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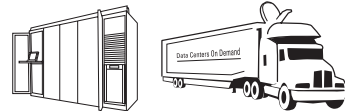
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Making a Meaningful Recovery

Forgo planning and you open yourself up to fallout from disaster.

WE ALL KNOW disaster can strike at any time, but the question is how seriously do we take the threat to invest the time and money required for any kind of meaningful recovery.

With tsunamis and hurricanes and terrorist strikes putting people across the globe in danger in recent years, there's definitely a move amongst governments and communities to put together plans to respond to any kind of disaster. Unfortunately, the same thing can't be said for small- to mid-sized businesses. Most companies in this segment are so resource constrained and saddled by the myriad technology initiatives on their plate that they can't—and don't—set aside the time and budget to put a proper disaster-recovery plan in place. Many aren't even instituting basic best practices to protect their systems and mission-critical data.

It's an oversight no company can afford to make. In our cover story, "Secure Horizons," we'll take you through the process of how to formulate a 10-step

“Many aren't even instituting basic best practices to protect their systems and mission-critical data.”

protection plan and show you how companies are prioritizing planning for disaster with minimal disruption and at moderate cost to the business. We'll also help you balance whether it's a task the company can handle with its own resources as well as introduce you to services, including those available from PC Connection, Inc. and its partners, that can take some of the sting out of the backup and recovery planning process.

One of the more basic elements of a disaster-recovery plan is an uninterruptible power supply (UPS) that helps guarantee your business is always powered. On the data side, Networked Attached Storage (NAS) devices, once thought of as complex technology, are now being offered by a variety of vendors as an easy-to-use appliance priced at the sweet spot for SMBs. We'll give you the rundown on each and provide some tips to aid in the buying process.

On a personal front, recovering from identity theft is a disaster no one wants to face, yet an increasing number of people are put in that position every day. In our Digital Living department, we'll spell out exactly how to avoid online identity theft and provide you with resources that can help if you nevertheless end up falling victim.

So invest the time in reading this issue of *Connect*. It can go a long way in protecting you and your company from that impending disaster.

Bob Wilkins
Executive VP
PC Connection, Inc.

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Doing haphazard disaster-recovery planning can be nothing short of disaster. Formalizing policies and forging partnerships can ward off downtime.

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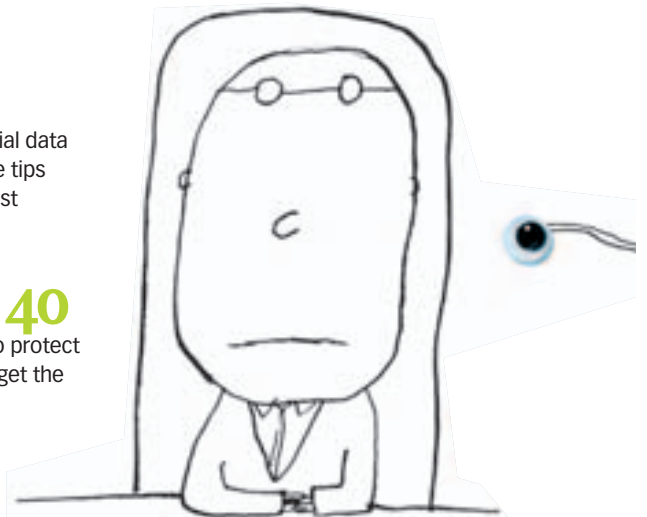
Spyware steals confidential data and clogs software. These tips can help fend off this latest security threat.

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UPSs can be a great insurance policy to protect critical business assets. Here's how to get the best coverage.

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Lightweight business intelligence tools promise to unlock hidden profits. But be prepared for some heavy lifting in order to reap their rewards.



“People get tired of things online at a much faster pace than when using any other medium. They’ll stop paying attention and start hitting the delete key.” PAGE 13

DEPARTMENTS

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Cover: Illustration by Mirko Ilic
TOP LEFT: SARAH WILSON; BOTTOM LEFT: SERGE BLOCH;
LEFT: ALEX NABAUM; ABOVE: RYAN DONNELL

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Threads

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BACKUP

Tape Two

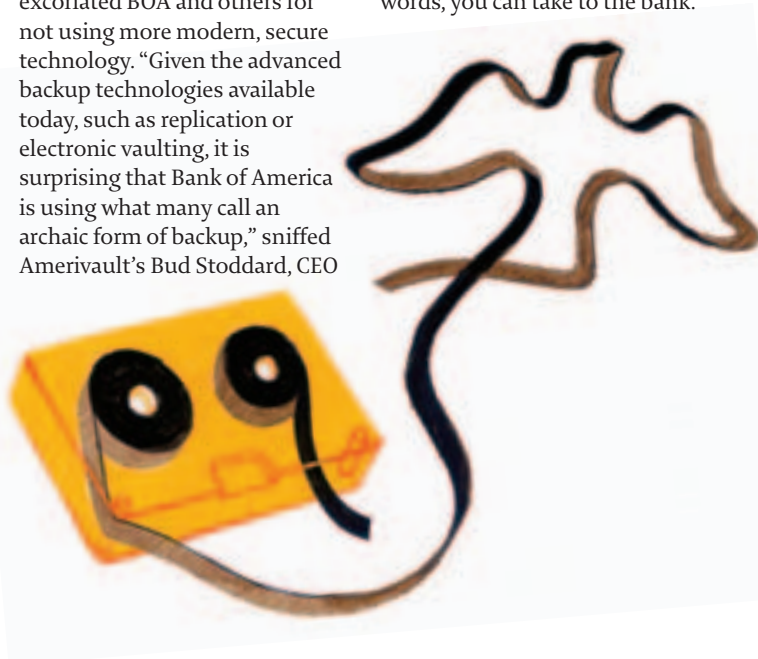
Companies eye alternative backup sources due to recent snafus surrounding lost tapes.

THE RECENT LOSS by Bank of America and Time Warner, Inc. of backup tapes containing personal information has brought cries for reforms in several key areas—encryption, government regulation, and, most emphatically, backup technology.

Tapes, which have been and remain for many corporations the trusty backup technology of choice, took a particularly hard whack as pundits of all stripes excoriated BOA and others for not using more modern, secure technology. “Given the advanced backup technologies available today, such as replication or electronic vaulting, it is surprising that Bank of America is using what many call an archaic form of backup,” sniffed Amerivault’s Bud Stoddard, CEO

of the storage and backup firm.

True, and yet companies are hardly alone in their fondness for tape. Many large corporations have invested heavily in tape and aren’t inclined to rip it out anytime soon. An in-between alternative: “Virtual tape” disk-to-disk backup, which writes data to disk in current tape formats, but allows data to be backed up and recovered at speeds many times faster than actual tape. Plus, the technology’s affordable—a solution, in other words, you can take to the bank.



ALEX NABAUM

BACK ON TRACK After a few grim quarters, buyer expectations for IT spending growth over the next 12 months have finally taken a turn for the positive. Business and IT executives polled by International Data Corp. say they expect to increase their technology spending in the next year by more than 9 percent.



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SEARCH ENGINES

Boxing Google

Talk about your must-have appliances. Google now offers a family of “appliances” designed to bring Google search functionality to internal networks and intranets.

First, the Mountain View, CA, Internet darling released heavy-duty units designed to compete head to head with document-management products. Now, the company’s come back with the Google Mini, aimed at SMBs. The Mini indexes all content within a company’s intranet or public Web site, letting users search for information just as they do on Google.com. The newest version can search up to 100,000 documents and costs \$2,995.

Now there’s no excuse for that messy file room.

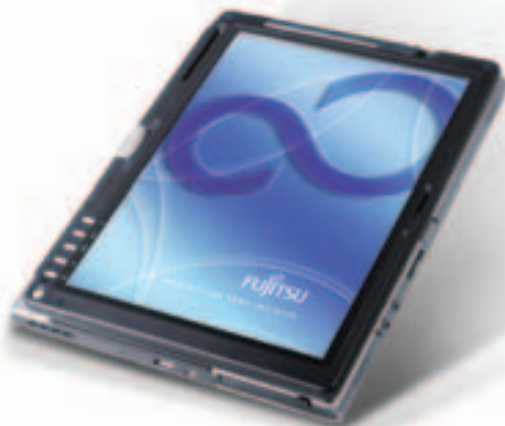


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HOME IS WHERE THE (WORK) PC IS A survey of 2,000 technology users shows that employees are likely to buy for their homes the same brand of computer they use in the office. Nearly one-third of users have the same brand of computer at home as they do at work; buyers say business PC use influences their buying intentions 39 percent of the time.

THREADS

Drive Rx

The data looks lost, and for one quick second, the future looks bleak: "My hard drive is toast. ... I can't go on!"

These are moments only a good counselor can turn around. Data recovery firm DriveSavers, in Novato, CA, hears this refrain so often that it's actually hired a former suicide prevention counselor to man the phones and help appease PC users in distress. After the crying stops, the company gets to work. They have a special clean room, equipped with technicians in white coats, that doctor your drive with state-of-the-art technologies to recover data. They've even retrieved data from a computer that spent the night in the Colorado River. So, dry your eyes, help has arrived!

BOTTOM LEFT: STEPHEN MALLON/PHOTONICA; ILLUSTRATION: ALEX NABAUM



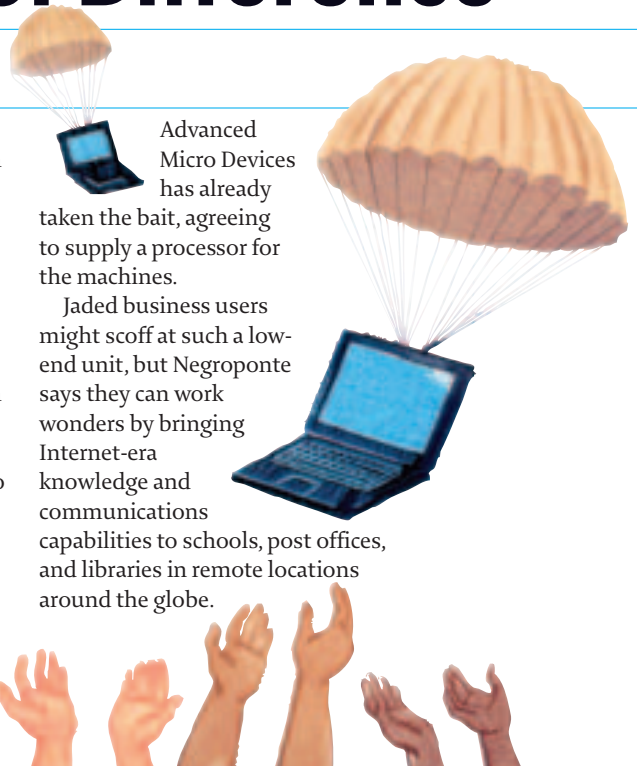
SOCIAL CHANGE

A World of Difference

Tech leader campaigns for low-cost PCs to aid poor.

WHAT CAN a \$100 laptop get you? Maybe not much in the U.S. business world, but in other parts of the globe, ultra-low-priced laptops can make, literally, a world of difference. So says former MIT media lab honcho Nicholas Negroponte, who recently launched a campaign to convince computer makers to churn out ultra-low-cost portable PCs for the world's poorest nations.

That \$100 price tag wouldn't be so hard to achieve, says Negroponte, if makers cut down on memory and processing requirements, adopt a stripped-down version of the already slim Linux operating system, and use a novel, cut-down version of a television screen that costs about \$20. Chip maker



Advanced Micro Devices has already taken the bait, agreeing to supply a processor for the machines.

Jaded business users might scoff at such a low-end unit, but Negroponte says they can work wonders by bringing Internet-era knowledge and communications capabilities to schools, post offices, and libraries in remote locations around the globe.

MESSAGING

IM=Instant Menace?

There's bad news for people who like their messages fast and furious—Instant Message security threats are exploding in 2005, growing 50 percent each month so far this year.

The IMLogic Threat Center, an industry group, has tracked this year more than 30 widespread incidents of IM or P2P viruses, worms, or other malicious code. The majority of attacks have targeted MSN Messenger, Windows Messenger, and the MSN IM network, with Yahoo and AOL so far trailing in hits. As always, security experts remind users not to read messages, instant or otherwise, from users they don't know or aren't expecting to hear from, and never to follow links to unfamiliar Web sites.

ODE TO THE FEARLESS.

We live in an age where fearless thinkers are transforming the way we live, work and play. Organizations are realizing that the true power of their information is unleashed only when it is readily available, not safely locked away. Business leaders are learning that success comes from letting their people do what they do best—wherever, whenever and however. That having to choose between protecting information and making it available is a choice from the past. That real security is an open door, not a closed one. That when information has no limits, followers become leaders and leaders become pioneers. This is the new world. And in this world, the ones who are fearless are the ones who will lead. **Will you be among them?**

www.information-integrity.com/ode



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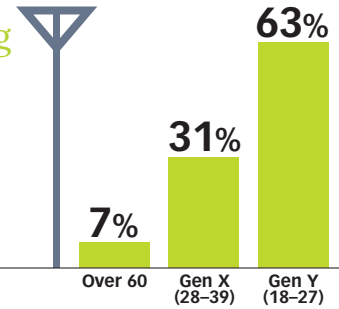
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SMS ANYONE? Texting is huge among the Gen Y crowd (18 to 27) with 63% participating. 31% percent of Gen-Xers (28 to 39) text message, while only 7% of those over 60 indulge.

SOURCE: Survey by The Pew Internet and American Life Project



Real life matrix on its way? Move over, Keanu. If technology giant Sony Corp. has its way, one day we'll all be able to live in a real-world matrix just like the laid-back star of the sci-fi trilogy.

Sony recently patented an idea for transmitting data directly to the brain by firing ultrasound pulses that modify the behavior of specific neurons. The technique could produce technology that allows users to see movies and play video games in which they smell, taste, and even feel things.



This matrix isn't likely to be coming to a screen near you anytime soon, however. The company filed patents on the theory only, not yet on any specific invention.

BOTTOM LEFT: WARNER BROS./COURTESY NEAL PETERS COLLECTION; ILLUSTRATION: ALEX NABAUM

ADVERTISING

Too Hot for Prime Time



HAVE YOU SEEN the beer commercial where the guy sleds into a telephone pole, privates-first, and comes out talking a few octaves higher? How about the one with the screaming toddler that ends with a plug for a certain male-oriented family planning product?

In this post-Janet Jackson age, those ads and a lot more like them didn't make the cut for television in the United States, but they're playing every night on a high-res screen close to home—the Internet.

"The Web has become the dumping ground for cast-off television commercials," says Ball State University Professor of Telecommunications Robert Pritchard, in Muncie, IN. "With the production of a 30-second commercial often costing several million dollars, companies are

looking at every medium to place their advertising pieces," Pritchard says, "and the Internet is unregulated by government agencies."

Users forward racy ads to one another in the same way that they pass around online jokes—a dream scenario for marketers, who don't have to pay for broadcast time or space on a Web site to get their commercials before a willing public.

But don't expect the trend to last, says Pritchard. "This is a fad, and like all fads, it will fade rapidly," he predicts. "People get tired of things online at a much faster pace than when using any other medium. They'll stop paying attention and start hitting the delete key."

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TIX ONLINE? JOIN THE CROWD... More than one-third of online consumers purchased an event ticket over the Internet in the past year, with consumers dropping a cool \$5.4 billion for tickets online in 2004, according to Cambridge, MA-based market researcher Forrester Research, Inc.

FUNTHREADS

Entrepreneurs
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Founded in 1997 by attorney husband-and-wife team, Philip and Nellie Akalp, MyCorporation.com offers affordable, one-stop shopping to would-be magnates. The Web site serves up a variety of incorporation packages and trademark protection services.

Hiring an attorney to set up a corporation or LLC costs between \$2,500 and \$3,000; MyCorporation.com's incorporation service fee starts at \$99.

INTERNET FILTERS

Protecting Teens Online

MORE THAN HALF of online American families with teenagers are using filters to limit access to potentially harmful content—a whopping 65 percent increase from the number of those who used filters in 2000.

A new survey by The Pew Internet and American Life Project of teens between the ages of 12 and 17 and their parents shows that 54 percent of Internet-connected families now use some sort of Internet filter or monitoring software, up from 41 percent in 2000. About 19 million youth live in homes with an Internet connection, and the number of children living in homes with filters has grown from 7 million in 2000 to 12 million today.

The filters tend to be used by parents who themselves are frequent users of the Internet, but



there's a question whether they're doing much good: The same survey also found a majority of teens and their parents feel the youngsters are still doing things they shouldn't online.

DISCONNECTED



By jaQ Andrews and Erik Evensen



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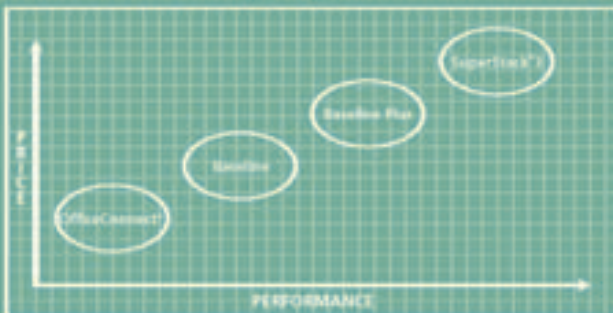
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Identity theft is a growing problem. Here's how to make sure your good name stays yours.

THE STATISTIC is enough to strike fear into the hearts of even the most ardent online shoppers: Every 79 seconds, someone falls victim to identity theft. Some have only small amounts of money siphoned from their bank accounts; others spend months trying to untangle the credit-card charges, phony loan applications, and other financial nightmares that come with someone hijacking their lives.

Sure enough, identity theft can happen by someone stealing your mail or pilfering your trash. But for Internet users, it's the electronic kind of identity theft that's truly scary, especially when you consider how much time people spend online banking, shopping, sending e-mail, and instant messaging with friends. With all those electronic doors wide open, you have to wonder who's slipping through?

More often than not, the answer is phishers, a breed of identity thieves that use self-launching applications, bogus e-mails, pop-up windows, and

fraudulent Web sites to perpetrate their evil deeds. The bad news is that phishing is on the rise. The worse news is that cyber thieves are getting better at what they do. Unlike the people who write worms and viruses for the "fun" of infecting worldwide computer systems, identity thieves are in it for the money, not the glory of being a top hacker.

"Virus writers are usually just kids who are bored," says Dave Jevans, chairman of the Anti-Phishing Working Group, an industry organization intent on stamping out phishing activity. "But phishers are professionals."

Phishers have refined their techniques so that they're no longer reliant on a user clicking through to an untrusted Web site. Instead, they can embed spyware—an application that runs without a user's knowledge—into a blank e-mail. Although the e-mail recipient deletes the message, the spyware runs in the background, stealing their passwords, changing browser bookmarks to phishing sites, and giving

identity thieves remote access to the machine. (See related story, page 36.)

Lock Down

Feeling nervous about clicking through the day yet? While there's definitely cause for concern, there's no need to ditch your online banking access or say goodbye to your eBay habit. As long as there's thought behind the surfing and a healthy dose of prevention, users can maintain an adequate level of protection. According to Vincent Weafer, senior director of the security response team at security firm Symantec Corp., in Cupertino, CA, here are the best ways to ensure safe surfing:

1. **Don't click** on links that appear in e-mails. Phishers use these to direct people to phony sites. Instead, open a new browser window and manually type in the name of the financial institution or other site.
2. **Delete** any e-mail messages from banks with an urgent security warning and request that you update your user name and

DIGITAL LIVING

BY ELIZABETH MILLARD

**Stop!
Thief!**

"I'd recommend a healthy dose of paranoia."

—**Vincent Weafer**
Symantec Corp.

password. These are never sent from legitimate banks.

3. Don't download software or anything else from a site you don't know.

4. Look for the security validation in the browser window when shopping online. In many, this will be a small icon of a locked padlock. Also, URLs for secure shopping site checkouts begin with "https://" not "http://." If you begin checking out and there's no "s," then shop elsewhere.

5. Install software that scans the system for spyware and viruses.

6. Become a control freak: Monitor your bank statements, credit card statements, and credit report. (And hey, since you've taken so many preventive steps, go ahead and do it all online!)

Internet users can also take comfort in the fact that technology companies and the government have taken an intense interest in the problem. Because money taken by identity thieves could end up in the hands of terrorists, both the FBI and

Secret Service have launched stings and have phishers under investigation.

Microsoft is especially keen on catching phishers and recently filed 117 lawsuits against operators of phishing sites. "We are very intent on stopping this problem," says Aaron Kornblum, Microsoft's Internet Enforcement attorney, in Redmond, WA.

"Because of the danger to anyone who goes online, Microsoft will be extremely aggressive in pursuing litigation and working with the government on this."

Until the corporate and federal forces succeed in quashing the problem, it will be up to computer users to be on guard. "In some ways, it's part common sense, but it takes a bit more vigilance than that," says Weafer. "I'd recommend a healthy dose of paranoia."

*Elizabeth Millard is a freelance writer who specializes in business and technology topics. Her work has appeared in *Business 2.0*, *BusinessWeek*, and *CNN Online*.*

Help is on the Way

If you've been the victim of an identity theft scam, there are several steps to take immediately:

■ **Call your bank and change your account number.** The Electronic Fund Transfer Act gives you 60 days from the date your bank account statement is sent to you to report in writing any money withdrawn from your account without permission.

■ **File a complaint with the Federal Trade Commission.** You can do this online at www.consumer.gov/idtheft or by calling the FTC identity theft hotline 877-438-4338.

■ **Place a fraud alert on your credit report by calling one of the three major consumer reporting companies:** Equifax (800-525-6285), Experian (888-397-3742) or TransUnion (800-680-7289). A call to one will place an alert with all three companies.

■ **Call your credit card companies and cancel your card or change the accounts.**

Protection Plan

Are you especially nervous about identity theft? You might want to consider protection in the form of an insurance policy. Many banks, like Wells Fargo and Washington Mutual, have started offering identity theft protection for a monthly fee, which ranges from \$10 to \$15. These services monitor your credit report daily, issue alerts to accounts opened in your name, and provide up to \$10,000 in insurance if theft should occur. —E.M.



ALL DATA IS SOMEWHERE IN ITS LIFECYCLE

DO YOU KNOW WHERE YOURS IS?

INFORMATION LIFECYCLE MANAGEMENT BY HP

Every piece of data in your business has a life of its own. Some bits are accessed frequently and kept close to your core network-storage resources. Others are scattered across multiple systems and rarely, if ever, accessed. As new laws emerge, regulating the availability of health, financial, and employee records, it suddenly becomes critical that you know where and what every piece of data in your business is.

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Overnight Delivery

CUSTOMER PROFILE

BY BETH STACKPOLE

LA Weight Loss sticks to a diet of overnight fulfillment practices to open centers quickly.

HOW'S THIS for an IT manager's worst nightmare: You're rolling out a major new phone system and in the middle of the deployment—at 9 p.m., no less—you discover you have the wrong switch. At most companies, this glitch could spell downtime for days. No such problem for LA Weight Loss, however. It managed to avert disaster with one late-night phone call to its technology partner, PC Connection, Inc., which located the proper switch and dispatched it to the company's doorstep by early the next morning.

That's not the only time PC Connection has swooped in to save the day. Overnight product drop-shipments are commonplace at LA Weight Loss, which orchestrates technology buying at a corporate level for over 300 retail locations across the United States. With an IT

staff of 12 and no real warehouse to stock computer equipment, the chain of weight loss centers leans on PC Connection for order processing and dispatching.

"The way technology changes and costs fluctuate, we don't want to buy 100 computers and then have them sit in a warehouse," explains John Janthor, director of information technology for the Horsham, PA, firm. "We operate with minimal overhead so PC Connection is essentially our warehouse."

PC Connection is also an extension of LA Weight Loss's IT department. When any LA Weight Loss location—either a new or existing center—requires new equipment or needs troubleshooting on equipment that's on the fritz, the corporate IT department wades in. If the problem can't be addressed, it's escalated to go through PC Connection, which is

authorized to drop-ship replacement gear or new systems and get them out the very next day. LA Weight Loss buys a variety of equipment from PC Connection, including the more commonplace PCs, peripherals, and networking hardware. It also purchases custom-configured point-of-sale systems, which integrate a desktop computer with a hand scanner and cash drawer.

Having the ability to get all of this equipment out to any LA Weight Loss center around the country in near real time is something Janthor's department couldn't handle on its own. It also goes a long way in making the IT department look good in the eyes of corporate management. "It's definitely a great PR move for our department," notes Rob Lepre, manager of technology services. "When people ask, 'can you get it done?' there's a comfort level knowing we can say yes."

Beyond overnight order fulfillment, LA Weight Loss was also looking for a hand in simplifying ordering and billing for its dispersed stores. Given that each of the retail stores has varying technology needs, it was critical to have some sort of mechanism in place to centralize orders and keep track of invoices. Traditionally, LA Weight Loss's IT group would phone in requirements to its vendors and wait to hear back with quotes. With PC Connection's new

"We operate with minimal overhead so PC Connection is essentially our warehouse."

—**John Janthor**
Director of IT
LA Weight Loss



OVERNIGHT DELIVERY: LA Weight Loss's John Janthor operates his IT group with minimal overhead.

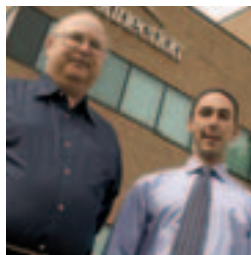
online business-to-business ordering system, Lepre says LA Weight Loss centers can go immediately online, do price comparisons on models, check availability, and place orders in a matter of minutes.

Lepre says online ordering is a huge time-saver for a department that's already overworked. "We're like a drive-through window, pumping out projects and processing lots of orders for mice and monitors during the course of the day—it can bog you down," he explains. "The ease of the [PC Connection Web] site makes it easy to place orders, and it helps the productivity of the person doing the ordering so we can focus on more strategic things."

ABOVE: RYAN DONNELL

IN THE WEEDS WITH PC CONNECTION

David Freedman and Rich Silver



On the IT challenges LA Weight Loss faces: LA Weight Loss is opening so many new centers, it needs to make sure it gets the equipment it needs in as timely a way as possible. They also

need to manage the equipment as it goes out to each site. Part of that is making sure they have standardized products so there's not a hodgepodge of equipment out there to support. We try to work closely with them to ensure their standard equipment is available and ready for rollouts.

On PC Connection's role: We make

sure the configurations they want are current because sometimes equipment changes. We are rigorous about making sure we have their configurations in stock. And we try to be as responsive as possible because we don't often get a lot of lead time on projects.

The relationship is also a two-way street. LA Weight Loss has provided PC Connection with tremendous feedback to help improve its business-to-business Web site.

On what sets LA Weight Loss apart: They can open up new centers quickly without a lot of lag time. Once they start paying rent on a new center, they are up and running in a matter of days, not months.



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SHORTCUTS

DISASTER PLANNING IS OFTEN OVERLOOKED AND DONE HAPHAZARDLY. FORMALIZING POLICIES AND FORGING PARTNERSHIPS CAN WARD OFF DOWNTIME.

WRITTEN BY ESTHER SHEIN | ILLUSTRATED BY WILLIAM DUKE

JOSH BAUER HAS NO intentions of letting an IT disaster cripple the systems of Daymon Worldwide while he's on the clock. Bauer, network administrator for the private labeling and branding firm, has taken multiple steps to prevent any kind of crash and burn. First, there was an audit to check for deficiencies in the data backup plan. Second, there was an upgrade to new backup software that could better handle the needs of Daymon's growing remote population. As icing on the cake, Bauer put the new capabilities to the test during the company's annual off-site disaster drill. As part of this exercise, Bauer and his IT staff took the most recent backup tapes and installed them on test servers at a remote site in Philadelphia to prove system resilience. "Everything came right up—exactly the data

we'd need to operate from a new location—and very quickly," says Bauer, in Stamford, CT.

Daymon Worldwide is in the minority when it comes to small- and mid-sized businesses adequately and appropriately preparing for IT disasters before they strike. Data storage experts say most SMBs, hamstrung by either limited or no on-site IT staff, generally don't make data backup and recovery a priority and do little to no advanced preparation. Even if they have a system in place, oftentimes there's no one in charge of regularly backing up and testing the data. Even the simple things, like making sure there is a tape in the drive, often get lost in the cracks.

"Companies at the smaller end are doing it themselves, so they try and figure out what to back up—if they remember to do it at all," says Fred Broussard, a research manager at International Data Corp., in Framingham, MA.

Dealing with data security and recovery haphazardly, though, is a disaster no business can afford, regardless of its size. Small and large companies need to make both a top priority, at the very least, putting products in place to protect them at a most basic level and, even better, formalizing policies and forging partnerships—to help ward off any disaster that could lead to downtime.

The first step to disaster recovery planning is to answer some basic questions that can help determine what kind of products and what scope of policies are necessary for your business. Start by determining your business requirements and business continuity needs since those most impact the tools you'll use. Also figure out who will be in charge of backing up the data and how often they need to do backups and testing; institute those choices as formal policies, with penalties if they're not adhered to. Companies should also designate an offsite location to store backup tapes—for example, a bank vault—and potentially find a data center where tapes can be brought in the event of a catastrophe, minimizing downtime for the business. Some experts even suggest prioritizing

A 10-STEP PROTECTION PLAN

Most small businesses don't deal with disaster until disaster strikes. But that can end up being a huge mistake in terms of cost and downtime. You don't have to make major changes; even small measures can help.

INFOGRAPHICS BY JOHN GRIMWADE



COVERING THE BASES: Sonny Labrie of the Federation of Canadian Municipalities employs a multi-faceted backup plan.

PHOTOGRAPH BY TONY FOUHSE

data and backing up what's deemed critical on a more frequent basis.

Another thing to consider is that backup and recovery isn't just about protecting data. When formalizing a plan, companies also need to think about their applications, especially proprietary ones, and make sure those are factored into the process as well. And if a business operates 24/7, it should consider installing software that backs up open files and applications that employees use late into the night or around the clock, in addition to what's closed out at the end of the workday, when network

backups typically occur, experts say.

"It's not enough to have the software—you need the discipline to do the backup, make sure [tapes] are being taken off-site, and test the recovery [plan] so you make sure what you've taken off-site can recover your business," advises Mickey Baker, a senior consultant at GlassHouse, an independent storage service provider, in Framingham, MA.

Sonny Labrie does all that and more after learning the hard way about the price you pay for not formalizing a disaster-recovery plan. Years ago, in a previous post, Labrie experienced a data-backup



1

Consider the possible hazards your business could face. These can range from natural disasters and human error, such as floods or fires to terrorism, hackers, or disgruntled employees. Also consider potential exposure from surrounding businesses.

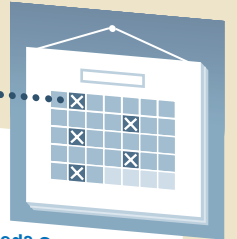
2

Make a business decision on what level of recovery is required for your business. Does your company generate critical data?



3

How often does your business generate data that needs to be protected? Once you understand why, what, and how often your company needs to back up, you can make a decision on what backup plan best fits your business.



“Companies at the smaller end are doing it themselves, so they try and figure out what to back up—if they remember to do it at all.”

failure—now he covers his bases with a range of products and backup procedures.

Labrie, manager of information systems for the Federation of Canadian Municipalities, a lobbying group in Ottawa, employs basic backup and recovery software supplemented by another application. That program migrates data the federation hasn't used in a while to another drive based on policies that Labrie sets. The impetus for this piece of the backup strategy came about because the federation was holding on to too much information that wasn't being accessed every day, making it a challenge to run backups on a single tape drive. “This reduces the amount of data we back up every night and the amount of time it would take to recover the data,” Labrie explains. It also precludes them from having to purchase a larger tape library, which the federation couldn't afford.

Labrie has a number of other disaster-prevention maneuvers up his sleeve. An application assessment helps him prioritize backups. The federation has 115 employees and runs 18 servers, all of which require backup. Thanks to the assessment, though, Labrie has prioritized backup for the federation's accounting program as well as any member-centric databases, he says. There is also an information storage provider partner, Iron Mountain, which, for a monthly fee, picks up and stores the federation's tapes off-site. The other critical measure is to rent co-location space from an Internet Service Provider, where the federation installed some Web servers

that will be tapped in the event of a network failure. “I could just take our tapes and go to the ISP's site and restore the data, and have our users operational either within hours or days,” he explains. “It can save your business.”

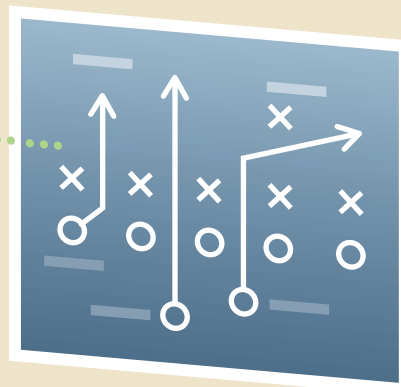
Unlike Labrie, Carol Hynes has never personally suffered the pain of losing company data, yet she takes the threat just as seriously. While Hynes handles basic technology setup and support at FloraTech, a small manufacturer of jojoba oil and cosmetics products, she's brought in some outside assistance to handle disaster-recovery planning.

Basic backup, tasks like workstation setups, server backups, and shuttling tapes to a secure location is Hynes's responsibility. The heavy lifting, including coming up with a formal game plan, selecting products, and instituting best practices, is the domain of FloraTech's partner, Bryan Vincent Associates, an IT consulting company in Chandler, AZ. “A company our size needs someone else to ... administer the system so I don't have to know everything about everything,” says Hynes, vice president of business management, who is also the de facto go-to technology person for the 34-person FloraTech in Gilbert, AZ.

Daymon Worldwide's Bauer also enlisted partners to whip the firm's data backup program into shape. Previously, Daymon's backup policy required users to back up their own data locally on a regular basis. The company also expected its several hundred remote users to upload data to a central server for

4

Create a contingency plan to remain in operation if your office becomes unusable. Notify your employees of this plan and provide regular updates. Also consider contracting with your local ISP or hire a data center for backup. Another option is to form a partnership with a like business in order to get up and running quickly. Conduct a disaster simulation to see if the plan works.



5

Identify critical files such as accounting records, customer lists, production formulas, inventory, payroll, etc. Store at least one copy of this information on-site (your working files) and one full backup copy off-site.

STORAGE FOR THE MASSES

Network Attached Storage appliances offer attractive features for SMBs.

Network Attached Storage (NAS) appliances are dedicated servers that provide file services to different client machines. They do what general-purpose servers do: Store and serve up files quickly and efficiently. But while other servers can also be used to access e-mail, printers, and the Internet,

NAS has a sole purpose in life—to store and serve up files. NAS appliances range in price from \$500 to \$1,000.

If a business finds itself cramming too many functions onto one server as its needs grow, a NAS appliance is an attractive alternative. “By deploying a NAS server next to a general-purpose server, you’re offloading the file sharing function onto the

NAS appliance, and it frees up resources onto the general-purpose server more efficiently,” explains Brad Nisbet, a program manager at research firm International Data Corp., in Framingham, MA.

Often, NAS appliances can be filled with very-large-capacity hard drives, which is critical for growing businesses. They also offer data protection more easily than general-

purpose servers, adds Nisbet. NAS appliances typically use RAID (Redundant Array of Independent Disks), which are multiple disk drives working together to protect the data so that if one disk drive fails, it can be recouped by another.

—E.S.

backup. The system worked well when the company was smaller, but as Daymon grew, compliance became spotty.

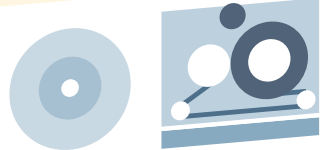
Step one was to swap out the old backup system with new software—Backup Exec from Veritas. Backup at all of Daymon’s locations is done nightly, says Bauer, beginning at 5:30 p.m. and running through the night until 7 a.m. the next day, due to the large number of servers. The company also runs

Backup Exec Desktop and Laptop to automatically back up Daymon’s remote data, allowing the IT staff to spend 30 percent less time on backup and restores.

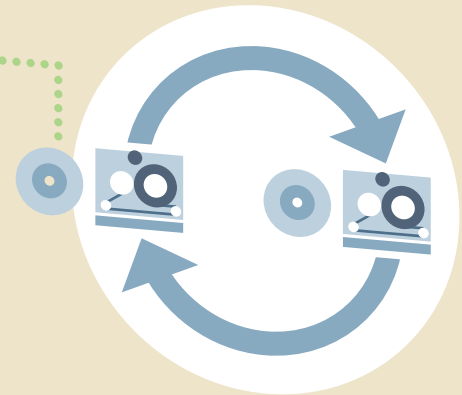
On top of the new-and-improved backup process, Daymon also enlists Iron Mountain to pick up the previous night’s tapes from the Stamford, CT, location to be stored remotely on a daily basis. “Data protection has gone from a disaster waiting to happen to a solved problem,” Bauer says.



6 Perform daily incremental or differential backups and weekly full backups. Most important, test your ability to restore data at least once a quarter. Designate someone to take tapes off-site to a safe location.



7 Always rotate and catalog tape cartridges or discs. Be sure to replace tapes or discs on a regular basis to maintain optimum performance. Designate a specific employee to periodically check the system and make sure there are at least a few tapes in the drive—and that they work.



“Sooner or later, everyone will be presented with the problem of a computer failure. When they are, it’s a very poignant lesson to learn.”

QUESTIONS AND ANSWERS

Beyond cost, here’s what to ask when considering an outsourcing partner for backup and recovery:

HAS THE CONSULTANT/SYSTEMS INTEGRATOR DONE WORK IN SIMILAR INDUSTRIES TO YOURS? This may be important because some industries have different backup/recovery needs. For example, an e-business is not going to have the same requirements as a manufacturer.

DO THEY HAVE STRONG REFERRALS? It’s critical that a potential partner have clients who can attest to the type of work they do in this specific area.

WITH WHOM DO THEY PARTNER? There are so many different products on the market, and consultants have their preferences. But some systems integrators may guide you to more cost-effective products that aren’t necessarily well-known, but still do the job.

WHAT KIND OF SERVICE-LEVEL AGREEMENTS CAN YOU GET? Some systems integrators put everything together for you, but then don’t provide good support services going forward. In that case, you’re in trouble if you don’t have a dedicated IT staff to deal with a technical issue.

SOURCE: International Data Corp.; Connect reporting

What happens, though, if a business can’t afford a consulting partner or is precluded from reserving space in a data center? A cost-effective approach to disaster recovery is to partner with a similar company, says Arun Taneja, founder of the Taneja Group,

an analyst and consultancy focused on storage-centric server technologies, in Hopkinton, MA. That way, both firms have a backup plan for running the core business applications in the event of an emergency.

Another alternative is to align with companies that will electronically store data. Companies such as LiveVault Corp., of Marlborough, MA, offer off-site storage, archiving, and guaranteed data recovery, an ideal data protection option for small and medium businesses and enterprises with remote offices.

If a company has unlimited resources, they can take data protection to the next level by purchasing a large disk system such as a Symmetrix or DMX from EMC Corp. Such systems can back up data faster and do data replication to another system.

Regardless of business size and the amount of bucks, the reality is no company is immune to disasters and everyone’s data is important to them. “Sooner or later, everyone will be presented with the problem of a computer failure,” says GlassHouse’s Baker. And when they are, “it’s a very poignant lesson to learn.”

Esther Shein has been a freelance writer and editor, specializing in technology and business, for several years.

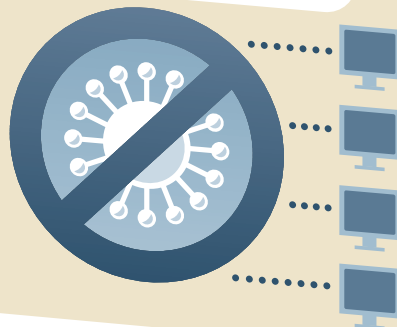
8

Protect all computers and phones from electrical surges. Consider purchasing uninterruptible power supplies.



9

Install virus-protection software on all computers.



10

Review your business’s current insurance coverage, or get insurance if you do not have any. Verify that your insurance protects against data loss or other business asset loss.





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PC Connection

Recovering from Disaster

SMBs: Avoid the piecemeal disaster-recovery plan.

PUTTING OUT FIRES—that’s how most small- and mid-sized businesses deal with disaster recovery. Instead of being proactive and looking at the problem from a global, strategic standpoint, most smaller businesses bring in backup or tape technology on a piecemeal basis. Having a well-thought-out, formalized disaster-recovery plan is the direction SMBs need to turn. Barbara King, PC Connection, Inc.’s product marketing manager for enterprise storage, tells us how SMBs can get more strategic about protecting their data and their systems.

What’s the biggest and most costly mistake SMBs make when considering disaster-recovery planning?

They don’t have an integrated plan, especially when acquiring different products. Say, for example, they roll out a new application and they buy a new server for it. They’ll often purchase a single, attached tape drive, which requires someone to physically change the tape. Then, all of the sudden, they have three

servers with attached tape drives, and someone at a company with limited resources now has to spend valuable time manually changing tapes. SMBs think about products as a single acquisition instead of thinking about how they fit into an overall backup scheme.

Are there common holes when it comes to disaster-recovery planning?

A lot of organizations don’t prioritize data and really evaluate what happens if data is lost. It’s also important to have off-site storage of tapes. Oftentimes, it’s the IT person or receptionist that puts the backup tape in their pocket and takes it home. But what if something happens to that person? Companies also need to think about testing their recovery plan because the backups don’t work a majority of the time.



BACKUP SCHEME: PC Connection's King advises SMBs to think globally about disaster recovery.

How could PC Connection help orchestrate a plan for disaster recovery?

We are experts in the SMB market. We have technical expertise within our walls and we have relationships with all the storage manufacturers. From a services perspective, we can help organizations with a full disaster-recovery assessment and help test plans on an ongoing basis.

“SMBs think about products as a single acquisition instead of thinking about how they fit into an overall backup scheme.”



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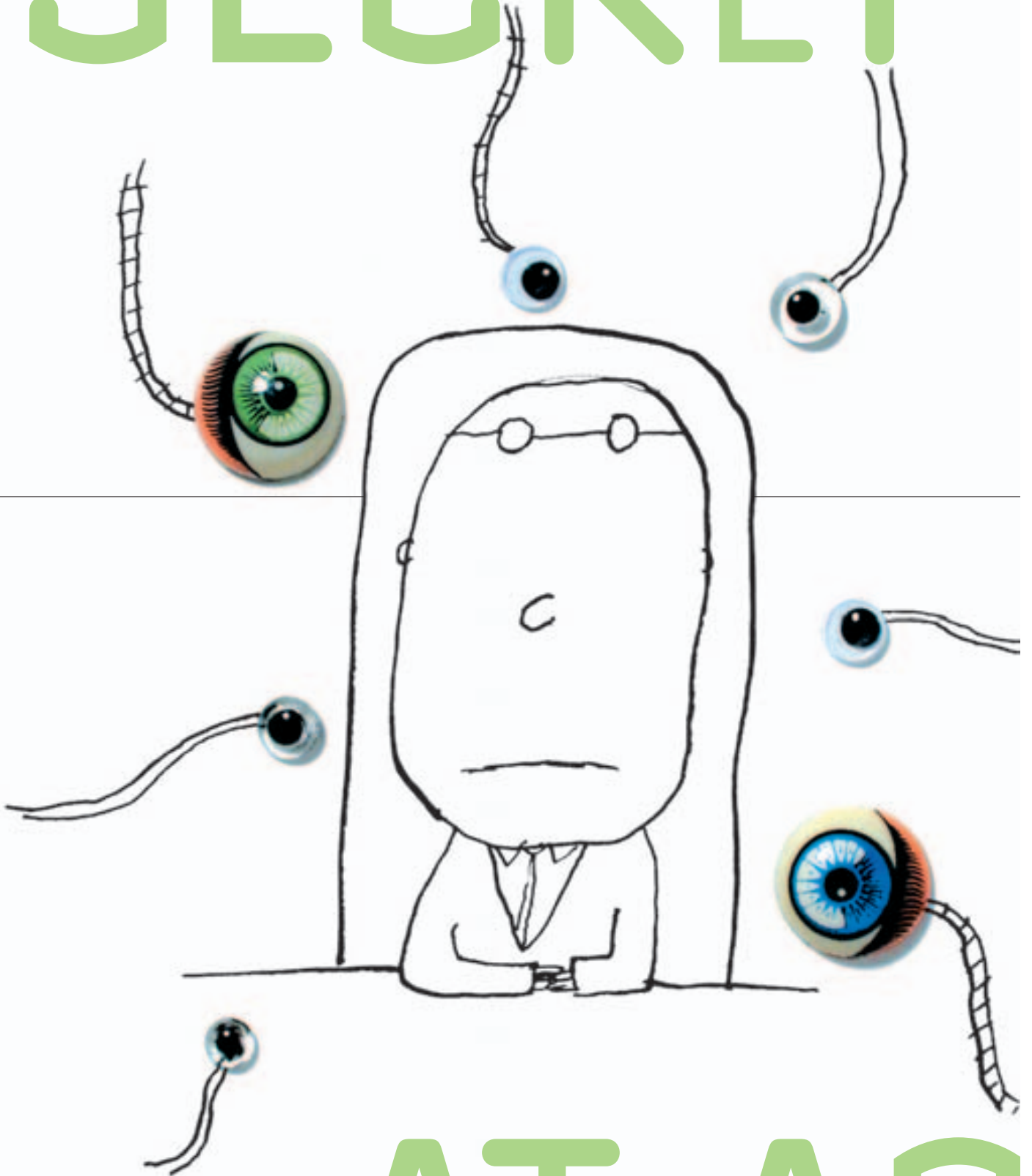
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***So, what'll it be?
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SECRET



ATTAC

AGENT

Spyware steals confidential data and clogs software, sometimes beyond repair. Here's how to fight the most slippery security threat yet.

WRITTEN BY TRACY MAYOR | ILLUSTRATED BY SERGE BLOCH

FOR LAW FIRM Fulbright & Jaworski LLP, it started out as a onesie-twosie kind of problem. A corrupted browser here, a blizzard of pop-ups there. Lately, though, it's been steamrolling. "It's really come up in the last six to nine months. We're finding more and more cases where Internet Explorer isn't working right," says Robert Bruce, senior network analyst for the firm, headquartered in Houston. "When we take a look, there's just tons and tons of unwanted stuff on the drive, and we wind up spending literally hours working on each machine."

"It" is spyware, and Fulbright & Jaworski isn't the only company to find itself dedicating more and more IT resources to scrubbing it off hard drives and trying, often in vain, to keep it outside the corporate firewall in the first place.

"A year ago, spyware wasn't more than a blip on the radar. Now, on average, companies are telling us spyware is taking up 20 percent of the help desk's time," says Peter Firstbrook,

a program director with the Meta Group research firm, in Stamford, CT.

Spyware is nearly as hard to define as it is to eradicate, but security experts agree that, at its most basic, spyware encompasses any Web-originating form of privacy-violating software—cookies, files, or processes—that takes up residence on users' computers without their permission or knowledge. Damage from spyware runs the gamut from annoying but relatively harmless pop-up ads through browser hijacking and on to bona fide security threats like keystroke logging, screen capturing, and monitoring e-mail and instant messages with the intent to capture personal and sensitive data.

With those kinds of potential problems, it's little wonder spyware has surpassed spam and identity theft as the threat that security managers are most concerned about, according to Forrester Research Inc. The Cambridge, MA-based research firm predicts that 65 percent of companies will either purchase or upgrade anti-spyware software this year, making it the most popular security technology of 2005.

Indeed, in the past few months, the industry's major



THE GOOD, THE BAD, AND THE REALLY BAD

Security giant Symantec divides spyware into three risk categories:

LOW-RISK PROGRAMS

- Track benign user actions only
- Have clear End User License Agreements
- Can easily be uninstalled

MEDIUM-RISK PROGRAMS

- Track Web browsing activities
- Have no clearly stated privacy policy
- Cause easily repairable changes or instigate annoyance activities like pop-up storms

HIGH-RISK PROGRAMS

- Attempt to conceal their presence
- Capture and send out confidential information
- Avoid being uninstalled or reinstall after removal

SOURCE: Symantec Corp.

security software vendors—McAfee Inc., Symantec Corp., and Microsoft Corp.—have either released new software that incorporates enhanced anti-spyware functionality or announced plans to do so soon. Those multifunction, enterprise-level programs join a plethora of single-task software, some of which is free, that aim to fight spyware from the desktop, including programs like Ad-Aware, PestPatrol, and Webroot Spy Sweeper. And at the same time, a new class of software is designed to stop spyware at the gateway by looking for suspect behaviors.

With such breadth and depth to the marketplace, beating spyware is simply a matter of picking the right program, right?

Not quite, experts say. Like viruses and worms, spyware is a moving target, and as of right now, at least, no one program or technology can wipe out the problem entirely. Until that happens, companies can best protect themselves by deploying a crazy quilt of defenses—at the desktop, the gateway, and across the enterprise—and by educating users on what behaviors will best keep the spies where they belong—out in the cold.

Back Door Woes

Users pick up spyware by browsing the Web. While even legitimate corporate sites can be unknowingly infected, studies have shown users who visit peer-to-peer file-sharing sites like Kazaa are many times more likely to be carriers of spyware. Downloading freeware or shareware from the Internet also increases the risk of infection.

If users' browsers are enabled to accept cookies and ActiveX files, as many are, unwanted code can be installed in the background without their permission or knowledge. Other times, clicking on pop-up ads or on survey boxes can launch spyware—even clicking “no,” or clicking anywhere in the box, for that matter. Spyware also travels on fake messages telling users their systems need to be tuned up, or similar instant message screens that appear to be sent by a system administrator.

Once installed on a user's system, spyware can capture confidential information (such as passwords, login IDs, or credit-card information), keystrokes, or surfing behavior and transmit that

data to a third party, often for profit. Other programs redirect browsers or search tools, often to shopping or competitors' sites; launch an unstoppable barrage of pop-up ads; or reconfigure a user's desktop, browser settings, or toolbar.

Unlike viruses and worms, which are universally derided, spyware in its most benign forms can be hard to distinguish from legitimate tracking software, like licensing monitors or upgrade notifications, and from adware, which often captures browsing habits and other Web data and then targets your system with ads tailored to your tastes. The difference can be slim indeed between free utilities that users want—the Google desktop search bar, for example—and one that directs unknowing users only to certain Web sites.

That's why analysts like Meta's Firstbook have taken to calling the whole class of software, PUPs—for Potential Unwanted Programs—to emphasize not the specific behavior of the program or utility, but the fact that it's unwanted. “It's not the idea of advertising that's the problem; it's any program that's surreptitious and hard to disable that becomes a concern,” Firstbrook says.

The distinguishing factor between adware and spyware, experts say, is intent. Programs that install themselves on a user's system without permission, avoid being detected and removed, and capture and transmit personal information without a user's permission or knowledge have crossed the line into spyware.

If there is good news, it's that most of spyware's damage is on the performance front, not the security front. “The [security software] industry is doing a bit of disservice by focusing so heavily on the security issues of spyware,” observes Firstbrook. “Keystroke loggers are scary, but they're only 5 percent of the problem. The other 95 percent are the cookies and the pop-ups that cause performance and productivity problems.”

That's the case at Fulbright & Jaworski, where users wind up with multiple search bars, browsers that are redirected to certain sites, or what Bruce calls “pop-up storms” that can't be shut down. When browsers aren't functioning correctly, users can't access corporate Web-based applications. And network traffic is an issue as well—Bruce estimates

"SPYWARE IS A MULTI-HEADED PROBLEM, AND IT'S GOING TO TAKE A COCKTAIL OF SOLUTIONS TO GET IT FIXED."

at times as much as 10 percent of traffic through the gateway is caused by spyware activity.

To fight back against situations like what Fulbright & Jaworski have experienced, companies need to pick and choose among several different types and sizes of solutions.

At the enterprise level, McAfee recently released its new Anti-Spyware Enterprise program, which integrates with its VirusScan Enterprise system. Symantec followed suit with Client Security 3.0 and AntiVirus Corporate Edition 10, which incorporate anti-spyware capabilities. And Microsoft, which late last year acquired anti-spyware vendor Giant Company Software, is currently allowing users to download a beta version of its forthcoming Microsoft Windows AntiSpyware for free.

Those programs, as well as many popular single-user anti-spyware programs, work by tracking the signatures of known spyware programs and then preventing that software from being downloaded, and prompting users to eliminate programs already on their systems. But some experts say signature-based anti-spyware isn't effective over the long term.

"Spyware is just like a virus, in that it's dynamic, it's changing continuously. So signatures don't work for long," explains John Girard, vice president and distinguished analyst in the security group at Gartner Inc., in Stamford, CT. "The way to go is to watch the behaviors of the programs, to have something that says, 'this program shouldn't be doing what it's doing.'"

A new class of anti-spyware programs, from companies like WholeSecurity Inc. and Blue Coat Systems Inc., aims to do just that, watching from the gateway for suspect behaviors and then shutting down their access to the network.

For now, experts advise companies to take a multi-pronged approach to fighting spyware. Use a firewall with a high level of intrusion detection and strictly monitor machines used outside its perimeter, as traveling laptops and home machines often are. Use anti-spyware software, either signature-based, behavior-based, or both, and employ utilities to scrub infected machines on a case-by-case basis.

"Spyware is a multi-headed problem, and it's going to take a cocktail of solutions to get it fixed,"

sums up Girard. "Or you can pay someone to mix your cocktail for you," he adds, pointing out that spyware can be a real challenge for small- and medium-sized businesses with a limited IT budget. Internet Service Providers and third-party companies offer spyware-blocking services as part of their menu of outsourcing options.

For now, Robert Bruce plans to keep on playing bartender for Fulbright & Jaworski, mixing a cocktail that's one part Lavasoft's Ad-Aware, for individual machines, and one part WholeSecurity's Confidence Online, to protect the company's virtual private networks (VPN). The law firm is already a Symantec shop as well and is looking hard at the new upgrade, Bruce says. "It would be great some day to have everything—spyware, viruses, pop-ups—all taken care of from one package controlled from one desktop," he says with a sigh. Until then, it's back to the bar.

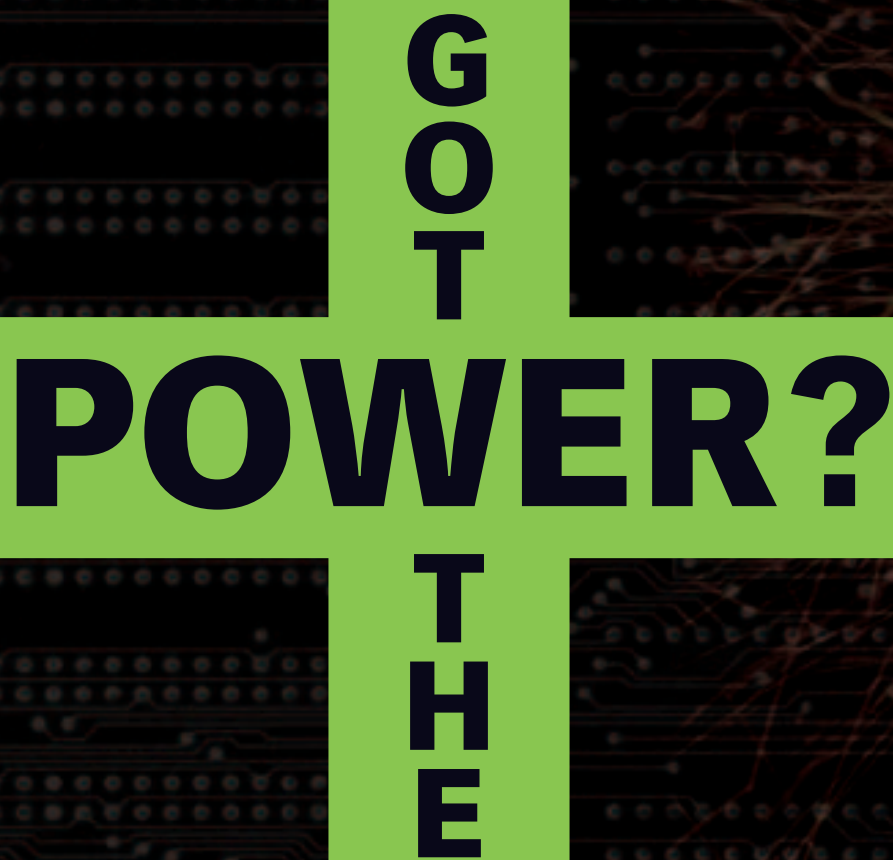
Tracy Mayor writes frequently about technology, management, and business.



YOU'VE GOT SPYWARE: TOP WAYS TO TELL

- Browser windows open when the browser isn't running
- Multiple browser windows open and take over the screen
- Simple pop-up blockers like the Google Toolbar don't stop pop-up ads
- Any of the following are modified without user's permission: Start menu, desktop and tray icons, home page, and favorites list
- Browser ceases to work or can only access a specific site
- Unexpected movies and sounds play, with or without browser running
- User receives official-looking notifications to install helper applications, tune up their PC, or fix security problems

SOURCE: Gartner Inc.



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WRITTEN BY SUSAN MESSEHEIMER + ILLUSTRATED BY VIKTOR KOEN



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“Proper UPS sizing is critical.”

Uninterruptible Power Supplies (UPSs) are a lot like insurance policies—you don't know how valuable they are until you need them, but when you do, you're exceedingly grateful that you've indulged.

Sal DeAugustino, IT manager at New York-based textile maker Maharam, certainly feels that way. Thanks to a decision to invest in UPS systems from American Power Conversion, Maharam has achieved its goal of 99 percent uptime, despite regular power outages. Even better, DeAugustino says the UPSs paid for themselves in just six months. And when the massive power grid failure battered businesses across the county in August 2003, Maharam's UPS investment helped the company conduct a graceful, problem-free shutdown before the outage could wreak havoc.

“Our corporate headquarters is located in the suburbs of Long Island, and during the summer months, we often experience brownouts in the evening,” notes DeAugustino, in Hauppauge, NY. “With the battery backups protecting our equipment, I can rest easy.”

Thanks to technology advances, such as shutdown software, monitoring and alerts, and battery runtime extensions, small businesses of all types can rest just as easy as Maharam. The new breed of UPSs pack the kind of sophisticated power management capabilities that are essential to helping smaller companies protect critically important networks and data when their AC power fails. With these new kinds of functions, UPS products can be tapped as more than simple backup batteries—they can help smaller businesses avoid the expense of lost or corrupted data, prevent damaged hardware and system downtime, and serve as a critical tool for remotely monitoring and controlling power requirements.

Buyer's Guide

Putting a UPS to work to cover all of these bases requires some forethought, however. Instead of plucking up a UPS product here or there when a need arises, SMBs need to get more strategic in their planning and buying processes. The first step is to determine exactly how much UPS capability your business needs. To do that, you'll need to consider a number of factors, not the least of which is how well your business will function if all your computer and network systems go down. Another

must is to evaluate how much downtime your business can ride out before losses of productivity and customer satisfaction—not to mention cold, hard profit—become too much to bear.

The most important question to ask, according to DeAugustino, is “What's the cost to your company if your equipment is knocked out by a power outage or spike?” For Maharam, the answer to that question was to make an investment that would minimize any such risk. The textile maker worked with a partner to configure and size UPSs from APC. The devices protect Maharam's core infrastructure at its Hauppauge data center, including its WAN (wide area network) routers and switches, VPN (virtual private network) equipment, firewall, and capabilities for dial-up access.

There are other questions to consider:

What equipment needs UPS protection? All systems that are essential to the running of your business should be protected by a UPS. This means individual desktop computers, cash registers, etc.; data storage equipment; network gear such as servers, hubs, routers, and switches; voice communications equipment such as PBXs; and cooling and ventilation systems—especially those associated with your computer networks.

How much UPS runtime do you need? The capacity of your backup power configuration should exceed the maximum power draw (measured in kilowatts) of all the loads that must be served at one time.

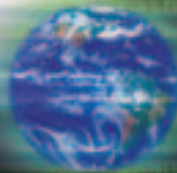
NEW UPS OPTIONS

- Automatic network shutdown software closes open computer applications so both data and machine states are preserved; some software will “wake” your systems to initiate smooth shutdowns rather than leaving systems in standby mode until the UPS is completely drained and systems suffer “hard” shutdowns.
- Monitoring/alerting capabilities to keep you informed of potential problems before they happen.
- Battery runtime extensions for longer battery life.



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NOT ALL UPS PRODUCTS ARE CREATED EQUAL

UPS	RATING IN VOLT AMPS (VA)	ADVANTAGES	LIMITATIONS	BUY THIS TYPE IF
STANDBY (ALSO CALLED OFFLINE) Filtered AC power serves as the primary power source until voltage sags or power fails, whereupon a battery-powered inverter turns on	Up to 500	Low cost, small size	Ability to condition power is limited; doesn't work well with backup generators	Your budget is limited and uses are limited to non-critical desktop systems
LINE-INTERACTIVE UPS The battery-to-AC inverter is always connected to UPS output, so when AC power fails, the UPS battery takes over	500–5,000	Low cost, small size, higher reliability, reduced switching transients, longer life	Equipment is not isolated from power source, so it can be damaged	You need reliable power backup for non-critical systems
ONLINE (DOUBLE-CONVERSION) Incoming AC power charges the UPS battery, which converts the voltage to DC, conditions it to eliminate surges, sags, and noise, then converts it back to AC. Transfer time to battery mode is eliminated	5,000–5 million	Cleaner power, high availability; equipment is isolated from power disturbances; longer runtimes during outages; batteries last longer	Higher cost	You need clean power no matter what; you expect to operate critical systems during outages using backup generators

Some rules of thumb apply—UPS products are sized by Volt Amps (VA), determined by multiplying equipment amps by 120 volts to determine the VA (volts x amps = VA) and then factoring in another 20 percent to 25 percent to handle startup loads and future needs. Generally, a 450VA UPS can protect one computer and a monitor, while a 650VA UPS is minimally what you'll need to protect a file server.

"Proper UPS sizing is critical," advises Philip Jan Rothstein, Fellow of The Business Continuity Institute and president of management consultancy at Rothstein Associates, in Brookfield, CT. "Remember to reassess UPS capacity whenever a component is replaced." As information system components change, Rothstein explains, so do your firm's overall power requirements, and there's generally an upward trend as you use more systems to handle more tasks.

What will your UPS products be doing? "UPS systems may be used to bridge short-term outages while a backup generator or other alternate power source comes online, or to take over the power load to facilitate a graceful shutdown. Many UPS units switch to battery when the utility power supply goes out of predefined thresholds, but these base units may not provide power conditioning," Rothstein notes.

Do you need power management capabilities? Most UPS products come with software that oversees orderly system shutdown if power has not been



INSURANCE POLICY: With UPSs, Maharam's Sal DeAugustino was able to achieve 99 percent uptime.

restored before the UPS battery is exhausted, thus ensuring that data is not lost or corrupted. One vendor, Tripp Lite, of Chicago, goes a step further with its WatchDog product, which restarts unresponsive systems and can be configured to monitor individual applications. This kind of capability can be especially valuable when you must quickly shut down systems—such as servers—that are not nearby.

The bottom line: UPSs clearly have a role to play in helping to avoid disasters as well as coping with them once they've happened. SMBs need to make UPS selection a core part of their computing infrastructure, not simply as an afterthought. With that kind of deliberate consideration, you'll have all the coverage you need.

Susan Messenheimer, a principal at aimpublications LLC, analyzes and writes about information technology.

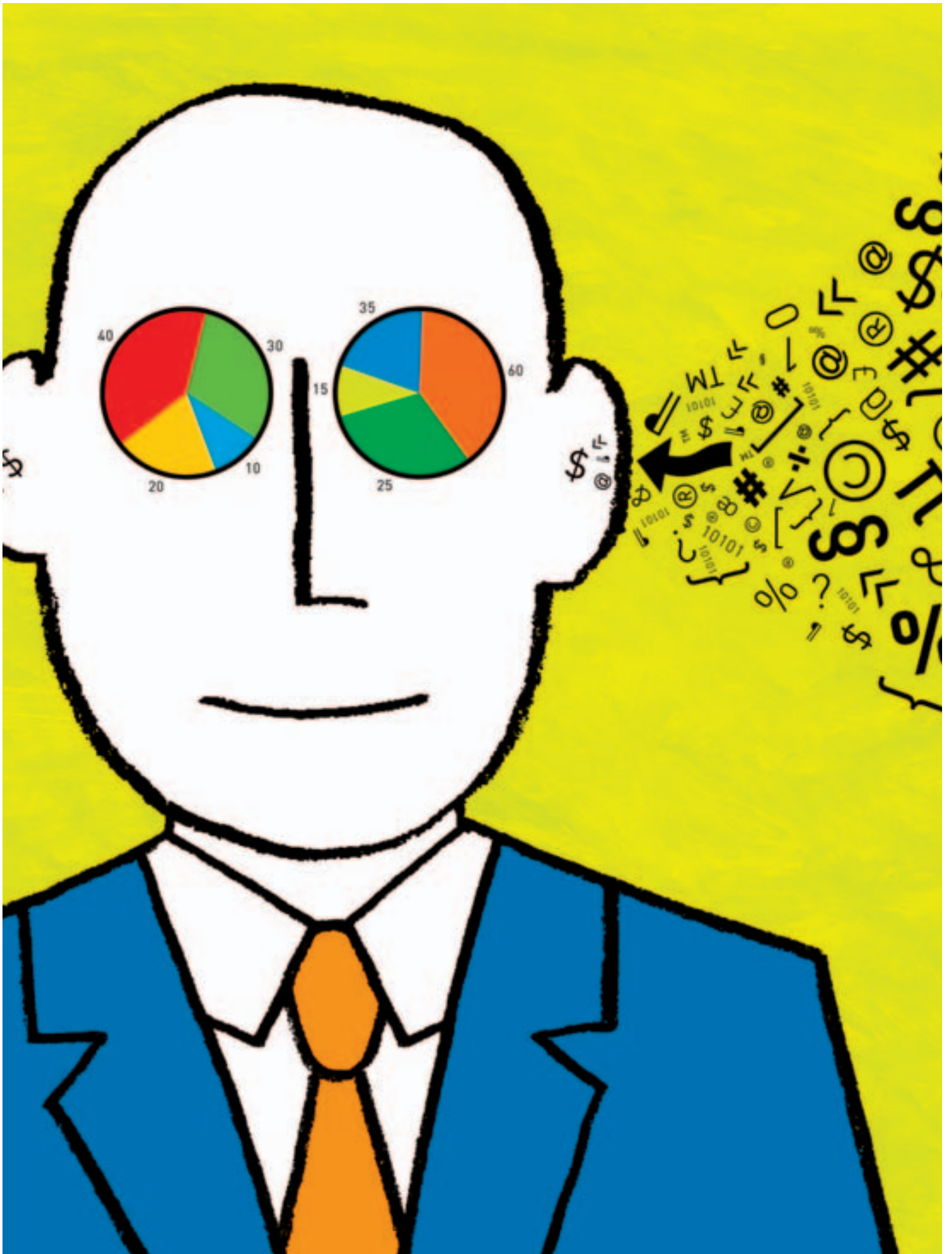
WIN THE KNOW

Lightweight business intelligence tools can help unlock hidden profit. But it can be heavy lifting.

JONATHAN ROTHMAN IS well-versed in the benefits a business intelligence (BI) tool can bring a company. Director of data management for Emergency Medical Associates (EMA), a group of emergency room physicians, Rothman spearheaded the implementation of BI software from Business Objects S.A. By keeping close tabs on key metrics via the software's Dashboard Manager, doctors can now better understand everything from diagnosis trends to emergency room effectiveness to patient satisfaction—and then act on that knowledge. “By making improvements, the doctors have seen their salaries begin to rise. It's already paid dividends,” says Rothman, at EMA, in Livingston, NJ.

Getting this level of intelligence into physicians' hands has not been easy—or cheap, however. The 500-person firm paid “well into the six figures” to implement the Business Objects software (not including the time and money spent to create an Oracle-based data warehouse). Rothman led a staff of three, along with outside consulting help, that worked to extract data from a homegrown patient tracking system, transform it into a useable format, and then load it into the BI tool.

WRITTEN BY LAUREN GIBBONS PAUL | ILLUSTRATED BY TOMASZ WALCZYK



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“This technology helps the doctors make improvements every day.”

The ETL process, as it's known in BI circles, is heavy lifting, even for a company with a knowledgeable, dedicated team like Rothman's.

“We had to do a lot of development. There was a lot of back-and-forth with the business users to get the metrics right,” says Rothman. Without someone clued-in about BI on staff and at least a five- or six-figure budget, Rothman, as well as many consulting experts, suggests that many SMBs might not be up for the challenge or even have a need for what BI can deliver.

To be sure, you have to stay on top of what's happening in your business—sales trends and such—but many SMBs do so by using simple tools like Microsoft Excel and Intuit QuickBooks. The full-blown BI suites that are deployed on a central server and are fed by multiple data sources are just too expensive and complex for most SMBs, says Eric Rogge, vice president and research director of business intelligence for Ventana Research, in San Mateo, CA. “That [type of BI] is overkill,” says Rogge.

Yet there are some industries where BI makes sense, for companies large and small. For SMBs, such as restaurant chains or retail stores, BI tools, especially the lighter versions, can help discover hidden patterns and trends in business data. If you put that knowledge to work—by introducing a new product, say, or serving your best customers better—BI can be the key to unlocking profits. But for the typical real estate office, law firm, or small professional services company, BI often requires too much IT savvy to implement, is too expensive, and simply is not useful enough.

Target: SMBs

Of course, don't expect to hear that message from the software vendors. Companies that have traditionally targeted the Fortune 1000, like Cognos Inc., Hyperion Solutions Corp., and Information Builders Inc. (IBI), are now reaching down hoping to attract and land larger companies in the SMB space. The result is lighter-weight versions of their flagship products. These Web-enabled tools do not require much in the way of integration and can be used by everyone in the company with virtually no training. With the right tools, a company might create a dashboard for its



IMMEDIATE DIAGNOSIS: EMA's Jonathan Rothman says BI gives docs better insight.

salespeople, for example, that would aggregate on one page (with flashy graphics) key performance indicators such as progress toward sales goals, pipeline activity, and accounts receivable data.

Business Objects, for example, offers Crystal Reports Server XI, a reporting solution for creating, managing, and delivering reports over the Web based on data from a few different sources. SMBs can get up and running on Crystal Reports from \$10,000 to \$15,000, according to Guy Weismantel, director of corporate marketing for Business Objects, at U.S. headquarters in San Jose, CA. Crystal Reports involves “very little set up. The training curve is very low. That's where a lot of our SMB customers start,” says Weismantel.

Clark Steel Framing, a midsize steel producer, implemented the Hyperion Intelligence Suite a year ago because executives and salespeople

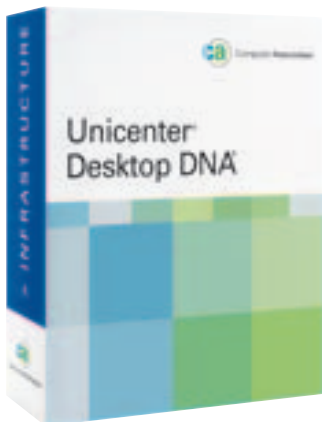
BE LLS AND WHISTLES

When shopping for a BI tool, make sure you get one scaled to SMBs with ease of implementation and use built in. Be on the lookout for these features:

- Web interface
- Out-of-the-box integration with available data sources
- Integration with Microsoft Office applications
- Zero training interface so all employees can pick it up quickly



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BI: IN A NUTSHELL

Business intelligence (BI) tools let companies collect data and enable analysis of data from numerous enterprise front-office (customer-facing)

and back-office (operational) systems. The goal of BI is to enable business users to make better decisions based on

patterns in the data. For example, a restaurant chain owner might create a new triple-patty burger with three slices of cheese based on sales data.

were clamoring to get richer sales data, faster. Previously, Clark Steel's IT department would circulate static sales reports to key staff once a week. "That wasn't good enough," says Jim Ward, director of IT for Clark Steel, in Monroe, OH. Now, executives and inside salespeople have individualized dashboards that show critical information (such as daily, weekly, monthly, and quarterly sales data and progress against goals) in real time. Users can customize their dashboard to focus on their best customers. If orders from a top customer have declined for two months in a row, for example, that signals the account executive that it is time to take action.

Ward believed the system (which cost six figures) would justify itself after two years of use. After one year, he figures they have already achieved payback. "Management can make quicker decisions, we have reduced the amount of scrap in our production lines, and we have increased sales," says Ward. An unexpected side effect of this success: More people want in. Where Ward had originally planned a leisurely three-year rollout of the BI tool, he has had to move faster than planned. In April, he quadrupled the number of Hyperion user licenses from 25 to 100.

Like Hyperion, IBI got its start selling heavy-duty BI systems running on mainframes for the largest of the large companies. Now, it's also pushing into the SMB space with its WebFOCUS offering, which is accessible to companies with as few as 200 employees. One of the keys to appeal to the smaller enterprise is to keep implementation costs below \$25,000, says Michael Corcoran, vice president and chief communications officer at IBI, in New York.

Several of IBI's SMB customers are using WebFOCUS to create an information service that they then turnaround and sell to customers. For example, Administaff, of Kingwood, TX, provides human resources services to other small businesses. IBI provides Administaff reporting on its customers' payroll and benefits data on a hosted application service provider (ASP) basis.

Charging customers for an information service is one way to recoup the cost of your BI project. But that won't work for everyone. And don't forget, as

with all major software initiatives, it's the labor costs that will kill you, not the software license itself. "You could get the software for free, but you would still have very high labor costs in terms of internal staff required to maintain the application and outside consulting help," says Tim Bates, CEO of Cirista LLC, a Minneapolis-based BI software vendor. Cirista has a free viewer for its document format, called Portable Analytical Documents (PADs), similar to the Adobe Acrobat Reader, which Bates hopes will help spread adoption of Cirista technology.

At EMA, the BI odyssey began back in 2000. EMA, which provides emergency room staff to 18 hospitals in New Jersey and New York, became interested in BI when it discovered greater numbers of uninsured patients using emergency rooms for routine medical care. EMA was under the gun to stem rising costs, since emergency rooms are not allowed to turn away patients who cannot afford to pay. Physicians and administrators needed to be able to analyze data to identify areas ripe for cost-cutting.

Rothman and his team rolled out a previous generation of BI software from Business Objects that gave a window of insight into trends. The only problem was that the IT department had to produce the reports on a monthly basis, leaving users with static, out-of-date data they could not interact with. With the current generation of BI Lite technology from Business Objects, EMA physicians and administrators can serve themselves the data they need to run their business better. Despite the challenges, BI has helped transform the way EMA does business. Says Rothman, "This technology helps the doctors make improvements every day."

Lauren Gibbons Paul has more than 15 years of experience as a writer for such publications as *eWEEK*, *CIO*, *Managing Automation*, and *Network World*.

ARE YOU A MATCH?

Many SMBs do not stand to benefit from BI. The costs are either too high to be justified, or their business does not readily lend itself to data analysis. Industries that are a natural for BI include:

- Restaurant/hospitality
- Retail
- Health care
- Government
- Manufacturing
- Education
- Insurance

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Data on the Loose!

Making the Case for Encryption

What if vast amounts of your company's customer, employee, and confidential data suddenly went missing? It could be costly, embarrassing, devastating, and potentially debilitating. Don't let it happen to you.

Data loss, data theft, and missing backup tapes have made big headlines in the news over the past several months, highlighting ever-growing identity theft concerns.

Extra! Extra! Have You Read all About It?

Time Warner reported earlier this year that it lost 40 backup tapes containing personal information on 600,000 current and past employees. Bank of America lost tapes during a shipment to a backup data center that contained personal information on 1.2 million federal employees. Online brokerage firm, Ameritrade, also lost tapes after the box the tapes were in got damaged during shipping. Three tapes were later recovered at the shipper's facility,

but one tape remained unaccounted for that contained information on 200,000 current and former customers. In addition, other high-profile incidents include data theft at ChoicePoint, a credit-check company, and Reed Elsevier, a publishing firm.

In all of these cases, the missing tapes and data were not encrypted.

Human Error Happens

In a perfect world, networks wouldn't get hacked, power failures would cease to occur, and backup tapes would never go missing. But these things do occur, and in the case of missing backup tapes, it seems to be happening more frequently. John Oltsik, a senior security

analyst with the Enterprise Strategy Group, asserts that because backup tapes are often physically transported from one facility to another, it is very easy for tapes to get lost through poor tracking, arrive at the wrong facility, or end up in the wrong hands.

"Data backup and off-site storage is an error-prone manual undertaking that often includes junior employees, unmarked cardboard boxes, untrusted couriers, and public transportation," Oltsik says. "If a malicious individual wanted to steal confidential data, he or she could simply bribe an employee or simply grab a non-descript cardboard box in transit."

Encrypt or Else

Encrypting your data before it reaches its storage medium can keep information secure. When data is encrypted, any cleartext becomes unreadable without the encryption key. This significantly reduces the chance of someone ascertaining sensitive information such as social security or credit card numbers. A host of storage security vendors, including Decru, NeoScale, Vormetric, and Kasten-Chase manufacture encryption appliances that scramble data before it is backed up to tape or compressed over your network.

A Thing or Two About Compliance

With federal regulations like the Sarbanes-Oxley Act mandating that companies store and be able to quickly access financial records, businesses are faced with managing increasing amounts of data. More data means that there is greater risk for human error and greater potential for theft or loss. Adopting encryption as part of your company's best practices can minimize the loss of customer confidence, damage to your brand, and potential legal liability.

In addition, there is also growing momentum for legislation to protect and inform consumers at the state level. Part of the reason why data theft and tape loss is making the news so often is due to the California Database Breach Act (SB 1386). This law requires companies to notify California residents if there is reason to believe that the security of their personal information has been compromised. Encrypting all personal information eliminates a major security breach.

What's Your Storage Security Policy?

According to a March 2005 Enterprise Strategy Group report, storage professionals who include security as part of their job responsibilities are most likely to encrypt their backup tapes. A sound storage security policy should determine how information is classified and how to keep it confidential. It should address the different types of stored data you have/use, whether it is mission-critical data that necessitates encrypting, sensitive data that requires two-factor authentication, or non-critical data that does not require encryption.

Your policy should detail your disaster recovery and backup plan, how data is monitored, who has access, and specific details of what should occur in the event of human error or a security breach. The Storage Networking Industry Association (SNIA) has a wealth of resources available detailing best practices for storage security and data management.

PC Connection also offers storage consulting under its ServiceConnection™ brand. This exclusive service can assist you with security planning, support, and implementing encryption and authentication. Request an evaluation today.

Storage Networking Industry Association
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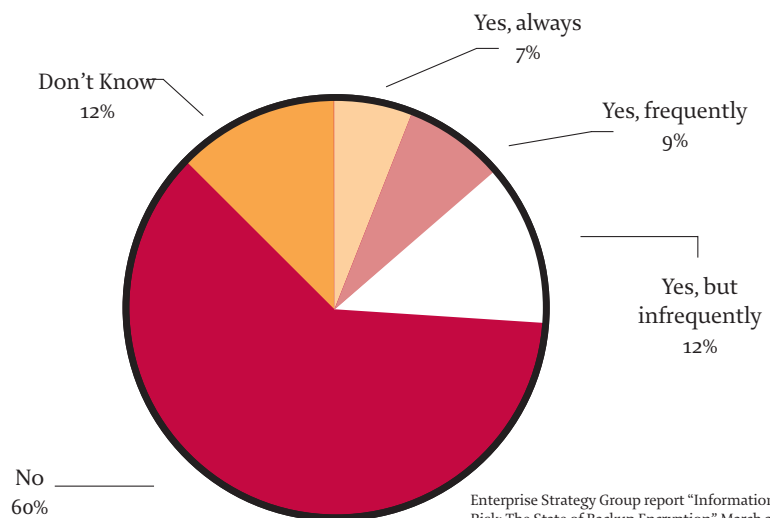
Network and Enterprise Storage News for IT Managers
www.internetnews.com/storage

Enterprise Storage Forum
www.enterprisestorageforum.com

Startling Stats on the State of Encryption

In a survey of 388 North American storage professionals:

- Only 7% always encrypt their backup data
- 60% never encrypt their backup data



Enterprise Strategy Group report "Information at Risk: The State of Backup Encryption" March 2005

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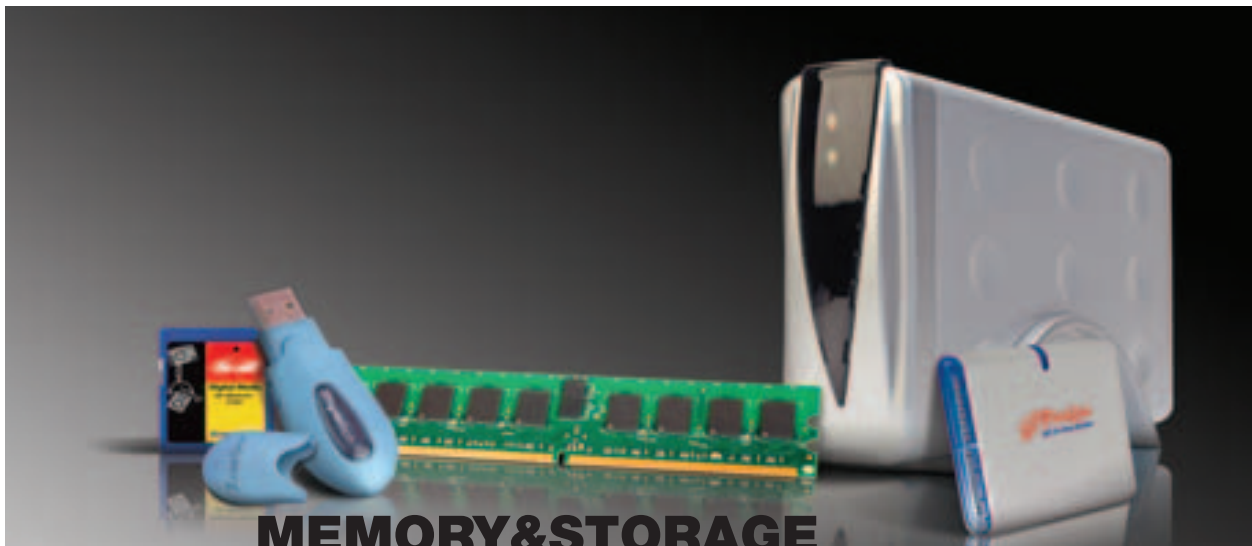
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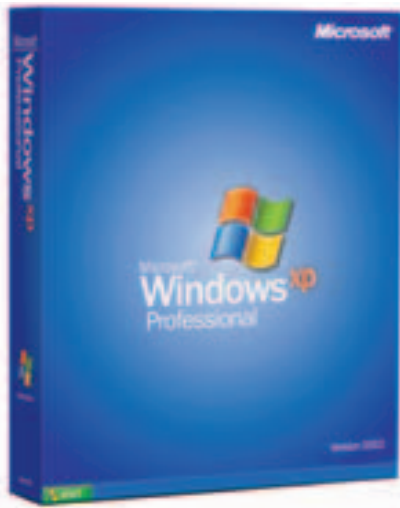
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Bluetooth Bonanza

CALLING ALL CARS

Road warriors take note: Bluetooth offers the ability to utilize a personal cell phone through an in-car system. Cars like the Chrysler 300C, Jeep Grand Cherokee, Saab 9-3, Toyota Prius, and others come with Bluetooth as a factory-installed feature. Other automakers that currently offer Bluetooth capabilities include Acura, BMW, Ford, Land Rover, and Lexus.



Toyota's wireless Prius

According to Telematics Research Group, 17 automotive manufacturers will offer Bluetooth-based communications options in their 2005 production vehicles. Last year, only seven auto manufacturers supported Bluetooth. The first application may be with backseat entertainment and in-vehicle navigation solutions. Nearly 10 percent of vehicles sold last year had backseat entertainment systems, and the number is expected to grow to 25 percent by the end of the decade.



What's it all about? Bluetooth is a low-cost, short-range wireless technology for connecting mobile devices. It is expected to be used widely as a cable replacement for devices such as PDAs, cell phones, cameras, speakers, and headsets.

Security Snafu

The first cell phone viruses appeared this past year, and two—the Lasco and Cabir worms—spread through Bluetooth. If you're going to have Bluetooth activated, make sure it's hidden from other Bluetooth devices, and don't accept files from people you don't know and that you're not expecting, notes Dominic Wild, a security analyst at Sophos, in Vancouver, Canada.

Name Game Bluetooth gets its name from the 10th century Danish King Harald Blatand, or Harold Bluetooth in English. King Blatand was known for unification. Bluetooth technology is designed to allow collaboration between differing industries such as the computing, mobile phone, and automotive markets. Thus, the code name stuck.

PRODUCT WATCH When it comes to cool gear, Bluetooth's got it going on. Take the Sonorix Bluetooth Audio Player OBH-0100 (right), made by OpenBrain Technologies Co., Ltd. Officials say it's the first product of its kind to integrate mobile, wireless, and audio technologies into a multi-purpose entertainment device, providing users with a complete hands-free and audio solution.



Boning up on Bluetooth

Some noteworthy Web sites:

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- www.bluetooth.org
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- <http://bluetooth.weblogsinc.com>
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- www.palowireless.com/infotooth/whatis.asp
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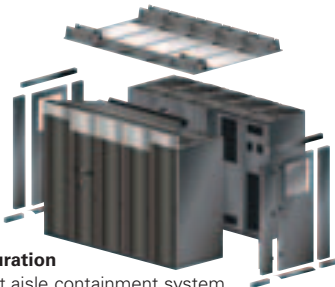
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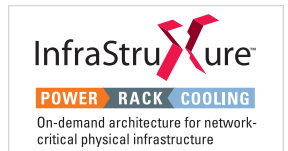
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