```
U-Boot SPL 2021.10-wb1.7.0-gc221f7953f (Jul 26 2023 - 08:32:47
+0000)
DRAM init ok, rows:16, ncs:1, size: 1024MB
.p0_mpdgctrl0    = 0x01180112
.p0_mpdgctrl1    = 0x0e3f0e3f
.p0_mprddlctl    = 0x3f3f3e3e
.p0_mpwrdlctl    = 0x3f3f3837
.p0_mpwldectrl0  = 0x000d000d
.p0_mpwldectrl1  = 0x000e000e
Trying to boot from MMC1
Warning - USDHC2 controller not supporting


U-Boot 2021.10-wb1.7.0-gc221f7953f (Jul 26 2023 - 08:32:47 +0000)

CPU:   Freescale i.MX6ULL rev1.1 792 MHz (running at 396 MHz)
CPU:   Industrial temperature grade (-40C to 105C) at 60C
Reset cause: POR
Model: Wiren Board rev. 6.1 (i.MX6UL)
Board: Wiren Board MX6UL
DRAM:  1 GiB
MMC:   FSL_SDHC: 1
In:    serial
Out:   serial
Err:   serial
Loading Environment from MMC... OK
Will only keep env vars: mmcpart bootcount upgrade_available uenvcmd
wb_webupd otp_program otp_aes_program
## Info: input data size = 43 = 0x2B
bootcount=0
mmcpart=2
upgrade_available=0

Environment size: 43/8188 bytes
## Resetting to default environment
## Info: input data size = 43 = 0x2B
Net:   Could not get PHY for FEC0: addr 0
No ethernet found.

Hit any key to stop autoboot:  0
## Info: input data size = 4285 = 0x10BD
switch to partitions #0, OK
mmc1(part 0) is current device
eMMC found on device 1
Press FW button to enter firmware update mode
...
Entering firmware update mode.
Checking if ubootenv part is present
## Loading FIT header to 0x82000000 ...
```

```
## Loading FIT strings to 0x82000028 ...
## Loading FIT struct to 0x82000100 ...
Can't find subimage 'ubootenv'
Extracting kernel
## Loading FIT header to 0x82000000 ...
## Loading FIT strings to 0x82000028 ...
## Loading FIT struct to 0x82000100 ...
11342336 bytes read in 500 ms (21.6 MiB/s)
     Description:  Update kernel
     Type:         Kernel Image
     Compression:  uncompressed
     Data Start:   0x82000300
     Data Size:    11333376 Bytes = 10.8 MiB
     Architecture: ARM
     OS:           Linux
     Load Address: unavailable
     Entry Point:  unavailable
     Hash algo:    sha1
     Hash value:   b6eb24f9a04042f4afcaee8a0e7f86cf7f91cf12
## Verifying ... sha1+
   Loading part 0 ... OK
Extracting DTB
## Loading FIT header to 0x83000000 ...
## Loading FIT strings to 0x83000028 ...
## Loading FIT struct to 0x83000100 ...
57171 bytes read in 25 ms (2.2 MiB/s)
     Description:  Update DTB
     Type:         Flat Device Tree
     Compression:  uncompressed
     Data Start:   0x83000440
     Data Size:    47891 Bytes = 46.8 KiB
     Architecture: ARM
     Hash algo:    sha1
     Hash value:   50379d0c7fb9a54564de1311fee0fb398cef285a
## Verifying ... sha1+
   Loading part 0 ... OK
Kernel image @ 0x82000000 [ 0x000000 - 0xacef00 ]
## Flattened Device Tree blob at 83000000
   Booting using the fdt blob at 0x83000000
   Loading Device Tree to bef8b000, end bef99b12 ... OK

Starting kernel ...

[    0.000000] Booting Linux on physical CPU 0x0
[    0.000000] Linux version 5.10.35-wb159 (root@wbdevenv) (arm-
linux-gnueabihf-gcc (Debian 10.2.1-6) 10.2.1 20210110, GNU ld (GNU
Binutils for Debian) 2.35.2) #2 SMP Wed Dec 27 07:36:11 UTC 2023
[    0.000000] CPU: ARMv7 Processor [410fc075] revision 5 (ARMv7),
cr=10c5387d
[    0.000000] CPU: div instructions available: patching division
```

```
code
[    0.000000] CPU: PIPT / VIPT nonaliasing data cache, VIPT
aliasing instruction cache
[    0.000000] OF: fdt: Machine model: Wiren Board init (i.MX6UL/
ULL)
[    0.000000] Memory policy: Data cache writealloc
[    0.000000] Zone ranges:
[    0.000000]   Normal   [mem
0x0000000080000000-0x00000000bfffffff]
[    0.000000] Movable zone start for each node
[    0.000000] Early memory node ranges
[    0.000000]   node   0: [mem
0x0000000080000000-0x00000000bfffffff]
[    0.000000] Initmem setup node 0 [mem
0x0000000080000000-0x00000000bfffffff]
[    0.000000] percpu: Embedded 15 pages/cpu s31692 r8192 d21556
u61440
[    0.000000] Built 1 zonelists, mobility grouping on.  Total
pages: 260096
[    0.000000] Kernel command line: console=ttymxc0,115200
bootmode=update_auto
[    0.000000] Dentry cache hash table entries: 131072 (order: 7,
524288 bytes, linear)
[    0.000000] Inode-cache hash table entries: 65536 (order: 6,
262144 bytes, linear)
[    0.000000] mem auto-init: stack:off, heap alloc:off, heap
free:off
[    0.000000] Memory: 1023108K/1048576K available (6144K kernel
code, 645K rwdata, 1892K rodata, 7168K init, 250K bss, 25468K
reserved, 0K cma-reserved)
[    0.000000] SLUB: HWalign=64, Order=0-3, MinObjects=0, CPUs=1,
Nodes=1
[    0.000000] rcu: Hierarchical RCU implementation.
[    0.000000] rcu:  RCU event tracing is enabled.
[    0.000000] rcu:  RCU restricting CPUs from NR_CPUS=4 to
nr_cpu_ids=1.
[    0.000000] rcu: RCU calculated value of scheduler-enlistment
delay is 10 jiffies.
[    0.000000] rcu: Adjusting geometry for rcu_fanout_leaf=16,
nr_cpu_ids=1
[    0.000000] NR_IRQS: 16, nr_irqs: 16, preallocated irqs: 16
[    0.000000] random: get_random_bytes called from
start_kernel+0x2b0/0x4bc with crng_init=0
[    0.000000] Switching to timer-based delay loop, resolution 41ns
[    0.000019] sched_clock: 32 bits at 24MHz, resolution 41ns, wraps
every 89478484971ns
[    0.000065] clocksource: mxc_timer1: mask: 0xffffffff max_cycles:
0xffffffff, max_idle_ns: 79635851949 ns
[    0.002876] Console: colour dummy device 80x30
[    0.002960] Calibrating delay loop (skipped), value calculated
```

```
using timer frequency.. 48.00 BogoMIPS (lpj=240000)
[    0.003006] pid_max: default: 32768 minimum: 301
[    0.003297] Mount-cache hash table entries: 2048 (order: 1, 8192
bytes, linear)
[    0.003343] Mountpoint-cache hash table entries: 2048 (order: 1,
8192 bytes, linear)
[    0.004680] CPU: Testing write buffer coherency: ok
[    0.005176] CPU0: update cpu_capacity 1024
[    0.005212] CPU0: thread -1, cpu 0, socket 0, mpidr 80000000
[    0.006412] Setting up static identity map for 0x80100000 -
0x80100078
[    0.006715] rcu: Hierarchical SRCU implementation.
[    0.007380] smp: Bringing up secondary CPUs ...
[    0.007418] smp: Brought up 1 node, 1 CPU
[    0.007444] SMP: Total of 1 processors activated (48.00
BogoMIPS).
[    0.007464] CPU: All CPU(s) started in SVC mode.
[    0.008522] devtmpfs: initialized
[    0.029356] VFP support v0.3: implementor 41 architecture 2 part
30 variant 7 rev 5
[    0.029913] clocksource: jiffies: mask: 0xffffffff max_cycles:
0xffffffff, max_idle_ns: 19112604462750000 ns
[    0.029967] futex hash table entries: 256 (order: 2, 16384 bytes,
linear)
[    0.030172] pinctrl core: initialized pinctrl subsystem
[    0.032289] NET: Registered protocol family 16
[    0.032911] DMA: preallocated 256 KiB pool for atomic coherent
allocations
[    0.035426] thermal_sys: Registered thermal governor 'step_wise'
[    0.035719] cpuidle: using governor menu
[    0.220760] vdd1p1: supplied by regulator-dummy
[    0.233383] vdd3p0: supplied by regulator-dummy
[    0.246083] cpu: supplied by regulator-dummy
[    0.258725] vddsoc: supplied by regulator-dummy
[    0.633024] hw-breakpoint: found 5 (+1 reserved) breakpoint and 4
watchpoint registers.
[    0.633067] hw-breakpoint: maximum watchpoint size is 8 bytes.
[    0.633695] debugfs: Directory 'dummy-iomuxc-gpr@20e4000' with
parent 'regmap' already present!
[    0.634584] imx6ul-pinctrl 20e0000.pinctrl: initialized IMX
pinctrl driver
[    0.636139] imx6ul-pinctrl 2290000.iomuxc-snvs: no groups defined
in /soc/bus@2200000/iomuxc-snvs@2290000
[    0.636182] imx6ul-pinctrl 2290000.iomuxc-snvs: initialized IMX
pinctrl driver
[    0.683676] mxs-dma 1804000.dma-apbh: initialized
[    0.689329] SCSI subsystem initialized
[    0.689887] usbcore: registered new interface driver usbfs
[    0.690020] usbcore: registered new interface driver hub
[    0.690149] usbcore: registered new device driver usb
```

```
[    0.690989] gpio-48 (i2c_rtc): enforced open drain please flag it
properly in DT/ACPI DSDT/board file
[    0.691122] gpio-49 (i2c_rtc): enforced open drain please flag it
properly in DT/ACPI DSDT/board file
[    0.692065] i2c-gpio i2c_rtc: using lines 48 (SDA) and 49 (SCL)
[    0.692744] gpio-76 (i2c_eeprom1): enforced open drain please
flag it properly in DT/ACPI DSDT/board file
[    0.692873] gpio-67 (i2c_eeprom1): enforced open drain please
flag it properly in DT/ACPI DSDT/board file
[    0.693463] i2c-gpio i2c_eeprom1: using lines 76 (SDA) and 67
(SCL)
[    0.694112] gpio-70 (i2c_eeprom2): enforced open drain please
flag it properly in DT/ACPI DSDT/board file
[    0.694237] gpio-71 (i2c_eeprom2): enforced open drain please
flag it properly in DT/ACPI DSDT/board file
[    0.694846] i2c-gpio i2c_eeprom2: using lines 70 (SDA) and 71
(SCL)
[    0.696810] gpio-30 (scl): enforced open drain please flag it
properly in DT/ACPI DSDT/board file
[    0.697205] i2c i2c-1: IMX I2C adapter registered
[    0.698053] pps_core: LinuxPPS API ver. 1 registered
[    0.698081] pps_core: Software ver. 5.3.6 - Copyright 2005-2007
Rodolfo Giometti <giometti@linux.it>
[    0.698143] PTP clock support registered
[    0.700351] clocksource: Switched to clocksource mxc_timer1
[    0.721101] NET: Registered protocol family 2
[    0.722729] tcp_listen_portaddr_hash hash table entries: 512
(order: 0, 6144 bytes, linear)
[    0.722817] TCP established hash table entries: 8192 (order: 3,
32768 bytes, linear)
[    0.723002] TCP bind hash table entries: 8192 (order: 4, 65536
bytes, linear)
[    0.723297] TCP: Hash tables configured (established 8192 bind
8192)
[    0.723524] UDP hash table entries: 512 (order: 2, 16384 bytes,
linear)
[    0.723626] UDP-Lite hash table entries: 512 (order: 2, 16384
bytes, linear)
[    0.724013] NET: Registered protocol family 1
[    0.725245] RPC: Registered named UNIX socket transport module.
[    0.725286] RPC: Registered udp transport module.
[    0.725308] RPC: Registered tcp transport module.
[    0.725327] RPC: Registered tcp NFSv4.1 backchannel transport
module.
[    1.655705] hw perfevents: enabled with armv7_cortex_a7 PMU
driver, 5 counters available
[    1.659481] workingset: timestamp_bits=30 max_order=18
bucket_order=0
[    1.671048] squashfs: version 4.0 (2009/01/31) Phillip Lougher
[    1.672865] ntfs: driver 2.1.32 [Flags: R/W].
```

```
[    1.904053] Block layer SCSI generic (bsg) driver version 0.4
loaded (major 249)
[    1.904093] io scheduler mq-deadline registered
[    1.904116] io scheduler kyber registered
[    1.916775] imx-sdma 20ec000.sdma: Direct firmware load for imx/
sdma/sdma-imx6q.bin failed with error -2
[    1.916832] imx-sdma 20ec000.sdma: external firmware not found,
using ROM firmware
[    1.921459] 2020000.serial: ttymxc0 at MMIO 0x2020000 (irq = 28,
base_baud = 5000000) is a IMX
[    2.576902] random: fast init done
[    2.614711] printk: console [ttymxc0] enabled
[    2.621473] 21e8000.serial: ttymxc1 at MMIO 0x21e8000 (irq = 66,
base_baud = 5000000) is a IMX
[    2.632306] 21fc000.serial: ttymxc5 at MMIO 0x21fc000 (irq = 67,
base_baud = 5000000) is a IMX
[    2.675548] imx_rngc 2284000.rng: Freescale RNGB registered (HW
revision 2.129)
[    2.683548] random: crng init done
[    2.715174] brd: module loaded
[    2.736623] loop: module loaded
[    2.740145] at24 5-0050: supply vcc not found, using dummy
regulator
[    2.751899] at24 5-0050: 256 byte 24c02 EEPROM, writable, 1
bytes/write
[    2.758889] at24 6-0050: supply vcc not found, using dummy
regulator
[    2.770527] at24 6-0050: 256 byte 24c02 EEPROM, writable, 1
bytes/write
[    2.778987] libphy: Fixed MDIO Bus: probed
[    2.786422] pps pps0: new PPS source ptp0
[    2.829156] libphy: fec_enet_mii_bus: probed
[    2.835127] fec 20b4000.ethernet eth0: registered PHC device 0
[    2.961172] pps pps1: new PPS source ptp1
[    2.967720] libphy: fec_enet_mii_bus: probed
[    2.974048] mdio_bus 2188000.ethernet-2: MDIO device at address 3
is missing.
[    2.982550] fec 2188000.ethernet eth1: registered PHC device 1
[    2.989410] ehci_hcd: USB 2.0 'Enhanced' Host Controller (EHCI)
Driver
[    2.996105] ehci-mxc: Freescale On-Chip EHCI Host driver
[    3.001954] usbcore: registered new interface driver cdc_acm
[    3.007638] cdc_acm: USB Abstract Control Model driver for USB
modems and ISDN adapters
[    3.015993] usbcore: registered new interface driver usb-storage
[    3.077617] rtc-pcf8563 4-0051: registered as rtc0
[    3.094605] rtc-pcf8563 4-0051: setting system clock to
2024-03-19T07:05:38 UTC (1710831938)
[    3.113468] snvs_rtc 20cc000.snvs:snvs-rtc-lp: registered as rtc1
[    3.119965] i2c /dev entries driver
```

```
[    3.130111] imx6ul-pinctrl 20e0000.pinctrl: pin
MX6UL_PAD_SD1_DATA1 already requested by watchdog; cannot claim for
watchdog_6x
[    3.141785] imx6ul-pinctrl 20e0000.pinctrl: pin-114 (watchdog_6x)
status -22
[    3.148869] imx6ul-pinctrl 20e0000.pinctrl: could not request pin
114 (MX6UL_PAD_SD1_DATA1) from group wdggrp_6x  on device
20e0000.pinctrl
[    3.161463] gpio-wdt watchdog_6x: Error applying setting, reverse
things back
[    3.168748] gpio-wdt: probe of watchdog_6x failed with error -22
[    3.177036] sdhci: Secure Digital Host Controller Interface
driver
[    3.183389] sdhci: Copyright(c) Pierre Ossman
[    3.187767] sdhci-pltfm: SDHCI platform and OF driver helper
[    3.203286] ledtrig-cpu: registered to indicate activity on CPUs
[    3.211613] usbcore: registered new interface driver usbhid
[    3.217218] usbhid: USB HID core driver
[    3.224351] NET: Registered protocol family 17
[    3.232754] Registering SWP/SWPB emulation handler
[    3.237730] mmc0: SDHCI controller on 2194000.mmc [2194000.mmc]
using ADMA
[    3.246271] registered taskstats version 1
[    3.276083] imx_thermal 20c8000.anatop:tempmon: Industrial CPU
temperature grade - max:105C critical:100C passive:95C
[    3.288142] of_cfs_init
[    3.290864] of_cfs_init: OK
[    3.310080] Freeing unused kernel memory: 7168K
[    3.315018] Run /init as init process
[    3.347253] mmc0: new DDR MMC card at address 0001
[    3.357501] mmcblk0: mmc0:0001 8GSD4R 7.28 GiB
[    3.370212] mmcblk0boot0: mmc0:0001 8GSD4R partition 1 31.9 MiB
mount: mounting none on /dev/pts [    3.379530] mmcblk0boot1:
mmc0:0001 8GSD4R partition 2 31.9 MiB
failed: No such file or directory
[    3.400898] mmcblk0rpmb: mmc0:0001 8GSD4R partition 3 512 KiB,
chardev (248:0)
[    3.418838]  mmcblk0: p1 p2 p3 p4 < p5 p6 >
Run busybox watchdog for /dev/watchdog
Run busybox watchdog for /dev/watchdog0
Run busybox watchdog for /dev/watchdog1
Run busybox watchdog for /dev/watchdog2
watchdog: can't open '/dev/watchdog': Device or resource busy
Boot mode: update_auto
Board is WB6, loading ci_hdrc_imx module
[    3.678518] imx_usb 2184000.usb: No over current polarity defined
[    3.698197] ci_hdrc ci_hdrc.0: EHCI Host Controller
[    3.703206] ci_hdrc ci_hdrc.0: new USB bus registered, assigned
bus number 1
[    3.740521] ci_hdrc ci_hdrc.0: USB 2.0 started, EHCI 1.00
```

```
[    3.746755] usb usb1: New USB device found, idVendor=1d6b,
idProduct=0002, bcdDevice= 5.10
[    3.755262] usb usb1: New USB device strings: Mfr=3, Product=2,
SerialNumber=1
[    3.762651] usb usb1: Product: EHCI Host Controller
[    3.767583] usb usb1: Manufacturer: Linux 5.10.35-wb159 ehci_hcd
[    3.773726] usb usb1: SerialNumber: ci_hdrc.0
[    3.780943] hub 1-0:1.0: USB hub found
[    3.784787] hub 1-0:1.0: 1 port detected
[    3.794274] ci_hdrc ci_hdrc.1: EHCI Host Controller
[    3.799226] ci_hdrc ci_hdrc.1: new USB bus registered, assigned
bus number 2
[    3.830531] ci_hdrc ci_hdrc.1: USB 2.0 started, EHCI 1.00
[    3.836775] usb usb2: New USB device found, idVendor=1d6b,
idProduct=0002, bcdDevice= 5.10
[    3.845229] usb usb2: New USB device strings: Mfr=3, Product=2,
SerialNumber=1
[    3.852644] usb usb2: Product: EHCI Host Controller
[    3.857579] usb usb2: Manufacturer: Linux 5.10.35-wb159 ehci_hcd
[    3.863718] usb usb2: SerialNumber: ci_hdrc.1
[    3.870780] hub 2-0:1.0: USB hub found
[    3.874668] hub 2-0:1.0: 1 port detected
[    4.240587] usb 2-1: new high-speed USB device number 2 using
ci_hdrc
[    4.441525] usb 2-1: New USB device found, idVendor=0424,
idProduct=2514, bcdDevice= b.b3
[    4.449838] usb 2-1: New USB device strings: Mfr=0, Product=0,
SerialNumber=0
[    4.459806] hub 2-1:1.0: USB hub found
[    4.464527] hub 2-1:1.0: 4 ports detected
[    4.790517] usb 2-1.1: new high-speed USB device number 3 using
ci_hdrc
[    4.942131] usb 2-1.1: New USB device found, idVendor=0bda,
idProduct=b720, bcdDevice= 2.00
[    4.950620] usb 2-1.1: New USB device strings: Mfr=1, Product=2,
SerialNumber=3
[    4.957990] usb 2-1.1: Product: 802.11n WLAN Adapter
[    4.963002] usb 2-1.1: Manufacturer: Realtek
[    4.967281] usb 2-1.1: SerialNumber: 00e04c000001
/init: line 317: can't create /sys/class/usb_role/*/role:
nonexistent directory
Load modules for USB to work
Waiting for USB to settle (10/10)
Waiting for microSD to settle (3/3)
Wait for eMMC to become available...

Will use /mnt/data/.wb-restore/factoryreset.fit
[   18.639875] EXT4-fs (mmcblk0p6): recovery complete
[   18.646614] EXT4-fs (mmcblk0p6): mounted filesystem with ordered
data mode. Opts: (null)
```

```
####################################################################
##########

                         FACTORY RESET REQUESTED

            This WILL destroy ALL YOUR DATA: configuration, scripts,
                          files in home directory!

             If you are ABSOLUTELY SURE that you want to reset Wiren
Board
                 to factory condition, hold the FW button for 4 seconds.

          If you will not do it in 10 seconds, the controller will
reboot
                        without firmware update.


              If you want to perform a regular firmware update, rename
            FIT file to "wbX_update.fit" without "factory-reset"
suffix.

####################################################################
##########
ooo....

Factory reset is confirmed!

====================================================================
==========
Tue Mar 19 07:06:04 UTC 2024: started update from /mnt/data/.wb-
restore/factoryreset.fit
====================================================================
==========
Description:        WirenBoard firmware update
Compatible device:  contactless,imx6ul-wirenboard61
Firmware version:   202403181352
Firmware compatible: +single-rootfs +fit-factory-reset +force-
repartition +repartition-ramsize-fix
Release name:       wb-2401
Release suite:      stable
Release target:     wb6/bullseye
Release repo prefix:
Time of creation:   Mon Mar 18 13:55:01 UTC 2024
====================================================================
==========

>>> Checking SHA1 hash of install
PROGRESS: 0%
>>> SHA1 hash of install ok
>>> Wiping data partition (factory reset)
```

```
[   30.310444] /dev/mmcblk0p6: Can't open blockdev
mount: mounting /dev/mmcblk0p6 on /mnt/data failed: Device or
resource busy
[   33.770500] vref-3v3: disabling
32+0 records in
32+0 records out
16384 bytes (16 kB, 16 KiB) copied, 0.00831929 s, 2.0 MB/s
>>> Firmware seems to be compatible with this controller
>>> Extracting install script
>>> Running install script
>>> Console logging enabled; tempfile /tmp/tmp.QrjNwT, final file /
mnt/data/.wb-restore/wb-console.log will be written on exit
>>> Extend tmpfs size to whole RAM
>>> Remount tmpfs in /tmp with size=1006M
>>> Maybe update factoryreset.fit to fix tmpfs size issue at 512M
RAM (with emmc update)
>>> Factoryreset.fit already includes a fix for the 512MB RAM
repartition issue (repartition-ramsize-fix compatibility)
32+0 records in
32+0 records out
16384 bytes (16 kB, 16 KiB) copied, 0.00366633 s, 4.5 MB/s
>>> Firmware seems to be compatible with this controller
>>> Wiping data partition (factory reset)
[   63.232278] /dev/mmcblk0p6: Can't open blockdev
>>> Checking SHA1 hash of rootfs
PROGRESS: 100%
>>> SHA1 hash of rootfs ok
>>> rootfs is valid, installing firmware update
>>> Enlarging first rootfs partition
>>> Mounting partition before calling e2fsck to renew mount time
[  105.089528] EXT4-fs (mmcblk0p2): recovery complete
[  105.095628] EXT4-fs (mmcblk0p2): mounted filesystem with ordered
data mode. Opts: (null)
>>> Checking and repairing filesystem on /dev/mmcblk0p2
>>> Temp toolpath: /tmp/tmp.T7xH7i
rootfs: 39008/121344 files (0.6% non-contiguous), 241726/262144
blocks
tune2fs 1.46.2 (28-Feb-2021)
Setting time filesystem last checked to Tue Mar 19 07:08:25 2024

>>> Backing up old MBR (and partition table)
1+0 records in
1+0 records out
512 bytes copied, 0.001515 s, 338 kB/s
>>> Creating a new parition table
>>> New disk dump will be saved in /tmp/tmp.7KtlyZ
Partition #2 contains a ext4 signature.
Partition #5 contains a swap signature.
Partition #6 contains a ext4 signature.
Re-reading the partition table failed.: Device or resource busy
```

```
>>> Unmounting /mnt/data and saving its mountpoint
[  171.384493]  mmcblk0: p1 p2 p3 p4 < p5 p6 >
>>> Restoring mount of /dev/mmcblk0p6 to /mnt/data
[  171.417129] EXT4-fs (mmcblk0p6): mounted filesystem with ordered
data mode. Opts: (null)
>>> Expanding filesystem on this partition
resize2fs 1.46.2 (28-Feb-2021)
Overwriting existing filesystem; this can be undone using the
command:
    e2undo /tmp/tmp.1GT7fu /dev/mmcblk0p2

Resizing the filesystem on /dev/mmcblk0p2 to 524287 (4k) blocks.
The filesystem on /dev/mmcblk0p2 is now 524287 (4k) blocks long.

>>> Repartition is done!
>>> rootfs enlarged!
>>> Configuring environment for repartitioned eMMC
>>> Will install to /dev/mmcblk0p2
[  174.592486] EXT4-fs (mmcblk0p2): mounted filesystem with ordered
data mode. Opts: (null)
>>> Cleaning up /dev/mmcblk0p2
>>> Cleaning up using rsync
>>> Mounting /dev/mmcblk0p2 at /tmp/tmp.D2nGCP
[  189.254195] EXT4-fs (mmcblk0p2): mounted filesystem with ordered
data mode. Opts: (null)
>>> Extracting files to new rootfs
/tmp/tmp.D2nGCP /
PROGRESS: 100%
/
>>> Recovering device certificates
[  287.783244] EXT4-fs (loop0): mounted filesystem without journal.
Opts: (null)
>>> Mount /dev, /proc and /sys to rootfs /tmp/tmp.D2nGCP
>>> Running post-install scripts
>>> > Processing /tmp/tmp.D2nGCP/usr/lib/wb-image-update/postinst/
10update-u-boot
Trying to install u-boot using u-boot-install-wb from new rootfs
Das U-Boot installer for Wiren Board
You are about to install U-boot image '/usr/lib/u-boot/
mx6ul_wirenboard6/u-boot-with-spl.imx' on '/dev/mmcblk0' (platform
wb6)
Force installation requested
Writing U-boot image '/usr/lib/u-boot/mx6ul_wirenboard6/u-boot-with-
spl.imx' on '/dev/mmcblk0' (options 'bs=512 seek=2')
831+1 records in
831+1 records out
425816 bytes (426 kB, 416 KiB) copied, 0.633127 s, 673 kB/s
Syncing device
>>> > Processing /tmp/tmp.D2nGCP/usr/lib/wb-image-update/postinst/
10update-wbec-firmware
```

```
32+0 records in
32+0 records out
16384 bytes (16 kB, 16 KiB) copied, 0.011218 s, 1.5 MB/s
This Wiren Board does not have WBEC, exiting
>>> Unmounting /dev, /proc and /sys from rootfs /tmp/tmp.D2nGCP
>>> Current factory FIT supports single-rootfs feature, keeping it
>>> Switching to new rootfs
>>> Done!
>>> Unmounting rootfs
>>> Reboot system
[  297.260104] ci_hdrc ci_hdrc.0: remove, state 4
[  297.264892] usb usb1: USB disconnect, device number 1
[  297.271338] ci_hdrc ci_hdrc.0: USB bus 1 deregistered
[  297.280506] ci_hdrc ci_hdrc.1: remove, state 1
[  297.284994] usb usb2: USB disconnect, device number 1
[  297.290058] usb 2-1: USB disconnect, device number 2
[  297.295213] usb 2-1.1: USB disconnect, device number 3
[  297.306884] ci_hdrc ci_hdrc.1: USB bus 2 deregistered
[  297.312383] imx2-wdt 20bc000.watchdog: Device shutdown: Expect
reboot!
[  297.319089] reboot: Restarting system

U-Boot SPL 2021.10-wb1.7.1-gaf2600c5e5 (Oct 23 2023 - 08:43:42
+0000)
DRAM init ok, rows:16, ncs:1, size: 1024MB
.p0_mpdgctrl0    = 0x01180115
.p0_mpdgctrl1    = 0x0e3f0e3f
.p0_mprddlctl    = 0x3f3f3e3d
.p0_mpwrdlctl    = 0x3f3f3937
.p0_mpwldectrl0  = 0x000d000d
.p0_mpwldectrl1  = 0x000e000e
Trying to boot from MMC1
Warning - USDHC2 controller not supporting



U-Boot 2021.10-wb1.7.1-gaf2600c5e5 (Oct 23 2023 - 08:43:42 +0000)

CPU:   Freescale i.MX6ULL rev1.1 792 MHz (running at 396 MHz)
CPU:   Industrial temperature grade (-40C to 105C) at 65C
Reset cause: WDOG
Model: Wiren Board rev. 6.1 (i.MX6UL)
Board: Wiren Board MX6UL
DRAM:  1 GiB
MMC:   FSL_SDHC: 1
In:    serial
Out:   serial
Err:   serial
Loading Environment from MMC... OK
Will only keep env vars: mmcpart bootcount upgrade_available uenvcmd
wb_webupd otp_program otp_aes_program
```

```
## Info: input data size = 43 = 0x2B
bootcount=0
mmcpart=2
upgrade_available=1

Environment size: 43/8188 bytes
## Resetting to default environment
## Info: input data size = 43 = 0x2B
Net:   eth0: ethernet@2188000
Saving Environment to MMC... Writing to MMC(1)... OK
Hit any key to stop autoboot:  0
## Info: input data size = 4285 = 0x10BD
switch to partitions #0, OK
mmc1(part 0) is current device
eMMC found on device 1
Press FW button to enter firmware update mode
................................................
Checking if there is a USB storage with update file wb6_update.fit
dev: usb1_vbus @ regulator@0
starting USB...
Bus usb@2184000: USB EHCI 1.00
Bus usb@2184200: USB EHCI 1.00
scanning bus usb@2184000 for devices... 1 USB Device(s) found
scanning bus usb@2184200 for devices... EHCI timed out on TD —
token=0x80008d80

        USB device not accepting new address (error=22)
1 USB Device(s) found
        scanning usb for storage devices... 0 Storage Device(s) found
No storage devices, perhaps not 'usb start'ed..?
No USB update detected, continuing boot
322 bytes read in 2 ms (157.2 KiB/s)
Importing environment from 0x82000000...
Checking if uenvcmd is set ...
Running default loadzimage ...
6304360 bytes read in 270 ms (22.3 MiB/s)

MMC read: dev # 1, block # 2016, count 32 ... 32 blocks read: OK
Reading overlays list from eMMC
Reading factory fdt name from eMMC
Loading factory fdt imx6ul—wirenboard690
47776 bytes read in 5 ms (9.1 MiB/s)
485 bytes read in 2 ms (236.3 KiB/s)
Applying DT overlay wb6—nogsm
597 bytes read in 3 ms (194.3 KiB/s)
Applying DT overlay wb6—wifi—rtl8723bu
509 bytes read in 3 ms (165 KiB/s)
Applying DT overlay wb6—noradio
334 bytes read in 2 ms (163.1 KiB/s)
Applying DT overlay wb6—eth1
```

```
254 bytes read in 2 ms (124 KiB/s)
Applying DT overlay temp-industrial
Applying extra overlay
Booting from mmc ...
Kernel image @ 0x82000000 [ 0x000000 - 0x603268 ]
## Flattened Device Tree blob at 83000000
   Booting using the fdt blob at 0x83000000
   Loading Device Tree to bef77000, end bef99fff ... OK

Starting kernel ...

[    0.000000] Booting Linux on physical CPU 0x0
[    0.000000] Linux version 5.10.35-wb159 (root@wbdevenv) (arm-
linux-gnueabihf-gcc (Debian 10.2.1-6) 10.2.1 20210110, GNU ld (GNU
Binutils for Debian) 2.35.2) #1 Wed Dec 27 07:31:56 UTC 2023
[    0.000000] CPU: ARMv7 Processor [410fc075] revision 5 (ARMv7),
cr=10c53c7d
[    0.000000] CPU: div instructions available: patching division
code
[    0.000000] CPU: PIPT / VIPT nonaliasing data cache, VIPT
aliasing instruction cache
[    0.000000] OF: fdt: Machine model: Wiren Board rev. 6.9.0
(i.MX6UL/ULL)
[    0.000000] Memory policy: Data cache writeback
[    0.000000] cma: Reserved 16 MiB at 0xbf000000
[    0.000000] Zone ranges:
[    0.000000]   Normal   [mem
0x0000000080000000-0x00000000bfffffff]
[    0.000000] Movable zone start for each node
[    0.000000] Early memory node ranges
[    0.000000]   node   0: [mem
0x0000000080000000-0x00000000bfffffff]
[    0.000000] Initmem setup node 0 [mem
0x0000000080000000-0x00000000bfffffff]
[    0.000000] CPU: All CPU(s) started in SVC mode.
[    0.000000] Built 1 zonelists, mobility grouping on.  Total
pages: 259840
[    0.000000] Kernel command line: console=ttymxc0,115200 root=/
dev/mmcblk0p2 rootwait ro
[    0.000000] Dentry cache hash table entries: 131072 (order: 7,
524288 bytes, linear)
[    0.000000] Inode-cache hash table entries: 65536 (order: 6,
262144 bytes, linear)
[    0.000000] mem auto-init: stack:off, heap alloc:off, heap
free:off
[    0.000000] Memory: 1008652K/1048576K available (8192K kernel
code, 728K rwdata, 2776K rodata, 1024K init, 283K bss, 23540K
reserved, 16384K cma-reserved)
[    0.000000] SLUB: HWalign=64, Order=0-3, MinObjects=0, CPUs=1,
Nodes=1
```

```
[    0.000000] NR_IRQS: 16, nr_irqs: 16, preallocated irqs: 16
[    0.000000] random: get_random_bytes called from
start_kernel+0x234/0x3dc with crng_init=0
[    0.000000] Switching to timer-based delay loop, resolution 41ns
[    0.000017] sched_clock: 32 bits at 24MHz, resolution 41ns, wraps
every 89478484971ns
[    0.000057] clocksource: mxc_timer1: mask: 0xffffffff max_cycles:
0xffffffff, max_idle_ns: 79635851949 ns
[    0.002794] Console: colour dummy device 80x30
[    0.002855] Calibrating delay loop (skipped), value calculated
using timer frequency.. 48.00 BogoMIPS (lpj=240000)
[    0.002896] pid_max: default: 32768 minimum: 301
[    0.003311] Mount-cache hash table entries: 2048 (order: 1, 8192
bytes, linear)
[    0.003354] Mountpoint-cache hash table entries: 2048 (order: 1,
8192 bytes, linear)
[    0.005076] CPU: Testing write buffer coherency: ok
[    0.006300] Setting up static identity map for 0x80100000 -
0x80100078
[    0.007314] devtmpfs: initialized
[    0.025300] VFP support v0.3: implementor 41 architecture 2 part
30 variant 7 rev 5
[    0.025820] clocksource: jiffies: mask: 0xffffffff max_cycles:
0xffffffff, max_idle_ns: 19112604462750000 ns
[    0.025866] futex hash table entries: 256 (order: -1, 3072 bytes,
linear)
[    0.027257] pinctrl core: initialized pinctrl subsystem
[    0.029282] NET: Registered protocol family 16
[    0.031593] DMA: preallocated 256 KiB pool for atomic coherent
allocations
[    0.033585] thermal_sys: Registered thermal governor 'step_wise'
[    0.033869] cpuidle: using governor menu
[    0.221682] vdd1p1: supplied by regulator-dummy
[    0.233820] vdd3p0: supplied by regulator-dummy
[    0.245962] cpu: supplied by regulator-dummy
[    0.258133] vddsoc: supplied by regulator-dummy
[    0.600865] No ATAGs?
[    0.600926] hw-breakpoint: found 5 (+1 reserved) breakpoint and 4
watchpoint registers.
[    0.600948] hw-breakpoint: maximum watchpoint size is 8 bytes.
[    0.601548] debugfs: Directory 'dummy-iomuxc-gpr@20e4000' with
parent 'regmap' already present!
[    0.602206] imx6ul-pinctrl 20e0000.pinctrl: initialized IMX
pinctrl driver
[    0.603763] imx6ul-pinctrl 2290000.iomuxc-snvs: no groups defined
in /soc/bus@2200000/iomuxc-snvs@2290000
[    0.603804] imx6ul-pinctrl 2290000.iomuxc-snvs: initialized IMX
pinctrl driver
[    0.646552] mxs-dma 1804000.dma-apbh: initialized
[    0.651824] SCSI subsystem initialized
```

```
[    0.652305] usbcore: registered new interface driver usbfs
[    0.652430] usbcore: registered new interface driver hub
[    0.652563] usbcore: registered new device driver usb
[    0.653482] gpio-48 (i2c_rtc): enforced open drain please flag it
properly in DT/ACPI DSDT/board file
[    0.653613] gpio-49 (i2c_rtc): enforced open drain please flag it
properly in DT/ACPI DSDT/board file
[    0.654940] i2c-gpio i2c_rtc: using lines 48 (SDA) and 49 (SCL)
[    0.655822] gpio-76 (i2c_eeprom1): enforced open drain please
flag it properly in DT/ACPI DSDT/board file
[    0.655949] gpio-67 (i2c_eeprom1): enforced open drain please
flag it properly in DT/ACPI DSDT/board file
[    0.656539] i2c-gpio i2c_eeprom1: using lines 76 (SDA) and 67
(SCL)
[    0.657235] gpio-70 (i2c_eeprom2): enforced open drain please
flag it properly in DT/ACPI DSDT/board file
[    0.657356] gpio-71 (i2c_eeprom2): enforced open drain please
flag it properly in DT/ACPI DSDT/board file
[    0.657945] i2c-gpio i2c_eeprom2: using lines 70 (SDA) and 71
(SCL)
[    0.659539] gpio-30 (scl): enforced open drain please flag it
properly in DT/ACPI DSDT/board file
[    0.659890] i2c i2c-1: IMX I2C adapter registered
[    0.660621] mc: Linux media interface: v0.10
[    0.660731] videodev: Linux video capture interface: v2.00
[    0.660861] pps_core: LinuxPPS API ver. 1 registered
[    0.660883] pps_core: Software ver. 5.3.6 - Copyright 2005-2007
Rodolfo Giometti <giometti@linux.it>
[    0.660935] PTP clock support registered
[    0.661568] Advanced Linux Sound Architecture Driver Initialized.
[    0.663790] clocksource: Switched to clocksource mxc_timer1
[    0.681528] NET: Registered protocol family 2
[    0.682855] tcp_listen_portaddr_hash hash table entries: 512
(order: 0, 4096 bytes, linear)
[    0.682954] TCP established hash table entries: 8192 (order: 3,
32768 bytes, linear)
[    0.683130] TCP bind hash table entries: 8192 (order: 3, 32768
bytes, linear)
[    0.683317] TCP: Hash tables configured (established 8192 bind
8192)
[    0.683538] UDP hash table entries: 512 (order: 1, 8192 bytes,
linear)
[    0.683607] UDP-Lite hash table entries: 512 (order: 1, 8192
bytes, linear)
[    0.684105] NET: Registered protocol family 1
[    0.685043] RPC: Registered named UNIX socket transport module.
[    0.685081] RPC: Registered udp transport module.
[    0.685099] RPC: Registered tcp transport module.
[    0.685116] RPC: Registered tcp NFSv4.1 backchannel transport
module.
```

```
[    0.686196] hw perfevents: enabled with armv7_cortex_a7 PMU
driver, 5 counters available
[    0.688987] Initialise system trusted keyrings
[    0.689443] workingset: timestamp_bits=14 max_order=18
bucket_order=4
[    0.701115] NFS: Registering the id_resolver key type
[    0.701201] Key type id_resolver registered
[    0.701220] Key type id_legacy registered
[    0.939857] Key type asymmetric registered
[    0.939897] Asymmetric key parser 'x509' registered
[    0.940020] Block layer SCSI generic (bsg) driver version 0.4
loaded (major 247)
[    0.940043] io scheduler mq-deadline registered
[    0.940061] io scheduler kyber registered
[    0.952057] imx-sdma 20ec000.sdma: Direct firmware load for imx/
sdma/sdma-imx6q.bin failed with error -2
[    0.952106] imx-sdma 20ec000.sdma: external firmware not found,
using ROM firmware
[    0.956122] 2020000.serial: ttymxc0 at MMIO 0x2020000 (irq = 21,
base_baud = 5000000) is a IMX
[    1.619160] printk: console [ttymxc0] enabled
[    1.625636] 21e8000.serial: ttymxc1 at MMIO 0x21e8000 (irq = 59,
base_baud = 5000000) is a IMX
[    1.669513] imx_rngc 2284000.rng: Freescale RNGB registered (HW
revision 2.129)
[    1.676944] random: fast init done
[    1.680898] random: crng init done
[    1.720960] brd: module loaded
[    1.739253] loop: module loaded
[    1.742771] at24 5-0050: supply vcc not found, using dummy
regulator
[    1.754273] at24 5-0050: 256 byte 24c02 EEPROM, writable, 1
bytes/write
[    1.761233] at24 6-0050: supply vcc not found, using dummy
regulator
[    1.772623] at24 6-0050: 256 byte 24c02 EEPROM, writable, 1
bytes/write
[    1.785119] libphy: Fixed MDIO Bus: probed
[    1.904523] pps pps0: new PPS source ptp0
[    1.910989] libphy: fec_enet_mii_bus: probed
[    1.919808] fec 20b4000.ethernet ethFEC0: registered PHC device 0
[    2.044494] pps pps1: new PPS source ptp1
[    2.085598] libphy: fec_enet_mii_bus: probed
[    2.090896] fec 2188000.ethernet ethFEC1: registered PHC device 1
[    2.097989] PPP generic driver version 2.4.2
[    2.102675] ehci_hcd: USB 2.0 'Enhanced' Host Controller (EHCI)
Driver
[    2.109321] ehci-mxc: Freescale On-Chip EHCI Host driver
[    2.115084] usbcore: registered new interface driver usb-storage
[    2.121330] usbcore: registered new interface driver
```

```
usbserial_generic
[    2.127998] usbserial: USB Serial support registered for generic
[    2.189760] rtc-pcf8563 4-0051: registered as rtc0
[    2.206615] rtc-pcf8563 4-0051: setting system clock to
2024-03-19T07:10:45 UTC (1710832245)
[    2.225337] snvs_rtc 20cc000.snvs:snvs-rtc-lp: registered as rtc1
[    2.231777] i2c /dev entries driver
[    2.238589] lm75 4-0048: supply vs not found, using dummy
regulator
[    2.250271] lm75 4-0048: hwmon0: sensor 'lm75b'
[    2.370440] sdhci: Secure Digital Host Controller Interface
driver
[    2.376723] sdhci: Copyright(c) Pierre Ossman
[    2.381096] sdhci-pltfm: SDHCI platform and OF driver helper
[    2.395104] ledtrig-cpu: registered to indicate activity on CPUs
[    2.402855] usbcore: registered new interface driver usbhid
[    2.408528] usbhid: USB HID core driver
[    2.423884] Initializing XFRM netlink socket
[    2.428275] mmc0: SDHCI controller on 2194000.mmc [2194000.mmc]
using ADMA
[    2.436557] NET: Registered protocol family 10
[    2.444387] Segment Routing with IPv6
[    2.448545] sit: IPv6, IPv4 and MPLS over IPv4 tunneling driver
[    2.456614] NET: Registered protocol family 17
[    2.461727] Key type dns_resolver registered
[    2.470139] registered taskstats version 1
[    2.474923] Loading compiled-in X.509 certificates
[    2.497923] imx_thermal 20c8000.anatop:tempmon: Industrial CPU
temperature grade - max:105C critical:100C passive:95C
[    2.509720] of_cfs_init
[    2.512312] of_cfs_init: OK
[    2.520140] ALSA device list:
[    2.523190]   No soundcards found.
[    2.527061] Waiting for root device /dev/mmcblk0p2...
[    2.546939] mmc0: new DDR MMC card at address 0001
[    2.552679] mmcblk0: mmc0:0001 8GSD4R 7.28 GiB
[    2.557767] mmcblk0boot0: mmc0:0001 8GSD4R partition 1 31.9 MiB
[    2.564149] mmcblk0boot1: mmc0:0001 8GSD4R partition 2 31.9 MiB
[    2.570455] mmcblk0rpmb: mmc0:0001 8GSD4R partition 3 512 KiB,
chardev (245:0)
[    2.581106]  mmcblk0: p1 p2 p3 p4 < p5 p6 >
[    2.621509] EXT4-fs (mmcblk0p2): mounted filesystem with ordered
data mode. Opts: (null)
[    2.630083] VFS: Mounted root (ext4 filesystem) readonly on
device 179:2.
[    2.641708] devtmpfs: mounted
[    2.651531] Freeing unused kernel memory: 1024K
[    2.657010] Run /sbin/init as init process
[    3.051111] systemd[1]: systemd 247.3-7+deb11u4 running in system
mode. (+PAM +AUDIT +SELINUX +IMA +APPARMOR +SMACK +SYSVINIT +UTMP
```

+LIBCRYPTSETUP +GCRYPT +GNUTLS +ACL +XZ +LZ4 +ZSTD +SECCOMP +BLKID
+ELFUTILS +KMOD +IDN2 -IDN +PCRE2 default-hierarchy=unified)
[3.075956] systemd[1]: Detected architecture arm.
[3.081975] systemd[1]: Detected first boot.

Welcome to **Debian GNU/Linux 11 (bullseye)**!

[3.125659] systemd[1]: Set hostname to <wirenboard>.
[3.135682] systemd[1]: Initializing machine ID from random
generator.
[5.075350] systemd[1]: Invalid unit wpa_supplicant-
wired@.service symlink multi-user.target.wants/wpa_supplicant-
wired@.service.
[5.111116] systemd[1]: Invalid unit wpa_supplicant-
nl80211@.service symlink multi-user.target.wants/wpa_supplicant-
nl80211@.service.
[5.123494] systemd[1]: Invalid unit wpa_supplicant@.service
symlink multi-user.target.wants/wpa_supplicant@.service.
[5.152643] systemd[1]: Failed to populate /etc with preset unit
settings, ignoring: Read-only file system
[6.002341] systemd[1]: Queued start job for default target
Graphical Interface.
[6.018046] systemd[1]: Created slice system-getty.slice.
[OK] Created slice **system-getty.slice.**
[6.061392] systemd[1]: Created slice system-modprobe.slice.
[OK] Created slice **system-modprobe.slice.**
[6.102207] systemd[1]: Created slice system-
serial\x2dgetty.slice.
[OK] Created slice **system-serial\x2dgetty.slice.**
[6.151604] systemd[1]: Created slice system-
systemd\x2dfsck.slice.
[OK] Created slice **system-systemd\x2dfsck.slice.**
[6.200300] systemd[1]: Created slice User and Session Slice.
[OK] Created slice **User and Session Slice.**
[6.234972] systemd[1]: Started Dispatch Password Requests to
Console Directory Watch.
[OK] Started **Dispatch Password …ts to Console Directory Watch.**
[6.274990] systemd[1]: Started Forward Password Requests to Wall
Directory Watch.
[OK] Started **Forward Password R…uests to Wall Directory Watch.**
[6.315451] systemd[1]: Condition check resulted in Arbitrary
Executable File Formats File System Automount Point being skipped.
[6.328529] systemd[1]: Reached target Local Encrypted Volumes.
[OK] Reached target **Local Encrypted Volumes.**
[6.365508] systemd[1]: Reached target Remote File Systems.
[OK] Reached target **Remote File Systems.**
[6.405019] systemd[1]: Reached target Slices.
[OK] Reached target **Slices.**
[6.439951] systemd[1]: Listening on fsck to fsckd communication
Socket.

```
[  OK  ] Listening on fsck to fsckd communication Socket.
[    6.486220] systemd[1]: Listening on initctl Compatibility Named
Pipe.
[  OK  ] Listening on initctl Compatibility Named Pipe.
[    6.549676] systemd[1]: Condition check resulted in Journal Audit
Socket being skipped.
[    6.560391] systemd[1]: Listening on Journal Socket (/dev/log).
[  OK  ] Listening on Journal Socket (/dev/log).
[    6.595895] systemd[1]: Listening on Journal Socket.
[  OK  ] Listening on Journal Socket.
[    6.643072] systemd[1]: Listening on udev Control Socket.
[  OK  ] Listening on udev Control Socket.
[    6.687198] systemd[1]: Listening on udev Kernel Socket.
[  OK  ] Listening on udev Kernel Socket.
[    6.729033] systemd[1]: Condition check resulted in Huge Pages
File System being skipped.
[    6.747232] systemd[1]: Mounting POSIX Message Queue File
System...
         Mounting POSIX Message Queue File System...
[    6.807881] systemd[1]: Mounting /sys/kernel/config...
         Mounting /sys/kernel/config...
[    6.860378] systemd[1]: Mounting Kernel Debug File System...
         Mounting Kernel Debug File System...
[    6.905003] systemd[1]: Condition check resulted in Kernel Trace
File System being skipped.
[    6.926151] systemd[1]: Starting Create list of static device
nodes for the current kernel...
         Starting Create list of st…odes for the current kernel...
[    6.981138] systemd[1]: Starting Load Kernel Module drm...
         Starting Load Kernel Module drm...
[    7.045625] systemd[1]: Starting Load Kernel Module fuse...
         Starting Load Kernel Module fuse...
[    7.074119] systemd[1]: Condition check resulted in Set Up
Additional Binary Formats being skipped.
[    7.096575] fuse: init (API version 7.32)
[    7.105799] systemd[1]: Starting File System Check on Root
Device...
         Starting File System Check on Root Device...
[    7.156724] systemd[1]: Starting Journal Service...
         Starting Journal Service...
[    7.197192] systemd[1]: Starting Load Kernel Modules...
         Starting Load Kernel Modules...
[    7.257414] systemd[1]: Starting Coldplug All udev Devices...
         Starting Coldplug All udev Devices...
[    7.342102] systemd[1]: Mounted POSIX Message Queue File System.
[  OK  ] Mounted POSIX Message Queue File System.
[    7.404540] systemd[1]: Mounted /sys/kernel/config.
[  OK  ] Mounted      7.446232] systemd[1]: Mounted Kernel Debug File
System.
;39m/sys/kernel/config.
```

```
[  OK  ] Mounted Kernel Debug File System.
[    7.475674] systemd[1]: Finished Create list of static device
nodes for the current kernel.
[  OK  ] Finished Create list of st… nodes for the current kernel.
[    7.555248] systemd[1]: modprobe@drm.service: Succeeded.
[    7.584530] systemd[1]: Finished Load Kernel Module drm.
[  OK  ] Finished Load Kernel Module drm.
[    7.626591] systemd[1]: modprobe@fuse.service: Succeeded.
[    7.654511] systemd[1]: Finished Load Kernel Module fuse.
[  OK  ] Finished Load Kernel Module fuse.
[    7.707143] systemd[1]: Finished File System Check on Root
Device.
[  OK  ] Finished File System Check on Root Device.
[    7.769803] systemd[1]: Finished Load Kernel Modules.
[  OK  ] Finished Load Kernel Modules.
[    7.854435] systemd[1]: Mounting FUSE Control File System...
         Mounting FUSE Control File System...
[    7.905088] systemd[1]: Started File System Check Daemon to
report status.
[  OK  ] Started File System Check Daemon to report status.
[    7.969012] systemd[1]: Starting Remount Root and Kernel File
Systems...
         Starting Remount Root and Kernel File Systems...
[    8.055193] systemd[1]: Starting Apply Kernel Variables...
         Starting Apply Kernel Variables...
[    8.109677] systemd[1]: Started Journal Service.
[  OK  ] Started Journal Service.
[  OK  ] Mounted FUSE Control File System.
[    8.224423] EXT4-fs (mmcblk0p2): re-mounted. Opts:
discard,errors=remount-ro
[  OK  ] Finished Remount Root and Kernel File Systems.
[  OK  ] Finished Apply Kernel Variables.
         Starting Load/Save Random Seed...
         Starting Create System Users...
[  OK  ] Finished Load/Save Random Seed.
[  OK  ] Finished Create System Users.
         Starting Create Static Device Nodes in /dev...
[  OK  ] Finished Create Static Device Nodes in /dev.
[  OK  ] Finished Coldplug All udev Devices.
[  OK  ] Reached target Local File Systems (Pre).
[  OK  ] Set up automount mnt-sdcard.automount.
         Starting Helper to synchronize boot up for ifupdown...
         Starting Rule-based Manage…for Device Events and Files...
[  OK  ] Finished Helper to synchronize boot up for ifupdown.
[  OK  ] Started Rule-based Manager for Device Events and Files.
[   11.010204] Driver for 1-wire Dallas network protocol.
[   11.089078] gpio-68 (onewire_w1): enforced open drain please flag
it properly in DT/ACPI DSDT/board file
[   11.180763] gpio-11 (onewire_w2): enforced open drain please flag
it properly in DT/ACPI DSDT/board file
```

```
[   11.309574] w1_master_driver w1_bus_master1: Attaching one wire
slave 28.00000d885de4 crc 47
[   11.527752] w1_master_driver w1_bus_master2: Attaching one wire
slave 28.00000d882feb crc 8d
[   11.708236] fec 20b4000.ethernet eth1: renamed from ethFEC0
[  OK  ] Found device /dev/ttymxc0.
[   12.566114] imx_usb 2184000.usb: No over current polarity defined
[   12.666571] ci_hdrc ci_hdrc.0: EHCI Host Controller
[   12.671527] ci_hdrc ci_hdrc.0: new USB bus registered, assigned
bus number 1
[   12.793957] ci_hdrc ci_hdrc.0: USB 2.0 started, EHCI 1.00
[   12.841696] usb usb1: New USB device found, idVendor=1d6b,
idProduct=0002, bcdDevice= 5.10
[   12.850039] usb usb1: New USB device strings: Mfr=3, Product=2,
SerialNumber=1
[   12.857300] usb usb1: Product: EHCI Host Controller
[   12.862186] usb usb1: Manufacturer: Linux 5.10.35-wb159 ehci_hcd
[   12.868235] usb usb1: SerialNumber: ci_hdrc.0
[   12.888471] fec 2188000.ethernet eth0: renamed from ethFEC1
[   13.174799] hub 1-0:1.0: USB hub found
[   13.193938] hub 1-0:1.0: 1 port detected
[   13.285923] ci_hdrc ci_hdrc.1: EHCI Host Controller
[   13.306646] ci_hdrc ci_hdrc.1: new USB bus registered, assigned
bus number 2
[   13.413907] ci_hdrc ci_hdrc.1: USB 2.0 started, EHCI 1.00
[   13.466618] usb usb2: New USB device found, idVendor=1d6b,
idProduct=0002, bcdDevice= 5.10
[   13.474980] usb usb2: New USB device strings: Mfr=3, Product=2,
SerialNumber=1
[   13.482210] usb usb2: Product: EHCI Host Controller
[   13.487146] usb usb2: Manufacturer: Linux 5.10.35-wb159 ehci_hcd
[   13.493162] usb usb2: SerialNumber: ci_hdrc.1
[   13.613972] usb usb1-port1: over-current condition
[   13.794817] hub 2-0:1.0: USB hub found
[   13.848968] hub 2-0:1.0: 1 port detected
[   14.293924] usb 2-1: new high-speed USB device number 2 using
ci_hdrc
[   14.565068] usb 2-1: New USB device found, idVendor=0424,
idProduct=2514, bcdDevice= b.b3
[   14.573307] usb 2-1: New USB device strings: Mfr=0, Product=0,
SerialNumber=0
[   14.680588] hub 2-1:1.0: USB hub found
[   14.763897] hub 2-1:1.0: 4 ports detected
[   15.123907] usb 2-1.1: new high-speed USB device number 3 using
ci_hdrc
[   15.325564] usb 2-1.1: New USB device found, idVendor=0bda,
idProduct=b720, bcdDevice= 2.00
[   15.334008] usb 2-1.1: New USB device strings: Mfr=1, Product=2,
SerialNumber=3
[   15.341360] usb 2-1.1: Product: 802.11n WLAN Adapter
```

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[   15.346363] usb 2-1.1: Manufacturer: Realtek
[   15.350642] usb 2-1.1: SerialNumber: 00e04c000001
[  OK  ] Found device /dev/mmcblk0p5.
[   16.081349] cfg80211: Loading compiled-in X.509 certificates for
regulatory database
[   16.101713] Bluetooth: Core ver 2.22
[  OK  ] Found device /dev/mmcblk0p6.
[   16.124089] NET: Registered protocol family 31
[   16.128585] Bluetooth: HCI device and connection manager
initialized
[   16.160089] Bluetooth: HCI socket layer initialized
[   16.183959] Bluetooth: L2CAP socket layer initialized
[   16.189095] Bluetooth: SCO socket layer initialized
[   16.206847] cfg80211: Loaded X.509 cert 'sforshee:
00b28ddf47aef9cea7'
[   16.252080] cfg80211: loaded regulatory.db is malformed or
signature is missing/invalid
[   16.303929] usbcore: registered new interface driver btusb
[   16.312185] Bluetooth: hci0: RTL: examining hci_ver=06
hci_rev=000b lmp_ver=06 lmp_subver=8723
[   16.322189] Bluetooth: hci0: RTL: rom_version status=0 version=1
[   16.328306] Bluetooth: hci0: RTL: loading rtl_bt/rtl8723b_fw.bin
[   16.336708] Bluetooth: hci0: RTL: loading rtl_bt/
rtl8723b_config.bin
[   16.343251] bluetooth hci0: Direct firmware load for rtl_bt/
rtl8723b_config.bin failed with error -2
[   16.352526] Bluetooth: hci0: RTL: cfg_sz -2, total sz 22496
[  OK  ] Listening on Load/Save RF …itch Status /dev/rfkill Watch.
         Activating swap /dev/mmcblk0p5...
         Starting File System Check on /dev/mmcblk0p6...
         Starting Load/Save RF Kill Switch Status...
[   16.940744] RTL871X: module init start
[   16.944607] RTL871X: rtl8723bu BT-Coex version =
BTCOEX20140507-4E40
[   17.020209] Adding 262140k swap on /dev/mmcblk0p5.  Priority:-2
extents:1 across:262140k SSDsc
[   17.183139] Bluetooth: hci0: RTL: fw version 0x0e2f9f73
[   17.189534] RTL871X: rtw_ndev_init(wlan0)
[   17.213550] RTL871X: rtw_ndev_init(wlan1)
[   17.233684] usbcore: registered new interface driver rtl8723bu
[   17.239628] RTL871X: module init ret=0
[  OK  ] Activated swap /dev/mmcblk0p5.
[  OK  ] Reached target Swap.
[  OK  ] Finished File System Check on /dev/mmcblk0p6.
[   17.447645] usbcore: registered new interface driver rtl8xxxu
         Mounting /mnt/data...
[   17.723531] EXT4-fs (mmcblk0p6): mounted filesystem with ordered
data mode. Opts: discard
[  OK  ] Started Load/Save RF Kill Switch Status.
[  OK  ] Mounted /mnt/data.
```

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             Mounting /var/log...
[  OK  ] Mounted /var/log.
[  OK  ] Reached target Local File Systems.
             Starting Flush Journal to Persistent Storage...
             Starting prepare mounts and symlinks to config files...
[   18.412163] systemd-journald[122]: Received client request to
flush runtime journal.
[  OK  ] Finished Flush Journal to Persistent Storage.
[  OK  ] Finished prepare mounts and symlinks to config files.
             Starting Create Volatile Files and Directories...
[  OK  ] Finished Create Volatile Files and Directories.
             Starting Update UTMP about System Boot/Shutdown...
[  OK  ] Finished Update UTMP about System Boot/Shutdown.
[  OK  ] Reached target System Initialization.
[  OK  ] Started Monitor directorie… templates for wb-mqtt-serial.
[  OK  ] Started Daily apt download activities.
[  OK  ] Started Daily apt upgrade and clean activities.
[  OK  ] Started Periodic ext4 Onli…ata Check for All Filesystems.
[  OK  ] Started Discard unused blocks once a week.
[  OK  ] Started Daily rotation of log files.
[  OK  ] Started Daily Cleanup of Temporary Directories.
[  OK  ] Reached target Paths.
[  OK  ] Reached target Timers.
[  OK  ] Listening on Avahi mDNS/DNS-SD Stack Activation Socket.
[  OK  ] Listening on D-Bus System Message Bus Socket.
[  OK  ] Listening on fcgiwrap Socket.
[  OK  ] Listening on KNX Daemon (socket).
[  OK  ] Reached target Sockets.
[  OK  ] Reached target Basic System.
             Starting Bluetooth service...
[  OK  ] Started Regular background program processing daemon.
[  OK  ] Started D-Bus System Message Bus.
             Starting Network Manager...
             Starting Remove Stale Onli…t4 Metadata Check Snapshots...
             Starting Authorization Manager...
             Starting User Login Management...
[  OK  ] Started watch config files.
             Starting Initialize Wiren Board Device Tree overlays...
[   23.291648] Bluetooth: BNEP (Ethernet Emulation) ver 1.3
[   23.297059] Bluetooth: BNEP filters: protocol multicast
[  OK  ] Started Generates wb-mqtt-… UI schema for wb-mqtt-confed.
[   23.391351] Bluetooth: BNEP socket layer initialized
             Starting initialize filesystems at first boot...
             Starting WPA supplicant...
[  OK  ] Started Authorization Manager.
             Starting Modem Manager...
[  OK  ] Started Bluetooth service.
[  OK  ] Started WPA supplicant.
[  OK  ] Reached target Bluetooth.
             Starting Hostname Service...
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[  OK  ] Started User Login Management.
[  OK  ] Started Modem Manager.
[  OK  ] Started Network Manager.
         Starting Network Manager Wait Online...
[  OK  ] Started Hostname Service.
         Starting Network Manager Script Dispatcher Service...
[  OK  ] Started Network Manager Script Dispatcher Service.
[   35.914222] SMSC LAN8710/LAN8720 20b4000.ethernet-1:00: attached
PHY driver [SMSC LAN8710/LAN8720]
(mii_bus:phy_addr=20b4000.ethernet-1:00, irq=POLL)
[   36.319324] SMSC LAN8710/LAN8720 20b4000.ethernet-1:01: attached
PHY driver [SMSC LAN8710/LAN8720]
(mii_bus:phy_addr=20b4000.ethernet-1:01, irq=POLL)
[   38.085162] fec 2188000.ethernet eth0: Link is Up - 100Mbps/Full
- flow control rx/tx
[   38.644314] fec 20b4000.ethernet eth1: Link is Up - 100Mbps/Full
- flow control off
[   40.356335] IPv6: ADDRCONF(NETDEV_CHANGE): eth0: link becomes
ready
[   40.394091] IPv6: ADDRCONF(NETDEV_CHANGE): eth1: link becomes
ready
[   ***] (4 of 4) A start job is running for…ice Tree overlays
(42s / 3min 17s)
[   49.078730] RTL871X: assoc success
[   ***] (1 of 4) A start job is running for…a Check Snapshots
(56s / no limit)
[  OK  ] Finished Initialize Wiren Board Device Tree overlays.
         Starting Raise network interfaces...
[  OK  ] Started Network connection…rvice for Wiren Board devices.
         Starting Power on GSM modem...
         Starting KNXD Configurator for Wiren Board...
[  OK  ] Finished Raise network interfaces.
[ INFO ] Skipped Power on GSM modem.
[FAILED] Failed to start Network Manager Wait Online.
See 'systemctl status NetworkManager-wait-online.service' for
details.
[  OK  ] Stopped Network connection…rvice for Wiren Board devices.
[  OK  ] Started Network connection…rvice for Wiren Board devices.
[  OK  ] Finished Remove Stale Onli…ext4 Metadata Check Snapshots.
[  OK  ] Finished initialize filesystems at first boot.
[  OK  ] Reached target First Boot Complete.
[  OK  ] Reached target Network.
         Starting Avahi mDNS/DNS-SD Stack...
         Starting dnsmasq - A light…DHCP and caching DNS server...
         Starting Access point and …rver for Wi-Fi and Ethernet...
         Starting KNX Daemon...
         Starting Mosquitto MQTT Broker...
         Starting Network Time Service...
         Starting OpenBSD Secure Shell server...
         Starting Commit a transient machine-id on disk...
```

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              Starting Permit User Sessions...
              Starting MQTT Driver for ADC...
              Starting MQTT Driver for GPIO-controlled switches...
[  OK  ] Started MQTT Driver for serial devices.
[  OK  ] Started Kernel 1-Wire MQTT driver for WB-HomA.
[  OK  ] Started KNX Daemon.
[  OK  ] Finished KNXD Configurator for Wiren Board.
[ INFO ] Skipped dnsmasq - A lightw…t DHCP and caching DNS server.
[ INFO ] Skipped Access point and a…server for Wi-Fi and Ethernet.
[  OK  ] Started Network Time Service.
[  OK  ] Finished Commit a transient machine-id on disk.
[  OK  ] Finished Permit User Sessions.
[  OK  ] Started Avahi mDNS/DNS-SD Stack.
[  OK  ] Reached target Network is Online.
[  OK  ] Reached target Host and Network Name Lookups.
[  OK  ] Started Getty on tty1.
              Starting LSB: Brings up/down network automatically...
              Starting A high performanc… and a reverse proxy server...
[  OK  ] Started Serial Getty on ttymxc0.
[  OK  ] Reached target Login Prompts.
              Starting Compensation of s…e-tree (with opposite sign)...
[  OK  ] Started OpenBSD Secure Shell server.
[  OK  ] Started Mosquitto MQTT Broker.
[ 140.590789] process '/usr/sbin/netplugd' started with executable
stack
[  OK  ] Started Wiren Board modbus devices manager.
[  OK  ] Started one-click diagnost… generating archive with data.
[  OK  ] Started Wiren Board configuration editor backend.
[  OK  ] Started Wiren Board database logger.
              Starting Wiren Board MQTT to IEC 60870-5-104 gateway...
[  OK  ] Started Wiren Board MQTT KNX bridge.
[  OK  ] Started Wiren Board journald to MQTT gateway.
              Starting Wiren Board MQTT to Modbus TCP gateway...
[  OK  ] Started metrics sender..
[  OK  ] Started Virtual MQTT devic…r Network Manager connections.
              Starting Wiren Board MQTT to OPC UA gateway...
[  OK  ] Started MQTT Rule engine for Wiren Board.
[  OK  ] Started Wiren Board firmware update service.
[  OK  ] Finished Compensation of s…ice-tree (with opposite sign).
[  OK  ] Started Wiren Board MQTT to IEC 60870-5-104 gateway.
[  OK  ] Started Wiren Board MQTT to OPC UA gateway.

Debian GNU/Linux 11 wirenboard-AWVJRXHQ ttymxc0

wirenboard-AWVJRXHQ login: root
Password:

Login incorrect
wirenboard-AWVJRXHQ login: root
Password:
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Welcome to Wiren Board 6.9 (s/n **AWVJRXHQ**), release wb-2401 (as
stable)
Linux wirenboard-AWVJRXHQ 5.10.35-wb159 #1 Wed Dec 27 07:31:56 UTC
2023 armv7l GNU/Linux

System load: 9.78 3.78 1.42 Up time: 3 min
Memory usage: 15% of 0.98G   Usage of /:   33% of 2.0G
     /mnt/data: 10% of 4.9G

root@wirenboard-AWVJRXHQ:~# df -h
Filesystem   Size Used Avail Use% Mounted on
/dev/root   2.0G 600M 1.3G 33% /
devtmpfs   493M   0 493M   0% /dev
tmpfs   502M   0 502M   0% /dev/shm
tmpfs   201M 1.2M 200M   1% /run
tmpfs   5.0M   0 5.0M   0% /run/lock
/dev/mmcblk0p6 4.9G 432M 4.2G 10% /mnt/data
tmpfs   101M   0 101M   0% /run/user/0
```