BUSINESS COMPUTING

REPORT RE UPGRADING HARDWARE AT CRAVEN PLC

Introduction

The need for computerisation in a business like Craven Plc should be one of the primary business objectives. In order to stay one step ahead of the competition, a fully automated computer system should be in operation. This will have major benefits to a small business like Craven Plc. In this report I will be identifying possible areas for computerisation, suggesting a possible hardware configuration, suggesting a suitable range of software that can be used, suggesting purchases that will be necessary for computerisation and stating their costs, and proposing a method of change over from manual to a new computerised system.

1 & 3)
Identification of possible areas for computerisation in the company and the range of Software available

Craven Plc will benefit from changing administration and secretarial procedures which are processed manually to computerised methods. The range of software packages stated bellow will help perform the tasks described, these include:

Microsoft Word: The use of Microsoft word will enhance the standard of documents produced, compared to using typewriters and hand written methods. The use of Word processing will help the secretarial department increase efficiency and productivity within the company, as it saves time compared to using manual methods. Word processing also makes documents look more professional.

Microsoft Excel: The use of spreadsheets will be used to produce accounts and tabulated numerical information of all types to illustrate points. This will be used within secretarial and administrational departments.

Microsoft PowerPoint: This is useful to senior management for presentation purposes. This will generate a professional look to any information shown to potential customers and investors.

Microsoft Access: The use of databases is the modern way of keeping up to date records of employee details. This is an efficient and effective way of storing information which can be accessed quickly and easily.

Microsoft Outlook express: This enables employees to send and receive e-mails over a wide area network via a modem. This will make more effective use of time compared to postal mail.

Video Conferencing: If Craven Plc is serious about breaking into European markets video conferencing is the answer. This enables all employees to attend meetings and seminars from the comfort of their office. Web trains video conferencing package is great for rapidly growing businesses like Craven Plc.

Internet and website construction: The use of the internet will open up vast amounts of information for management, administrational and marketing departments within the firm. A website will increase the profile of the firm and could increase sales. It will also enable Craven Plc to access and take advantage of European markets and worldwide markets.

Sage Software: This is a powerful integrated modular accounting software package for use in the financial department. This computerises the whole financial area from its current paper based system. I advise sage accounting to make this area more efficient.

2) Hardware Configuration

The choices available:

There are many hardware components available to Craven Plc. Here is a list of hardware components that I recommend for Craven Plc and a brief description of their basic function.

Input devices:

Computer Keyboard: Used for entering alphanumeric information. The keyboard is also used for entering commands to various operation systems such as MS-DOS.

Mouse: A small handed device which the user can move on a flat surface to direct a pointer on the computer screen. The mouse has two or more buttons and incorporates a ball which makes contact with the flat surface. It works in conjunction with software devices. A new type of mouse has now been developed using infer red signals to transfer signals to the computer.

Touch sensitive screen: Uses a touch sensitive display to read position of the fingertip

Document Readers

Scanners: This allows whole documents to be scanned optically and converted into digital images. Can be hand held or flat bed. New software can process handwriting images.

Output devices:

Printers:

Dot matrix printers: Characters can be formed from a matrix of dots and the density of dots of the matrix largely determines the quality of the print. Because the intensity of the individual pins of dot matrix printers can usually be controlled by software, such printers are capable of producing graphical images as well as text.

Ink Jet printers: These printers spray high speed streams of ink droplets from individual nozzles in the print head onto the paper. Printing quality is very high but slow. Ink jet printers provide a cheaper alternative to laser printers.

Laser printers: Uses lasers to represent each dot of the print. A microprocessor inside the printer converts the image, line by line, into a sequence of signals which switch a laser beam on and off. Laser printers are the most expensive type of printer but offer greater quality and speed.

To summarise, generally microcomputers are associated with small, low speed character printers. In recent years small printers such as ink jet, and dot matrix printers have become more sophisticated therefore for a firm like Craven Plc these small printers will be suitable to perform a range of tasks within the company.

Plotters: A device designed to produce charts, drawings, maps and other forms of graphical information on paper. The images can be produced by pens, electro-statically, or ink jets.

Storage Methods

There are two different forms of storage available these are main storage and backing storage.

Main Storage: This consists of the Hard disk drive (HDD) and the floppy disk drive. These are storage facilities present within the computer. Information can be saved onto the HDD ready to be opened at some future date. Application software packages and programmes are also stored on the hard disk. The average PC will have an internal HDD of at least 6Gb. The floppy disk drive is another type of main storage. It uses floppy disks to store information in a similar way to a hard drive.

Backing Storage: The performance of a computer system can be improved by the addition of more memory. If there is too little memory then more frequent access to the hard disk is required and this will slow down the overall system performance. Therefore many computer applications require quick, direct access to individual records within a file. For this reason, we need backing storage. Backing storage comes in various forms for example compact disks and floppy disks. Backing storage is a portable and convenient way of saving information. To reduce the risk of data loss it is wise to save information on the computers hard drive and make a copy onto a disk or another type of backing storage for insurance purposes.

Types of backing storage:

- **Floppy disks**: The most common storage device available, these provide extremely cheap storage and have a capacity of 1.5 Mb.
- **Compact Disk (CD-ROM)**: These have been used for some years as storage devices for computer software. It only accesses information which is already stored on it and is able to store 650 Mb of information.
- **Zip Drives**: A storage device that has become popular over the last few years because it offers the convenience and portability of a floppy disk, combined with a 100 Mb capacity.
- **CD-R and CD-RW**:The difference being that CD-R disks can only have data saved to them once, While CD-RW can be used in the same manner as other storage devices having data saved to them on a re-usable basis.
- **DVD (digital versatile disc)** using the same basic principles as the CD, DVD packs the data more densely and can store 4.7Gb compared with the CD's 650Mg, can hold 133 minutes of video, with Dolby surround sound.
- **Data pens**: A new storage device that plugs into the computers USP drive. These are small and compact and have a capacity of 80Mb.
- **Magnetic Tape**: Convenient and cheap medium for backing up hard disks onto computers. Mostly used for mainframe computers for storing information for a long duration. Magnetic tapes will not be suitable for a small company like Craven Plc.

Data Protection: Craven Plc must comply with the data protection act in order to hold personal information of customers. The data protection act works in two ways. It gives you certain rights. It also says those who record and use personal information must be open about how the information is used and must follow the eight principles for good handling. The eight principles were put in place to make sure that your information is handled properly. They say that data must be:

1. Fairly and lawfully processed.
2. Processed for limited purposes.
3. Adequate, relevant and not excessive.
4. Accurate.
5. Not kept for longer than is necessary.
6. Processed in line with your rights.
7. Secure, and
8. Not transferred to countries without adequate protection.

Micro computers:

Micro computers include personal computers and laptop computers, they are usually equipped with hard disk, floppy disk drive, between 1 and 32 megabytes of memory, a keyboard and a VDU unit. Microcomputers will be suitable to fulfil the needs of Craven Plc.

Mainframe Computers:

These are large systems that can hold vast amounts of data. Mainframe computers occupy a whole floor of a fair sized building. These powerful mainframe computers are present in very large companies storing huge amounts of data on to disk. Mainframe computers cost tens of thousands of pounds, therefore they are not suitable for a small business like Craven Plc.

File Server:

This is a specially configured microcomputer to control the exchange of files between network users. A file server also has more memory and disk storage than normal microcomputers.

These classifications of computers are usually based on physical size, speed, processing capabilities, memory size, disc storage, capacities and cost.

Direct and Sequential Access:

Direct access devices can go directly to the file or record. For example a CD can go directly to track number 10. Sequential access devices have to run through the file sequentially, for instance, if we want track 10 on a cassette, The cassette moves from the beginning from track 1 to 9 until it comes to track 10.

4) Proposed purchases and prices of equipment

2x Sony Intel 2.6GHZ DVD CDRW Laptop • 256Mb RAM, 40Gb Hard Drive • DVD/CDRW Drive • 15 inch TPT screen	£899 each = £1798
4x Packard Bell 6111 Intel Pentium 42.8GHZ processor and 15'' TFT monitor • Intel P4 2.8 GHz processor • 512 Mb RAM • 160 GHb Hard Drive	£1199 each =£4796
4x PacKard Bell 5050 and Xp2600+ PC and 17'' CRT monitor • Athlon Xp 2600 & processor • 256Mb RAM • 60 Gb hard Drive	£549 each =£2196
4x Hewlet Packard DJ 9300 A3 Desktop printer	£279 each =£1116
3x Hewlet Packard scanner	£99 each =£396
Network- Windows 2000 professional	£3449
Web Designer	Approx 3000to4000
Training costs	£2000
Specialist soft ware – Sage Accounts	£2000
Web Train Video Conferencing	£1000
Total cost	£22751

5) Proposed method of change over from manual to the new computerised systems

Before the change over can take place an extensive training programme needs to take place. This may take several months to train the current workforce in the correct operating procedures of the new system. To ensure information will not be lost in transition the old manual method needs to be in place for the first 2 months along side the new computerised system. In the unlikely case of system collapse information and data will still be on hand. This change over will inevitably endure a small cost of training and staff development.

6) Procedure to transfer the payroll from the old to the new system

Payroll is something Craven Plc cannot afford to get wrong. Therefore manual systems need to be in place for 3-4 months along side the new computerised sage accounts system. This will again ensure against loss of data.