Subject: Re: sec : U Re: travelling idl license
Posted by Randall Skelton on Wed, 25 Sep 2002 17:31:12 GMT
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On Wed, 25 Sep 2002, Andrew Cool wrote:

>   Hi Randall,
>
> On Windows at least, the MS Information tool will return the serial
> number of the Hard Drive.

Hi Andrew,

Unfortunately, these 'serial numbers' are not at all related to the
physical disk but rather, are an IBM/Microsoft concoction designed
originally to allow the windows to keep track of which disk is which.
Basically, in 1987 when Microsoft and IBM were co-developing OS/2, they
wanted to write a system that would automatically recognize a disk (hard
disk, floppy, optical, etc) like a Macintosh could do in system 6. Thus,
a 4-byte, 'volume serial number' (VSN) residing in the boot sector was
added to the standard DOS format. When a disk is formatted in windows it
is stamped with this four-byte number which is constructed from the exact
date and time the format operation was performed. Utilities like disk
copy will copy everything except this four-byte string. However, there
are many other utilities that can change this field to match any desired
time stamp so it is hardly a viable method of copy protection-- this, of
course, doesn't prevent some companies from using it.

So there are really 2 noteworthy points. Firstly, the VSN was never
indended to be used as a firm method of authentication. While the byte
code format and location in the boot sector has changed for FAT16, FAT32,
NTFS, etc, the specifications are wide open and the number is easy to
spoof (see <http://www.sysinternals.com/ntw2k/source/misc.shtml> and look
for the utility named 'volumeid'). Second, it is impossible to have IDL
for *nix and Windows on the same physical disk with the license tied to
the VSN because provision for including it are not made by other file
systems (ext2, xfs, ufs, hfs, hfs+, etc). There are no provisions in the
IDE or SCSI interface specifications to provide a unique hardware id.

At this point, the only way to physically license software is with a
dongle (i.e. HASP) or an ethernet card.

Cheers,
Randall