ETHERNET FOR SHIP ENGINE MONITORING SYSTEMS

The most important system on a ship is the engine system. If the engine system is damaged or does not operate correctly, the ship could pose a serious danger to itself or other ocean-going vessels. For example, the ship could drift far off course, or even run aground on a reef. The type of engine used most often for ships are Diesel engines. Diesel engines provide higher horsepower, yet are easy to maintain, and save on fuel. Some of the important parts of a diesel engine system are the lube system, water-cooled system, gears, transmission system, and propeller system.

In order to ensure that the engine system works properly, the ship's mechanic must keep track of many different items, such as the temperature of the engine, input/output pressure, tachometer, output horsepower, knots, etc. All of this information must be sent to the control center for the commander or operator to control and monitor the system.

THE SOLUTION

Many types of devices are available to help the commander or operator collect information about the condition of the engine. The controller, sensors, transmitter, and signal generator are usually attached to the key parts of the engine to monitor the status of the engine. These devices collect different types of information and transmit the data via an RS-232/485 interface. The serial signal is then transferred to the Ethernet network via a serial-to-Ethernet device server. In this way, all of the information about the engine's status can be transmitted via Ethernet to the control center to be used for control, monitoring, and further analysis.

When monitoring devices detect abnormal conditions, a preset alarm is triggered to notify the administrator or operator. At the same time, detailed information is transmitted to the control center via the Ethernet network. By connecting monitoring devices to the Ethernet network, engine information can be transmitted directly to the control center. In this way, fewer crew members are required to monitor the ship's engine, and the overall monitoring and maintenance procedure is more efficient.
WHY AMPLICON

With 40 years experience in supplying high end solutions and many similar projects already completed Amplicon were first choice to supply hardware for this high profile project.

If you would like more information please contact our industrial computing sales engineers on 01273 570 220 or email sales@amplicon.com.