Myri10GE driver is loaded and cable connected but there is no link. Why?

Model:

Software:

Operating System:

Information:

The network adapter will not activate the physical link until the driver has told it to bring up the link. After loading the driver, the mechanism to bring up the link is typically **ifconfig up** on Unix-like OSes. Thus, the behavior you are seeing is how the adapter was designed, and is not a defect.

To activate the physical link, you need to bring up the Ethernet interface normally, by assigning an IP address or DHCP configuration via the normal OS-specific method. Doing this will bring up the link.

For Mac OS X, please refer to: Why is no link seen in config tools for myri10ge driver for MacOSX?

On Linux, do you see **link_up: 1** reported in the **ethtool -S ethX** output? If not, and the driver loaded successfully, please refer to the following **Checklist** for possible hardware causes for the **no link** situation.

If these suggestions do not resolve the **no link** issue, please send the following output to **CSPI Technical Support** (support@cspi.com):

> If you are using the Myri10GE driver on a Unix-like OS, please send us the output of **myri10ge_bugreport.sh** script, as described in the FAQ entry: What is myri10ge bugreport.sh?

> If you are using the Windows Myri10GE driver, please send us the output of **myri10ge_counters.exe.**

> Please also send us the output of:

```
# mdio_rw -x
```

> And

```
# myri_info -v
```
> From the Myri-10G Network Adapter Tool Kit.

Checklist:

After loading the driver, have you verified that an IP address was assigned to the device?

Is the host/network adapter connected to a 10GbE switch, or back-to-back (switchless) with another host? Do you see

no link with both switches and back-to-back topologies?

If the host/network adapter is connected to a peripheral device (e.g., camera), do you also experience no link if the adapter is instead connected to a 10GbE switch or back-to-back (switchless) to another host?

Have you tried reseating the cable on both ends (adapter port and switch port)?

Is the host/network adapter connected with an SFP+-terminated passive copper "direct attach" cable, or with an SFP+ transceiver module and fiber cable?

If the -S network adapter is connected with a direct attach copper (DAC) cable, are you using a Myricom-certified DAC cable from our supplier Gore and Associates, or a DAC cable from a different supplier.

We only support "passive" direct attach copper cables, and our supplier for direct attach cables is Gore and Associates. Refer to the 10G-SFPDA-Xm section of this page: Myricom Products Page.

If the network adapter is connected with a DAC cable from a different supplier, please try a different length DAC cable, or replacing the DAC cable with a SFP+ transceiver module and fiber cable. For more details about hardware incompatibility issues with DAC cables, please read: Have you experienced link flapping issues with SFP+-based Myri-10G adapters and direct attach (DAC) cables?

If the network adapter has an SFP+ or XFP+ transceiver module:

Have you tried reseating the transceiver module? A spare transceiver module?

Is the SFP+ transceiver module certified for 10GbE operation? Please read Why does "mdio_rw" report Compliance = ?? (0)?

If you're connecting to a 10GbE switch, is the make/model of SFP+ or XFP transceiver module-supported by your switch?

While Myri-10G Network Adapters are standard 10GbE adapters and support all 10GbE-certified SFP+ and XFP transceiver modules, the 10-Gigabit Ethernet Switch you are using may have restrictions on the supported brand/make/model of transceivers or cables. Carefully read the technical specifications for the 10GbE switch to determine which brands are supported.

Many of the 10GbE switch vendors do transceiver hardware locking in firmware to force customers to only use their brand of SFP+ or XFP transceiver module (or only a specific brand of direct-attach SFP+ terminated cables) with the switch. It is not an issue of if the transceiver or cable will work or not; it is a function of the switch vendor not allowing third party transceiver modules or cables to be used with their equipment. In this situation, if you try to use a third party transceiver (or cable) with the switch, you will receive an error message about **unsupported hardware.**

If you're using 10GBase-SR transceivers, are you sure that you have a 10GBase-Sr transceiver on both ends of the cable? Likewise, for 10GBase-LR or 10GBase-ER, you cannot mix transceivers connected to the same cable.

Are you using the correct type of cable for the transceiver? 10GBase-SR, 10GBase-LR and even 10GBase-ER SFP+

transceiver modules are physically compatible with the same cables (but the signaling is obviously not compatible).

If you're using 10GBase-SR transceivers, the required cable is 850nm wavelength, 26-300m on multimode fiber.

If you're using 10GBase-LR transceivers, the required cable is 1310nm wavelength, up to 10km on single-mode fiber.

If you're using 10GBase-ER transceivers, the required cable is 1550nm wavelength, up to 40km on single-mode fiber.

Have you tried using a spare cable and do you see the same no link behavior?

Have you tried using a spare network adapter and do you see the same no link behavior?

Have you tried a spare riser card, if one is being used with the adapter?

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1	7/15/2016	Initial Draft
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