

Telecom & IT Applications



This sector basically consists of both terrestrial and mobile telephone companies. This segment also covers internet service providers (ISP), web hosting providers and broadcasters.

Applications

There is a wide variety of applications in this sector due to the different sensitive loads that have to be protected.

- Servers and data centres are the most business critical applications for mobile and terrestrial telephone companies and ISP because of the huge quantities of business critical data managed
- For broadcasting companies, power protection and conditioning of the transmitting sites is clearly of the utmost importance. These sites are highly sensitive to electrical noise and energy variations
- For ISP and web hosting the main priority is to secure server farms and backup systems.
- Security is another obvious but significant application for UPS in this sector, in terms of intrusion detection but also fire fighting alarms, equipment and so forth.

Criticalities

- Servers and data centres need to be secured because of the money and image loss that can derive from system failure. For instance, having a server down in a telecom company, even for a small length of time, can lead to such a high loss of income that this immediately justifies the cost of a

power protection system. Indeed, a small interruption in the electricity supply, of just a few milliseconds, may mean a very long service down-time (even several hours) due to the time needed to restart the servers. This can lead to a huge loss of money and image, where some clients will choose other telecom operators because of the poor service received. The amount of money lost can be calculated to be as much as millions of dollars

- The need for continuous transmission for broadcasters is essential for their business, especially considering that this is a highly competitive sector. It is also very important to avoid polluting the energy distribution due to the highly sensitive transmitting equipment
- Data is the most sensitive application for ISP and an unconditioned power supply can cause damage to the data centres and servers. Moreover, for these companies, servers and data centers are directly linked with the service offered to customers. For this reason, the criticality of the load and the necessity to protect its energy supply are clear.

Advised solutions

- Servers and data centres for telephone systems need the highest protection with centralized UPS systems in a parallel redundant

configuration with CROSS static switch if needed. LIFE remote diagnostic system is highly advised

- Transmission equipment should be protected by a centralized UPS solution for each transmission facility with the appropriate power conditioning such as filters and voltage and frequency regulation. The same type of power conditioning and protection is advisable for the transmission apparatus of other telecom companies
- Data protection for ISP and web hosts is very important and even in this case the same considerations are valid as for the telephone companies' servers
- As far as the supply of security equipment is concerned, it is useful to have a distributed system composed of smaller size UPS units in rack version wherever possible in order to fit them into rack cabinets.

Connectivity solutions

If smaller UPS are needed in a distributed topology, the connectivity solutions to manage and monitor the UPS, such as ManageUPS and MopUPS, should also be proposed. For bigger and centralized UPS, on the other hand, a solution which includes the LIFE.net remote diagnostic system is advised.