

How to combine Time_Range with ACL via NETSNMP in DES-3200?

The relative OIDs are defined in “TIMERANGE-MIB”.

swTimeRangeMgmtTable

Object name	swTimeRangeMgmtTable
Object ID	1.3.6.1.4.1.171.12.50.3.1
Module	TIMERANGE-MIB
Base syntax	Sequence Of swTimeRangeMgmtEntry
Access	Not_Accessible
Status	Current
Sequence	1:swTimeRangeMgmtRangeName - Octet String 2:swTimeRangeMgmtSelectDays - Octet String 3:swTimeRangeMgmtStartTime - Octet String 4:swTimeRangeMgmtEndTime - Octet String 5:swTimeRangeMgmtStatus - Integer
Parent node	swTimeRangeMgmt
First child	swTimeRangeMgmtEntry
Description	A table that contains the information of each time range.

swTimeRangeMgmtEntry

Object name	swTimeRangeMgmtEntry
Object ID	1.3.6.1.4.1.171.12.50.3.1.1
Module	TIMERANGE-MIB
Base syntax	Sequence
Access	Not_Accessible
Status	Current
Index	1:swTimeRangeMgmtRangeName
Parent node	swTimeRangeMgmtTable
First child	swTimeRangeMgmtRangeName
Description	A list of information of each time range.

swTimeRangeMgmtRangeName

Object name	swTimeRangeMgmtRangeName
Object ID	1.3.6.1.4.1.171.12.50.3.1.1.1
Module	TIMERANGE-MIB
Base syntax	Octet String
Composed syntax	DisplayString
Access	Read-Only
Status	Current
Value list	1:1.32
Parent node	swTimeRangeMgmtEntry
First child	None
Description	The range name of the time range.

swTimeRangeMgmtSelectDays

Object name	swTimeRangeMgmtSelectDays
Object ID	1.3.6.1.4.1.171.12.50.3.1.1.2
Module	TIMERANGE-MIB
Base syntax	Octet String
Composed syntax	DisplayString
Access	Read-Create
Status	Current
Value list	1 : 0..255
Parent node	swTimeRangeMgmtEntry
First child	None
Description	Each day in the week is presented by an abbreviation: 'SUN', 'MON', 'TUE', 'WED', 'THU', 'FRI', and 'SAT'. The 'SUN' stands for Sunday, 'MON' stands for Monday, and so on. If more than one day is required, a comma is used to separate those days.

swTimeRangeMgmtStartTime

Object name	swTimeRangeMgmtStartTime
Object ID	1.3.6.1.4.1.171.12.50.3.1.1.3
Module	TIMERANGE-MIB
Base syntax	Octet String
Composed syntax	DisplayString
Access	Read-Create
Status	Current
Value list	1 : 8..8
Parent node	swTimeRangeMgmtEntry
First child	None
Description	The start time of a day. The format is hh:mm:ss ONLY; and cannot be set using a different format. The ending time must be set later than the starting time. The default value is 00:00:00.

swTimeRangeMgmtEndTime

Object name	swTimeRangeMgmtEndTime
Object ID	1.3.6.1.4.1.171.12.50.3.1.1.4
Module	TIMERANGE-MIB
Base syntax	Octet String
Composed syntax	DisplayString
Access	Read-Create
Status	Current
Value list	1 : 8..8
Parent node	swTimeRangeMgmtEntry
First child	None
Description	The end time of a day. The format is hh:mm:ss ONLY; and cannot be set using a different format. The ending time must be set later than the starting time. The default value is 23:59:59.

swTimeRangeMgmtStatus

Object name	swTimeRangeMgmtStatus
Object ID	1.3.6.1.4.1.171.12.50.3.1.1.5
Module	TIMERANGE-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	swTimeRangeMgmtEntry
First child	None
Description	This object indicates the RowStatus of this entry.

swTimeRangeACLTable

Object name	swTimeRangeACLTable
Object ID	1.3.6.1.4.1.171.12.50.3.2
Module	TIMERANGE-MIB
Base syntax	Sequence Of swTimeRangeACLEntry
Access	Not_Accessible
Status	Current
Sequence	1:swTimeRangeACLProfileID - Integer 2:swTimeRangeACLAccessID - Integer 3:swTimeRangeACLTimeRangeName - Octet String
Parent node	swTimeRangeMgmt
First child	swTimeRangeACLEntry
Description	This table maintains time-range settings associated with a specific rule in the ACL rule table. Please refer to the swACLEtherRuleTable, swACLIPRuleTable, swACLIPv6RuleTable and swACLPkConfRuleTable for detailed ACL rule information.

swTimeRangeACLEntry

Object name	swTimeRangeACLEntry
Object ID	1.3.6.1.4.1.171.12.50.3.2.1
Module	TIMERANGE-MIB
Base syntax	Sequence
Access	Not_Accessible
Status	Current
Index	1:swTimeRangeACLProfileID 2:swTimeRangeACLAccessID
Parent node	swTimeRangeACLTable
First child	swTimeRangeACLProfileID
Description	The entry maintains time-range names associated with the ACL rule table.

swTimeRangeACLProfileID

Object name	swTimeRangeACLProfileID
Object ID	1.3.6.1.4.1.171.12.50.3.2.1.1
Module	TIMERANGE-MIB
Base syntax	Integer
Composed syntax	INTEGER
Access	Read-Only
Status	Current
Parent node	swTimeRangeACLEntry
First child	None
Description	The ID of the ACL mask entry, which is unique in the mask list.

swTimeRangeACLAccessID

Object name	swTimeRangeACLAccessID
Object ID	1.3.6.1.4.1.171.12.50.3.2.1.2
Module	TIMERANGE-MIB
Base syntax	Integer
Composed syntax	INTEGER
Access	Read-Only
Status	Current
Value list	1 : 1.65535
Parent node	swTimeRangeACLEntry
First child	None
Description	The ID of the ACL rule entry as related to the swTimeRangeACLProfileID.

swTimeRangeACLTimeRangeName

Object name	swTimeRangeACLTimeRangeName
Object ID	1.3.6.1.4.1.171.12.50.3.2.1.3
Module	TIMERANGE-MIB
Base syntax	Octet String
Composed syntax	DisplayString
Access	Read-Write
Status	Current
Value list	1 : 0..32
Parent node	swTimeRangeACLEntry
First child	None
Description	Specifies a time-range name associated with a specific ACL entry. The time-range name must first be created before being associated with the access rule. If this name is an empty string, it means the time-range profile will no longer be associated with the access rule. When a rule is de-associated with a time range, the access rule will be enabled all the time.

[Test Steps]

Step1. Create one Time_Range profile named “test”.

For “Mon” => Hex 4d6f6e

Start Time => 08:00:00 => Hex 30383a30303a3030

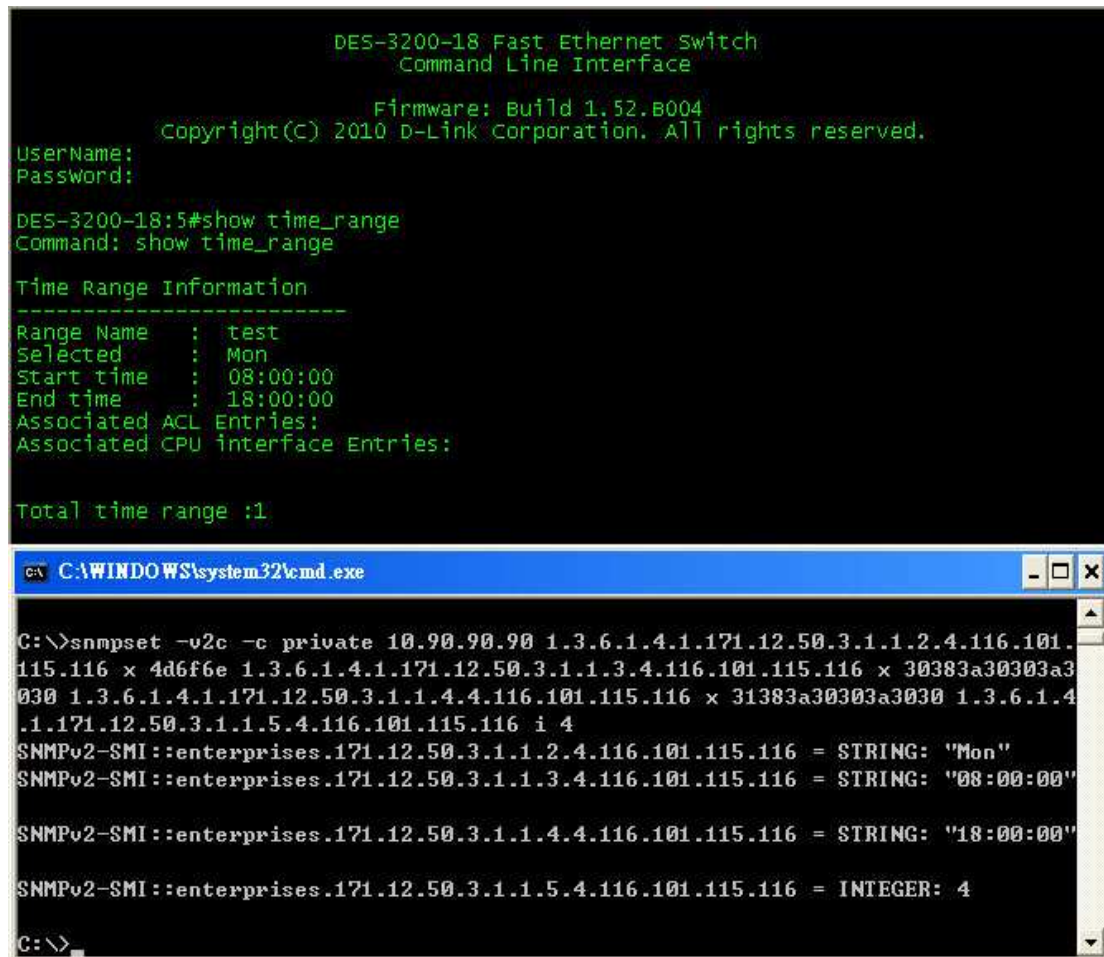
End Time => 18:00:00 => Hex 31383a30303a3030

NETSNMP Command =>

```
snmpset -v2c -c private 10.90.90.90 1.3.6.1.4.1.171.12.50.3.1.1.2.4.116.101.115.116 x 4d6f6e 1.3.6.1.4.1.171.12.50.3.1.1.3.4.116.101.115.116 x 30383a30303a3030
```

```
1.3.6.1.4.1.171.12.50.3.1.1.4.4.116.101.115.116 x 31383a30303a3030
```

```
1.3.6.1.4.1.171.12.50.3.1.1.5.4.116.101.115.116 i 4
```



```
DES-3200-18 Fast Ethernet Switch
Command Line Interface

Firmware: Build 1.52.B004
Copyright(C) 2010 D-Link Corporation. All rights reserved.
UserName:
Password:

DES-3200-18:5#show time_range
Command: show time_range

Time Range Information
-----
Range Name      : test
Selected       : Mon
Start time      : 08:00:00
End time        : 18:00:00
Associated ACL  Entries:
Associated CPU  interface Entries:

Total time range :1

c:\C:\WINDOWS\system32\cmd.exe

C:\>snmpset -v2c -c private 10.90.90.90 1.3.6.1.4.1.171.12.50.3.1.1.2.4.116.101.115.116 x 4d6f6e 1.3.6.1.4.1.171.12.50.3.1.1.3.4.116.101.115.116 x 30383a30303a3030 1.3.6.1.4.1.171.12.50.3.1.1.4.4.116.101.115.116 x 31383a30303a3030 1.3.6.1.4.1.171.12.50.3.1.1.5.4.116.101.115.116 i 4
SNMPv2-SMI::enterprises.171.12.50.3.1.1.2.4.116.101.115.116 = STRING: "Mon"
SNMPv2-SMI::enterprises.171.12.50.3.1.1.3.4.116.101.115.116 = STRING: "08:00:00"
SNMPv2-SMI::enterprises.171.12.50.3.1.1.4.4.116.101.115.116 = STRING: "18:00:00"
SNMPv2-SMI::enterprises.171.12.50.3.1.1.5.4.116.101.115.116 = INTEGER: 4

C:\>
```

Step2. Combine with created ACL profile.

Example :

```
DES-3200-18:5#show access_profile profile_id 1
Command: show access_profile profile_id 1

Access Profile Table
=====
Profile ID: 1                               Type: IPv4 Frame Filter
=====
Owner: ACL
Masks Option
Source IP
-----
255.255.255.255
-----
Access ID : 1
Ports    : 1
Mode     : Deny

Source IP
Mask
-----
192.168.1.1
-----
Total Profile Entries: 1
Total Used Rule Entries: 1
Total Unused Rule Entries: 511
```

Step3. Combine Time_Range “test” with ACL **profile_id 1, access_id 1**

NETSNMP Command =>

snmpset -v2c -c private 10.90.90.90 1.3.6.1.4.1.171.12.50.3.2.1.3.1.1 x 74657374

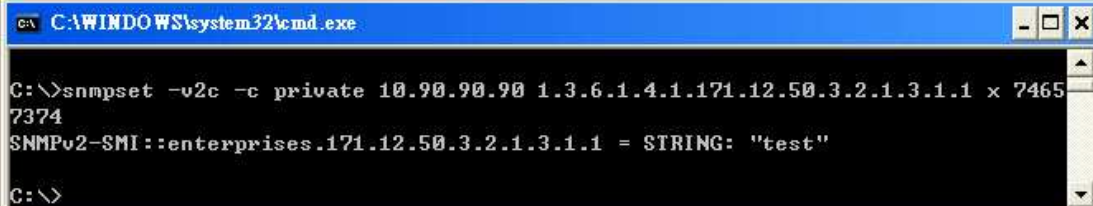
```
DES-3200-18 Fast Ethernet Switch
Command Line Interface

Firmware: build 1.52.B004
Copyright(C) 2010 D-Link Corporation. All rights reserved.
UserName:
Password:

DES-3200-18:5#show time_range
Command: show time_range

Time Range Information
-----
Range Name      : test
Selected       : MON
Start time     : 08:00:00
End time       : 18:00:00
Associated ACL Entries:1->1
Associated CPU interface Entries:

Total time range :1
```



```
C:\WINDOWS\system32\cmd.exe

C:\>snmpset -v2c -c private 10.90.90.90 1.3.6.1.4.1.171.12.50.3.2.1.3.1.1 x 74657374
SNMPv2-SMI::enterprises.171.12.50.3.2.1.3.1.1 = STRING: "test"

C:\>
```