## Linux

## How to change speed / duplex setting of a network connection?

Well, you can do this with mii-tool or ethtool, both should be working nicely. On Debian to install those, run this:

aptitude install ethtool net-tools

After that you can check the interface status by running this command:

ethtool eth01

Should give output like this:

Settings for eth1:

Supported ports: [ TP ]

Supported link modes: 10baseT/Half 10baseT/Full

100baseT/Half 100baseT/Full

1000baseT/Full

Supports auto-negotiation: Yes

Advertised link modes: 10baseT/Half 10baseT/Full

100baseT/Half 100baseT/Full

1000baseT/Full

Advertised pause frame use: No Advertised auto-negotiation: Yes

Speed: 1000Mb/s
Duplex: Full
Port: Twisted Pair

PHYAD: 1

Transceiver: internal Auto-negotiation: on

MDI-X: off

Supports Wake-on: pumbag

Wake-on: g

Current message level: 0x00000001 (1)

Link detected: yes

here the alternative with mii-tool:

mii-tool eth1

Should give output just like this:

eth1: negotiated 1000baseT-FD flow-control, link ok

So now, after we can see what is going on, remember this, before chaning the network speed: if you set the network speed manually, you have to do this on both sides. So you need to change the switch network speed, or whatever your server/computer is attached too to the matching setting. Otherwise you most likely will have duplex / speed missmatches with either leed in very slow performance or the network is not working at all!

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This will set the network connection in	into 100mbit full duple	×ς
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mii-tool eth1 -F 100baseTx-FD

Same for ethtool:

ethtool -s eth1 speed 100 duplex full

After that check if it was really set the way you wanted, if not, you need to disable auto negotiation first:

ethtool -s eth1 autoneg off

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Author: n/a

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