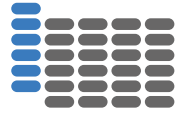


Setting up a basic IT system



Berg Kaprow Lewis

Every business should specify and source an IT solution which meets its immediate requirements, but which can also act as a base for expansion as the business grows.

This briefing covers:

- Basic requirements.
- Using software.
- Networking.
- Security.
- Budgeting and buying.

1 Basic requirements

1.1 Consider how many **telephone lines** or **extensions** you need.

- Make sure you will be able to add lines or extensions later if necessary.
- Shop around to take advantage of competition in the telecoms market. You may be able to save money on calls.
- If you want to use the Internet, ask your telecoms supplier if they have a special price for businesses which take both phone service and Internet connections.
- If Internet-access speed is important, consider a fast broadband connection. Also consider how many people require Internet access and how heavy their use will be.

See **Telecoms** for competitive advantage.

1.2 **Faxes** can be vital for firms dealing with business customers.

- Most fax machines can be used for occasional photocopying.
- Cheaper fax machines generally use

thermal paper, which can fade over time. Plain-paper fax machines are better if you need to store faxes for some time. Plain paper is also cheaper than thermal paper.

1.3 If you need more than occasional **copying**, consider leasing or buying a copier.

- Most businesses lease: maintenance charges are from around 1p to 2p a copy depending on machine size.
- Ask for confirmation of the number of copies a month the copier is designed to handle, and its expected lifespan.
- Check leasing arrangements carefully to avoid hidden costs.

1.4 For most businesses, **PCs** are the central part of an IT system.

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- Examine objectively how your business operates and see which functions could be more effectively carried out using a PC. IT consultants can help if you are unsure.

1.5 The greater the use of your IT system, the greater the impact if something goes wrong with it. Carefully consider **security and support** (see **6**).

1.6 The **printer** you choose should be determined by the quality, speed and versatility you require.

- If working on your own, consider a multifunction device, which combines faxing, copying and printing functions.
- Inkjet printers are cost-effective for occasional printing. As the cost per page can be high, they are not suitable for more than 500 pages per month.
- Inkjets also offer the capability to produce short-run colour documents at an affordable cost.
- Small laser printers are suitable for black-and-white work in businesses with up to three people using them. They are designed for 500 to 5,000 pages a month.
- Heavy-duty laser printers are suitable for larger businesses.
See **Computer printers**.

2 Networks

2.1 If you work **on your own**, the only network you need consider is the connection between your PC, phone line (for Internet access), printer and possibly fax or copier.

- This should be easy to set up, as connectivity should be built into all the devices. Check this before buying.

2.2 If you have more than one computer you can consider linking them through a **peer-to-peer** network.

- Each user can access the other users' machines and external devices. This may slow down some machines at busy times.

2.3 If connecting your PCs is essential so you can share data with other users, you should build a network based around a **server**.

- The server is a dedicated computer that manages the network and stores software and users' files. It lets anyone on the network access other people's work when required (see **Network servers**).
- You must take preventive measures in

case the server fails. At the very least, the server's contents should be backed up regularly. Ideally, get a server that's built to continue functioning even if components fail, as well as backing up regularly.

- As your network grows, it will take more time to manage. For maximum efficiency, make one person responsible for your IT (see **Maintaining your IT system**).

3 Business benefits

With the right hardware and software, your IT can increase the efficiency of your business's internal operations. Always focus on what you want your IT to achieve for you, not just what hardware or software can do.

3.1 Email is a fast and inexpensive way of communicating with people including those in your business (see **Email**).

- Email is now at least as essential as post and fax, particularly for businesses selling to other businesses.

3.2 Word-processing software can help you to produce professional-looking documents and letters quickly and easily.

- Features such as automatic spell-checking can improve your accuracy and efficiency.

3.3 Accounting and payroll software can save time.

- Basic accounting software can simplify book-keeping and automate VAT returns and similar tasks.
- Payroll software makes paying staff easier, automating repetitive and sometimes difficult calculations.

See **Choosing accounting software**.

3.4 Stock-control software allows you to predict buying or manufacturing needs to help drive efficiency, which in turn can provide customer-service benefits.

3.5 The Internet is a great source of business and market information. You can research market trends, customers and competitors.

4 Connecting with customers

Effective use of IT can project a professional impression of your business to customers and help you manage your business relationships more quickly and effectively.

➔ See **Networks and communications, Finding information on the Internet, IT disaster prevention and Maintaining your IT system**.

“Don't assume that employees who have used computers before will automatically know how to use your system. Make sure they get adequate training on it.”
Ed Morgan, Interconnect Direct

- 4.1** Contact-management software or a simple database allows you to **record details** of customers and suppliers and your dealings with them.
- You can schedule sales activities and monitor progress.
- 4.2** For sales and marketing, a **database** lets you generate mailshots and monitor the effectiveness of marketing campaigns; software such as PowerPoint can produce impressive sales presentations (see **Marketing with your database**).
- 4.3** If you choose to have one, your **website** can range from providing simple information about your business through to full online ordering and tracking systems (see **Your website strategy**).
- It can keep existing customers up to date with what your business is doing, as well as providing a global shop window to your business for potential customers.
- 4.4** Communicating with customers via **email** is quick and efficient (see **Email**).
- Email marketing is cost-effective and easy to tailor for specific customers through your contact-management system.
- 4.5** It may be useful for customers and suppliers to have **access** to your IT system through an extranet.

Bells and whistles

IT systems are advancing all the time, with more features being added. It is easy to be attracted by the latest gizmo. But you should always buy what you need rather than what the sales person says you need.

For most business purposes you are unlikely to need features such as speakers, the capacity to play DVD movies, or advanced graphics or sound cards.

But always get as high a processor speed and as much RAM (random access memory) as your budget will allow.

Once your IT system is operational, don't upgrade software simply because a new version has been released. Establish whether the new features would benefit you. In any case, you will be better off waiting until any glitches have been ironed out.

- An extranet allows customers to view files by logging on to dedicated areas of the system, saving time and transport costs.

5 On the road

- 5.1** People who spend a lot of time out of the office should consider **portable** computers — from laptops to hand-held devices with more restricted functions. Laptops cost more than equivalent desktop PCs.

- 5.2** You can access your IT system while **off-premises** through an Internet connection.

You must take additional security precautions if you allow access to your network from outside your business (see **6**).

- Connecting directly to your server saves time as you work with the original file stored on the server, which means that there are not multiple copies of the same files held on different computers.

See **Mobile computing**.

6 Securing your data

The information you hold on your IT system is valuable, and holding business information on a computer creates a security risk.

- 6.1** **Physically** protect computer equipment.

- A stolen PC or server is the most direct way of getting hold of information.
- Install an uninterruptible power supply to safeguard against damage to your computer from power cuts or surges.

- 6.2** Design your network with **security** in mind.

- Use passwords to restrict access.
- Focus on high-risk information and systems.
- As far as possible, protect computers with direct Internet access. Install firewall software to control data coming into and out of your system, and anti-virus software that filters destructive data.
- Pay special attention to security risks when using laptops or portable devices. Use the most powerful encryption software you can to avoid your data being read by unauthorised people.

- 6.3** Create a robust **back-up** system.

- Set up a procedure for making regular partial and complete back-ups.

“Websites need to be kept current. There are indications that 20 per cent of websites set up are abandoned after a year.”
Juanita Worthy,
ID
Communications
Services

- Store back-ups off-site. Keep them away from heat, moisture and magnetism.

6.4 Ensure **employees** understand the importance of security.

- Make security part of employees' contracts.
- Only give Internet access and email accounts to those who really need them.

6.5 Make sure **technical support** is available.

- This can range from a suitably qualified individual looking after all IT issues through to engaging specialist contractors.
- If you use support contractors, make sure your maintenance and support contracts provide a service proportionate to your needs. And establish liability levels in the event of a breakdown that costs your business money.

7 Setting a budget

7.1 One of the first things is to budget for a **PC**.

- From around £500 plus VAT you should be able to buy a machine sufficient for basic office applications such as word processing, simple accounts, sending email and surfing the Internet.
- From around £800 plus VAT a system will handle all the above and be more powerful, as well as having more extensive sound, graphics and storage capabilities. For example, this could be used for web and print design, or for stock-control systems that juggle large amounts of data.
- From around £1,000 plus VAT, you should get closer to the cutting-edge — high-speed processors, lots of memory and advanced graphics. The high-end machines are only necessary for businesses that depend upon processing speed, for example, printing or music production.

Laptops are generally around 30 per cent dearer for comparable specifications.

7.2 Dedicated **servers** cost from £1,000.

- If your server use is light, a standard desktop PC could be used as a server.
- For workgroups above six people, a dedicated server is desirable.

7.3 **Additional costs** to consider include:

- Software.
- Running and maintenance, and any warranties. This may add significantly to

initial costs. Check the level of support you get and if there are any hidden charges.

- Training, for you and your staff.
- Cabling and other network costs, if required.
- Internet access fees.

See **Specifying and purchasing IT**.

8 Shopping around

You can source your system from a number of different channels.

8.1 **Mail-order** firms offer a wide product range at competitive prices.

- Advice tends to be limited to helping you make a purchase.
- Returning faulty equipment can be time-consuming.
- Choosing a supplier registered with the Mail Order Protection Scheme means you are insured if it goes bankrupt.

8.2 At **shops** and **stores** you can try out your purchase — and take it away with you.

- Retailers generally offer maintenance and support. But this can be expensive and its quality can vary.

8.3 Buying direct from the **manufacturer** can be a good idea if you know exactly what you want and don't need advice.

- You can generally specify how you want the system to be built.
- Orders can be placed over the phone or the Internet.

8.4 **Resellers** can provide a range of services, from single PCs to tailored IT systems and support packages.

- Identify a reseller who understands your needs and offers competitive prices.

8.5 **Consultants** can specify, install and configure systems for you.

- This can be a good option if you lack experience with IT systems. But you should check a consultant's references carefully.

8.6 **Used** computers can be bargains if you don't require the latest high-specification model. Be careful to avoid buying something of questionable quality or legality.

- Some manufacturers sell fully tested returns or discontinued ranges at discounted prices.

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