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Computer Troubleshooters technicians offer **unique, economical computer solutions and services** geared toward your needs—focusing on products and solutions most beneficial to small business clients and residential computer users. Our technicians combine friendly, personal service from a locally-owned and operated Troubleshooter with the knowledge, support and reliability of the world's largest computer service franchise.

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# The Importance Of Battery Backups

Small businesses face a variety of technology threats. From power-failure induced data loss to electrical spikes that damage computers and other sensitive office equipment, small businesses battle numerous challenges.

Statistics reveal there's a high likelihood an organization will go out of business immediately if data is lost. The odds of a business failing within two years, when critical business data is lost, increase to 90%. Further, recovering data from damaged systems is expensive and time consuming.

Fortunately, battery backup devices—also known as uninterruptible power supplies (UPS)—provide protection from several of these risks, including:

1. Data corruption or loss resulting from inadvertent power outages.
2. Damage to expensive computer equipment from brownouts, surges and spikes.
3. Network-connected system and peripheral surge-related damage.

UPSes also provide an opportunity for potential energy savings.

As you assess your business' technology needs and requirements, we hope you find this report on the importance of battery backups—and the role these devices play in preserving data and empowering business continuity—valuable to your organization.

Read on to learn how appropriate battery backups help empower business continuity.

Data loss is perhaps the greatest small business technology threat. When computers are abruptly turned off, either due to inadvertent power outages, thunderstorms, electrical circuit failure, brownouts, spikes or myriad other issues, the potential for data loss and corruption arises.

*90% Of Businesses That Suffer Data Loss Fail Within Two Years*

Workstation and server hard disks, too, can suffer catastrophic failures if struck by electrical surges. Data loss and corruption may result. In addition to system downtime, organizations can lose customer, client and supplier goodwill—not too mention sales— if unable to complete orders, deliver goods and services or even respond effectively to clients and inquiries while technicians work to recover data from backups and return an organization to normal operation.

**Damage Guarantees:**

*Not all battery backups and UPS devices are created equal. High quality brands not only deliver consistent, conditioned electricity to sensitive electronic equipment while protecting against spikes and brownouts, but many manufacturers also offer sizable monetary awards to registered customers should equipment properly connected to their devices suffer damage (with some models even covering lightning strikes).*

In many cases, power protection can be justified by looking at the consequences of not having it. Several hours of professional work can be lost with just one brownout, due to a computer crashing before the work can be saved to disk.

There's much at risk. According to an April 28, 2008 SmallBizTechnology.com report, the DriveSavers data recovery service claims 43% of companies that suffer data loss never resume operation. Worse, 90% of the organizations that suffer data loss go out of business within two years. Even for those businesses that survive, the ICSA estimates that a single data loss event costs 19 days of productivity.

Quality battery backup systems provide small businesses with a cost-efficient method of protecting themselves from the inadvertent power outages that can trigger data loss. Properly configured, UPSes can power computers during electrical outages lasting a fraction of a second all the way up to several hours. Typically it's best to plan sufficient run time to enable saving open files and safely shutting down the system until consistent electric service is restored.

Often small businesses face costly outages and downtime as a result of ruined equipment. With systems unable to access critical data, organizations can find themselves without the business information required to power everyday operations.

The culprit?

Inconsistent electrical supply and spikes can render expensive computers, servers and other network equipment useless. The electronic components inside systems are very sensitive to electrical fluctuations. UPS devices use a variety of methods, including standby, line-interactive and on-line technologies, to help condition the electricity systems receive.

*UPS Devices Must Be Properly Configured To Effectively Guard Against Data Loss*

A single surge can prove devastating to equipment and data. The consequences of lost or corrupted data quickly add up, even if the data can be restored from a recent backup.

Not only do organizations face the prospect of having to replace failed or damaged equipment, but costly downtime as well while technical staff members race to obtain replacement equipment, repair failed components, recover data from the backup and otherwise strive to return an organization to regular operation. Unfortunately the process can take days, if not longer.

Small businesses can take several simple steps to help protect equipment from damage and loss. While no method is foolproof, Computer Troubleshooters recommends the following strategies for minimizing electrical threats:

- ✓ Connect computers using high quality battery backups. Simple inexpensive power strips, while common, provide no protection from electrical surges and lightning strikes. While direct lightning strikes may destroy a battery backup and connected equipment, properly registered devices with the appropriate safeguards often include warranties from such damage.

- ✓ Ensure the battery backup provides sufficient power. Inexpensive battery backups typically provide approximately 350 volt amps and 200 watts of power. While that might be sufficient for powering a single basic desktop computer, a more potent UPS is required to power servers or power-hungry desktops. For example, many small business servers and network equipment may require 600 watts or more and 750 volt-amps or greater to adequately meet system electrical requirements.

- ✓ Connect equipment properly. Battery backups are often unboxed and plugged in. Without proper cable connections and software installation and configuration, these devices may provide no additional protection from inadvertent shutdowns and data loss and corruption.

Despite their best efforts—including purchasing a quality UPS and properly installing and configuring battery backup software—many small businesses still encounter surge- and spike-related trouble. In many cases the network is to blame.

Lightning strikes don't discriminate. Electrical surges can follow any path into a building or office, including the circuits that connect an organization to the Internet: cable, DSL and T1 lines. Such strikes travel these circuits into a home or facility and can destroy every device in their path.

*Network Protection Is A Must When Selecting A Battery Backup Or UPS Device*

**Battery Backups Help Protect Against:**

- *Data loss and corruption*
- *Electrical spikes*
- *Brownouts*
- *Preventable downtime*
- *Damaged computers*
- *Network equipment damage*

Since PCs, servers and other network equipment (including switches and firewalls) are typically connected to one another via physical Ethernet cabling, each connected device becomes subject to damage.

To protect against such threats, organizations should insist on deploying battery backups that provide network surge protection. When purchasing a battery backup, ensure the unit you select provides surge protection from lightning strikes and a warranty should lightning-related damage occur.

If the battery backup model you select does not include lightning safeguards, couple basic battery backups with effective surge protectors to help mitigate the risk lightning strikes pose.

What type of network protections should you seek?

Home office users and small businesses should select UPS and surge protector models that safeguard telephone/fax, DSL and/or cable connections to protect against strikes entering an office and damaging multiple systems simultaneously (or to at least have warranty protection in place should such damage occur).

While a relatively new trend, some battery backups actually include energy-conserving technology. New models from APC, for example, actively monitor energy consumption and electrical activity while also providing surge-arresting capabilities. When the unit senses that equipment plugged into its master/controlled outlets are idle, the battery backup powers down those devices to conserve energy.

*Energy-Conscious Battery Backups Actively Monitor Specific Devices And Reduce Costs*

Further, new Earth-friendly battery backups such as APC's Back-UPS ES750G (pictured below) are designed for desktop computers and include network surge protection. These devices are designed to consume five-times less energy than comparable models. As a result, these battery backups can not only protect against data loss and electrical surge damage, but help pay for themselves in as little as two years.

Other manufacturers offering energy-conserving battery backups include CyberPower, whose GreenPower UPS technology claims to significantly reduce UPS system power consumption. Those savings add up, as a 2007 Frost and Sullivan UPS Industry study shows the cumulative cost savings to customers is "remarkable." With ever-increasing energy costs, organizations that deploy battery backups (particularly multiple units) receive not only line conditioning protections and data safeguards, but also the opportunity to significantly lower electrical energy bills.

*Still have questions? Contact your local Computer Troubleshooters office for assistance selecting and installing battery backups that best meet your needs. Visit www.computertroubleshooters.com to locate your local Computer Troubleshooter.*