

NETSNMP – How to configure PPPoE Circuit ID Insertion on DES-3500 series

The OIDs of configuring PPPoE Circuit ID Insertion are defined in PPPoE-MGMT-MIB.

The screenshot shows two windows from the Net-SNMP application. The left window, titled 'MIB Modules', displays a list of modules and their root OIDs. The 'PPPOE-MGMT-MIB' entry is highlighted with a red box. The right window, titled 'MIB Tree', shows a hierarchical tree structure of the MIB. The path 'iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).dlink(171).dlink-common-mgmt' is expanded, showing sub-modules like 'swPPPoEMIB', 'swPPPoEMgmtCtrl', 'swPPPoECirDir', 'swPPPoECir', and 'swPPPoE'.

Module	Root OID
PPP-IP-NCP-MIB	1.3.6.1.2.1.10.23.3
PPP-LCP-MIB	1.3.6.1.2.1.10.23
PPP-SEC-MIB	1.3.6.1.2.1.10.23.2
PPPOE-MGMT-MIB	1.3.6.1.4.1.171.12.79
Printer-MIB	1.3.6.1.2.1
Q-BRIDGE-MIB	1.3.6.1.2.1.17.7
RADIUS-ACC-CLIENT-MIB	1.3.6.1.2.1.67
RADIUS-AUTH-CLIENT-MIB	1.3.6.1.2.1.67
RADLAN-3SW2SWTABLES-MIB	1.3.6.1.4.1.171.10.94.89.89.6
RADLAN-AAA	1.3.6.1.4.1.171.10.94.89.89.7
RADLAN-ACTION-ACL-MIB	1.3.6.1.4.1.171.10.94.89.89.1
RADLAN-AUTOUPDATE-MIB	1.3.6.1.4.1.171.10.94.89.89.1
RADLAN-BaudRate-MIB	1.3.6.1.4.1.171.10.94.89.89.1
RADLAN-BRGMACSWITCH-MIB	1.3.6.1.4.1.171.10.94.89.89.5
RADLAN-BRIDGE-SECURITY	1.3.6.1.4.1.171.10.94.89.89.1
RADLAN-BRIDGEMIBOBJECTS-MIB	1.3.6.1.4.1.171.10.94.89.89.5
RADLAN-CDB-MIB	1.3.6.1.4.1.171.10.94.89.89.5
RADLAN-CLI-MIB	1.3.6.1.4.1.171.10.94.89.89.5
RADLAN-COPY-MIB	1.3.6.1.4.1.171.10.94.89.89.0
RADLAN-DEVICEPARAMS-MIB	1.3.6.1.4.1.171.10.94.89.89.2
RADLAN-DHCP-MIB	1.3.6.1.4.1.171.10.94.89.89.3
RADLAN-DHCPCL-MIB	1.3.6.1.4.1.171.10.94.89.89.7
RADLAN-DNSCL-MIB	1.3.6.1.4.1.171.10.94.89.89.5
RADLAN-DOT1X-MIB	1.3.6.1.4.1.171.10.94.89.89.5

swPPPoEMIB

The screenshot shows the details for the 'swPPPoEMIB' module. The 'Module' field is set to 'PPPOE-MGMT-MIB'. The details include the name, type, OID, full path, parent, first child, last updated date, organization, contact, and description.

Module:	PPPOE-MGMT-MIB
Name:	swPPPoEMIB
Type:	MODULE-IDENTITY
OID:	1.3.6.1.4.1.171.12.79
Full path:	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).dlink(171).dlink-common-PPPOE-MGMT-MIB
Parent:	dlink-common-mgmt
First child:	swPPPoEMgmtCtrl
Last updated:	April 2, 09 at 00:00 GMT (0904020000Z)
Organization:	D-Link Corp
Contact:	http://support.dlink.com
Description:	The structure of PPPoE management for the proprietary enterprise.

swPPPoECirIDInsertState

Module:	PPPOE-MGMT-MIB
Name:	swPPPoECirIDInsertState
Type:	OBJECT-TYPE
OID:	1.3.6.1.4.1.171.12.79.1.1
Full path:	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).dlink(171).dlink-common-
Module:	PPPOE-MGMT-MIB
Parent:	swPPPoEMgmtCtrl
Next sibling:	swPPPoECirIDInsertPortMgmt
Numerical syntax:	Integer (32 bit)
Base syntax:	INTEGER
Composed syntax:	INTEGER
Status:	current
Max access:	read-write
Value list:	1: enabled(1) 2: disabled(2)
Description:	This object indicates the status of the PPPoE circuit ID insertion state of the switch.

swPPPoECirIDInsertPortTable

Module:	PPPOE-MGMT-MIB
Name:	swPPPoECirIDInsertPortTable
Type:	OBJECT-TYPE
OID:	1.3.6.1.4.1.171.12.79.1.2.1
Full path:	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).dlink(171).dlink-common-
Module:	PPPOE-MGMT-MIB
Parent:	swPPPoECirIDInsertPortMgmt
First child:	swPPPoECirIDInsertPortEntry
Numerical syntax:	Sequence
Base syntax:	SEQUENCE OF SwPPPoECirIDInsertPortEntry
Composed syntax:	SEQUENCE OF SwPPPoECirIDInsertPortEntry
Status:	current
Max access:	not-accessible
Sequences:	1: swPPPoECirIDInsertPortIndex - INTEGER (2 - int, int32) 2: swPPPoECirIDInsertPortState - INTEGER (2 - int, int32) 3: swPPPoECirIDInsertPortCirID - INTEGER (2 - int, int32) 4: swPPPoECirIDInsertPortUDFString - DisplayString (4 - octets)
Description:	The table specifies the PPPoE circuit ID insertion function specified by the port.

swPPPoECirIDInsertPortEntry

Module: PPPOE-MGMT-MIB	
Name:	swPPPoECirIDInsertPortEntry
Type:	OBJECT-TYPE
OID:	1.3.6.1.4.1.171.12.79.1.2.1.1
Full path:	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).dlink(171).dlink-common-PPPOE-MGMT-MIB
Parent:	swPPPoECirIDInsertPortTable
First child:	swPPPoECirIDInsertPortIndex
Numerical syntax:	Null
Base syntax:	SwPPPoECirIDInsertPortEntry
Composed syntax:	SwPPPoECirIDInsertPortEntry
Status:	current
Max access:	not-accessible
Sequences:	1: swPPPoECirIDInsertPortIndex - INTEGER(2 - int, int32) 2: swPPPoECirIDInsertPortState - INTEGER(2 - int, int32) 3: swPPPoECirIDInsertPortCirID - INTEGER(2 - int, int32) 4: swPPPoECirIDInsertPortUDFString - DisplayString(4 - octets)
Indexes:	1: swPPPoECirIDInsertPortIndex
Description:	A list of information contained in swPPPoECirIDInsertPortTable.

swPPPoECirIDInsertPortIndex

Module: PPPOE-MGMT-MIB	
Name:	swPPPoECirIDInsertPortIndex
Type:	OBJECT-TYPE
OID:	1.3.6.1.4.1.171.12.79.1.2.1.1.1
Full path:	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).dlink(171).dlink-common-PPPOE-MGMT-MIB
Module:	PPPOE-MGMT-MIB
Parent:	swPPPoECirIDInsertPortEntry
Next sibling:	swPPPoECirIDInsertPortState
Numerical syntax:	Integer (32 bit)
Base syntax:	INTEGER
Composed syntax:	INTEGER
Status:	current
Max access:	not-accessible
Size list:	1: 1..65535
Description:	This object indicates the module's port number. The range is from the maximum port number specified in the module

swPPPoECirIDInsertPortState

Module: PPPOE-MGMT-MIB	
Name:	swPPPoECirIDInsertPortState
Type:	OBJECT-TYPE
OID:	1.3.6.1.4.1.171.12.79.1.2.1.1.2
Full path:	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).dlink(171).dlink-common-PPPOE-MGMT-MIB
Module:	PPPOE-MGMT-MIB
Parent:	swPPPoECirIDInsertPortEntry
Prev sibling:	swPPPoECirIDInsertPortIndex
Next sibling:	swPPPoECirIDInsertPortCirID
Numerical syntax:	Integer (32 bit)
Base syntax:	INTEGER
Composed syntax:	INTEGER
Status:	current
Max access:	read-write
Value list:	1: enabled(1) 2: disabled(2)
Description:	This object indicates the PPPoE circuit ID insertion function sta on the port.

swPPPoECirIDInsertPortCirID

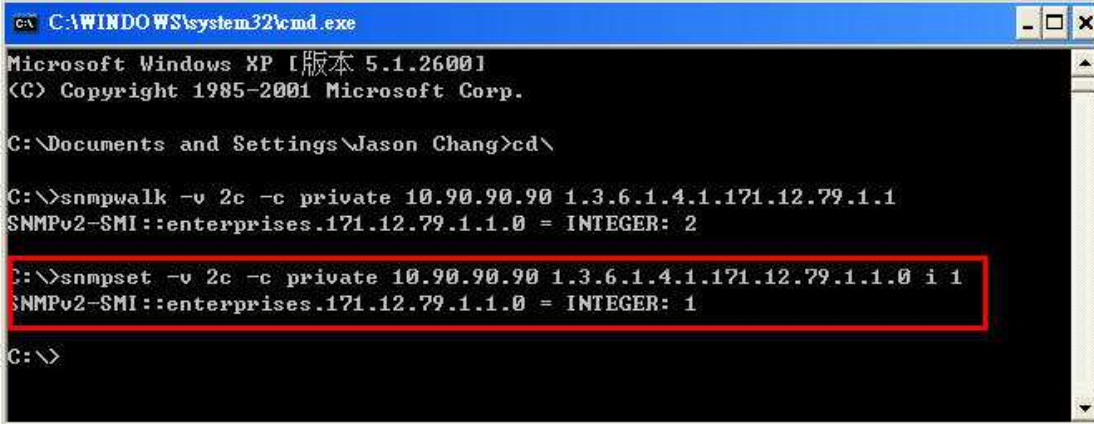
Module: PPPOE-MGMT-MIB	
Name:	swPPPoECirIDInsertPortCirID
Type:	OBJECT-TYPE
OID:	1.3.6.1.4.1.171.12.79.1.2.1.1.3
Full path:	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).dlink(171).dlink-common-PPPOE-MGMT-MIB
Module:	PPPOE-MGMT-MIB
Parent:	swPPPoECirIDInsertPortEntry
Prev sibling:	swPPPoECirIDInsertPortState
Next sibling:	swPPPoECirIDInsertPortUDFString
Numerical syntax:	Integer (32 bit)
Base syntax:	INTEGER
Composed syntax:	INTEGER
Status:	current
Max access:	read-write
Value list:	1: switch-ip(1) 2: switch-mac(2) 3: udf-string(3)
Description:	This object indicates the port circuit ID.

swPPPoECirIDInsertPortUDFString

Module:	PPPOE-MGMT-MIB
Name:	swPPPoECirIDInsertPortUDFString
Type:	OBJECT-TYPE
OID:	1.3.6.1.4.1.171.12.79.1.2.1.1.4
Full path:	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).dlink(171).dlink-common-
Module:	PPPOE-MGMT-MIB
Parent:	swPPPoECirIDInsertPortEntry
Prev sibling:	swPPPoECirIDInsertPortCirID
Numerical syntax:	Octets
Base syntax:	OCTET STRING
Composed syntax:	DisplayString
Status:	current
Max access:	read-write
Description:	This object indicates the user define string when the circuit ID UDF string.

Configure Circuit ID Insertion

Step1. Enable global PPPoE Circuit ID Insertion state.



```
C:\WINDOWS\system32\cmd.exe
Microsoft Windows XP [版本 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

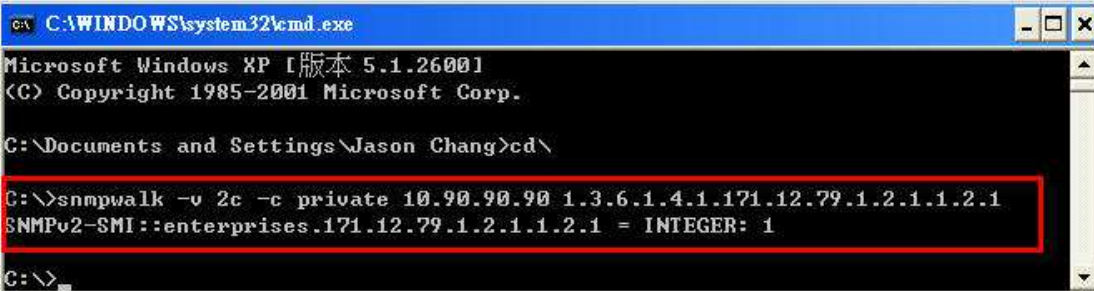
C:\Documents and Settings\Jason Chang>cd\

C:\>snmpwalk -v 2c -c private 10.90.90.90 1.3.6.1.4.1.171.12.79.1.1
SNMPv2-SMI::enterprises.171.12.79.1.1.0 = INTEGER: 2

C:\>snmpset -v 2c -c private 10.90.90.90 1.3.6.1.4.1.171.12.79.1.1.0 i 1
SNMPv2-SMI::enterprises.171.12.79.1.1.0 = INTEGER: 1

C:\>
```

Step2. Enable PPPoE Circuit ID Insertion on port 1.



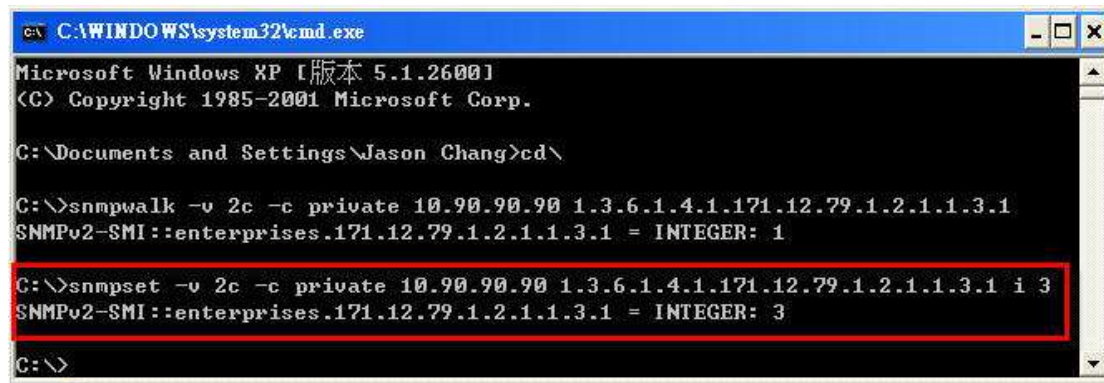
```
C:\WINDOWS\system32\cmd.exe
Microsoft Windows XP [版本 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

C:\Documents and Settings\Jason Chang>cd\

C:\>snmpwalk -v 2c -c private 10.90.90.90 1.3.6.1.4.1.171.12.79.1.2.1.1.2.1
SNMPv2-SMI::enterprises.171.12.79.1.2.1.1.2.1 = INTEGER: 1

C:\>
```

Step3. Configure Circuit ID as UDF string on port 1.



```
C:\WINDOWS\system32\cmd.exe
Microsoft Windows XP [版本 5.1.2600]
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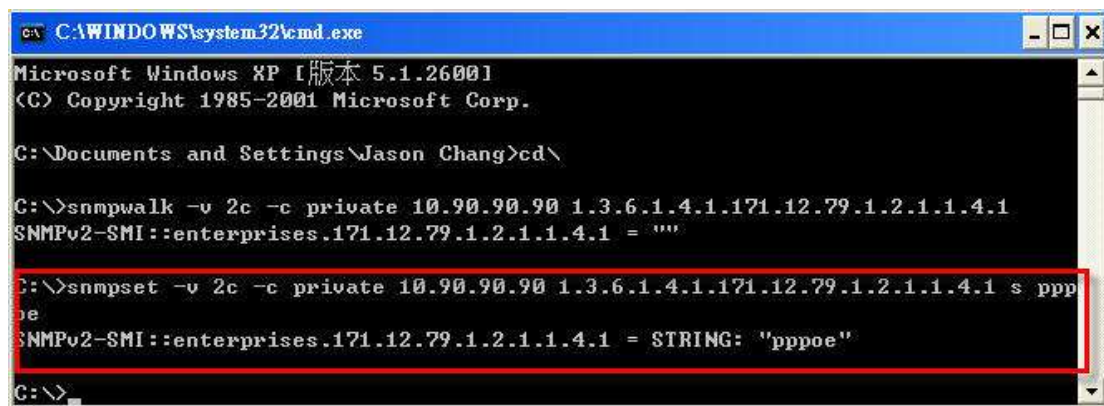
C:\Documents and Settings\Jason Chang>cd\

C:\>snmpwalk -v 2c -c private 10.90.90.90 1.3.6.1.4.1.171.12.79.1.2.1.1.3.1
SNMPv2-SMI::enterprises.171.12.79.1.2.1.1.3.1 = INTEGER: 1

C:\>snmpset -v 2c -c private 10.90.90.90 1.3.6.1.4.1.171.12.79.1.2.1.1.3.1 i 3
SNMPv2-SMI::enterprises.171.12.79.1.2.1.1.3.1 = INTEGER: 3

C:\>
```

Step4. Configure UDF string to be “pppoe”.



```
C:\WINDOWS\system32\cmd.exe
Microsoft Windows XP [版本 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

C:\Documents and Settings\Jason Chang>cd\

C:\>snmpwalk -v 2c -c private 10.90.90.90 1.3.6.1.4.1.171.12.79.1.2.1.1.4.1
SNMPv2-SMI::enterprises.171.12.79.1.2.1.1.4.1 = ""

C:\>snmpset -v 2c -c private 10.90.90.90 1.3.6.1.4.1.171.12.79.1.2.1.1.4.1 s pppoe
SNMPv2-SMI::enterprises.171.12.79.1.2.1.1.4.1 = STRING: "pppoe"

C:\>
```