Invision
Computer Support for Smart Business

IT Decisions for Small Business
THE MOST FREQUENTLY ASKED QUESTIONS AND ANSWERS

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Computing technology has become a necessary business tool,

and there's no argument that it has led to dramatic productivity increases over the years. Yet just maintaining, let alone upgrading, securing and troubleshooting your computer system can eat up hours and days of your time – time better spent on the real business of your business.

If you are a small business owner whose area of expertise definitely lies outside the realm of "IT," this article will guide you through some of the most frequently asked questions we hear from small business owners on the topics of setting up and running their computer network. We hope you'll find the answers helpful, whether you decide to do-it-yourself or hire professional IT help.

WHAT DO I REALLY NEED?

Unless you are a one-person shop, you will likely need a computer workstation for each employee, as well as a special type of computer called a server. Then you'll need to set up a network, which is a way of connecting all those computers to each other and to any peripherals (for example, printers, faxes and scanners). To connect that network to the rest of the world, you'll also need an internet connection.

You'll also need to protect your investment in all that hardware and the critical information it houses. Protective components include data backup, surge protection and security measures.

WHAT IS A "SERVER" AND WHY WOULD I NEED ONE?

There are two types of computers on a network. One type is a computer that provides services to other computers – a "server." The other type is a computer that uses those services – a "client." The workstations that you and your employees use become clients if you hook them up to a server.

Most businesses, even small ones, can benefit from a server. That's because a server offers a central place to keep everyone's files and data, which greatly facilitates sharing and collaboration within your business. With your files and data in one central place, backup and security are simpler, yet become even more important than ever!

MAC OR PC?

Most small businesses will choose between Mac or PC workstations. You can ignore the old creative-versus-business schism between Mac and PC. Nowadays, both can do a wide variety of tasks equally well, so don't let old stereotypes drive your decision.

Instead, first consider what type of computer you and your employees are most familiar with. Don't disrupt productivity while everyone gets up to speed with a new operating system.

Cost is always an important factor for a small business. If you just need to get up and running on a very tight budget, the entry-level cost of PC-based computers is much less than for Macs. If you want to purchase a PC system with higher quality components, however, you'll easily match the cost of a comparable Mac.

Finally, we caution against believing what you may have heard: that Macs are immune from security risks. Macs indeed require ongoing security, backup and support just like PCs, so make sure you plan for that ongoing support, no matter which type of computer you choose.

WHAT ABOUT BACKUP?

Imagine carrying on business as usual if every file and all the data on your office computers were irretrievably lost tomorrow. The risk of data loss is very real. Hard drives fail more frequently than you think, and most business locations are susceptible to some type of natural disaster. An active backup system makes it possible to recover business-critical files and data. By "active," we mean that you must commit yourself to regular, ongoing maintenance and checkups on whatever backup system you choose.

Backup systems are broadly categorized as either: 1) tape-based, 2) disk-based, or 3) internet-based. Any backup system can be used for disaster recovery, data archiving, or both, though these functions are easier to accomplish on some backup systems than on others.
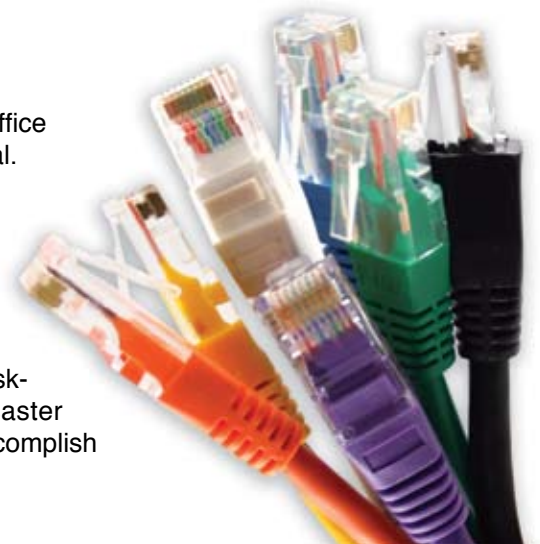
Tape backup

Tape-based backup requires changing tapes and verifying the status of your last backup daily. It provides the best combination of disaster recovery and data archiving possibilities, and it's easily scalable by adding tapes to the rotation. Want a permanent year-end archive? Copy your files and set that year's tapes safely aside. Tape drives will usually last three to five years, and the tapes themselves will need to be replaced periodically. Generally the most expensive type of backup system to implement, it is often the appropriate choice of medium-sized businesses.

Disk backup

With the availability of large-capacity external disk drives, the cost of disk-based backup has become more affordable. Just plug an extra disk drive into your system and you have a fast, reliable backup method. Sometimes touted as a replacement for tape backup systems, the disk-based backup scheme does have some limitations. If you want a second copy of your data, you'll need to purchase a second external drive. And disk drives are often vulnerable to the same conditions that lead to data loss in the first place. It's best to take them off-site every day, but disk drives won't stand up to buffeting and drops as well as a tape cartridge. That said, large companies often have the resources to implement and run a robust disk backup system, especially when huge amounts of data require a speedy solution.

Internet backup

Initially a cost-effective choice for smaller companies, internet-based backup must be used cautiously, because storage and data transfer fees can add up quickly as you back up more and more data. It's also a slow backup method, as all that data has to move through your internet connection. To get the best performance from an internet-based backup, upload only your working data each night. Some internet-based backup services offer special ways to store the data you'll need to get up and running after a disaster, but in general, this isn't the best method for disaster recovery purposes.

A final word on backup

No matter what type of system you use, there's no reason to pay for backing up non-critical business data. Make sure you aren't paying to backup your employees' entire iTunes collection every night!

SURGE PROTECTION AND POWER BACKUP – WHAT'S THE DIFFERENCE?

Power backup and surge protection isolate your hardware from fluctuations in the electric supply coming into your office. "Bad power" is one of the biggest enemies of a computer system. You can add years to its life with these inexpensive measures.

For most workstations, a good surge protector is adequate. But a power strip is not the same thing as a surge protector. Look at the UL listing on the bottom of your power strips. If you see it listed as a "Temporary Power Tap," then it provides no surge protection. If you see "Transient Voltage Surge Suppressor," you can rest easier. Keep in mind that surge suppressors degenerate over time and should be replaced every three to five years.

Servers often run programs that can be harmed during a sudden shutdown, so they need a higher level of protection than surge protectors offer. Choose a battery-powered backup unit with at least 15 minutes of run-time and a communications port so that, when the power goes out, the battery backup can notify the server to shut down within that 15-minute window and prevent data damage.

DO I NEED ONE OF THOSE T1 INTERNET CONNECTIONS I'VE HEARD ABOUT?

If you aren't planning to host your own website in the office, a basic DSL line will get you connected to the internet and give you all the functionality required by 80 percent of small businesses. Cable-based internet connections are similar to DSL lines. Depending on your cable carrier, they may offer slightly faster or slower speeds than DSL. If your business plans to host its own email, website or other applications that will be available via the internet, then a T1 line may be the right choice because it offers faster upload speeds.

I OWN MY OWN DOMAIN NAME, RIGHT?

Most companies invest significant time and money promoting their websites. But if you've allowed a third party to register your domain name for you and/or you are not listed as the administrative contact on that domain registration account – you could be in for a big headache trying to regain control of your own domain name someday.

Find out if you're listed as your domain's administrative contact by going to www.netsol.com/whois. Type in your domain name and look for the three contacts: administrative, billing and technical. You should be listed as the administrative contact. If you're not listed, get in touch with the person who is, and start the process of getting yourself listed as the owner of your own domain.

WIRED VS. WIRELESS

Maybe it has occurred to you that going entirely wireless will help you avoid the cost of running wires in a new or remodeled office space. This is a bad idea. Think of wireless as a convenience, not a backbone. Your regular workstations should be networked via good, old-fashioned wires. Wireless is great for taking your laptop elsewhere in the office, but you've probably experienced how fickle your home wireless connection can be. Do you really want to depend on wireless to connect you to critical database applications? Do you want your employees' productivity to depend on it?

HOW DO I SECURE MY NETWORK?

The idea of security encompasses protecting your system from both external and internal threats. You deploy a firewall and run anti-malware to protect your system from outside threats via your business's connection to the internet. Internal threats are often overlooked, but they are just as real. Minimize the potential of internal threats through restricted server access and careful password management.

Firewalls

A firewall is specialized hardware or software that let you access the outside world via your internet connection, but make it much more difficult for anyone to access your business network.

Anti-malware

Viruses, spyware, trojans, etc. are collectively referred to as "malware" – software that wants to do something malicious with your computer. Good anti-malware software will not only protect your network from the various forms of malware, but it will be easy to administer as well. A good antivirus program will provide a central administration point (usually on the server) where you can check the status of all the computers connected to your network.

Passwords, software licenses, system information

As a business owner – even if you delegate IT functions to someone else – you must keep and be able to find all of your system passwords, software license codes and system specifications. This type of information is too vital for you to solely trust to another party.

Physically restrict server access

Disgruntled employees, cleaning services, office visitors, heat and moisture may pose a physical threat to your server. If possible, control access to it by locating it in a locked, climate-controlled room. Then limit who has access to the keys.

HOW DO I FIND IT HELP?

The prospect of free IT help in the form of your brother or neighbor is understandably appealing to many small business owners. But keep the importance of your computer system in perspective. The functioning of your business probably depends on it. Just as you delegate your tax preparation to an accountant, or your fleet's maintenance to a mechanic, consider using a dedicated, professional expert for your computer system. For larger businesses, this might be a professional IT staff member. For most smaller businesses it makes better economic sense to outsource the job. If you decide to hire a dedicated, professional IT service provider, here are some things to ask the candidates:

◆ How long have you been in business? Establish that the company has a track record of sound service and responsible ownership over the years. You don't want to contract with a company that could be gone in a year.

◆ Is your primary business activity providing dedicated, professional IT services? You want your IT service provider to be there when you need help. Side-gig businesses and part-timers may not be able to respond quickly during your business hours.

◆ Do you employ a multi-disciplined team? Similar to a medical team – you wouldn't want to pay a cardiologist to look at your sore throat – your IT provider should be able to send out the appropriate technician for the job. You'll benefit from available specialized knowledge if you need it, but save money on routine services.

◆ How many server upgrades/migrations have you performed in last six months? It is at these times that a business's network and its data is most vulnerable. Make sure you are putting your server in the hands of the IT equivalent of that cardiologist. Ask to talk to customer references who have been through a server upgrade with this IT company.

◆ If they offer "unlimited support" at a low-sounding price, read the fine print before signing: It's almost never really unlimited and often there are important – and expensive – extras not included.

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