NAME

mii-tool - view, manipulate media-independent interface status

SYNOPSIS

mii-tool [-**v**, **--verbose**] [-**V**, **--version**] [-**R**, **--reset**] [-**r**, **--restart**] [-**w**, **--watch**] [-**l**, **--log**]
[-**A**, **--advertise**=*media,...*] [-**F**, **--force**=*media*] [*interface ...*]

DESCRIPTION

This utility checks or sets the status of a network interface's Media Independent Interface (MII)
unit. Most fast ethernet adapters use an MII to autonegotiate link speed and duplex setting.

Most intelligent network devices use an autonegotiation protocol to communicate what media
technologies they support, and then select the fastest mutually supported media technology. The
-A or **--advertise** options can be used to tell the MII to only advertise a subset of its capabili-
ties. Some passive devices, such as single-speed hubs, are unable to autonegotiate. To handle such
devices, the MII protocol also allows for establishing a link by simply detecting either a 10baseT
or 100baseT link beat. The **-F** or **--force** options can be used to force the MII to operate in one
mode, instead of autonegotiating. The **-A** and **-F** options are mutually exclusive.

The default short output reports the negotiated link speed and link status for each interface. If an
interface or interfaces are not specified on the command line, then **mii-tool** will check any avail-
able interfaces from **eth0** through **eth7**.

OPTIONS

-v, **--verbose**

Display more detailed MII status information. If used twice, also display raw MII register
contents.

-V, **--version**

Display program version information.

-R, **--reset**

Reset the MII to its default configuration.

-r, **--restart**

Restart autonegotiation.

-w, **--watch**

Watch interface(s) and report changes in link status. The MII interfaces are polled at one
second intervals.

-l, **--log**

Used with **-w**, records link status changes in the system log instead of printing on stan-
dard output.

-F *media*, **--force**=*media*

Disable autonegotiation, and force the MII to either **100baseTx-FD**, **100baseTx-HD**,
10baseT-FD, or **10baseT-HD** operation.

-A *media,...*, **--advertise**=*media,...*

Enable and restart autonegotiation, and advertise only the specified media technologies.
Multiple technologies should be separated by commas. Valid media are **100baseT4**,
100baseTx-FD, **100baseTx-HD**, **10baseT-FD**, and **10baseT-HD**.

DIAGNOSTICS

SIOCGMIIPHY on 'eth?' failed: Invalid argument

If the interface is not running (up), kernel will refuse to report its link state.

SIOCGMIIPHY on 'eth?' failed: Operation not permitted

Most kernels restrict access to root.

SIOCGMIIPHY on 'eth?' failed: No such device
>   This error is shown, if the kernel does not know about the named device.

SIOCGMIIPHY on 'eth?' failed: Operation not supported
>   The interface in question does not support MII queries. Most likely, it does not have MII
>   transceivers, at all.

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