Company's local area network

Business

Problem: The production of the company is lower than desired because the manufacturing system is running slow. Upon investigation, it was found out that a problem in the network communication between the control room and the equipment is to be blamed. The network should be analyzed fast in order to resume optimal production.

Solution:

When the network is slow, it is not uncommon to blame it on the health of the software (IBM, 2009). Malware infection on the programmable logic controllers should first be checked. If there is also enough resources and time, it would be better to revise the existing control system by making the program sensitive enough to all possible scenarios but simple enough as to not take too much time on processing (Siemens, 2009). But it is good to know that a simple cleaning of one's computer can go a long way.

But that's not always the case. A company's network's speed related problems are caused by a lot of factors. It is also very important to consider the hardware or the topology of the network: efficiency of use, expandability and medium used.

The topology, or the way in which the stations attached to the network are interconnected (Stallings, 2007). The choice of topology of the company is crucial when starting the network. But in this case, the one troubleshooting should work around the pre existing topology and try to improve it. Cable could be re-routed to make the network simpler by using shorter paths from production control to manufacturing.

In even more severe situations, a hardware overhaul is necessary. The processing capability of the controllers may be slower than what is required for the desirable production. The cable may not be able to handle the

desirable data rates (Tomasi, 2004). Sensors and motors may not be able to respond as fast as they should.

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