Backups (14):
Onsite Storage

by M. E. Kabay, PhD, CISSP
Associate Professor, Computer Information Systems
Norwich University, Northfield VT

This is the fourteenth in a series of short articles reviewing the theory and practice of making backups.

* * *

It is obviously foolish to keep backups in a place where they are subject to the same risks of destruction as the computer systems they are intended to protect. However, unless one uses a remote location for making backups through telecommunications channels, all backups must spend at least some time in the same location as the systems that are being backed up.

At a minimum, backup policies should stipulate that backups are to be removed to a secure, relatively distant location as soon as possible after completion. Temporary onsite storage areas that may be suitable for holding backups until they can be moved offsite include specialized fire-resistant media storage cabinets or safes, secure media-storage rooms in the data center, a location on a different floor of a multi-floor building, or an appropriate location in a different building of a campus. What is _not_ acceptable is to store backup volumes in a cabinet right next to the computer that was backed up. Even worse is the unfortunate habit of leaving backup volumes in a disorganized heap on top of the computer from which the data were copied.

In a small office, backups should be kept in a fire-resistant safe if possible while waiting to take the media somewhere else.

Environmental Protection

Magnetic and optical media can be damaged by dust, mould, condensation, freezing, and excessive heat. All locations considered for storage of backup media should conform to the media manufacturer’s environmental tolerances; typical values are 40-60% humidity and temperatures of ~50-75 F (~10-25 C). In addition, magnetic media should not be stacked horizontally in piles; the housings of these devices are not built to withstand much pressure, so large stacks can cause potentially damaging contact between the protective shell and the data storage surface. Electromagnetic pulses and magnetic fields are also harmful to magnetic backup media; keep mobile phones (both wireless and cellular) away from magnetic media. If the organization uses degaussers to render data more difficult to read before discarding data these devices should never be allowed into an area where magnetic media are in use or stored.

In the next article in this series, we'll start looking at options for offsite storage of backups.

* * *

M. E. Kabay, PhD, CISSP is Associate Professor in the Department of Computer Information Systems at Norwich University in Northfield, VT. Mich can be reached by e-mail at < mkabay@compuserve.com >. He invites inquiries about his information security and operations
management courses and consulting services.

Copyright © 2001 M. E. Kabay. All rights reserved.

Permission is hereby granted to Network World to distribute this article at will, to post it without limit on any Web site, and to republish it in any way they see fit.