Shiftwork and Security
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This is another in an occasional series of articles looking at computer security incident response team (CSIRT) management.

As discussed in a previous article about preventing burnout <http://www.networkworld.com/newsletters/sec/2006/1120sec1.html>, rotating assignments among CSIRT members can be an excellent idea. However, frequent changes in work schedules that involve changes in sleep cycles are not a good idea; for example, weekly changes in shift from day to night schedules can seriously disrupt the natural circadian wake/sleep cycle and have been shown to increase the rate of errors and accidents.[1] One authoritative resource states that there are “adverse health and safety effects to working shifts.” The text reads as follows:

“A shiftworker, particularly one who works nights, must function on a schedule that is not natural. Constantly changing schedules can:

- upset one's circadian rhythm (24-hour body cycle),
- cause sleep deprivation and disorders of the gastrointestinal and cardiovascular systems,
- make existing disorders worse, and
- disrupt family and social life.”[2]

Scientific studies throughout the world have long shown that shiftwork, by its very nature, is a major factor in the health and safety of workers; LaDou (1982) writes in his abstract, “Daily physiologic variations termed circadian rhythms are interactive and require a high degree of phase relationship to produce subjective feelings of wellbeing. Disturbance of these activities, circadian desynchronization, whether from passage over time zones or from shift rotation, results in health effects such as disturbance of the quantity and quality of sleep, disturbance of gastrointestinal and other organ system activities, and aggravation of diseases such as diabetes mellitus, epilepsy and thyrotoxicosis.”[3]

The US National Institute for Occupational Safety and Health has published a monograph about shiftwork that contains the following advice for improving shiftwork schedules (quoting):

- Avoid permanent (fixed or non-rotating) night shift.
- Keep consecutive night shifts to a minimum.
- Avoid quick shift changes.
- Plan some free weekends.
• Avoid several days of work followed by four- to seven-day “mini-vacations.”
• Keep long work shifts and overtime to a minimum.
• Consider different lengths for shifts.
• Examine start-end times.
• Keep the schedule regular and predictable.
• Examine rest breaks.[4]

In summary, be sure that CSIRT management practices respect the need for restful sleep and that shift changes from day to night are relatively infrequent.

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References:


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