

How to checking and configuring DHCP_Relay on DES-3200 Series Via SNMP

The Location of DHCP OID

MIB Tree

- iso
- swDHCP RelayMIB
 - swDHCP RelayCtrl
 - swDHCP RelayState
 - swDHCP RelayHopCount
 - swDHCP RelayTimeThreshold
 - swDHCP RelayInfo
 - swDHCP RelayMgmt
 - swDHCP RelayCtlTable
 - swDHCP RelayCtlEntry
 - swDHCP RelayCtlInterfaceName
 - swDHCP RelayCtlServer
 - swDHCP RelayCtlRowStatus
 - swDHCP RelayOption82
 - swDHCP RelayOption82State
 - swDHCP RelayOption82CheckState
 - swDHCP RelayOption82Policy
 - swDHCP RelayOption82RemoteIDType
 - swDHCP RelayOption82RemoteID
 - swDHCP RelayOption60
 - swDHCP RelayOption61

Object ID 1.3.6.1.4.1.171.12.42
Module DHCP-RELAY-MGMT-MIB

Object name	swDHCP RelayState
Object ID	1.3.6.1.4.1.171.12.42.1.1
Module	DHCP-RELAY-MGMT-MIB
Base syntax	Integer
Composed syntax	INTEGER
Access	Read-Write
Status	Current
Value list	1 : enabled(1) 2 : disabled(2)
Parent node	swDHCP RelayCtrl
First child	None
Description	This object indicates DHCP relay function is enabled or disabled.

Disable and Enable DHCP Relay

:: Command ::

-- Disable DHCP Relay

```
snmpset -v2c -c private 10.90.90.90 1.3.6.1.4.1.171.12.42.1.1.0 i 2
```

-- Enable DHCP Relay

```
snmpset -v2c -c private 10.90.90.90 1.3.6.1.4.1.171.12.42.1.1.0 i 1
```

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- swDHCP RelayMIB
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 - swDHCP RelayCtlServer
 - swDHCP RelayCtlRowStatus
 - swDHCP RelayOption82
 - swDHCP RelayOption82State
 - swDHCP RelayOption82CheckState
 - swDHCP RelayOption82

Object ID 1.3.6.1.4.1.171.12.42.1.1
Module DHCP-RELAY-MGMT-MIB

Object name	swDHCP RelayState
Object ID	1.3.6.1.4.1.171.12.42.1.1
Module	DHCP-RELAY-MGMT-MIB
Base syntax	Integer
Composed syntax	INTEGER
Access	Read-Write
Status	Current
Value list	1 : enabled(1) 2 : disabled(2)
Parent node	swDHCP RelayCtrl
First child	None
Description	This object indicates DHCP relay function is enabled or disabled.

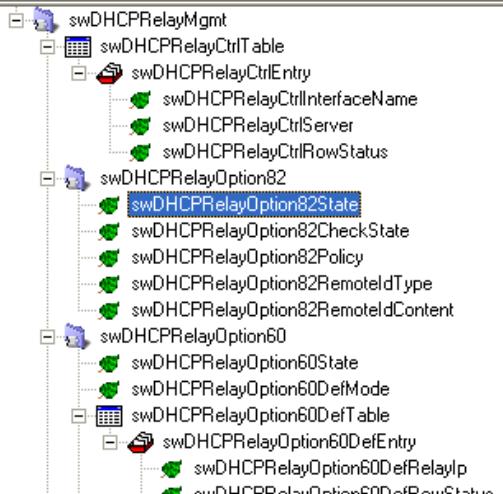
DHCP Relay Hop count

	<table border="1"> <tr> <td>Object name</td> <td>swDHCPRelayHopCount</td> </tr> <tr> <td>Object ID</td> <td>1.3.6.1.4.1.171.12.42.1.2</td> </tr> <tr> <td>Module</td> <td>DHCP-RELAY-MGMT-MIB</td> </tr> <tr> <td>Base syntax</td> <td>Integer</td> </tr> <tr> <td>Composed syntax</td> <td>INTEGER</td> </tr> <tr> <td>Access</td> <td>Read- Write</td> </tr> <tr> <td>Status</td> <td>Current</td> </tr> <tr> <td>Value list</td> <td>1 : 1..16</td> </tr> <tr> <td>Parent node</td> <td>swDHCPRelayCtrl</td> </tr> <tr> <td>First child</td> <td>None</td> </tr> <tr> <td>Description</td> <td>This object indicates the maximum number of router the BOOTP packets can cross.</td> </tr> </table>	Object name	swDHCPRelayHopCount	Object ID	1.3.6.1.4.1.171.12.42.1.2	Module	DHCP-RELAY-MGMT-MIB	Base syntax	Integer	Composed syntax	INTEGER	Access	Read- Write	Status	Current	Value list	1 : 1..16	Parent node	swDHCPRelayCtrl	First child	None	Description	This object indicates the maximum number of router the BOOTP packets can cross.
Object name	swDHCPRelayHopCount																						
Object ID	1.3.6.1.4.1.171.12.42.1.2																						
Module	DHCP-RELAY-MGMT-MIB																						
Base syntax	Integer																						
Composed syntax	INTEGER																						
Access	Read- Write																						
Status	Current																						
Value list	1 : 1..16																						
Parent node	swDHCPRelayCtrl																						
First child	None																						
Description	This object indicates the maximum number of router the BOOTP packets can cross.																						

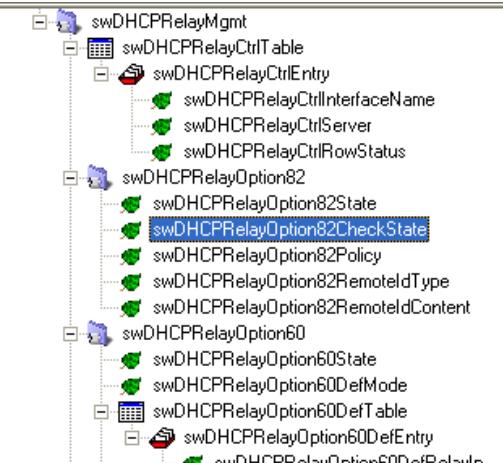
DHCP Relay Threshold

	<table border="1"> <tr> <td>Object name</td> <td>swDHCPRelayTimeThreshold</td> </tr> <tr> <td>Object ID</td> <td>1.3.6.1.4.1.171.12.42.1.3</td> </tr> <tr> <td>Module</td> <td>DHCP-RELAY-MGMT-MIB</td> </tr> <tr> <td>Base syntax</td> <td>Integer</td> </tr> <tr> <td>Composed syntax</td> <td>INTEGER</td> </tr> <tr> <td>Access</td> <td>Read- Write</td> </tr> <tr> <td>Status</td> <td>Current</td> </tr> <tr> <td>Value list</td> <td>1 : 0..65535</td> </tr> <tr> <td>Parent node</td> <td>swDHCPRelayCtrl</td> </tr> <tr> <td>First child</td> <td>None</td> </tr> <tr> <td>Description</td> <td>This object indicates the minimum time in seconds which the switch must relay the DHCP request. If this time is exceeded, the switch will drop the DHCP packet.</td> </tr> </table>	Object name	swDHCPRelayTimeThreshold	Object ID	1.3.6.1.4.1.171.12.42.1.3	Module	DHCP-RELAY-MGMT-MIB	Base syntax	Integer	Composed syntax	INTEGER	Access	Read- Write	Status	Current	Value list	1 : 0..65535	Parent node	swDHCPRelayCtrl	First child	None	Description	This object indicates the minimum time in seconds which the switch must relay the DHCP request. If this time is exceeded, the switch will drop the DHCP packet.
Object name	swDHCPRelayTimeThreshold																						
Object ID	1.3.6.1.4.1.171.12.42.1.3																						
Module	DHCP-RELAY-MGMT-MIB																						
Base syntax	Integer																						
Composed syntax	INTEGER																						
Access	Read- Write																						
Status	Current																						
Value list	1 : 0..65535																						
Parent node	swDHCPRelayCtrl																						
First child	None																						
Description	This object indicates the minimum time in seconds which the switch must relay the DHCP request. If this time is exceeded, the switch will drop the DHCP packet.																						

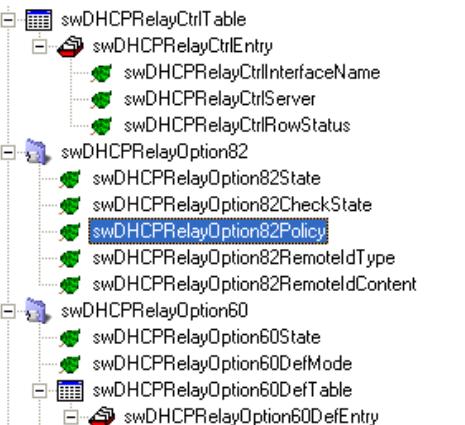
Disable and Enable DHCP Relay Option82

	<table border="1"><tr><td>Object name</td><td>swDHCPRelayOption82State</td></tr><tr><td>Object ID</td><td>1.3.6.1.4.1.171.12.42.3.2.1</td></tr><tr><td>Module</td><td>DHCP-RELAY-MGMT-MIB</td></tr><tr><td>Base syntax</td><td>Integer</td></tr><tr><td>Composed syntax</td><td>INTEGER</td></tr><tr><td>Access</td><td>Read-Write</td></tr><tr><td>Status</td><td>Current</td></tr><tr><td>Value list</td><td>1 : enabled(1) 2 : disabled(2)</td></tr><tr><td>Parent node</td><td>swDHCPRelayOption82</td></tr><tr><td>First child</td><td>None</td></tr><tr><td>Description</td><td>This object indicates DHCP relay option 82 function : disabled.</td></tr></table>	Object name	swDHCPRelayOption82State	Object ID	1.3.6.1.4.1.171.12.42.3.2.1	Module	DHCP-RELAY-MGMT-MIB	Base syntax	Integer	Composed syntax	INTEGER	Access	Read-Write	Status	Current	Value list	1 : enabled(1) 2 : disabled(2)	Parent node	swDHCPRelayOption82	First child	None	Description	This object indicates DHCP relay option 82 function : disabled.
Object name	swDHCPRelayOption82State																						
Object ID	1.3.6.1.4.1.171.12.42.3.2.1																						
Module	DHCP-RELAY-MGMT-MIB																						
Base syntax	Integer																						
Composed syntax	INTEGER																						
Access	Read-Write																						
Status	Current																						
Value list	1 : enabled(1) 2 : disabled(2)																						
Parent node	swDHCPRelayOption82																						
First child	None																						
Description	This object indicates DHCP relay option 82 function : disabled.																						

Disable and Enable DHCP Relay Option82 Check

	<table border="1"><tr><td>Object name</td><td>swDHCPRelayOption82CheckState</td></tr><tr><td>Object ID</td><td>1.3.6.1.4.1.171.12.42.3.2.2</td></tr><tr><td>Module</td><td>DHCP-RELAY-MGMT-MIB</td></tr><tr><td>Base syntax</td><td>Integer</td></tr><tr><td>Composed syntax</td><td>INTEGER</td></tr><tr><td>Access</td><td>Read-Write</td></tr><tr><td>Status</td><td>Current</td></tr><tr><td>Value list</td><td>1 : enabled(1) 2 : disabled(2)</td></tr><tr><td>Parent node</td><td>swDHCPRelayOption82</td></tr><tr><td>First child</td><td>None</td></tr><tr><td>Description</td><td>This object indicates DHCP relay option 82 Check function : disabled.</td></tr></table>	Object name	swDHCPRelayOption82CheckState	Object ID	1.3.6.1.4.1.171.12.42.3.2.2	Module	DHCP-RELAY-MGMT-MIB	Base syntax	Integer	Composed syntax	INTEGER	Access	Read-Write	Status	Current	Value list	1 : enabled(1) 2 : disabled(2)	Parent node	swDHCPRelayOption82	First child	None	Description	This object indicates DHCP relay option 82 Check function : disabled.
Object name	swDHCPRelayOption82CheckState																						
Object ID	1.3.6.1.4.1.171.12.42.3.2.2																						
Module	DHCP-RELAY-MGMT-MIB																						
Base syntax	Integer																						
Composed syntax	INTEGER																						
Access	Read-Write																						
Status	Current																						
Value list	1 : enabled(1) 2 : disabled(2)																						
Parent node	swDHCPRelayOption82																						
First child	None																						
Description	This object indicates DHCP relay option 82 Check function : disabled.																						

Disable and Enable DHCP Relay Option82 Policy

	<table border="1"><tr><td>Object name</td><td>swDHCPRelayOption82Policy</td></tr><tr><td>Object ID</td><td>1.3.6.1.4.1.171.12.42.3.2.3</td></tr><tr><td>Module</td><td>DHCP-RELAY-MGMT-MIB</td></tr><tr><td>Base syntax</td><td>Integer</td></tr><tr><td>Composed syntax</td><td>INTEGER</td></tr><tr><td>Access</td><td>Read-Write</td></tr><tr><td>Status</td><td>Current</td></tr><tr><td>Value list</td><td>1 : replace(1) 2 : drop(2) 3 : keep(3)</td></tr><tr><td>Parent node</td><td>swDHCPRelayOption82</td></tr><tr><td>First child</td><td>None</td></tr><tr><td>Description</td><td>This object indicates DHCP relay option 82 policy.</td></tr></table>	Object name	swDHCPRelayOption82Policy	Object ID	1.3.6.1.4.1.171.12.42.3.2.3	Module	DHCP-RELAY-MGMT-MIB	Base syntax	Integer	Composed syntax	INTEGER	Access	Read-Write	Status	Current	Value list	1 : replace(1) 2 : drop(2) 3 : keep(3)	Parent node	swDHCPRelayOption82	First child	None	Description	This object indicates DHCP relay option 82 policy.
Object name	swDHCPRelayOption82Policy																						
Object ID	1.3.6.1.4.1.171.12.42.3.2.3																						
Module	DHCP-RELAY-MGMT-MIB																						
Base syntax	Integer																						
Composed syntax	INTEGER																						
Access	Read-Write																						
Status	Current																						
Value list	1 : replace(1) 2 : drop(2) 3 : keep(3)																						
Parent node	swDHCPRelayOption82																						
First child	None																						
Description	This object indicates DHCP relay option 82 policy.																						

DHCP Relay Interface/ Server/CtrlState

:: Command ::

```
snmpset -v2c -c private 10.90.90.90  
1.3.6.1.4.1.171.12.42.3.1.1.3.6.83.121.115.116.101.109.10.90.90.30 i 4
```

10.90.90.30: The DHCP Server IP address.

83.121.115.116.101.109: System (Interface Name)

S → hex 53 → 83 (Decimal)

y → hex 79 → 121 (Decimal)

s → hex 73 → 115 (Decimal)

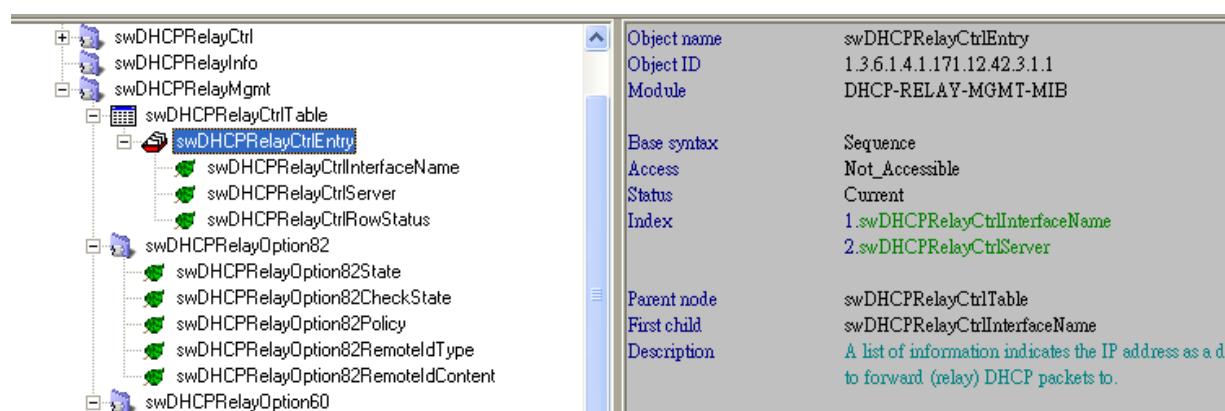
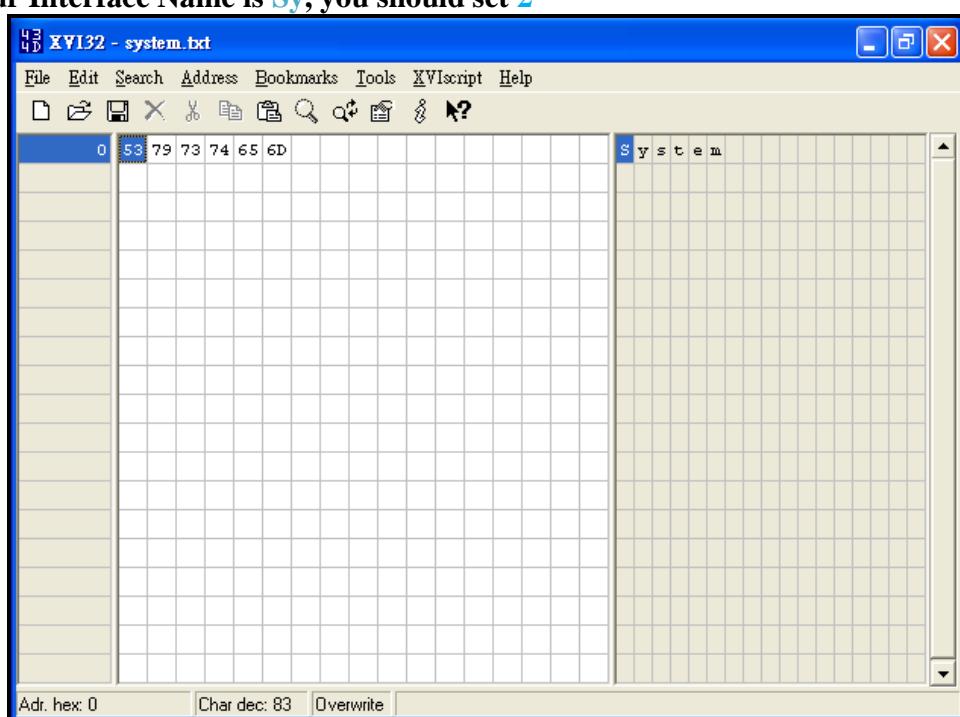
t → hex 74 → 116 (Decimal)

e → hex 65 → 101 (Decimal)

m → hex 6D → 109 (Decimal)

6: six bits with System (Interface Name)

ex: If your Interface Name is Sy, you should set 2



	<table border="1"> <tr><td>Object name</td><td>swDHCPRelayCtrlInterfaceName</td></tr> <tr><td>Object ID</td><td>1.3.6.1.4.1.171.12.42.3.1.1.1</td></tr> <tr><td>Module</td><td>DHCP-RELAY-MGMT-MIB</td></tr> <tr><td>Base syntax</td><td>Octet String</td></tr> <tr><td>Composed syntax</td><td>DisplayString</td></tr> <tr><td>Access</td><td>Read-Only</td></tr> <tr><td>Status</td><td>Current</td></tr> <tr><td>Value list</td><td>1 : 0..12</td></tr> <tr><td>Parent node</td><td>swDHCPRelayCtrlEntry</td></tr> <tr><td>First child</td><td>None</td></tr> <tr><td>Description</td><td>This object indicates the name of the IP interface.</td></tr> </table>	Object name	swDHCPRelayCtrlInterfaceName	Object ID	1.3.6.1.4.1.171.12.42.3.1.1.1	Module	DHCP-RELAY-MGMT-MIB	Base syntax	Octet String	Composed syntax	DisplayString	Access	Read-Only	Status	Current	Value list	1 : 0..12	Parent node	swDHCPRelayCtrlEntry	First child	None	Description	This object indicates the name of the IP interface.
Object name	swDHCPRelayCtrlInterfaceName																						
Object ID	1.3.6.1.4.1.171.12.42.3.1.1.1																						
Module	DHCP-RELAY-MGMT-MIB																						
Base syntax	Octet String																						
Composed syntax	DisplayString																						
Access	Read-Only																						
Status	Current																						
Value list	1 : 0..12																						
Parent node	swDHCPRelayCtrlEntry																						
First child	None																						
Description	This object indicates the name of the IP interface.																						
<table border="1"> <tr><td>Object name</td><td>swDHCPRelayCtrlServer</td></tr> <tr><td>Object ID</td><td>1.3.6.1.4.1.171.12.42.3.1.1.2</td></tr> <tr><td>Module</td><td>DHCP-RELAY-MGMT-MIB</td></tr> <tr><td>Base syntax</td><td>IP Address</td></tr> <tr><td>Composed syntax</td><td>IpAddress</td></tr> <tr><td>Access</td><td>Read-Only</td></tr> <tr><td>Status</td><td>Current</td></tr> <tr><td>Parent node</td><td>swDHCPRelayCtrlEntry</td></tr> <tr><td>First child</td><td>None</td></tr> <tr><td>Description</td><td>This object indicates the DHCP server IP address.</td></tr> </table>	Object name	swDHCPRelayCtrlServer	Object ID	1.3.6.1.4.1.171.12.42.3.1.1.2	Module	DHCP-RELAY-MGMT-MIB	Base syntax	IP Address	Composed syntax	IpAddress	Access	Read-Only	Status	Current	Parent node	swDHCPRelayCtrlEntry	First child	None	Description	This object indicates the DHCP server IP address.			
Object name	swDHCPRelayCtrlServer																						
Object ID	1.3.6.1.4.1.171.12.42.3.1.1.2																						
Module	DHCP-RELAY-MGMT-MIB																						
Base syntax	IP Address																						
Composed syntax	IpAddress																						
Access	Read-Only																						
Status	Current																						
Parent node	swDHCPRelayCtrlEntry																						
First child	None																						
Description	This object indicates the DHCP server IP address.																						
<table border="1"> <tr><td>Object name</td><td>swDHCPRelayCtrlRowStatus</td></tr> <tr><td>Object ID</td><td>1.3.6.1.4.1.171.12.42.3.1.1.3</td></tr> <tr><td>Module</td><td>DHCP-RELAY-MGMT-MIB</td></tr> <tr><td>Base syntax</td><td>Integer</td></tr> <tr><td>Composed syntax</td><td>RowStatus</td></tr> <tr><td>Access</td><td>Read-Create</td></tr> <tr><td>Status</td><td>Current</td></tr> <tr><td>Value list</td><td>1 : active(1) 2 : notInService(2) 3 : notReady(3) 4 : createAndGo(4) 5 : createAndWait(5) 6 : destroy(6)</td></tr> <tr><td>Parent node</td><td>swDHCPRelayCtrlEntry</td></tr> <tr><td>First child</td><td>None</td></tr> <tr><td>Description</td><td>This object indicates the status of this entry.</td></tr> </table>	Object name	swDHCPRelayCtrlRowStatus	Object ID	1.3.6.1.4.1.171.12.42.3.1.1.3	Module	DHCP-RELAY-MGMT-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	swDHCPRelayCtrlEntry	First child	None	Description	This object indicates the status of this entry.	
Object name	swDHCPRelayCtrlRowStatus																						
Object ID	1.3.6.1.4.1.171.12.42.3.1.1.3																						
Module	DHCP-RELAY-MGMT-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	swDHCPRelayCtrlEntry																						
First child	None																						
Description	This object indicates the status of this entry.																						