

## Mobile computing

### **What it is and what it can do**

Mobile computing allows you to take many of the facilities you have in the office out on the road with you. Mobile computers come in two main types – portable (or laptop) PCs and personal digital assistants (or palmtops).



Laptop PC

A laptop PC is, typically, about the size of an A4 folder and can range in thickness from about 2 – 5cm. They work off batteries, for a few hours, or a mains supply and normally contain all of the features of a normal PC. Laptop PCs do not have quite the same power as normal desktop PCs, in terms of processor power or storage capacity, but are by no means underpowered. The cost of a laptop PC is generally about 50% more than the cost of an equivalent desktop PC. Laptop PCs run the normal operating systems and applications that are available on desktop PCs. Portable versions of the Apple Mac are also available.

A laptop PC gives workers the freedom to carry out almost all of their tasks in almost any location. They can also connect to their company's network for file sharing by using a modem or (more slowly) via a mobile phone. This gives great flexibility in where and when work is carried out, as well as allowing complex tasks to be carried out off-site (for example, at a customer's premises). Secure communications with a company's network can be set up by using a VPN (Virtual Private Network) over the Internet from a laptop (or PDA) to the company's network.

For some purposes, a laptop PC is too bulky. Even the lightest models weigh about 1.5kg and 3kg is a more typical weight. A smaller class of mobile computers, known as PDAs (or Personal Digital Assistants) is becoming increasingly popular. They are also known as handhelds or palm-tops or pocket PCs. Typical examples of PDAs are those made by Palm and by HP/Compaq. PDAs can weigh less than 200g and really can be carried in a pocket.



Tablet PDA

PDAs often run "cut-down" versions of the applications found on normal PCs and can thus carry out many of the functions of a conventional PC. PDAs do not generally have keyboards and are therefore less suited for typing in large amounts of material. PDAs are useful for carrying around contact details, sending and receiving e-mails and making working notes while away from the office. They are designed to synchronise the information they hold with a master copy held on a PC whenever they are connected to it. Some come with a special cradle which remains connected to the PC and automatically carries out this synchronisation whenever the PDA is put in the cradle.

### **Advantages and Disadvantages**

Mobile PCs, whether laptops or PDAs, make it possible to carry out many functions when away from the office. The cost of a laptop is significantly higher than that of a desktop PC. The functionality of a PDA is less than that of a PC, but it is much more portable.

The portability of laptops and PDAs makes them popular targets for theft. Sensitive information should not be stored on them unless it is encrypted. It is also wise to take precautions such as not leaving them unattended without being locked in place and not carrying them around in an obvious 'laptop' bag.

A final problem with portable PCs is battery life. Laptops will only work for a few hours without recharging so you always need to carry a mains adapter with you. PDAs will allow you to do at least a full day's work without recharging and some of them even use the conventional kind of batteries that you can buy in any supermarket.

### **What to buy**

Before buying a mobile PC, read the PC magazines that are available in your country for reviews of what is available. Many of these also have websites that contain archives of earlier reviews. Two useful English language sites are <http://www.pcpro.co.uk> and <http://www.zdnet.com>.

#### **Key messages for SMEs**

- Mobile computing can allow you to work away from the office, for example on a customer's site.
- Security is a key issue to bear in mind with portable computers.

Prices for mobile computing devices vary considerably, depending on what features they offer, the quality of the build and, to some extent, how fashionable they are. Lap-top PCs range in price from about €1000 to over €3000; PDAs cost from about €100 for a monochrome PDA up to about €900 for a model with a colour screen and wireless connectivity.

### ***Questions to ask suppliers***

- What software (if any) is included in the price of this portable computer?
- Will it run the same software as we use on our desktop machines?
- If not, what software will it run and how do I convert documents, spreadsheets presentations etc between the formats used by my desktop and portable devices?
- Can I use it to access the Internet and my e-mail service and, if so, do I need any additional cables or adapters?
- How do I synchronise data held on this computer with that on my desktop computer?
- How big/heavy is it?
- How long will it run before the battery needs to be recharged?
- Do you offer a maintenance service?