

## How to Insure Your Network Against Acts of God



KRONE

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Hundreds of Thousands of \$\$\$ Worth of Network Equipment can be Rendered Junk in a Flash!

The issue of protecting networks from security breaches has attracted considerable attention but organisations also need to guard against environmental risks such as lightning.

Damaged or destroyed equipment, which is integrated into manufacturing or data storage processes, can cause physical damage, as well as high consequential losses due to downtime.

Lightning strikes can also delay production due to data loss and damage process control computers or computer-based warehouse and storage systems. Such delays usually cost many times the amount of the direct damage. While it is almost impossible to protect against direct lightning strikes, research indicates that such incidents are only responsible for five per cent of damage caused by atmospheric discharges.

The fact is that almost all damage is caused by indirect lightning hits. When the charge hits the ground it radiates in a rippling effect through the earth, like a pebble thrown into the centre of a pool. This means that networks located within a radius of one or more kilometres away from the site of impact can be affected. The annual damage caused by this in Australia is estimated to be millions of dollars.

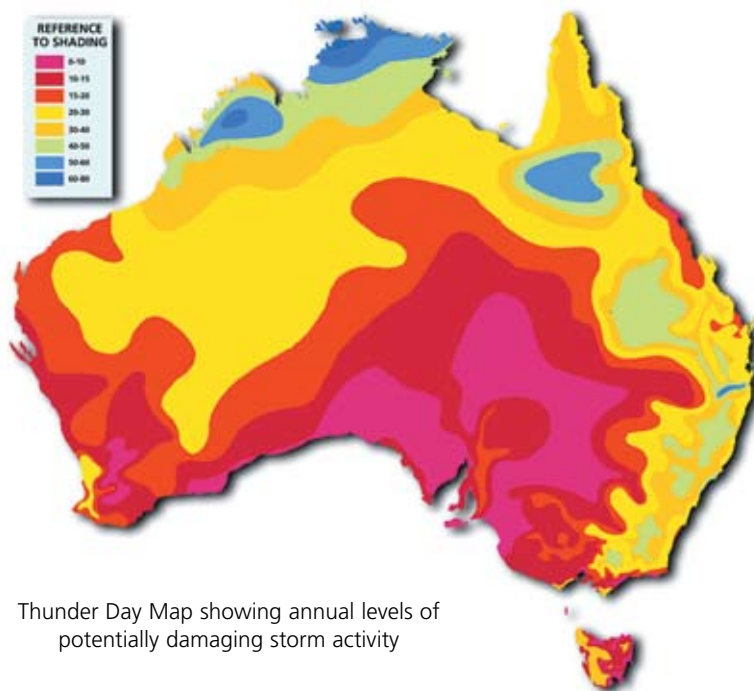
Lightning often enters a network via the customer local-loop, normally between street-side telecommunications cabinets and office buildings. From the point of entry, energy from lightning travels in both directions - towards premises and street-side cabinets or telephone exchanges. In most cases, substantial damage can be expected.

Some telecommunications companies provide overvoltage protection in their networks but this is not usually designed to protect customers. In most cases, customer premises equipment has no protection from lightning or power contact with the telecommunications network.

Awareness of the need for overvoltage protection has increased in recent years due to growing demands on modern communications for voice and data traffic, and organisations' greater reliance on their networks.

At the same time, rapid developments in electronics have resulted in miniaturisation of many communications systems and components. This has





Thunder Day Map showing annual levels of potentially damaging storm activity

increased the density of electronics but made them less robust. This is the reason overvoltage protection between telephone lines and equipment is needed, in addition to surge protection for sensitive electronic devices such as PABXs, modems, and faxes.

Lightning is not the only potential cause of damage to telecommunications equipment. Direct or indirect contact between power and telecom-munications cables can also pose a threat to equipment and personal safety.

According to the Australian Bureau of Meteorology: "Severe thunder-storms can occur at any time of the year and most strike between September and March when the supply of solar energy is greatest. Of the many lightning strike injuries each year, about 80 per cent result from people using fixed telephones during thunderstorms when the phone system may become highly charged near where lightning is striking. Related injuries may include hearing damage, burns or even electrocution."

ADC KRONE offers systems specifically for protection of equipment in data and communication networks and in measurement and control applications. The protective circuits guard against electrical influences due to lightning or power contact, discharging them on impact.

**ComProtect® safeguards your investment**

ComProtect gives graded five-point protection of single pairs on HighBand® 10 or Series 2 disconnect or switching modules mounted on ADC KRONE Profil® or Backmount frames.

Unlike the majority of protectors which are destroyed by the impact of a "power cross" fault, ComProtect's

unique circuits restore themselves immediately to normal operation once the fault is corrected. This feature is achieved by careful selection of the protective elements used and greatly reduces the level of maintenance required.

ComProtect is easy to use - the compact over-voltage protection plug is simply attached to the ADC KRONE disconnection or switching module. It is also possible to retrofit ComProtect to existing ADC KRONE distribution equipment.

The ADC KRONE's range of over-voltage products is suited to the latest applications with high transmission rates such as ASDN and xDSL.

Besides ComProtect, it also includes various arrester magazines for over-voltage protection. All the versions, HighBand, Profil Series 2 and NT, have one thing in common - they are adaptations of the protective components of ADC KRONE's patented LSA-PLUS® and/or LSA Profil distribution systems. MDF 71 and other related dropwire and PCB modules are also available.

For more information about ADC KRONE's network protection technology and other products and services call your ADC KRONE representative or visit the website at: [www.adckrone.com/au](http://www.adckrone.com/au)



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Corporate Office and Factory: P.B. No. 5812, 10C II Phase, Peenya, Bangalore – 560058 INDIA

Tel: +91 80 28396101 Fax: +91 80 28396104

TOLLFREE: 1800 425 8232

OFFICE LOCATIONS: BANGALORE, NEW DELHI, MUMBAI, PUNE, CHENNAI, HYDERABAD

ADC Telecommunications, Inc., P.O. Box 1101, Minneapolis, Minnesota USA 55440-1101

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