

# Re: Embedded Ethernet platforms -- your view

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I am looking for guidance with selection of a hardware development platform and tools for a new project. The task is essentially to embed an Ethernet router in an existing system, which will consume some network traffic (TCP/IP) and forward the rest. As a first phase, we would like to get a working hardware platform for code development; later we roll our own hardware based on the selected controller. I have been surveying platforms that provide Ethernet connectivity and sufficient horsepower to process level-2 packets; the toughest part has been finding appropriate development tools.

From what I've learned here and elsewhere, the Freescale ColdFire (e.g. MCF5282) or an ARM-based device (e.g. AT91RM9200, Samsung S3C4510B) are suitable controller choices. At this point I am leaning towards ColdFire based on praise of the architecture.

The ATNGW100 AVR32 Gateway is low cost H/W combined with Linux.

Key features is dual Ethernet, which I believe you will need.

The recently released "Buildroot for AVR32" on [avrfreaks.net](http://avrfreaks.net) should allow you to get a flying start on the tools side.

- \* gcc-4.1.0 based toolchain (C, C++)
- \* linux 2.6.22.1 based linux kernel
- \* uclibc based root file system with a number of router/gateway related S/W
- \* Target optimized for ngw100

You debug using a JTAG ICE Mk II.

Other items on the wish list include:

- o TCP/IP stack / OK
- o Full Source code for any provided drivers, RTOS, etc/OK
- o Full hardware schematics/OK
- o Small development platform/module preferable/OK

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Time-to-demo is more critical than cost at this point./OK

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Best Regards,

Ulf Samuelsson

This is intended to be my personal opinion which may,  
or may not be shared by my employer Atmel Nordic AB

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