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How to create Packet Content Filtering-ACL by NETSNMP for DES-3200-18

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Example (To block ICMP traffic on port 10)

```
DES-3200-18:4#show access_profile
Command: show access_profile

Access Profile Table

=====
Profile ID: 1                               Type: Packet Content Frame Filter
=====
Owner: ACL
Masks Option
Offset1 : Byte 0 of L2   Value: 0xFFFF

-----
Access ID : 1
Ports     : 1
Mode      : Deny
Offset1 Value:          0x0800                Mask: 0x0000

=====
Total Profile Entries: 1

Total Used Rule Entries: 1

Total Unused Rule Entries: 511
```

Create ACL rule

1. Create an Access profile.

(Equal to the command:

```
create access_profile packet_content_mask offset1 14 0 0xFFFF profile_id 1)
```

```
snmpset -c private -v 2c 10.90.90.90
```

```
1.3.6.1.4.1.171.12.9.2.10.2.1.4.1.1 i 0
```

```
1.3.6.1.4.1.171.12.9.2.10.2.1.5.1.1 x FFFF
```

```
1.3.6.1.4.1.171.12.9.2.10.2.1.6.1.1 i 4
```

2. Add an Access Rule. (It's equal to the command of "config access_profile profile_id 1 add access_id 1 packet_content offset1 0x800 port 10 deny")

```
snmpset -c private -v 2c 10.90.90.90
```

```
1.3.6.1.4.1.171.12.9.3.10.2.1.4.1.1.1 x 0800
```

```
1.3.6.1.4.1.171.12.9.3.10.2.1.5.1.1.1 i 4
```

```
1.3.6.1.4.1.171.12.9.3.10.2.1.6.1.1.1 x 0000
```

3. Assign the Access Rule we created in STEP2 to port 10. . (It's equal to the command of "config access_profile profile_id 1 add access_id 1 packet_content offset1 0x800 port 10 deny")

```
snmpset -c private -v 2c 10.90.90.90
```

```
1.3.6.1.4.1.171.12.9.3.10.1.1.12.1.1 i 1
```

```
1.3.6.1.4.1.171.12.9.3.10.1.1.13.1.1 x 0040000000000000 1.3.6.1.4.1.171.12.9.3.10.1.1.21.1.1 i 4
```

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#Note: Below is the way to calculate the port value in SNMPSet

Hex value	Binary value	Physical port on DES-3200-18
80.00.00.00.00.00.00.00	10000000.00000000.00000000	1
40.00.00.00.00.00.00.00	01000000.00000000.00000000	2
00.40.00.00.00.00.00.00	00000000.01000000.00000000	10

Delete ACL entry command

(config access_profile profile_id 1 delete access_id 1)

#snmpset -c private -v 2c 10.90.90.90 1.3.6.1.4.1.171.12.9.3.10.1.1.21.1.1 i 6

Delete Access_profile command

(delete access_profile profile_id 1)

#snmpset -c private -v 2c 10.90.90.90 1.3.6.1.4.1.171.12.9.2.10.2.1.6.1.1 i 6

Relative OIDs

The screenshot shows a tree view of MIB objects. The selected object is `swACLPktContMaskOption20ffsetsValue`. The details pane on the right shows the following information:

- Object name: swACLPktContMaskOption20ffsetsValue
- Object ID: 1.3.6.1.4.1.171.12.9.2.10.2.1.4
- Module: ACLMGMT-MIB
- Base syntax: Integer
- Composed syntax: INTEGER
- Access: Read-Create
- Status: Current
- Value list: 1 : 0..31
- Parent node: swACLPktContMaskOption20ffsetsEntry
- First child: None
- Description: Specifies the amount of bytes from the reference to the packet content field

The screenshot shows a tree view of MIB objects. The selected object is `swACLPktContMaskOption20ffsetsMask`. The details pane on the right shows the following information:

- Object name: swACLPktContMaskOption20ffsetsMask
- Object ID: 1.3.6.1.4.1.171.12.9.2.10.2.1.5
- Module: ACLMGMT-MIB
- Base syntax: Octet String
- Composed syntax: OCTET STRING
- Access: Read-Create
- Status: Current
- Value list: 1 : 2..2
- Parent node: swACLPktContMaskOption20ffsetsEntry
- First child: None
- Description: Specifies the mask for the packet content field

<pre> swACLpktContMaskOption20ffsetsT able ├── swACLpktContMaskOption20ffsetsEntry │ ├── swACLpktContMaskOption20ffsetsProfileID │ ├── swACLpktContMaskOption20ffsetsNum │ ├── swACLpktContMaskOption20ffsetsReference │ ├── swACLpktContMaskOption20ffsetsValue │ ├── swACLpktContMaskOption20ffsetsMask │ └── swACLpktContMaskOption20ffsetsRowStatus └── swACLRuleMgmt ├── swACLEtherRuleT able ├── swACLIpRuleT able ├── swACLpktContRuleT able ├── swACLpv6RuleT able ├── swBPACLEtherRuleT able ├── swBPACLpRuleT able ├── swACLpktContRuleOptionT able └── swACLCounterT able </pre>	<pre> Object name swACLpktContMaskOption20ffsetsRowStatus Object ID 1.3.6.1.4.1.171.12.9.2.10.2.1.6 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 swACLpktContMaskOption20ffsetsEntry First child None Description This object indicates the status of this entry. </pre>
<pre> swACLpktContRuleOption20ffsetsT able ├── swACLpktContRuleOption20ffsetsEntry │ ├── swACLpktContRuleOption20ffsetsProfileID │ ├── swACLpktContRuleOption20ffsetsAccessID │ ├── swACLpktContRuleOption20ffsetsNum │ ├── swACLpktContRuleOption20ffsetsData │ ├── swACLpktContRuleOption20ffsetsRowStatus │ └── swACLpktContRuleOption20ffsetsMask └── swCpuAcIMaskMgmt ├── swCpuAcIEthernetT able └── swCpuAcIEthernetEntry ├── swCpuAcIEthernetProfileID └── swCpuAcIEthernetUsevlan </pre>	<pre> Object name swACLpktContRuleOption20ffsetsData Object ID 1.3.6.1.4.1.171.12.9.3.10.2.1.4 Module ACLMGMT-MIB Base syntax Octet String Composed syntax OCTET STRING Access Read-Create Status Current Value list 1 : 2..2 Parent node swACLpktContRuleOption20ffsetsEntry First child None Description The data of the packet content field. </pre>
<pre> swACLpktContRuleOption20ffsetsT able ├── swACLpktContRuleOption20ffsetsEntry │ ├── swACLpktContRuleOption20ffsetsProfileID │ ├── swACLpktContRuleOption20ffsetsAccessID │ ├── swACLpktContRuleOption20ffsetsNum │ ├── swACLpktContRuleOption20ffsetsData │ ├── swACLpktContRuleOption20ffsetsRowStatus │ └── swACLpktContRuleOption20ffsetsMask └── swCpuAcIMaskMgmt ├── swCpuAcIEthernetT able └── swCpuAcIEthernetEntry ├── swCpuAcIEthernetProfileID ├── swCpuAcIEthernetUsevlan ├── swCpuAcIEthernetMacAddrMaskState ├── swCpuAcIEthernetSrcMacAddrMask ├── swCpuAcIEthernetDstMacAddrMask └── swCpuAcIEthernetUse8021p </pre>	<pre> Object name swACLpktContRuleOption20ffsetsRowStatus Object ID 1.3.6.1.4.1.171.12.9.3.10.2.1.5 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 swACLpktContRuleOption20ffsetsEntry First child None Description This object indicates the status of this entry. </pre>
<pre> swACLpktContRuleOption20ffsetsT able ├── swACLpktContRuleOption20ffsetsEntry │ ├── swACLpktContRuleOption20ffsetsProfileID │ ├── swACLpktContRuleOption20ffsetsAccessID │ ├── swACLpktContRuleOption20ffsetsNum │ ├── swACLpktContRuleOption20ffsetsData │ ├── swACLpktContRuleOption20ffsetsRowStatus │ └── swACLpktContRuleOption20ffsetsMask └── swCpuAcIMaskMgmt ├── swCpuAcIEthernetT able └── swCpuAcIEthernetEntry ├── swCpuAcIEthernetProfileID ├── swCpuAcIEthernetUsevlan ├── swCpuAcIEthernetMacAddrMaskState └── swCpuAcIEthernetSrcMacAddrMask </pre>	<pre> Object name swACLpktContRuleOption20ffsetsMask Object ID 1.3.6.1.4.1.171.12.9.3.10.2.1.6 Module ACLMGMT-MIB Base syntax Octet String Composed syntax OCTET STRING Access Read-Create Status Current Value list 1 : 2..2 Parent node swACLpktContRuleOption20ffsetsEntry First child None Description Specifies the per rule mask of the frame content of each packet content offset field. The value of this object when not in use is the corresponding mask in the profile mask. Once the value of this object is modified, the per rule mask will take effect. </pre>

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The screenshot shows a tree view on the left with the following structure:

- swACLpktContRuleOption2
 - swACLpktContRuleOption2Table
 - swACLpktContRuleOption2Entry
 - swACLpktContRuleOption2ProfileID
 - swACLpktContRuleOption2AccessID
 - swACLpktContRuleOption2SrcMac
 - swACLpktContRuleOption2DstMac
 - swACLpktContRuleOption2CTag
 - swACLpktContRuleOption2STag
 - swACLpktContRuleOption2EnablePriority
 - swACLpktContRuleOption2Priority
 - swACLpktContRuleOption2ReplacePriority
 - swACLpktContRuleOption2EnableReplaceDst
 - swACLpktContRuleOption2RepDscp
 - swACLpktContRuleOption2Permit**
 - swACLpktContRuleOption2Port
 - swACLpktContRuleOption2Owner
 - swACLpktContRuleOption2EnableReplaceTo
 - swACLpktContRuleOption2RepTosPrecedenc
 - swACLpktContRuleOption2VID
 - swACLpktContRuleOption2RowStatus
 - swACLpktContRuleOption2MaskSrcMac
 - swACLpktContRuleOption2MaskDstMac
 - swACLpktContRuleOption2MaskCTag
 - swACLpktContRuleOption2MaskSTag

The right pane shows the details for the selected object:

Object name	swACLpktContRuleOption2Permit
Object ID	1.3.6.1.4.1.171.12.9.3.10.1.1.12
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	swACLpktContRuleOption2Entry
First child	None
Description	This object indicates if the result of the packet examination is '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 that the packets that match the access profile are copied to the mirror port. Note: The ACL mirror function will function after mirror is enabled and a mirror port has been configured.

The screenshot shows a tree view on the left with the following structure:

- swACLpktContRuleOption2
 - swACLpktContRuleOption2Table
 - swACLpktContRuleOption2Entry
 - swACLpktContRuleOption2ProfileID
 - swACLpktContRuleOption2AccessID
 - swACLpktContRuleOption2SrcMac
 - swACLpktContRuleOption2DstMac
 - swACLpktContRuleOption2CTag
 - swACLpktContRuleOption2STag
 - swACLpktContRuleOption2EnablePriority
 - swACLpktContRuleOption2Priority
 - swACLpktContRuleOption2ReplacePriority
 - swACLpktContRuleOption2EnableReplaceDst
 - swACLpktContRuleOption2RepDscp
 - swACLpktContRuleOption2Permit
 - swACLpktContRuleOption2Port**
 - swACLpktContRuleOption2Owner
 - swACLpktContRuleOption2EnableReplaceTo
 - swACLpktContRuleOption2RepTosPrecedenc
 - swACLpktContRuleOption2VID
 - swACLpktContRuleOption2RowStatus
 - swACLpktContRuleOption2MaskSrcMac
 - swACLpktContRuleOption2MaskDstMac
 - swACLpktContRuleOption2MaskCTag
 - swACLpktContRuleOption2MaskSTag

The right pane shows the details for the selected object:

Object name	swACLpktContRuleOption2Port
Object ID	1.3.6.1.4.1.171.12.9.3.10.1.1.13
Module	ACLMGMT-MIB
Base syntax	Octet String
Composed syntax	PortList
Access	Read-Create
Status	Current
Value list	1 : 0..127
Parent node	swACLpktContRuleOption2Entry
First child	None
Description	Specifies that the access rule will only apply to port(s). This object and swACLpktContRuleOption2VID can not be set together.

The screenshot shows a tree view on the left with the following structure:

- swACLpktContRuleOption2Table
 - swACLpktContRuleOption2Entry
 - swACLpktContRuleOption2ProfileID
 - swACLpktContRuleOption2AccessID
 - swACLpktContRuleOption2SrcMac
 - swACLpktContRuleOption2DstMac
 - swACLpktContRuleOption2CTag
 - swACLpktContRuleOption2STag
 - swACLpktContRuleOption2EnablePriority
 - swACLpktContRuleOption2Priority
 - swACLpktContRuleOption2ReplacePriority
 - swACLpktContRuleOption2EnableReplaceDst
 - swACLpktContRuleOption2RepDscp
 - swACLpktContRuleOption2Permit
 - swACLpktContRuleOption2Port
 - swACLpktContRuleOption2Owner
 - swACLpktContRuleOption2EnableReplaceTo
 - swACLpktContRuleOption2RepTosPrecedenc
 - swACLpktContRuleOption2VID
 - swACLpktContRuleOption2RowStatus**
 - swACLpktContRuleOption2MaskSrcMac
 - swACLpktContRuleOption2MaskDstMac
 - swACLpktContRuleOption2MaskCTag
 - swACLpktContRuleOption2MaskSTag

The right pane shows the details for the selected object:

Object name	swACLpktContRuleOption2RowStatus
Object ID	1.3.6.1.4.1.171.12.9.3.10.1.1.21
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	swACLpktContRuleOption2Entry
First child	None
Description	This object indicates the status of this entry.

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End of document.