Configuring the Walmart Microtel Special as a Linux/Windows Workstation

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Last summer I purchased another pc system while I was considering setting up my own Linux webserver to run off my aDSL line. I decided to try it on the cheap, so I read a **review** of the Walmart special, a Microtel SYSMAR417 PC with Lycoris Linux OS & AMD Duron 1.2GHz and 128MB RAM, for just $199, and went for it. I was skeptical about the Lycoris Linux OS becuase I've been using Red Hat since RH5 in 1998, but I thought I'd give it a chance. Just as I was starting to admire the Lycoris graphical interface, I was prompted for a some kind of registration and there was something about a fee. Well, its been a while now, and I really don't recall exactly what turned me off about Lycoris, but it was then that I grabbed my Redhat 9 CDs and felt a sense of relief about the time I got to Disk Druid to reformat and partition it myself.

I never did go ahead with my plan to launch TalkingTree.com out of my home office, and so the Microtel machine sat in the corner for many months until just recently. Now that my inlaws will be visiting in the not too distant future, I wanted to set up a little workstation just for guests down by the sleeper sofa in the living room. I got that idea about the time that Fedora Core 1 Linux was released, so I set up a dual boot of Windows 2000 and Fedora, added the following:

- 256 MB RAM,

- Sound Blaster sound card,

- Nvidia PNY GeForce FX 5200 PCI video card,

- MAG Innovision 14" LCD monitor,

- speakers,

- HP DVD Writer 300n,

- Netgear MA111 802.11b Wireless USB Adapter.

So much for being on the cheap, but now this workstation is nice little workhorse.

This blog is mainly to document a few technical glitches that popped up along the way. The first one occurred while trying to configure the GeForce video card in the PCI slot. I'm usually not much on reading directions, but I found I couldn't help it when the monitor wasn't receiving a signal when plugged into the new video card. The instructions mentioned something about possibly having to change one or more BIOS settings because the motherboard was defaulted to use the built-in AGP card. The reason got the GeForce card at all is that the Walmart Microtel special only had 16 colors and 800x600 resolution. None of the BIOS settings in the list was an exact match to what I found on my system. About an hour later, after many reboots and scanning the BIOS over and over again, I finally came across the one setting that did the trick. The setting is:

BIOS > Integrated Peripherals > Init Display First (AGP | PCI)

I selected PCI, saved the settings, rebooted, and voila.

The second issue is still unresolved. The MA111 usb wireless adapater works great with Windows after installing the driver from the CD. Fedora was a different story. After a great deal of research I found the best source of information about obtaining and configuring wireless drivers is "**RPMS for linux-wlan-ng**". These are RPM packages for prism2_usb drivers, appropriate for the MA111 adapter, and maintained by Tim Blair. Here I found that I needed three RPMs, all specific for the Fedora Core 1 for i686 release: the base package, the interface package, and the module package. The base and interface package installed without warining, but the module package threw about 4 or 5 warnings about **Unresolved Symbols**. I went ahead and configured wlan.conf and wlan-{MYSSID}, but every time I start the network wlan0 fails with

Bringing up interface wlan0: prism2_usb device wlan0 does not seem to be present, delaying initialization

After a bit more reading I found something about wlan_ng drivers being built into the 2.6 kernel, so I uninstalled the wlan-ng RPMs and then found the appropriate 2.6 kernel RPM on kernel.org and with a quick "rpm -ivh" and an edit of grub.conf I was running on the new kernel (I'll leave the new issues that sprang up for another blog). Still no luck with getting the USB wireless adapter to work out of the box with 2.6, so I then reinstalled the wlan-ng RPMs under the new kernel. Although the module rpm stopped complaining with the newer kernel, and they all installed without warning, I continued to get the above error message when starting the network. So, I just stopped right there and called it a night. Grub.conf is configured to boot the original Fedora 2.4 ntpl kernel by default, so I'll keep the 2.6 kernel for testing later on. I'll keep my eye on progress of wlan-ng drivers for ease of installation, but that may be some time. Otherwise, I'm writing this blog from the Windows side of that box while using said wireless usb adapter at 80% signal strength. As much as I love Linux, for somethings you just gotta stick with Windows.

I'm still hoping to provide the inlaws with a Catalan profile on this workstation, which being from Barcelona that's one of their two native languages. I found that the Language Selection utility in Fedora can be used to change the default language system wide, forcing everyone to use the specified language, so I decided to configure the language manually on a per-user basis. To do this, I edited the .bash_profile for the user account I set up for them and I added two lines to set the language as user env variables and then added those evn variables to the export list:

```
LANG=ca_ES.UTF-8
LANGVAR=ca_ES.UTF-8
PATH=$PATH:~/
export LANG LANGVAR PATH
```

Logging into that profile now displays all buttons and menu options in Catalan, while maintaining my own profile in English.

So this is my little story of a not-so-bad workstation. Next time I think I'll just shop at Dell and save myself hours of installation, and it'll probably come out for less.

For more on my adventures with the MA111 Netgear Wireless Adapter and Fedora Linux, see this **blog entry**. and its comments.