Looking over the e-chalk archives of the past couple of years, it is surprising how much is spoken about computer security and computer theft. One rumour voiced in March this year was that “in recent time about 2.5 million dollars worth of machines had gone missing in the northern suburbs”. While early in the year there appeared to be a hiatus in the ever-increasing trend of computer theft in schools, it is now back to business as usual for those who visit nocturnally with ill intent in mind. While computers have been the number one hot item, other electronic equipment is also on the black-market wish list - TV’s, VCR’s, fax machines, printers, scanners, modems - and, to a staggering degree from primary schools in particular, file servers. Of as much importance as the stolen hardware is the data and software loss, and the staff time taken to get systems operational again. Computer theft from Western Australian schools and universities is just a portion of a global problem with a cost of $300 billion annually. What can be done? (Legally!) Fencing?- Very expensive along with cries of “it looks like a prison”, mind you, even schools with perimeter fences are losing equipment and are now looking to additional forms of security. Window film – with or without security grills? – Again can be expensive but not a bad idea in areas where there is a concentration of equipment.

Lock Down Devices (LDD’s) are another option that have been in place in many WA universities, and have been progressively improved over the past few years. An LDD consists of a device that is physically attached to the piece of equipment requiring security, and in turn ‘locks down’ the equipment to the desk or other permanent fixture. Increasing numbers of WA schools are now using LDD’s to secure their computers and other valuable electronic equipment.

Two main types of LDD’s are available - those that can easily be installed by the user of the device (self installed LDD) and those that are a little more sophisticated in design and require some minor surgery for installation by a technician (service installed LDD).

Self installed lock down devices

All self-installed LDD’s utilise a flexible steel cable as the means of fixing the equipment to the desk (see Figure 1.). These cables are purposefully difficult to cut. Under the plastic exterior, are bundles of wire strands designed to be “crushed” rather than “cut” by the uninvited use of a bolt cutter. A word of advice: always look for cables that are composed of many, fine wire strands, rather than fewer, thick strands for the same overall cable thickness. The closer the cable is to being rigid (like a rod), the easier a bolt cutter will cut it. Go for the flex. Over 95% of the LDD’s being used in schools and universities utilize a cable form of LDD.

Figure 1: Self-installed Lock Down Device with adhesive plates.

While the cable of the self-installed LDD has much going for it, a major weakness of these devices is at the points of attachment between cable and computer and between cable and desk. Invariably, cables are attached to the desk and machine by means of self-adhesive or cement-applied ‘plates’. The plates themselves are strong, but many universities and schools have testified to the adhesive drying out and the bond-strength being lost, resulting in plates being peeled off and the equipment being stolen. Even without the adhesive drying out, these plates can usually be prized off using a large flat-head screwdriver. Another aspect
of self-installed LDD’s of this type is that the larger the adhesive plate, the stronger the bond will be between the plate and the computer. However, finding a smooth and large enough surface on a computer (other than on the case cover) can be a challenge. As a result, self-installers resort to utilizing the case cover as the cable attachment point. This makes the job of getting away with the computer very easy indeed. After the quick removal of a couple of small case cover screws the valuables are whisked away! As a general rule of thumb – the easier it is to install an LDD, (i.e. the more user friendly) the easier it is for the unfriendly to remove the LDD – and hence the computer or TV, VCR etc. Having said that, a patented self-install device called the “Minder” is soon to be released on the market. The point of anchorage to the computer is via one of the expansion port slots. The Minder LDD utilizes a rugged 1.6 mm stainless-steel plate, is dead easy to install, and offers incredible security inside the computer frame. Because the Minder fits into a port slot, it avoids the weakness of the adhesive-plate type lock-down devices.

If you, or others, are thinking about purchasing self-installation LDD’s, firstly get satisfactory answers to these questions:

n What is the long-term adhesive strength offered by any glued plates?

n If the LDD comes with locks, are these locks “keyed alike”? (If not keyed alike, whose job will it be to tag all keys and code each to a plan of computer locations.)

n Who will manage and monitor all keyedor-differ keys?

n Do you want to risk using adhesive plates?

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Service installed lock down devices

The cable forms of these service installed LDD’s are similar in many ways to the ones just described. The big difference is the manner in which the computer end of the security cable is attached to the computer. Rather than be cemented or glued (via the plates) the cable is actually fixed (swaged) inside the computer frame (Figure 2.). In this way, the security cable becomes an integral part of the computer, like a permanently attached “tail”. The other end of the cable may be attached to a locking stud that is passed through the bench/desk and in turn secured with a shielded lock. A secondary lock may also be used to secure the hard-wired mouse, monitor and keyboard to this cable. Being a service that is provided, a good lock-down specialist will be able to:

n Provide cables made to the optimum length for each individual piece of equipment

n Provide each school, university or department with their own “keyed alike” locks

n Determine the most effective lock down method for various types of equipment (computer workstations, file servers, monitors, printers, TVs, VCRs, microwaves, etc.)

n Have non-cable forms of LDD’s on hand and be able to suggest optimal placement for security (see Figure 3).

n Offer suggestions based on the experience of lock-downs completed in other institutions.

As for cost effectiveness... invariably it will be found that even for a small number of lock downs, the cost of supply and installation of this "Service" option is on a par with, and often better than, the "Self-installation" approach to equipment security.

Whether you choose to use a perimeter fence, window-film, security grills, lock-down devices, or a combination of these, it is worth doing your homework to determine the best and most cost-effective solution for your particular situation.