

## How to use NET-SNMP configure Loop back Detection

1. Enable the loop back detection in port mode

```
# snmpset -c private -v 2c 192.168.1.24
```

```
1.3.6.1.4.1.171.11.70.3.2.18.1.1.0 i 1
```

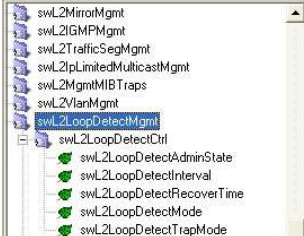
```
1.3.6.1.4.1.171.11.70.3.2.18.1.4.0 i 2
```

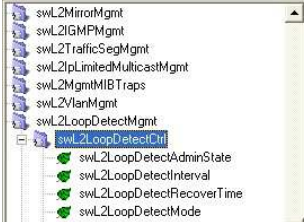
2. Specify port 15 watch the loop back issue.

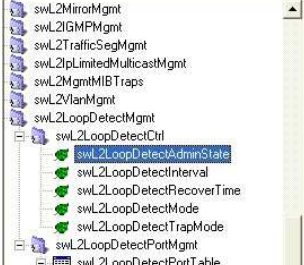
```
# snmpset -c private -v 2c 192.168.1.24
```

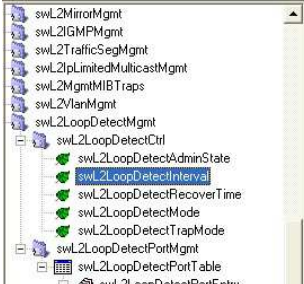
```
1.3.6.1.4.1.171.11.70.3.2.18.2.1.1.2.15 i 1
```

### OID for Loopback detection

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|  | <p>Object name: swL2LoopDetectMgmt<br/>                 Object ID: 1.3.6.1.4.1.171.11.70.3.2.18<br/>                 Module: DGS3450-L2MGMT-MIB</p> <p>Base syntax: Object Identifier<br/>                 Access: Not_Accessible<br/>                 Status: Mandatory</p> <p>Parent node: swL2MgmtMIB<br/>                 First child: swL2LoopDetectCtrl</p> |
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|  | <p>Object name: swL2LoopDetectCtrl<br/>                 Object ID: 1.3.6.1.4.1.171.11.70.3.2.18.1<br/>                 Module: DGS3450-L2MGMT-MIB</p> <p>Base syntax: Object Identifier<br/>                 Access: Not_Accessible<br/>                 Status: Mandatory</p> <p>Parent node: swL2LoopDetectMgmt<br/>                 First child: swL2LoopDetectAdminState</p> |
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|  | <p>Object name: swL2LoopDetectAdminState<br/>                 Object ID: 1.3.6.1.4.1.171.11.70.3.2.18.1.1<br/>                 Module: DGS3450-L2MGMT-MIB</p> <p>Base syntax: Integer<br/>                 Composed syntax: INTEGER<br/>                 Access: Read-Write<br/>                 Status: Current<br/>                 Value list: 1 : enabled(1)<br/>                               2 : disabled(2)</p> <p>Parent node: swL2LoopDetectCtrl<br/>                 First child: None<br/>                 Description: This object indicates the loopback detection status for the system.</p> |
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|  | <p>Object name: swL2LoopDetectInterval<br/>                 Object ID: 1.3.6.1.4.1.171.11.70.3.2.18.1.2<br/>                 Module: DGS3450-L2MGMT-MIB</p> <p>Base syntax: Integer<br/>                 Composed syntax: INTEGER<br/>                 Access: Read-Write<br/>                 Status: Current<br/>                 Value list: 1 : 1..32767</p> <p>Parent node: swL2LoopDetectCtrl<br/>                 First child: None<br/>                 Description: This object indicates the interval value, the range is from 1 to 32767 seconds.</p> |
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| <ul style="list-style-type: none"> <li>swL2MirrorMgmt</li> <li>swL2GMPPMgmt</li> <li>swL2TrafficSegMgmt</li> <li>swL2pLimitedMulticastMgmt</li> <li>swL2MgmtMIBTraps</li> <li>swL2VlanMgmt</li> <li>swL2LoopDetectMgmt             <ul style="list-style-type: none"> <li>swL2LoopDetectCtrl                 <ul style="list-style-type: none"> <li>swL2LoopDetectAdminState</li> <li>swL2LoopDetectInterval</li> <li><b>swL2LoopDetectRecoverTime</b></li> <li>swL2LoopDetectMode</li> <li>swL2LoopDetectTrapMode</li> </ul> </li> <li>swL2LoopDetectPortMgmt                 <ul style="list-style-type: none"> <li>swL2LoopDetectPortTable                     <ul style="list-style-type: none"> <li>swL2LoopDetectPortEntry</li> <li>swL2LoopDetectPortIndex</li> </ul> </li> </ul> </li> </ul> </li> </ul> | <b>Object name</b> swL2LoopDetectRecoverTime<br><b>Object ID</b> 1.3.6.1.4.1.171.11.70.3.2.18.1.3<br><b>Module</b> DGS3450-L2MGMT-MIB<br><br><b>Base syntax</b> Integer<br><b>Composed syntax</b> INTEGER<br><b>Access</b> Read-Write<br><b>Status</b> Current<br><b>Value list</b> 1 : 0..1000000<br><br><b>Parent node</b> swL2LoopDetectCtrl<br><b>First child</b> None<br><b>Description</b> This object indicates the recover time, the range is from 60 to 1000000. The value of 0 disables the recover function. |
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| <ul style="list-style-type: none"> <li>swL2MirrorMgmt</li> <li>swL2GMPPMgmt</li> <li>swL2TrafficSegMgmt</li> <li>swL2pLimitedMulticastMgmt</li> <li>swL2MgmtMIBTraps</li> <li>swL2VlanMgmt</li> <li>swL2LoopDetectMgmt             <ul style="list-style-type: none"> <li>swL2LoopDetectCtrl                 <ul style="list-style-type: none"> <li>swL2LoopDetectAdminState</li> <li>swL2LoopDetectInterval</li> <li>swL2LoopDetectRecoverTime</li> <li><b>swL2LoopDetectMode</b></li> <li>swL2LoopDetectTrapMode</li> </ul> </li> <li>swL2LoopDetectPortMgmt                 <ul style="list-style-type: none"> <li>swL2LoopDetectPortTable                     <ul style="list-style-type: none"> <li>swL2LoopDetectPortEntry</li> </ul> </li> </ul> </li> </ul> </li> </ul> | <b>Object name</b> swL2LoopDetectMode<br><b>Object ID</b> 1.3.6.1.4.1.171.11.70.3.2.18.1.4<br><b>Module</b> DGS3450-L2MGMT-MIB<br><br><b>Base syntax</b> Integer<br><b>Composed syntax</b> INTEGER<br><b>Access</b> Read-Write<br><b>Status</b> Current<br><b>Value list</b> 1 : vlan-based(1)<br>2 : port-based(2)<br><br><b>Parent node</b> swL2LoopDetectCtrl<br><b>First child</b> None<br><b>Description</b> This object indicates the loopback detection mode for the system. |
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| <ul style="list-style-type: none"> <li>swL2MirrorMgmt</li> <li>swL2GMPPMgmt</li> <li>swL2TrafficSegMgmt</li> <li>swL2pLimitedMulticastMgmt</li> <li>swL2MgmtMIBTraps</li> <li>swL2VlanMgmt</li> <li>swL2LoopDetectMgmt             <ul style="list-style-type: none"> <li>swL2LoopDetectCtrl                 <ul style="list-style-type: none"> <li>swL2LoopDetectAdminState</li> <li>swL2LoopDetectInterval</li> <li>swL2LoopDetectRecoverTime</li> <li>swL2LoopDetectMode</li> <li><b>swL2LoopDetectTrapMode</b></li> </ul> </li> <li>swL2LoopDetectPortMgmt                 <ul style="list-style-type: none"> <li>swL2LoopDetectPortTable                     <ul style="list-style-type: none"> <li>swL2LoopDetectPortEntry</li> </ul> </li> </ul> </li> </ul> </li> </ul> | <b>Object name</b> swL2LoopDetectTrapMode<br><b>Object ID</b> 1.3.6.1.4.1.171.11.70.3.2.18.1.5<br><b>Module</b> DGS3450-L2MGMT-MIB<br><br><b>Base syntax</b> Integer<br><b>Composed syntax</b> INTEGER<br><b>Access</b> Read-Write<br><b>Status</b> Current<br><b>Value list</b> 1 : none(1)<br>2 : loop_detected(2)<br>3 : loop_cleared(3)<br>4 : both(4)<br><br><b>Parent node</b> swL2LoopDetectCtrl<br><b>First child</b> None<br><b>Description</b> This object indicates the loopback detection trap mode for the system. |
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| <ul style="list-style-type: none"> <li>swL2MirrorMgmt</li> <li>swL2GMPPMgmt</li> <li>swL2TrafficSegMgmt</li> <li>swL2pLimitedMulticastMgmt</li> <li>swL2MgmtMIBTraps</li> <li>swL2VlanMgmt</li> <li>swL2LoopDetectMgmt             <ul style="list-style-type: none"> <li>swL2LoopDetectCtrl                 <ul style="list-style-type: none"> <li>swL2LoopDetectAdminState</li> <li>swL2LoopDetectInterval</li> <li>swL2LoopDetectRecoverTime</li> <li>swL2LoopDetectMode</li> <li>swL2LoopDetectTrapMode</li> </ul> </li> <li><b>swL2LoopDetectPortMgmt</b> <ul style="list-style-type: none"> <li>swL2LoopDetectPortTable                     <ul style="list-style-type: none"> <li>swL2LoopDetectPortEntry                         <ul style="list-style-type: none"> <li>swL2LoopDetectPortIndex</li> <li>swL2LoopDetectPortState</li> <li>swL2LoopDetectPortLoopVLAN</li> <li>swL2LoopDetectPortLoopStatus</li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul> | <b>Object name</b> swL2LoopDetectPortMgmt<br><b>Object ID</b> 1.3.6.1.4.1.171.11.70.3.2.18.2<br><b>Module</b> DGS3450-L2MGMT-MIB<br><br><b>Base syntax</b> Object Identifier<br><b>Access</b> Not Accessible<br><b>Status</b> Mandatory<br><br><b>Parent node</b> swL2LoopDetectMgmt<br><b>First child</b> swL2LoopDetectPortTable |
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| <ul style="list-style-type: none"> <li>swL2MirrorMgmt</li> <li>swL2GMPPMgmt</li> <li>swL2TrafficSegMgmt</li> <li>swL2pLimitedMulticastMgmt</li> <li>swL2MgmtMIBTraps</li> <li>swL2VlanMgmt</li> <li>swL2LoopDetectMgmt             <ul style="list-style-type: none"> <li>swL2LoopDetectCtrl                 <ul style="list-style-type: none"> <li>swL2LoopDetectAdminState</li> <li>swL2LoopDetectInterval</li> <li>swL2LoopDetectRecoverTime</li> <li>swL2LoopDetectMode</li> <li>swL2LoopDetectTrapMode</li> </ul> </li> <li>swL2LoopDetectPortMgmt                 <ul style="list-style-type: none"> <li><b>swL2LoopDetectPortTable</b> <ul style="list-style-type: none"> <li>swL2LoopDetectPortEntry                     <ul style="list-style-type: none"> <li>swL2LoopDetectPortIndex</li> <li>swL2LoopDetectPortState</li> <li>swL2LoopDetectPortLoopVLAN</li> <li>swL2LoopDetectPortLoopStatus</li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul> | <b>Object name</b> swL2LoopDetectPortTable<br><b>Object ID</b> 1.3.6.1.4.1.171.11.70.3.2.18.2.1<br><b>Module</b> DGS3450-L2MGMT-MIB<br><br><b>Base syntax</b> Sequence Of swL2LoopDetectPortEntry<br><b>Access</b> Not Accessible<br><b>Status</b> Current<br><b>Sequence</b> 1:swL2LoopDetectPortIndex - Integer<br>2:swL2LoopDetectPortState - Integer<br>3:swL2LoopDetectPortLoopVLAN - Octet String<br>4:swL2LoopDetectPortLoopStatus - Integer<br><br><b>Parent node</b> swL2LoopDetectPortMgmt<br><b>First child</b> swL2LoopDetectPortEntry<br><b>Description</b> The table specifies the loopback detection function specified by port. |
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| <ul style="list-style-type: none"> <li>swL2MirrorMgmt</li> <li>swL2IGMPMgmt</li> <li>swL2TrafficSegMgmt</li> <li>swL2PlLimitedMulticastMgmt</li> <li>swL2MgmtMIBTraps</li> <li>swL2VlanMgmt</li> <li>swL2LoopDetectMgmt             <ul style="list-style-type: none"> <li>swL2LoopDetectCtrl                 <ul style="list-style-type: none"> <li>swL2LoopDetectAdminState</li> <li>swL2LoopDetectInterval</li> <li>swL2LoopDetectRecoverTime</li> <li>swL2LoopDetectMode</li> <li>swL2LoopDetectTrapMode</li> </ul> </li> <li>swL2LoopDetectPortMgmt                 <ul style="list-style-type: none"> <li>swL2LoopDetectPortTable                     <ul style="list-style-type: none"> <li><b>swL2LoopDetectPortEntry</b></li> <li>swL2LoopDetectPortIndex</li> <li>swL2LoopDetectPortState</li> <li>swL2LoopDetectPortLoopVLA</li> <li>swL2LoopDetectPortLoopStat</li> </ul> </li> </ul> </li> </ul> </li> </ul>   | <p>Object name: swL2LoopDetectPortEntry<br/>                 Object ID: 1.3.6.1.4.1.171.11.70.3.2.18.2.1.1<br/>                 Module: DGS3450-L2MGMT-MIB</p> <p>Base syntax: Sequence<br/>                 Access: Not_Accessible<br/>                 Status: Current<br/>                 Index: 1.swL2LoopDetectPortIndex</p> <p>Parent node: swL2LoopDetectPortTable<br/>                 First child: swL2LoopDetectPortIndex<br/>                 Description: The table specifies the loopback detection function specified by port.</p>  |
| <ul style="list-style-type: none"> <li>swL2MirrorMgmt</li> <li>swL2IGMPMgmt</li> <li>swL2TrafficSegMgmt</li> <li>swL2PlLimitedMulticastMgmt</li> <li>swL2MgmtMIBTraps</li> <li>swL2VlanMgmt</li> <li>swL2LoopDetectMgmt             <ul style="list-style-type: none"> <li>swL2LoopDetectCtrl                 <ul style="list-style-type: none"> <li>swL2LoopDetectAdminState</li> <li>swL2LoopDetectInterval</li> <li>swL2LoopDetectRecoverTime</li> <li>swL2LoopDetectMode</li> <li>swL2LoopDetectTrapMode</li> </ul> </li> <li>swL2LoopDetectPortMgmt                 <ul style="list-style-type: none"> <li>swL2LoopDetectPortTable                     <ul style="list-style-type: none"> <li>swL2LoopDetectPortEntry                             <ul style="list-style-type: none"> <li><b>swL2LoopDetectPortIndex</b></li> <li>swL2LoopDetectPortState</li> <li>swL2LoopDetectPortLoopVLA</li> <li>swL2LoopDetectPortLoopStat</li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul> | <p>Object name: swL2LoopDetectPortIndex<br/>                 Object ID: 1.3.6.1.4.1.171.11.70.3.2.18.2.1.1.1<br/>                 Module: DGS3450-L2MGMT-MIB</p> <p>Base syntax: Integer<br/>                 Composed syntax: INTEGER<br/>                 Access: Read-Only<br/>                 Status: Current<br/>                 Value list: 1 : 1..65535</p> <p>Parent node: swL2LoopDetectPortEntry<br/>                 First child: None<br/>                 Description: This object indicates the module's port number. The range is from 1 to the maximum port number specified in the module</p>     |
| <ul style="list-style-type: none"> <li>swL2MirrorMgmt</li> <li>swL2IGMPMgmt</li> <li>swL2TrafficSegMgmt</li> <li>swL2PlLimitedMulticastMgmt</li> <li>swL2MgmtMIBTraps</li> <li>swL2VlanMgmt</li> <li>swL2LoopDetectMgmt             <ul style="list-style-type: none"> <li>swL2LoopDetectCtrl                 <ul style="list-style-type: none"> <li>swL2LoopDetectAdminState</li> <li>swL2LoopDetectInterval</li> <li>swL2LoopDetectRecoverTime</li> <li>swL2LoopDetectMode</li> <li>swL2LoopDetectTrapMode</li> </ul> </li> <li>swL2LoopDetectPortMgmt                 <ul style="list-style-type: none"> <li>swL2LoopDetectPortTable                     <ul style="list-style-type: none"> <li>swL2LoopDetectPortEntry                             <ul style="list-style-type: none"> <li>swL2LoopDetectPortIndex</li> <li><b>swL2LoopDetectPortState</b></li> <li>swL2LoopDetectPortLoopVLA</li> <li>swL2LoopDetectPortLoopStat</li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul> | <p>Object name: swL2LoopDetectPortState<br/>                 Object ID: 1.3.6.1.4.1.171.11.70.3.2.18.2.1.1.2<br/>                 Module: DGS3450-L2MGMT-MIB</p> <p>Base syntax: Integer<br/>                 Composed syntax: INTEGER<br/>                 Access: Read-Write<br/>                 Status: Current<br/>                 Value list: 1 : enabled(1)<br/>                           2 : disabled(2)</p> <p>Parent node: swL2LoopDetectPortEntry<br/>                 First child: None<br/>                 Description: This object indicates the loopback detection function state on the port.</p> |
| <ul style="list-style-type: none"> <li>swL2MirrorMgmt</li> <li>swL2IGMPMgmt</li> <li>swL2TrafficSegMgmt</li> <li>swL2PlLimitedMulticastMgmt</li> <li>swL2MgmtMIBTraps</li> <li>swL2VlanMgmt</li> <li>swL2LoopDetectMgmt             <ul style="list-style-type: none"> <li>swL2LoopDetectCtrl                 <ul style="list-style-type: none"> <li>swL2LoopDetectAdminState</li> <li>swL2LoopDetectInterval</li> <li>swL2LoopDetectRecoverTime</li> <li>swL2LoopDetectMode</li> <li>swL2LoopDetectTrapMode</li> </ul> </li> <li>swL2LoopDetectPortMgmt                 <ul style="list-style-type: none"> <li>swL2LoopDetectPortTable                     <ul style="list-style-type: none"> <li>swL2LoopDetectPortEntry                             <ul style="list-style-type: none"> <li>swL2LoopDetectPortIndex</li> <li>swL2LoopDetectPortState</li> <li><b>swL2LoopDetectPortLoopVLA</b></li> <li>swL2LoopDetectPortLoopStat</li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul> | <p>Object name: swL2LoopDetectPortLoopVLAN<br/>                 Object ID: 1.3.6.1.4.1.171.11.70.3.2.18.2.1.1.3<br/>                 Module: DGS3450-L2MGMT-MIB</p> <p>Base syntax: Octet String<br/>                 Composed syntax: DisplayString<br/>                 Access: Read-Only<br/>                 Status: Current<br/>                 Value list: 1 : 0..255</p> <p>Parent node: swL2LoopDetectPortEntry<br/>                 First child: None<br/>                 Description: This object indicates the VLAN list that has detected a loopback.</p>  |

## D-Link Switch: DGS-3450

The screenshot displays a network management interface for a D-Link DGS-3450 switch. On the left, a tree view shows the configuration hierarchy. The selected object is `swL2LoopDetectPortLoopStat`, which is a child of `swL2LoopDetectPortEntry`, `swL2LoopDetectPortTable`, `swL2LoopDetectPortMgmt`, and `swL2LoopDetectCtrl`. The right pane provides detailed information for this object.

|                 |   |
|-----------------|---|
| Object name     | swL2LoopDetectPortLoopStatus                                |
| Object ID       | 1.3.6.1.4.1.171.11.70.3.2.18.2.1.1.4                        |
| Module          | DGS3450-L2MGMT-HIB  |
| Base syntax     | Integer   |
| Composed syntax | INTEGER   |
| Access          | Read-Only   |
| Status          | Current   |
| Value list      | 1 : normal(1)<br>2 : loop(2)<br>3 : error(3)<br>4 : none(4) |
| Parent node     | swL2LoopDetectPortEntry                                     |
| First child     | None  |
| Description     | This object indicates the port status.                      |

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