

# Case Study

Industry: Healthcare

## Cardiology practice

Major challenge: Diagnosing the problem in a \$2 million imaging system



### The background

Doctors at a large cardiology practice use state-of-the-art nuclear imaging devices to capture high-res images of their patients' hearts for analysis and diagnosis. The images are sent to a picture archiving and communication system (PACS)—a combination of hardware and software used to store, share, and view the images at a workstation. The cardiologists were frustrated that the \$2 million imaging system they had just purchased was losing information and transferring images so slowly that diagnoses were delayed.

### One last chance

The doctors contacted the manufacturer of the imaging system and told the company to take back the equipment. After a lengthy discussion, the manufacturer was granted one final chance to determine what the problem was and correct it.

The manufacturer knew it could count on the LanScope to verify the cardiology practice network's viability—and it hoped save the deal.

### LanScope finds the problem

The LanScope was installed between the processing station and the network. It immediately found a 10-Mbps half-duplex hub—outdated and hidden behind a PC—in the data path that was causing a bottleneck in the data connection. The LanScope also determined that data loss accounted for approximately 1% of all traffic.

After removing the 10-Mbps half-duplex hub, data loss dropped to zero. The practice's network manager replaced the hub with a 100-Mbps full-duplex switch.

With this problem solved, the LanScope also determined that the network could support speeds up to 1G. Using the LanScope's Traffic Generator feature, 43,218 data bytes were sent to the PACS server with no data loss and an average round-trip time of 136  $\mu$ s. It did not detect any issues with file transfers from the manufacturer's equipment to the PACS.

The LanScope not only saved a \$2 million account and hours of labor, it also helped to reaffirm an important business relationship.



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