Physical Security:
Air-conditioning (2)

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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 a second of two about air-conditioning (A/C).

Protect the external air intakes to reduce the risk of a gas attack or tampering with your A/C. Make sure that the ductwork is non-combustible and that it does not provide a crawlspace for unauthorized access to your computer room. Sometimes it seems that every movie involving penetration of a secured area includes an obligatory scene in which heros or villains crawl undetected through the A/C ducts. In every case, access to the ducts is relatively easy and is accomplished by removing a flimsy grate without using tools.

Link your A/C units to the fire-suppression control systems. The panic button that cuts power to your computer equipment should include the A/C equipment. In case of a fire, the last thing you need is the A/C continuing to pump fresh air into an enclosed area at risk.

The perforated tiles in your raised floor are part of the A/C system and fire-suppression systems. A/C engineers lay these tiles in patterns that control air flow within the computer room. These tiles must not be displaced at random. In some data centers, operators move the tiles about without considering the effects on air flow; in one case reported by a student in my Information Systems Security course, operators decided they didn't like the tiles, so they moved them all over to the far corner of the computer room. This spontaneous redesign of the A/C system produced Arctic conditions in one area and tropical temperatures in the other. The operators were on their way to generating a model of the global atmospheric wind patterns.

Although I've mentioned this in a previous column, I urge you to make sure that the floor under the raised tiles is kept clean and free of extraneous materials. The area next to an A/C outlet is often very cool; however, for example, is not an appropriate cooler for soft-drinks and beer <g>.

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