

AMD Post-Installation Issues

AMD fails to activate my Broadcom network card during the interface identification procedure.

When Broadcom 10Gb card is connected to a mismatched link speed, a warning message occurs:

```
WARNING: Autonegotiation is not supported for following inactive network
interface(s): eth5 eth6 eth7
        Rtmintst will attempt to match link speed.
        Please make sure there is a cable connected to every interface and
press ENTER.
```

The cause of this speed mismatch is Broadcom card's inability to automatically negotiate the link speed. Configuring the link speed requires that you perform an additional step.

Before performing this step, make sure that there is a cable connected to every interface then press [ENTER]. AMD then automatically adjust the card's speed configuration to match the link speed and attempts to identify the network interface again.

The process of matching the link speed to the card's speed will cycle through all interfaces unable to autonegotiate.

```
-----
The autonegotiation is not supported for eth5
-----
Validating the link speed for eth5
The link is not up for eth5
Set alternate link speed for eth5
Current speed: 10000 Mb/s
New speed: 1000 Mb/s
New link speed set successfully for eth5
```

Once the link speed has been successfully matched, the AMD attempts to activate it.

```
eth5 has been activated
```



Note:

If the link still cannot be activated, an error message displays.

```
*** Cannot activate eth6
*** Restoring default link speed
*** Are you sure there is a cable connected to every interface?
*** Connecting cables and repeating the link speed matching attempt
may solve the problem.
*** Repeat matching link speed for eth6? (y/n)
```

In case where the speed cannot be successfully matched and the link activated, it is advised that you repeat the identification procedure while the Broadcom card is connected to its designated 10Gb link. The default link speed on the card will be automatically matched to the link speed of the connected cable.

Since the newly negotiated link speed is not optimal for the activated Broadcom 10Gb card, it is not saved as part of the network configuration. The AMD attempts to autonegotiate the link speed once again, if it is restarted. If your targeted link speed is less than 10Gb and you require to force a specific link speed configuration, use the option for configuring link parameters located in the network configuration menu. For more information, see [Driver, Network, and Interface Configuration](#).

No traffic seen on sniffing ports on PCIe cards

When you install a PCIe card on AMD 11.5 and 11.6 on Red Hat Enterprise Linux 5.3, 5.4, or 5.5, you may see the following symptoms:

- No traffic on sniffing ports when you run the `traffic` command.
- In the `/var/messages` file, for each eth on the PCIe card, a message such as

```
msi interrupt test failed, using legacy interrupt
...ethX...
```

If this occurs, set the kernel option `pci=noms` in the `/boot/grub/grub.conf` file and then reboot the machine.

Example:

```
kernel /boot/vmlinuz-2.6.18-128.el5PAE ro root=LABEL=/ vga=0x317
rhash_entries=8192 crashkernel=64M@16M pci=noms
```



Unknown macro: 'scroll-ig'

How can I fix restarting monitoring process on my Sun Fire X4450?

The `rtm` process keeps restarting approximately every 20 minutes and generating the following (or similar) information in the `rtm.log` file:

```
L3 2008-05-28 18:24:16.167 0@commsrv/CommServer.cpp:285 CommServer cl:
3586 UNREGISTER_CLIENT
L0 2008-05-28 18:24:16.168 0@commsrv/CommServer.cpp:138 Client id=3586
unregistered

No free packet buffers size=1536

anlzs thread locked
probe version: ndw.10.3.200
os version: RHEL5 i386
compiled with: CFLAGS=-O3 -march=i686 -pipe -fno-strict-aliasing -
DLINUX26 -g3 -D_DEBUG -I. -I./include -I/usr/local/openssl-0.9.7/include -
I/usr/kerberos/include -I./lib/libcap-0.9.4 -DU_STATIC_IMPLEMENTATION -
D_REENTRANT -D_LINUX_THREADS -DRTM_VPN -DNO_LICENSES -Wall -Wno-format -W
-Wpointer-arith -Wcast-qual -Wcast-align -Wuninitialized -Wparentheses
created: Tue May 20 11:25:30 CEST 2008
build: mkwap@cwpl-ap011-dev5:/home/mkwap/common/ndw/rtm
Begin Stack Frame Dump
/usr/adlex/rtm/bin/rtm[0x83e0470]
[0x97b420]
[0x97b402]
/lib/libc.so.6(nanosleep+0x46)[0x8c9846]
/lib/libc.so.6(usleep+0x3c)[0x9026ac]
/usr/adlex/rtm/bin/rtm[0x80a54f6]
/usr/adlex/rtm/bin/rtm[0x83e0d24]
/usr/adlex/rtm/bin/rtm[0x83e0f21]
/lib/libpthread.so.0[0x3fa43b]
/lib/libc.so.6(clone+0x5e)[0x908fde]
End Stack Frame Dump
All stack addresses list: 0x083e0470 0x0097b420 0x0097b402 0x008c9846
0x009026ac 0x080a54f6 0x083e0d24 0x083e0f21 0x003fa43b 0x00908fde
L3 2008-05-28 18:24:17.377 0@commsrv/CommServer.cpp:270 CommServer cl:
3594 REGISTER_CLIENT_NO_DIAG
```

This issue is specific to *Sun Fire X4450* hardware configuration. The CPU frequency scaling causes `tsc` (time stamp counter) `clocksource` to be unreliable. There are several other `clocksource` choices that can be used instead of the `tsc`. Use the following procedure to examine your system for the available `clocksource` and to modify the `grub.conf` file to specify a different `clocksource`.

1. Log in to your AMD as `root` user.
2. Determine your current `clocksource` name. Execute the following command at the prompt:

```
cat /sys/devices/system/clocksource/clocksource0/current_clocksource
```

The response from the system should be: `tsc`

3. Examine the availability of `clocksource` options on your machine. Display the content of the `available_clocksource` object located in `/sys/devices/system/clocksource/clocksource0/`

The system response should list the available `clocksource` options:

```
# cat /sys/devices/system/clocksource/clocksource0
/available_clocksource
acpi_pm jiffies tsc pit
```

4. If the `acpi_pm` `clocksource` is available, edit the `/boot/grub/grub.conf` file and add `acpi_pm` to the line describing kernel boot parameters.

The following line should be appended to *each* kernel line in the `/boot/grub/grub.conf` file:

```
clocksource=acpi_pm
```

Example of the `grub.conf` file with `clocksource` configured for `acpi_pm` using the `mcedit` command:

```
mcedit /boot/grub/grub.conf
```

Figure 1. Editing the grub.conf File

```
# grub.conf generated by anaconda
#
# Note that you do not have to rerun grub after making changes to
this file
# NOTICE: You do not have a /boot partition. This means that
#           all kernel and initrd paths are relative to /, eg.
#           root (hd0,0)
#           kernel /boot/vmlinuz-version ro root=/dev/VolGroup00
/LogVol00
#           initrd /boot/initrd-version.img
#boot=/dev/hda
default=0
timeout=5
splashimage=(hd0,0)/grub/splash.xpm.gz
hiddenmenu
title Red Hat Enterprise Linux Client (2.6.18-92.el5PAE)
    root (hd0,0)
    kernel /boot/vmlinuz-2.6.18-53.el5 ro root=/dev/VolGroup00
/LogVol00 clocksource=acpi_pm
    initrd /boot/initrd-2.6.18-53.el5.img
```

The above example lists two kernels installed: (2.6.18-92.el5PAE) and (2.6.18-92.el5). For more information, see [Why do I need a PAE kernel and how do I install it?](#). You should append the same `clocksource` parameter for each kernel installed.

5. Save the modified `grub.conf` file and reboot the AMD.
6. Once the AMD reboots, log in as `root` user and confirm the current `clocksource`:

```
# cat /sys/devices/system/clocksource/clocksource0/current_clocksource
acpi_pm
```

There is no system driver in Red Hat Enterprise Linux 5.1 for an Intel 10-GbE card. How can I install such a card?

The Linux kernel installed by Red Hat Enterprise Linux 5.1 has no built-in support for the adapters that use the Intel 82598EB controller (the `ixgbe` kernel module is the device driver for these NICs).¹

If you cannot use the Ethernet drivers provided by Compuware and you want to use Intel 10 Gb adapter, you must obtain and compile the native driver.² If you are sure the `ixgbe` module is the driver for your adapter, go directly to the [driver download page](#).

After downloading the archive containing the source files for the driver, unpack it in a suitable location (for example, in `/usr/local/src`), find the `README` file, and follow the instructions it contains. Compilation of this driver does not require rebuilding the whole kernel, because the driver is supported only as a loadable module.

Note that most of the actions described below require `root` user privileges.

The building and installation of drivers is a typical source compiling task in Linux and generally involves executing a sequence of commands ending with the `make install` command in the driver source directory. For example:

```
# cd /usr/local/src
# tar xvzf ixgbe-1.3.20.3.tar.gz
# cd ixgbe-1.3.20.3/src/
# make install
```

For 2.6 kernels, the driver can be found in `/lib/modules/[KERNEL_VERSION]/kernel/drivers/net/ixgbe/ixgbe.ko`.

It is also possible to build an `rpm` package straight from the tar archive. To do that, install the `rpm-build` package on the AMD machine either from a network repository or from the Red Hat Enterprise Linux installation disk (be ready to provide software dependencies for the `rpm-build` package if you are not using an automated update program such as `yum`).

When you use the command `rpmbuild -tb ixgbe-[DRIVER_VERSION].tar.gz`, the kernel module is compiled and the `rpm` package is created in a standard location. To enable support for the Intel adapter in the system, you must install the `ixgbe` `rpm` package. For example:

```
rpm -i /usr/src/redhat/RPMS/i386/ixgbe-1.3.20.3-1.i386.rpm
```

After the kernel module is installed in the file system, there is no need to load the module. The AMD software will find and load it automatically.

For more information on optional module load parameters, refer to system manual page:

```
man 7 ixgbe
```

When I use `snmpwalk`, the `snmp` daemon stops responding while `snmpd.log` continues to consume disk space (approximately 5 MB/sec).

For more information, visit the Red Hat support center at [Red Hat Global Support Services](#). For a workaround:

1. Log in to your AMD as a `root` user.
2. Edit the `snmpd.conf` file by executing the following command:

```
mcedit /etc/snmp/snmpd.conf
```

3. Append the following lines at the end of the file:

```
view all excluded mib-2.ip
view all excluded mib-2.host
```

These lines exclude the object identifiers (OIDs) that cause the daemon to stop responding.

4. Save the file and restart the `snmpd` daemon by executing the following command:

```
service snmpd restart
```

When I attempt to view `snmpd` status, I receive the following message: “`snmpd dead but subsys locked`”.

The reason why `snmpd` does not start is that the `net-snmp`, `net-snmp-libs`, or `net-snmp-utils` packages have different version numbers. Ensure that the versions numbers are uniform and that the SELinux is disabled. For more information, see [Disabling Security-Enhanced Linux](#).

1	For more information about identifying your adapter, see the Adapter & Driver ID Guide at: http://support.intel.com/support/network/adapter/pro100/21397.htm . For the latest Intel network drivers for Linux, refer to the following website. In the search field, enter your adapter name or type, or use the following link to search for your adapter: http://downloadcenter.intel.com/default.aspx .
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2	Before continuing, ensure that development software is installed. Check whether the compiler was removed from your system. For more information, see Managing Development Packages .
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