     4 Get commit entity 0
c7f3bfd2       20       mec_init.c 1059     4 mec_ ImageValid: file magic is
0x23494255
c7f3bfd2       20       mec_init.c 1094     4 check: ubi & kernel inst 1
c7f3c0ec       20       mec_init.c  455     4 Restoring MIB
c7f3c0f0       20       mec_init.c  444     4 ReStore cardholder slot [128] MIB
c7f3c0f4       20       mec_init.c  444     4 ReStore cardholder slot [1] MIB
c7f3c0f7       20       mec_init.c  444     4 ReStore cardholder slot [10] MIB
c7f3c0fa       20       mec_init.c  444     4 ReStore cardholder slot [2] MIB
c7f3c0ff       20       mec_init.c  444     4 ReStore cardholder slot [4] MIB
c7f3c102       20       mec_init.c  444     4 ReStore cardholder slot [14] MIB
 c7f3c 18c       20         mec_cfg.c   82     4 Set active image: inst = 0, sync msg
return  OK
 c7f3c20f       20         mec_cfg.c   82     4 Set commit image: inst = 0, sync msg
return  OK
 c7f3c244        20        mec_voip.c  744     4 unknown softswitch type
 c7f3c247        20     mec_country.c   72     4 ---default country std E164.
 c7f3c247        20     mec_country.c  120     4 ---default country code is 1.
 c7f3c248        20       mec_voip.c 1 178     4 Set Country Code: slot[0] port[0] [ 1]
 c7f3c248        20       mec_voip.c  768     4 g MecVoipData. Default.country_code
[1]
 c7f3c24a        20       mec_voip.c  501     4 Load Country Code 1 from private
mib
 c7f3c24a        20     mec_country.c  186     4 ---country code 1 is valid.
 c7f3c279        20        mec_main.c  529     4 Starting mib save timer
 c7f3c299       20  mec_ip_path_mai  123     4 MEC_ Ip PathInit { log } : The
customer  is  ALU
 c7f3c29c       20  mec_ip_path_mai  164     4 MEC_IpPathInit { log } : use the
default xml /etc/US.xml !
```

```
c7f3c2ae  20  mec_main.c 1334  4 Misc Manager is ready
c7f3c6e1  21  mec_main.c 1285  4 Pon Manager is ready
c7f3ca66  22  mec_main.c 1344  4 Net Manager is ready
c7f3cb2c  22  mec_main.c 1305  4 Voip Manager is ready
c7f3d29c  24  mec_main.c 1295  4 Ethnet Manager is ready
```

3. OMCI MIB

3.1 MIB dump CLI

To print the ONT OMCI MIB . CLI "dump" will save the file in /s/s/tmp/mibdump.txt. CLI" /s/s/" will go to dir /s/s. CLI "cat /tmp/mibdump.txt" will print all the OMCI MIB.

[Command]

/s/m/dump

/s/s/

cat /tmp/mibdump.txt

Example:

```
# ONT/system/shell>/s/m/dump
MIB is saved to the file /tmp/mibdump.txt.
# ONT/system/shell>/s/s/
# ONT/system/shell>cat /tmp/mibdump.txt
Total 292 tables

Table Ontg, Ont-g, ME 256, total 1 instances
EntityID      = 0x0000
VID           = 41 4c 43 4c
Version       = 33 46 45 35 33 33 34 37 41 55 41 41 30 32
SerialNum     = 41 4c 43 4c f8 da 2d 07
TraffMgtOpt   = 0x00
AtmCCOpt      = 0x00
BatteryBack   = 0x00
AdminState    = 0x00
OpState       = 0x00
OntState      = 0x03
```

3.2 MIB reset CLI

To Reset mib to default values

[Command]

/s/m/reset

Example:

/s/m/reset

3.3 MIB show CLI

Usage: show CLASSID
CLASSID: the class ID of the ME, defined in 983.2/984.4, currently the following MEs are supported:
[Command]
/s/m/show ID
Example:
#ONT/system/mib>show 45
Table MacBriServProf, MAC Bridge Service Profile, total 1 instances
EntityID = 0x0e01
SpanTreeInd = 0
LearningInd = 0
AtmBriInd = 0
Priority = 32768
MaxAge = 5120
HelloTime = 512
ForwardDelay = 3840
DiscardUnknow = 0
MacLearningDepth = 0
DynFilterAgeTime = 0
#ONT/system/mib>

4. Common service debug information

4.1 Check general traffic configure

/system/ontver
/system/ontver build
/traffic/pon/show traffic all
/traffic/omci/show connection all
/traffic/omci/debug/show 0
/traffic/eth/show connect all
/traffic/pon/show link
/traffic/eth/show pack
/s/s/ifconfig
/system/misc/eqsn get
/ system/ misc/ show trans state
/s/log/show omci
/s/log/show mec
/s/log/show emr
/s/log/show pmr

/s/log/show pmr_drv
/s/log/show mec_fm
/s/log/show us_ploam
/s/log/show ds_ploam
/system/log/show net
/s/m/dump
/s/s/
cat /tmp/mibdump.txt

4.2 Check detail traffic configure

/traffic/omci/show connection all
/traffic/omci/debug/show 0
/traffic/eth/debug/showconn all
/traffic/eth/debug/showconn 0
/traffic/eth/show connect all
/stytem/log/show mec

4.3 Check IPTV configure

/traffic/eth/show igmp domain
/traffic/eth/show igmp uni
/traffic/eth/show igmp pm all
/traffic/eth>show igmp pm
/system/ontver
/ system/ ontver build
/traffic/pon/show traffic all
/traffic/omci/show connection all
/traffic/omci/debug/show 0
/traffic/eth/show connect all
/traffic/pon/show link
/traffic/eth/show pack
/s/s/ifconfig
/system/misc/eqsn get
/ system/ misc/ show trans state/ s/ log/
show omci
/s/log/show mec
/s/log/show emr
/s/log/show pmr
/s/log/show pmr_drv
/s/log/show mec_fm
/s/log/show us_ploam
/s/log/show ds_ploam
/system/log/show net
/s/m/dump
/s/s/

cat /tmp/mibdump.txt

4.4 Check traffic PM

/traffic/pon/show pm gem all
/traffic/omci/show pm gem
/traffic/omci/show pm eth
/traffic/omci/show pm omci