



PART A DOCUMENTATION

[Abstract](#)

How to use/debug the master gateway

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To enable Autologin without giving root:

Step 1 : Enter into "serial-getty\@.service" file in the below mentioned path in the Rootfile system of the board.

```
$ vi /lib/systemd/system/serial-getty\@.service
```

Step 2 : Make the modifications in "serial-getty\@.service" file as shown.

Search for the line "ExecStart=--/sbin/agetty -8 -L %I 115200 \$TERM" in the above mentioned file.

Add "-- autologin root" in the same line as shown below and save the file.

```
ExecStart=--/sbin/agetty -8 --autologin root -L %I 115200 $TERM
```

Step 3 : After the above modifications , Reboot the board. After Reboot we can observe the Autologin to Rootfile system.

```
$ reboot
```

Auto Run a Service file:

1) Save the programs you want to run on board in a script in the /home/root directory format like,

```
test.py-->test.sh
```

2) Go to the directory,

```
cd /etc/profile.d/
```

3) create a environment script file,

```
vi env.sh
```

4) Add the path of your files to be run automatically during boot process inside the created env.sh

ex:

```
/home/root/test1.sh &
```

```
sleep 2
```

```
/home/root/test2.sh &
```

```
sleep 2
```

```
.
```

```
.
```

```
sh gsm.sh
```

5) reboot the board and check for the service file running in the background.

Connect to gsm

Create a gsm.sh

```
vi gsm.vi
```

Then write the below code:

```
ifconfig wwan0 down  
echo Y > /sys/class/net/wwan0/qmi/raw_ip  
ifconfig wwan0 up  
qmi-network /dev/cdc-wdm0 start  
udhcpc -i wwan0
```

to run it : sh gsm.sh

Connecting to wifi

1) Copy the firware folder onto the sdcard.

2) After the board boots, create a folder "mchp" in /lib/firmware/.

example:

```
root@rb-imx6ul:~# cd /lib/firmware/  
root@rb-imx6ul:/lib/firmware# mkdir mchp
```

3) Copy all the files of firware folder containing in SD Card to "mchp" folder created in /lib/firmware/ on the board.

4) Set your wifi user name and password in the directory,

```
vi /etc/wpa_supplicant.conf  
  
ctrl_interface=/var/run/wpa_supplicant  
update_config=1  
  
network = {  
    ssid="<username>"  
    psk="<password>"  
}
```

5) Boot the board and give the below command to driver intializaton

```
modprobe wilc-sdio
```

6) To Connect the wifi and activation of wpa_cli execute the tplink command,

```
wpa_supplicant -B -Dnl80211 -i wlan0 -c /etc/wpa_supplicant.conf
```

7) Type the udhcpc command and check for wlan nodes,

```
udhcpc -i wlan0
```

8) Try to ping,

```
ping google.com
```

To stop the recurring error

Enter into

```
ps
```

```
kill -9 283
```

283 here is a number of that event that is causing the error, in this case it was wpa_supplicant

To mount SD card:

```
root@rb-imx6ul:~# mount /dev/mmcblk0p1 /mnt/
```

```
root@rb-imx6ul:~# cd /mnt/
```

GPRS connection

1) Copy the below files into in this path /etc/ppp/peers/

a) quectel-chat-connect

b) quectel-chat-disconnect

c) quectel-ppp

2) give your application location in the below script file

a) ec200t.sh

i.e

```
app_start () {
```

```
if [ $APP_FLAG -ne 0 ];then
```

```
    /usr/sbin/ntpd -u ntp:ntp -p /run/ntpd.pid -g
```

```
    sleep 20
```

```
    # /home/root/ec200t.sh & //here you can run your  
application.
```

```
    APP_FLAG=0
```

```
fi
```

```
}
```

3) Reboot the the board and run ec200t.sh

Changing the OS:

--> Ubuntu 16.04 is preferred (Virtual Machine is not preferred)

--> Proper Internet Connectivity is must.

--> Minimum 100-150GB disk space is must.

1.1 Install pre-requisite packages:

```
sudo apt-get update
```

```
sudo apt-get -y install git-core flex bison gperf libbsd0-dev zip libwxgtk2.6-dev zlib1g-dev build-essential gettext texinfo
```

```
sudo apt-get -y install fakeroot gnupg libSDL1.2-dev squashfs-tools uboot-mkimage expect libncurses5-dev
```

```
sudo apt-get -y install minicom lrzsz tftpd-hpa nfs-kernel-server nfs-common portmap patch vim gawk
```

```
sudo apt-get -y install xinetd tftpd tftp qcreator ctags quilt
```

```
sudo apt-get install gawk wget git-core diffstat unzip texinfo gcc-multilib build-essential chrpath socat libSDL1.2-dev xterm
```

```
$mkdir ~/yocto
```

```
$cd ~/yocto
```

```
$wget ftp://ftp.phytec.de/pub/Software/Linux/Yocto/Tools/phyLinux
```

```
$chmod +x phyLinux
```

```
$/phyLinux init
```

No SoC Platform selected

* Please choose one of the available SoC Platforms:

*

* 1: am335x

* 2: imx6

- * 3: imx6ul
- * 4: imx8
- * 5: imx8m
- * 6: nightly
- * 7: rk3288
- * 8: topic
- *

\$ 3

\$Here select * 3: imx6ul

Release: default is currently selected

* Please choose one of the available Releases:

\$Here select * PD19.1.0

BSP has phyLinux API Version 2

No site.conf found on host.

* Please choose one of the available builds:

*

no: machine: description and article number

distro: supported yocto distribution

target: supported build target

1: phyboard-segin-imx6ul-2: PHYTEC phyBOARD-Segin i.MX6 UltraLite

512MB RAM, NAND

PB-02013-001.A2, PB-02013-110I.A2, PCL-063-23300CI.A2

distro: yogurt

target: phytec-qt5demo-image

2: phyboard-segin-imx6ul-3: PHYTEC phyBOARD-Segin i.MX6 ULL

256MB RAM, 128 NAND

PB-02013-002.A2, PB-02013-001C.A2, PCL-063-11600CC.A2

distro: yogurt

target: phytec-headless-image

3: phyboard-segin-imx6ul-4: PHYTEC phyBOARD-Segin i.MX6 UltraLite

512MB RAM, NAND with RS485

PB-02013-XXX.AX, PB-02013-XXXX.AX, PCL-063-23300CI.A2

distro: yogurt

target: phytec-qt5demo-image

\$ 1

Now give the below commands:

\$ source sources/poky/oe-init-build-env

Now start building as per your requirement (core-image-minimal / phytec-qt5demo-image). If you are not using "Qt" then it is suggested to go with "core-image-minimal"

\$ bitbake phytec-qt5demo-image

Test log

barebox 2019.01.0-bsp-yocto-i.mx6ul-pd19.1.0 #1 Wed Jul 8 12:11:08 UTC 2020

```
Board: Phytec phyCORE-i.MX6 Ultra Lite SOM with NAND
detected i.MX6 UltraLite revision 1.2
i.MX reset reason WDG (SRSR: 0x00000010)
i.MX6 UltraLite unique ID: ea9c4e27393aa1d4
mdio_bus: miibus0: probed
eth0: got preset MAC address: 50:2d:f4:11:35:05
nand: ONFI flash detected
nand: NAND device: Manufacturer ID: 0x2c, Chip ID: 0xdc (Micron
MT29F4G08ABADAH4), 512MiB, page size: 2048, OOB size: 64
Bad block table found at page 262080, version 0x01
Bad block table found at page 262016, version 0x01
imx-usb 2184200.usb@2184200.of: USB EHCI 1.00
imx-esdhc 2190000.usdhc@2190000.of: registered as mmc0
```

```
state: New state registered 'state'
state: Using bucket 0@0x00000000
netconsole: registered as netconsole-1
phySOM-i.MX6: Using environment in NAND flash
malloc space: 0x8fe7cee0 -> 0x9fcf9dbf (size 254.5 MiB)
envfs: no envfs (magic mismatch) - envfs never written?
running /env/bin/init...
```

```
Hit m for menu or any key to stop autoboot:    1
booting 'nand'
ubi0: attached by fastmap
ubi0: fastmap pool size: 200
ubi0: fastmap WL pool size: 100
ubi0: registering /dev/nand0.root.ubi
ubi0: registering kernel as /dev/nand0.root.ubi.kernel
ubi0: registering oftree as /dev/nand0.root.ubi.oftree
ubi0: registering root as /dev/nand0.root.ubi.root
ubi0: attached mtd0 (name "nand0.root", size 507 MiB) to ubi0
ubi0: PEB size: 131072 bytes (128 KiB), LEB size: 126976 bytes
ubi0: min./max. I/O unit sizes: 2048/2048, sub-page size 2048
ubi0: VID header offset: 2048 (aligned 2048), data offset: 4096
ubi0: good PEBs: 4052, bad PEBs: 4, corrupted PEBs: 0
ubi0: user volume: 3, internal volumes: 1, max. volumes count: 128
ubi0: max/mean erase counter: 5/1, WL threshold: 65536, image sequence
number: 19993
ubi0: available PEBs: 0, total reserved PEBs: 4052, PEBs reserved for
bad PEB handling: 76
```

```
Loading ARM Linux zImage '/dev/nand0.root.ubi.kernel'
Loading devicetree from '/dev/nand0.root.ubi.oftree'
commandline: consoleblank=0 console=ttyMXC0,115200n8 root=ubi0:root
ubi.mtd=root rootfstype=ubifs rootwait ro fsck.repair=yes
Starting kernel in secure mode
[    0.000000] Booting Linux on physical CPU 0x0
[    0.000000] Linux version 4.14.93-bsp-yocto-i.mx6ul-pd19.1.0 (oe-
user@oe-host) (gcc version 7.3.0 (GCC)) #1 SMP Wed Apr 21 13:30:04 UTC
2021
[    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: Rugged Board i.MX6 UltraLite
[    0.000000] Memory policy: Data cache writealloc
[    0.000000] cma: Reserved 128 MiB at 0x96000000
[    0.000000] percpu: Embedded 16 pages/cpu @dfff92000 s34444 r8192
d22900 u65536
[    0.000000] Built 1 zonelists, mobility grouping on. Total pages:
130048
[    0.000000] Kernel command line: consoleblank=0
console=ttyMXC0,115200n8 root=ubi0:root ubi.mtd=root rootfstype=ubifs
rootwait ro fsck.reps
[    0.000000] PID hash table entries: 2048 (order: 1, 8192 bytes)
[    0.000000] Dentry cache hash table entries: 65536 (order: 6, 262144
bytes)
[    0.000000] Inode-cache hash table entries: 32768 (order: 5, 131072
bytes)
```

```

[ 0.000000] Memory: 371988K/524288K available (9216K kernel code,
429K rwdata, 3216K rodata, 1024K init, 424K bss, 21228K reserved,
131072K)
[ 0.000000] Virtual kernel memory layout:
[ 0.000000]     vector : 0xffff0000 - 0xffff1000   (   4 kB)
[ 0.000000]     fixmap : 0xffc00000 - 0xfff00000   (3072 kB)
[ 0.000000]     vmalloc : 0xe0800000 - 0xff800000   ( 496 MB)
[ 0.000000]     lowmem  : 0xc0000000 - 0xe0000000   ( 512 MB)
[ 0.000000]     pkmap   : 0xbfe00000 - 0xc0000000   (   2 MB)
[ 0.000000]     modules : 0xbf000000 - 0xbfe00000   (  14 MB)
[ 0.000000]     .text : 0xc0008000 - 0xc0a00000   (10208 kB)
[ 0.000000]     .init : 0xc0e00000 - 0xc0f00000   (1024 kB)
[ 0.000000]     .data : 0xc0f00000 - 0xc0f6b7e0   (  430 kB)
[ 0.000000]     .bss : 0xc0f6d000 - 0xc0fd70c0   (  425 kB)
[ 0.000000] SLUB: HWalign=64, Order=0-3, MinObjects=0, CPUs=1,
Nodes=1
[ 0.000000] Hierarchical RCU implementation.
[ 0.000000] RCU event tracing is enabled.
[ 0.000000] RCU restricting CPUs from NR_CPUS=4 to nr_cpu_ids=1.
[ 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] Switching to timer-based delay loop, resolution 41ns
[ 0.000017] sched_clock: 32 bits at 24MHz, resolution 41ns, wraps
every 89478484971ns
[ 0.000058] clocksource: mxc_timer1: mask: 0xffffffff max_cycles:
0xffffffff, max_idle_ns: 79635851949 ns
[ 0.002966] Console: colour dummy device 80x30
[ 0.003024] Calibrating delay loop (skipped), value calculated using
timer frequency.. 48.00 BogoMIPS (lpj=240000)
[ 0.003062] pid_max: default: 32768 minimum: 301
[ 0.003356] Mount-cache hash table entries: 1024 (order: 0, 4096
bytes)
[ 0.003391] Mountpoint-cache hash table entries: 1024 (order: 0,
4096 bytes)
[ 0.004671] CPU: Testing write buffer coherency: ok
[ 0.005260] /cpus/cpu@0 missing clock-frequency property
[ 0.005302] CPU0: thread -1, cpu 0, socket 0, mpidr 80000000
[ 0.006235] Setting up static identity map for 0x80100000 -
0x80100078
[ 0.006563] Hierarchical SRCU implementation.
[ 0.007793] smp: Bringing up secondary CPUs ...
[ 0.007825] smp: Brought up 1 node, 1 CPU
[ 0.007849] SMP: Total of 1 processors activated (48.00 BogoMIPS).
[ 0.007866] CPU: All CPU(s) started in SVC mode.
[ 0.009432] devtmpfs: initialized
[ 0.025565] random: get_random_u32 called from
bucket_table_alloc+0x100/0x230 with crng_init=0
[ 0.026023] VFP support v0.3: implementor 41 architecture 2 part 30
variant 7 rev 5
[ 0.026642] clocksource: jiffies: mask: 0xffffffff max_cycles:
0xffffffff, max_idle_ns: 19112604462750000 ns
[ 0.026698] futex hash table entries: 256 (order: 2, 16384 bytes)
[ 0.037492] pinctrl core: initialized pinctrl subsystem
[ 0.039536] NET: Registered protocol family 16
[ 0.056536] DMA: preallocated 256 KiB pool for atomic coherent
allocations
[ 0.059208] CPU identified as i.MX 6UL, silicon rev 1.2

```

```

[ 0.071999] vdd3p0: supplied by regulator-dummy
[ 0.073230] cpu: supplied by regulator-dummy
[ 0.074407] vddsoc: supplied by regulator-dummy
[ 0.093969] No ATAGs?
[ 0.094113] hw-breakpoint: found 5 (+1 reserved) breakpoint and 4
watchpoint registers.
[ 0.094151] hw-breakpoint: maximum watchpoint size is 8 bytes.
[ 0.098062] imx6ul-pinctrl 20e0000.iomuxc: Invalid fsl,pins or pins
property in node /soc/aips-bus@2000000/iomuxc@20e0000/flexcanlengrp
[ 0.098131] imx6ul-pinctrl 20e0000.iomuxc: Invalid fsl,pins or pins
property in node /soc/aips-bus@2000000/iomuxc@20e0000/rtcintgrp
[ 0.098167] imx6ul-pinctrl 20e0000.iomuxc: Invalid fsl,pins or pins
property in node /soc/aips-bus@2000000/iomuxc@20e0000/stmpegrp
[ 0.098286] imx6ul-pinctrl 20e0000.iomuxc: Invalid fsl,pins or pins
property in node /soc/aips-bus@2000000/iomuxc@20e0000/wlangrp
[ 0.098377] imx6ul-pinctrl 20e0000.iomuxc: initialized IMX pinctrl
driver
[ 0.144961] mxs-dma 1804000.dma-apbh: initialized
[ 0.151660] vgaarb: loaded
[ 0.152711] SCSI subsystem initialized
[ 0.153788] usbcore: registered new interface driver usbfs
[ 0.153932] usbcore: registered new interface driver hub
[ 0.154147] usbcore: registered new device driver usb
[ 0.157013] i2c i2c-0: IMX I2C adapter registered
[ 0.157065] i2c i2c-0: can't use DMA, using PIO instead.
[ 0.158566] i2c i2c-1: IMX I2C adapter registered
[ 0.158617] i2c i2c-1: can't use DMA, using PIO instead.
[ 0.159023] media: Linux media interface: v0.10
[ 0.159159] Linux video capture interface: v2.00
[ 0.159302] pps_core: LinuxPPS API ver. 1 registered
[ 0.159324] pps_core: Software ver. 5.3.6 - Copyright 2005-2007
Rodolfo Giometti <giometti@linux.it>
[ 0.159378] PTP clock support registered
[ 0.160043] Advanced Linux Sound Architecture Driver Initialized.
[ 0.162013] Bluetooth: Core ver 2.22
[ 0.162140] NET: Registered protocol family 31
[ 0.162163] Bluetooth: HCI device and connection manager initialized
[ 0.162200] Bluetooth: HCI socket layer initialized
[ 0.162225] Bluetooth: L2CAP socket layer initialized
[ 0.162315] Bluetooth: SCO socket layer initialized
[ 0.164833] clocksource: Switched to clocksource mxc_timer1
[ 0.165085] VFS: Disk quotas dquot_6.6.0
[ 0.165229] VFS: Dquot-cache hash table entries: 1024 (order 0, 4096
bytes)
[ 0.186896] NET: Registered protocol family 2
[ 0.188273] TCP established hash table entries: 4096 (order: 2,
16384 bytes)
[ 0.188406] TCP bind hash table entries: 4096 (order: 3, 32768
bytes)
[ 0.188569] TCP: Hash tables configured (established 4096 bind 4096)
[ 0.188773] UDP hash table entries: 256 (order: 1, 8192 bytes)
[ 0.188845] UDP-Lite hash table entries: 256 (order: 1, 8192 bytes)
[ 0.189174] NET: Registered protocol family 1
[ 0.190079] RPC: Registered named UNIX socket transport module.
[ 0.190114] RPC: Registered udp transport module.
[ 0.190131] RPC: Registered tcp transport module.
[ 0.190151] RPC: Registered tcp NFSv4.1 backchannel transport
module.

```

```

[ 0.195401] workingset: timestamp_bits=30 max_order=17
bucket_order=0
[ 0.206117] squashfs: version 4.0 (2009/01/31) Phillip Lougher
[ 0.207526] NFS: Registering the id_resolver key type
[ 0.207605] Key type id_resolver registered
[ 0.207626] Key type id_legacy registered
[ 0.207720] jffs2: version 2.2. (NAND) © 2001-2006 Red Hat, Inc.
[ 0.208824] fuse init (API version 7.26)
[ 0.221266] NET: Registered protocol family 38
[ 0.221657] io scheduler noop registered
[ 0.221687] io scheduler deadline registered
[ 0.222033] io scheduler cfq registered (default)
[ 0.222060] io scheduler mq-deadline registered
[ 0.222079] io scheduler kyber registered
[ 0.233338] imx-sdma 20ec000.sdma: loaded firmware 3.3
[ 0.243243] 2020000.serial: ttymxc0 at MMIO 0x2020000 (irq = 23,
base_baud = 5000000) is a IMX
[ 0.964122] console [ttymxc0] enabled
[ 0.969887] 21e8000.serial: ttymxc1 at MMIO 0x21e8000 (irq = 62,
base_baud = 5000000) is a IMX
[ 0.980075] 21ec000.serial: ttymxc2 at MMIO 0x21ec000 (irq = 63,
base_baud = 5000000) is a IMX
[ 0.990294] 21f4000.serial: ttymxc4 at MMIO 0x21f4000 (irq = 64,
base_baud = 5000000) is a IMX
[ 1.000647] 21fc000.serial: ttymxc5 at MMIO 0x21fc000 (irq = 65,
base_baud = 5000000) is a IMX
[ 1.046143] brd: module loaded
[ 1.066994] loop: module loaded
[ 1.071656] at24 0-0052: 4096 byte 24c32 EEPROM, writable, 1
bytes/write
[ 1.080566] ERR: Failed to request GPIO pin 130
[ 1.085906] *****Kiran*****0
[ 1.085906]
[ 1.097405] chardev registerd with majnum:246
[ 1.120496] random: fast init done
[ 1.127464] nand: device found, Manufacturer ID: 0x2c, Chip ID: 0xdc
[ 1.133856] nand: Micron MT29F4G08ABADAH4
[ 1.137963] nand: 512 MiB, SLC, erase size: 128 KiB, page size:
2048, OOB size: 64
[ 1.146476] gpmi-nand 1806000.gpmi-nand: enable the asynchronous EDO
mode 5
[ 1.154515] Bad block table found at page 262080, version 0x01
[ 1.160874] Bad block table found at page 262016, version 0x01
[ 1.167577] 3 ofpart partitions found on MTD device gpmi-nand
[ 1.173361] Creating 3 MTD partitions on "gpmi-nand":
[ 1.178524] 0x000000000000-0x0000000400000 : "barebox"
[ 1.186882] 0x0000000400000-0x0000000500000 : "barebox-environment"
[ 1.195491] 0x0000000500000-0x0000002000000 : "root"
[ 1.310250] gpmi-nand 1806000.gpmi-nand: driver registered.
[ 1.322206] spi_imx 2008000.ecspi: probed
[ 1.329836] spi_imx 200c000.ecspi: probed
[ 1.335785] spi_imx 2010000.ecspi: No CS GPIOs available
[ 1.341277] spi_imx: probe of 2010000.ecspi failed with error -22
[ 1.349369] libphy: Fixed MDIO Bus: probed
[ 1.354689] CAN device driver interface
[ 1.360783] flexcan 2090000.flexcan: device registered
(reg_base=e0a28000, irq=25)

```

```

[    1.370539] fec 20b4000.ethernet: 20b4000.ethernet supply phy not
found, using dummy regulator
[    1.380379] pps pps0: new PPS source ptp0
[    1.414473] libphy: fec_enet_mii_bus: probed
[    1.420648] fec 20b4000.ethernet eth1: registered PHC device 0
[    1.429180] fec 2188000.ethernet: 2188000.ethernet supply phy not
found, using dummy regulator
[    1.439066] pps pps1: new PPS source ptp1
[    1.444519] libphy: fec_enet_mii_bus: probed
[    1.451531] fec 2188000.ethernet eth0: registered PHC device 1
[    1.459160] PPP generic driver version 2.4.2
[    1.463932] PPP BSD Compression module registered
[    1.468818] PPP Deflate Compression module registered
[    1.473987] PPP MPPE Compression module registered
[    1.478935] NET: Registered protocol family 24
[    1.483514] pegasus: v0.9.3 (2013/04/25), Pegasus/Pegasus II USB
Ethernet driver
[    1.491237] usbcore: registered new interface driver pegasus
[    1.497215] usbcore: registered new interface driver rtl8150
[    1.503030] usbcore: registered new interface driver r8152
[    1.508734] usbcore: registered new interface driver asix
[    1.514263] usbcore: registered new interface driver ax88179_178a
[    1.520547] usbcore: registered new interface driver cdc_ether
[    1.526561] usbcore: registered new interface driver cdc_eem
[    1.532366] usbcore: registered new interface driver net1080
[    1.538325] usbcore: registered new interface driver plusb
[    1.543947] usbcore: registered new interface driver cdc_subset
[    1.550078] usbcore: registered new interface driver zaurus
[    1.555922] usbcore: registered new interface driver sierra_net
[    1.562006] usbcore: registered new interface driver cdc_ncm
[    1.567988] usbcore: registered new interface driver qmi_wwan
[    1.573867] usbcore: registered new interface driver cdc_mbim
[    1.579715] ehci_hcd: USB 2.0 'Enhanced' Host Controller (EHCI)
Driver
[    1.586322] ehci-pci: EHCI PCI platform driver
[    1.590915] ehci-mxc: Freescale On-Chip EHCI Host driver
[    1.597229] usbcore: registered new interface driver cdc_acm
[    1.602931] cdc_acm: USB Abstract Control Model driver for USB
modems and ISDN adapters
[    1.611178] usbcore: registered new interface driver cdc_wdm
[    1.617102] usbcore: registered new interface driver usb-storage
[    1.623387] usbcore: registered new interface driver usbserial
[    1.629440] usbcore: registered new interface driver
usbserial_generic
[    1.636159] usbserial: USB Serial support registered for generic
[    1.642286] usbcore: registered new interface driver cp210x
[    1.648030] usbserial: USB Serial support registered for cp210x
[    1.654075] usbcore: registered new interface driver cypress_m8
[    1.660165] usbserial: USB Serial support registered for DeLorme
Earthmate USB
[    1.667543] usbserial: USB Serial support registered for HID->COM
RS232 Adapter
[    1.675023] usbserial: USB Serial support registered for Nokia CA-42
V2 Adapter
[    1.682460] usbcore: registered new interface driver ftdi_sio
[    1.688375] usbserial: USB Serial support registered for FTDI USB
Serial Device
[    1.695876] usbcore: registered new interface driver option

```

```
[ 1.701546] usbserial: USB Serial support registered for GSM modem
(1-port)
[ 1.708685] usbcore: registered new interface driver pl2303
[ 1.714361] usbserial: USB Serial support registered for pl2303
[ 1.720463] usbcore: registered new interface driver qcaux
[ 1.726108] usbserial: USB Serial support registered for qcaux
[ 1.732077] usbcore: registered new interface driver qcserial
[ 1.737991] usbserial: USB Serial support registered for Qualcomm
USB modem
[ 1.745129] usbcore: registered new interface driver sierra
[ 1.750806] usbserial: USB Serial support registered for Sierra USB
modem
[ 1.761840] imx_usb 2184000.usb: 2184000.usb supply vbus not found,
using dummy regulator
[ 1.773995] ci_hdrc ci_hdrc.0: EHCI Host Controller
[ 1.779072] ci_hdrc ci_hdrc.0: new USB bus registered, assigned bus
number 1
[ 1.814942] ci_hdrc ci_hdrc.0: USB 2.0 started, EHCI 1.00
[ 1.822300] hub 1-0:1.0: USB hub found
[ 1.826388] hub 1-0:1.0: 1 port detected
[ 1.832420] imx_usb 2184200.usb: 2184200.usb supply vbus not found,
using dummy regulator
[ 1.844669] ci_hdrc ci_hdrc.1: EHCI Host Controller
[ 1.849821] ci_hdrc ci_hdrc.1: new USB bus registered, assigned bus
number 2
[ 1.884943] ci_hdrc ci_hdrc.1: USB 2.0 started, EHCI 1.00
[ 1.892283] hub 2-0:1.0: USB hub found
[ 1.896384] hub 2-0:1.0: 1 port detected
[ 1.903516] udc-core: couldn't find an available UDC - added
[g_ether] to list of pending drivers
[ 1.914391] input: 20cc000.snvs:snvs-powerkey as
/devices/soc0/soc/2000000.aips-bus/20cc000.snvs/20cc000.snvs:snvs-
powerkey/input/input0
[ 1.931100] rtc-m41t80 1-0068: Can't clear HT bit
[ 1.939102] snvs_rtc 20cc000.snvs:snvs-rtc-lp: rtc core: registered
20cc000.snvs:snvs-rtc-lp as rtc0
[ 1.948878] i2c /dev entries driver
[ 1.954301] IR NEC protocol handler initialized
[ 1.959095] IR RC5(x/sz) protocol handler initialized
[ 1.964181] IR RC6 protocol handler initialized
[ 1.968795] IR JVC protocol handler initialized
[ 1.973353] IR Sony protocol handler initialized
[ 1.978033] IR SANYO protocol handler initialized
[ 1.982761] IR Sharp protocol handler initialized
[ 1.987521] IR MCE Keyboard/mouse protocol handler initialized
[ 1.993377] IR XMP protocol handler initialized
[ 2.003541] imx2-wdt 20bc000.wdog: timeout 60 sec (nowayout=0)
[ 2.011123] Bluetooth: HCI UART driver ver 2.3
[ 2.015731] Bluetooth: HCI UART protocol H4 registered
[ 2.021092] usbcore: registered new interface driver bcm203x
[ 2.027008] usbcore: registered new interface driver bpa10x
[ 2.032739] usbcore: registered new interface driver bfusb
[ 2.038468] usbcore: registered new interface driver btusb
[ 2.043989] Bluetooth: Generic Bluetooth SDIO driver ver 0.1
[ 2.050776] sdhci: Secure Digital Host Controller Interface driver
[ 2.057085] sdhci: Copyright(c) Pierre Ossman
[ 2.061467] sdhci-pltfm: SDHCI platform and OF driver helper
[ 2.069701] sdhci-esdhc-imx 2190000.usdhc: Got CD GPIO
```

```

[    2.135481] mmc0: SDHCI controller on 2190000.usdhc [2190000.usdhc]
using ADMA
[    2.195714] mmc0: host does not support reading read-only switch,
assuming write-enable
[    2.212867] mmc0: new high speed SDHC card at address aaaa
[    2.219497] mmcblk0: mmc0:aaaa SC16G 14.8 GiB
[    2.229134]   mmcblk0: p1 p2
[    2.264909] usb 2-1: new high-speed USB device number 2 using
ci_hdrc
[    2.294899] mmc1: SDHCI controller on 2194000.usdhc [2194000.usdhc]
using ADMA
[    2.310678] hidraw: raw HID events driver (C) Jiri Kosina
[    2.320000] usbcore: registered new interface driver usbhid
[    2.325756] usbhid: USB HID core driver
[    2.356217] NET: Registered protocol family 10
[    2.364150] mmc1: new high speed SDIO card at address 0001
[    2.371223] Segment Routing with IPv6
[    2.377084] sit: IPv6, IPv4 and MPLS over IPv4 tunneling driver
[    2.384502] NET: Registered protocol family 17
[    2.389150] can: controller area network core (rev 20170425 abi 9)
[    2.395608] NET: Registered protocol family 29
[    2.400118] can: raw protocol (rev 20170425)
[    2.404416] can: broadcast manager protocol (rev 20170425 t)
[    2.410284] can: netlink gateway (rev 20170425) max_hops=1
[    2.416566] 8021q: 802.1Q VLAN Support v1.8
[    2.420874] Key type dns_resolver registered
[    2.428049] cpu cpu0: Using anatop regulators: LDOs enabled
[    2.434141] Registering SWP/SWPB emulation handler
[    2.460644] imx_thermal 2000000.aips-bus:tempmon: Industrial CPU
temperature grade - max:105C critical:100C passive:95C
[    2.473434] ubi0: default fastmap pool size: 200
[    2.478266] ubi0: default fastmap WL pool size: 100
[    2.483170] ubi0: attaching mtd2
[    2.490473] cdc_ether 2-1:1.0 usb0: register 'cdc_ether' at usb-
ci_hdrc.1-1, CDC Ethernet Device, 02:0c:29:a3:9b:6d
[    2.507159] option 2-1:1.2: GSM modem (1-port) converter detected
[    2.515204] usb 2-1: GSM modem (1-port) converter now attached to
ttyUSB0
[    2.523420] option 2-1:1.3: GSM modem (1-port) converter detected
[    2.534295] usb 2-1: GSM modem (1-port) converter now attached to
ttyUSB1
[    2.546694] option 2-1:1.4: GSM modem (1-port) converter detected
[    2.554475] usb 2-1: GSM modem (1-port) converter now attached to
ttyUSB2
[    2.763458] ubi0: attached by fastmap
[    2.767275] ubi0: fastmap pool size: 200
[    2.771224] ubi0: fastmap WL pool size: 100
[    2.792715] ubi0: attached mtd2 (name "root", size 507 MiB)
[    2.798489] ubi0: PEB size: 131072 bytes (128 KiB), LEB size: 126976
bytes
[    2.805432] ubi0: min./max. I/O unit sizes: 2048/2048, sub-page size
2048
[    2.812243] ubi0: VID header offset: 2048 (aligned 2048), data
offset: 4096
[    2.819259] ubi0: good PEBs: 4052, bad PEBs: 4, corrupted PEBs: 0
[    2.825413] ubi0: user volume: 3, internal volumes: 1, max. volumes
count: 128

```



```
[ 2.832659] ubi0: max/mean erase counter: 5/1, WL threshold: 4096,
image sequence number: 19993
[ 2.841411] ubi0: available PEBs: 0, total reserved PEBs: 4052, PEBs
reserved for bad PEB handling: 76
[ 2.850828] ubi0: background thread "ubi_bgt0d" started, PID 100
[ 2.859569] snvs_rtc 20cc000.snvs:snvs-rtc-lp: setting system clock
to 2020-09-29 15:16:25 UTC (1601392585)
[ 2.870224] Can: disabling
[ 2.872963] wlan_en: disabling
[ 2.876131] gpio_dvfs: disabling
[ 2.879383] ALSA device list:
[ 2.882365]   No soundcards found.
[ 2.925684] UBIFS (ubi0:2): UBIFS: mounted UBI device 0, volume 2,
name "root", R/O mode
[ 2.933819] UBIFS (ubi0:2): LEB size: 126976 bytes (124 KiB),
min./max. I/O unit sizes: 2048 bytes/2048 bytes
[ 2.943899] UBIFS (ubi0:2): FS size: 493047808 bytes (470 MiB, 3883
LEBs), journal size 9023488 bytes (8 MiB, 72 LEBs)
[ 2.954673] UBIFS (ubi0:2): reserved for root: 0 bytes (0 KiB)
[ 2.960585] UBIFS (ubi0:2): media format: w4/r0 (latest is w5/r0),
UUID A00386FF-5AC6-4D89-8D83-5A8FFDD7B541, small LPT model
[ 2.976293] VFS: Mounted root (ubifs filesystem) readonly on device
0:13.
[ 2.985241] devtmpfs: mounted
[ 2.991068] Freeing unused kernel memory: 1024K
[ 3.354237] systemd[1]: systemd 237 running in system mode. (-PAM -
AUDIT -SELINUX -IMA -APPARMOR -SMACK +SYSVINIT -UTMP -LIBCRYPTSETUP -
GCR)
[ 3.377803] systemd[1]: Detected architecture arm.
```

Welcome to The Yogurt Distribution BSP-Yocto-i.MX6UL-PD19.1.0!

```
[ 3.419950] systemd[1]: Set hostname to <rb-imx6ul>.
[ 3.433135] random: systemd: uninitialized urandom read (16 bytes
read)
[ 3.440103] systemd[1]: Initializing machine ID from random
generator.
[ 3.448607] systemd[1]: Installed transient /etc/machine-id file.
[ 3.777913] random: crng init done
[ 3.860278] systemd[1]: File /lib/systemd/system/systemd-
journal.service:35 configures an IP firewall (IPAddressDeny=any), but
the local s.
[ 3.877694] systemd[1]: Proceeding WITHOUT firewalling in effect!
(This warning is only shown for the first loaded unit using IP
firewallin)
[ 4.183400] systemd[1]: Started Forward Password Requests to Wall
Directory Watch.
[ OK ] Started Forward Password Requests to Wall Directory Watch.
[ 4.231670] systemd[1]: Created slice User and Session Slice.
[ OK ] Created slice User and Session Slice.
[ 4.266103] systemd[1]: Reached target Remote File Systems.
[ OK ] Reached target Remote File Systems.
[ OK ] Created slice System Slice.
[ OK ] Created slice system-getty.slice.
[ OK ] Created slice system-serial\x2dgetty.slice.
[ OK ] Listening on Network Service Netlink Socket.
[ OK ] Reached target Swap.
[ OK ] Listening on /dev/initctl Compatibility Named Pipe.
```

```

[ OK ] Listening on udev Kernel Socket.
[ OK ] Listening on Journal Socket.
        Mounting Kernel Debug File System...
[ OK ] Reached target Slices.
        Starting File System Check on Root Device...
[ OK ] Listening on Journal Socket (/dev/log).
[ OK ] Listening on udev Control Socket.
        Starting udev Coldplug all Devices...
        Starting Apply Kernel Variables...
        Mounting Kernel Configuration File System...
        Starting Journal Service...
        Mounting FUSE Control File System...
        Mounting Temporary Directory (/tmp)...
[ OK ] Started Dispatch Password Requests to Console Directory Watch.
[ OK ] Reached target Paths.
[ OK ] Mounted Kernel Debug File System.
[ OK ] Started File System Check on Root Device.
[ OK ] Started Apply Kernel Variables.
[ OK ] Mounted Kernel Configuration File System.
[ OK ] Mounted FUSE Control File System.
[ OK ] Mounted Temporary Directory (/tmp).
        Starting Remount Root and Kernel File Systems...
[ 5.557639] UBIFS (ubi0:2): start fixing up free space
[ OK ] Started Journal Service.
[ OK ] Started udev Coldplug all Devices.
[ **] (1 of 2) A start job is running for Kernel File Systems (30s /
no limit)[ 34.900661] UBIFS (ubi0:2): free space fixup complete
[ 34.917748] UBIFS (ubi0:2): background thread "ubifs_bgt0_2"
started, PID 124
[ OK ] Started Remount Root and Kernel File Systems.
        Starting Flush Journal to Persistent Storage...
        Starting Create System Users...
[ 35.133966] systemd-journald[115]: Received request to flush runtime
journal from PID 1
[ OK ] Started Flush Journal to Persistent Storage.
[ OK ] Started Create System Users.
        Starting Create Static Device Nodes in /dev...
[ OK ] Started Create Static Device Nodes in /dev.
[ OK ] Reached target Local File Systems (Pre).
        Mounting /var/volatile...
        Starting udev Kernel Device Manager...
[ OK ] Mounted /var/volatile.
[ OK ] Reached target Local File Systems.
        Starting Rebuild Journal Catalog...
        Starting Rebuild Dynamic Linker Cache...
        Starting Create Volatile Files and Directories...
        Starting Commit a transient machine-id on disk...
[ OK ] Started Commit a transient machine-id on disk.
[ OK ] Started udev Kernel Device Manager.
[ OK ] Started Create Volatile Files and Directories.
[ OK ] Started Rebuild Journal Catalog.
        Starting Run pending postinsts...
        Starting Network Service...
[ OK ] Started Network Service.
        Starting Network Name Resolution...
[ OK ] Started Network Name Resolution.
[ 40.455219] Generic PHY 20b4000.ethernet-1:00: attached PHY driver
[Generic PHY] (mii_bus:phy_addr=20b4000.ethernet-1:00, irq=POLL)

```



```

[ 59.449191] FAT-fs (mmcblk0p1): Volume was not properly unmounted.
Some data may be corrupt. Please run fsck.
root@rb-imx6ul:~# cd /mnt/
root@rb-imx6ul:/mnt# ls
BOOT.BIN          a5d2x-rugged_board.dtb  u-boot.bin
zImage
RB_IMX6UL         nor                      uboot.env
root@rb-imx6ul:/mnt# cd RB_IMX6UL/
root@rb-imx6ul:/mnt/RB_IMX6UL# ls
GPRS              gsm.sh
zImage-imx6ul-phytec-ruggedboard-rdk.dtb
barebox.bin       phytec-qt5demo-image-rb-
imx6ul.ubifs
flash.sh          zImage
root@rb-imx6ul:/mnt/RB_IMX6UL#
root@rb-imx6ul:/mnt/RB_IMX6UL#
root@rb-imx6ul:/mnt/RB_IMX6  1
booting 'nand'
ubi0: attached by fastmap
ubi0: fastmap pool size: 200
ubi0: fastmap WL pool size: 100
ubi0: registering /dev/nand0.root.ubi
ubi0: registering kernel as /dev/nand0.root.ubi.kernel
ubi0: registering oftree as /dev/nand0.root.ubi.oftree
ubi0: registering root as /dev/nand0.root.ubi.root
ubi0: attached mtd0 (name "nand0.root", size 507 MiB) to ubi0
ubi0: PEB size: 131072 bytes (128 KiB), LEB size: 126976 bytes
ubi0: min./max. I/O unit sizes: 2048/2048, sub-page size 2048
ubi0: VID header offset: 2048 (aligned 2048), data offset: 4096
ubi0: good PEBs: 4052, bad PEBs: 4, corrupted PEBs: 0
ubi0: user volume: 3, internal volumes: 1, max. volumes count: 128
ubi0: max/mean erase counter: 5/2, WL threshold: 65536, image sequence
number: 19993
ubi0: available PEBs: 0, total reserved PEBs: 4052, PEBs reserved for
bad PEB handling: 76

Loading ARM Linux zImage '/dev/nand0.root.ubi.kernel'
Loading devicetree from '/dev/nand0.root.ubi.oftree'
commandline: consoleblank=0 console=ttyMXC0,115200n8 root=ubi0:root
ubi.mtd=root rootfstype=ubifs rootwait ro fsck.repair=yes
Starting kernel in secure mode
[ 0.000000] Booting Linux on physical CPU 0x0
[ 0.000000] Linux version 4.14.93-bsp-yocto-i.mx6ul-pd19.1.0 (oe-
user@oe-host) (gcc version 7.3.0 (GCC)) #1 SMP Wed Apr 21 13:30:04 UTC
2021
[ 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: Rugged Board i.MX6 UltraLite
[ 0.000000] Memory policy: Data cache writealloc
[ 0.000000] cma: Reserved 128 MiB at 0x96000000
[ 0.000000] percpu: Embedded 16 pages/cpu @dff92000 s34444 r8192
d22900 u65536
[ 0.000000] Built 1 zonelists, mobility grouping on. Total pages:
130048

```

```

[ 0.000000] Kernel command line: consoleblank=0
console=ttymx0,115200n8 root=ubi0:root ubi.mtd=root rootfstype=ubifs
rootwait ro fsck.reps
[ 0.000000] PID hash table entries: 2048 (order: 1, 8192 bytes)
[ 0.000000] Dentry cache hash table entries: 65536 (order: 6, 262144
bytes)
[ 0.000000] Inode-cache hash table entries: 32768 (order: 5, 131072
bytes)
[ 0.000000] Memory: 371988K/524288K available (9216K kernel code,
429K rwdara, 3216K rodata, 1024K init, 424K bss, 21228K reserved,
131072K)
[ 0.000000] Virtual kernel memory layout:
[ 0.000000] vector : 0xffff0000 - 0xffff1000 ( 4 kB)
[ 0.000000] fixmap : 0xffc00000 - 0xffff0000 (3072 kB)
[ 0.000000] vmalloc : 0xe0800000 - 0xff800000 ( 496 MB)
[ 0.000000] lowmem : 0xc0000000 - 0xe0000000 ( 512 MB)
[ 0.000000] pkmap : 0xbfe00000 - 0xc0000000 ( 2 MB)
[ 0.000000] modules : 0xbf000000 - 0xbfe00000 ( 14 MB)
[ 0.000000] .text : 0xc0008000 - 0xc0a00000 (10208 kB)
[ 0.000000] .init : 0xc0e00000 - 0xc0f00000 (1024 kB)
[ 0.000000] .data : 0xc0f00000 - 0xc0f6b7e0 ( 430 kB)
[ 0.000000] .bss : 0xc0f6d000 - 0xc0fd70c0 ( 425 kB)
[ 0.000000] SLUB: HWalign=64, Order=0-3, MinObjects=0, CPUs=1,
Nodes=1
[ 0.000000] Hierarchical RCU implementation.
[ 0.000000] RCU event tracing is enabled.
[ 0.000000] RCU restricting CPUs from NR_CPUS=4 to nr_cpu_ids=1.
[ 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] Switching to timer-based delay loop, resolution 41ns
[ 0.000017] sched_clock: 32 bits at 24MHz, resolution 41ns, wraps
every 89478484971ns
[ 0.000058] clocksource: mxc_timer1: mask: 0xffffffff max_cycles:
0xffffffff, max_idle_ns: 79635851949 ns
[ 0.002970] Console: colour dummy device 80x30
[ 0.003028] Calibrating delay loop (skipped), value calculated using
timer frequency.. 48.00 BogoMIPS (lpj=240000)
[ 0.003066] pid_max: default: 32768 minimum: 301
[ 0.003363] Mount-cache hash table entries: 1024 (order: 0, 4096
bytes)
[ 0.003398] Mountpoint-cache hash table entries: 1024 (order: 0,
4096 bytes)
[ 0.004676] CPU: Testing write buffer coherency: ok
[ 0.005260] /cpus/cpu@0 missing clock-frequency property
[ 0.005300] CPU0: thread -1, cpu 0, socket 0, mpidr 80000000
[ 0.006208] Setting up static identity map for 0x80100000 -
0x80100078
[ 0.006538] Hierarchical SRCU implementation.
[ 0.007760] smp: Bringing up secondary CPUs ...
[ 0.007794] smp: Brought up 1 node, 1 CPU
[ 0.007820] SMP: Total of 1 processors activated (48.00 BogoMIPS).
[ 0.007838] CPU: All CPU(s) started in SVC mode.
[ 0.009376] devtmpfs: initialized
[ 0.025528] random: get_random_u32 called from
bucket_table_alloc+0x100/0x230 with crng_init=0
[ 0.025988] VFP support v0.3: implementor 41 architecture 2 part 30
variant 7 rev 5

```

```

[ 0.026605] clocksource: jiffies: mask: 0xffffffff max_cycles:
0xffffffff, max_idle_ns: 19112604462750000 ns
[ 0.026660] futex hash table entries: 256 (order: 2, 16384 bytes)
[ 0.037403] pinctrl core: initialized pinctrl subsystem
[ 0.039433] NET: Registered protocol family 16
[ 0.056355] DMA: preallocated 256 KiB pool for atomic coherent
allocations
[ 0.059019] CPU identified as i.MX 6UL, silicon rev 1.2
[ 0.071819] vdd3p0: supplied by regulator-dummy
[ 0.073040] cpu: supplied by regulator-dummy
[ 0.074237] vddsoc: supplied by regulator-dummy
[ 0.093850] No ATAGs?
[ 0.093989] hw-breakpoint: found 5 (+1 reserved) breakpoint and 4
watchpoint registers.
[ 0.094028] hw-breakpoint: maximum watchpoint size is 8 bytes.
[ 0.097910] imx6ul-pinctrl 20e0000.iomuxc: Invalid fsl,pins or pins
property in node /soc/aips-bus@2000000/iomuxc@20e0000/flexcanlengrp
[ 0.097974] imx6ul-pinctrl 20e0000.iomuxc: Invalid fsl,pins or pins
property in node /soc/aips-bus@2000000/iomuxc@20e0000/rtcintgrp
[ 0.098008] imx6ul-pinctrl 20e0000.iomuxc: Invalid fsl,pins or pins
property in node /soc/aips-bus@2000000/iomuxc@20e0000/stmpegrp
[ 0.098122] imx6ul-pinctrl 20e0000.iomuxc: Invalid fsl,pins or pins
property in node /soc/aips-bus@2000000/iomuxc@20e0000/wlangrp
[ 0.098211] imx6ul-pinctrl 20e0000.iomuxc: initialized IMX pinctrl
driver
[ 0.144673] mxs-dma 1804000.dma-apbh: initialized
[ 0.151270] vgaarb: loaded
[ 0.152449] SCSI subsystem initialized
[ 0.153511] usbcore: registered new interface driver usbfs
[ 0.153655] usbcore: registered new interface driver hub
[ 0.153876] usbcore: registered new device driver usb
[ 0.156729] i2c i2c-0: IMX I2C adapter registered
[ 0.156779] i2c i2c-0: can't use DMA, using PIO instead.
[ 0.158258] i2c i2c-1: IMX I2C adapter registered
[ 0.158307] i2c i2c-1: can't use DMA, using PIO instead.
[ 0.158709] media: Linux media interface: v0.10
[ 0.158849] Linux video capture interface: v2.00
[ 0.158992] pps_core: LinuxPPS API ver. 1 registered
[ 0.159019] pps_core: Software ver. 5.3.6 - Copyright 2005-2007
Rodolfo Giometti <giometti@linux.it>
[ 0.159077] PTP clock support registered
[ 0.159727] Advanced Linux Sound Architecture Driver Initialized.
[ 0.161441] Bluetooth: Core ver 2.22
[ 0.161792] NET: Registered protocol family 31
[ 0.161816] Bluetooth: HCI device and connection manager initialized
[ 0.161853] Bluetooth: HCI socket layer initialized
[ 0.161879] Bluetooth: L2CAP socket layer initialized
[ 0.161970] Bluetooth: SCO socket layer initialized
[ 0.164527] clocksource: Switched to clocksource mxc_timer1
[ 0.164775] VFS: Disk quotas dquot_6.6.0
[ 0.164920] VFS: Dquot-cache hash table entries: 1024 (order 0, 4096
bytes)
[ 0.186543] NET: Registered protocol family 2
[ 0.187926] TCP established hash table entries: 4096 (order: 2,
16384 bytes)
[ 0.188058] TCP bind hash table entries: 4096 (order: 3, 32768
bytes)
[ 0.188217] TCP: Hash tables configured (established 4096 bind 4096)

```

```

[ 0.188420] UDP hash table entries: 256 (order: 1, 8192 bytes)
[ 0.188491] UDP-Lite hash table entries: 256 (order: 1, 8192 bytes)
[ 0.188821] NET: Registered protocol family 1
[ 0.189703] RPC: Registered named UNIX socket transport module.
[ 0.189738] RPC: Registered udp transport module.
[ 0.189755] RPC: Registered tcp transport module.
[ 0.189775] RPC: Registered tcp NFSv4.1 backchannel transport
module.
[ 0.194980] workingset: timestamp_bits=30 max_order=17
bucket_order=0
[ 0.205684] squashfs: version 4.0 (2009/01/31) Phillip Lougher
[ 0.207089] NFS: Registering the id_resolver key type
[ 0.207186] Key type id_resolver registered
[ 0.207206] Key type id_legacy registered
[ 0.207303] jffs2: version 2.2. (NAND) © 2001-2006 Red Hat, Inc.
[ 0.208415] fuse init (API version 7.26)
[ 0.220828] NET: Registered protocol family 38
[ 0.221214] io scheduler noop registered
[ 0.221243] io scheduler deadline registered
[ 0.221591] io scheduler cfq registered (default)
[ 0.221617] io scheduler mq-deadline registered
[ 0.221638] io scheduler kyber registered
[ 0.232874] imx-sdma 20ec000.sdma: loaded firmware 3.3
[ 0.242723] 2020000.serial: ttymxc0 at MMIO 0x2020000 (irq = 23,
base_baud = 5000000) is a IMX
[ 0.963605] console [ttymxc0] enabled
[ 0.969378] 21e8000.serial: ttymxc1 at MMIO 0x21e8000 (irq = 62,
base_baud = 5000000) is a IMX
[ 0.979573] 21ec000.serial: ttymxc2 at MMIO 0x21ec000 (irq = 63,
base_baud = 5000000) is a IMX
[ 0.989781] 21f4000.serial: ttymxc4 at MMIO 0x21f4000 (irq = 64,
base_baud = 5000000) is a IMX
[ 1.000133] 21fc000.serial: ttymxc5 at MMIO 0x21fc000 (irq = 65,
base_baud = 5000000) is a IMX
[ 1.045612] brd: module loaded
[ 1.066358] loop: module loaded
[ 1.071004] at24 0-0052: 4096 byte 24c32 EEPROM, writable, 1
bytes/write
[ 1.079928] ERR: Failed to request GPIO pin 130
[ 1.085256] *****Kiran*****
[ 1.085256]
[ 1.096731] chardev registerd with majnum:246
[ 1.119810] random: fast init done
[ 1.126819] nand: device found, Manufacturer ID: 0x2c, Chip ID: 0xdc
[ 1.133210] nand: Micron MT29F4G08ABADAH4
[ 1.137319] nand: 512 MiB, SLC, erase size: 128 KiB, page size:
2048, OOB size: 64
[ 1.145810] gpmi-nand 1806000.gpmi-nand: enable the asynchronous EDO
mode 5
[ 1.153927] Bad block table found at page 262080, version 0x01
[ 1.160287] Bad block table found at page 262016, version 0x01
[ 1.166990] 3 ofpart partitions found on MTD device gpmi-nand
[ 1.172772] Creating 3 MTD partitions on "gpmi-nand":
[ 1.177936] 0x000000000000-0x000000400000 : "barebox"
[ 1.186260] 0x000000400000-0x000000500000 : "barebox-environment"
[ 1.194865] 0x000000500000-0x000002000000 : "root"
[ 1.309816] gpmi-nand 1806000.gpmi-nand: driver registered.
[ 1.321744] spi_imx 2008000.ecspi: probed

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[ 1.329348] spi_imx 200c000.ecspi: probed
[ 1.335285] spi_imx 2010000.ecspi: No CS GPIOs available
[ 1.340777] spi_imx: probe of 2010000.ecspi failed with error -22
[ 1.348862] libphy: Fixed MDIO Bus: probed
[ 1.354172] CAN device driver interface
[ 1.360263] flexcan 2090000.flexcan: device registered
(reg_base=e0a28000, irq=25)
[ 1.370031] fec 20b4000.ethernet: 20b4000.ethernet supply phy not
found, using dummy regulator
[ 1.379866] pps pps0: new PPS source ptp0
[ 1.413817] libphy: fec_enet_mii_bus: probed
[ 1.419975] fec 20b4000.ethernet eth1: registered PHC device 0
[ 1.428521] fec 2188000.ethernet: 2188000.ethernet supply phy not
found, using dummy regulator
[ 1.438404] pps pps1: new PPS source ptp1
[ 1.443865] libphy: fec_enet_mii_bus: probed
[ 1.450878] fec 2188000.ethernet eth0: registered PHC device 1
[ 1.458507] PPP generic driver version 2.4.2
[ 1.463273] PPP BSD Compression module registered
[ 1.468159] PPP Deflate Compression module registered
[ 1.473328] PPP MPPE Compression module registered
[ 1.478282] NET: Registered protocol family 24
[ 1.482858] pegasus: v0.9.3 (2013/04/25), Pegasus/Pegasus II USB
Ethernet driver
[ 1.490577] usbcore: registered new interface driver pegasus
[ 1.496551] usbcore: registered new interface driver rtl8150
[ 1.502372] usbcore: registered new interface driver r8152
[ 1.508076] usbcore: registered new interface driver asix
[ 1.513600] usbcore: registered new interface driver ax88179_178a
[ 1.519887] usbcore: registered new interface driver cdc_ether
[ 1.525905] usbcore: registered new interface driver cdc_eem
[ 1.531705] usbcore: registered new interface driver net1080
[ 1.537667] usbcore: registered new interface driver plusb
[ 1.543282] usbcore: registered new interface driver cdc_subset
[ 1.549406] usbcore: registered new interface driver zaurus
[ 1.555250] usbcore: registered new interface driver sierra_net
[ 1.561323] usbcore: registered new interface driver cdc_ncm
[ 1.567294] usbcore: registered new interface driver qmi_wwan
[ 1.573178] usbcore: registered new interface driver cdc_mbim
[ 1.579027] ehci_hcd: USB 2.0 'Enhanced' Host Controller (EHCI)
Driver
[ 1.585631] ehci-pci: EHCI PCI platform driver
[ 1.590222] ehci-mxc: Freescale On-Chip EHCI Host driver
[ 1.596531] usbcore: registered new interface driver cdc_acm
[ 1.602234] cdc_acm: USB Abstract Control Model driver for USB
modems and ISDN adapters
[ 1.610482] usbcore: registered new interface driver cdc_wdm
[ 1.616413] usbcore: registered new interface driver usb-storage
[ 1.622708] usbcore: registered new interface driver usbserial
[ 1.628772] usbcore: registered new interface driver
usbserial_generic
[ 1.635472] usbserial: USB Serial support registered for generic
[ 1.641600] usbcore: registered new interface driver cp210x
[ 1.647338] usbserial: USB Serial support registered for cp210x
[ 1.653377] usbcore: registered new interface driver cypress_m8
[ 1.659462] usbserial: USB Serial support registered for DeLorme
Earthmate USB

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[ 1.666839] usbserial: USB Serial support registered for HID->COM
RS232 Adapter
[ 1.674265] usbserial: USB Serial support registered for Nokia CA-42
V2 Adapter
[ 1.681747] usbcore: registered new interface driver ftdi_sio
[ 1.687666] usbserial: USB Serial support registered for FTDI USB
Serial Device
[ 1.695161] usbcore: registered new interface driver option
[ 1.700833] usbserial: USB Serial support registered for GSM modem
(1-port)
[ 1.707970] usbcore: registered new interface driver pl2303
[ 1.713642] usbserial: USB Serial support registered for pl2303
[ 1.719735] usbcore: registered new interface driver qcaux
[ 1.725384] usbserial: USB Serial support registered for qcaux
[ 1.731352] usbcore: registered new interface driver qcserial
[ 1.737263] usbserial: USB Serial support registered for Qualcomm
USB modem
[ 1.744342] usbcore: registered new interface driver sierra
[ 1.750078] usbserial: USB Serial support registered for Sierra USB
modem
[ 1.761149] imx_usb 2184000.usb: 2184000.usb supply vbus not found,
using dummy regulator
[ 1.773296] ci_hdrc ci_hdrc.0: EHCI Host Controller
[ 1.778367] ci_hdrc ci_hdrc.0: new USB bus registered, assigned bus
number 1
[ 1.814629] ci_hdrc ci_hdrc.0: USB 2.0 started, EHCI 1.00
[ 1.821996] hub 1-0:1.0: USB hub found
[ 1.826081] hub 1-0:1.0: 1 port detected
[ 1.832072] imx_usb 2184200.usb: 2184200.usb supply vbus not found,
using dummy regulator
[ 1.844328] ci_hdrc ci_hdrc.1: EHCI Host Controller
[ 1.849475] ci_hdrc ci_hdrc.1: new USB bus registered, assigned bus
number 2
[ 1.884632] ci_hdrc ci_hdrc.1: USB 2.0 started, EHCI 1.00
[ 1.891958] hub 2-0:1.0: USB hub found
[ 1.896055] hub 2-0:1.0: 1 port detected
[ 1.903186] udc-core: couldn't find an available UDC - added
[g_ether] to list of pending drivers
[ 1.914045] input: 20cc000.snvs:snvs-powerkey as
/devices/soc0/soc/2000000.aips-bus/20cc000.snvs/20cc000.snvs:snvs-
powerkey/input/input0
[ 1.930717] rtc-m41t80 1-0068: Can't clear HT bit
[ 1.938447] snvs_rtc 20cc000.snvs:snvs-rtc-lp: rtc core: registered
20cc000.snvs:snvs-rtc-lp as rtc0
[ 1.948219] i2c /dev entries driver
[ 1.953649] IR NEC protocol handler initialized
[ 1.958445] IR RC5(x/sz) protocol handler initialized
[ 1.963532] IR RC6 protocol handler initialized
[ 1.968142] IR JVC protocol handler initialized
[ 1.972700] IR Sony protocol handler initialized
[ 1.977381] IR SANYO protocol handler initialized
[ 1.982107] IR Sharp protocol handler initialized
[ 1.986872] IR MCE Keyboard/mouse protocol handler initialized
[ 1.992728] IR XMP protocol handler initialized
[ 2.002885] imx2-wdt 20bc000.wdog: timeout 60 sec (nowayout=0)
[ 2.010477] Bluetooth: HCI UART driver ver 2.3
[ 2.015081] Bluetooth: HCI UART protocol H4 registered
[ 2.020441] usbcore: registered new interface driver bcm203x
```

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[ 2.026353] usbcore: registered new interface driver bpal0x
[ 2.032080] usbcore: registered new interface driver bfusb
[ 2.037808] usbcore: registered new interface driver btusb
[ 2.043325] Bluetooth: Generic Bluetooth SDIO driver ver 0.1
[ 2.050138] sdhci: Secure Digital Host Controller Interface driver
[ 2.056445] sdhci: Copyright(c) Pierre Ossman
[ 2.060830] sdhci-pltfm: SDHCI platform and OF driver helper
[ 2.069074] sdhci-esdhc-imx 2190000.usdhc: Got CD GPIO
[ 2.135187] mmc0: SDHCI controller on 2190000.usdhc [2190000.usdhc]
using ADMA
[ 2.266638] usb 2-1: new high-speed USB device number 2 using
ci_hdrc
[ 2.294591] mmc1: SDHCI controller on 2194000.usdhc [2194000.usdhc]
using ADMA
[ 2.314351] hidraw: raw HID events driver (C) Jiri Kosina
[ 2.320918] usbcore: registered new interface driver usbhid
[ 2.326729] usbhid: USB HID core driver
[ 2.338605] mmc0: host does not support reading read-only switch,
assuming write-enable
[ 2.365783] mmc1: new high speed SDIO card at address 0001
[ 2.376126] NET: Registered protocol family 10
[ 2.382749] mmc0: new high speed SDHC card at address aaaa
[ 2.392408] Segment Routing with IPv6
[ 2.396425] mmcblk0: mmc0:aaaa SC16G 14.8 GiB
[ 2.401736] sit: IPv6, IPv4 and MPLS over IPv4 tunneling driver
[ 2.409947] NET: Registered protocol family 17
[ 2.414880] mmcblk0: p1 p2
[ 2.418315] can: controller area network core (rev 20170425 abi 9)
[ 2.426428] NET: Registered protocol family 29
[ 2.430958] can: raw protocol (rev 20170425)
[ 2.435492] can: broadcast manager protocol (rev 20170425 t)
[ 2.441241] can: netlink gateway (rev 20170425) max_hops=1
[ 2.447458] 8021q: 802.1Q VLAN Support v1.8
[ 2.451772] Key type dns_resolver registered
[ 2.459017] cpu cpu0: Using anatop regulators: LDOs enabled
[ 2.465197] Registering SWP/SWPB emulation handler
[ 2.480280] cdc_ether 2-1:1.0 usb0: register 'cdc_ether' at usb-
ci_hdrc.1-1, CDC Ethernet Device, 02:0c:29:a3:9b:6d
[ 2.506022] option 2-1:1.2: GSM modem (1-port) converter detected
[ 2.512907] usb 2-1: GSM modem (1-port) converter now attached to
ttyUSB0
[ 2.522345] imx_thermal 2000000.aips-bus:tempmon: Industrial CPU
temperature grade - max:105C critical:100C passive:95C
[ 2.533855] option 2-1:1.3: GSM modem (1-port) converter detected
[ 2.540750] usb 2-1: GSM modem (1-port) converter now attached to
ttyUSB1
[ 2.548725] ubi0: default fastmap pool size: 200
[ 2.553421] ubi0: default fastmap WL pool size: 100
[ 2.558400] ubi0: attaching mtd2
[ 2.563135] option 2-1:1.4: GSM modem (1-port) converter detected
[ 2.574399] usb 2-1: GSM modem (1-port) converter now attached to
ttyUSB2
[ 3.289972] random: crng init done
[ 5.354439] ubi0: attached by fastmap
[ 5.358294] ubi0: fastmap pool size: 200
[ 5.362240] ubi0: fastmap WL pool size: 100
[ 5.383706] ubi0: attached mtd2 (name "root", size 507 MiB)

```

```

[    5.389437] ubi0: PEB size: 131072 bytes (128 KiB), LEB size: 126976
bytes
[    5.396375] ubi0: min./max. I/O unit sizes: 2048/2048, sub-page size
2048
[    5.403183] ubi0: VID header offset: 2048 (aligned 2048), data
offset: 4096
[    5.410227] ubi0: good PEBs: 4052, bad PEBs: 4, corrupted PEBs: 0
[    5.416382] ubi0: user volume: 3, internal volumes: 1, max. volumes
count: 128
[    5.423626] ubi0: max/mean erase counter: 5/2, WL threshold: 4096,
image sequence number: 19993
[    5.432379] ubi0: available PEBs: 0, total reserved PEBs: 4052, PEBs
reserved for bad PEB handling: 76
[    5.441800] ubi0: background thread "ubi_bgt0d" started, PID 101
[    5.451124] snvs_rtc 20cc000.snvs:snvs-rtc-lp: setting system clock
to 1970-01-01 00:00:04 UTC (4)
[    5.463021] Can: disabling
[    5.466808] wlan_en: disabling
[    5.470864] gpio_dvfs: disabling
[    5.474156] ALSA device list:
[    5.477204]   No soundcards found.
[    5.519165] UBIFS (ubi0:2): recovery needed
[    5.622158] UBIFS (ubi0:2): recovery deferred
[    5.629772] UBIFS (ubi0:2): UBIFS: mounted UBI device 0, volume 2,
name "root", R/O mode
[    5.638001] UBIFS (ubi0:2): LEB size: 126976 bytes (124 KiB),
min./max. I/O unit sizes: 2048 bytes/2048 bytes
[    5.647981] UBIFS (ubi0:2): FS size: 493047808 bytes (470 MiB, 3883
LEBs), journal size 9023488 bytes (8 MiB, 72 LEBs)
[    5.658723] UBIFS (ubi0:2): reserved for root: 0 bytes (0 KiB)
[    5.664612] UBIFS (ubi0:2): media format: w4/r0 (latest is w5/r0),
UUID A00386FF-5AC6-4D89-8D83-5A8FFDD7B541, small LPT model
[    5.682969] VFS: Mounted root (ubifs filesystem) readonly on device
0:13.
[    5.695628] devtmpfs: mounted
[    5.701051] Freeing unused kernel memory: 1024K
[    6.114492] systemd[1]: System time before build time, advancing
clock.
[    6.200562] systemd[1]: systemd 237 running in system mode. (-PAM -
AUDIT -SELINUX -IMA -APPARMOR -SMACK +SYSVINIT -UTMP -LIBCRYPTSETUP -
GCR)
[    6.223998] systemd[1]: Detected architecture arm.

```

Welcome to The Yogurt Distribution BSP-Yocto-i.MX6UL-PD19.1.0!

```

[    6.273563] systemd[1]: Set hostname to <rb-imx6ul>.
[    6.689552] systemd[1]: File /lib/systemd/system/systemd-
journal.service:35 configures an IP firewall (IPAddressDeny=any), but
the local s.
[    6.706828] systemd[1]: Proceeding WITHOUT firewalling in effect!
(This warning is only shown for the first loaded unit using IP
firewallin)
[    6.999240] systemd[1]: Started Forward Password Requests to Wall
Directory Watch.
[    OK ] Started Forward Password Requests to Wall Directory Watch.
[    7.047320] systemd[1]: Reached target Remote File Systems.
[    OK ] Reached target Remote File Systems.
[    7.085053] systemd[1]: Reached target Swap.

```

```

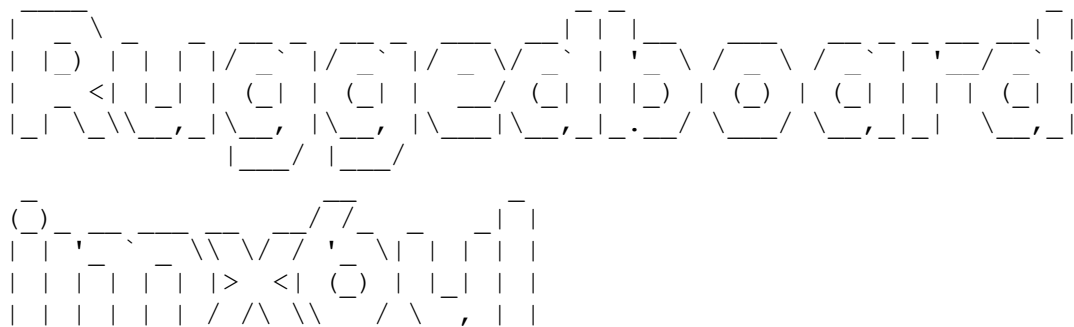
[ OK ] Reached target Swap.
[ 7.121732] systemd[1]: Created slice System Slice.
[ OK ] Created slice System Slice.
[ 7.159489] systemd[1]: Listening on udev Kernel Socket.
[ OK ] Listening on udev Kernel Socket.
[ OK ] Listening on Journal Socket (/dev/log).
[ OK ] Listening on udev Control Socket.
[ OK ] Listening on Journal Socket.
      Mounting Temporary Directory (/tmp)...
      Starting udev Coldplug all Devices...
      Starting Journal Service...
      Starting Apply Kernel Variables...
[ OK ] Created slice system-serial\x2dgetty.slice.
      Mounting FUSE Control File System...
      Mounting Kernel Configuration File System...
      Mounting Kernel Debug File System...
[ OK ] Listening on Network Service Netlink Socket.
[ OK ] Started Dispatch Password Requests to Console Directory Watch.
[ OK ] Reached target Paths.
      Starting File System Check on Root Device...
[ OK ] Created slice User and Session Slice.
[ OK ] Created slice system-getty.slice.
[ OK ] Listening on /dev/initctl Compatibility Named Pipe.
[ OK ] Reached target Slices.
[ OK ] Mounted Temporary Directory (/tmp).
[ OK ] Started Apply Kernel Variables.
[ OK ] Mounted FUSE Control File System.
[ OK ] Mounted Kernel Configuration File System.
[ OK ] Mounted Kernel Debug File System.
[ OK ] Started File System Check on Root Device.
      Starting Remount Root and Kernel File Systems...
[ 8.178859] UBIFS (ubi0:2): completing deferred recovery
[ OK ] Started Journal Service.
[ 8.466750] UBIFS (ubi0:2): background thread "ubifs_bgt0_2"
started, PID 125
[ 8.516869] UBIFS (ubi0:2): deferred recovery completed
[ OK ] Started Remount Root and Kernel File Systems.
      Starting Flush Journal to Persistent Storage...
      Starting Create System Users...
[ OK ] Started Create System Users.
      Starting Create Static Device Nodes in /dev...
[ 8.977723] systemd-journald[113]: Received request to flush runtime
journal from PID 1
[ OK ] Started Flush Journal to Persistent Storage.
[ OK ] Started Create Static Device Nodes in /dev.
      Starting udev Kernel Device Manager...
[ OK ] Reached target Local File Systems (Pre).
      Mounting /var/volatile...
[ OK ] Mounted /var/volatile.
[ OK ] Reached target Local File Systems.
      Starting Rebuild Dynamic Linker Cache...
      Starting Rebuild Journal Catalog...
      Starting Create Volatile Files and Directories...
[ OK ] Started Create Volatile Files and Directories.
[ OK ] Started Rebuild Journal Catalog.
[ OK ] Started udev Kernel Device Manager.
      Starting Network Service...
[ OK ] Started udev Coldplug all Devices.

```

```

[ OK ] Started Network Service.
        Starting Network Name Resolution...
[ OK ] Started Network Name Resolution.
[ OK ] Reached target Host and Network Name Lookups.
[ OK ] Reached target Network.
[ OK ] Found device /dev/ttymx0.
[ 13.525147] Generic PHY 20b4000.ethernet-1:00: attached PHY driver
[Generic PHY] (mii_bus:phy_addr=20b4000.ethernet-1:00, irq=POLL)
[ 13.585971] IPv6: ADDRCONF(NETDEV_UP): eth1: link is not ready
[ OK ] Started Rebuild Dynamic Linker Cache.
        Starting Update is Completed...
[ 14.210789] Micrel KSZ8081 or KSZ8091 2188000.ethernet-2:01:
attached PHY driver [Micrel KSZ8081 or KSZ8091]
(mii_bus:phy_addr=2188000.ethe)
[ OK ] Started Update is Completed.
[ 14.303623] IPv6: ADDRCONF(NETDEV_UP): eth0: link is not ready
[ OK ] Listening on Load/Save RF Kill Switch Status /dev/rfkill
Watch.
[ OK ] Reached target System Initialization.
[ OK ] Listening on D-Bus System Message Bus Socket.
        Starting sshd.socket.
[ OK ] Started Daily Cleanup of Temporary Directories.
[ OK ] Reached target Timers.
[ OK ] Listening on sshd.socket.
[ OK ] Reached target Sockets.
[ OK ] Reached target Basic System.
        Starting Login Service...
        Starting Lightning Fast Webserver With Light System
Requirements...
[ OK ] Started Getty on tty1.
        Starting Network Time Service...
[ OK ] Started D-Bus System Message Bus.
[ OK ] Started Login Service.
[ OK ] Started Serial Getty on ttymx0.
[ OK ] Reached target Login Prompts.
[ OK ] Started Lightning Fast Webserver With Light System
Requirements.
[ OK ] Started Network Time Service.
[ OK ] Reached target Multi-User System.

```



Yogurt (Phytec Example Distribution) BSP-Yocto-i.MX6UL-PD19.1.0 rb-imx6ul ttymx0

```

rb-imx6ul login: root
root@rb-imx6ul:~#
root@rb-imx6ul:~#

```

```

root@rb-imx6ul:~# ls
mraa
root@rb-imx6ul:~#
root@rb-imx6ul:~#
root@rb-imx6ul:~# mount /dev/mmcblk0p1 /mnt/
[ 28.567128] FAT-fs (mmcblk0p1): Volume was not properly unmounted.
Some data may be corrupt. Please run fsck.
root@rb-imx6ul:~# cd /mnt/
root@rb-imx6ul:/mnt# ls
BOOT.BIN          a5d2x-rugged_board.dtb  u-boot.bin
zImage
RB_IMX6UL          nor                      uboot.env
root@rb-imx6ul:/mnt# cd RB_IMX6UL/
root@rb-imx6ul:/mnt/RB_IMX6UL# ls
GPRS                      gsm.sh
zImage-imx6ul-phytec-ruggedboard-rdk.dtb
barebox.bin              phytec-qt5demo-image-rb-
imx6ul.ubifs
flash.sh                 zImage
root@rb-imx6ul:/mnt/RB_IMX6UL# cd GPRS/
root@rb-imx6ul:/mnt/RB_IMX6UL/GPRS# ls
GPRS.tar.gz             ec200t.sh               images
quectel-chat-disconnect
GPRS_connect.txt        gprs.txt                quectel-chat-connect
quectel-ppp
root@rb-imx6ul:/mnt/RB_IMX6UL/GPRS# cd quectel-* /etc/ppp/peers/
-sh: cd: too many arguments
root@rb-imx6ul:/mnt/RB_IMX6UL/GPRS# cp quectel-* /etc/ppp/peers/
root@rb-imx6ul:/mnt/RB_IMX6UL/GPRS#
root@rb-imx6ul:/mnt/RB_IMX6UL/GPRS#
root@rb-imx6ul:/mnt/RB_IMX6UL/GPRS#
root@rb-imx6ul:/mnt/RB_IMX6UL/GPRS#
root@rb-imx6ul:/mnt/RB_IMX6UL/GPRS# cd
root@rb-imx6ul:/mnt/RB_IMX6UL/GPRS# cd
root@rb-imx6ul:~# cd /mnt/
root@rb-imx6ul:/mnt# ls
BOOT.BIN          a5d2x-rugged_board.dtb  u-boot.bin
zImage
RB_IMX6UL          nor                      uboot.env
root@rb-imx6ul:/mnt# cd RB_IMX6UL/
root@rb-imx6ul:/mnt/RB_IMX6UL# ls
GPRS                      gsm.sh
zImage-imx6ul-phytec-ruggedboard-rdk.dtb
barebox.bin              phytec-qt5demo-image-rb-
imx6ul.ubifs
flash.sh                 zImage
root@rb-imx6ul:/mnt/RB_IMX6UL# cd GPRS/
root@rb-imx6ul:/mnt/RB_IMX6UL/GPRS# ls
GPRS.tar.gz             ec200t.sh               images
quectel-chat-disconnect
GPRS_connect.txt        gprs.txt                quectel-chat-connect
quectel-ppp
root@rb-imx6ul:/mnt/RB_IMX6UL/GPRS#
root@rb-imx6ul:/mnt/RB_IMX6UL/GPRS# cp ec200t.sh /home/root/
root@rb-imx6ul:/mnt/RB_IMX6UL/GPRS#
root@rb-imx6ul:/mnt/RB_IMX6UL/GPRS#
root@rb-imx6ul:/mnt/RB_IMX6UL/GPRS#
root@rb-imx6ul:/mnt/RB_IMX6UL/GPRS#
root@rb-imx6ul:/mnt/RB_IMX6UL/GPRS# sync
root@rb-imx6ul:/mnt/RB_IMX6UL/GPRS#

```

```

root@rb-imx6ul:/mnt/RB_IMX6UL/GPRS#
root@rb-imx6ul:/mnt/RB_IMX6UL/GPRS# cd
root@rb-imx6ul:~#
root@rb-imx6ul:~#
root@rb-imx6ul:~# ls
ec200t.sh  mraa
root@rb-imx6ul:~# sh ec200t.sh
test redial
rm: can't remove '/var/lock/LCK..ttyS3': No such file or directory
-----disconnected-----
redial at once
stop
killall: pppd: no process killed
killall: chat: no process killed
start
pppd options in effect:
debug          # (from /etc/ppp/peers/quectel-ppp)
nodetach        # (from /etc/ppp/peers/quectel-ppp)
dump            # (from /etc/ppp/peers/quectel-ppp)
noauth         # (from /etc/ppp/peers/quectel-ppp)
user test      # (from /etc/ppp/peers/quectel-ppp)
password ?????? # (from /etc/ppp/peers/quectel-ppp)
/dev/ttyUSB2   # (from /etc/ppp/peers/quectel-ppp)
9600          # (from /etc/ppp/peers/quectel-ppp)
lock          # (from /etc/ppp/options)
connect chat -s -v -f /etc/ppp/peers/quectel-chat-connect
# (from /etc/ppp/peers/quectel-ppp)
disconnect chat -s -v -f /etc/ppp/peers/quectel-chat-disconnect
# (from /etc/ppp/peers/quectel-ppp)
modem          # (from /etc/ppp/peers/quectel-ppp)
novj           # (from /etc/ppp/peers/quectel-ppp)
novjccomp      # (from /etc/ppp/peers/quectel-ppp)
ipcp-accept-local      # (from /etc/ppp/peers/quectel-ppp)
ipcp-accept-remote     # (from /etc/ppp/peers/quectel-ppp)
noipdefault           # (from /etc/ppp/peers/quectel-ppp)
defaultroute          # (from /etc/ppp/peers/quectel-ppp)
usepeerdns            # (from /etc/ppp/peers/quectel-ppp)
noccp                # (from /etc/ppp/peers/quectel-ppp)
abort on (BUSY)
abort on (NO CARRIER)
abort on (NO DIALTONE)
abort on (ERROR)
abort on (NO ANSWER)
timeout set to 60 seconds
send (ATH^M)
expect (OK)
ATH^M^M
OK
-- got it

send (ATZ^M)
expect (OK)
^M
ATZ^M^M
OK
-- got it

send (AT^M)

```

```

expect (OK)
^M
AT^M^M
OK
-- got it

send (ATE0^M)
expect (OK)
^M
ATE0^M^M
OK
-- got it

send (ATI;+CSUB;+CSQ;+CPIN?;+COPS?;+CGREG?;&D2^M)
expect (OK)
^M
^M
Quectel^M
EC200T^M
Revision: EC200TEUHAR02A05M16^M
^M
SubEdition: V06^M
^M
+CSQ: 10,99^M
^M
+CGREG: 0,1^M
^M
+CPIN: READY^M
^M
+COPS: 0,0,"IND airtel",7^M
^M
OK
-- got it

send (AT+CGDCONT=1,"IP","airtelgprs.com",,0,0^M)
expect (OK)
^M
^M
OK
-- got it

send (ATD*99#^M)
expect (CONNECT)
^M
^M
CONNECT
-- got it

```

```

Script chat -s -v -f /etc/ppp/peers/quectel-chat-connect finished (pid
207), status = 0x0
Serial connection established.
using channel 1
Using interface ppp0
Connect: ppp0 <--> /dev/ttyUSB2
sent [LCP ConfReq id=0x1 <asynctest 0x0> <magic 0x7600b8af> <pcomp>
<accomp>]
rcvd [LCP ConfReq id=0x1 <asynctest 0x0> <auth pap> <magic 0x3536dad8>
<pcomp> <accomp>]

```



```

sent [LCP ConfAck id=0x1 <asynmap 0x0> <auth pap> <magic 0x3536dad8>
<pcomp> <accomp>]
rcvd [LCP ConfAck id=0x1 <asynmap 0x0> <magic 0x7600b8af> <pcomp>
<accomp>]
sent [PAP AuthReq id=0x1 user="test" password=<hidden>]
-----disconnected-----
redial at once
stop
Terminating on signal 15
sent [LCP TermReq id=0x2 "User request"]
killall: chat: no process killed
start
pppd options in effect:
debug          # (from /etc/ppp/peers/quectel-ppp)
nodetach        # (from /etc/ppp/peers/quectel-ppp)
dump           # (from /etc/ppp/peers/quectel-ppp)
noauth         # (from /etc/ppp/peers/quectel-ppp)
user test      # (from /etc/ppp/peers/quectel-ppp)
password ?????? # (from /etc/ppp/peers/quectel-ppp)
/dev/ttyUSB2   # (from /etc/ppp/peers/quectel-ppp)
9600           # (from /etc/ppp/peers/quectel-ppp)
lock           # (from /etc/ppp/options)
connect chat -s -v -f /etc/ppp/peers/quectel-chat-connect
# (from /etc/ppp/peers/quectel-ppp)
disconnect chat -s -v -f /etc/ppp/peers/quectel-chat-disconnect
# (from /etc/ppp/peers/quectel-ppp)
modem          # (from /etc/ppp/peers/quectel-ppp)
novj           # (from /etc/ppp/peers/quectel-ppp)
novjccomp      # (from /etc/ppp/peers/quectel-ppp)
ipcp-accept-local      # (from /etc/ppp/peers/quectel-ppp)
ipcp-accept-remote    # (from /etc/ppp/peers/quectel-ppp)
noipdefault          # (from /etc/ppp/peers/quectel-ppp)
defaultroute         # (from /etc/ppp/peers/quectel-ppp)
usepeerdns           # (from /etc/ppp/peers/quectel-ppp)
noccp                # (from /etc/ppp/peers/quectel-ppp)
abort on (BUSY)
abort on (NO CARRIER)
abort on (NO DIALTONE)
abort on (ERROR)
abort on (NO ANSWER)
timeout set to 60 seconds
send (ATH^M)
-- write timed out
Failed
Script chat -s -v -f /etc/ppp/peers/quectel-chat-connect finished (pid
219), status = 0x1
Connect script failed
sent [LCP TermReq id=0x3 "User request"]
Connection terminated.
-----disconnected-----
redial at once
stop
abort on (ERROR)
abort on (NO DIALTONE)

Sending break to the modem
send (+++^M)
SIGTERM

```

```
Script chat -s -v -f /etc/ppp/peers/quectel-chat-disconnect finished
(pid 223), status = 0x2
disconnect script failed
killall: chat: no process killed
start
pppd options in effect:
debug          # (from /etc/ppp/peers/quectel-ppp)
nodetach       # (from /etc/ppp/peers/quectel-ppp)
dump          # (from /etc/ppp/peers/quectel-ppp)
noauth        # (from /etc/ppp/peers/quectel-ppp)
user test     # (from /etc/ppp/peers/quectel-ppp)
password ????? # (from /etc/ppp/peers/quectel-ppp)
/dev/ttyUSB2  # (from /etc/ppp/peers/quectel-ppp)
9600          # (from /etc/ppp/peers/quectel-ppp)
lock          # (from /etc/ppp/options)
connect chat -s -v -f /etc/ppp/peers/quectel-chat-connect
# (from /etc/ppp/peers/quectel-ppp)
disconnect chat -s -v -f /etc/ppp/peers/quectel-chat-disconnect
# (from /etc/ppp/peers/quectel-ppp)
modem         # (from /etc/ppp/peers/quectel-ppp)
novj          # (from /etc/ppp/peers/quectel-ppp)
novjccomp     # (from /etc/ppp/peers/quectel-ppp)
ipcp-accept-local      # (from /etc/ppp/peers/quectel-ppp)
ipcp-accept-remote    # (from /etc/ppp/peers/quectel-ppp)
noipdefault          # (from /etc/ppp/peers/quectel-ppp)
defaultroute         # (from /etc/ppp/peers/quectel-ppp)
usepeerdns           # (from /etc/ppp/peers/quectel-ppp)
noccp                # (from /etc/ppp/peers/quectel-ppp)
Terminating on signal 15
Modem hangup
abort on (BUSY)
abort on (NO CARRIER)
abort on (NO DIALTONE)
abort on (ERROR)
abort on (NO ANSWER)
timeout set to 60 seconds
send (ATH^M)
expect (OK)
```

```
OK
-- got it
```

```
send (ATZ^M)
expect (OK)
```

```
OK
-- got it
```

```
send (AT^M)
expect (OK)
```

```
AT
```

OK

-- got it

send (ATE0^M)

expect (OK)

ATE0

OK

-- got it

send (ATI;+CSUB;+CSQ;+CPIN?;+COPS?;+CGREG?;&D2^M)

expect (OK)

Quectel

EC200T

Revision: EC200TEUHAR02A05M16

SubEdition: V06

+CSQ: 10,99

+CGREG: 0,1

+CPIN: READY

+COPS: 0,0,"IND airtel",7

OK

-- got it

send (AT+CGDCONT=1,"IP","airtelgprs.com",,0,0^M)

expect (OK)

OK

```

-- got it

send (ATD*99#^M)
expect (CONNECT)

CONNECT
-- got it

Script chat -s -v -f /etc/ppp/peers/quectel-chat-connect finished (pid
233), status = 0x0
Serial connection established.
using channel 2
Using interface ppp0
Connect: ppp0 <--> /dev/ttyUSB2
rcvd [LCP TermAck id=0x2]
sent [LCP ConfReq id=0x1 <asyncmap 0x0> <magic 0xfce766d3> <pcomp>
<accomp>]
Modem hangup
Connection terminated.
-----disconnected-----
redial at once
stop
killall: pppd: no process killed
killall: chat: no process killed
start
pppd options in effect:
debug                # (from /etc/ppp/peers/quectel-ppp)
nodetach              # (from /etc/ppp/peers/quectel-ppp)
dump                 # (from /etc/ppp/peers/quectel-ppp)
noauth               # (from /etc/ppp/peers/quectel-ppp)
user test            # (from /etc/ppp/peers/quectel-ppp)
password ??????      # (from /etc/ppp/peers/quectel-ppp)
/dev/ttyUSB2         # (from /etc/ppp/peers/quectel-ppp)
9600                 # (from /etc/ppp/peers/quectel-ppp)
lock                 # (from /etc/ppp/options)
connect chat -s -v -f /etc/ppp/peers/quectel-chat-connect
# (from /etc/ppp/peers/quectel-ppp)
disconnect chat -s -v -f /etc/ppp/peers/quectel-chat-disconnect
# (from /etc/ppp/peers/quectel-ppp)
modem                # (from /etc/ppp/peers/quectel-ppp)
novj                 # (from /etc/ppp/peers/quectel-ppp)
novjccomp            # (from /etc/ppp/peers/quectel-ppp)
ipcp-accept-local    # (from /etc/ppp/peers/quectel-ppp)
ipcp-accept-remote   # (from /etc/ppp/peers/quectel-ppp)
noipdefault          # (from /etc/ppp/peers/quectel-ppp)
defaultroute         # (from /etc/ppp/peers/quectel-ppp)
usepeerdns           # (from /etc/ppp/peers/quectel-ppp)
noccp                # (from /etc/ppp/peers/quectel-ppp)
abort on (BUSY)
abort on (NO CARRIER)
abort on (NO DIALTONE)
abort on (ERROR)
abort on (NO ANSWER)
timeout set to 60 seconds
send (ATH^M)

```

```
expect (OK)
^M
OK
-- got it

send (ATZ^M)
expect (OK)
^M
^M
OK
-- got it

send (AT^M)
expect (OK)
^M
AT^M^M
OK
-- got it

send (ATE0^M)
expect (OK)
^M
ATE0^M^M
OK
-- got it

send (ATI;+CSUB;+CSQ;+CPIN?;+COPS?;+CGREG?;&D2^M)
expect (OK)
^M
^M
Quectel^M
EC200T^M
Revision: EC200TEUHAR02A05M16^M
^M
SubEdition: V06^M
^M
+CSQ: 10,99^M
^M
+CGREG: 0,1^M
^M
+CPIN: READY^M
^M
+COPS: 0,0,"IND airtel",7^M
^M
OK
-- got it

send (AT+CGDCONT=1,"IP","airtelgprs.com",,0,0^M)
expect (OK)
^M
^M
OK
-- got it

send (ATD*99#^M)
expect (CONNECT)
^M
^M
```

CONNECT

-- got it

```
Script chat -s -v -f /etc/ppp/peers/quectel-chat-connect finished (pid
249), status = 0x0
Serial connection established.
using channel 3
Using interface ppp0
Connect: ppp0 <--> /dev/ttyUSB2
sent [LCP ConfReq id=0x1 <asynmap 0x0> <magic 0x566745be> <pcomp>
<accomp>]
rcvd [LCP ConfReq id=0x1 <asynmap 0x0> <auth pap> <magic 0x7beb9816>
<pcomp> <accomp>]
sent [LCP ConfAck id=0x1 <asynmap 0x0> <auth pap> <magic 0x7beb9816>
<pcomp> <accomp>]
rcvd [LCP ConfAck id=0x1 <asynmap 0x0> <magic 0x566745be> <pcomp>
<accomp>]
sent [PAP AuthReq id=0x1 user="test" password=<hidden>]
rcvd [PAP AuthAck id=0x1 "" 00]
PAP authentication succeeded
sent [IPCP ConfReq id=0x1 <addr 0.0.0.0> <ms-dns1 0.0.0.0> <ms-dns2
0.0.0.0>]
rcvd [IPCP ConfReq id=0x2]
sent [IPCP ConfNak id=0x2 <addr 0.0.0.0>]
rcvd [IPCP ConfNak id=0x1 <addr 100.94.161.27> <ms-dns1 125.22.47.102>
<ms-dns2 203.145.160.5>]
sent [IPCP ConfReq id=0x2 <addr 100.94.161.27> <ms-dns1 125.22.47.102>
<ms-dns2 203.145.160.5>]
rcvd [IPCP ConfReq id=0x3]
sent [IPCP ConfAck id=0x3]
rcvd [IPCP ConfAck id=0x2 <addr 100.94.161.27> <ms-dns1 125.22.47.102>
<ms-dns2 203.145.160.5>]
Could not determine remote IP address: defaulting to 10.64.64.64
local IP address 100.94.161.27
remote IP address 10.64.64.64
primary DNS address 125.22.47.102
secondary DNS address 203.145.160.5
Script /etc/ppp/ip-up started (pid 253)
Script /etc/ppp/ip-up finished (pid 253), status = 0x0
-----connected-----
root@rb-imx6ul:~#
root@rb-imx6ul:~#
root@rb-imx6ul:~#
root@rb-imx6ul:~# ping google.com
PING google.com (172.217.160.142): 56 data bytes
64 bytes from 172.217.160.142: seq=0 ttl=115 time=134.531 ms
64 bytes from 172.217.160.142: seq=1 ttl=115 time=106.364 ms
64 bytes from 172.217.160.142: seq=2 ttl=115 time=59.299 ms
64 bytes from 172.217.160.142: seq=3 ttl=115 time=47.676 ms
64 bytes from 172.217.160.142: seq=4 ttl=115 time=61.898 ms
64 bytes from 172.217.160.142: seq=5 ttl=115 time=63.178 ms
64 bytes from 172.217.160.142: seq=6 ttl=115 time=63.651 ms
64 bytes from 172.217.160.142: seq=7 ttl=115 time=45.009 ms
64 bytes from 172.217.160.142: seq=8 ttl=115 time=51.085 ms
64 bytes from 172.217.160.142: seq=9 ttl=115 time=44.441 ms
64 bytes from 172.217.160.142: seq=10 ttl=115 time=58.800 ms
64 bytes from 172.217.160.142: seq=11 ttl=115 time=41.030 ms
64 bytes from 172.217.160.142: seq=12 ttl=115 time=69.365 ms
```

```
64 bytes from 172.217.160.142: seq=13 ttl=115 time=41.709 ms
64 bytes from 172.217.160.142: seq=14 ttl=115 time=39.947 ms
64 bytes from 172.217.160.142: seq=15 ttl=115 time=60.041 ms
64 bytes from 172.217.160.142: seq=16 ttl=115 time=58.177 ms
64 bytes from 172.217.160.142: seq=17 ttl=115 time=58.547 ms
```

^C

--- google.com ping statistics ---

18 packets transmitted, 18 packets received, 0% packet loss
round-trip min/avg/max = 39.947/61.374/134.531 ms

root@rb-imx6ul:~#

root@rb-imx6ul:~#

root@rb-imx6ul:~#

root@rb-imx6ul:~#

root@rb-imx6ul 0

booting 'nand'

ubi0: attached by fastmap

ubi0: fastmap pool size: 200

ubi0: fastmap WL pool size: 100

ubi0: registering /dev/nand0.root.ubi

ubi0: registering kernel as /dev/nand0.root.ubi.kernel

ubi0: registering oftree as /dev/nand0.root.ubi.oftree

ubi0: registering root as /dev/nand0.root.ubi.root

ubi0: attached mtd0 (name "nand0.root", size 507 MiB) to ubi0

ubi0: PEB size: 131072 bytes (128 KiB), LEB size: 126976 bytes

ubi0: min./max. I/O unit sizes: 2048/2048, sub-page size 2048

ubi0: VID header offset: 2048 (aligned 2048), data offset: 4096

ubi0: good PEBs: 4052, bad PEBs: 4, corrupted PEBs: 0

ubi0: user volume: 3, internal volumes: 1, max. volumes count: 128

ubi0: max/mean erase counter: 5/2, WL threshold: 65536, image sequence
number: 19993

ubi0: available PEBs: 0, total reserved PEBs: 4052, PEBs reserved for
bad PEB handling: 76

Loading ARM Linux zImage '/dev/nand0.root.ubi.kernel'

Loading devicetree from '/dev/nand0.root.ubi.oftree'

commandline: consoleblank=0 console=ttyMXC0,115200n8 root=ubi0:root

ubi.mtd=root rootfstype=ubifs rootwait ro fsck.repair=yes

Starting kernel in secure mode

[0.000000] Booting Linux on physical CPU 0x0

[0.000000] Linux version 4.14.93-bsp-yocto-i.mx6ul-pd19.1.0 (oe-
user@oe-host) (gcc version 7.3.0 (GCC)) #1 SMP Wed Apr 21 13:30:04 UTC
2021

[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: Rugged Board i.MX6 UltraLite

[0.000000] Memory policy: Data cache writealloc

[0.000000] cma: Reserved 128 MiB at 0x96000000

[0.000000] percpu: Embedded 16 pages/cpu @dff92000 s34444 r8192
d22900 u65536

[0.000000] Built 1 zonelists, mobility grouping on. Total pages:
130048

[0.000000] Kernel command line: consoleblank=0

console=ttyMXC0,115200n8 root=ubi0:root ubi.mtd=root rootfstype=ubifs
rootwait ro fsck.reps

[0.000000] PID hash table entries: 2048 (order: 1, 8192 bytes)

```

[ 0.000000] Dentry cache hash table entries: 65536 (order: 6, 262144
bytes)
[ 0.000000] Inode-cache hash table entries: 32768 (order: 5, 131072
bytes)
[ 0.000000] Memory: 371988K/524288K available (9216K kernel code,
429K rwddata, 3216K rodata, 1024K init, 424K bss, 21228K reserved,
131072K)
[ 0.000000] Virtual kernel memory layout:
[ 0.000000]     vector : 0xffff0000 - 0xffff1000   ( 4 kB)
[ 0.000000]     fixmap : 0xffc00000 - 0xfff00000   (3072 kB)
[ 0.000000]     vmalloc : 0xe0800000 - 0xff800000   ( 496 MB)
[ 0.000000]     lowmem  : 0xc0000000 - 0xe0000000   ( 512 MB)
[ 0.000000]     pkmap   : 0xbfe00000 - 0xc0000000   ( 2 MB)
[ 0.000000]     modules : 0xbf000000 - 0xbfe00000   ( 14 MB)
[ 0.000000]     .text : 0xc0008000 - 0xc0a00000   (10208 kB)
[ 0.000000]     .init : 0xc0e00000 - 0xc0f00000   (1024 kB)
[ 0.000000]     .data : 0xc0f00000 - 0xc0f6b7e0   ( 430 kB)
[ 0.000000]     .bss : 0xc0f6d000 - 0xc0fd70c0   ( 425 kB)
[ 0.000000] SLUB: HWalign=64, Order=0-3, MinObjects=0, CPUs=1,
Nodes=1
[ 0.000000] Hierarchical RCU implementation.
[ 0.000000] RCU event tracing is enabled.
[ 0.000000] RCU restricting CPUs from NR_CPUS=4 to nr_cpu_ids=1.
[ 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] Switching to timer-based delay loop, resolution 41ns
[ 0.000018] sched_clock: 32 bits at 24MHz, resolution 41ns, wraps
every 89478484971ns
[ 0.000059] clocksource: mxc_timer1: mask: 0xffffffff max_cycles:
0xffffffff, max_idle_ns: 79635851949 ns
[ 0.002961] Console: colour dummy device 80x30
[ 0.003020] Calibrating delay loop (skipped), value calculated using
timer frequency.. 48.00 BogoMIPS (lpj=240000)
[ 0.003058] pid_max: default: 32768 minimum: 301
[ 0.003354] Mount-cache hash table entries: 1024 (order: 0, 4096
bytes)
[ 0.003390] Mountpoint-cache hash table entries: 1024 (order: 0,
4096 bytes)
[ 0.004685] CPU: Testing write buffer coherency: ok
[ 0.005283] /cpus/cpu@0 missing clock-frequency property
[ 0.005327] CPU0: thread -1, cpu 0, socket 0, mpidr 80000000
[ 0.006239] Setting up static identity map for 0x80100000 -
0x80100078
[ 0.006573] Hierarchical SRCU implementation.
[ 0.007813] smp: Bringing up secondary CPUs ...
[ 0.007847] smp: Brought up 1 node, 1 CPU
[ 0.007873] SMP: Total of 1 processors activated (48.00 BogoMIPS).
[ 0.007889] CPU: All CPU(s) started in SVC mode.
[ 0.009431] devtmpfs: initialized
[ 0.025623] random: get_random_u32 called from
bucket_table_alloc+0x100/0x230 with crng_init=0
[ 0.026083] VFP support v0.3: implementor 41 architecture 2 part 30
variant 7 rev 5
[ 0.026701] clocksource: jiffies: mask: 0xffffffff max_cycles:
0xffffffff, max_idle_ns: 19112604462750000 ns
[ 0.026756] futex hash table entries: 256 (order: 2, 16384 bytes)
[ 0.037434] pinctrl core: initialized pinctrl subsystem

```



```

[    0.039493] NET: Registered protocol family 16
[    0.056544] DMA: preallocated 256 KiB pool for atomic coherent
allocations
[    0.059223] CPU identified as i.MX 6UL, silicon rev 1.2
[    0.072001] vdd3p0: supplied by regulator-dummy
[    0.073235] cpu: supplied by regulator-dummy
[    0.074391] vddsoc: supplied by regulator-dummy
[    0.094018] No ATAGs?
[    0.094161] hw-breakpoint: found 5 (+1 reserved) breakpoint and 4
watchpoint registers.
[    0.094198] hw-breakpoint: maximum watchpoint size is 8 bytes.
[    0.098107] imx6ul-pinctrl 20e0000.iomuxc: Invalid fsl,pins or pins
property in node /soc/aips-bus@2000000/iomuxc@20e0000/flexcanlengrp
[    0.098175] imx6ul-pinctrl 20e0000.iomuxc: Invalid fsl,pins or pins
property in node /soc/aips-bus@2000000/iomuxc@20e0000/rtcintgrp
[    0.098215] imx6ul-pinctrl 20e0000.iomuxc: Invalid fsl,pins or pins
property in node /soc/aips-bus@2000000/iomuxc@20e0000/stmpegrp
[    0.098331] imx6ul-pinctrl 20e0000.iomuxc: Invalid fsl,pins or pins
property in node /soc/aips-bus@2000000/iomuxc@20e0000/wlangrp
[    0.098422] imx6ul-pinctrl 20e0000.iomuxc: initialized IMX pinctrl
driver
[    0.145034] mxs-dma 1804000.dma-apbh: initialized
[    0.151792] vgaarb: loaded
[    0.152859] SCSI subsystem initialized
[    0.153931] usbcore: registered new interface driver usbfs
[    0.154078] usbcore: registered new interface driver hub
[    0.154296] usbcore: registered new device driver usb
[    0.157160] i2c i2c-0: IMX I2C adapter registered
[    0.157211] i2c i2c-0: can't use DMA, using PIO instead.
[    0.158695] i2c i2c-1: IMX I2C adapter registered
[    0.158745] i2c i2c-1: can't use DMA, using PIO instead.
[    0.159137] media: Linux media interface: v0.10
[    0.159275] Linux video capture interface: v2.00
[    0.159413] pps_core: LinuxPPS API ver. 1 registered
[    0.159434] pps_core: Software ver. 5.3.6 - Copyright 2005-2007
Rodolfo Giometti <giometti@linux.it>
[    0.159489] PTP clock support registered
[    0.160152] Advanced Linux Sound Architecture Driver Initialized.
[    0.162137] Bluetooth: Core ver 2.22
[    0.162259] NET: Registered protocol family 31
[    0.162279] Bluetooth: HCI device and connection manager initialized
[    0.162316] Bluetooth: HCI socket layer initialized
[    0.162344] Bluetooth: L2CAP socket layer initialized
[    0.162436] Bluetooth: SCO socket layer initialized
[    0.164932] clocksource: Switched to clocksource mxc_timer1
[    0.165177] VFS: Disk quotas dquot_6.6.0
[    0.165320] VFS: Dquot-cache hash table entries: 1024 (order 0, 4096
bytes)
[    0.186998] NET: Registered protocol family 2
[    0.188392] TCP established hash table entries: 4096 (order: 2,
16384 bytes)
[    0.188524] TCP bind hash table entries: 4096 (order: 3, 32768
bytes)
[    0.188686] TCP: Hash tables configured (established 4096 bind 4096)
[    0.188892] UDP hash table entries: 256 (order: 1, 8192 bytes)
[    0.188961] UDP-Lite hash table entries: 256 (order: 1, 8192 bytes)
[    0.189300] NET: Registered protocol family 1
[    0.190194] RPC: Registered named UNIX socket transport module.

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[    0.190226] RPC: Registered udp transport module.
[    0.190244] RPC: Registered tcp transport module.
[    0.190263] RPC: Registered tcp NFSv4.1 backchannel transport
module.
[    0.195501] workingset: timestamp_bits=30 max_order=17
bucket_order=0
[    0.206186] squashfs: version 4.0 (2009/01/31) Phillip Lougher
[    0.207581] NFS: Registering the id_resolver key type
[    0.207670] Key type id_resolver registered
[    0.207690] Key type id_legacy registered
[    0.207787] jffs2: version 2.2. (NAND) © 2001-2006 Red Hat, Inc.
[    0.208909] fuse init (API version 7.26)
[    0.221347] NET: Registered protocol family 38
[    0.221733] io scheduler noop registered
[    0.221761] io scheduler deadline registered
[    0.222113] io scheduler cfq registered (default)
[    0.222139] io scheduler mq-deadline registered
[    0.222160] io scheduler kyber registered
[    0.233481] imx-sdma 20ec000.sdma: loaded firmware 3.3
[    0.243417] 2020000.serial: ttymxc0 at MMIO 0x2020000 (irq = 23,
base_baud = 5000000) is a IMX
[    0.964313] console [ttymxc0] enabled
[    0.970101] 21e8000.serial: ttymxc1 at MMIO 0x21e8000 (irq = 62,
base_baud = 5000000) is a IMX
[    0.980303] 21ec000.serial: ttymxc2 at MMIO 0x21ec000 (irq = 63,
base_baud = 5000000) is a IMX
[    0.990526] 21f4000.serial: ttymxc4 at MMIO 0x21f4000 (irq = 64,
base_baud = 5000000) is a IMX
[    1.000879] 21fc000.serial: ttymxc5 at MMIO 0x21fc000 (irq = 65,
base_baud = 5000000) is a IMX
[    1.046510] brd: module loaded
[    1.067442] loop: module loaded
[    1.072103] at24 0-0052: 4096 byte 24c32 EEPROM, writable, 1
bytes/write
[    1.081015] ERR: Failed to request GPIO pin 130
[    1.086342] *****Kiran*****0
[    1.086342]
[    1.097857] chardev registerd with majnum:246
[    1.120995] random: fast init done
[    1.128005] nand: device found, Manufacturer ID: 0x2c, Chip ID: 0xdc
[    1.134396] nand: Micron MT29F4G08ABADAH4
[    1.138501] nand: 512 MiB, SLC, erase size: 128 KiB, page size:
2048, OOB size: 64
[    1.147004] gpmi-nand 1806000.gpmi-nand: enable the asynchronous EDO
mode 5
[    1.155243] Bad block table found at page 262080, version 0x01
[    1.161564] Bad block table found at page 262016, version 0x01
[    1.168272] 3 ofpart partitions found on MTD device gpmi-nand
[    1.174057] Creating 3 MTD partitions on "gpmi-nand":
[    1.179217] 0x000000000000-0x0000000400000 : "barebox"
[    1.187523] 0x0000000400000-0x0000000500000 : "barebox-environment"
[    1.196137] 0x0000000500000-0x000000020000000 : "root"
[    1.311482] gpmi-nand 1806000.gpmi-nand: driver registered.
[    1.323469] spi_imx 2008000.ecspi: probed
[    1.331108] spi_imx 200c000.ecspi: probed
[    1.337084] spi_imx 2010000.ecspi: No CS GPIOs available
[    1.342573] spi_imx: probe of 2010000.ecspi failed with error -22
[    1.350682] libphy: Fixed MDIO Bus: probed

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[    1.356140] CAN device driver interface
[    1.362128] flexcan 2090000.flexcan: device registered
(reg_base=e0a28000, irq=25)
[    1.371923] fec 20b4000.ethernet: 20b4000.ethernet supply phy not
found, using dummy regulator
[    1.381761] pps pps0: new PPS source ptp0
[    1.416406] libphy: fec_enet_mii_bus: probed
[    1.421828] fec 20b4000.ethernet eth1: registered PHC device 0
[    1.430571] fec 2188000.ethernet: 2188000.ethernet supply phy not
found, using dummy regulator
[    1.440492] pps pps1: new PPS source ptp1
[    1.446286] libphy: fec_enet_mii_bus: probed
[    1.453072] fec 2188000.ethernet eth0: registered PHC device 1
[    1.460721] PPP generic driver version 2.4.2
[    1.465688] PPP BSD Compression module registered
[    1.470431] PPP Deflate Compression module registered
[    1.475750] PPP MPPE Compression module registered
[    1.480583] NET: Registered protocol family 24
[    1.485215] pegasus: v0.9.3 (2013/04/25), Pegasus/Pegasus II USB
Ethernet driver
[    1.492819] usbcore: registered new interface driver pegasus
[    1.498808] usbcore: registered new interface driver rtl8150
[    1.504621] usbcore: registered new interface driver r8152
[    1.510337] usbcore: registered new interface driver asix
[    1.515925] usbcore: registered new interface driver ax88179_178a
[    1.522141] usbcore: registered new interface driver cdc_ether
[    1.528163] usbcore: registered new interface driver cdc_eem
[    1.533965] usbcore: registered new interface driver net1080
[    1.539928] usbcore: registered new interface driver plusb
[    1.545626] usbcore: registered new interface driver cdc_subset
[    1.551666] usbcore: registered new interface driver zaurus
[    1.557500] usbcore: registered new interface driver sierra_net
[    1.563592] usbcore: registered new interface driver cdc_ncm
[    1.569573] usbcore: registered new interface driver qmi_wwan
[    1.575537] usbcore: registered new interface driver cdc_mbim
[    1.581318] ehci_hcd: USB 2.0 'Enhanced' Host Controller (EHCI)
Driver
[    1.587928] ehci-pci: EHCI PCI platform driver
[    1.592515] ehci-mxc: Freescale On-Chip EHCI Host driver
[    1.598823] usbcore: registered new interface driver cdc_acm
[    1.604528] cdc_acm: USB Abstract Control Model driver for USB
modems and ISDN adapters
[    1.612775] usbcore: registered new interface driver cdc_wdm
[    1.618702] usbcore: registered new interface driver usb-storage
[    1.625083] usbcore: registered new interface driver usbserial
[    1.631045] usbcore: registered new interface driver
usbserial_generic
[    1.637749] usbserial: USB Serial support registered for generic
[    1.643885] usbcore: registered new interface driver cp210x
[    1.649623] usbserial: USB Serial support registered for cp210x
[    1.655719] usbcore: registered new interface driver cypress_m8
[    1.661748] usbserial: USB Serial support registered for DeLorme
Earthmate USB
[    1.669124] usbserial: USB Serial support registered for HID->COM
RS232 Adapter
[    1.676606] usbserial: USB Serial support registered for Nokia CA-42
V2 Adapter
[    1.684036] usbcore: registered new interface driver ftdi_sio

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[ 1.689949] usbserial: USB Serial support registered for FTDI USB
Serial Device
[ 1.697445] usbcore: registered new interface driver option
[ 1.703122] usbserial: USB Serial support registered for GSM modem
(1-port)
[ 1.710260] usbcore: registered new interface driver pl2303
[ 1.716000] usbserial: USB Serial support registered for pl2303
[ 1.722035] usbcore: registered new interface driver qcaux
[ 1.727682] usbserial: USB Serial support registered for qcaux
[ 1.733646] usbcore: registered new interface driver qcserial
[ 1.739552] usbserial: USB Serial support registered for Qualcomm
USB modem
[ 1.746687] usbcore: registered new interface driver sierra
[ 1.752365] usbserial: USB Serial support registered for Sierra USB
modem
[ 1.763377] imx_usb 2184000.usb: 2184000.usb supply vbus not found,
using dummy regulator
[ 1.775563] ci_hdrc ci_hdrc.0: EHCI Host Controller
[ 1.780548] ci_hdrc ci_hdrc.0: new USB bus registered, assigned bus
number 1
[ 1.815039] ci_hdrc ci_hdrc.0: USB 2.0 started, EHCI 1.00
[ 1.822410] hub 1-0:1.0: USB hub found
[ 1.826497] hub 1-0:1.0: 1 port detected
[ 1.832516] imx_usb 2184200.usb: 2184200.usb supply vbus not found,
using dummy regulator
[ 1.844760] ci_hdrc ci_hdrc.1: EHCI Host Controller
[ 1.849917] ci_hdrc ci_hdrc.1: new USB bus registered, assigned bus
number 2
[ 1.885040] ci_hdrc ci_hdrc.1: USB 2.0 started, EHCI 1.00
[ 1.892401] hub 2-0:1.0: USB hub found
[ 1.896497] hub 2-0:1.0: 1 port detected
[ 1.903587] udc-core: couldn't find an available UDC - added
[g_ether] to list of pending drivers
[ 1.914460] input: 20cc000.snvs:snvs-powerkey as
/devices/soc0/soc/2000000.aips-bus/20cc000.snvs/20cc000.snvs:snvs-
powerkey/input/input0
[ 1.931146] rtc-m41t80 1-0068: Can't clear HT bit
[ 1.939667] snvs_rtc 20cc000.snvs:snvs-rtc-lp: rtc core: registered
20cc000.snvs:snvs-rtc-lp as rtc0
[ 1.949432] i2c /dev entries driver
[ 1.954871] IR NEC protocol handler initialized
[ 1.959668] IR RC5(x/sz) protocol handler initialized
[ 1.964751] IR RC6 protocol handler initialized
[ 1.969359] IR JVC protocol handler initialized
[ 1.973919] IR Sony protocol handler initialized
[ 1.978603] IR SANYO protocol handler initialized
[ 1.983331] IR Sharp protocol handler initialized
[ 1.988100] IR MCE Keyboard/mouse protocol handler initialized
[ 1.993956] IR XMP protocol handler initialized
[ 2.004130] imx2-wdt 20bc000.wdog: timeout 60 sec (nowayout=0)
[ 2.011988] Bluetooth: HCI UART driver ver 2.3
[ 2.016601] Bluetooth: HCI UART protocol H4 registered
[ 2.021963] usbcore: registered new interface driver bcm203x
[ 2.027884] usbcore: registered new interface driver bpa10x
[ 2.033612] usbcore: registered new interface driver bfusb
[ 2.039339] usbcore: registered new interface driver btusb
[ 2.044857] Bluetooth: Generic Bluetooth SDIO driver ver 0.1
[ 2.051651] sdhci: Secure Digital Host Controller Interface driver
```

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[ 2.057961] sdhci: Copyright(c) Pierre Ossman
[ 2.062346] sdhci-pltfm: SDHCI platform and OF driver helper
[ 2.070582] sdhci-esdhc-imx 2190000.usdhc: Got CD GPIO
[ 2.135529] mmc0: SDHCI controller on 2190000.usdhc [2190000.usdhc]
using ADMA
[ 2.295207] mmc1: SDHCI controller on 2194000.usdhc [2194000.usdhc]
using ADMA
[ 2.315350] hidraw: raw HID events driver (C) Jiri Kosina
[ 2.321650] usbcore: registered new interface driver usbhid
[ 2.327452] usbhid: USB HID core driver
[ 2.339755] mmc0: host does not support reading read-only switch,
assuming write-enable
[ 2.366655] mmc1: new high speed SDIO card at address 0001
[ 2.376492] mmc0: new high speed SDHC card at address aaaa
[ 2.384309] NET: Registered protocol family 10
[ 2.390863] mmcblk0: mmc0:aaaa SC16G 14.8 GiB
[ 2.396882] Segment Routing with IPv6
[ 2.400754] sit: IPv6, IPv4 and MPLS over IPv4 tunneling driver
[ 2.410779] NET: Registered protocol family 17
[ 2.415722] mmcblk0: p1 p2
[ 2.419266] can: controller area network core (rev 20170425 abi 9)
[ 2.427220] NET: Registered protocol family 29
[ 2.431751] can: raw protocol (rev 20170425)
[ 2.436275] can: broadcast manager protocol (rev 20170425 t)
[ 2.441991] can: netlink gateway (rev 20170425) max_hops=1
[ 2.448057] 8021q: 802.1Q VLAN Support v1.8
[ 2.452362] Key type dns_resolver registered
[ 2.459612] cpu cpu0: Using anatop regulators: LDOs enabled
[ 2.465905] Registering SWP/SWPB emulation handler
[ 2.485178] usb 2-1: new high-speed USB device number 2 using
ci_hdrc
[ 2.499450] imx_thermal 2000000.aips-bus:tempmon: Industrial CPU
temperature grade - max:105C critical:100C passive:95C
[ 2.511442] ubi0: default fastmap pool size: 200
[ 2.516224] ubi0: default fastmap WL pool size: 100
[ 2.521125] ubi0: attaching mtd2
[ 2.733017] cdc_ether 2-1:1.0 usb0: register 'cdc_ether' at usb-
ci_hdrc.1-1, CDC Ethernet Device, 02:0c:29:a3:9b:6d
[ 2.749608] option 2-1:1.2: GSM modem (1-port) converter detected
[ 2.759904] usb 2-1: GSM modem (1-port) converter now attached to
ttyUSB0
[ 2.771201] option 2-1:1.3: GSM modem (1-port) converter detected
[ 2.782264] usb 2-1: GSM modem (1-port) converter now attached to
ttyUSB1
[ 2.795673] option 2-1:1.4: GSM modem (1-port) converter detected
[ 2.805675] usb 2-1: GSM modem (1-port) converter now attached to
ttyUSB2
[ 3.006179] ubi0: attached by fastmap
[ 3.009884] ubi0: fastmap pool size: 200
[ 3.013826] ubi0: fastmap WL pool size: 100
[ 3.035605] ubi0: attached mtd2 (name "root", size 507 MiB)
[ 3.041224] ubi0: PEB size: 131072 bytes (128 KiB), LEB size: 126976
bytes
[ 3.048237] ubi0: min./max. I/O unit sizes: 2048/2048, sub-page size
2048
[ 3.055092] ubi0: VID header offset: 2048 (aligned 2048), data
offset: 4096
[ 3.062076] ubi0: good PEBs: 4052, bad PEBs: 4, corrupted PEBs: 0

```

```

[    3.068221] ubi0: user volume: 3, internal volumes: 1, max. volumes
count: 128
[    3.075502] ubi0: max/mean erase counter: 5/2, WL threshold: 4096,
image sequence number: 19993
[    3.084243] ubi0: available PEBs: 0, total reserved PEBs: 4052, PEBs
reserved for bad PEB handling: 76
[    3.093661] ubi0: background thread "ubi_bgt0d" started, PID 101
[    3.103012] snvs_rtc 20cc000.snvs:snvs-rtc-lp: setting system clock
to 1970-01-01 00:00:01 UTC (1)
[    3.114001] Can: disabling
[    3.117135] wlan_en: disabling
[    3.120218] gpio_dvfs: disabling
[    3.123465] ALSA device list:
[    3.126529]   No soundcards found.
[    3.153909] UBIFS (ubi0:2): recovery needed
[    3.191815] UBIFS (ubi0:2): recovery deferred
[    3.196476] UBIFS (ubi0:2): UBIFS: mounted UBI device 0, volume 2,
name "root", R/O mode
[    3.204603] UBIFS (ubi0:2): LEB size: 126976 bytes (124 KiB),
min./max. I/O unit sizes: 2048 bytes/2048 bytes
[    3.214653] UBIFS (ubi0:2): FS size: 493047808 bytes (470 MiB, 3883
LEBs), journal size 9023488 bytes (8 MiB, 72 LEBs)
[    3.225431] UBIFS (ubi0:2): reserved for root: 0 bytes (0 KiB)
[    3.231296] UBIFS (ubi0:2): media format: w4/r0 (latest is w5/r0),
UUID A00386FF-5AC6-4D89-8D83-5A8FFDD7B541, small LPT model
[    3.246705] VFS: Mounted root (ubifs filesystem) readonly on device
0:13.
[    3.254816] devtmpfs: mounted
[    3.260764] Freeing unused kernel memory: 1024K
[    3.546544] systemd[1]: System time before build time, advancing
clock.
[    3.633508] systemd[1]: systemd 237 running in system mode. (-PAM -
AUDIT -SELINUX -IMA -APPARMOR -SMACK +SYSVINIT -UTMP -LIBCRYPTSETUP -
GCR)
[    3.656977] systemd[1]: Detected architecture arm.

```

Welcome to The Yogurt Distribution BSP-Yocto-i.MX6UL-PD19.1.0!

```

[    3.704348] systemd[1]: Set hostname to <rb-imx6ul>.
[    3.990432] random: crng init done
[    4.131906] systemd[1]: File /lib/systemd/system/systemd-
journal.service:35 configures an IP firewall (IPAddressDeny=any), but
the local s.
[    4.149248] systemd[1]: Proceeding WITHOUT firewalling in effect!
(This warning is only shown for the first loaded unit using IP
firewallin)
[    4.443107] systemd[1]: Started Dispatch Password Requests to
Console Directory Watch.
[   OK  ] Started Dispatch Password Requests to Console Directory Watch.
[    4.486953] systemd[1]: Started Forward Password Requests to Wall
Directory Watch.
[   OK  ] Started Forward Password Requests to Wall Directory Watch.
[    4.526186] systemd[1]: Reached target Paths.
[   OK  ] Reached target Paths.
[    4.555550] systemd[1]: Reached target Swap.
[   OK  ] Reached target Swap.
[    4.591963] systemd[1]: Created slice User and Session Slice.
[   OK  ] Created slice User and Session Slice.

```

```

[ OK ] Created slice System Slice.
[ OK ] Created slice system-getty.slice.
[ OK ] Listening on Journal Socket (/dev/log).
[ OK ] Listening on Journal Socket.
        Starting Journal Service...
        Mounting FUSE Control File System...
        Starting Apply Kernel Variables...
        Starting File System Check on Root Device...
        Mounting Temporary Directory (/tmp)...
        Mounting Kernel Debug File System...
[ OK ] Listening on udev Kernel Socket.
[ OK ] Reached target Slices.
[ OK ] Listening on udev Control Socket.
        Starting udev Coldplug all Devices...
[ OK ] Created slice system-serial\x2dgetty.slice.
[ OK ] Listening on Network Service Netlink Socket.
[ OK ] Listening on /dev/initctl Compatibility Named Pipe.
[ OK ] Reached target Remote File Systems.
        Mounting Kernel Configuration File System...
[ OK ] Mounted FUSE Control File System.
[ OK ] Started Apply Kernel Variables.
[ OK ] Started File System Check on Root Device.
[ OK ] Mounted Temporary Directory (/tmp).
[ OK ] Mounted Kernel Debug File System.
[ OK ] Started Journal Service.
[ OK ] Mounted Kernel Configuration File System.
        Starting Remount Root and Kernel File Systems...
[ 5.685609] UBIFS (ubi0:2): completing deferred recovery
[ 5.947050] UBIFS (ubi0:2): background thread "ubifs_bgt0_2"
started, PID 124
[ 5.960603] UBIFS (ubi0:2): deferred recovery completed
[ OK ] Started Remount Root and Kernel File Systems.
        Starting Flush Journal to Persistent Storage...
        Starting Create System Users...
[ OK ] Started Create System Users.
[ 6.378204] systemd-journald[111]: Received request to flush runtime
journal from PID 1
        Starting Create Static Device Nodes in /dev...
[ OK ] Started Flush Journal to Persistent Storage.
[ OK ] Started Create Static Device Nodes in /dev.
        Starting udev Kernel Device Manager...
[ OK ] Reached target Local File Systems (Pre).
        Mounting /var/volatile...
[ OK ] Mounted /var/volatile.
[ OK ] Reached target Local File Systems.
        Starting Rebuild Dynamic Linker Cache...
        Starting Create Volatile Files and Directories...
        Starting Rebuild Journal Catalog...
[ OK ] Started Create Volatile Files and Directories.
[ OK ] Started Rebuild Journal Catalog.
[ OK ] Started udev Kernel Device Manager.
        Starting Network Service...
[ OK ] Started udev Coldplug all Devices.
[ OK ] Started Network Service.
        Starting Network Name Resolution...
[ OK ] Started Network Name Resolution.
[ OK ] Reached target Host and Network Name Lookups.
[ OK ] Reached target Network.

```



```

[ 28.049389] FAT-fs (mmcblk0p1): Volume was not properly unmounted.
Some data may be corrupt. Please run fsck.
root@rb-imx6ul:~# cd /mnt/
root@rb-imx6ul:/mnt# ls
BOOT.BIN          a5d2x-rugged_board.dtb  u-boot.bin
zImage
RB_IMX6UL         nor                      uboot.env
root@rb-imx6ul:/mnt# cd RB_IMX6UL/
root@rb-imx6ul:/mnt/RB_IMX6UL# ls
GPRS              flash.sh
zImage
barebox.bin       gsm.sh
zImage-imx6ul-phytec-ruggedboard-rdk.dtb
firmware          phytec-qt5demo-image-rb-
imx6ul.ubifs
root@rb-imx6ul:/mnt/RB_IMX6UL# cd firmware/
root@rb-imx6ul:/mnt/RB_IMX6UL/firmware# ls
LICENSE.wilc_fw      wilc1000_wifi_firmware.bin
wilc3000_ble_firmware_no_rtc.bin  wilc3000_wifi_firmware_ua.bin
README.md            wilc3000_ble_firmware.bin
wilc3000_wifi_firmware.bin
root@rb-imx6ul:/mnt/RB_IMX6UL/firmware# cd
root@rb-imx6ul:~# /lib/firmware/
-sh: /lib/firmware/: Is a directory
root@rb-imx6ul:~# cd /lib/firmware/
root@rb-imx6ul:/lib/firmware# ls
3com              dvb_nova_12mhz_b0.inp
myril0ge_rss_ethp_big_z8e.dat
GPL-2             e100
myril0ge_rss_ethp_z8e.dat
GPL-3             edgeport
myricom
LICENCE.Abilis    emi26
netronome
LICENCE.IntcSST2  emi62
nvidia
LICENCE.Marvell   ene-ub6250
ositech
LICENCE.Netronome ess
phanfw.bin
LICENCE.OLPC      f2255usb.bin
qat_895xcc.bin
LICENCE.adsp_sst  go7007
qat_895xcc_mmp.bin
LICENCE.agere     hfil_dc8051.fw
qat_c3xxx.bin
LICENCE.atheros_firmware hfil_fabric.fw
qat_c3xxx_mmp.bin
LICENCE.broadcom_bcm43xx hfil_pcie.fw
qat_c62x.bin
LICENCE.ca0132    hfil_sbus.fw
qat_c62x_mmp.bin
LICENCE.cavium    htc_7010.fw
qat_mmp.bin
LICENCE.chelsio_firmware htc_9271.fw
qca
LICENCE.cw1200    i2400m-fw-usb-1.4.sbcf
qcom

```

LICENCE.cypress	i2400m-fw-usb-1.5.sbcf
qed	
LICENCE.e100	i6050-fw-usb-1.5.sbcf
ql2100_fw.bin	
LICENCE.ene_firmware	i915
ql2200_fw.bin	
LICENCE.fw_sst_0f28	imx
ql2300_fw.bin	
LICENCE.go7007	intel
ql2322_fw.bin	
LICENCE.i2400m	intelliport2.bin
ql2400_fw.bin	
LICENCE.ibt_firmware	isci
ql2500_fw.bin	
LICENCE.it913x	isdbt_nova_12mhz.inp
qlogic	
LICENCE.iwlwifi_firmware	isdbt_nova_12mhz_b0.inp
r128	
LICENCE.kaweth	isdbt_rio.inp
r8a779x_usb3_v1.dlmem	
LICENCE.moxa	iwlwifi-100-5.ucode
r8a779x_usb3_v2.dlmem	
LICENCE.myri10ge_firmware	iwlwifi-1000-3.ucode
r8a779x_usb3_v3.dlmem	
LICENCE.nvidia	iwlwifi-1000-5.ucode
radeon	
LICENCE.open-ath9k-htc-firmware	iwlwifi-105-6.ucode
rockchip	
LICENCE.phanfw	iwlwifi-135-6.ucode
rp2.fw	
LICENCE.qat_firmware	iwlwifi-2000-6.ucode
rsi	
LICENCE.qla1280	iwlwifi-2030-6.ucode
rsi_91x.fw	
LICENCE.qla2xxx	iwlwifi-3160-10.ucode
rt2561.bin	
LICENCE.r8a779x_usb3	iwlwifi-3160-12.ucode
rt2561s.bin	
LICENCE.ralink-firmware.txt	iwlwifi-3160-13.ucode
rt2661.bin	
LICENCE.ralink_a_mEDIATEK_company_firmware	iwlwifi-3160-16.ucode
rt2860.bin	
LICENCE.rockchip	iwlwifi-3160-17.ucode
rt2870.bin	
LICENCE.rtlwifi_firmware.txt	iwlwifi-3160-7.ucode
rt3070.bin	
LICENCE.siano	iwlwifi-3160-8.ucode
rt3071.bin	
LICENCE.tda7706-firmware.txt	iwlwifi-3160-9.ucode
rt3090.bin	
LICENCE.ti-connectivity	iwlwifi-3168-21.ucode
rt3290.bin	
LICENCE.ti-keystone	iwlwifi-3168-22.ucode
rt73.bin	
LICENCE.ueagle-atm4-firmware	iwlwifi-3168-27.ucode
rtl_bt	
LICENCE.via_vt6656	iwlwifi-3168-29.ucode
rtl_nic	

LICENCE.wl1251	iwlwifi-3945-2.ucode
rtlwifi	
LICENCE.xc4000	iwlwifi-4965-2.ucode
s2250.fw	
LICENCE.xc5000	iwlwifi-5000-1.ucode
s2250_loader.fw	
LICENCE.xc5000c	iwlwifi-5000-2.ucode
s5p-mfc-v6-v2.fw	
LICENCE.QualcommAtheros_ar3k	iwlwifi-5000-5.ucode
s5p-mfc-v6.fw	
LICENCE.QualcommAtheros_ath10k	iwlwifi-5150-2.ucode
s5p-mfc-v7.fw	
LICENCE.amd-ucode	iwlwifi-6000-4.ucode
s5p-mfc-v8.fw	
LICENCE.amdgpu	iwlwifi-6000g2a-5.ucode
s5p-mfc.fw	
LICENCE.atmel	iwlwifi-6000g2a-6.ucode
sb16	
LICENCE.dib0700	iwlwifi-6000g2b-5.ucode
sd8686.bin	
LICENCE.hfi1_firmware	iwlwifi-6000g2b-6.ucode
sd8686_helper.bin	
LICENCE.i915	iwlwifi-6050-4.ucode
sdd_sagrad_1091_1098.bin	
LICENCE.ipu3_firmware	iwlwifi-6050-5.ucode
slicoss	
LICENCE.qcom	iwlwifi-7260-10.ucode
smslxxx-hcw-55xxx-dvbt-02.fw	
LICENCE.radeon	iwlwifi-7260-12.ucode
smslxxx-hcw-55xxx-isdbt-02.fw	
LICENCE.sdma_firmware	iwlwifi-7260-13.ucode
smslxxx-nova-a-dvbt-01.fw	
README	iwlwifi-7260-16.ucode
smslxxx-nova-b-dvbt-01.fw	
RTL8192E	iwlwifi-7260-17.ucode
smslxxx-stellar-dvbt-01.fw	
TDA7706_OM_v2.5.1_boot.txt	iwlwifi-7260-7.ucode
sun	
TDA7706_OM_v3.0.2_boot.txt	iwlwifi-7260-8.ucode
sxg	
TIInit_7.2.31.bts	iwlwifi-7260-9.ucode
tdmb_nova_12mhz.inp	
WHENCE	iwlwifi-7265-10.ucode
tehuti	
a300_pfp.fw	iwlwifi-7265-12.ucode
ti-connectivity	
a300_pm4.fw	iwlwifi-7265-13.ucode
ti-keystone	
acenic	iwlwifi-7265-16.ucode
ti_3410.fw	
adaptecc	iwlwifi-7265-17.ucode
ti_5052.fw	
advansys	iwlwifi-7265-8.ucode
tigon	
agere_ap_fw.bin	iwlwifi-7265-9.ucode
tlg2300_firmware.bin	
agere_sta_fw.bin	iwlwifi-7265D-10.ucode
tr_smctr.bin	

amd-ucode	iwlwifi-7265D-12.ucode
ttusb-budget	
amdgpu	iwlwifi-7265D-13.ucode
ueagle-atm	
ar3k	iwlwifi-7265D-16.ucode
usbdux	
ar5523.bin	iwlwifi-7265D-17.ucode
usbdux_firmware.bin	
ar7010.fw	iwlwifi-7265D-21.ucode
usbduxfast_firmware.bin	
ar7010_1_1.fw	iwlwifi-7265D-22.ucode
usbduxsigma_firmware.bin	
ar9170-1.fw	iwlwifi-7265D-27.ucode
v4l-cx231xx-avcore-01.fw	
ar9170-2.fw	iwlwifi-7265D-29.ucode
v4l-cx23418-apu.fw	
ar9271.fw	iwlwifi-8000C-13.ucode
v4l-cx23418-cpu.fw	
as102_data1_st.hex	iwlwifi-8000C-16.ucode
v4l-cx23418-dig.fw	
as102_data2_st.hex	iwlwifi-8000C-21.ucode
v4l-cx23885-avcore-01.fw	
ath10k	iwlwifi-8000C-22.ucode
v4l-cx25840.fw	
ath3k-1.fw	iwlwifi-8000C-27.ucode
vicam	
ath6k	iwlwifi-8000C-31.ucode
vntwusb.fw	
ath9k_htc	iwlwifi-8000C-34.ucode
vpu_d.bin	
atmel	iwlwifi-8000C-36.ucode
vpu_p.bin	
atmsar11.fw	iwlwifi-8265-21.ucode
vxge	
atusb	iwlwifi-8265-22.ucode
whiteheat.fw	
av7110	iwlwifi-8265-27.ucode
whiteheat_loader.fw	
bnx2	iwlwifi-8265-31.ucode
wil6210.brd	
bnx2x	iwlwifi-8265-34.ucode
wil6210.fw	
bnx2x-e1-4.8.53.0.fw	iwlwifi-8265-36.ucode
wl1251-fw.bin	
bnx2x-e1-5.2.13.0.fw	iwlwifi-9000-pu-b0-jf-b0-
33.ucode	wl1251-nvs.bin
bnx2x-e1-5.2.7.0.fw	iwlwifi-9000-pu-b0-jf-b0-
34.ucode	wl1271-fw-2.bin
bnx2x-e1h-4.8.53.0.fw	iwlwifi-9000-pu-b0-jf-b0-
38.ucode	wl1271-fw-ap.bin
bnx2x-e1h-5.2.13.0.fw	iwlwifi-9260-th-b0-jf-b0-
33.ucode	wl1271-fw.bin
bnx2x-e1h-5.2.7.0.fw	iwlwifi-9260-th-b0-jf-b0-
34.ucode	wl1271-nvs.bin
brcm	
38.ucode	wl127x-fw-3.bin
carl9170-1.fw	
wl127x-fw-4-mr.bin	kaweth

cavium	keyspan
wl127x-fw-4-plt.bin	keyspan_pda
cbfw-3.2.1.1.bin	korg
wl127x-fw-4-sr.bin	lbt_f_usb.bin
cbfw-3.2.3.0.bin	lgs8g75.fw
wl127x-fw-5-mr.bin	libertas
cbfw-3.2.5.1.bin	liquidio
wl127x-fw-5-plt.bin	matrox
cis	mellanox
wl127x-fw-5-sr.bin	moxa
cmmb_vega_12mhz.inp	mrsl
wl127x-fw-plt-3.bin	mt7601u.bin
cmmb_venice_12mhz.inp	mt7650.bin
wl127x-nvs.bin	mt7662.bin
cpia2	mt7662_rom_patch.bin
wl128x-fw-3.bin	mts_cdma.fw
ct2fw-3.2.1.1.bin	mts_edge.fw
wl128x-fw-4-mr.bin	mts_gsm.fw
ct2fw-3.2.3.0.bin	mts_mt9234mu.fw
wl128x-fw-4-plt.bin	mts_mt9234zba.fw
ct2fw-3.2.5.1.bin	mw18k
wl128x-fw-4-sr.bin	mw1wifi
ctefx.bin	myril0ge_eth_big_z8e.dat
wl128x-fw-5-mr.bin	myril0ge_eth_z8e.dat
ctfw-3.2.1.1.bin	myril0ge_ethp_big_z8e.dat
wl128x-fw-5-plt.bin	myril0ge_ethp_z8e.dat
ctfw-3.2.3.0.bin	
wl128x-fw-5-sr.bin	
ctfw-3.2.5.1.bin	
wl128x-fw-ap.bin	
ctspeq.bin	
wl128x-fw-plt-3.bin	
cxgb3	
wl128x-fw.bin	
cxgb4	
wl128x-nvs.bin	
dabusb	
wl12xx-nvs.bin	
dsp56k	
wl18xx-fw-2.bin	
dvb-fe-xc4000-1.4.1.fw	
wl18xx-fw-3.bin	
dvb-fe-xc5000-1.6.114.fw	
wl18xx-fw-4.bin	
dvb-fe-xc5000c-4.1.30.7.fw	
wl18xx-fw.bin	
dvb-usb-dib0700-1.20.fw	
wsm_22.bin	
dvb-usb-it9135-01.fw	
yam	
dvb-usb-it9135-02.fw	
yamaha	
dvb-usb-terratec-h5-drxk.fw	
myril0ge_rss_eth_big_z8e.dat	myril0ge_rss_eth_z8e.dat
dvb_nova_12mhz.inp	
root@rb-imx6ul:/lib/firmware# mkdir mchp	
root@rb-imx6ul:/lib/firmware#	
root@rb-imx6ul:/lib/firmware#	

```
root@rb-imx6ul:/lib/firmware# cd mchp/
root@rb-imx6ul:/lib/firmware/mchp# ls
root@rb-imx6ul:/lib/firmware/mchp# cd
root@rb-imx6ul:~#
root@rb-imx6ul:~# cd /mnt/
ctrl_interface=/var/run/wpa_supplicant
ctrl_interface_group=0
update_config=1
```

```
network={
    ssid="Chandana H Rao"
    psk="chandana"
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}
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root@rb-imx6ul:~#
root@rb-imx6ul:~#
root@rb-imx6ul:~#
root@rb-imx6ul:~#
root@rb-imx6ul:~# modprobe wilc-sdio
[ 220.916204] wilc_sdio: module is from the staging directory, the
quality is unknown, you have been warned.
[ 221.099900] Registering wifi device
[ 221.103444] Max scan ids= 10,Max scan IE len= 1000,Signal Type=
1,Interface Modes= 844
[ 221.119248] Initializing Locks ...
[ 221.165392] wifi_pm : 0
[ 221.167892] wilc_sdio mmc1:0001:1: failed to get Reset GPIO, try
default
[ 221.174713] wifi_pm : 1
[ 221.228649] wilc_sdio mmc1:0001:1: failed to get Reset GPIO, try
default
[ 221.269919] wilc_sdio mmc1:0001:1: Driver Initializing success
```

```

root@rb-imx6ul:~# [ 221.359138] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_mac_open]MAC OPEN[d48da000] wlan0
[ 221.370057] WILC POWER UP
[ 221.372744] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_init_host_int]Host[d48da000][d48db4a0]
[ 221.385378] wilc_sdio mmc1:0001:1 wlan0: INFO [wilc_mac_open]*** re-
init ***
[ 221.392475] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_wlan_init]Initializing WILC_Wlan
[ 221.406827] wilc_sdio mmc1:0001:1: SDIO speed: 50000000
[ 221.420496] wilc_sdio mmc1:0001:1: chipid 003000d0
[ 221.426817] wilc_sdio mmc1:0001:1 wlan0: INFO [init_chip]Bootrom sts
= d
[ 221.433840] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_wlan_initialize]WILC Initialization done
[ 221.442399] wilc_sdio mmc1:0001:1 wlan0: INFO
[wlan_initialize_threads]Initializing Threads ...
[ 221.451182] wilc_sdio mmc1:0001:1 wlan0: INFO
[wlan_initialize_threads]Creating kthread for transmission
[ 221.472507] wilc_sdio mmc1:0001:1 wlan0: INFO
[wlan_initialize_threads]Creating kthread for Debugging
[ 221.482149] wilc_sdio mmc1:0001:1: failed to get IRQ GPIO, load
default
[ 221.494183] wilc_sdio mmc1:0001:1 wlan0: INFO [init_irq]IRQ request
succeeded IRQ-NUM= 157
[ 221.505500] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_wlan_get_firmware]Detect chip WILC3000
[ 221.513812] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_wlan_get_firmware]loading firmware
mchp/wilc3000_wifi_firmware.bin
[ 221.524668] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_wlan_get_firmware]WLAN firmware: mchp/wilc3000_wifi_firmware.bin
[ 221.542678] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_firmware_download]Downloading Firmware ...
[ 221.554296] wilc_wlan_firmware_downloadDownloading firmware size =
140208
[ 221.576045] wilc_wlan_firmware_download Offset = 120764
[ 221.583920] wilc_wlan_firmware_download Offset = 140208
[ 221.589299] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_firmware_download]Download Succeeded
[ 221.602425] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_start_firmware]Starting Firmware ...
[ 221.615110] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_start_firmware]Waiting for FW to get ready ...
[ 221.713142] cfg_indicate_rx: Info message received
[ 221.718560] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_start_firmware]Firmware successfully started
[ 221.744990] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_wlan_initialize]WILC Firmware Ver = WILC_WIFI_FW_REL_15_4_1
Build: 12095
[ 221.756327] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_init_fw_config]Start configuring Firmware
[ 221.898805] wilc_sdio mmc1:0001:1 wlan0: INFO [wilc_mac_open]Mac
address: f8:f0:05:53:90:92
[ 221.907475] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Setting mcast List with count = 1.
[ 221.917245] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[0]: 33:33:00:00:00:01

```

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[ 221.944360] wilc_sdio mmc1:0001:1 wlan0: INFO [set_power_mgmt]dev
[wlan0]
[ 221.951380] wilc_sdio mmc1:0001:1 wlan0: INFO [set_power_mgmt] Power
save Enabled= 1 , Timeout = -1
[ 221.981357] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Setting mcast List with count = 2.
[ 221.991146] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[0]: 33:33:00:00:00:01
[ 222.000270] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[1]: 01:00:5e:00:00:01
[ 222.025934] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Setting mcast List with count = 3.
[ 222.035685] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[0]: 33:33:00:00:00:01
[ 222.044670] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[1]: 01:00:5e:00:00:01
[ 222.053715] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[2]: 33:33:ff:53:90:92
[ 222.087768] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Setting mcast List with count = 4.
[ 222.097498] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[0]: 33:33:00:00:00:01
[ 222.106526] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[1]: 01:00:5e:00:00:01
[ 222.115536] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[2]: 33:33:ff:53:90:92
[ 222.124515] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[3]: 01:80:c2:00:00:00
[ 222.153748] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Setting mcast List with count = 5.
[ 222.163499] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[0]: 33:33:00:00:00:01
[ 222.172543] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[1]: 01:00:5e:00:00:01
[ 222.181559] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[2]: 33:33:ff:53:90:92
[ 222.190573] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[3]: 01:80:c2:00:00:00
[ 222.199584] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[4]: 01:80:c2:00:00:03
[ 222.226014] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Setting mcast List with count = 6.
[ 222.235789] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[0]: 33:33:00:00:00:01
[ 222.244771] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[1]: 01:00:5e:00:00:01
[ 222.253810] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[2]: 33:33:ff:53:90:92
[ 222.262826] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[3]: 01:80:c2:00:00:00
[ 222.271840] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[4]: 01:80:c2:00:00:03
[ 222.280854] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[5]: 01:80:c2:00:00:0e
```

root@rb-imx6ul:~#

root@rb-imx6ul:~#


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root@rb-imx6ul:~# [ 224.121896] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Setting mcast List with count = 7.
[ 224.131638] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[0]: 33:33:00:00:00:01
[ 224.140679] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[1]: 01:00:5e:00:00:01
[ 224.149700] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[2]: 33:33:ff:53:90:92
[ 224.158714] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[3]: 01:80:c2:00:00:00
[ 224.167722] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[4]: 01:80:c2:00:00:03
[ 224.176731] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[5]: 01:80:c2:00:00:0e
[ 224.185740] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[6]: 33:33:00:01:00:03

root@rb-imx6ul:~#
root@rb-imx6ul:~#
root@rb-imx6ul:~# wpa_supplicant -B -Dnl80211 -i wlan0 -c
/etc/wpa_supplicant.conf
Successfully initialized wpa_supplicant
[ 230.365949] wilc_sdio mmc1:0001:1 wlan0: INFO [get_tx_power]Got tx
power 18
[ 230.388191] wilc_sdio mmc1:0001:1 wlan0: INFO [get_tx_power]Got tx
power 18
[ 230.417641] wilc_sdio mmc1:0001:1 wlan0: INFO [get_tx_power]Got tx
power 18
[ 230.443621] wilc_sdio mmc1:0001:1 wlan0: INFO [get_tx_power]Got tx
power 18
[ 230.613663] wilc_sdio mmc1:0001:1 wlan0: INFO [get_tx_power]Got tx
power 18
[ 230.631742] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Setting mcast List with count = 6.
[ 230.641526] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[0]: 33:33:00:00:00:01
[ 230.650594] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[1]: 01:00:5e:00:00:01
[ 230.659630] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[2]: 33:33:ff:53:90:92
[ 230.668664] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[3]: 01:80:c2:00:00:00
[ 230.677698] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[4]: 01:80:c2:00:00:03
[ 230.686725] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[5]: 01:80:c2:00:00:0e
[ 230.736597] wilc_sdio mmc1:0001:1 wlan0: INFO [flush_pmksa]Flushing
PMKID key values
root@rb-imx6ul:~# [ 230.864445] wilc_sdio mmc1:0001:1 wlan0: INFO
[scan]Requested num of channel 14
[ 230.872020] wilc_sdio mmc1:0001:1 wlan0: INFO [scan]Scan Request IE
len = 0
[ 230.879327] wilc_sdio mmc1:0001:1 wlan0: INFO [scan]Number of SSIDs
1
[ 230.885948] wilc_sdio mmc1:0001:1 wlan0: INFO [scan]Trigger Scan
Request
[ 231.654375] cfg_indicate_rx: Scan Notification Received

```

```
[ 231.659844] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_scan_complete_received]Scan notification received
[ 231.675242] wilc_sdio mmc1:0001:1 wlan0: INFO [cfg_scan_result]Scan
Done[d48da000]
[ 231.988230] wilc_sdio mmc1:0001:1 wlan0: INFO [connect]Connecting to
SSID [Chandana H Rao] on netdev [d48da000] host if [d487bc00]
[ 232.000145] wilc_sdio mmc1:0001:1 wlan0: INFO [connect]Adding key
with cipher group fac04
[ 232.008454] wilc_sdio mmc1:0001:1 wlan0: INFO
[connect]Authentication Type = 0
[ 232.015752] wilc_sdio mmc1:0001:1 wlan0: INFO [connect]In OPEN
SYSTEM
[ 232.033822] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_wlan_set_bssid]set bssid [f2:76:6f:e1:ad:e8]
[ 232.042854] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_send_connect_wid]send HOST_IF_WAITING_CONN_RESP
[ 232.147585] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_send_connect_wid]set HOST_IF_WAITING_CONN_RESP
[ 232.490609] cfg_indicate_rx: Info message received
[ 232.495949] wilc_sdio mmc1:0001:1 wlan0: INFO
[handle_rcvd_gnrl_async_info]Current State = 3,Received state = 1
[ 232.527083] wilc_sdio mmc1:0001:1 wlan0: INFO
[cfg_connect_result]Connection response received=1 connect_stat[0]
[ 232.537436] wilc_sdio mmc1:0001:1 wlan0: INFO
[cfg_connect_result]Connection Successful: BSSID: f2766felade8
[ 232.547351] wilc_sdio mmc1:0001:1 wlan0: INFO
[cfg_connect_result]Association request info elements length = 22
[ 232.557503] wilc_sdio mmc1:0001:1 wlan0: INFO
[cfg_connect_result]Association response info elements length = 135
[ 232.658568] wilc_sdio mmc1:0001:1 wlan0: INFO [add_key]Adding key
with cipher suite = fac04
[ 232.667101] wilc_sdio mmc1:0001:1 wlan0: INFO [add_key]d48d81a0
d48da000 0
[ 232.674002] wilc_sdio mmc1:0001:1 wlan0: INFO [add_key]key d6 81 9e
[ 232.736715] wilc_sdio mmc1:0001:1 wlan0: INFO [add_key]Adding key
with cipher suite = fac04
[ 232.745395] wilc_sdio mmc1:0001:1 wlan0: INFO [add_key]d48d81a0
d48da000 1
[ 232.752346] wilc_sdio mmc1:0001:1 wlan0: INFO [add_key]key 7f 16 e2
[ 232.821021] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Setting mcast List with count = 7.
[ 232.830813] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[0]: 33:33:00:00:00:01
[ 232.839883] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[1]: 01:00:5e:00:00:01
[ 232.848921] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[2]: 33:33:ff:53:90:92
[ 232.857952] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[3]: 01:80:c2:00:00:00
[ 232.866984] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[4]: 01:80:c2:00:00:03
[ 232.876008] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[5]: 01:80:c2:00:00:0e
[ 232.885040] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[6]: 33:33:00:01:00:03
[ 235.706229] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Setting mcast List with count = 8.
```

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[ 235.716011] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[0]: 33:33:00:00:00:01
[ 235.725082] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[1]: 01:00:5e:00:00:01
[ 235.734070] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[2]: 33:33:ff:53:90:92
[ 235.743104] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[3]: 01:80:c2:00:00:00
[ 235.752141] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[4]: 01:80:c2:00:00:03
[ 235.761171] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[5]: 01:80:c2:00:00:0e
[ 235.770202] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[6]: 33:33:00:01:00:03
[ 235.779227] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[7]: 01:00:5e:00:00:fc
```

```
root@rb-imx6ul:~#
```

```
root@rb-imx6ul:~# udhcpc -i wlan0
```

```
udhcpc: started, v1.27.2
```

```
[ 251.062475] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Setting mcast List with count = 8.
[ 251.072225] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[0]: 33:33:00:00:00:01
[ 251.081271] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[1]: 01:00:5e:00:00:01
[ 251.090291] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[2]: 33:33:ff:53:90:92
[ 251.099305] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[3]: 01:80:c2:00:00:00
[ 251.108319] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[4]: 01:80:c2:00:00:03
[ 251.117334] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[5]: 01:80:c2:00:00:0e
[ 251.126344] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[6]: 33:33:00:01:00:03
[ 251.135352] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[7]: 01:00:5e:00:00:fc
[ 251.157304] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Setting mcast List with count = 7.
[ 251.167024] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[0]: 33:33:00:00:00:01
[ 251.176095] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[1]: 01:00:5e:00:00:01
[ 251.185117] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[2]: 33:33:ff:53:90:92
[ 251.194101] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[3]: 01:80:c2:00:00:00
[ 251.203112] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[4]: 01:80:c2:00:00:03
[ 251.212124] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[5]: 01:80:c2:00:00:0e
[ 251.221134] wilc_sdio mmc1:0001:1 wlan0: INFO
[wilc_set_multicast_list]Entry[6]: 33:33:00:01:00:03
udhcpc: sending discover
udhcpc: sending select for 172.20.10.2
ctrl_interface=/var/run/wpa_supplicant
ctrl_interface_group=0
```

```
update_config=1
```

```
network={  
    ssid="<ssid name>"  
    psk="<password>"
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}
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root@rb-imx6ul:~#
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root@rb-imx6ul:~#
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