

# How to use SNMP to check the error port (RX Frame)

## Example on DGS-3650

### CLI Example- for RX Frames:

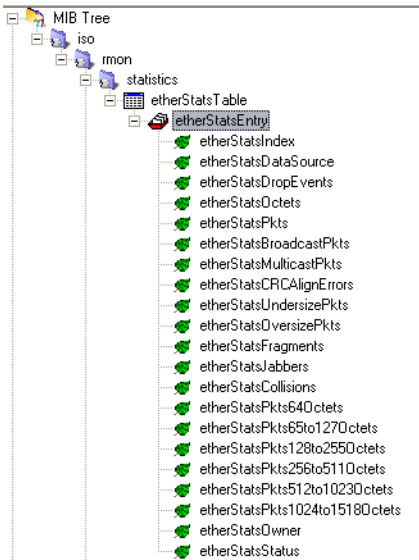
```
DGS-3650:admin#show error ports 1  
Command: show error ports 1
```

```
Port number : 1
```

	RX Frames		TX Frames
CRC Error	0	Excessive Deferral	0
Undersize	0	CRC Error	0
Oversize	0	Late Collision	0
Fragment	0	Excessive Collision	0
Jabber	0	Single Collision	0
Drop Pkts	0	Collision	0
Symbol Error	0		
Buffer Full Drop	0		
ACL Drop	0		
Multicast Drop	0		
VLAN Ingress Drop	0		

We will separate the RX Frames into 2 parts: **public RMON.mib** and **private L2mgmt.mib**

### 1. RMON.mib (rfc1757.mib)



#### 1.1 CRC Error

Object name	etherStatsCRCAlignErrors
Object ID	1.3.6.1.2.1.16.1.1.1.8
Module	RMON-MIB
Base syntax	Counter
Composed syntax	Counter
Access	Read-Only
Status	Mandatory
Parent node	etherStatsEntry
First child	None
Description	The total number of packets received that had a length (excluding framing bits, but including FCS octets) of between 64 and 1518 octets, inclusive, but but had either a bad Frame Check Sequence (FCS) with an integral number of octets (FCS Error) or a bad FCS with a non-integral number of octets (Alignment Error).

#### SNMP Commands:

```
# snmpwalk -c public -v2c 10.90.90.90 1.3.6.1.2.1.16.1.1.1.8.1 (1=port 1)
```

## 1.2 Undersize

Object name	etherStatsUndersizePkts
Object ID	1.3.6.1.2.1.16.1.1.1.9
Module	RMON-MIB
Base syntax	Counter
Composed syntax	Counter
Access	Read-Only
Status	Mandatory
Parent node	etherStatsEntry
First child	None
Description	The total number of packets received that were less than 64 octets long (excluding framing bits, but including FCS octets) and were otherwise well formed.

### SNMP Commands:

```
# snmpwalk -c public -v2c 10.90.90.90 1.3.6.1.2.1.16.1.1.1.9.1 (1=port 1)
```

## 1.3 Oversize

Object name	etherStatsOversizePkts
Object ID	1.3.6.1.2.1.16.1.1.1.10
Module	RMON-MIB
Base syntax	Counter
Composed syntax	Counter
Access	Read-Only
Status	Mandatory
Parent node	etherStatsEntry
First child	None
Description	The total number of packets received that were longer than 1518 octets (excluding framing bits, but including FCS octets) and were otherwise well formed.

### SNMP Commands:

```
# snmpwalk -c public -v2c 10.90.90.90 1.3.6.1.2.1.16.1.1.1.10.1 (1=port 1)
```

## 1.4 Fragment

Object name	etherStatsFragments
Object ID	1.3.6.1.2.1.16.1.1.1.11
Module	RMON-MIB
Base syntax	Counter
Composed syntax	Counter
Access	Read-Only
Status	Mandatory
Parent node	etherStatsEntry
First child	None
Description	The total number of packets received that were less than 64 octets in length (excluding framing bits but including FCS octets) and had either a bad Frame Check Sequence (FCS) with an integral number of octets (FCS Error) or a bad FCS with a non-integral number of octets (Alignment Error).  Note that it is entirely normal for etherStatsFragments to increment. This is because it counts both runts (which are normal occurrences due to collisions) and noise hits.

### SNMP Commands:

```
# snmpwalk -c public -v2c 10.90.90.90 1.3.6.1.2.1.16.1.1.1.11.1 (1=port 1)
```

## 1.5 Jabber

Object name	etherStatsJabbers
Object ID	1.3.6.1.2.1.16.1.1.1.12
Module	RMON-MIB
Base syntax	Counter
Composed syntax	Counter
Access	Read-Only
Status	Mandatory
Parent node	etherStatsEntry
First child	None
Description	<p>The total number of packets received that were longer than 1518 octets (excluding framing bits, but including FCS octets), and had either a bad Frame Check Sequence (FCS) with an integral number of octets (FCS Error) or a bad FCS with a non-integral number of octets (Alignment Error).</p> <p>Note that this definition of jabber is different than the definition in IEEE-802.3 section 8.2.1.5 (10BASE5) and section 10.3.1.4 (10BASE2). These documents define jabber as the condition where any packet exceeds 20 ms. The allowed range to detect jabber is between 20 ms and 150 ms.</p>

SNMP Commands:

```
# snmpwalk -c public -v2c 10.90.90.90 1.3.6.1.2.1.16.1.1.1.12.1 (1=port 1)
```

## 1.6 Drop Pkts:

Object name	etherStatsDropEvents
Object ID	1.3.6.1.2.1.16.1.1.1.3
Module	RMON-MIB
Base syntax	Counter
Composed syntax	Counter
Access	Read-Only
Status	Mandatory
Parent node	etherStatsEntry
First child	None
Description	<p>The total number of events in which packets were dropped by the probe due to lack of resources. Note that this number is not necessarily the number of packets dropped; it is just the number of times this condition has been detected.</p>

SNMP Commands:

```
# snmpwalk -c public -v2c 10.90.90.90 1.3.6.1.2.1.16.1.1.1.3.1 (1=port 1)
```

## 2. L2mgmtDGS3650.mib

### 2.1 Buffer Full Drop

Object name	swL2PortBufferFullDrops
Object ID	1.3.6.1.4.1.171.11.70.5.2.3.9.1.2
Module	DGS3650-L2MGMT-MIB
Base syntax	Counter
Composed syntax	Counter
Access	Read-Only
Status	Current
Parent node	swL2PortDropCounterEntry
First child	None
Description	The total number of packets discarded while buffer full.

#### SNMP Commands:

DGS-3650: snmpwalk -c private -v2c 10.90.90.90 1.3.6.1.4.1.171.11.70.5.2.3.9.1.2.1 (1=port1)

DGS-3612: 1.3.6.1.4.1.171.11.70.10.2.3.9.1.2

DGS-3612G: 1.3.6.1.4.1.171.11.70.9.2.3.9.1.2

DGS-3627: 1.3.6.1.4.1.171.11.70.6.2.3.9.1.2

DGS-3627G: 1.3.6.1.4.1.171.11.70.8.2.3.9.1.2

### 2.2 ACL Drop

Object name	swL2PortACLDrops
Object ID	1.3.6.1.4.1.171.11.70.5.2.3.9.1.3
Module	DGS3650-L2MGMT-MIB
Base syntax	Counter
Composed syntax	Counter
Access	Read-Only
Status	Current
Parent node	swL2PortDropCounterEntry
First child	None
Description	The total number of packets denied by ACLs.

#### SNMP Commands:

DGS-3650: snmpwalk -c private -v2c 10.90.90.90 1.3.6.1.4.1.171.11.70.5.2.3.9.1.3.1 (1=port1)

DGS-3612: 1.3.6.1.4.1.171.11.70.10.2.3.9.1.3

DGS-3612G: 1.3.6.1.4.1.171.11.70.9.2.3.9.1.3

DGS-3627: 1.3.6.1.4.1.171.11.70.6.2.3.9.1.3

DGS-3627G: 1.3.6.1.4.1.171.11.70.8.2.3.9.1.3

## 2.3 Multicast Drop

Object name	swL2PortMulticastDrops
Object ID	1.3.6.1.4.1.171.11.70.5.2.3.9.1.4
Module	DGS3650-L2MGMT-MIB
Base syntax	Counter
Composed syntax	Counter
Access	Read-Only
Status	Current
Parent node	swL2PortDropCounterEntry
First child	None
Description	The total number of multicast packet that is discarded.

### SNMP Commands:

DGS-3650: snmpwalk -c private -v2c 10.90.90.90 1.3.6.1.4.1.171.11.70.5.2.3.9.1.4.1 (1=port1)  
DGS-3612: 1.3.6.1.4.1.171.11.70.10.2.3.9.1.4  
DGS-3612G: 1.3.6.1.4.1.171.11.70.9.2.3.9.1.4  
DGS-3627: 1.3.6.1.4.1.171.11.70.6.2.3.9.1.4  
DGS-3627G: 1.3.6.1.4.1.171.11.70.8.2.3.9.1.4

## 2.4 VLAN Ingress Drop

Object name	swL2PortVLANIngressDrops
Object ID	1.3.6.1.4.1.171.11.70.5.2.3.9.1.5
Module	DGS3650-L2MGMT-MIB
Base syntax	Counter
Composed syntax	Counter
Access	Read-Only
Status	Current
Parent node	swL2PortDropCounterEntry
First child	None
Description	The total number of packets discarded by VLAN ingress checking.

### SNMP Commands:

DGS-3650: snmpwalk -c private -v2c 10.90.90.90 1.3.6.1.4.1.171.11.70.5.2.3.9.1.5.1 (1=port1)  
DGS-3612: 1.3.6.1.4.1.171.11.70.10.2.3.9.1.5  
DGS-3612G: 1.3.6.1.4.1.171.11.70.9.2.3.9.1.5  
DGS-3627: 1.3.6.1.4.1.171.11.70.6.2.3.9.1.5  
DGS-3627G: 1.3.6.1.4.1.171.11.70.8.2.3.9.1.5