Technology in Business Kit

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TAX AND BUSINESS ACCOUNTANTS

Technology in Business Kit

Introduction

This kit has been prepared for the purpose of clarifying technology options for your business.

Notes:

1. Electronic versions of all documents are available.
2. Please contact us for further queries or support with growing your business.

Contents

This kit contains the following topics:

Computers in Small Business Guide

Introduction

Your computing needs will vary greatly depending on the type of business you run and how many team members you have.

This guide will give you an idea of the basic options available.

Contents

This guide contains the following topics:

Computer Setup

Basic desktop computers	A standard desktop computer is a great option for a small business. These can be bought out of the box from online retailers or appliance store and come with the latest software pre-loaded. If you have more than one team member you can create a network and share files and printers. Desktop computers are generally robust and have a long lifespan. For example: ▪ PC: 4 – 6 years ▪ Mac: 10 years plus
Laptops	Laptop computers or notebooks are an excellent choice for people who travel a lot, but need the full functionality of a desktop computer. These are perfect for a person who shares their time between two offices or lives “on the road”. Laptop computers are not deigned to be moved when going, and this makes their lifespan much shorter than desktop computers. For example: ▪ PC: 2 – 4 years ▪ Mac: 4 – 8 years
Netbooks	Netbooks are very small laptops. These are designed for running basic programmes and surfing the internet. Computer power is generally much less than a full-size laptop. This may be a good solution for a mobile team member using cloud applications.
Tablets	Tablets are mobile computers which are designed to be highly portable. E.g. Apple’s iPad. They generally use touch sensitive capability or a stylus rather than a keyboard. Users can download apps to allow their tablet to have more functionality e.g. word processing, however functionality is generally much more limited than a fully laptop computer. Tablets are a great solution for someone who needs a lower cost way to simply check emails and surf the net when away from the office.
Handheld devices	Handheld devices are staring to replace pen and paper for remote tasks for example, ordering in restaurants, issuing parking tickets or checking passenger numbers on flights. Handheld devices can be used to great effect for inventory and stock management, digitising notes and scanning and programming barcodes. Data is recorded on devices then transmitted back to computer systems using wireless, 3G or satellite capability.

PC vs Mac

Introduction

PC is the general term for Personal Computer, however most people use the term PC to refer to a windows-based computer as opposed to a Mac.

The term 'Mac' is short for Apple Mackintosh and refers to Apple computers.

Both types of computers have loyal followings based not only on functionality and capability but also style and fashion.

PCs

PCs are the worlds most commonly used home and business computers and can be made by many different manufacturers e.g.

- HP/Compaq
- Toshiba
- IBM/Lenovo
- Dell
- Acer
- Asus
- Samsung
- Sony

PCs are favoured for business computing, gaming, engineering, manufacturing and retail.

Macs

Macs are becoming more popular amongst general users since the introduction of Apple's all-in-one desktop computer the iMac in 1998.

Apple Mackintosh computers have been used since the 1980s for design-specific use and are still considered the best computers for computer assisted design.

Although more expensive than a standard PC, most Macs generally have a longer lifespan and are less prone to viruses.

On the downside, many software types and devices are not compatible with Apple computers.

Apple computers come in four main forms:

- iMac: The all-in-one computer/monitor
- iBook/MacBook: Notebook/laptop
- Mac mini: Small desktop computer
- PowerMac/MacPro: Full-size workstation

Marketing of Apple computers is now aimed at lifestyle users – those who want to use photos, movies and music.

Business users still predominantly favour PCs.

Software

Most larger software companies such as Microsoft and Adobe produce software to be used on both PC and Mac, so there is no real reason that you could not choose either type of computer.

However, business users will tell you that Microsoft software works best on PCs and designers will tell you that Adobe programmes run better on Mac.

Making a decision

For Windows users, the Mac operating system can take a bit of getting used to as can the absence of a right-click button on the mouse. And the same goes for Mac users switching to Windows.

Which type of computer you choose may well come down to personal preference, so try making a pros and cons list, and try out the computer before you buy – go into an appliance/electronics store and get the salesperson to give you a guided tour of your prospective computer..

Setting up a Network

Introduction

If you have more than one computer in your business, you will most likely want to network your computers so that all users can access shared files.

There are varying levels of networks, from two or three computers sharing hard drives, to multiple computers accessing a server, to thin clients using a terminal server.

For more information about the hardware and cabling needed to set up a network, refer to Telecommunications in Small Business Guide.

Connecting two computers

You can create a basic network with two computers simply by using your internet router as a hub. Routers generally have up to four Ethernet ports on the back which means you can connect up to four devices on your hub. More if you use wireless.

An IT person can set this up for you. This means you can share files and hard-disk drives from both machines.

Setting up a server

A server is a computer that runs applications and processes on behalf of a group of computers.

Servers are commonly used to handle:

- Email exchange
- File storage
- Printers
- Websites

The server also handles how computers connected to it talk to the internet.

As opposed to a PC, a server typically may include a faster CPU, increased high-performance RAM, and typically more than one large hard drive.

Most business set up one or more servers in a dedicated space (e.g. server room) and all desktop computers are networked to it.

Terminal Server/ thin client

A terminal server setup is where all application and user data is stored on the server as opposed to a local PC ('fat client').

This means that programmes etc are updated on only one application server as opposed to multiple computers.

The 'thin client' connects each user through the network directly to the server and bypasses the need for a PC altogether.

Server Room Considerations

There are many key elements to a highly-performing server which should not be overlooked. Consider these key things when setting up a server room:

- Ventilation & cooling: Your server room should stay around 20-21°C with a good flow of air and a thermostat on your air conditioning
- UPS or Uninterruptable Power Supply: Both your server and phone system should be hooked up to a UPS. This will give you enough time to shut down your system properly, in the event of a power failure
- Monitor: You may also need a monitor available when your IT person works on the server directly
- Power: Your UPS will work as a giant surge protector, but any additional hardware should be plugged into a good quality surge protector
- Racks: If you have more than one server, and limited but tall space you may with to consider a rack system where servers and components are stacked on top of each other.

Backing up your computer

Introduction

Backing up your computer and system regularly is absolutely fundamental.

There are many ways in which you could lose your computer or server contents:

- Virus
- Hard-disk failure
- Power surge
- Theft
- Fire
- Natural disaster

Backing up a PC

If you are a one-man-band and you have only your own computer to worry about, then you are best to have a simple backup system.

Many people backup their files on to DVD or a small flash drive, however, these methods are not very robust as discs tend to degrade and flash drives regularly stop working.

Buy two removable USB hard drives and start from there.

- One drive is to use for off-site backups – weekly and/or monthly
- The other is for daily back ups

Your computer will have built-in backup software which you can set on a timer.

Leave one hard drive plugged in permanently and set your computer to back up to it each night. You are best to do a full back up (as opposed to incremental) everyday, but as it can take time, it is best to run it over night.

Each week, run a full back up on to a different drive and take it home. If you work from home, keep it somewhere else. There are companies that offer facilities for this.

Also run a full backup to this drive each month. You will want to keep these monthly backups for at least a year or two. The week 4 backup generally doubles as a monthly backup.

Keep your backup drives in a fireproof safe.

If you have very important files which are in constant use, you may wish to save these to a small flash drive multiple times per day while they are in use.

Backing up a Server

If you have a server set up, it's likely that your IT company has set you up with a tape drive which backs up all data every day.

Check with your IT provider and ensure that the daily back ups are full rather than incremental, otherwise if your systems crashes on a Friday, you will need Monday-Thursday's tapes rather than just Thursday.

Monthly and weekly backup tapes need to be kept offsite in a fireproof safe, and daily tapes should also be taken home at night. You may wish to increase your risk management by having different team members take home the daily vs weekly tapes.

NB: Tapes are magnetic, so they will need to be kept away from strong magnetic fields such as motors and magnets. They can also be fragile and should be kept away from high heat. A car's glove box in summer is not the place to keep a backup tape!

Imaging	A server image takes a snapshot of your server at a certain point. The image includes: ▪ Operating system ▪ Programs ▪ Software updates ▪ Patches ▪ Mission critical data files ▪ Configurations ▪ Settings ▪ E-mails An up to date image means that if your entire system goes down, it can be restored without having to re-install all your programs and updates etc. You should image your entire server once every two months, if not more often. The combination of server image and back up tapes ensures that you can get back up to date quickly, if anything should happen.
Data Checks	It's all fine and dandy to be backing up regularly, but you need to make sure you can actually restore from your images and backup tapes. Your IT contractor can perform data checks for you to ensure your backup and imaging process is working correctly.

Telecommunications in Small Business Guide

Introduction

Telecommunications are one of the essential pieces of infrastructure a business must have in place.

Everything from landlines and mobile phones, to internet and jack points must be done right to future-proof and ensure the smooth day-to-day running of a business' telecommunications.

Contents

This guide contains the following topics:

Phone lines

Introduction

Your phone line is your life line. But nowadays there is more than just one choice available.

Your existing infrastructure may dictate for you what your choices are, or you may have every option open to you.

ISDN

ISDN lines are your standard phone landlines. These handle phone, fax and internet and are what most businesses begin with at entry-level.

These are bought at a basic or primary level.

Basic includes two lines, you can think of these as phone and fax.

Primary includes up to 30, which most businesses join to their PABX (phone system).

A sole trader or small retail business will often have just a basic ISDN, with one line reserved for phone and the other shared by fax and EFTPOS and possibly even internet.

An office with multiple team members will usually have a primary system with DDIs (direct dial numbers) and a large PABX handling multiple extensions, fax, EFTPOS and internet.

ISDN lines need to be bought in blocks of six, so businesses may notice a steep rise in costs for every multiple of six lines they need to purchase.

For ISDN lines you will generally have one set up as the primary phone number, one dedicated to fax (and maybe EFTPOS) and two to four extras for team members. It is unlikely that you will need as many phone lines as you have team members.

VoIP

VoIP stands for Voice over IP and means that your phone call is travelling over the internet rather than a standard phone line.

This is sometimes also called SIP (although they are actually different things, we will spare you the technical details and just say that they're relatively similar systems that work together).

The beauty of VoIP is that a business can set up as many extensions as they wish for little or no extra cost. Because phone lines are 'virtual' the capacity of the network is not limited by the existing infrastructure… except in one respect:

To set up a VoIP network you MUST have reliable, high-speed broadband internet. If your internet is unreliable, your phone system will end up just as unreliable if you switch to VoIP.

Because VoIP works over the internet, it is relatively easy to set up and because of this there are many competitors in the market and rates are very competitive.

If you have reliable broadband on a fast fibre network, then VoIP services are a very real option for you.

PABX

Your PABX (or PBX) is your phone system or your exchange. It is the box with wires coming in and going out which controls where your calls go.

Your PABX handles your incoming and outgoing calls and also connects your phone extensions to your exchange.

Your PABX also may control:

- Answering machine functions
- Remote supervision of the entire system
- Speed dialling
- Caller ID
- Hunt groups
- Extension dialling
- Forwarding
- Call parking (hold)
- Call transferring

Along with the extensions for your PABX, you may also have patch cables for your network (see Networks below), so you may want to invest in some sort of patch cable management system to avoid your server room becoming a rat's nest of cables.

Virtual assistants

A virtual assistant is a type of computer software designed to help you get the most out of your PABX.

Instead of having to memorise key commands on your phone handset, a virtual assistant enables you to transfer calls, change extension statuses (e.g. out of office, on break etc) and access voicemail through your computer.

This type of software is often compatible with Microsoft Outlook to the extent that a meeting in your calendar will automatically change your status or put you on Do Not Disturb.

This type of software can be invaluable if your office's receptionist cannot see the whole team.

Engaging a telecommunications specialist

If you have a larger team or you have complex requirements for your phone and extensions, it may be worth engaging the services of a telecommunications specialist.

An independent contractor will help you set up the right hardware to help you future-proof when your business grows, they will be able to recommend service providers and provide impartial advice.

An independent telecommunications specialist will also be able to spare you the headache of dealing directly with phone companies when there is a technical issue.

Internet

Introduction	If your business is a high user of internet services, your connection is one of the most important factors to have set up. If you are using VoIP conferencing, cloud-based software or e-commerce, you must have a robust and reliable broadband internet connection to conduct business successfully.
Fibre	Fibre is the crème de la crème of internet connections. It enables fast and reliable upload and download speeds, which means other than using the internet it's also excellent for VoIP and remote access. Fibre is the best solution for a business which has very high internet usage with remote workers, VoIP or cloud solutions. Both Telecom and Telstra Clear offer fibre solutions, and you may even wish to consider installing your own fibre if the situation warrants. Once you have fibre installed to your business, you will be able to pick and choose which internet service provider (ISP) to use.
ADSL	ADSL broadband is the kind of standard broadband over the phone line that most businesses use. Whether or not you can use ADSL broadband will depend on the distance of your business from your local Telecom exchange. Although many companies other than Telecom offer ADSL broadband, they are all using the Telecom wiring, exchange and hardware which means you are still at the mercy of one provider if there is an outage.
Wireless internet	Some urban ISPs offer 'wireless broadband' which is an internet signal broadcast via satellite from a central location, and picked up by a dish at your premises. The benefits of wireless internet are that it is relatively stable and unaffected by any Telecom outages as it does not use cables laid in the ground. However you must be aware that a satellite based service can be affected by weather, and high atmospheric pressure can lead to 'rain fade'. To get wireless internet you must generally be within 'line of sight' of the originating location, i.e. it will not work around mountains or hilly terrain.
Mobile broadband	Mobile broadband is high speed internet accessed through a mobile phone network. Users plug a wireless dongle into their computer's USB port and this contains a SIM card much like a mobile phone. The data usage for the dongle is charged to the user's mobile phone account. This can be a great option when traditional internet is not available, however you will need a strong mobile signal for high speed and reliability. Due to limited range and high-cost, this is an option best for very short-term use or emergency e.g. when your internet is down.

Satellite broadband	In some rural areas, where a business is too far from an exchange to get ADSL broadband, a business may like to consider satellite broadband. There are a number of satellite broadband providers in New Zealand catering specifically to the rural market. Although satellite broadband is faster than dial-up internet, it is nowhere near as fast as ADSL broadband. If you are rural and you have only the option of satellite or dial-up, you are best to go for the former option even though it is more expensive. NB: Most satellite broadband ISPs cannot guarantee you will have access, even if you are paying to have a dish installed. Most operate on a 'suck it and see' basis and you will have to pay the set up costs whether successful or not.
Dial-up internet	Dial-up internet is not an option for the modern business. Not only is it too slow to conduct business, but it also ties up valuable phone lines. With the variety of internet connection types available, and the plethora of ISPs, there should be a broadband option with a price to suit almost anyone.

Mobile Phones

Introduction	A mobile phone may be a very important part of your business and it is crucial that you get the right option for you. Instead of just going for the cheapest option, or the phone with the best deal, think about what you need, or what your business needs from a mobile phone.
Basic handset	If you only intend to use your business mobile for the occasional call when you are out of the office, you may find that a basic handset is the best option. As well as being cheap and robust, these phones are generally easy to use for those who are not tech savvy.
Terminology: 3G	3G is the standard type of mobile phone network in New Zealand. This allows not only phone calls but also transmission of data and video across the mobile network. Watch out for 'free' data deals if you don't use your phone to access the internet. This is a common sweetener that the telcos use to make it seem like you are getting a good deal. You may be better to push for a better calling deal which will actually save you money.
3G Handset	A 3G handset will allow you to access the internet and also your email via your phone, in a very basic way. This is a good option for a business person who may be out of the office occasionally and need to look something up. Most 3G handsets are relatively easy to use and relatively robust.
Smartphones	A smartphone is a phone designed to let you work on the 3G network like you would in the office. Smartphones are essentially mini computers and they work on the Apple iPhone operating system (iPhones) or on the Google Android operating system. If you are away from the office regularly with limited access to a laptop, or you don't want the hassle of carting your laptop everywhere, this is a great solution for you. Smartphones let you browse the internet, check and reply to emails and even draft basic documents, which means you are never really away from the office. You can also download extra applications for smartphones which will open up a world of possibilities. Whether you need a foreign exchange calculator, maps, instant translations or even a pedometer, there is an app for you.

Before you go crazy for the wonder of smartphones remember these three things:

- The more you use the internet, the more data you pay for
- Touch-sensitive smartphones use glass, which is breakable
- There may be a downside to never really leaving the office i.e. you never switch off mentally

Be aware that because of all the features of smartphones, the batteries do not tend to last for a long time and need to be charged on a daily basis.

Terminology: Wireless connectivity

Wireless connectivity or Wi-Fi is when an internet router or modem has an aerial which broadcasts a signal.

Devices with wireless capability can be connected to the internet without any cables, and smartphones often fall into this category.

If you have a smartphone and are within range of a wireless network, you are best to use it as you will not need to pay for data charges.

Terminology: Bluetooth

Bluetooth is a sort of short range wireless connection, much like infra-red or WiFi, which uses a radio signal.

Most modern cars use Bluetooth connections instead of a car kit for hands-free mobile. If your car stereo and your phone are compatible, you will be able to use your car stereo for hands-free calls.

NB: Do keep in mind that it's not just physically handling a phone which is distracting to a driver. Conducting important phone calls while driving can be just as dangerous as text messaging, so keep your hands-free calls to the quick and light variety.

Bluetooth also makes it easy for you to sync a computer with your phone, e.g. your calendar and contacts if you do not have a smartphone.

Networks

Introduction	A network is a collection of computers and devices connected by an internal series of cables or wireless connections. Setting up a network will enable multiple users to use storage space on a central drive, share an email exchange and even share a printer.
Local Area Network (LAN)	A LAN is the main type of a network used by an office. A LAN enables data to be transferred at high speed and is not dependent on internet access. LANs are usually made up of a combination of Ethernet and WiFi
Ethernet	Ethernet is the technology most commonly used in LANs, and this is the part of your network dependent upon cables. Most office spaces will have jackpoints for both phone and Ethernet available. What is plugged in at the PABX/exchange end will determine whether a port is for internet/network or phone. If you are looking to build premises or renovate, you will want to ensure that you have enough Ethernet ports in each room. Consider not only computers, but printers, fax machines, EFTPOS etc.
WiFi	Most offices will also use WiFi and set up a wireless network. You can do this with a wireless router or modem. This will generally allow the LAN cables to be attached and run to the exchange, as well as having an aerial which broadcasts the wireless signal. If your modem or router does not have an aerial you can invest in a wireless access point which will eliminate the need. If you have an office bigger than 100m², you may need to set up a wireless hub. This is a sort of wide-range aerial which boosts your wireless signal and can often be the same as an access point. Wireless is generally not as fast or robust as Ethernet, so it is best used for portable devices which are on the move i.e. smartphones and laptops. Wireless can also be an excellent option for an office space which does not have the infrastructure e.g. not enough jackpoints or no jackpoints in certain places. If your existing computer does not have wireless capability, you can purchase an adapter which will enable you to connect to WiFi. These look a lot like mobile broadband dongles and plug into a USB point. This is an inexpensive option.

Typical devices on a network	▪ PCs ▪ Laptops ▪ Thin clients ▪ Servers ▪ PABX ▪ Printers/faxes ▪ Tablets and smartphones The server is generally the central point of a network. This is a dedicated computer used for storing files and also hosts centralised applications e.g. Email exchange, virus protection etc.
Terminal Server/ thin client	A terminal server setup is where all applications and user data are stored on the server as opposed to a local PC ('fat client'). Each user has a 'thin client' which connects to the server via LAN, meaning that their personal profile is not limited to the computer on their desk, but any computer they log on to within the LAN. In fact, they do not really have a computer on their desk, just a little box which connects their monitor to the server. This also means that programmes etc are updated on only one computer (the server) as opposed to multiple computers. Terminal server is great for small business with 5+ team members and no dedicated network administrator. The hardware is cheaper than traditional 'fat' PCs and the IT side of things is better managed. However because everyone is using the same computer to work, if this crashes everyone loses access.

Software Applications in Small Business

Introduction

One of the most important things for a small business is to have the right software in place.

Buying software is no longer as simple as it used to be. As well as the standard option of simply purchasing a computer with the software pre-loaded, there are also many other software types available.

Contents

This guide contains the following topics:

Software families

Introduction	Many businesses may require a combination of systems. For example, a large sales business which looks after its own advertising may need an office suite, point of sale software and a design suite.
Office suites	An office suite is a collection of software designed for email, word processing presentations and spreadsheeting. The most commonly used office suite for Windows is Microsoft Office and this is generally pre-installed on computers, with the option to purchase a licence after a 30 day trial period. Licences are available online or from retailers, and have costs attached. Apple Mac users also have the choice of iWork, Apple's mac-only office suite, as well as Microsoft Office for Mac. One suite which is becoming more popular is the open source suite OpenOffice. All of these suites include word processing, spreadsheet and presentation software. Most office suites also include integrated email functionality.
Design suites	A design suite is a collection of software for design purposes, desktop publishing and web design. The most commonly used design software for desktop publishing and graphic design is Adobe Creative Suite which has different packages depending on whether it is destined for print or web media.
CAD	A CAD system is a Computer Aided Design suite used by architects, interior designers, surveyors, engineers and the list goes on. Most CAD systems are designed for a specific need e.g. ArchiCAD for architects, CivilCAD for civil engineers. These programs are absolutely essential to industries that rely heavily on plans and line drawings or engineering specs. There are also free solutions such as Google SketchUp.
CRM	A CRM system is software designed to manage contacts and sales opportunities. These customer relationship management systems are absolutely integral to a sales business and there are many generic and specialist solutions available.
Accounting	Accounting software is key to any business and generally includes debtor and creditor management, invoicing and GST. There is a large number of small business accounting packages available for Windows computers. Your accountant can recommend the best solution for your business. There are fewer options for Mac users, many of whom prefer Xero's cloud solution.

Point of sale	Point of sale software is designed for retail and wholesale and generally includes database and stock management. These software solutions are often industry specific depending on whether they are for retail, wholesale, food service or hire businesses.
Specialist software	Many types of businesses have specialist software available to them. Before investing in generic software, search the internet for solutions and ask your industry peers.
Anti-virus software	Anti-virus software is essential to any small business. This software will scan incoming emails, email attachments and websites for malware (malicious software) and viruses. There are many different types of anti-virus software available online such as Norton, TrendMicro and Avast! among many many others.

Software types

Freeware	Freeware is software which is essentially free but often restricted. For example, a free version may have limited functions, advertising or watermarks. Much freeware is restricted to personal use and cannot be used in small businesses, however there are some.
Open source	Open source software (OSS) is software that has been created collaboratively and allows users to further develop it by providing the source code. What this means is that OSS is generally free. Much like freeware, OSS is often used as a platform to sell the user higher-spec software. Examples of OSS: ▪ Mozilla Firefox (internet browser) ▪ OpenOffice (office suite) www.openoffice.org ▪ Open Document (Microsoft Office document format) Open source office software is a viable and economical option for small businesses; however you need to be aware that a business using an OSS suite like OpenOffice may run into trouble when trying to exchange documents with businesses using Microsoft Office.
Proprietary software	Proprietary software is software that is owned by an individual or a company (usually the one that developed it). There are almost always major restrictions on its use, and its source code is almost always kept secret.
Software as a service	Software as a service is a term given to web-based (cloud) software which is paid month by month. There is a wide variety of software as a service available, some of it software you may subscribe to for a limited time, for example SurveyMonkey which you may only use for a few months. Some software you may use for an undetermined length of time, such as Xero accounting software. Most of these types of software have policies where you can downgrade or cancel with a month's notice or less. This sort of a plan can be very good where cash flow is an issue, or if you do not have a larger server.

Operating system

An operating system (OS) is the software which drives the computer.

For most PC users this is Microsoft Windows and comes pre-loaded on the computer when it is purchased.

For Mac users this is MacOS which also comes with the computer. Mac users can choose to install Windows if they prefer, using a programme called BootCamp which comes with their Mac, but it is tricky for a novice and may not be necessary.

Operating systems can be upgraded without having to upgrade the computer itself.

Cloud computing

Cloud computing

Cloud computing is where a business subscribes to some or all of its software as a service. There are many benefits to working in the cloud, as well as a few drawbacks.

Cloud computing has three main characteristics:

- Subscription based – cloud software is typically sold on demand, by month, week, day, hour or minute
- Elastic – cloud software is often able to be customised so that you use as many or as few features as you need
- Provider-managed – this type of software is typically managed by the provider meaning there are no updates or patches to be run on the user's computer

The 'Cloud'

The 'cloud' is the slang name for the undetermined area that cloud software lives in.

This term came from the mind-map style diagram generally used to depict the internet.

Devices

A major benefit of cloud computing is that you can run the software from almost any device with internet access. This can include:

- Your desktop PC
- Your laptop
- Someone else's computer
- Internet café
- Smartphones and tablets

This guarantees flexibility and access from anywhere in the world with an internet connection.

Installed interface

Some cloud solutions include an interface installed on your computer to ensure you can access offline files. This is generally referred to as the 'client'.

A good example of this is Dropbox document storage where you can edit the files on your computer and when you are next connected to the internet they automatically update in all locations (i.e. smartphone, tablet, laptop and PC) if they too are connected to the internet.

No IT contracts

Another major benefit of cloud software is that it is always up to date as of the latest release. You never need to run updates except for on any installed interface software (the client).

Cloud users also enjoy the absence of an 'IT Guy', as cloud computing is generally more robust because it is kept so up to date.

If support is needed, most cloud software companies have a support department waiting to help.

Off-site storage	Cloud solutions are particularly favourable where off-site storage is desired. This is useful for many reasons, for example: ▪ No server required, only a PC or other device ▪ Risk management in case of fire, theft or natural disaster ▪ Backing up data off-site
Add-ons	Cloud solutions often have 'add-ons' available for specialist purposes. These are often done as clip-in modules which are made available for an extra fee. For example, popular cloud accounting software Xero (www.xero.com) also has add-ons available for: ▪ Payroll ▪ Inventory ▪ CRM ▪ Job Tracking ▪ E-commerce ▪ Time tracking ▪ Point of Sale ▪ PayPal This means that a business can have a fully integrated software suite without major up-front costs, which retains the flexibility and benefits of software as a service. Services such as this one generally work on a price per user per month basis.
Microsoft Office 365	Microsoft also offers a complete office software suite as a service. This is an excellent choice for small businesses concerned about set-up costs. Office 365 starts from around $10 per user, per month, so for a 1-10 person business it is extremely economical. Office 365 software includes the full Office Professional suite and Microsoft exchange, removing the need for a small business server or exchange server.
Benefits of cloud computing	**Cost** Cloud computing can save money for smaller businesses, both on hardware, software and ongoing maintenance. **Collaboration** Users can work together on the same projects and set of documents or accounts from anywhere in the world. **Flexibility** Ability to move documents between, or work on them from different devices is a real advantage. **Cutting edge** Users are virtually guaranteed the latest software without having to run major updates or pay for upgrades.

The downside to cloud computing

Internet

You must have a good, reliable internet connection to get the most out of the cloud. Dial-up and satellite broadband users may have problems.

Also, if your internet's down and the programme is completely web-based, i.e. has no 'client' installed, you will not have access to the programme.

Service outage

Much like the internet, the service provider itself may have an outage. This is also a concern, as most 'maintenance' periods are scheduled to avoid the northern hemisphere working day – i.e. they're right in the middle of ours.

Security

Many people have very real concerns about security, especially hacking, when all their data is on the internet. There are good reasons for this – Google's cloud email system Gmail has been hacked multiple times.

However, most cloud solutions have military-grade security and any instance of hacking is very rare in the grand scheme of things. A normal server-based system would probably be easier to hack into.

Software guide

Open source software available	▪ Office: OpenOffice.Org ▪ Design: OpenOffice Draw ▪ CAD: Google Sketchup ▪ CRM: FreeCRM.com ▪ Accounting: Ledger, GNUCash ▪ Point of sale: Cash Register, FreePOS ▪ Anti-virus software: AVG, Avast!, Avira
Proprietary software available (PC)	▪ Office: Microsoft Office ▪ Design: Adobe Creative Suite, CorelDraw ▪ CAD: Google Sketchup pro, industry specific CAD programmes ▪ CRM: Sage, Microsoft CRM, Salesforce ▪ Accounting: MYOB, Quicken ▪ Point of sale: Counter intelligence, industry specific POS systems ▪ Anti-virus software: Much available
Proprietary software available (Mac)	▪ Office: Microsoft Office or iWork ▪ Design: Adobe Creative Suite ▪ CAD: Google Sketchup pro, industry specific CAD programmes ▪ CRM: Elements CRM, Daylite ▪ Accounting: MYOB, Quicken ▪ Point of sale: Checkout, Lightspeed POS ▪ Anti-virus software: Norton, McAfee, Kaspersky
Software as a service	▪ Office: Microsoft Office 365 ▪ CRM: Capsule, Communigator ▪ Accounting: Xero ▪ Point of sale: Vend
Operating system	▪ Windows ▪ Mac OS (for Mac only) ▪ Linux

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