TLAN driver for Linux

Version: 1.14a

- C.   1997-1998 Caldera, Inc.
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For driver information/updates visit http://www.compaq.com

I. Supported Devices

Only PCI devices will work with this driver.

Supported:

Vendor ID	Device ID	Name
0e11	ae32	Compaq Netelligent 10/100 TX PCI UTP
0e11	ae34	Compaq Netelligent 10 T PCI UTP
0e11	ae35	Compaq Integrated NetFlex 3/P
0e11	ae40	Compaq Netelligent Dual 10/100 TX PCI UTP
0e11	ae43	Compaq Netelligent Integrated 10/100 TX UTP
0e11	b011	Compaq Netelligent 10/100 TX Embedded UTP
0e11	b012	Compaq Netelligent 10 T/2 PCI UTP/Coax
0e11	b030	Compaq Netelligent 10/100 TX UTP
0e11	f130	Compaq NetFlex 3/P
0e11	f150	Compaq NetFlex 3/P
108d	0012	Olicom OC-2325
108d	0013	Olicom OC-2183
108d	0014	Olicom OC-2326

Caveats:

I am not sure if 100BaseTX daughterboards (for those cards which support such things) will work. I haven't had any solid evidence either way.

However, if a card supports 100BaseTx without requiring an add on daughterboard, it should work with 100BaseTx.

The "Netelligent 10 T/2 PCI UTP/Coax" (b012) device is untested, but I do not expect any problems.

II. Driver Options

1.   You can append debug=x to the end of the insmod line to get debug messages, where x is a bit field where the bits mean the following:

0x01	Turn on general debugging messages.
0x02	Turn on receive debugging messages.
0x04	Turn on transmit debugging messages.
0x08	Turn on list debugging messages.

2.   You can append aui=1 to the end of the insmod line to cause the adapter to use the AUI interface instead of the 10 Base T interface. This is also what to do if you want to use the BNC connector on a TLAN based device. (Setting this option on a device that does not have an AUI/BNC connector will probably cause it to not function correctly.)

3.   You can set duplex=1 to force half duplex, and duplex=2 to force full duplex.

4.   You can set speed=10 to force 10Mbs operation, and speed=100 to force 100Mbs operation. (I'm not sure what will happen if a card which only supports 10Mbs is forced into 100Mbs mode.)

5.   You have to use speed=X duplex=Y together now. If you just do "insmod tlan.o speed=100" the driver will do Auto-Neg. To force a 10Mbps Half-Duplex link do "insmod tlan.o speed=10 duplex=1".

6.   If the driver is built into the kernel, you can use the 3rd and 4th parameters to set aui and debug respectively. For example:

```
ether=0,0,0x1,0x7,eth0
```

This sets aui to 0x1 and debug to 0x7, assuming eth0 is a supported TLAN device.

The bits in the third byte are assigned as follows:

0x01	aui
0x02	use half duplex
0x04	use full duplex
0x08	use 10BaseT
0x10	use 100BaseTx

You also need to set both speed and duplex settings when forcing speeds with kernel-parameters. ether=0,0,0x12,0,eth0 will force link to 100Mbps Half-Duplex.

7. If you have more than one tlan adapter in your system, you can use the above options on a per adapter basis. To force a 100Mbit/HD link with your eth1 adapter use:

```
insmod tlan speed=0,100 duplex=0,1
```

Now eth0 will use auto-neg and eth1 will be forced to 100Mbit/HD. Note that the tlan driver supports a maximum of 8 adapters.

III. Things to try if you have problems

1. Make sure your card's PCI id is among those listed in section I, above.
2. Make sure routing is correct.
3. Try forcing different speed/duplex settings

There is also a tlan mailing list which you can join by sending "subscribe tlan" in the body of an email to majordomo@vuser.vu.union.edu.

There is also a tlan website at http://www.compaq.com