

The Problem

There are a wide array of power fluctuations including sags, spikes, noise, waveform distortion, frequency variations, surges, and outages all of which can have an effect on your network equipment. Even seemingly minor problems like PC's freezing up are often caused by power issues. A brief power outage of only a few seconds will cause servers to reboot and possibly lose valuable data. Providing UPS protection to equipment will help keep your network up and running during power outages, as well as ensure that your equipment is getting clean, filtered power without the power fluctuations listed above.

Types of UPS's

There are three major types of UPS's to consider depending on the level of protection required:

Off-Line UPS - Often called Standby UPS, this is a cost-effective choice where network communication is not generally necessary. Better Off-Line UPS's switch to battery fast enough to prevent glitches and ride out short power outages. They prevent most spikes, but don't maintain perfect power during minor sags and surges. The key to off-line UPS quality is the range of power the UPS will accept before switching to battery back-up. The wider the range, the less drain on the battery and the more back-up time available when the power shuts off.

Line Interactive UPS - Provides both power conditioning and battery back-up. This technology is particularly effective where outages are rare, but power fluctuations are common. Line-Interactive UPS supports a wide range of input voltage fluctuations before switching to battery-backup. This technology is also more energy-efficient than other technologies.

On-Line UPS - Provides the highest levels of protection for networks. Because power runs through an on-line UPS continually, output is a perfect sine wave. This UPS protects the critical load from virtually all power disturbances, including subtle harmonics and waveform distortion. Networks with generator backup must have on-line UPS because only on-line technology can protect from frequency variations common at generator start-up. Network communication is often necessary to effectively manage network power protection.

The Solution

There's no hard and fast rule...every organization must identify what is worth protecting. You can take a "dollars and cents" approach - determine the cost in lost time, productivity and sales that will result from a network crash. Another approach is to identify which operations you want up & running all the time (mission-critical), which need to be operational almost all of the time (very important), and which can go down and cause little more than frustration and inconvenience (non-critical) Then protect each system accordingly.