

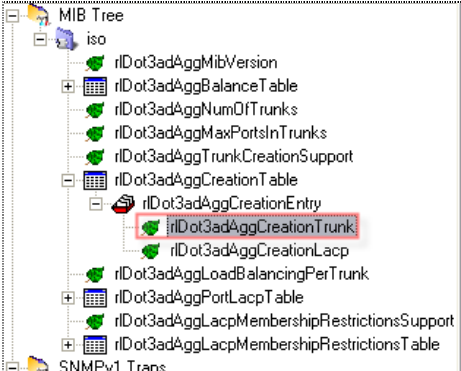
How to use SNMP to set LACP on DGS-3100

DLINK-3100-trunk-mib.mib &
IEEE8023-LAG-MIB

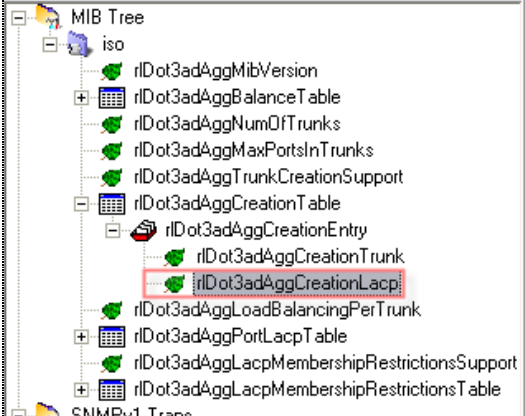
1) Create link aggregation group ::

DLINK-3100-trunk-mib.mib -> rIDot3adAggCreationTable:

1.1) rIDot3adAggCreationTrun

	Object name	rIDot3adAggCreationTrunk
	Object ID	1.3.6.1.4.1.171.10.94.89.89.65.6.1.1
	Module	DLINK-3100-TRUNK-MIB
	Base syntax	Integer
	Composed syntax	TruthValue
	Access	Read-Write
	Status	Current
	Value list	1 : true(1) 2 : false(2)
	Parent node	rIDot3adAggCreationEntry
	First child	None
	Description	The aggregator can aggregate ports in manual configuration.

1.2) rIDot3adAggCreationLacp

	Object name	rIDot3adAggCreationLacp
	Object ID	1.3.6.1.4.1.171.10.94.89.89.65.6.1.2
	Module	DLINK-3100-TRUNK-MIB
	Base syntax	Integer
	Composed syntax	TruthValue
	Access	Read-Write
	Status	Current
	Value list	1 : true(1) 2 : false(2)
	Parent node	rIDot3adAggCreationEntry
	First child	None
	Description	The aggregator can aggregate ports by lacp.

● CLI:

- create link_aggregation group_id **1** type **static**
- create link_aggregation group_id **2** type **lacp**
- delete link_aggregation group_id **1**
- delete link_aggregation group_id **2**

● SNMP:

- snmpset -v2c -c private 10.90.90.90 1.3.6.1.4.1.171.10.94.89.89.65.6.1.1.**301** i **1**
- snmpset -v2c -c private 10.90.90.90 1.3.6.1.4.1.171.10.94.89.89.65.6.1.2.**302** i **1**
- snmpset -v2c -c private 10.90.90.90 1.3.6.1.4.1.171.10.94.89.89.65.6.1.1.**301** i **2**
- snmpset -v2c -c private 10.90.90.90 1.3.6.1.4.1.171.10.94.89.89.65.6.1.2.**302** i **2**

(**301** = group id 1, **302** = group id 2...etc;

...6.1.1= **Trunk (static)** mode; ...6.1.2 = **lacp** mode;

i **1** = true, i **2** = false)



1.create_delete_trunk
_lacp_group.pcap

2) Add ports into link aggregation group:: IEEE8023-LAG-MIB -> dot3adAggPortTable

2.1) dot3adAggPortActorAdminKey:

Object name	dot3adAggPortActorAdminKey
Object ID	1.2.840.10006.300.43.1.2.1.1.4
Module	IEEE8023-LAG-MIB
Base syntax	Integer
Composed syntax	LacpKey
Access	Read-Write
Status	Current
Value list	1 : 0..65535
Parent node	dot3adAggPortEntry
First child	None
Description	The current administrative value of the Key for the Aggregation Port. This is a 16-bit read-write value. The meaning of particular Key values is of local significance.

2.2) dot3adAggPortActorAdminState:

Object name	dot3adAggPortActorAdminState
Object ID	1.2.840.10006.300.43.1.2.1.1.20
Module	IEEE8023-LAG-MIB
Base syntax	Integer
Composed syntax	LacpState
Access	Read-Write
Status	Current
Parent node	dot3adAggPortEntry
First child	None
Description	A string of 8 bits, corresponding to the administrative values of Actor_State (43.4.2 [Part 3]) as transmitted by the Actor in LACPDUs. The first bit corresponds to bit 0 of Actor_State (LACP_Activity), the second bit corresponds to bit 1 (LACP_Timeout), the third bit corresponds to bit 2 (Aggregation), the fourth bit corresponds to bit 3 (Synchronization), the fifth bit corresponds to bit 4 (Collecting), the sixth bit corresponds to bit 5 (Distributing), the seventh bit corresponds to bit 6 (Defaulted), and the eighth bit corresponds to bit 7 (Expired). These values allow administrative control over the values of LACP_Activity, LACP_Timeout and Aggregation. This attribute value is read-write.

- CLI:

- config link_aggregation group_id 1 ports 1-2 state enable
- config link_aggregation group_id 2 ports 3-4 state enable

- SNMP:

- snmpset -v2c -c private 10.90.90.90 1.2.840.10006.300.43.1.2.1.1.4.1 i 301
snmpset -v2c -c private 10.90.90.90 1.2.840.10006.300.43.1.2.1.1.4.2 i 301
(1 = port 1, 2 = port 2;
301 = group id 1 (we set this group to trunk mode))

- snmpset -v2c -c private 10.90.90.90 1.2.840.10006.300.43.1.2.1.1.4.3 i 302
1.2.840.10006.300.43.1.2.1.1.20.3 x A200
snmpset -v2c -c private 10.90.90.90 1.2.840.10006.300.43.1.2.1.1.4.4 i 302
1.2.840.10006.300.43.1.2.1.1.20.4 x A200
(3 = port 3, 4 = port 4;
302 = group id 2 (we set this group to lacp mode)
A200 = when your group mode is lacp, you need to set this hex string)



2.add_lacp_ports.pcap

3) Select link aggregation algorithm::

DLINK-3100-TRUNK-MIB -> rIDot3adAggBalanceLayer

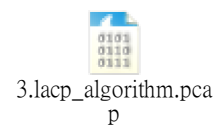
3.1) rIDot3adAggBalanceLayer:

The screenshot shows a MIB Tree on the left and a detailed view of the rIDot3adAggBalanceLayer object on the right. The MIB Tree is expanded to show the hierarchy: iso > rIDot3adAggMibVersion > rIDot3adAggBalanceTable > rIDot3adAggBalanceEntry > rIDot3adAggBalanceLayer. The Object Properties pane on the right contains the following information:

Object name	rIDot3adAggBalanceLayer
Object ID	1.3.6.1.4.1.171.10.94.89.89.65.2.1.2
Module	DLINK-3100-TRUNK-MIB
Base syntax	Integer
Composed syntax	INTEGER
Access	Read-Write
Status	Current
Parent node	rIDot3adAggBalanceEntry
First child	None
Description	A Network Layer Number, may have the following values: 2, 3 or 4. The default value is: Bridging: 2 Routing: 3.

● CLI:

- config link_aggregation algorithm **mac_source_dest**
- config link_aggregation algorithm **ip_source_dest**
- config link_aggregation algorithm **both_ip_mac_source_dest**



● SNMP:

- snmpset -v2c -c private 10.90.90.90 1.3.6.1.4.1.171.10.94.89.89.65.2.1.2.301.1 i **2**
- snmpset -v2c -c private 10.90.90.90 1.3.6.1.4.1.171.10.94.89.89.65.2.1.2.301.1 i **3**
- snmpset -v2c -c private 10.90.90.90 1.3.6.1.4.1.171.10.94.89.89.65.2.1.2.301.1 i **4**