POWER CONDITIONING

Did anybody suffer any computer troubles this week after that intense little storm we had last Saturday morning? We ended up changing a client's motherboard Saturday afternoon after they experienced a power surge at their house during the storm. It is very common for lightning storms to cause massive surges on both power and telephone lines, which is why you are supposed to stay off the phone during the storm and is also why we usually end up changing a pile of dialup modems and other components after such storms. Obviously, if your PC is connected, it can be damaged.

Power protection can be as simple as just disconnecting your PC power and telephone connection completely from the wall, but what about when you are not around to make such arrangements? The cheapest solution is a power bar with surge protection. These can be had for as little as seven bucks, but you get what you pay for. Good surge bars start around 25 dollars and can optionally have telephone jacks for phone line protection. If you are using a dialup modem, we strongly recommend that protection. Unfortunately, surge bars can only take one good hit and they are finished. They will usually have an indicator light to let you know that the bar is no longer doing its protective job, but it will continue to work fine as a power bar.

The best solution for standalone PC protection is an Uninterruptible Power Supply, though even here there is a great deal of variation in quality and ability to suppress surges. All UPS consist of a battery and circuitry to deliver power to the PC when the power goes out.

For example, here in the store we stock two American Power Conversion UPS, the CS500 and ES500. (The 500 refers to how much power the UPS can provide, where 500 VA is appropriate for an average computer and monitor and will last about 10 minutes without power.) However, these two models deliver the power to the PC in totally different ways. The CS500 delivers isolated battery power to the PC and is constantly charging itself. The ES500 is always delivering normal house voltage to the PC, and then kicks in as a backup when necessary. Needless to say, the CS500 is a better solution for PC protection, but of course it costs more, it is $139 while the ES500 is only $79.

Never use your UPS to power other devices like printers or scanners, they can draw too much current for a UPS to keep up. To protect these devices, they need to be plugged into surge bars also. Possibly the best overall solution for complete system and equipment protection is an Automatic Voltage Regulator like the APC LE1200 in combination with one of their higher end surge bars like the APC PF11VNT3. This will give you surge and sag protected receptacles for all of the equipment and all of the lines.

A few years ago, one of my clients ended up getting her entire PC replaced, even though she had UPS surge protection on the system. The surge came through her three printers and toasted the system; it really is important to cover all the bases.