W. Michael Petullo
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XXX XXX
555 Union Blvd.
Allentown, PA 18109

Dear XXX:

Quite some time ago, I purchased a 56K Internal PCI Call Waiting Modem, manufactured by *Action*tec Electronics, Inc. This modem is based on Agere's Venus PCI controller-based modem chip-set.

I am a Linux user, and have always had problems with this particular modem. The Linux serial driver does not always detect the modem's existence. I have spent a lot of time investigating the reasons behind its inconsistent operation and have come to the conclusion that the Venus chip-set is buggy. Documentation of my experimentation may be found at http://www.flyn.org, in the section titled *serial-5.05-actiontec*.

I have written a Linux kernel module, for use with the 2.4 series, which seems to demonstrate buggy chip-set behavior. In summary, writing a value to one of the modem's registers and then immediately reading from the register does not always return the original value. This technique is used by the Linux serial driver to verify a device is a modem.

The source code for my test module[1] is very self explanatory to one familiar with Linux kernel module development. I have run this code using my modem in several different hardware configurations with the same negative results.

I am very interested in doing all I can to help Agere develop a truly cross-platform PCI controller-based modem chip-set. I would like to get this modem working and I would like to share my work with Agere. I would be especially interested to hear if Agere's engineers have the same results when running my test kernel module in their laboratories. I would be more than willing to provide you with any information you would need to get to the bottom of this issue.

Thank you for your time; I look forward to hearing from you.

Sincerely,

W. Michael Petullo

encl: Serial 5.05 *Action*tec Patch
Test Kernel Module

[1] http://www.flyn.org/projects/serial-5.05-actiontec/serial_test.c