## AF1G40AC

Overview:

In traditional data center applications, devices are used to sample network traffic. As traffic increases, there is a growing requirement for extended performance monitoring.

The Advanced Features provides a flexible packet time-stamping function. The timestamp function is set up to insert a new 30 byte Layer 2 header before the original DMAC address. The Time Stamp Layer 2 header is defined as follows:
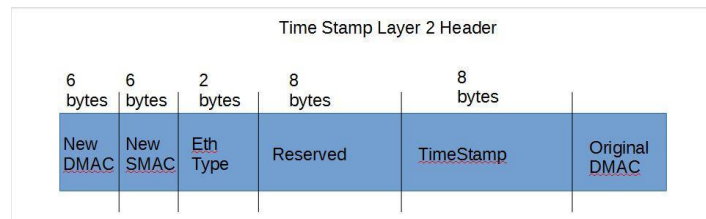
The time stamping is performed before the packet enters the switching chip. This function supports the standard Time of Day format and is accurate down to 8 nanosecond resolution. Software can distinguish these packets by the new EthType that has been added into the packet. The Time Stamp EthType is defined as 0xff12.

Note: When Layer 3 routing or filtering is to be performed, the additional Time Stamp header needs to be removed.

Garland Technology has produced a Wireshark plugin that will capture and display these packets as shown below.

1. Enable Time Stamp

1. Select Tap Management.

2. Select Tap Group Table.

3. Select Timestamp.

   The Timestamp over Ethernet panel will appear.

4. Enable Timestamp.

5. Enter the Dst-mac for the new Time Stamp L2 segment.

6. Enter the Src-mac for the new Time Stamp L2 segment.

7. Enter the Ether Type for the new Time Stamp L2 segment, (0xff12)

8) Select OK.

2. Apply Time Stamp to an Egress Port

The option to apply time stamping may be made to individual egress ports as Tap Groups are created. Timestamping is never applied to an ingress port.

Create a Tap Group with Timestamp.

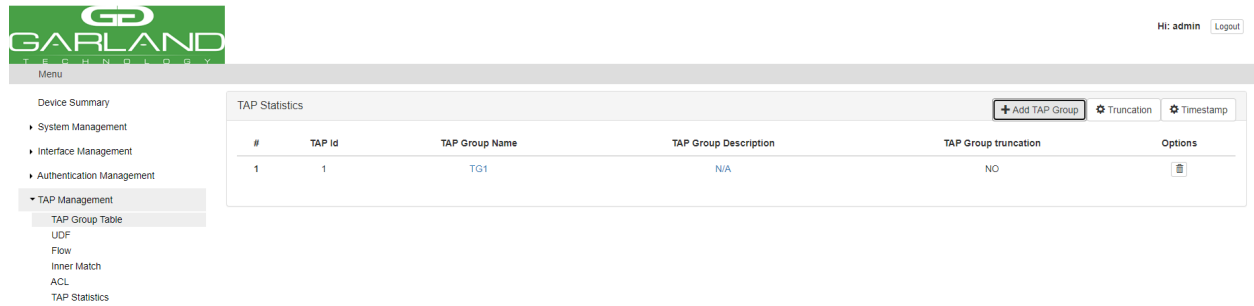The Tap Group defines the ingress port, ingress flow, and egress port with timestamp.
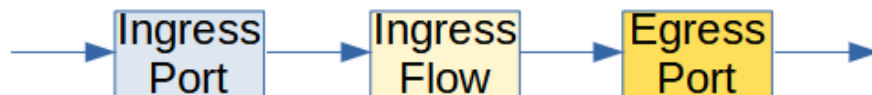
1. Select Tap Management.

2. Select TAP Group Table.

3. Select + Add TAP Group.
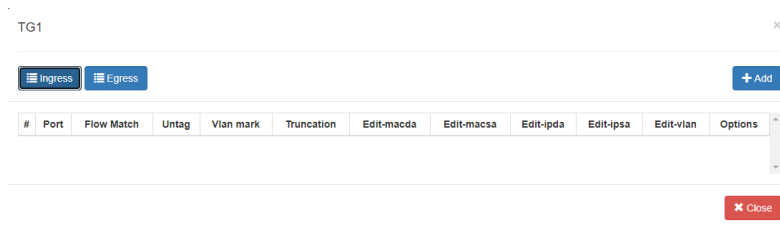
The TAP Group Name panel will appear.

4. Enter the TAP Group Name.

5. Select OK.
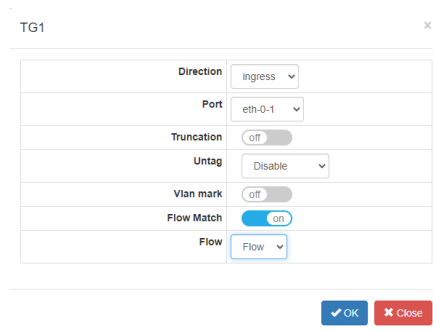
The Tap Group will be displayed.

6. Place the cursor on the tap group name under the TAP Group Name column and press the left mouse button.

> The TAP group panel will appear.

7. Select the + Add to define the ingress port and ingress flow.
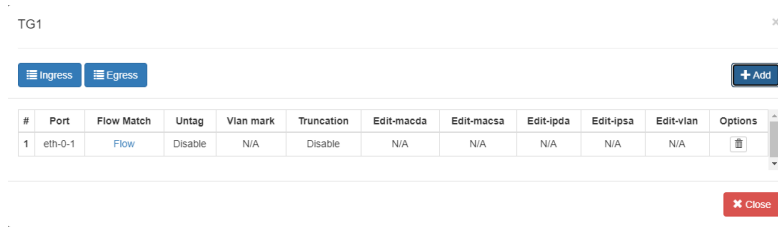
> The add panel will appear.

8. Select the Direction, ingress.

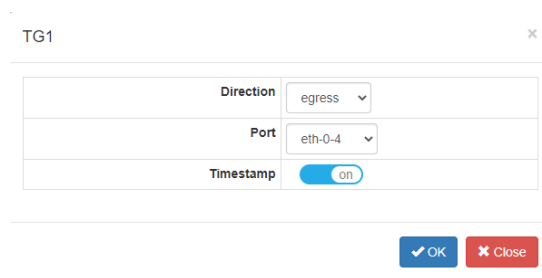9. Select the desired ingress port.

10. Enable Flow Match.

11. Select the desired flow.

12. Select OK.

13. Select the + Add to define the egress port with Timestamp.
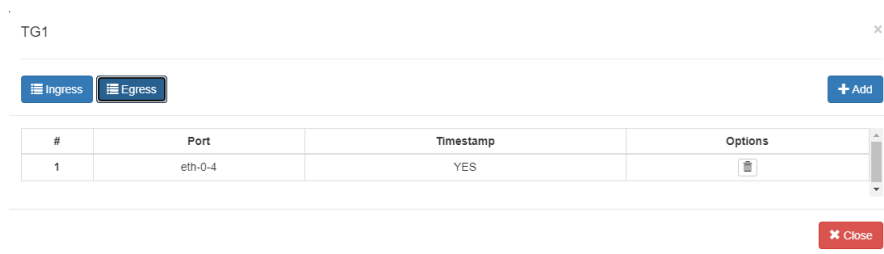
The add panel will appear.

14. Select the Direction, egress.

15. Select the desired egress port.

16. Enable Timestamp.

17. Select OK.

18. The ingress port, ingress flow, and egress port may be displayed by selecting Ingress or Egress. Additional ingress ports, ingress flows, or egress ports with Time-Stamp may be added to the Tap Group using the same steps.

19. Select Close to return the TAP Group Table display.