

## How to configure **Egress ACL** and Flow Meter via NETSNMP in DGS-3120 series

The OIDs are defined in “**EGRESSACL-MIB**”.

### # swEgressACLipTable

Object name	swEgressACLipTable
Object ID	1.3.6.1.4.1.171.12.89.2.2
Module	EGRESSACL-MIB
Base syntax	Sequence Of swEgressACLipEntry
Access	Not_Accessible
Status	Current
Sequence	1:swEgressACLipProfileID - Integer 2:swEgressACLipRowStatus - Integer 3:swEgressACLipProfileName - Octet String 4:swEgressACLipUsevlan - Integer 5:swEgressACLipVlanMask - Octet String 6:swEgressACLipIpAddrMaskState - Integer 7:swEgressACLipSrcIpAddrMask - IP Address 8:swEgressACLipDstIpAddrMask - IP Address 9:swEgressACLipUseDSCP - Integer 10:swEgressACLipUseProtoType - Integer 11:swEgressACLipIcmpOption - Integer 12:swEgressACLipIcmpOption - Integer 13:swEgressACLipTcpOption - Integer 14:swEgressACLipUdpOption - Integer 15:swEgressACLipTCForUDPSrcPortMask - Octet String 16:swEgressACLipTCForUDPDstPortMask - Octet String 17:swEgressACLipTCPFlagBit - Integer 18:swEgressACLipTCPFlagBitMask - Integer 19:swEgressACLipProtoIDOption - Integer 20:swEgressACLipProtoID - Integer

### # swEgressACLipRowStatus

Object name	swEgressACLipRowStatus
Object ID	1.3.6.1.4.1.171.12.89.2.2.1.2
Module	EGRESSACL-MIB
Base syntax	Integer
Composed syntax	RowStatus
Access	Read-Create
Status	Current
Value list	1:active(1) 2:notInService(2) 3:notReady(3) 4:createAndGo(4) 5:createAndWait(5) 6:destroy(6)
Parent node	swEgressACLipEntry
First child	None
Description	This object indicates the status of this entry.

## # swEgressACLIpProfileName

Object name	swEgressACLIpProfileName
Object ID	1.3.6.1.4.1.171.12.89.2.2.1.3
Module	EGRESSACL-MIB
Base syntax	Octet String
Composed syntax	DisplayString
Access	Read-Create
Status	Current
Value list	1 : 1..32
Parent node	swEgressACLIpEntry
First child	None
Description	The name of the egress ACL mask entry unique to the mask list.

## # swEgressACLIpUsevlan

Object name	swEgressACLIpUsevlan
Object ID	1.3.6.1.4.1.171.12.89.2.2.1.4
Module	EGRESSACL-MIB
Base syntax	Integer
Composed syntax	INTEGER
Access	Read-Create
Status	Current
Value list	1 : enabled(1) 2 : disabled(2)
Parent node	swEgressACLIpEntry
First child	None
Description	This object indicates if the IP layer VLAN part is examined or not.

## # swEgressACLIPAddrMaskState

Object name	swEgressACLIPAddrMaskState
Object ID	1.3.6.1.4.1.171.12.89.2.2.1.6
Module	EGRESSACL-MIB
Base syntax	Integer
Composed syntax	INTEGER
Access	Read-Create
Status	Current
Value list	1 : other(1) 2 : dst-ip-addr(2) 3 : src-ip-addr(3) 4 : dst-src-ip-addr(4)
Parent node	swEgressACLIPEntry
First child	None
Description	This object indicates the status of IP address mask.  other (1) - Neither source IP address nor destination IP address is masked. dst-ip-addr (2) - Destination IP addresses within received frames are to be filtered when matched with the IP address entry of the table. src-ip-addr (3) - Source IP addresses within received frames are to be filtered when matched with the IP address entry of the table. dst-src-ip-addr (4) - Destination or source IP addresses within received frames are to be filtered when matched with the IP address entry of the table.

## # swEgressACLIPDstIpAddrMask

Object name	swEgressACLIPDstIpAddrMask
Object ID	1.3.6.1.4.1.171.12.89.2.2.1.8
Module	EGRESSACL-MIB
Base syntax	IP Address
Composed syntax	IpAddress
Access	Read-Create
Status	Current
Parent node	swEgressACLIPEntry
First child	None
Description	This object specifies the IP address mask for the destination IP address.

## # swEgressACLipUseDSCP

Object name	swEgressACLipUseDSCP
Object ID	1.3.6.1.4.1.171.12.89.2.2.1.9
Module	EGRESSACL-MIB
Base syntax	Integer
Composed syntax	INTEGER
Access	Read-Create
Status	Current
Value list	1 : enabled(1) 2 : disabled(2)
Parent node	swEgressACLipEntry
First child	None
Description	This object indicates if the DSCP protocol in the packet header is to be examined or not.

## # swEgressACLipRuleTable

Object name	swEgressACLipRuleTable
Object ID	1.3.6.1.4.1.171.12.89.3.2
Module	EGRESSACL-MIB
Base syntax	Sequence Of swEgressACLipRuleEntry
Access	Not_Accessible
Status	Current
Sequence	1:swEgressACLipRuleProfileID - Integer 2:swEgressACLipRuleAccessID - Integer 3:swEgressACLipRuleRowStatus - Integer 4:swEgressACLipRuleMatchVID - Integer 5:swEgressACLipMatchVlanMask - Octet String 6:swEgressACLipRuleSrcIpaddress - IP Address 7:swEgressACLipRuleMaskSrcIpaddress - IP Address 8:swEgressACLipRuleDstIpaddress - IP Address 9:swEgressACLipRuleMaskDstIpaddress - IP Address 10:swEgressACLipRuleDscp - Integer 11:swEgressACLipRuleProtocol - Integer 12:swEgressACLipRuleType - Integer 13:swEgressACLipRuleCode - Integer 14:swEgressACLipRuleSrcPort - Integer 15:swEgressACLipRuleMaskSrcPort - Octet String 16:swEgressACLipRuleDstPort - Integer 17:swEgressACLipRuleMaskDstPort - Octet String 18:swEgressACLipRuleFlagBits - Integer 19:swEgressACLipRuleProtoID - Integer 20:swEgressACLipRuleUserDefine - Octet String

## # swEgressACLIpRuleRowStatus

Object name	swEgressACLIpRuleRowStatus
Object ID	1.3.6.1.4.1.171.12.89.3.2.1.3
Module	EGRESSACL-MIB
Base syntax	Integer
Composed syntax	RowStatus
Access	Read-Create
Status	Current
Value list	1 : active(1) 2 : notInService(2) 3 : notReady(3) 4 : createAndGo(4) 5 : createAndWait(5) 6 : destroy(6)
Parent node	swEgressACLIpRuleEntry
First child	None
Description	This object indicates the status of this entry.

## # swEgressACLIpRuleDstIpAddress

Object name	swEgressACLIpRuleDstIpAddress
Object ID	1.3.6.1.4.1.171.12.89.3.2.1.8
Module	EGRESSACL-MIB
Base syntax	IP Address
Composed syntax	IpAddress
Access	Read-Create
Status	Current
Parent node	swEgressACLIpRuleEntry
First child	None
Description	Specifies an IP destination address.

## # swEgressACLIpRulePort

Object name	swEgressACLIpRulePort
Object ID	1.3.6.1.4.1.171.12.89.3.2.1.23
Module	EGRESSACL-MIB
Base syntax	Integer
Composed syntax	INTEGER
Access	Read-Create
Status	Current
Parent node	swEgressACLIpRuleEntry
First child	None
Description	Specifies that the access rule will only apply to the port. This object and swEgressACLIpRuleVID,swEgressACLIpRulePortGroup can not be set to the value of this object will change to 0 automatically. This object can not be set to 0. A value of 0 indicates that this object is not active.

## # swEgressACLIPRulePermit

Object name	swEgressACLIPRulePermit
Object ID	1.3.6.1.4.1.171.12.89.3.2.1.25
Module	EGRESSACL-MIB
Base syntax	Integer
Composed syntax	INTEGER
Access	Read-Create
Status	Current
Value list	1 : deny(1) 2 : permit(2)
Parent node	swEgressACLIPRuleEntry
First child	None
Description	This object indicates if the result of the packet examination is 'permit' or 'deny'. The default is 'permit'. deny - Specifies that packets matching the access profile are not permitted to be forwarded by the switch and will be filtered. permit - Specifies that packets matching the access profile are permitted to be forwarded by the switch.

## # swEgressAclRateTable

Object name	swEgressAclRateTable
Object ID	1.3.6.1.4.1.171.12.89.4.2
Module	EGRESSACL-MIB
Base syntax	Sequence Of swEgressAclRateEntry
Access	Not_Accessible
Status	Current
Sequence	1:swEgressAclRateProfileID - Integer 2:swEgressAclRateAccessID - Integer 3:swEgressAclRateRowStatus - Integer 4:swEgressAclRate - Integer 5:swEgressAclBurstSize - Integer 6:swEgressAclRateActionForRateExceed - Integer 7:swEgressAclRateRemarkDscp - Integer
Parent node	swEgressAclMeteringMgmt
First child	swEgressAclRateEntry
Description	This table is used to configure the single rate two color metering function. The egress access rule must first be created before the parameters of this function can be applied. Users may set the preferred bandwidth for this rule, in Kbps; once the bandwidth has been exceeded, overflow packets will be either dropped or set for a drop precedence, depending on user configuration.

## # swEgressAclRateRowStatus

Object name	swEgressAclRateRowStatus
Object ID	1.3.6.1.4.1.171.12.89.4.2.1.3
Module	EGRESSACL-MIB
Base syntax	Integer
Composed syntax	RowStatus
Access	Read-Create
Status	Current
Value list	1 : active(1) 2 : notInService(2) 3 : notReady(3) 4 : createAndGo(4) 5 : createAndWait(5) 6 : destroy(6)
Parent node	swEgressAclRateEntry
First child	None
Description	This object indicates the status of this entry.

## # swEgressAclRate

Object name	swEgressAclRate
Object ID	1.3.6.1.4.1.171.12.89.4.2.1.4
Module	EGRESSACL-MIB
Base syntax	Integer
Composed syntax	INTEGER
Access	Read-Create
Status	Current
Parent node	swEgressAclRateEntry
First child	None
Description	Specifies the committed bandwidth in Kbps for the flow. A value of -1 indicates that this object is not active. NOTE: Users must set the swEgressAclRateActionForRateExceed object to activate this entry.

## # swEgressAclBurstSize

Object name	swEgressAclBurstSize
Object ID	1.3.6.1.4.1.171.12.89.4.2.1.5
Module	EGRESSACL-MIB
Base syntax	Integer
Composed syntax	INTEGER
Access	Read-Create
Status	Current
Parent node	swEgressAclRateEntry
First child	None
Description	This specifies the burst size for the single rate two color mode. The unit is Kbytes. That is to say, 1 means 1kbytes. The set value range is 0..N, the value N is determined by project. A value of -1 indicates that this object is not active. This parameter is an optional parameter. The default value is 4kbytes.

## # swEgressAclRateActionForRateExceed

Object name	swEgressAclRateActionForRateExceed
Object ID	1.3.6.1.4.1.171.12.89.4.2.1.6
Module	EGRESSACL-MIB
Base syntax	Integer
Composed syntax	INTEGER
Access	Read-Create
Status	Current
Value list	1 : other(1) 2 : drop-packet(2) 3 : remark-dscp(3)
Parent node	swEgressAclRateEntry
First child	None
Description	Specifies the action to take for those packets exceeding the committed rate. drop-packet: drop the packet. replace-dscp: change the DSCP value of the packet. NOTE: Users must set the swEgressAclRate to activate this entry.

### [Test Procedures]

#### CLI command :

```
# create egress_access_profile profile_id 1 profile_name egress ip  
destination_ip_mask 255.255.255.255
```

#### Corresponding NETSNMP set.request :

```
snmpset -v2c -c private 10.90.90.90 1.3.6.1.4.1.171.12.89.2.2.1.2.1 i 4  
1.3.6.1.4.1.171.12.89.2.2.1.3.1 s 656772657373 1.3.6.1.4.1.171.12.89.2.2.1.4.1 i 2  
1.3.6.1.4.1.171.12.89.2.2.1.6.1 i 2 1.3.6.1.4.1.171.12.89.2.2.1.8.1 a 255.255.255.255  
1.3.6.1.4.1.171.12.89.2.2.1.9.1 i 2
```



**CLI command :**

```
# config egress_access_profile profile_id 1 add access_id 1 ip destination_ip  
10.1.2.202 port 1:7 permit
```

**Corresponding NETSNMP set.request :**

```
snmpset -v2c -c private 10.90.90.90 1.3.6.1.4.1.171.12.89.3.2.1.3.1.1 i 4  
1.3.6.1.4.1.171.12.89.3.2.1.8.1.1 a 10.1.2.202 1.3.6.1.4.1.171.12.89.3.2.1.23.1.1 i 7  
1.3.6.1.4.1.171.12.89.3.2.1.25.1.1 i 2
```

**CLI command :**

```
# config egress_flow_meter profile_id 1 access_id 1 rate 4096 burst_size 4  
rate_exceed drop_packet
```

**Corresponding NETSNMP set.request :**

```
snmpset -v2c -c private 10.90.90.90 1.3.6.1.4.1.171.12.89.4.2.1.3.1.1 i 4  
1.3.6.1.4.1.171.12.89.4.2.1.4.1.1 i 4096 1.3.6.1.4.1.171.12.89.4.2.1.5.1.1 i 4  
1.3.6.1.4.1.171.12.89.4.2.1.6.1.1 i 2
```