Contents

Description

Micro-plus is a version of dd-wrt micro originally created for debugging purposes, on devices having only 2MB of flash memory. It has enhanced Busybox functionality, such as an expanded shell prompt, tab completion, and **ls** and **top** commands, each of which had been stripped from the normal micro version. There is also a version of Micro-plus with SSH support.

Can my device run micro-plus?

4MB+ flash can run it no problem. But the focus is on devices having only 2MB flash:

The only 2MB devices which currently have the ability to run micro-plus must have a small CFE (bootloader) of 128K in size. You can check if your router is capable by doing the following:

1. Do a CFE backup (using the normal v24 **micro** build of dd-wrt). Save it somewhere safe!
     - If the size of your downloaded **cfe.bin** is **128K**, you can safely flash micro-plus and enjoy the benefits.
     - DO NOT flash micro-plus if your cfe.bin is larger than 128K (most are actually 256K) or if your CFE backup somehow fails with zero bytes in size!

Where to download it?

Micro-plus is currently not an official release of the stable tree, but with your help, we hope to make it so. For now, you can find it in downloads/others/eko/v24_TNG directory. It is built by Eko, a lead dd-wrt developer.

Here are the contents of the **micro plus ssh (dd-wrt.v24-11296_NEWD_micro-plus_ssh.bin)** (note that "ls" and "top" you get _ONLY_ with the "plus" version of the firmware). With the standard "micro" version you can login into the router via telnet, you get your "ash" prompt but neither of "ls", "cat", "more" exists. Therefore, go for the "plus" if you want to do something on the router.

```
root@asus520gc:/usr/bin# uname -a
Linux asus520gc 2.4.36 #2917 Thu Jan 1 11:12:02 CET 2009 mips unknown
root@asus520gc:/usr/bin# strings /bin/busybox | grep Busy
syslogd started: BusyBox v1.13.1
BusyBox v1.13.1 (2009-01-01 11:11:12 CET)
root@asus520gc:/usr/bin# ssh -v
WARNING: Ignoring unknown argument '-v'
Dropbear client v0.52
Usage: ssh [options] [user@]host[/port][,[user@]host/port],...] [command]
Options are:
-p <remoteport>
-l <username>
-t     Allocate a pty
-T     Don't allocate a pty
-N     Don't run a remote command
-f     Run in background after auth
-y     Always accept remote host key if unknown
-s     Request a subsystem (use for sftp)
-i <identityfile>   (multiple allowed)
-L <listenport:remotehost:remoteport> Local port forwarding
-g     Allow remote hosts to connect to forwarded ports
-R <listenport:remotehost:remoteport> Remote port forwarding
-W <receive_window_buffer> (default 24576, larger may be faster, max 1MB)
-K <keepalive>  (0 is never, default 0)
-I <idle_timeout>  (0 is never, default 0)
-B <endhost:endport> Netcat-alike forwarding
-J <proxy_program> Use program pipe rather than TCP connection
root@asus520gc:/usr/bin# ls -la /usr/bin
drwxr-xr-x    2 root     root          531 Jan  1  2009 .
drwxr-xr-x    6 root     root           55 Jan  1  2009 ..
lrwxrwxrwx    1 root     root           17 Jan  1  2009 [ -> ../../bin/busybox
lrwxrwxrwx    1 root     root           17 Jan  1  2009 [[ -> ../../bin/busybox
lrwxrwxrwx    1 root     root           17 Jan  1  2009 awk -> ../../bin/busybox
lrwxrwxrwx    1 root     root           17 Jan  1  2009 basename -> ../../bin/busybox
lrwxrwxrwx    1 root     root           17 Jan  1  2009 clear -> ../../bin/busybox
lrwxrwxrwx    1 root     root           17 Jan  1  2009 cmp -> ../../bin/busybox
lrwxrwxrwx    1 root     root           17 Jan  1  2009 cut -> ../../bin/busybox
lrwxrwxrwx    1 root     root           17 Jan  1  2009 dc -> ../../bin/busybox
lrwxrwxrwx    1 root     root           17 Jan  1  2009 dirname -> ../../bin/busybox
lrwxrwxrwx    1 root     root           17 Jan  1  2009 du -> ../../bin/busybox
lrwxrwxrwx    1 root     root           17 Jan  1  2009 env -> ../../bin/busybox
lrwxrwxrwx    1 root     root           17 Jan  1  2009 expr -> ../../bin/busybox
lrwxrwxrwx    1 root     root           17 Jan  1  2009 find -> ../../bin/busybox
lrwxrwxrwx    1 root     root           17 Jan  1  2009 free -> ../../bin/busybox
lrwxrwxrwx    1 root     root           17 Jan  1  2009 ftpget -> ../../bin/busybox
lrwxrwxrwx    1 root     root           17 Jan  1  2009 ftpput -> ../../bin/busybox
lrwxrwxrwx    1 root     root           17 Jan  1  2009 head -> ../../bin/busybox
lrwxrwxrwx    1 root     root           17 Jan  1  2009 hexdump -> ../../bin/busybox
lrwxrwxrwx    1 root     root           17 Jan  1  2009 id -> ../../bin/busybox
lrwxrwxrwx    1 root     root           17 Jan  1  2009 install -> ../../bin/busybox
lrwxrwxrwx    1 root     root           17 Jan  1  2009 killall -> ../../bin/busybox
lrwxrwxrwx    1 root     root           17 Jan  1  2009 less -> ../../bin/busybox
lrwxrwxrwx    1 root     root           17 Jan  1  2009 logger -> ../../bin/busybox
lrwxrwxrwx    1 root     root           17 Jan  1  2009 md5sum -> ../../bin/busybox
lrwxrwxrwx    1 root     root           17 Jan  1  2009 mesg -> ../../bin/busybox
lrwxrwxrwx    1 root     root           17 Jan  1  2009 mkfifo -> ../../bin/busybox
lrwxrwxrwx    1 root     root           17 Jan  1  2009 nc -> ../../bin/busybox
lrwxrwxrwx    1 root     root           17 Jan  1  2009 nohup -> ../../bin/busybox
lrwxrwxrwx    1 root     root           17 Jan  1  2009 nslookup -> ../../bin/busybox
lrwxrwxrwx    1 root     root           17 Jan  1  2009 printf -> ../../bin/busybox
lrwxrwxrwx    1 root     root           17 Jan  1  2009 reset -> ../../bin/busybox
lrwxrwxrwx    1 root     root           17 Jan  1  2009 rx -> ../../bin/busybox
```

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```
lrwxrwxrwx   1 root       root                23 Jan  1  2009 scp -> /usr/sbin/dropbearmulti
lrwxrwxrwx   1 root       root                17 Jan  1  2009 sort -> ../../bin/busybox
lrwxrwxrwx   1 root       root                23 Jan  1  2009 ssh -> /usr/sbin/dropbearmulti
lrwxrwxrwx   1 root       root                17 Jan  1  2009 strings -> ../../bin/busybox
lrwxrwxrwx   1 root       root                17 Jan  1  2009 tail -> ../../bin/busybox
lrwxrwxrwx   1 root       root                17 Jan  1  2009 tee -> ../../bin/busybox
lrwxrwxrwx   1 root       root                17 Jan  1  2009 telnet -> ../../bin/busybox
lrwxrwxrwx   1 root       root                17 Jan  1  2009 test -> ../../bin/busybox
lrwxrwxrwx   1 root       root                17 Jan  1  2009 time -> ../../bin/busybox
lrwxrwxrwx   1 root       root                17 Jan  1  2009 top -> ../../bin/busybox
lrwxrwxrwx   1 root       root                17 Jan  1  2009 tr -> ../../bin/busybox
lrwxrwxrwx   1 root       root                17 Jan  1  2009 traceroute -> ../../bin/busybox
lrwxrwxrwx   1 root       root                17 Jan  1  2009 tty -> ../../bin/busybox
lrwxrwxrwx   1 root       root                17 Jan  1  2009 uniq -> ../../bin/busybox
lrwxrwxrwx   1 root       root                17 Jan  1  2009 uptime -> ../../bin/busybox
lrwxrwxrwx   1 root       root                17 Jan  1  2009 uudecode -> ../../bin/busybox
lrwxrwxrwx   1 root       root                17 Jan  1  2009 uuencode -> ../../bin/busybox
lrwxrwxrwx   1 root       root                17 Jan  1  2009 wget -> ../../bin/busybox
lrwxrwxrwx   1 root       root                17 Jan  1  2009 which -> ../../bin/busybox
lrwxrwxrwx   1 root       root                17 Jan  1  2009 whoami -> ../../bin/busybox
lrwxrwxrwx   1 root       root                17 Jan  1  2009 xargs -> ../../bin/busybox
lrwxrwxrwx   1 root       root                17 Jan  1  2009 yes -> ../../bin/busybox
root@asus520gc:/usr/bin# ls -la /usr/sbin
drwxr-xr-x   2 root       root               502 Jan  1  2009 .
drwxr-xr-x   6 root       root                55 Jan  1  2009 ..
-rwxr-xr-x   1 root       root             23991 Jan  1  2009 brctl
lrwxrwxrwx   1 root       root                17 Jan  1  2009 chroot -> ../../bin/busybox
-rwxr-xr-x   1 root       root             25687 Jan  1  2009 cron
lrwxrwxrwx   1 root       root                23 Jan  1  2009 dbclient -> /usr/sbin/dropbearmulti
-rwxr-xr-x   1 root       root              4287 Jan  1  2009 dhcp_lease_time
-rwxr-xr-x   1 root       root              8415 Jan  1  2009 dhcp_release
-rwxr-xr-x   1 root       root             24003 Jan  1  2009 dhcpfwd
-rwxr-xr-x   1 root       root            129347 Jan  1  2009 dnsmasq
lrwxrwxrwx   1 root       root                23 Jan  1  2009 dropbear -> /usr/sbin/dropbearmulti
lrwxrwxrwx   1 root       root                23 Jan  1  2009 dropbearconvert -> /usr/sbin/dropbearmult
lrwxrwxrwx   1 root       root                23 Jan  1  2009 dropbearkey -> /usr/sbin/dropbearmulti
-rwxr-xr-x   1 root       root            287427 Jan  1  2009 dropbearmulti
-rwxr-xr-x   1 root       root              3303 Jan  1  2009 dumpleases
-rwxr-xr-x   1 root       root             73543 Jan  1  2009 httpd
-rwxr-xr-x   1 root       root             20995 Jan  1  2009 igmprt
-rwxr-xr-x   1 root       root             34635 Jan  1  2009 inadyn
-rwxr-xr-x   1 root       root            129983 Jan  1  2009 ip
-rwxr-xr-x   1 root       root            128047 Jan  1  2009 iptables
lrwxrwxrwx   1 root       root                18 Jan  1  2009 iptables-restore -> /usr/sbin/iptables
-rwxr-xr-x   1 root       root             99523 Jan  1  2009 nas
lrwxrwxrwx   1 root       root                 3 Jan  1  2009 nas4not -> nas
lrwxrwxrwx   1 root       root                 3 Jan  1  2009 nas4wds -> nas
-rwxr-xr-x   1 root       root              4311 Jan  1  2009 ntpclient
-rwxr-xr-x   1 root       root              3583 Jan  1  2009 nvram
-rwxr-xr-x   1 root       root            237959 Jan  1  2009 pppd
-rwxr-xr-x   1 root       root             11139 Jan  1  2009 radius-client
-rwxr-xr-x   1 root       root               118 Jan  1  2009 radiusallow
-rwxr-xr-x   1 root       root               108 Jan  1  2009 radiusdisallow
-rwxr-xr-x   1 root       root              4306 Jan  1  2009 svqos
-rwxr-xr-x   1 root       root              4616 Jan  1  2009 svqos2
-rwxr-xr-x   1 root       root            141695 Jan  1  2009 tc
lrwxrwxrwx   1 root       root                17 Jan  1  2009 telnetd -> ../../bin/busybox
-rwxr-xr-x   1 root       root             20179 Jan  1  2009 udhcpc
-rwxr-xr-x   1 root       root             24363 Jan  1  2009 udhcpd
-rwxr-xr-x   1 root       root             66523 Jan  1  2009 upnp
-rwxr-xr-x   1 root       root             34003 Jan  1  2009 wl
-rwxr-xr-x   1 root       root             27211 Jan  1  2009 wlconf
```

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```
-rwxr-xr-x    1 root      root           12899 Jan  1  2009 wol
-rwxr-xr-x    1 root      root           16711 Jan  1  2009 wrt-radauth
root@asus520gc:/usr/bin#
# ls -la /var/log
drwxr-xr-x    1 root      root               0 Jan  1  2000 .
drwxr-xr-x    1 root      root               0 Jan  1  2000 ..
-rw-r--r--    1 root      root               0 Jan  1  1970 messages
root@asus520gc:/usr/bin# ps
  PID USER        VSZ STAT COMMAND
    1 root       1372 S    /sbin/init noinitrd
    2 root          0 SW   [keventd]
    3 root          0 RWN  [ksoftirqd_CPU0]
    4 root          0 SW   [kswapd]
    5 root          0 SW   [bdflush]
    6 root          0 SW   [kupdated]
    9 root          0 SW   [mtdblockd]
   81 root       1368 S    resetbutton
  124 root       1056 S    telnetd
  128 root       2032 S    httpd -p 80
  134 root        776 S    dnsmasq --conf-file=/tmp/dnsmasq.conf
  229 root        672 S    cron
  235 root       1364 S    ttraff
  338 root        660 S    udhcpd /tmp/udhcpd.conf
  361 root       1364 S    process_monitor
  549 root       1364 S    wland
  552 root        668 S    udhcpc -i vlan1 -p /var/run/udhcpc.pid -s /tmp/udhcpc -H asus520gc
  579 root       1084 S    -sh
  818 root       1060 R    ps
root@asus520gc:/usr/bin# ls -la /bin
drwxr-xr-x    2 root      root             483 Jan  1  2009 .
drwxr-xr-x   16 root      root             144 Jan  1  2009 ..
lrwxrwxrwx    1 root      root               7 Jan  1  2009 ash -> busybox
-rwxr-xr-x    1 root      root          465239 Jan  1  2009 busybox
lrwxrwxrwx    1 root      root               7 Jan  1  2009 cat -> busybox
lrwxrwxrwx    1 root      root               7 Jan  1  2009 chgrp -> busybox
lrwxrwxrwx    1 root      root               7 Jan  1  2009 chmod -> busybox
lrwxrwxrwx    1 root      root               7 Jan  1  2009 chown -> busybox
lrwxrwxrwx    1 root      root               7 Jan  1  2009 cp -> busybox
lrwxrwxrwx    1 root      root               7 Jan  1  2009 date -> busybox
lrwxrwxrwx    1 root      root               7 Jan  1  2009 dd -> busybox
lrwxrwxrwx    1 root      root               7 Jan  1  2009 df -> busybox
lrwxrwxrwx    1 root      root               7 Jan  1  2009 dmesg -> busybox
lrwxrwxrwx    1 root      root               7 Jan  1  2009 echo -> busybox
lrwxrwxrwx    1 root      root               7 Jan  1  2009 egrep -> busybox
lrwxrwxrwx    1 root      root               7 Jan  1  2009 false -> busybox
lrwxrwxrwx    1 root      root               7 Jan  1  2009 fgrep -> busybox
lrwxrwxrwx    1 root      root               7 Jan  1  2009 getopt -> busybox
lrwxrwxrwx    1 root      root               7 Jan  1  2009 grep -> busybox
lrwxrwxrwx    1 root      root               7 Jan  1  2009 gunzip -> busybox
lrwxrwxrwx    1 root      root               7 Jan  1  2009 gzip -> busybox
lrwxrwxrwx    1 root      root               7 Jan  1  2009 hostname -> busybox
lrwxrwxrwx    1 root      root               7 Jan  1  2009 kill -> busybox
lrwxrwxrwx    1 root      root               7 Jan  1  2009 ln -> busybox
lrwxrwxrwx    1 root      root               7 Jan  1  2009 login -> busybox
lrwxrwxrwx    1 root      root               7 Jan  1  2009 ls -> busybox
lrwxrwxrwx    1 root      root               7 Jan  1  2009 mkdir -> busybox
lrwxrwxrwx    1 root      root               7 Jan  1  2009 more -> busybox
lrwxrwxrwx    1 root      root               7 Jan  1  2009 mount -> busybox
lrwxrwxrwx    1 root      root               7 Jan  1  2009 mv -> busybox
lrwxrwxrwx    1 root      root               7 Jan  1  2009 netstat -> busybox
lrwxrwxrwx    1 root      root               7 Jan  1  2009 pidof -> busybox
lrwxrwxrwx    1 root      root               7 Jan  1  2009 ping -> busybox
```

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```
lrwxrwxrwx   1 root      root                 7 Jan  1  2009 ps -> busybox
lrwxrwxrwx   1 root      root                 7 Jan  1  2009 pwd -> busybox
lrwxrwxrwx   1 root      root                 7 Jan  1  2009 rm -> busybox
lrwxrwxrwx   1 root      root                 7 Jan  1  2009 rmdir -> busybox
lrwxrwxrwx   1 root      root                 7 Jan  1  2009 run-parts -> busybox
lrwxrwxrwx   1 root      root                 7 Jan  1  2009 sed -> busybox
lrwxrwxrwx   1 root      root                 7 Jan  1  2009 sh -> busybox
lrwxrwxrwx   1 root      root                 7 Jan  1  2009 sleep -> busybox
lrwxrwxrwx   1 root      root                 7 Jan  1  2009 stty -> busybox
lrwxrwxrwx   1 root      root                 7 Jan  1  2009 sync -> busybox
lrwxrwxrwx   1 root      root                 7 Jan  1  2009 tar -> busybox
lrwxrwxrwx   1 root      root                 7 Jan  1  2009 touch -> busybox
lrwxrwxrwx   1 root      root                 7 Jan  1  2009 true -> busybox
lrwxrwxrwx   1 root      root                 7 Jan  1  2009 umount -> busybox
lrwxrwxrwx   1 root      root                 7 Jan  1  2009 uname -> busybox
lrwxrwxrwx   1 root      root                 7 Jan  1  2009 usleep -> busybox
lrwxrwxrwx   1 root      root                 7 Jan  1  2009 vi -> busybox
lrwxrwxrwx   1 root      root                 7 Jan  1  2009 watch -> busybox
lrwxrwxrwx   1 root      root                 7 Jan  1  2009 wc -> busybox
lrwxrwxrwx   1 root      root                 7 Jan  1  2009 zcat -> busybox
root@asus520gc:/usr/bin# ls -la /sbin
drwxr-xr-x   2 root      root               883 Jan  1  2009 .
drwxr-xr-x  16 root      root               144 Jan  1  2009 ..
lrwxrwxrwx   1 root      root                14 Jan  1  2009 adjtimex -> ../bin/busybox
lrwxrwxrwx   1 root      root                14 Jan  1  2009 arp -> ../bin/busybox
lrwxrwxrwx   1 root      root                 2 Jan  1  2009 beep -> rc
lrwxrwxrwx   1 root      root                 2 Jan  1  2009 brctl -> rc
-rwxr-xr-x   1 root      root              5495 Jan  1  2009 check_ps
lrwxrwxrwx   1 root      root                 2 Jan  1  2009 check_ses_led -> rc
lrwxrwxrwx   1 root      root                 2 Jan  1  2009 ddns_success -> rc
lrwxrwxrwx   1 root      root                 2 Jan  1  2009 erase -> rc
lrwxrwxrwx   1 root      root                 2 Jan  1  2009 event -> rc
lrwxrwxrwx   1 root      root                 2 Jan  1  2009 filter -> rc
lrwxrwxrwx   1 root      root                 2 Jan  1  2009 filtersync -> rc
lrwxrwxrwx   1 root      root                 2 Jan  1  2009 get_wanface -> rc
lrwxrwxrwx   1 root      root                 2 Jan  1  2009 getbridge -> rc
lrwxrwxrwx   1 root      root                 2 Jan  1  2009 getbridgeprio -> rc
lrwxrwxrwx   1 root      root                 2 Jan  1  2009 getmask -> rc
lrwxrwxrwx   1 root      root                 2 Jan  1  2009 gpio -> rc
lrwxrwxrwx   1 root      root                14 Jan  1  2009 halt -> ../bin/busybox
lrwxrwxrwx   1 root      root                 2 Jan  1  2009 hb_connect -> rc
lrwxrwxrwx   1 root      root                 2 Jan  1  2009 hb_disconnect -> rc
lrwxrwxrwx   1 root      root                 2 Jan  1  2009 hotplug -> rc
lrwxrwxrwx   1 root      root                14 Jan  1  2009 ifconfig -> ../bin/busybox
lrwxrwxrwx   1 root      root                14 Jan  1  2009 ifdown -> ../bin/busybox
lrwxrwxrwx   1 root      root                14 Jan  1  2009 ifup -> ../bin/busybox
-rwxr-xr-x   1 root      root             13231 Jan  1  2009 init
lrwxrwxrwx   1 root      root                14 Jan  1  2009 insmod -> ../bin/busybox
lrwxrwxrwx   1 root      root                 2 Jan  1  2009 ipupdated -> rc
lrwxrwxrwx   1 root      root                14 Jan  1  2009 klogd -> ../bin/busybox
-rwxr-xr-x   1 root      root              2919 Jan  1  2009 ledtool
-rwxr-xr-x   1 root      root              5311 Jan  1  2009 listen
lrwxrwxrwx   1 root      root                14 Jan  1  2009 logread -> ../bin/busybox
lrwxrwxrwx   1 root      root                14 Jan  1  2009 lsmod -> ../bin/busybox
lrwxrwxrwx   1 root      root                 2 Jan  1  2009 misc -> rc
lrwxrwxrwx   1 root      root                 2 Jan  1  2009 mtd -> rc
lrwxrwxrwx   1 root      root                14 Jan  1  2009 nameif -> ../bin/busybox
lrwxrwxrwx   1 root      root                 2 Jan  1  2009 ntpd -> rc
lrwxrwxrwx   1 root      root                14 Jan  1  2009 pivot_root -> ../bin/busybox
lrwxrwxrwx   1 root      root                14 Jan  1  2009 poweroff -> ../bin/busybox
-rwxr-xr-x   1 root      root              7203 Jan  1  2009 process_monitor
-rwxr-xr-x   1 root      root              4527 Jan  1  2009 radio_timer
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-rwxr-xr-x    1 root     root         31475 Jan  1  2009 rc
lrwxrwxrwx    1 root     root            14 Jan  1  2009 reboot -> ../bin/busybox
lrwxrwxrwx    1 root     root             2 Jan  1  2009 redial -> rc
-rwxr-xr-x    1 root     root          7891 Jan  1  2009 resetbutton
lrwxrwxrwx    1 root     root             2 Jan  1  2009 restart_dns -> rc
lrwxrwxrwx    1 root     root             2 Jan  1  2009 restore -> rc
lrwxrwxrwx    1 root     root            14 Jan  1  2009 rmmod -> ../bin/busybox
lrwxrwxrwx    1 root     root             2 Jan  1  2009 roaming_daemon -> rc
lrwxrwxrwx    1 root     root            14 Jan  1  2009 route -> ../bin/busybox
lrwxrwxrwx    1 root     root             2 Jan  1  2009 sendudp -> rc
lrwxrwxrwx    1 root     root             2 Jan  1  2009 setpasswd -> rc
lrwxrwxrwx    1 root     root             2 Jan  1  2009 setuserpasswd -> rc
lrwxrwxrwx    1 root     root             2 Jan  1  2009 site_survey -> rc
lrwxrwxrwx    1 root     root             2 Jan  1  2009 softwarerevision -> rc
lrwxrwxrwx    1 root     root             2 Jan  1  2009 start_single_service -> rc
lrwxrwxrwx    1 root     root             2 Jan  1  2009 startservice -> rc
lrwxrwxrwx    1 root     root             2 Jan  1  2009 startservices -> rc
lrwxrwxrwx    1 root     root             2 Jan  1  2009 startstop -> rc
lrwxrwxrwx    1 root     root             2 Jan  1  2009 stopservice -> rc
lrwxrwxrwx    1 root     root             2 Jan  1  2009 stopservices -> rc
lrwxrwxrwx    1 root     root             2 Jan  1  2009 supplicant -> rc
lrwxrwxrwx    1 root     root            14 Jan  1  2009 syslogd -> ../bin/busybox
-rwxr-xr-x    1 root     root          5703 Jan  1  2009 ttraff
lrwxrwxrwx    1 root     root            14 Jan  1  2009 vconfig -> ../bin/busybox
lrwxrwxrwx    1 root     root             2 Jan  1  2009 watchdog -> rc
-rwxr-xr-x    1 root     root          5923 Jan  1  2009 wland
lrwxrwxrwx    1 root     root             2 Jan  1  2009 wol -> rc
lrwxrwxrwx    1 root     root             2 Jan  1  2009 write -> rc
root@asus520gc:/usr/bin#

# netstat -rn
Kernel IP routing table
Destination     Gateway         Genmask         Flags   MSS Window  irtt Iface
192.168.0.0     0.0.0.0         255.255.255.0   U         0 0          0 br0
78.102.76.0     0.0.0.0         255.255.255.0   U         0 0          0 vlan1
169.254.0.0     0.0.0.0         255.255.0.0     U         0 0          0 br0
127.0.0.0       0.0.0.0         255.0.0.0       U         0 0          0 lo
0.0.0.0         78.102.76.1     0.0.0.0         UG        0 0          0 vlan1
root@asus520gc:/bin# ifconfig
br0       Link encap:Ethernet  HWaddr 00:22:15:5A:37:C7
          inet addr:192.168.0.1  Bcast:192.168.0.255  Mask:255.255.255.0
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:70197 errors:0 dropped:0 overruns:0 frame:0
          TX packets:69481 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:0
          RX bytes:3994496 (3.8 MiB)  TX bytes:5517892 (5.2 MiB)

br0:0     Link encap:Ethernet  HWaddr 00:22:15:5A:37:C7
          inet addr:169.254.255.1  Bcast:169.254.255.255  Mask:255.255.0.0
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1

eth0      Link encap:Ethernet  HWaddr 00:22:15:5A:37:C7
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:91410 errors:0 dropped:0 overruns:0 frame:0
          TX packets:70650 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:7107110 (6.7 MiB)  TX bytes:6277522 (5.9 MiB)
          Interrupt:4

eth1      Link encap:Ethernet  HWaddr 00:22:15:5A:37:C9
          UP BROADCAST RUNNING PROMISC MULTICAST  MTU:1500  Metric:1
          RX packets:0 errors:0 dropped:0 overruns:0 frame:17
```

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           TX packets:0 errors:0 dropped:0 overruns:0 carrier:0
           collisions:0 txqueuelen:1000
           RX bytes:0 (0.0 B)  TX bytes:0 (0.0 B)
           Interrupt:2 Base address:0x5000

lo         Link encap:Local Loopback
           inet addr:127.0.0.1  Mask:255.0.0.0
           UP LOOPBACK RUNNING MULTICAST  MTU:16436  Metric:1
           RX packets:0 errors:0 dropped:0 overruns:0 frame:0
           TX packets:0 errors:0 dropped:0 overruns:0 carrier:0
           collisions:0 txqueuelen:0
           RX bytes:0 (0.0 B)  TX bytes:0 (0.0 B)

vlan0      Link encap:Ethernet  HWaddr 00:22:15:5A:37:C7
           UP BROADCAST RUNNING PROMISC MULTICAST  MTU:1500  Metric:1
           RX packets:70198 errors:0 dropped:0 overruns:0 frame:0
           TX packets:70295 errors:0 dropped:0 overruns:0 carrier:0
           collisions:0 txqueuelen:0
           RX bytes:4275369 (4.0 MiB)  TX bytes:5847912 (5.5 MiB)

vlan1      Link encap:Ethernet  HWaddr 00:22:15:5A:37:C8
           inet addr:XX.XX.XX.XX  Bcast:78.255.255.255  Mask:255.255.255.0
           UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
           RX packets:21256 errors:0 dropped:0 overruns:0 frame:0
           TX packets:394 errors:0 dropped:0 overruns:0 carrier:0
           collisions:0 txqueuelen:0
           RX bytes:1189267 (1.1 MiB)  TX bytes:150240 (146.7 KiB)

root@asus520gc:/bin#
```

vlan1 is the WLAN interface towards upstream internet provider where XX.XX.XX.XX is the IP assigned by my provider. **eth0** is the local LAN network and **eth1** is the WiFi network

```
root@asus520gc:/bin# wl ver
4.150 RC10.5
wl0: Oct 25 2008 16:44:50 version 4.150.10.31
root@asus520gc:/bin# wl -i eth1 status
SSID: "dd-wrt"
Mode: Ad Hoc    RSSI: 0 dBm     noise: 0 dBm    Channel: 1
BSSID: 00:00:00:00:00:00        Capability: IBSS
Supported Rates: [ 1(b) 2(b) 5.5(b) 6 9 11(b) 12 18 24 36 48 54 ]


root@asus520gc:/bin#
```

Devices known to support a 128K CFE

Please add any dd-wrt compatible device you found to support a 128K CFE:

Brand	Model	Hardware revision	FCC-ID	Flash size	Status	"linux" partition*
Asus	WL-520gC	-	MSQWL520GUGC	2MB	micro-plus confirmed	-
Belkin	F5D7230-4	v1444	K7SF5D72304	2MB	micro-plus confirmed	-

Micro-plus

Belkin	F5D7230-4	v2000	K7SF5D7234A	2MB SF	micro-plus confirmed	-
Buffalo	WHR-G125	N/A	FDI-09101584-0	4MB	not restricted	0x00020000
Linksys	WRH54G	v1.0	Q87-WRH54G	2MB	micro-plus confirmed	-
Linksys	WRT54G	v5.0	Q87-WRT54GV5	2MB	CFE Compressor Gv5.x/6.x required micro-plus-ssh confirmed	-
Linksys	WRT54G	v6.0	?	2MB	CFE Compressor Gv5.x/6.x required micro-plus-ssh confirmed	-
Linksys	WRT54G	v7.2	?	2MB	CFE Compressor Gv8.x required	-
Linksys	WRT54G	v8.1	Q87-WRT54V81	2MB	micro-plus confirmed	-
Linksys	WRT54G2	v1	Q87-WRT54G2V1	2MB	vxworks prep and killer required	-
Netgear	WG602	v4	PY3WG602V4	2MB	micro-plus confirmed	-
USRobotics	USR5461	-	IXM-RTGBR02	2MB	micro-plus confirmed	-

- SF = Serial Flash. You must use special SF build of dd-wrt micro/micro-plus on units having 2MB serial flash.
- The "linux" partition starting at 128K (0x00020000) may leave extra JFFS space compared to units having a 256K CFE. To determine the address, use the dmesg command and look for CFE (4MB+ flash required), or maybe one can infer that from the following if you do NOT have dmesg available.

```
# cat /proc/mtd
dev:    size   erasesize  name
mtd0: 00020000 00010000 "cfe"
mtd1: 001d0000 00010000 "linux"
mtd2: 00127000 00010000 "rootfs"
mtd3: 00010000 00010000 "nvram"
#
```

Additional info regarding the Micro Plus project

- Micro Plus is now possible on V8.0 and V8.2 units
- CFE compressors available for some neutered Linksys units
- CFE compression on other models...we have the needed vxworks
- WRT54G v7.2 and micro plus

- [Micro-plus with SSH here](#)