

# Is my newly installed NIC DOA?

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I run Fedora 7. My PC is a seven-year-old Dell Dimension 4100. It did not come with either integrated or standalone NIC. My Internet access is dial-up only.

In order to have capability for DSL, I purchased an Intel PRO/100 M NIC from a highly-rated seller on EBay. I've performed two tests to determine if the NIC is OK. Both tests appear to have failed. But I have zero experience with networking. So I'd like some guidance on whether I'm using the correct tests, and whether they indeed have failed.

The first test is taken from the DSL Howto.

It consists of three steps:

1. Attempt to bring up interface: `ifconfig eth0 10.0.0.1 up`
2. Check response (ping it): `ping -c 50 10.0.0.1`
3. Use `ifconfig` to check for errors: `ifconfig eth0`

The rtt times reported by ping lead me to think that data was transmitted, but the RX bytes and TX bytes reported by `ifconfig` are both zero.

The second test is taken from the Intel PRO/100 M users guide, describing how to run NIC diagnostics under Linux:

```
ethtool -t eth0
```

The output from this test is: FAIL

Following is a screen capture from both tests:

```
Script started on Mon 09 Jul 2007 01:29:29 PM EDT
j0;root@localhost:~ [?1034h[root@localhost ~]# ping -c 50 10.0.0.1
PING 10.0.0.1 (10.0.0.1) 56(84) bytes of data.
64 bytes from 10.0.0.1: icmp_seq=1 ttl=64 time=0.163 ms
64 bytes from 10.0.0.1: icmp_seq=2 ttl=64 time=0.116 ms
64 bytes from 10.0.0.1: icmp_seq=3 ttl=64 time=0.112 ms
```

## Is my newly installed NIC DOA?

```
64 bytes from 10.0.0.1: icmp_seq=4 ttl=64 time=0.115 ms
64 bytes from 10.0.0.1: icmp_seq=5 ttl=64 time=0.119 ms
<snip>
```

```
---- 10.0.0.1 ping statistics ----
```

```
50 packets transmitted, 50 received, 0% packet loss, time 49001ms
rtt min/avg/max/mdev = 0.109/0.115/0.163/0.015 ms
]0;root@localhost:~ [root@localhost ~]# ifconfig eth0
eth0 Link encap:Ethernet HWaddr 00:07:E9:01:B2:09
inet addr:10.0.0.1 Bcast:10.255.255.255 Mask:255.0.0.0
UP BROADCAST MULTICAST MTU:1500 Metric:1
RX packets:0 errors:0 dropped:0 overruns:0 frame:0
TX packets:0 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:1000
RX bytes:0 (0.0 b) TX bytes:0 (0.0 b)
```

```
]0;root@localhost:~ [root@localhost ~]# ethtool -t eth0
The test result is FAIL
The test extra info:
Link test (on/offline) 1
Eeprom test (on/offline) 0
Self test (offline) 0
Mac loopback (offline) 0
Phy loopback (offline) 0
```

```
]0;root@localhost:~ [root@localhost ~]#
Script done on Mon 09 Jul 2007 01:31:21 PM EDT
```