



Computer awareness project

Designing a network

Your brief is to design a network that incorporates appropriate peripheral devices to improve the following information processing cycle.

Willbuild Industries is a small carpentry business that constructs cabinetry for retail use in large department stores and chemists.

Willbuild have three office staff who are responsible for controlling orders, invoicing customers, receiving payments, ordering stock, paying suppliers, paying staff, creating reports and creating advertising material, etc. An accounting package on one computer is used to process invoices and receive payments. All staff members are involved in the accounting transactions, so a lot of time is wasted waiting for a turn on the computer. The other computer is used for generating cabinet designs and advertising material. It has a colour laser printer connected to it, so if a draft of an advertising piece is required, the file is copied onto the disk and taken to the other computer, which has a black-and-white printer attached.

Office staff members enter orders received from customers into a template on their office computer, then print it out and take it downstairs to the building supervisor who puts it in an order book. (Orders sometimes get lost and so production is held up.) When the order is complete, the supervisor signs it off, removes it from the order book and returns it to the office for invoicing and delivery. This is time-consuming for both the supervisor and the office staff.



Module 1 Computer awareness

Collecting the data

Who should be consulted in creating a solution? What data do you have? What else do you need?

Defining the solution

Decompose, or break the problem down into chunks.

- > Draw a diagram of the network depicting each floor of the factory side by side.
- > Describe how the office staff and building supervisor will use the network to achieve their goals.
- > What new equipment will need to be purchased?
- > Which network topology would be preferable here and why?
- > Why will the network be useful?
- > What are the benefits to the organisation?
- > How can the data on the network be protected?



Module 1 Computer awareness

Implementing

How does your solution fit with the steps in the information processing cycle?

Evaluating, collaborating and managing

- 1 Look at the result of your work. Has it worked as you had planned? Can you improve it in any way?

- 2 Ask your friends and classmates to look at your network design and provide you with feedback
