

## How to create IP ACL with SNMP command on DES-3528

### 1. Create Access profile and ACL entry

1.1) Create an Access profile as the following command, whose filter range is single source IP:

```
snmpset -c private -v 2c 10.90.90.90 1.3.6.1.4.1.171.12.9.2.2.1.2.1 i 2 1.3.6.1.4.1.171.12.9.2.2.1.3.1 i 3 1.3.6.1.4.1.171.12.9.2.2.1.4.1 a 255.255.255.255 1.3.6.1.4.1.171.12.9.2.2.1.19.1 integer 4 1.3.6.1.4.1.171.12.9.2.2.1.23.1 s IP-ACL
```

```
C:\>snmpset -c private -v 2c 10.90.90.90 1.3.6.1.4.1.171.12.9.2.2.1.2.1 i 2 1.3.6.1.4.1.171.12.9.2.2.1.3.1 i 3 1.3.6.1.4.1.171.12.9.2.2.1.4.1 a 255.255.255.255 1.3.6.1.4.1.171.12.9.2.2.1.19.1 integer 4 1.3.6.1.4.1.171.12.9.2.2.1.23.1 s IP-ACL
SNMPv2-SMI::enterprises.171.12.9.2.2.1.2.1 = INTEGER: 2
SNMPv2-SMI::enterprises.171.12.9.2.2.1.3.1 = INTEGER: 3
SNMPv2-SMI::enterprises.171.12.9.2.2.1.4.1 = IpAddress: 255.255.255.255
SNMPv2-SMI::enterprises.171.12.9.2.2.1.19.1 = INTEGER: 4
SNMPv2-SMI::enterprises.171.12.9.2.2.1.23.1 = STRING: "IP-ACL"
```

1.2) Add a one ACL entry to **deny** the source ip from 10.90.90.99 on port 1

```
snmpset -c private -v 2c 10.90.90.90 1.3.6.1.4.1.171.12.9.3.2.1.4.1.1 a 10.90.90.99 1.3.6.1.4.1.171.12.9.3.2.1.20.1.1 i 1 1.3.6.1.4.1.171.12.9.3.2.1.21.1.1 s 1 1.3.6.1.4.1.171.12.9.3.2.1.22.1.1 i 4
```

```
C:\>snmpset -c private -v 2c 10.90.90.90 1.3.6.1.4.1.171.12.9.3.2.1.4.1.1 a 10.90.90.99 1.3.6.1.4.1.171.12.9.3.2.1.20.1.1 i 1 1.3.6.1.4.1.171.12.9.3.2.1.21.1.1 s 1 1.3.6.1.4.1.171.12.9.3.2.1.22.1.1 i 4
SNMPv2-SMI::enterprises.171.12.9.3.2.1.4.1.1 = IpAddress: 10.90.90.99
SNMPv2-SMI::enterprises.171.12.9.3.2.1.20.1.1 = INTEGER: 1
SNMPv2-SMI::enterprises.171.12.9.3.2.1.21.1.1 = STRING: "1"
SNMPv2-SMI::enterprises.171.12.9.3.2.1.22.1.1 = INTEGER: 4
```

### 2.Delete Access\_profile command

```
snmpset -c private -v 2c 10.90.90.90 1.3.6.1.4.1.171.12.9.2.2.1.19.1 integer 6
```

### 3. Delete ACL entry command

```
snmpset -c private -v 2c 10.90.90.90 1.3.6.1.4.1.171.12.9.3.2.1.22.1.1 i 6
```

The following are the OID description for the IP ACL

## 1. swACLIpTable

The screenshot shows a MIB browser interface with a tree view on the left and a detailed view on the right. The tree view shows the following structure:

- iso
  - swAclMgmtMIB
    - swAclCtrl
      - swAclMaskMgmt
        - swACLEthernetTable
          - swACLIpTable**
            - swACLIpEntry
              - swACLIpProfileID
              - swACLIpUsevlan
              - swACLIpAddrMaskState
              - swACLIPSrcIpAddrMask
              - swACLIPDstIpAddrMask
              - swACLIPUseDSCP
              - swACLIPUseProtoType
              - swACLIPicmpOption
              - swACLIPigmpOption
              - swACLIPtcpOption
              - swACLIPudpOption
              - swACLIPTCPorUDPSrcPortMask
              - swACLIPTCPorUDPdstPortMask
              - swACLIPTCPFlagBit
              - swACLIPTCPFlagBitMask
              - swACLIPProtoIDOption
              - swACLIPProtoID
              - swACLIPProtoIDMask
              - swACLIPRowStatus
              - swACLIPowner
              - swACLIPSrcMacAddrMask
              - swACLIPUnusedRuleEntries
              - swACLIPProfileName
            - swACLIPktContMaskTable
            - swACLIPv6MaskTable
            - swACLIPMaskDeAllState

The detailed view on the right shows the following properties for swACLIpTable:

- Object name: swACLIpTable
- Object ID: 1.3.6.1.4.1.171.12.9.2.2
- Module: ACLMGMT-MIB
- Base syntax: Sequence Of swACLIpEntry
- Access: Not\_Accessible
- Status: Current
- Sequence:
  - 1:swACLIPProfileID - Integer
  - 2:swACLIPUsevlan - Integer
  - 3:swACLIPAddrMaskState - Integer
  - 4:swACLIPSrcIpAddrMask - IP Address
  - 5:swACLIPDstIpAddrMask - IP Address
  - 6:swACLIPUseDSCP - Integer
  - 7:swACLIPUseProtoType - Integer
  - 8:swACLIPicmpOption - Integer
  - 9:swACLIPigmpOption - Integer
  - 10:swACLIPtcpOption - Integer
  - 11:swACLIPudpOption - Integer
  - 12:swACLIPTCPorUDPSrcPortMask - Octet String
  - 13:swACLIPTCPorUDPdstPortMask - Octet String
  - 14:swACLIPTCPFlagBit - Integer
  - 15:swACLIPTCPFlagBitMask - Integer
  - 16:swACLIPProtoIDOption - Integer
  - 17:swACLIPProtoID - Integer
  - 18:swACLIPProtoIDMask - Octet String
  - 19:swACLIPRowStatus - Integer
  - 20:swACLIPowner - Integer
  - 21:swACLIPSrcMacAddrMask - Octet String
  - 22:swACLIPUnusedRuleEntries - Integer
  - 23:swACLIPProfileName - Octet String
- Parent node: swAclMaskMgmt
- First child: swACLIpEntry
- Description: This table contains the ACL mask for IP information.

:: Name: swACLIpTable

:: OID: 1.3.6.1.4.1.171.12.9.2.2

:: Module: ACLMGMT-MIB

:: Description: This table contains the ACL mask for IP information. Access profiles will be created on the switch to define which part of incoming frame's IP layer packet of header will be examined by the switch. Masks entered will be combined with the values the switch finds in the specified frame header fields.

### 1:swACLIPProfileID – Integer

Object name	swACLIPProfileID
Object ID	1.3.6.1.4.1.171.12.9.2.2.1.1
Module	ACLMGMT-MIB
Base syntax	Integer
Composed syntax	INTEGER
Access	Read-Only
Status	Current
Value list	1 : 1..255
Parent node	swACLIPEntry
First child	None
Description	The ID of the ACL mask entry, which is unique to the mask list.

## 2:swACLIpUsevlan – Integer

Object name	swACLIpUsevlan
Object ID	1.3.6.1.4.1.171.12.9.2.2.1.2
Module	ACLMGMT-MIB
Base syntax	Integer
Composed syntax	INTEGER
Access	Read-Create
Status	Current
Value list	1 : enabled(1) 2 : disabled(2)
Parent node	swACLIPEntry
First child	None
Description	This object indicates if the IP layer VLAN part is examined or not.

## 3:swACLIPAddrMaskState – Integer

Object name	swACLIPAddrMaskState
Object ID	1.3.6.1.4.1.171.12.9.2.2.1.3
Module	ACLMGMT-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	swACLIPEntry
First child	None
Description	This object indicates the status of IP address mask.  other (1) - Neither source IP address nor destination IP address are 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.

## 4:swACLIPSrcIpAddrMask - IP Address

Object name	swACLIPSrcIpAddrMask
Object ID	1.3.6.1.4.1.171.12.9.2.2.1.4
Module	ACLMGMT-MIB
Base syntax	IP Address
Composed syntax	IpAddress
Access	Read-Create
Status	Current
Parent node	swACLIPEntry
First child	None
Description	This object specifies the IP address mask for the source IP address.

## 5:swACLIPDstIpAddrMask - IP Address

Object name	swACLIPDstIpAddrMask
Object ID	1.3.6.1.4.1.171.12.9.2.2.1.5
Module	ACLMGMT-MIB
Base syntax	IP Address
Composed syntax	IpAddress
Access	Read-Create
Status	Current
Parent node	swACLIPEntry
First child	None
Description	This object specifies the IP address mask for the destination IP address.

## 6:swACLIPUseDSCP – Integer

Object name	swACLIPUseDSCP
Object ID	1.3.6.1.4.1.171.12.9.2.2.1.6
Module	ACLMGMT-MIB
Base syntax	Integer
Composed syntax	INTEGER
Access	Read-Create
Status	Current
Value list	1 : enabled(1) 2 : disabled(2)
Parent node	swACLIPEntry
First child	None
Description	This object indicates if the DSCP protocol in the packet header is to be examined or not.

## 7:swACLIPUseProtoType – Integer

Object name	swACLIPUseProtoType
Object ID	1.3.6.1.4.1.171.12.9.2.2.1.7
Module	ACLMGMT-MIB
Base syntax	Integer
Composed syntax	INTEGER
Access	Read-Create
Status	Current
Value list	1 : none(1) 2 : icmp(2) 3 : igmp(3) 4 : tcp(4) 5 : udp(5) 6 : protocolId(6)
Parent node	swACLIPEntry
First child	None
Description	That object indicates which protocol will be examined.

## 8:swACLIpcmpOption – Integer

Object name	swACLIpcmpOption
Object ID	1.3.6.1.4.1.171.12.9.2.2.1.8
Module	ACLMGMT-MIB
Base syntax	Integer
Composed syntax	INTEGER
Access	Read-Create
Status	Current
Value list	1 : none(1) 2 : type(2) 3 : code(3) 4 : type-code(4)
Parent node	swACLIpEntry
First child	None
Description	This object indicates which fields are defined for ICMP. none (1)- Both fields are null. type (2)- Type field identified. code (3)- Code field identified. type-code (4)- Both ICMP fields identified.

## 9:swACLIpgmpOption – Integer

Object name	swACLIpgmpOption
Object ID	1.3.6.1.4.1.171.12.9.2.2.1.9
Module	ACLMGMT-MIB
Base syntax	Integer
Composed syntax	INTEGER
Access	Read-Create
Status	Current
Value list	1 : enable(1) 2 : disable(2)
Parent node	swACLIpEntry
First child	None
Description	Indicates if the IGMP options field is identified or not.

## 10:swACLIPtcpOption – Integer

Object name	swACLIPtcpOption
Object ID	1.3.6.1.4.1.171.12.9.2.2.1.10
Module	ACLMGMT-MIB
Base syntax	Integer
Composed syntax	INTEGER
Access	Read-Create
Status	Current
Value list	1 : other(1) 2 : dst-addr(2) 3 : src-addr(3) 4 : dst-src-addr(4)
Parent node	swACLIPEntry
First child	None
Description	This object indicates the status of the filtered address of TCP.  other (1) - Neither source port nor destination port are masked. dst-addr (2) - Packets will be filtered if this destination port is identified in received frames. src-addr (3) - Packets will be filtered if this source port is identified in received frames. dst-src-addr (4) - Packets will be filtered if this destination or source port is identified in received frames.

## 11:swACLIPudpOption – Integer

Object name	swACLIPudpOption
Object ID	1.3.6.1.4.1.171.12.9.2.2.1.11
Module	ACLMGMT-MIB
Base syntax	Integer
Composed syntax	INTEGER
Access	Read-Create
Status	Current
Value list	1 : other(1) 2 : dst-addr(2) 3 : src-addr(3) 4 : dst-src-addr(4)
Parent node	swACLIPEntry
First child	None
Description	This object indicates the status of the filtered address of UDP .  other (1) - Neither source port nor destination port are masked. dst-addr (2) - Packets will be filtered if this destination port is identified in received frames. src-addr (3) - Packets will be filtered if this source port is identified in received frames. dst-src-addr (4) - Packets will be filtered if this destination or source port is identified in received frames.

## 12:swACLIpTCPorUDPSrcPortMask - Octet String

Object name	swACLIpTCPorUDPSrcPortMask
Object ID	1.3.6.1.4.1.171.12.9.2.2.1.12
Module	ACLMGMT-MIB
Base syntax	Octet String
Composed syntax	OCTET STRING
Access	Read-Create
Status	Current
Value list	1 : 2..2
Parent node	swACLIpEntry
First child	None
Description	Specifies a TCP port mask for the source port if swACLIpUseProtoType is TCP Specifies a UDP port mask for the source port if swACLIpUseProtoType is UDP.

## 13:swACLIpTCPorUDPDstPortMask - Octet String

Object name	swACLIpTCPorUDPDstPortMask
Object ID	1.3.6.1.4.1.171.12.9.2.2.1.13
Module	ACLMGMT-MIB
Base syntax	Octet String
Composed syntax	OCTET STRING
Access	Read-Create
Status	Current
Value list	1 : 2..2
Parent node	swACLIpEntry
First child	None
Description	Specifies a TCP port mask for the destination port if swACLIpUseProtoType is TCP Specifies a UDP port mask for the destination port if swACLIpUseProtoType is UDP.

## 14:swACLIpTCPFlagBit – Integer

Object name	swACLIpTCPFlagBit
Object ID	1.3.6.1.4.1.171.12.9.2.2.1.14
Module	ACLMGMT-MIB
Base syntax	Integer
Composed syntax	INTEGER
Access	Read-Create
Status	Current
Value list	1 : enable(1) 2 : disable(2)
Parent node	swACLIpEntry
First child	None
Description	Specifies a TCP connection flag mask.

## 15:swACLIpTCPFlagBitMask – Integer

Object name	swACLIpTCPFlagBitMask														
Object ID	1.3.6.1.4.1.171.12.9.2.2.1.15														
Module	ACLMGMT-MIB														
Base syntax	Integer														
Composed syntax	INTEGER														
Access	Read-Create														
Status	Current														
Value list	1 : 0..63														
Parent node	swACLIpEntry														
First child	None														
Description	<p>A value which indicates the set of TCP flags that this entity may potentially offer. The value is a sum of flag bits. This sum initially takes the value zero. Then, for each flag, L, is added in the range 1 through 6, for which this node performs transactions where <math>2^{(L-1)}</math> is added to the sum. Note that values should be calculated accordingly:</p> <table><thead><tr><th>Flag</th><th>functionality</th></tr></thead><tbody><tr><td>6</td><td>urg bit</td></tr><tr><td>5</td><td>ack bit</td></tr><tr><td>4</td><td>psh bit</td></tr><tr><td>3</td><td>rst bit</td></tr><tr><td>2</td><td>syn bit</td></tr><tr><td>1</td><td>fin bit</td></tr></tbody></table> <p>For example, if you want to enable urg bit and ack bit, you should set value <math>48\{2^{(5-1)} + 2^{(6-1)}\}</math>.</p>	Flag	functionality	6	urg bit	5	ack bit	4	psh bit	3	rst bit	2	syn bit	1	fin bit
Flag	functionality														
6	urg bit														
5	ack bit														
4	psh bit														
3	rst bit														
2	syn bit														
1	fin bit														

## 16:swACLIpProtoIDOption – Integer

Object name	swACLIpProtoIDOption
Object ID	1.3.6.1.4.1.171.12.9.2.2.1.16
Module	ACLMGMT-MIB
Base syntax	Integer
Composed syntax	INTEGER
Access	Read-Create
Status	Current
Value list	1 : enable(1) 2 : disable(2)
Parent node	swACLIpEntry
First child	None
Description	Specifies if the switch will examine each frame's protocol ID field or not.

## 17:swACLIpProtoID – Integer

Object name	swACLIpProtoID
Object ID	1.3.6.1.4.1.171.12.9.2.2.1.17
Module	ACLMGMT-MIB
Base syntax	Integer
Composed syntax	INTEGER
Access	Read-Create
Status	Current
Value list	1 : 0..255
Parent node	swACLIpEntry
First child	None
Description	Specifies that the rule applies to the IP protocol ID behind the IP header.



## 18:swACLIpProtoIDMask - Octet String

Object name	swACLIpProtoIDMask
Object ID	1.3.6.1.4.1.171.12.9.2.2.1.18
Module	ACLMGMT-MIB
Base syntax	Octet String
Composed syntax	OCTET STRING
Access	Read-Create
Status	Current
Value list	1 : 20..20
Parent node	swACLIpEntry
First child	None
Description	Specifies that the rule applies to the IP protocol ID and the mask options behind the IP header.

## 19:swACLIpRowStatus – Integer

Object name	swACLIpRowStatus
Object ID	1.3.6.1.4.1.171.12.9.2.2.1.19
Module	ACLMGMT-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	swACLIpEntry
First child	None
Description	This object indicates the status of this entry.

## 20:swACLIpOwner – Integer

Object name	swACLIpOwner
Object ID	1.3.6.1.4.1.171.12.9.2.2.1.20
Module	ACLMGMT-MIB
Base syntax	Integer
Composed syntax	INTEGER
Access	Read-Only
Status	Current
Value list	1 : any(1) 2 : acl(2) 3 : ipbind(3) 4 : other(4) 5 : dhcp(5) 6 : netbios(6) 7 : ext-netbios(7)
Parent node	swACLIpEntry
First child	None
Description	The owner of the ACL mask entry. The type of ACL entry created. ACL type entries can only be modified when being configured through the same type command. For example, IP-MAC Binding entries can only be modified or deleted through the IP-MAC Binding configurations or commands.

## 21:swACLIpSrcMacAddrMask - Octet String

Object name	swACLIpSrcMacAddrMask
Object ID	1.3.6.1.4.1.171.12.9.2.2.1.21
Module	ACLMGMT-MIB
Base syntax	Octet String
Composed syntax	MacAddress
Access	Read-Only
Status	Current
Value list	1 : 6..6
Parent node	swACLIpEntry
First child	None
Description	This object specifies the MAC address mask for the source MAC address.

## 22:swACLIpUnusedRuleEntries – Integer

Object name	swACLIpUnusedRuleEntries
Object ID	1.3.6.1.4.1.171.12.9.2.2.1.22
Module	ACLMGMT-MIB
Base syntax	Integer
Composed syntax	INTEGER
Access	Read-Only
Status	Current
Parent node	swACLIpEntry
First child	None
Description	The number of unused rule entries this IP profile entry.

## 23:swACLIpProfileName - Octet String

Object name	swACLIpProfileName
Object ID	1.3.6.1.4.1.171.12.9.2.2.1.23
Module	ACLMGMT-MIB
Base syntax	Octet String
Composed syntax	DisplayString
Access	Read-Create
Status	Current
Value list	1 : 1..32
Parent node	swACLIpEntry
First child	None
Description	The name of ACL mask entry unique to the mask list.

## 2. swACLipRuleTable

The screenshot shows a network management interface for the ACLMGMT-MIB. The left pane displays a tree view of the MIB structure, with **swACLipRuleTable** selected. The right pane shows the details for this object.

Object name	swACLipRuleTable
Object ID	1.3.6.1.4.1.171.12.9.3.2
Module	ACLMGMT-MIB
Base syntax	Sequence Of swACLipRuleEntry
Access	Not Accessible
Status	Current
Sequence	<ul style="list-style-type: none"> <li>1:swACLipRuleProfileID - Integer</li> <li>2:swACLipRuleAccessID - Integer</li> <li>3:swACLipRuleVlan - Octet String</li> <li>4:swACLipRuleSrcIpaddress - IP Address</li> <li>5:swACLipRuleDstIpaddress - IP Address</li> <li>6:swACLipRuleDscp - Integer</li> <li>7:swACLipRuleProtocol - Integer</li> <li>8:swACLipRuleType - Integer</li> <li>9:swACLipRuleCode - Integer</li> <li>10:swACLipRuleSrcPort - Integer</li> <li>11:swACLipRuleDstPort - Integer</li> <li>12:swACLipRuleFlagBits - Integer</li> <li>13:swACLipRuleProtoID - Integer</li> <li>14:swACLipRuleUserMask - Octet String</li> <li>15:swACLipRuleEnablePriority - Integer</li> <li>16:swACLipRulePriority - Integer</li> <li>17:swACLipRuleReplacePriority - Integer</li> <li>18:swACLipRuleEnableReplaceDscp - Integer</li> <li>19:swACLipRuleRepDscp - Integer</li> <li>20:swACLipRulePermit - Integer</li> <li>21:swACLipRulePort - Octet String</li> <li>22:swACLipRuleRowStatus - Integer</li> <li>23:swACLipRuleOwner - Integer</li> <li>24:swACLipRuleRate - Integer</li> <li>25:swACLipRuleSrcMacAddress - Octet String</li> <li>26:swACLipRuleEnableReplaceTosPrecedence - Integer</li> <li>27:swACLipRuleRepTosPrecedence - Integer</li> </ul>
Parent node	swACLRuleMgmt
First child	swACLipRuleEntry
Description	

Name: swACLipRuleTable

OID: 1.3.6.1.4.1.171.12.9.3.2

Module: ACLMGMT-MIB

### 1:swACLipRuleProfileID – Integer

Object name	swACLipRuleProfileID
Object ID	1.3.6.1.4.1.171.12.9.3.2.1.1
Module	ACLMGMT-MIB
Base syntax	Integer
Composed syntax	INTEGER
Access	Read-Only
Status	Current
Value list	1 : 1..255
Parent node	swACLipRuleEntry
First child	None
Description	The ID of the ACL mask entry, which is unique to the mask list.

## 2:swACLIPRuleAccessID – Integer

Object name	swACLIPRuleAccessID
Object ID	1.3.6.1.4.1.171.12.9.3.2.1.2
Module	ACLMGMT-MIB
Base syntax	Integer
Composed syntax	INTEGER
Access	Read-Only
Status	Current
Value list	1 : 0..65535
Parent node	swACLIPRuleEntry
First child	None
Description	The ID of the ACL rule entry relates to swACLIPRuleProfileID. Row creation set to 0 indicates automatic assignment of the Access ID for the ports in the swACLIPRulePort to create Rule entries for swACLIPRulePort accordingly. Set to 1-65535 causes creation of an access ID for the swACLIPRulePort. The swACLIPRulePort must be set to one port only otherwise the row creation will fail.

## 3:swACLIPRuleVlan - Octet String

Object name	swACLIPRuleVlan
Object ID	1.3.6.1.4.1.171.12.9.3.2.1.3
Module	ACLMGMT-MIB
Base syntax	Octet String
Composed syntax	SnmpAdminString
Access	Read-Create
Status	Current
Value list	1 : 1..32
Parent node	swACLIPRuleEntry
First child	None
Description	Specifies that the access rule will only apply to this VLAN.

## 4:swACLIPRuleSrcIpAddress - IP Address

Object name	swACLIPRuleSrcIpAddress
Object ID	1.3.6.1.4.1.171.12.9.3.2.1.4
Module	ACLMGMT-MIB
Base syntax	IP Address
Composed syntax	IpAddress
Access	Read-Create
Status	Current
Parent node	swACLIPRuleEntry
First child	None
Description	Specifies an IP source address.

## 5:swACLIPRuleDstIpAddress - IP Address

Object name	swACLIPRuleDstIpAddress
Object ID	1.3.6.1.4.1.171.12.9.3.2.1.5
Module	ACLMGMT-MIB
Base syntax	IP Address
Composed syntax	IpAddress
Access	Read-Create
Status	Current
Parent node	swACLIPRuleEntry
First child	None
Description	Specifies an IP destination address.

## 6:swACLIpRuleDscp – Integer

Object name	swACLIpRuleDscp
Object ID	1.3.6.1.4.1.171.12.9.3.2.1.6
Module	ACLMGMT-MIB
Base syntax	Integer
Composed syntax	INTEGER
Access	Read-Create
Status	Current
Value list	1 : 0..63
Parent node	swACLIpRuleEntry
First child	None
Description	Specifies the value of DSCP. The value can be configured from 0 to 63

## 7:swACLIpRuleProtocol – Integer

Object name	swACLIpRuleProtocol
Object ID	1.3.6.1.4.1.171.12.9.3.2.1.7
Module	ACLMGMT-MIB
Base syntax	Integer
Composed syntax	INTEGER
Access	Read-Write
Status	Current
Value list	1 : none(1) 2 : icmp(2) 3 : igmp(3) 4 : tcp(4) 5 : udp(5) 6 : protocolId(6)
Parent node	swACLIpRuleEntry
First child	None
Description	Specifies the IP protocol. For some older chips, this object can not be set. When getting this object, it always returns the type which has been configured in swACLIpEntry.  For some newer chips, this object can only set the type which has been configured in swACLIpEntry. The default value is none (1).

## 8:swACLIpRuleType – Integer

Object name	swACLIpRuleType
Object ID	1.3.6.1.4.1.171.12.9.3.2.1.8
Module	ACLMGMT-MIB
Base syntax	Integer
Composed syntax	INTEGER
Access	Read-Create
Status	Current
Value list	1 : 0..255
Parent node	swACLIpRuleEntry
First child	None
Description	Specifies that the rule applies to the value of ICMP type traffic.

### 9:swACLIpRuleCode – Integer

Object name	swACLIpRuleCode
Object ID	1.3.6.1.4.1.171.12.9.3.2.1.9
Module	ACLMGMT-MIB
Base syntax	Integer
Composed syntax	INTEGER
Access	Read-Create
Status	Current
Value list	1 : 0..255
Parent node	swACLIpRuleEntry
First child	None
Description	Specifies that the rule applies to the value of ICMP code traffic.

### 10:swACLIpRuleSrcPort – Integer

Object name	swACLIpRuleSrcPort
Object ID	1.3.6.1.4.1.171.12.9.3.2.1.10
Module	ACLMGMT-MIB
Base syntax	Integer
Composed syntax	INTEGER
Access	Read-Create
Status	Current
Value list	1 : 0..65535
Parent node	swACLIpRuleEntry
First child	None
Description	Specifies that the rule applies to the range of the TCP/UDP source ports.

### 11:swACLIpRuleDstPort – Integer

Object name	swACLIpRuleDstPort
Object ID	1.3.6.1.4.1.171.12.9.3.2.1.11
Module	ACLMGMT-MIB
Base syntax	Integer
Composed syntax	INTEGER
Access	Read-Create
Status	Current
Value list	1 : 0..65535
Parent node	swACLIpRuleEntry
First child	None
Description	Specifies the TCP/UDP destination port range

## 12:swACLIpRuleFlagBits – Integer

Object name	swACLIpRuleFlagBits														
Object ID	1.3.6.1.4.1.171.12.9.3.2.1.12														
Module	ACLMGMT-MIB														
Base syntax	Integer														
Composed syntax	INTEGER														
Access	Read-Create														
Status	Current														
Value list	1 : 0..63														
Parent node	swACLIpRuleEntry														
First child	None														
Description	<p>A value which indicates the set of TCP flags that this entity may potentially offer. The value is a sum of flag bits. This sum initially takes the value zero. Then, for each flag, L is added in the range 1 through 6, for which this node performs transactions, where <math>2^{(L - 1)}</math> is added to the sum. Note that values should be calculated accordingly:</p> <table><thead><tr><th>Flag</th><th>functionality</th></tr></thead><tbody><tr><td>6</td><td>urg bit</td></tr><tr><td>5</td><td>ack bit</td></tr><tr><td>4</td><td>psh bit</td></tr><tr><td>3</td><td>rst bit</td></tr><tr><td>2</td><td>syn bit</td></tr><tr><td>1</td><td>fin bit</td></tr></tbody></table> <p>For example, if you want to enable urg bit and ack bit, you should set value <math>48\{2^{(5-1)} + 2^{(6-1)}\}</math>.</p>	Flag	functionality	6	urg bit	5	ack bit	4	psh bit	3	rst bit	2	syn bit	1	fin bit
Flag	functionality														
6	urg bit														
5	ack bit														
4	psh bit														
3	rst bit														
2	syn bit														
1	fin bit														

## 13:swACLIpRuleProtoID – Integer

Object name	swACLIpRuleProtoID
Object ID	1.3.6.1.4.1.171.12.9.3.2.1.13
Module	ACLMGMT-MIB
Base syntax	Integer
Composed syntax	INTEGER
Access	Read-Create
Status	Current
Value list	1 : 0..255
Parent node	swACLIpRuleEntry
First child	None
Description	Specifies that the rule applies to the value of IP protocol ID traffic

## 14:swACLIpRuleUserMask - Octet String

Object name	swACLIpRuleUserMask
Object ID	1.3.6.1.4.1.171.12.9.3.2.1.14
Module	ACLMGMT-MIB
Base syntax	Octet String
Composed syntax	OCTET STRING
Access	Read-Create
Status	Current
Value list	1 : 20..20
Parent node	swACLIpRuleEntry
First child	None
Description	Specifies that the rule applies to the IP protocol ID and the range of options behind the IP header.

## 15:swACLIpRuleEnablePriority – Integer

Object name	swACLIpRuleEnablePriority
Object ID	1.3.6.1.4.1.171.12.9.3.2.1.15
Module	ACLMGMT-MIB
Base syntax	Integer
Composed syntax	INTEGER
Access	Read-Create
Status	Current
Value list	1 : enabled(1) 2 : disabled(2)
Parent node	swACLIpRuleEntry
First child	None
Description	Specifies that the access rule will apply only to packets with this priority value.

## 16:swACLIpRulePriority – Integer

Object name	swACLIpRulePriority
Object ID	1.3.6.1.4.1.171.12.9.3.2.1.16
Module	ACLMGMT-MIB
Base syntax	Integer
Composed syntax	INTEGER
Access	Read-Create
Status	Current
Value list	1 : 0..7
Parent node	swACLIpRuleEntry
First child	None
Description	Specifies the priority will change in packets while the swACLIpRuleEnablePriority is enabled .

## 17:swACLIpRuleReplacePriority – Integer

Object name	swACLIpRuleReplacePriority
Object ID	1.3.6.1.4.1.171.12.9.3.2.1.17
Module	ACLMGMT-MIB
Base syntax	Integer
Composed syntax	INTEGER
Access	Read-Create
Status	Current
Value list	1 : enabled(1) 2 : disabled(2)
Parent node	swACLIpRuleEntry
First child	None
Description	Specifies whether the packets that match the access profile will change the 802.1p priority tag field by the switch or not.

## 18:swACLIpRuleEnableReplaceDscp – Integer

Object name	swACLIpRuleEnableReplaceDscp
Object ID	1.3.6.1.4.1.171.12.9.3.2.1.18
Module	ACLMGMT-MIB
Base syntax	Integer
Composed syntax	INTEGER
Access	Read-Create
Status	Current
Value list	1 : enabled(1) 2 : disabled(2)
Parent node	swACLIpRuleEntry
First child	None
Description	Specifies if the switch will change priorities of packets that match the access profile DSCP field or not. The replace DSCP and the replace ToS precedence can not be both supported.



## 19:swACLIpRuleRepDscp – Integer

Object name	swACLIpRuleRepDscp
Object ID	1.3.6.1.4.1.171.12.9.3.2.1.19
Module	ACLMGMT-MIB
Base syntax	Integer
Composed syntax	INTEGER
Access	Read-Create
Status	Current
Value list	1 : 0..63
Parent node	swACLIpRuleEntry
First child	None
Description	Specifies a value to be written to the DSCP field of an incoming packet that meets the criteria specified in the first part of the command. This value will over-write the value in the DSCP field of the packet.

## 20:swACLIpRulePermit – Integer

Object name	swACLIpRulePermit
Object ID	1.3.6.1.4.1.171.12.9.3.2.1.20
Module	ACLMGMT-MIB
Base syntax	Integer
Composed syntax	INTEGER
Access	Read-Create
Status	Current
Value list	1 : deny(1) 2 : permit(2) 3 : mirror(3)
Parent node	swACLIpRuleEntry
First child	None
Description	This object indicates the result of the packet examination is to 'permit' or 'deny'. The default is 'permit'. permit - Specifies that packets that match the access profile are permitted to be forwarded by the switch. deny - Specifies that packets that match the access profile are not permitted to be forwarded by the switch and will be filtered. mirror - Specifies the packets that match the access profile are sent the copied one to the mirror port. Note: The ACL mirror function will work after mirror is enabled and the mirror port has been configured.

## 21:swACLIpRulePort - Octet String

Object name	swACLIpRulePort
Object ID	1.3.6.1.4.1.171.12.9.3.2.1.21
Module	ACLMGMT-MIB
Base syntax	Octet String
Composed syntax	PortList
Access	Read-Create
Status	Current
Value list	1 : 0..127
Parent node	swACLIpRuleEntry
First child	None
Description	Specifies that the access rule will only apply to port(s).

## 22:swACLIpRuleRowStatus – Integer

Object name	swACLIpRuleRowStatus
Object ID	1.3.6.1.4.1.171.12.9.3.2.1.22
Module	ACLMGMT-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	swACLIpRuleEntry
First child	None
Description	This object indicates the status of this entry.

## 23:swACLIpRuleOwner – Integer

Object name	swACLIpRuleOwner
Object ID	1.3.6.1.4.1.171.12.9.3.2.1.23
Module	ACLMGMT-MIB
Base syntax	Integer
Composed syntax	INTEGER
Access	Read-Only
Status	Current
Value list	1 : any(1) 2 : acl(2) 3 : ipbind(3) 4 : other(4) 5 : dhcp(5) 6 : netbios(6) 7 : ext-netbios(7)
Parent node	swACLIpRuleEntry
First child	None
Description	The owner of the ACL rule entry. Only owners can modify this entry.

## 24:swACLIpRuleRxRate – Integer

Object name	swACLIpRuleRxRate
Object ID	1.3.6.1.4.1.171.12.9.3.2.1.24
Module	ACLMGMT-MIB
Base syntax	Integer
Composed syntax	INTEGER
Access	Read-Create
Status	Current
Value list	1 : 0..15624
Parent node	swACLIpRuleEntry
First child	None
Description	Specifies the rx-rate, 0 denotes no_limit.

## 25:swACLIpRuleSrcMacAddress - Octet String

Object name	swACLIpRuleSrcMacAddress
Object ID	1.3.6.1.4.1.171.12.9.3.2.1.25
Module	ACLMGMT-MIB
Base syntax	Octet String
Composed syntax	MacAddress
Access	Read-Only
Status	Current
Value list	1 : 6..6
Parent node	swACLIpRuleEntry
First child	None
Description	Specifies that the access will only apply to packets with this source MAC address.

## 26:swACLIpRuleEnableReplaceTosPrecedence – Integer

Object name	swACLIpRuleEnableReplaceTosPrecedence
Object ID	1.3.6.1.4.1.171.12.9.3.2.1.26
Module	ACLMGMT-MIB
Base syntax	Integer
Composed syntax	INTEGER
Access	Read-Create
Status	Current
Value list	1 : enabled(1) 2 : disabled(2)
Parent node	swACLIpRuleEntry
First child	None
Description	Specifies if the switch will change priorities of packets that match the access profile ToS precedence field or not. The replace DSCP and the replace ToS precedence can not be both supported.

## 27:swACLIpRuleRepTosPrecedence - Integer

Object name	swACLIpRuleRepTosPrecedence
Object ID	1.3.6.1.4.1.171.12.9.3.2.1.27
Module	ACLMGMT-MIB
Base syntax	Integer
Composed syntax	INTEGER
Access	Read-Create
Status	Current
Value list	1 : 0..7
Parent node	swACLIpRuleEntry
First child	None
Description	Specifies a value to be written to the ToS precedence field of an incoming packet that meets the criteria specified in the first part of the command. This value will over-write the value in the ToS precedence field of the packet.