





# Basic Training

Get a crash course on the 5 biggest tech issues facing your business today. **BY AMANDA C. KOOSER**

**It wasn't that long ago when most** business memos were written out longhand, and cell phones and internet access weren't considered absolute necessities. But times have changed, and with them so has your business. Keeping on top of all the various technology issues can be a challenge, so we've prepared a primer on five big tech topics: VoIP, Wi-Fi, internet security, OSes and data backup. We'll look at what they are and what they mean to your business, and talk to some entrepreneurs who are putting them to use.

## **VoIP**

This technology has been the source of much excitement lately. VoIP moves your phone calls from traditional voice lines into the digital world by sending them out over the internet. Andrea Peiro, president and CEO of the Small Business Technology Institute ([www.sbtechnologyinstitute.org](http://www.sbtechnologyinstitute.org)) in San Jose, California, has been keeping an eye on the technology: "The big advantage of VoIP over the old analog lines is the

very high level of flexibility that it allows. That is the main reasoning behind the adoption of VoIP in the small-business market." Cost savings on long-distance calls can be a boon, but the litany of features is what makes the technology really attractive.

Some of those features include find me/follow me, unified messaging capabilities and the ability to connect multiple locations. That last feature is what attracted Gregory Liebowitz,

17-year-old president of IT Media, to the technology. His Hillsborough, New Jersey-based internet consulting and development firm consists of a network of employees and contractors with offices spread out in disparate locations. IT Media keeps a 3COM MBX (an in-house VoIP solution) at Liebowitz's office. Employees connect to it through the internet, regardless of their locations. "It turned out to be a very good solution," he says. "The main advantage is it's pretty much

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seamless." He says the call quality overall has been fairly decent.

Most business owners who are considering a solution like that will want to check with an IT consultant for help in selecting equipment and setting it up. Those with less complex operations can visit service providers such as Packet8 ([www.packet8.com](http://www.packet8.com)) and Vonage ([www.vonage.com](http://www.vonage.com)).

VoIP is a technology that is developing quickly. The complexity can be a drawback, but expect improvements in service and ease of use over the next year. Peiro also sees prices falling over the next couple of years and adoption rising accordingly. For businesses like IT Media, with distributed offices and telecommuting employees, it can be well worth the investment.

### Wi-Fi

There aren't too many drawbacks to using a wireless network. You have to keep an eye on your security settings, and sometimes the signal can be weakened by distance or physical obstacles. But those issues can be addressed without too much hassle. Who is a good candidate to install Wi-Fi? "Everybody is a good candidate," says Peiro.

Even if it's not an absolute necessity for running your business, it can be a boost to the quality of your workday. Liebowitz is living proof of that fact. "It's basically just an added conven-

ience," he says. "I can be anywhere within the house or outside and still be connected. In terms of improving productivity, it's a nice thing to have."

Jason Mudd, 30-year-old president of Axia Public Relations and Marketing ([www.axiaprm.com](http://www.axiaprm.com)), installed Wi-Fi in his Fernandina Beach and Jacksonville, Florida, offices for his 12 employees to use. With Wi-Fi installed on his laptop, he takes advantage of a variety of Jacksonville hot spots when he's out of the office. Whether he's having tea at

City Hall or lunch at a cafe, he's able to log on, check his e-mail and keep up with work.

There are several flavors of Wi-Fi, distinguished by the letter after the 802.11. Liebowitz got on the Wi-Fi bandwagon early with 802.11b and has found it completely satisfactory for his

have a solid wired solution may not be interested in Wi-Fi, but it's worth checking into otherwise.

### Internet Security

You can't get online without hearing about the latest worms, viruses, hackers and spyware. Fortunately, there are simple ways to minimize your vulnerability. Anti-virus and anti-spyware applications are must-haves. If you don't have them, now is the time to get them. "Small businesses do not pay enough attention in general to digital security," says Peiro. He recommends not just installing an anti-virus solution, but also checking up on it regularly to make sure it is updated. Also, be sure to renew the license every year. The cost is minute compared to what a virus could cost your business in lost time and data.

Mudd runs Norton Internet Security Suite and Spybot Search and Destroy to protect against spyware. His business is also set up with a firewall on its router to protect the overall network. Besides firewalls that come on routers, there are also software firewall solutions available. ZoneAlarm is a popular

## The Skinny on Spyware

Unlike many viruses, spyware doesn't always announce its presence. It may be working subtly under the surface of your computer. It can land on a computer hidden in seemingly innocuous downloads or through e-mail attachments. Spyware can track your online movements, expose private information and steal user names and passwords. Even if you are vigilant, there is no guarantee that your employees are as well. It takes just a small investment in time to download a free program like Ad-Aware ([www.lavasoftusa.com](http://www.lavasoftusa.com)) or Spybot Search and Destroy ([www.spybot.info](http://www.spybot.info)), install it and run it. You'll be surprised at what you find.

There is also a more advanced paid version of Ad-Aware available, as well as other options like Webroot's \$29.95 (street) Spy Sweeper ([www.webroot.com](http://www.webroot.com)). Some security suites also offer spyware protection as part of the bundle. Anti-spyware software is no longer just a good idea; it's also a requirement for any computer that connects to the internet.

needs. Mudd recently upgraded his b system to 802.11g, a higher bandwidth solution that is most common in businesses today. The next step is 802.11n, which features longer range and faster speeds. Both 802.11b and 802.11g are extremely affordable, and entrepreneurs who are relatively comfortable with technology shouldn't have too much trouble setting them up without outside help. Businesses that already

choice, with both free and paid versions available. It's a good idea for laptops and employees who are on the road logging on at unsecured wireless hot spots. Minimally, users can turn on the built-in firewall that comes with more recent versions of Windows XP. It's not the most ideal solution, but it's a start. Anti-spyware programs like Lavasoft's Ad-Aware ([www.lavasoftusa.com](http://www.lavasoftusa.com)) are available as free downloads.

For Windows users, it's not a question of whether you should use internet security software, but rather which brand. IT Media, however, has a slightly different story. Liebowitz's business runs primarily on the Macintosh platform and doesn't use anti-virus or anti-spyware software. "It's not really susceptible to the same kind of vulnerability as Windows," Liebowitz says. That leads us to our next topic: your OS.

### OSes

The two main alternatives to Windows are Macintosh and Linux. IT Media handles a lot of high-end interactive design and is the kind of small business that's well-suited to using Macs. "Apple is still a very top-level choice among small businesses as far as the multimedia graphics applications type of development," Peiro says. If that sounds like a description of your business, Macs may figure prominently in your future (and your present).

But it's hard to ignore that the majority of businesses are on the Windows platform. Linux has popped up as an intriguing alternative, but it still has limited appeal. "Linux has gone through some major hiccups in terms of providing a consistent user experience," says Peiro. Expect con-

tinued advancements for the desktop version of Linux in the ease-of-use realm, but it may be a while before it becomes a viable alternative for the average small-business user.

## Easy Does It

For home offices and very small offices, you may not want to invest the time and money for an in-house VoIP system that involves a lot of hardware and setup. If that's the case, there are plenty of service providers that can take care of your needs. First, make sure you have a broadband connection. Next, pick a service provider. Some of the best-known companies in this area are AT&T CallVantage ([www.att.com](http://www.att.com)), Packet8 ([www.packet8.net](http://www.packet8.net)) and Vonage ([www.vonage.com](http://www.vonage.com)).

Some things to look for include 911 support, softphone support for when you're on the road, call quality and overall cost. After all, one of the goals is to save money on long distance. If call quality or 911 support is still an issue, it may be in your best interest to retain a traditional phone line for backup. There could come a time when that won't be necessary anymore, but until then, it's better to play it safe.

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In the meantime, open-source software has established some strong footholds in other areas. The free Mozilla Firefox ([www.mozilla.org](http://www.mozilla.org))

### Data Backup

browser has become popular as a more secure alternative to Internet Explorer. All of the VoIP equipment, wireless connections and internet security software in the world won't save you if your hard drive just up and dies. It can happen with little warning. So can natural disasters or equipment failures. It's your duty to be prepared to handle it. Data backup is an essential

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part of your technology setup. Luckily, there are a variety of ways to handle it.

IT Media performs incremental backup of its servers and workstations to a Dell PowerVault storage RAID. "We haven't had any issues with data loss because we implemented data backup from the start," says Liebowitz. Axia wasn't quite so fortunate. About a year ago, Mudd lost three weeks' worth of work when his hard drive quit and he discovered that his last backup was that long ago. That bad experience led Mudd to improve his backup system. His busi-

ness now uses Windows Offline Files to save a copy on the server, and a tape backup system which backs up the server daily. Meanwhile, his employees keep copies of their work on their laptops. He has been shopping around for an off-site backup solution for added security and hopes to have it implemented soon.

External hard drives are inexpensive solutions. Using Firewire or USB 2.0, they can also be very fast solutions. There are some online backup services available, but they can take a toll in the sheer amount of time it takes to upload data, especially if you have the need to back up often. Ask around, and take a trial version for a test drive to see if it suits your needs. All of this leads to another question: "How often should you back up? The question is, How

much data are you willing to lose?" says Peiro. You may find that a weekly backup will suffice, or that you may be better off on a daily basis. Finding a way to keep your backup in a different location from your main computer setup is a smart step that can protect your data in case of fire or theft.

### Wrapping Up

You rely on your technology to run your business. By educating yourself and using outside help when necessary, you can make your technology more reliable. Don't hesitate to engage an IT consultant or outsourcer if you don't have your own in-house IT staff. While Mudd handles whatever issues he can by himself, he also uses outside IT help. By paying for blocks of service hours in advance, he saves money.

It's up to you to stay informed about the technology issues that affect your business. As newer technologies like VoIP and Wi-Fi continue to improve, you may find new ways to use them to boost your productivity and bring added conveniences to your workplace. Just be sure not to neglect some of the less glamorous technology needs. Security and data backup are integral to the foundation of your business technology. And you never know, someday in the not-too-distant future, you may be booting up to an OS with no Windows required. Until then, don't forget to swap out your backup drives. \$\$\$

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