

Surge Protection is Good

With all the wild weather in Sydney, I've seen a lot of equipment blown up recently. I used to be a bit of a humbug when it came to surge protection, but not anymore.

I have seen cases where electrical strikes have not only come up the power lines and frayed free-standing devices such as printers and monitors, but I have seen it come up phone lines into ADSL modems, through to routers then into network interfaces on motherboards of servers via ethernet. We were lucky that that's only as far as it got. As I finally left that job site a couple of days after the initial strike, barely 200 metres down the road, I saw a bolt of lightning take out a power pole.

You would think that that defies an old adage about striking twice, but since then I've been asked to assess lightning damage on at least two occasions. I used to think this was the stuff of dreams, but unfortunately it's quite a realistic proposition. The potential losses (days of downtime and potential data loss) can be mitigated with a careful selection of equipment.

Firstly, be aware that anything that is connected to anything else that is connected to anything in a wall is potentially vulnerable. Secondly, be aware that this end device in turn exposes anything that it is connected to, whether it be electrically, networked or a phone line. Even a USB device. Think of it as one big daisy chain.

Concentrate on the business end of things first - router, modem, server. You can acquire power boards with in-built ethernet and PSTN surge-protection quite cheaply these days. Use one of these to power your modem, router and server, as well as filtering the PSTN (phone line) for your ADSL connection and your primary ethernet connection which may run from a modem to a router or a modem/router to a server.

Preferably, get a UPS. At the very least power your server from a UPS, but maybe all that other gear too. I have lost RAM, motherboards and processors in this house, and I blame it on power fluctuations. The more UPS the better, as long as it's a good one with decent power regulation. Who cares about battery backup? If you're concerned about uptime, get a (good) generator! (Whilst I love portable unleaded generators up to 2Kva, voltage can fluctuate wildly).

Surge protect everything. You can get these things for \$10 from Bunnings. Everything that is plugged into the power circuits exposes everything else that it is plugged into network-wise.

Finally, back up. To some extent I'm being hypocritical here, because I've never backed up religiously. I recall one particularly unfortunate incident in 1987 when I formatted the wrong 720Kb floppy disk. As it usually turns out, you only ever feel the need to back up once you've lost a lot of data (720Kb was a lot of data for me back then).

I've had some customers in Broome for some time now who run a retail operation, and they have always basically shut down the whole shop every time a decent storm comes over during the wet season. They go out the back and have a beer and watch the storm pass while their point of sale switches to manual - in the dark. Because they have UPS, surge protection, backups and everything else, I used to think they were over-reacting. Not anymore.