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How to Configure LAG

This document describes how to configure Link Aggregation (LAG) between two NETGEAR managed switches. LAG is sometimes referred to as a port channel or a trunk (please note that a trunk in the Link Aggregation sense is not to be confused with a trunk in terms of passing multiple VLAN traffic over a single link).

LAG allows a switch to treat multiple physical links between two end-points as a single logical link. All of the physical links in a LAG **must** operate in full-duplex mode at the same speed.

LAG improves the bandwidth between two end-points and adds redundancy.

In this example we will configure a LAG between the following switches:

- FSM7328PS (Switch 1)
- FSM7328S (Switch 2)

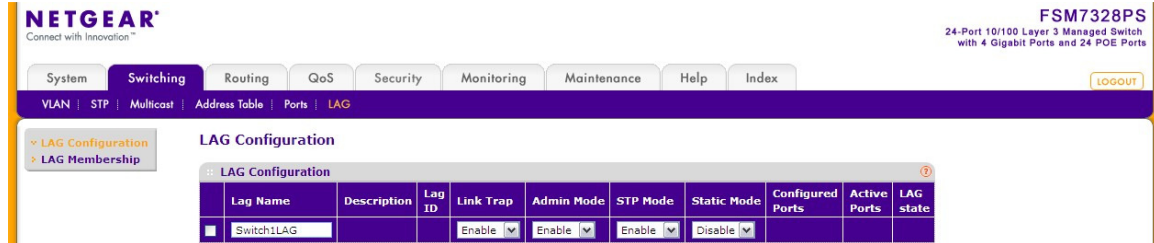We will use 2 gigabit ports - ports 25 and 26 on each switch.

It is best not to connect the links between the LAG ports on each switch until the configuration has been applied on each switch. This is to prevent a loop (unless of course spanning tree protocol is being used).

1. Create the LAG on Switch 1

All of the below configuration is done under Switching -> LAG.

1.1
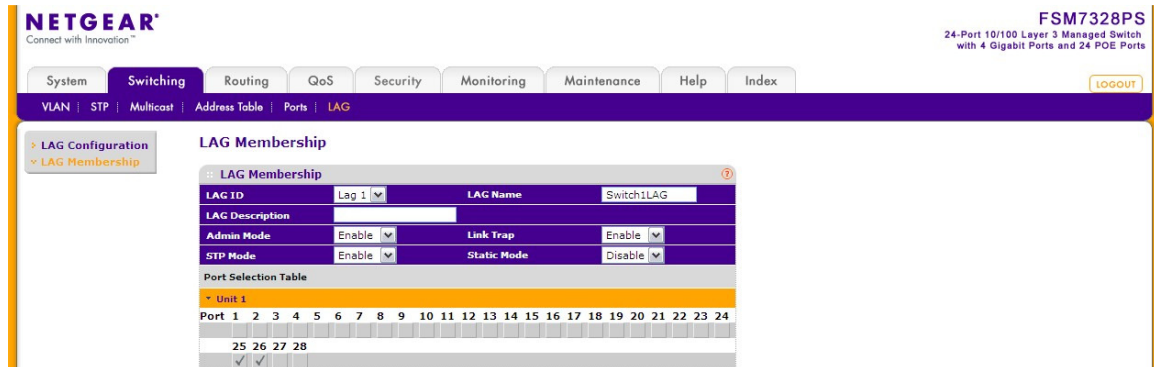
- Under LAG Configuration, add a LAG as shown above.
- Set Link Trap, STP Mode and Static Mode to Enable or Disable as required.
- If Link Trap is set to Enable, then a trap will be sent if the LAG link state changes.
- STP Mode indicates whether or not spanning tree is enabled on the LAG or not.
- Static Mode indicates whether or not LACP is used, i.e. Static Mode set to Disable means LACP is used.
- Press Add.

1.2

- Under LAG Membership, add the ports that are to be included in the LAG (maximum of eight).
- Expand the ports in the switch by clicking on Unit 1
- Check ports 25 and 26
- Press Apply

1.3

- Click back to LAG Configuration to see a summary of the LAG on Switch 1.

2. Create the LAG on Switch 2

All of the below configuration is done under Switching -> LAG.

2.1

- Under LAG Configuration, add a LAG as shown above.

2.2

- Under LAG Membership, add the ports that are to be included in the LAG (maximum of eight).
- Expand the ports in the switch by clicking on Unit 1
- Check ports 25 and 26
- Press Apply

2.3

- Click back to LAG Configuration to see a summary of the LAG on Switch 2.
- Next, remember to save your configuration by going to Maintenance -> Save Config.

3. Connect the LAG links between the switches

Connect ports 25 and 26 on switch 1 to ports 25 and 26 on switch 2.

3.1

- Once the links between the LAGs on each switch are connected, LAG State will be defined as Link Up under LAG Configuration.

3.2

- LAG State showing as Link Up on Switch 2.

4. Note with regard to LAG and VLANs

When you need to use VLANs together with LAGs, it is important to note that the member ports of a LAG should be removed from the VLAN(s) and then the LAG *itself* added to the VLAN(s) as required.