# Information Technology Working for Small Businesses

*Expert knowledge means success*

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## Introduction

Information Technology (IT) is an integral part of a modern business. Many business processes would be more laborious without it, others simply may not exist. IT is now utilised for the simplest of business tasks such as writing letters and for the most complex of business tasks such as business to business sales. It has revolutionised accounting systems, stock control and world-wide office communication.

Effective use of IT can open up new channels of business, increase the efficiency of work tasks and processes and improve financial management.

Technology is changing the way small and medium sized businesses (SMEs) do business. Mobile communications, wireless networks, web sites, e-mail and the Internet all contribute to the way goods and services are marketed, businesses communicate and decisions are made.

## Business Requirements

Before determining IT requirements it is important to understand the business requirements. Buying systems for technology reasons could prove costly. Technology depreciates quickly, and features that are current today, will not be so in a year's time. If there is money available, it may be best spent on the fastest processor and greatest memory capacity the business can afford, as these are the components that will impact the day-to-day operational systems speed.

Business systems need to be reliable and suitable for business software and operations, but unless they are working with large graphics files, they may not need the multi-media and graphics capability required by many home PCs used for games.

All businesses will have requirements specific to their industry that may be met by off-the-shelf or bespoke hardware and software. In addition, a business may need:

- word-processing and spreadsheet software to computerise office tasks;
- mobile and home working facilities to allow employees to work effectively outside the office;
- e-mail facilities to provide effective internal and external communication;
- Internet access to obtain fast up to date information on its own and its suppliers marketplaces;
- a marketing database to store and analyse customer and potential customer data;
- a website to act as a "24 by 7" sales or marketing channel for products and services;
- a logistical database to track delivery of orders; and
- a computerised accounts system to record and analyse customer and supplier orders and payments.

## IT Systems

Once the business requirements have been determined, the IT systems may be specified. An IT services company or IT systems supplier will be able to advise what hardware and software would best suit business needs.

The following may be considered:

- the data storage requirements for both regular access and archive access;
- the resource sharing requirements e.g. file, printer and Internet access;
- the expected printing volumes and the print quality required;
- the security requirements e.g. Firewalls, anti-virus software and physical security;
- the required speed of Internet access and the size of files to be transferred over the Internet;
- the speed of operation and hence the speed of processor and memory capacity requirements;
- specialist requirements, e.g. high-resolution monitors for graphical work, scanners, digital cameras;
- the criticality of current data and hence the back-up and disaster recovery requirements;
- the number of employees accessing the systems and their locations and hence the networking requirements;
- compatibility with existing hardware and software; and
- the current computer competency of employees, particularly in application software.

The Microsoft website:
http://www.microsoftbusinesshub.com/

provides a comprehensive guide to selecting hardware for businesses. It also covers legal topics such as software licences. Our publication *119 – Buying a computer* also provides a useful guide to buying computer hardware.

The Government Business Link website: www.businesslink.gov.uk provides guides to buying hardware and software within its "IT & e-commerce: Introduction to IT" section. It also provides guides on selecting suppliers and creating websites.

### Financing IT

Purchasing and implementing IT can be costly and should be justified by the business benefits. The IT budget needs to include the cost of the initial purchase, upgrades and ongoing maintenance.

Many businesses buy their IT systems outright. This can cause cashflow pressures but there may be taxable benefits in the form of capital allowances. Hire-purchase or leasing schemes are also available. These spread the cost of the systems over time and can also offer tax benefits: the full cost of lease rentals can be deducted from taxable income. However, there are downsides: the overall cost of equipment bought via hire purchase will be greater than if it had been purchased outright; and leased equipment generally remains the property of the supplier.

## The Internet

The Internet is made up of interconnected networks all over the world that send, receive and store information. The World Wide Web is part of this network. It contains millions of pages of words, pictures, graphics and sounds that are stored on computers connected to the Internet.

The Internet can provide a business with valuable information on products, suppliers, marketplaces and competitors to allow it to make informed business decisions. It can be used to source and purchase supplies and find the most competitive pricing. Sales and marketing strategies now include use of the Internet as standard.

### Dial-up v Broadband

Connection may be made to the Internet via Dial-up or Broadband. Dial-up is really only suited for a business that requires occasional

Internet access, and that has multiple phone lines. It also typically uses an existing phone line exclusively Broadband provides a high-speed always-on connection to the Internet that does not interfere with existing phone lines. Using E-mail, accessing Websites and downloading files is much faster, and therefore greater staff productivity can be achieved.

## E-mail

E-mail allows users to instantaneously send the electronic equivalent of letters, faxes, pictures and sound to an internal e-mail network, or via the Internet to one or multiple email users in multiple sites across the world. Users can send and receive messages at a time of their choosing, request a confirmation of receipt and save an exact copy of the transmission.

It allows businesses to work effectively with their staff, customers and suppliers by speeding up communication and decision-making and transferring documents.

## Websites

Having a website, allows a business to market its products or services to potential customers in any country at any time of day. Customers will often research a company and it products via a website, prior to purchase.

A website can be as simple as a few pages of product information and contact details (including an e-mail link) or it can provide access to detailed product brochures and allow customers to purchase items online. Orders via a website can save on both operational costs and order processing, speed up the payment process and allow suppliers to build up customer data profiles for improved marketing.

The complexity of a website and therefore its cost should be justified by the benefits accrued from it. It may act as a:

- marketing channel, providing an on-line brochure, pictures and prices of example products, mail order forms, enquiry forms, business hours, links to sales contacts; or a

- sales channel, providing direct ordering facilities via online payment transactions; or an

- intranet, providing a repository of shared knowledge and information; or an

- extranet, providing an external private network with selected customers, suppliers and business partners.

## E-business sites

A website can be used to conduct business electronically over the Internet. There are off-the-shelf e-business software packages available that can simplify the creation of an on-line store. There are strict regulations in place for selling via the Internet. *(See our Publication 309 - The Distance Selling Directive).*

An e-business site should be an appealing sales medium. All the sales techniques that are used in other methods of selling should be considered. There are some golden rules to follow to optimise its success:

- make the site easily accessible. It should have a relevant and memorable name, and have suitable search hooks to allow search engines to find the site when looking for product offerings;

- make the site fast to use. Potential customers could be put off by large graphics that are slow to load;

- make the site easy to use with clear navigation buttons. Ensure it is easy to buy, and check what you have selected so far. If the site is large, consider a site map and search tool;

- abide by the legal requirements for selling over the Internet: include your address, phone number etc;

- include all the "paperwork" details: terms and conditions, returns, security processing, policies etc;

- use the checkout to interest the customer in complementary products;

- acknowledge orders using e-mail, and if agreed use the e-mail address to inform your customers of sales etc.

### Payment methods

Sales can be made via a website without immediate payment. Payment could be made on delivery, or via posted cheque. However, the most common and easiest method of payment for an e-business site is by card.

The supplier has the responsibility for the security of customers' financial details, entered on their website. The supporting software must encrypt card information. When payment details are being made, customers like to see that a security system is in place. This can be notified to them by a message on the screen and by the "golden padlock" in the corner of the browser which indicates that they are in a "secure server" area.

Payment processing may be provided by a Bank or by a Payment Service Provider (PSP). These providers will manage the security, payment and authorisation of the transactions.

### Back-office integration

E-business sites may be integrated with back-office systems for order-tracking to improve customer service by providing accessible information on an order's progress. They may also be integrated with other back-office software, for example stock-control and accounting.

# Recommended Reading

- **Buying a Computer For Dummies** by Dan Gookin, published August 2003 by For Dummies. ISBN: B0000D9FDD

- **Business Information Systems Technology, Development and Management in the E-business** by Chaffey, Dave; Bocij, Paul; Greasley, Andrew, published August 2002 by Pearson Higher Education. ISBN: 027365540X

- **Does IT Matter?: Information Technology and the Corrosion of Competitive Advantage** by Nicholas G. Carr, published May 2004 by Harvard Business School Press. ISBN: 1591394449

- **The Rough Guide to the Internet 2004** by Rough Guides, published October 2003 by Rough Guides. ISBN: 1843531011

- **Website Planner: A Practical Guide to Planning Your Web Presence** by Ben Mitchell, published February 2003 by Pearson Higher Education. ISBN : 1740097157

# Useful Links

The following websites provide useful information when making IT decisions:

www.microsoftbusinesshub.com/
This Microsoft website provides free business advice on using technology. It includes useful buying guides and functional descriptions of current technology. Microsoft also provides websites specific to product solutions e.g.
http://office.microsoft.com/en-gb/
http://windows.microsoft.com/en-GB/windows/home
http://www.microsoft.com/en-gb/default.aspx
http://www.microsoft.com/en-gb/security/default.aspx

http://business.bt.com/
This British Telecom website provides information and advice on mobile computer and communication solutions, broadband, web security and e-business.

www.businesslink.gov.uk
This UK government website provides advice and guidance on selecting and using IT, websites, e-business and working with suppliers. It also provides a glossary of IT terminology.

www.itsafe.gov.uk
This UK government website provides advice and guidance on how to protect computers and other electronic devices from attack. It includes a rapid alerting service that tells computer users about serious internet security problems. Advice is available on the IT Safe website and through SMS or email alerts.

www.smallbusiness.co.uk
This website provides advice on growing a small business.

www.business.com/
Business.com connects business purchasers and vendors through all stages of the buying process.

www.ebizmba.com/articles/business-websites
This website provides a listing of the top 15 Most Popular Business Websites.

www.business.gov.au/Pages/default.aspx

This Australian government websites offers simple and convenient access to all the government information, forms and services you need. It's a whole-of-government service providing essential information on planning, starting and growing your business.

www.irelands-directory.com/
This Irish business listings website provides browsers with contact details, descriptions, maps and photos of businesses in Ireland. Businesses can make submissions for inclusion in Irelands Directory before it is updated to a database of Irish Businesses.

www.canadabusiness.ca/eng/
Canada Business Network promotes entrepreneurship and innovation and provides assistance through an organized network of service centres across Canada. There is a centre in each province and territory working with partners in many communities across their region, providing you with numerous service access points.

# Further Information

This guide is for general interest - it is always essential to take advice on specific issues. We believe that the facts are correct as at the date of publication, but there may be certain errors and omissions for which we cannot be responsible.