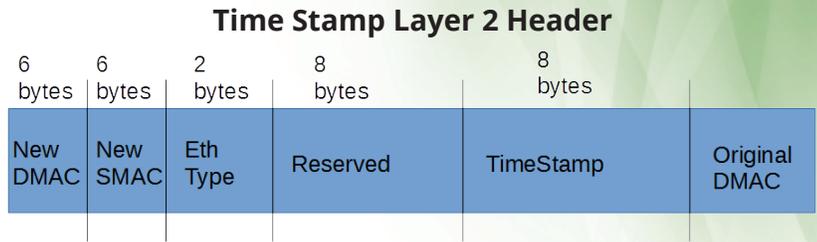


PB100G24AC Time Stamping

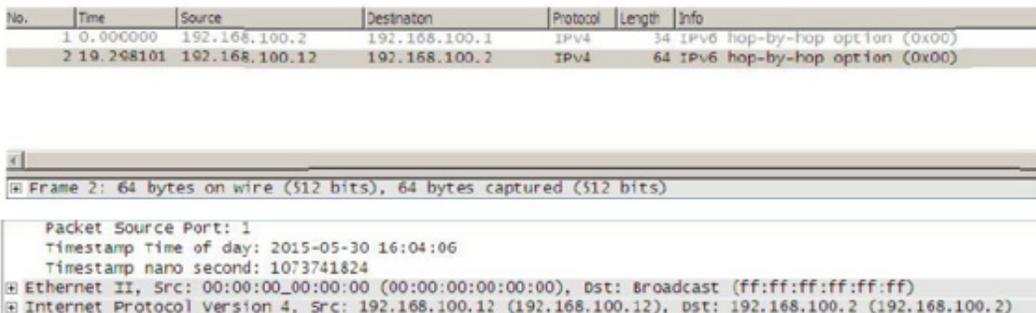
In traditional data center applications, TAP devices are used to sample network traffic. As traffic increases, there is a growing requirement for extended performance monitoring.

The PB100G24AC provides a flexible packet time stamping function. The time stamp function is set up to insert a new 30 byte Layer 2 header before the original DestMAC address. The time stamp Layer 2 header is defined (right) 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 nano-second 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. Contact Garland Technology for a Wireshark plugin that will capture and display these packets.



Setting up the PB100G24AC to Time Stamp packets:

1) Configure the new MAC addresses and the new EthType:
Switch(config)# timestamp-over-ether x.x.x y.y.y 0xff12 (where x.x.x is the new DMAC, and y.y.y is the new SMAC)

2) Configure a time stamp group:
Switch(config)# tap-group tap_test_ts

3) Configure the ingress/egress ports:
Switch(config)# ingress eth-0-1
Switch(config)# egress eth-0-2 timestamp

4) Use the show tap-group command to verify time stamping is enabled:
Switch(config)# show tap-group

TAP-group	ingress	filename	mark-src	egress
tap_test_ts	eth-0-1		eth-0-2[TS]	

5) Use Wireshark and the plugin to parse and display the new time stamped packets.