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!

This will set the network connection into 100mbit full duplex:

```
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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