Physical Security:
Placing Equipment

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In this series, we are looking at how physical security can support the security needs of network operations centers (NOCs) and data centers (DCs). Today's brief note is about placing network and computer center equipment.

In recent years, computer equipment has become increasingly tolerant of environmental conditions. Midrange and many mainframe computers are now air-cooled, survive temperatures from cold to hot, and run on regular 110V current. Nevertheless, some people abuse their systems. Some years ago, while I was hanging my coat in a hall closet one day on a visit to a client, I noticed blinking green and red lights down among the boots and galoshes. I moved some heavy winter coats out of the way and discovered a network server. Startled, I asked my host what it was doing in an unprotected hall closet. It seems that they ran out of room in the computer center and the server was installed in the hallway. "It doesn't need special conditions,"@ he chirped. No, but its on/off switch was open to anyone who wanted to try bringing the network down, and I doubt that the engineers had planned on seeing their design spattered with mud, water and salt.

In many smaller organizations, I have noted with dismay that electrical power cord extensions are looped helter-skelter around the bottoms of desks and partitions. Aside from the problem of tripping over these cords and crashing wildly about one's office, these folks run the risk of unplugging their own computer, causing an occurrence of the notorious power-cord-out-of-the-socket "virus" that occasionally amuses technical support staff.

A related problem with poor wiring practices is that many users and even some NOC managers don't label their cables. The consequences are most serious when people have to move their equipment; either they spend precious time under pressure trying to label their gear or they just unplug everything and hope they get everything right when they reassemble their systems.

Sometimes people plug their computer systems into a power bar in their neighbor's cubicle without informing anyone. When the neighbor innocently cuts the power on their own system by hitting the main switch on the power bar, the electricity-borrower has a power failure too. Another problem occurs when people run out of sockets in their cubicles and decide to lay an extension cord out into a hallway to tap into a handy socket there -- and naturally, without bothering to label the wires. These arrangements inevitably result in what ought to be a predictable loss of power when a building cleaner innocently unplugs the power cable to power their floor polisher.

Some common-sense recommendations:

* Don't subject your valuable, sensitive and critical equipment to inappropriate environmental stresses.

* Organize your equipment cables so that they don't tangle each other or passers-by.

* Label your cables clearly using color coded tape or printed labels.

* If you must use electrical outlets outside your immediate control, lock the plugs into place if possible or at least label them clearly so that others don't inadvertently cut power to your systems.

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