

Why USB must be so hard to use ?

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i recently tried to attach one of the Openbeacon USB devices

http://wiki.openbeacon.org/wiki/OpenBeacon_USB

to a -stable box, and "of course" attach failed, even though the same thing is claimed to work right away on Linux and XP without any special driver.

It wasn't too hard to convince umodem.c to attach to the device, but i had to put the <vendor,product> ids in the list of devices explicitly recognised, and further disable the extra check for capabilities at the end of umodem.c::USB_MATCH (or umodem_match in -current). The device itself returns a class UICLASS_CDC, but subclass and protocol are 0, i.e. this is a very basic serial device as probably many gadget we are going to see in the future.

<rant>

Now i wonder: why dealing with usb peripherals in FreeBSD must be so hard, and nothing works out of the box ? In many cases it is really because we are too strict in making checks, or because our system to embed device IDs in the driver is unaccessible to the average user/sysadmin.

Can we try to relax a bit the checks in the code (inherited from some other BSD) that probes peripherals so it is more tolerant to small differences in the features of peripherals, and provides an easier way to tweak device tables ?

</rant>

Over the last year, once i have gathered a bit more familiarity with the USB code, i managed to make a number of peripherals (cameras, scanners, various usb memory or mp3 players) work on FreeBSD and in several cases it was just a matter of a few lines of code. Hopefully, my patches are going in the tree in some way (linux_kmod_compat) or another (patches waiting to be committed), but the process is slow because, I suppose, all of us are still a bit nervous about relaxing checks in the code.

Why USB must be so hard to use ?

I understand being careful, but if we keep being so strict in what our driver accept (and sometimes i wonder if they ever worked on more than a single specific device!) FreeBSD will get a reputation for having an unusable USB subsystem, and this drives away many workstation users.

cheers

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