How to use SafeGuard Engine MIB (DGS-3600)

The Location of SafeGuard Engine OID

MIB File: SAFEGUARD-ENGINE-MIB
OID: 1.3.6.1.4.1.171.12.19

Switch Safe Guard Global Management

```
Object name          swSafeGuardGblMgmt
Object ID            1.3.6.1.4.1.171.12.19.1
Module               SAFEGUARD-ENGINE-MIB

Base syntax          Object Identifier
Access               Not_Accessible
Status               Mandatory

Parent node          swSafeGuardMIB
First child          swSafeGuardAdminState
```

```
Object name          swSafeGuardAdminState
Object ID            1.3.6.1.4.1.171.12.19.1.1
Module               SAFEGUARD-ENGINE-MIB

Base syntax          Integer
Composed syntax      INTEGER
Access               Read-Write
Status               Current
Value list           1 : other(1)
                     2 : disabled(2)
                     3 : enabled(3)

Parent node          swSafeGuardGblMgmt
First child          None
Description          This object indicates the Safeguard engine state of the switch.
```

Show Switch SafeGuard Administrate State
snmpwalk -v2C -c public 10.90.90.90 1.3.6.1.4.1.171.12.19.1.1

Enable SafeGuard Administrate State
snmpset -v2C -c private 10.90.90.90 1.3.6.1.4.1.171.12.19.1.1.0 i 3

Disable SafeGuard Administrate State
snmpset -v2C -c private 10.90.90.90 1.3.6.1.4.1.171.12.19.1.1.0 i 2

Written By Tom 2008/04/23

Switch Safe Guard Control

Object name	swSafeGuardctrl
Object ID	1.3.6.1.4.1.171.12.19.2
Module	SAFEGUARD-ENGINE-MIB
Base syntax	Object Identifier
Access	Not_Accessible
Status	Mandatory
Parent node	swSafeGuardMIB
First child	swSafeGuardRisingThreshold

Object name	swSafeGuardRisingThreshold
Object ID	1.3.6.1.4.1.171.12.19.2.1
Module	SAFEGUARD-ENGINE-MIB
Base syntax	Integer
Composed syntax	INTEGER
Access	Read-Write
Status	Current
Value list	1 : 20..100
Parent node	swSafeGuardctrl
First child	None
Description	The object indicates Safeguard engine rising threshold in percentage. the range is between 20%-100%, if the CPU utilization is over the rising threshold, the switch enters exhausted mode.

Show Switch SafeGuard Rising Threshold
snmpwalk -v2C -c public 10.90.90.90 1.3.6.1.4.1.171.12.19.2.1

Set Switch SafeGuard Rising Threshold (Example Set to 30)
snmpset -v2C -c private 10.90.90.90 1.3.6.1.4.1.171.12.19.2.1.0 i 30

Written By Tom 2008/04/23

```
Object name          swSafeGuardFallingThreshold
Object ID            1.3.6.1.4.1.171.12.19.2.2
Module               SAFEGUARD-ENGINE-MIB

Base syntax          Integer
Composed syntax      INTEGER
Access               Read-Write
Status               Current
Value list           1 : 20..100

Parent node          swSafeGuardctrl
First child          None
Description          The object indicates Safeguard engine falling threshold in percentage.
                     the range is between 20%-100% , if the CPU utilization is lower than
                     the falling threshold, the switch enters normal mode.
```

Show Switch SafeGuard Falling Threshold
snmpwalk -v2C -c public 10.90.90.90 1.3.6.1.4.1.171.12.19.2.2

Set Switch SafeGuard Falling Threshold (Example Set to 30)
snmpset -v2C -c private 10.90.90.90 1.3.6.1.4.1.171.12.19.2.2.0 i 30

```
Object name          swSafeGuardmode
Object ID            1.3.6.1.4.1.171.12.19.2.3
Module               SAFEGUARD-ENGINE-MIB

Base syntax          Integer
Composed syntax      INTEGER
Access               Read-Write
Status               Current
Value list           1 : strict(1)
                     2 : fuzzy(2)

Parent node          swSafeGuardctrl
First child          None
Description          determine the controlling method of broadcast traffic.
                     Here are two modes (strict and fuzzy). In strict,
                     the Switch will stop receiving all 'ARP not to me' packets (the protocol
                     address of target in ARP packet is the Switch itself). That means no matter
                     what reasons cause the high CPU utilization (may not caused by ARP storm),
                     the Switch reluctantly processes any 'ARP not to me' packets in exhausted mode.
                     In fuzzy mode, the Switch will adjust the bandwidth dynamically depend on some
                     reasonable algorithm.
```

Show Switch SafeGuard mode
snmpwalk -v2C -c public 10.90.90.90 1.3.6.1.4.1.171.12.19.2.3

Set Switch SafeGuard mode (Example Set to Strict)

snmpset -v2C -c private 10.90.90.90 1.3.6.1.4.1.171.12.19.2.3.0 i 1

Object name	swSafeGuardAlarmAdminState
Object ID	1.3.6.1.4.1.171.12.19.2.4
Module	SAFEGUARD-ENGINE-MIB
Base syntax	Integer
Composed syntax	INTEGER
Access	Read-Write
Status	Current
Value list	1 : other(1)
	2 : disabled(2)
	3 : enabled(3)
Parent node	swSafeGuardctrl
First child	None
Description	This object indicates the state of Safeguard engine related trap/log mechanism (enable or disable). If set to enable, trap and log will be active while Safeguard engine current mode changed.If set to disable, current mode change will not trigger trap and log events.

Show Switch SafeGuard Alarm Administrate State
snmpwalk -v2C -c public 10.90.90.90 1.3.6.1.4.1.171.12.19.2.4

Enable SafeGuard Alarm Administrate State
snmpset -v2C -c private 10.90.90.90 1.3.6.1.4.1.171.12.19.2.4.0 i 3

Disable SafeGuard Alarm Administrate State
snmpset -v2C -c private 10.90.90.90 1.3.6.1.4.1.171.12.19.2.4.0 i 2

Object name	swSafeGuardCurrentStatus
Object ID	1.3.6.1.4.1.171.12.19.2.5
Module	SAFEGUARD-ENGINE-MIB
Base syntax	Integer
Composed syntax	INTEGER
Access	Read-Only
Status	Current
Value list	1 : normal(1)
	2 : exhausted(2)
Parent node	swSafeGuardctrl
First child	None
Description	This object indicates current operation mode of Safeguard engine

Show Switch SafeGuard Current State
snmpwalk -v2C -c public 10.90.90.90 1.3.6.1.4.1.171.12.19.2.5