

```

readynasos login: root
Password:
#
#
# ls
# pwd
/root
#
#
# cd ..
# pwd
/
# ls
bin  home  lib32  opt   run   sysroot  var
dev  init  media  proc  sbin  tmp
etc  lib   mnt   root  sys   usr
# cat /proc/partitions
major minor #blocks name

31    0    1536 mtdblock0
31    1     128 mtdblock1
31    2   6144 mtdblock2
31    3   4096 mtdblock3
31    4  118784 mtdblock4
 8    0 30641315 sda
 8    1 30641314 sda1
# dmesg
Initializing cgroup subsys cpu
Linux version 3.0.101.RN_ARM.4 (jenkins@blocks) (gcc version 4.6.4 (Linaro GCC
branch-4.6.4. Marvell GCC Dev 201310-2126.3d181f66 64K MAXPAG          ESIZE ALIGN) )
#1 Wed Apr 1 16:06:27 PDT 2015
CPU: Marvell PJ4Bv7 Processor [561f5811] revision 1 (ARMv7), cr=10c53c7d
CPU: VIPT nonaliasing data cache, VIPT aliasing instruction cache
Machine: Marvell Armada-370
Using UBoot passing parameters structure
>>>>>>Tag MAC b4:9e:34:8e:c6:28
>>>>>>Tag MAC b5:9e:34:8e:c6:28
Memory policy: ECC disabled, Data cache writealloc
On node 0 totalpages: 131072
free_area_init_node: node 0, pgdat c07ee72c, node_mem_map c0834000
Normal zone: 1024 pages used for memmap
Normal zone: 0 pages reserved
Normal zone: 130048 pages, LIFO batch:31

```

pcpu-alloc: s0 r0 d32768 u32768 alloc=1\*32768  
pcpu-alloc: [0] 0  
Built 1 zonelists in Zone order, mobility grouping off. Total pages: 130048  
Kernel command line: console=ttyS0,115200  
mtdparts=armada-nand:0x180000@0(u-boot),0x20000@0x180000(u-boot-env),0x600000@0x200000(ulmage),0x400000@0x800000(minirootfs),-(ubi); bdtype=rn104  
nmi ring buffer: 131072  
PID hash table entries: 2048 (order: 1, 8192 bytes)  
Dentry cache hash table entries: 65536 (order: 6, 262144 bytes)  
Inode-cache hash table entries: 32768 (order: 5, 131072 bytes)  
Memory: 512MB = 512MB total  
Memory: 504452k/504452k available, 19836k reserved, 0K highmem  
Virtual kernel memory layout:  
vector : 0xffff0000 - 0xffff1000 ( 4 kB)  
fixmap : 0xfff00000 - 0xfffe0000 ( 896 kB)  
DMA : 0xffc00000 - 0xffe00000 ( 2 MB)  
vmalloc : 0xe0800000 - 0xfa800000 ( 416 MB)  
lowmem : 0xc0000000 - 0xe0000000 ( 512 MB)  
pkmap : 0xbfe00000 - 0xc0000000 ( 2 MB)  
modules : 0xbf000000 - 0xbfe00000 ( 14 MB)  
.init : 0xc0008000 - 0xc0031000 ( 164 kB)  
.text : 0xc0031000 - 0xc07ad000 (7664 kB)  
.data : 0xc07ae000 - 0xc07ef500 ( 262 kB)  
.bss : 0xc07ef524 - 0xc083380c ( 273 kB)  
NR\_IRQS:272  
SSCG adjustment: 598388676  
a370\_time\_init  
sched\_clock: 32 bits at 598MHz, resolution 1ns, wraps every 7177ms  
Calibrating delay loop... 1191.11 BogoMIPS (lpj=5955584)  
pid\_max: default: 32768 minimum: 301  
Security Framework initialized  
Mount-cache hash table entries: 512  
Initializing cgroup subsys blkio  
CPU: Testing write buffer coherency: ok  
xor: measuring software checksum speed  
arm4regs : 1222.400 MB/sec  
8regs : 725.600 MB/sec  
32regs : 874.400 MB/sec  
xor: using function: arm4regs (1222.400 MB/sec)  
NET: Registered protocol family 16  
L0 cache Enabled  
Speculative Prefetch Disabled  
aurora\_l2\_init

Aurora: Enabling L2  
AuroraL2: System L2 cache support initialised  
Support IO coherency.  
Enable DLB and DRAM write coalescing

#### CPU Interface

-----  
SDRAM\_CS0 ....base 00000000, size 512MB  
SDRAM\_CS1 ....disable  
SDRAM\_CS2 ....disable  
SDRAM\_CS3 ....disable  
DEVICE\_CS0 ....base f2000000, size 32MB  
DEVICE\_CS1 ....no such  
DEVICE\_CS2 ....no such  
DEVICE\_CS3 ....no such  
PEX0\_MEM ....base e0000000, size 32MB  
PEX0\_IO ....base f1100000, size 1MB  
PEX1\_MEM ....base e2000000, size 32MB  
PEX1\_IO ....base f1200000, size 1MB  
INTER\_REGS ....base d0000000, size 1MB  
DMA\_UART ....no such  
SPI\_CS0 ....base f0000000, size 16MB  
SPI\_CS1 ....no such  
SPI\_CS2 ....no such  
SPI\_CS3 ....no such  
SPI\_CS4 ....no such  
SPI\_CS5 ....no such  
SPI\_CS6 ....no such  
SPI\_CS7 ....no such  
BOOT\_ROM\_CS ....no such  
DEV\_BOOTCS ....base f5000000, size 16MB  
PMU\_SCRATCHPAD ....no such  
CRYPTO0\_ENG ....base c8010000, size 64KB

Marvell Armada370 Board-- RN104 Soc: MV6710 A1 LE  
LSP version: Armada370\_LSP\_3.1.0\_p15\_NQ  
Netgear kernel version: 1.12

Detected Tclk 200000000, SysClk 600000000, FabricClk 600000000  
Marvell USB EHCI Host controller #0: d004f400  
Marvell USB EHCI Host controller #1: d004f200  
pci 0000:00:01.0: [1b73:1009] type 0 class 0x000c03  
pci 0000:00:01.0: reg 10: [mem 0x40000000-0x4000ffff 64bit]

pci 0000:00:01.0: reg 18: [mem 0x40010000-0x40010fff 64bit]  
pci 0000:00:01.0: reg 20: [mem 0x40011000-0x40011fff 64bit]  
pci 0000:00:01.0: supports D1  
pci 0000:00:01.0: PME# supported from D0 D1 D3hot D3cold  
pci 0000:00:01.0: PME# disabled  
PCI: bus0: Fast back to back transfers disabled  
pci 0000:01:01.0: [1b4b:9215] type 0 class 0x000106  
pci 0000:01:01.0: reg 10: [io 0xffffffff8-0xffffffff]  
pci 0000:01:01.0: reg 14: [io 0xffffffffc-0xffffffff]  
pci 0000:01:01.0: reg 18: [io 0xffffffff8-0xffffffff]  
pci 0000:01:01.0: reg 1c: [io 0xffffffffc-0xffffffff]  
pci 0000:01:01.0: reg 20: [io 0xffffffe0-0xffffffff]  
pci 0000:01:01.0: reg 24: [mem 0x42000000-0x420007ff]  
pci 0000:01:01.0: reg 30: [mem 0xd0000000-0xd000ffff pref]  
pci 0000:01:01.0: PME# supported from D3hot  
pci 0000:01:01.0: PME# disabled  
PCI: bus1: Fast back to back transfers disabled  
pci 0000:01:01.0: BAR 6: assigned [mem 0xe2000000-0xe200ffff pref]  
pci 0000:01:01.0: BAR 5: assigned [mem 0xe2010000-0xe20107ff]  
pci 0000:01:01.0: BAR 5: set to [mem 0xe2010000-0xe20107ff] (PCI address [0xe2010000-0xe20107ff])  
pci 0000:01:01.0: BAR 4: assigned [io 0x100000-0x10001f]  
pci 0000:01:01.0: BAR 4: set to [io 0x100000-0x10001f] (PCI address [0x100000-0x10001f])  
pci 0000:01:01.0: BAR 0: assigned [io 0x100020-0x100027]  
pci 0000:01:01.0: BAR 0: set to [io 0x100020-0x100027] (PCI address [0x100020-0x100027])  
pci 0000:01:01.0: BAR 2: assigned [io 0x100028-0x10002f]  
pci 0000:01:01.0: BAR 2: set to [io 0x100028-0x10002f] (PCI address [0x100028-0x10002f])  
pci 0000:01:01.0: BAR 1: assigned [io 0x100030-0x100033]  
pci 0000:01:01.0: BAR 1: set to [io 0x100030-0x100033] (PCI address [0x100030-0x100033])  
pci 0000:01:01.0: BAR 3: assigned [io 0x100034-0x100037]  
pci 0000:01:01.0: BAR 3: set to [io 0x100034-0x100037] (PCI address [0x100034-0x100037])  
pci 0000:00:01.0: BAR 0: assigned [mem 0xe0000000-0xe000ffff 64bit]  
pci 0000:00:01.0: BAR 0: set to [mem 0xe0000000-0xe000ffff 64bit] (PCI address [0xe0000000-0xe000ffff])  
pci 0000:00:01.0: BAR 2: assigned [mem 0xe0010000-0xe0010fff 64bit]  
pci 0000:00:01.0: BAR 2: set to [mem 0xe0010000-0xe0010fff 64bit] (PCI address [0xe0010000-0xe0010fff])  
pci 0000:00:01.0: BAR 4: assigned [mem 0xe0011000-0xe0011fff 64bit]  
pci 0000:00:01.0: BAR 4: set to [mem 0xe0011000-0xe0011fff 64bit] (PCI address [0xe0011000-0xe0011fff])  
bio: create slab <bio-0> at 0  
raid6: int32x1 142 MB/s  
raid6: int32x2 223 MB/s

raid6: int32x4 268 MB/s  
raid6: int32x8 296 MB/s  
raid6: using algorithm int32x8 (296 MB/s)  
raid6: using intx1 recovery algorithm  
SCSI subsystem initialized  
libata version 3.00 loaded.  
usbcore: registered new interface driver usbfs  
usbcore: registered new interface driver hub  
usbcore: registered new device driver usb  
Switching to clocksource armada370\_clocksource  
NET: Registered protocol family 2  
IP route cache hash table entries: 4096 (order: 2, 16384 bytes)  
TCP established hash table entries: 16384 (order: 5, 131072 bytes)  
TCP bind hash table entries: 16384 (order: 4, 65536 bytes)  
TCP: Hash tables configured (established 16384 bind 16384)  
TCP reno registered  
UDP hash table entries: 256 (order: 0, 4096 bytes)  
UDP-Lite hash table entries: 256 (order: 0, 4096 bytes)  
NET: Registered protocol family 1  
RPC: Registered named UNIX socket transport module.  
RPC: Registered udp transport module.  
RPC: Registered tcp transport module.  
RPC: Registered tcp NFSv4.1 backchannel transport module.  
PCI: CLS 32 bytes, default 32  
Unpacking initramfs...  
Freeing initrd memory: 2668K  
PMU: registered new PMU device of type 0  
Todo: mknod /dev/buttons c 253 0  
Armada XP hwmon thermal sensor initialized.  
futex hash table entries: 256 (order: -1, 3072 bytes)  
VFS: Disk quotas dquot\_6.5.2  
Dquot-cache hash table entries: 1024 (order 0, 4096 bytes)  
Installing knfsd (copyright (C) 1996 okir@monad.swb.de).  
JFFS2 version 2.2. (NAND) © 2001-2006 Red Hat, Inc.  
fuse init (API version 7.16)  
SGI XFS with ACLs, security attributes, large block/inode numbers, no debug enabled  
SGI XFS Quota Management subsystem  
Btrfs loaded  
msgmni has been set to 247  
async\_tx: api initialized (async)  
io scheduler noop registered  
io scheduler deadline registered (default)  
io scheduler cfq registered

mv\_xor\_shared mv\_xor\_shared.0: Marvell shared XOR driver  
mv\_xor\_shared mv\_xor\_shared.1: Marvell shared XOR driver  
mv\_xor mv\_xor.0: Marvell XOR: ( crc32c )  
mv\_xor mv\_xor.1: Marvell XOR: ( xor )  
mv\_xor mv\_xor.2: Marvell XOR: ( cpy )  
mv\_xor mv\_xor.3: Marvell XOR: ( fill cpy )  
Serial: 8250/16550 driver, 2 ports, IRQ sharing disabled  
serial8250.0: ttyS0 at MMIO 0xd0012000 (irq = 41) is a 16550A  
console [ttyS0] enabled  
loop: module loaded  
ahci 0000:01:01.0: version 3.0  
PCI: enabling device 0000:01:01.0 (0146 -> 0147)  
ahci 0000:01:01.0: AHCI 0001.0000 32 slots 4 ports 6 Gbps 0xf impl SATA mode  
ahci 0000:01:01.0: flags: 64bit ncq snth led only pmp fbs pio slum part sxs  
scsi0 : ahci  
scsi1 : ahci  
scsi2 : ahci  
scsi3 : ahci  
ata1: SATA max UDMA/133 abar m2048@0xe2010000 port 0xe2010100 irq 224  
ata2: SATA max UDMA/133 abar m2048@0xe2010000 port 0xe2010180 irq 224  
ata3: SATA max UDMA/133 abar m2048@0xe2010000 port 0xe2010200 irq 224  
ata4: SATA max UDMA/133 abar m2048@0xe2010000 port 0xe2010280 irq 224  
sata\_mv sata\_mv.0: version 1.28  
sata\_mv sata\_mv.0: slots 32 ports 2  
scsi4 : sata\_mv  
scsi5 : sata\_mv  
ata5: SATA max UDMA/133 irq 55  
ata6: SATA max UDMA/133 irq 55  
Rounding down aligned max\_sectors from 4294967295 to 4294967288  
mvSFlashInit ERROR: Unknown SPI flash device!  
ERROR: sflash\_probe - Failed to initialize the SFlash.  
armada-nand armada-nand.0: Initialize HAL based NFC in 8bit mode with DMA Disabled using  
BCH 4bit ECC  
NAND device: Manufacturer ID: 0xad, Chip ID: 0xf1 (Hynix NAND 128MiB 3,3V 8-bit)  
Bad block table found at page 65472, version 0x01  
Bad block table found at page 65408, version 0x01  
nand\_read\_bbt: Bad block at 0x0000006e0000  
mtd: no mtd-id  
5 cmdlinepart partitions found on MTD device armada-nand  
Creating 5 MTD partitions on "armada-nand":  
0x000000000000-0x000000180000 : "u-boot"  
0x000000180000-0x0000001a0000 : "u-boot-env"  
0x000000200000-0x000000800000 : "ulmage"

0x000000800000-0x000000c00000 : "minirootfs"

0x000000c00000-0x0000008000000 : "ubi"

mv\_eth\_probe: port\_mask=0x3, cpu\_mask=0x1

0 - Base 0x00000000 , Size = 0x20000000.

4 - Base 0xf2000000 , Size = 0x02000000.

8 - Base 0xe0000000 , Size = 0x02000000.

9 - Base 0xf1100000 , Size = 0x00100000.

10 - Base 0xe2000000 , Size = 0x02000000.

11 - Base 0xf1200000 , Size = 0x00100000.

12 - Base 0xd0000000 , Size = 0x00100000.

14 - Base 0xf0000000 , Size = 0x01000000.

23 - Base 0xf5000000 , Size = 0x01000000.

25 - Base 0xc8010000 , Size = 0x00010000.

- o 2 Giga ports supported
- o SKB recycle supported (Enabled)
- o NETA acceleration mode 1
- o RX Queue support: 8 Queues \* 512 Descriptors
- o TX Queue support: 8 Queues \* 512 Descriptors
- o GSO supported
- o GRO supported
- o Receive checksum offload supported
- o Transmit checksum offload supported
- o Driver ERROR statistics enabled

o Loading network interface(s)

o Port 0 is connected to Linux netdevice  
giga p=0: mtu=1500, mac=d002be44  
o eth0, ifindex = 2, GbE port = 0

o Port 1 is connected to Linux netdevice  
giga p=1: mtu=1500, mac=d002be44  
o eth1, ifindex = 3, GbE port = 1

bonding: Ethernet Channel Bonding Driver: v3.7.1 (April 27, 2011)

sky2: driver version 1.28

tun: Universal TUN/TAP device driver, 1.6

tun: (C) 1999-2004 Max Krasnyansky <maxk@qualcomm.com>

ehci\_hcd: USB 2.0 'Enhanced' Host Controller (EHCI) Driver

ehci\_marvell ehci\_marvell.0: Marvell Orion EHCI

ehci\_marvell ehci\_marvell.0: new USB bus registered, assigned bus number 1

ehci\_marvell ehci\_marvell.0: irq 45, io base 0xfbb50100

ehci\_marvell ehci\_marvell.0: USB 2.0 started, EHCI 1.00

hub 1-0:1.0: USB hub found  
hub 1-0:1.0: 1 port detected  
ehci\_marvell ehci\_marvell.1: Marvell Orion EHCI  
ehci\_marvell ehci\_marvell.1: new USB bus registered, assigned bus number 2  
ehci\_marvell ehci\_marvell.1: irq 46, io base 0xfbb51100  
ata1: SATA link down (SStatus 0 SControl 300)  
ehci\_marvell ehci\_marvell.1: USB 2.0 started, EHCI 1.00  
hub 2-0:1.0: USB hub found  
hub 2-0:1.0: 1 port detected  
ata4: SATA link down (SStatus 0 SControl 300)  
ata2: SATA link down (SStatus 0 SControl 300)  
ata3: SATA link down (SStatus 0 SControl 300)  
xhci\_hcd 0000:00:01.0: xHCI Host Controller  
xhci\_hcd 0000:00:01.0: new USB bus registered, assigned bus number 3  
Fresco Logic Linux Patch : 20  
ata5: SATA link down (SStatus 0 SControl F300)  
xHCI xhci\_add\_endpoint called for root hub  
xHCI xhci\_check\_bandwidth called for root hub  
hub 3-0:1.0: USB hub found  
hub 3-0:1.0: 2 ports detected  
xhci\_hcd 0000:00:01.0: xHCI Host Controller  
xhci\_hcd 0000:00:01.0: new USB bus registered, assigned bus number 4  
xHCI xhci\_add\_endpoint called for root hub  
xHCI xhci\_check\_bandwidth called for root hub  
hub 4-0:1.0: USB hub found  
hub 4-0:1.0: 2 ports detected  
usbcore: registered new interface driver usblp  
Initializing USB Mass Storage driver...  
usbcore: registered new interface driver usb-storage  
USB Mass Storage support registered.  
usbcore: registered new interface driver ums-datafab  
usbcore: registered new interface driver ums-freecom  
usbcore: registered new interface driver ums-jumpshot  
usbcore: registered new interface driver ums-sddr09  
usbcore: registered new interface driver ums-sddr55  
i2c /dev entries driver  
usb 1-1: new high-speed USB device number 2 using ehci\_marvell  
pca953x 0-0023: interrupt support not compiled in  
rtc-isl12057 0-0068: chip found, driver version 0.1  
rtc (null): invalid alarm value: 1900-1-14 0:0:0  
rtc-isl12057 0-0068: rtc core: registered rtc-isl12057 as rtc0  
rtc-isl12057 0-0068: rtc power failure detected, please set clock.  
md: raid0 personality registered for level 0



md: raid1 personality registered for level 1  
md: raid10 personality registered for level 10  
md: raid6 personality registered for level 6  
md: raid5 personality registered for level 5  
md: raid4 personality registered for level 4  
device-mapper: ioctl: 4.23.0-ioctl (2012-07-25) initialised: dm-devel@redhat.com  
Registered led device: backup  
Registered led device: power  
Registered led device: SATA1\_PRESENT  
Registered led device: SATA2\_PRESENT  
Registered led device: SATA3\_PRESENT  
Registered led device: SATA4\_PRESENT  
usbcore: registered new interface driver usbhid  
usbhid: USB HID core driver  
IPv4 over IPv4 tunneling driver  
ip\_tables: (C) 2000-2006 Netfilter Core Team  
TCP cubic registered  
NET: Registered protocol family 10  
ip6\_tables: (C) 2000-2006 Netfilter Core Team  
NET: Registered protocol family 17  
802.1Q VLAN Support v1.8  
Registering the dns\_resolver key type  
VFP support v0.3: implementor 56 architecture 2 part 20 variant 9 rev 6  
HDD\_pwrctl\_init  
SATA1 is not detected.  
SATA2 is not detected.  
SATA3 is not detected.  
SATA4 is not detected.  
Request the irq HDDpwrctrl success.  
registered taskstats version 1  
rtc-isl12057 0-0068: setting system clock to 2017-09-14 00:06:22 UTC (1505347582)  
ata6: SATA link down (SStatus 0 SControl F300)  
Freeing init memory: 164K  
scsi6 : usb-storage 1-1:1.0  
Just power off HDD(4).  
Just power off HDD(3).  
Just power off HDD(2).  
Just power off HDD(1).  
scsi 6:0:0:0: Direct-Access SanDisk Extreme 0001 PQ: 0 ANSI: 6  
sd 6:0:0:0: [sda] 61282631 512-byte logical blocks: (31.3 GB/29.2 GiB)  
sd 6:0:0:0: [sda] Write Protect is off  
sd 6:0:0:0: [sda] Mode Sense: 53 00 00 08  
sd 6:0:0:0: [sda] Write cache: disabled, read cache: enabled, doesn't support DPO or FUA

```
sda: sda1
sd 6:0:0:0: [sda] Attached SCSI removable disk
pool #0: pkt_size=1536, buf_size=1632 - 8192 of 8192 buffers added
eth0: link up
eth0: started
eth0: no IPv6 routers present
# mount -t ubifs /dev/ubi0_0 /mnt
mount: mounting /dev/ubi0_0 on /mnt failed: Invalid argument
#

readynasos login: root
Password:
#
#
#
#
#
#
# dmesg
Initializing cgroup subsys cpu
Linux version 3.0.101.RN_ARM.4 (jenkins@blocks) (gcc version 4.6.4 (Linaro GCC
branch-4.6.4. Marvell GCC Dev 201310-2126.3d181f66 64K MAXPAGESIZE ALIGN) )PDT
2015
CPU: Marvell PJ4Bv7 Processor [561f5811] revision 1 (ARMv7), cr=10c53c7d
CPU: VIPT nonaliasing data cache, VIPT aliasing instruction cache
Machine: Marvell Armada-370
Using UBoot passing parameters structure
>>>>>>Tag MAC b4:9e:34:8e:c6:28
>>>>>>Tag MAC b5:9e:34:8e:c6:28
Memory policy: ECC disabled, Data cache writealloc
On node 0 totalpages: 131072
free_area_init_node: node 0, pgdat c07ee72c, node_mem_map c0834000
  Normal zone: 1024 pages used for memmap
  Normal zone: 0 pages reserved
  Normal zone: 130048 pages, LIFO batch:31
pcpu-alloc: s0 r0 d32768 u32768 alloc=1*32768
pcpu-alloc: [0] 0
Built 1 zonelists in Zone order, mobility grouping off. Total pages: 130048
Kernel command line: console=ttyS0,115200
mtdparts=armada-nand:0x180000@(u-boot),0x20000@0x180000(u-boot-env),0x600000@0x2
00000(ulmage),0x400000@0x800000type=rn104
nmi ring buffer: 131072
PID hash table entries: 2048 (order: 1, 8192 bytes)
```

Dentry cache hash table entries: 65536 (order: 6, 262144 bytes)  
Inode-cache hash table entries: 32768 (order: 5, 131072 bytes)  
Memory: 512MB = 512MB total  
Memory: 504452k/504452k available, 19836k reserved, 0K highmem  
Virtual kernel memory layout:

vector : 0xffff0000 - 0xffff1000 ( 4 kB)  
fixmap : 0xffff0000 - 0xffffe000 ( 896 kB)  
DMA : 0xffc00000 - 0xffe00000 ( 2 MB)  
vmalloc : 0xe0800000 - 0xfa800000 ( 416 MB)  
lowmem : 0xc0000000 - 0xe0000000 ( 512 MB)  
pkmap : 0xbfe00000 - 0xc0000000 ( 2 MB)  
modules : 0xbf000000 - 0xbfe00000 ( 14 MB)  
.init : 0xc0008000 - 0xc0031000 ( 164 kB)  
.text : 0xc0031000 - 0xc07ad000 (7664 kB)  
.data : 0xc07ae000 - 0xc07ef500 ( 262 kB)  
.bss : 0xc07ef524 - 0xc083380c ( 273 kB)

NR\_IRQS:272

SSCG adjustment: 598388676

a370\_time\_init

sched\_clock: 32 bits at 598MHz, resolution 1ns, wraps every 7177ms

Calibrating delay loop... 1191.11 BogoMIPS (lpj=5955584)

pid\_max: default: 32768 minimum: 301

Security Framework initialized

Mount-cache hash table entries: 512

Initializing cgroup subsys blkio

CPU: Testing write buffer coherency: ok

xor: measuring software checksum speed

arm4regs : 1222.400 MB/sec

8regs : 725.600 MB/sec

32regs : 874.400 MB/sec

xor: using function: arm4regs (1222.400 MB/sec)

NET: Registered protocol family 16

L0 cache Enabled

Speculative Prefetch Disabled

aurora\_l2\_init

Aurora: Enabling L2

AuroraL2: System L2 cache support initialised

Support IO coherency.

Enable DLB and DRAM write coalescing

CPU Interface

-----

SDRAM\_CS0 ....base 00000000, size 512MB

SDRAM\_CS1 ....disable  
SDRAM\_CS2 ....disable  
SDRAM\_CS3 ....disable  
DEVICE\_CS0 ....base f2000000, size 32MB  
DEVICE\_CS1 ....no such  
DEVICE\_CS2 ....no such  
DEVICE\_CS3 ....no such  
PEX0\_MEM ....base e0000000, size 32MB  
PEX0\_IO ....base f1100000, size 1MB  
PEX1\_MEM ....base e2000000, size 32MB  
PEX1\_IO ....base f1200000, size 1MB  
INTER\_REGS ....base d0000000, size 1MB  
DMA\_UART ....no such  
SPI\_CS0 ....base f0000000, size 16MB  
SPI\_CS1 ....no such  
SPI\_CS2 ....no such  
SPI\_CS3 ....no such  
SPI\_CS4 ....no such  
SPI\_CS5 ....no such  
SPI\_CS6 ....no such  
SPI\_CS7 ....no such  
BOOT\_ROM\_CS ....no such  
DEV\_BOOTCS ....base f5000000, size 16MB  
PMU\_SCRATCHPAD ....no such  
CRYPTO0\_ENG ....base c8010000, size 64KB

Marvell Armada370 Board-- RN104 Soc: MV6710 A1 LE  
LSP version: Armada370\_LSP\_3.1.0\_p15\_NQ  
Netgear kernel version: 1.12

Detected Tclk 200000000, SysClk 600000000, FabricClk 600000000  
Marvell USB EHCI Host controller #0: d004f400  
Marvell USB EHCI Host controller #1: d004f200  
pci 0000:00:01.0: [1b73:1009] type 0 class 0x000c03  
pci 0000:00:01.0: reg 10: [mem 0x40000000-0x4000ffff 64bit]  
pci 0000:00:01.0: reg 18: [mem 0x40010000-0x40010fff 64bit]  
pci 0000:00:01.0: reg 20: [mem 0x40011000-0x40011fff 64bit]  
pci 0000:00:01.0: supports D1  
pci 0000:00:01.0: PME# supported from D0 D1 D3hot D3cold  
pci 0000:00:01.0: PME# disabled  
PCI: bus0: Fast back to back transfers disabled  
pci 0000:01:01.0: [1b4b:9215] type 0 class 0x000106  
pci 0000:01:01.0: reg 10: [io 0xffffffff8-0xffffffff]

pci 0000:01:01.0: reg 14: [io 0xffffffff-0xffffffff]  
pci 0000:01:01.0: reg 18: [io 0xffffffff8-0xffffffff]  
pci 0000:01:01.0: reg 1c: [io 0xffffffffc-0xffffffff]  
pci 0000:01:01.0: reg 20: [io 0xffffffe0-0xffffffff]  
pci 0000:01:01.0: reg 24: [mem 0x42000000-0x420007ff]  
pci 0000:01:01.0: reg 30: [mem 0xd0000000-0xd000ffff pref]  
pci 0000:01:01.0: PME# supported from D3hot  
pci 0000:01:01.0: PME# disabled  
PCI: bus1: Fast back to back transfers disabled  
pci 0000:01:01.0: BAR 6: assigned [mem 0xe2000000-0xe200ffff pref]  
pci 0000:01:01.0: BAR 5: assigned [mem 0xe2010000-0xe20107ff]  
pci 0000:01:01.0: BAR 5: set to [mem 0xe2010000-0xe20107ff] (PCI address [0xe2010000-0xe20107ff])  
pci 0000:01:01.0: BAR 4: assigned [io 0x100000-0x10001f]  
pci 0000:01:01.0: BAR 4: set to [io 0x100000-0x10001f] (PCI address [0x100000-0x10001f])  
pci 0000:01:01.0: BAR 0: assigned [io 0x100020-0x100027]  
pci 0000:01:01.0: BAR 0: set to [io 0x100020-0x100027] (PCI address [0x100020-0x100027])  
pci 0000:01:01.0: BAR 2: assigned [io 0x100028-0x10002f]  
pci 0000:01:01.0: BAR 2: set to [io 0x100028-0x10002f] (PCI address [0x100028-0x10002f])  
pci 0000:01:01.0: BAR 1: assigned [io 0x100030-0x100033]  
pci 0000:01:01.0: BAR 1: set to [io 0x100030-0x100033] (PCI address [0x100030-0x100033])  
pci 0000:01:01.0: BAR 3: assigned [io 0x100034-0x100037]  
pci 0000:01:01.0: BAR 3: set to [io 0x100034-0x100037] (PCI address [0x100034-0x100037])  
pci 0000:00:01.0: BAR 0: assigned [mem 0xe0000000-0xe000ffff 64bit]  
pci 0000:00:01.0: BAR 0: set to [mem 0xe0000000-0xe000ffff 64bit] (PCI address [0xe0000000-0xe000ffff])  
pci 0000:00:01.0: BAR 2: assigned [mem 0xe0010000-0xe0010fff 64bit]  
pci 0000:00:01.0: BAR 2: set to [mem 0xe0010000-0xe0010fff 64bit] (PCI address [0xe0010000-0xe0010fff])  
pci 0000:00:01.0: BAR 4: assigned [mem 0xe0011000-0xe0011fff 64bit]  
pci 0000:00:01.0: BAR 4: set to [mem 0xe0011000-0xe0011fff 64bit] (PCI address [0xe0011000-0xe0011fff])  
bio: create slab <bio-0> at 0  
raid6: int32x1 142 MB/s  
raid6: int32x2 223 MB/s  
raid6: int32x4 268 MB/s  
raid6: int32x8 296 MB/s  
raid6: using algorithm int32x8 (296 MB/s)  
raid6: using intx1 recovery algorithm  
SCSI subsystem initialized  
libata version 3.00 loaded.  
usbcore: registered new interface driver usbfs  
usbcore: registered new interface driver hub

usbcore: registered new device driver usb  
Switching to clocksource armada370\_clocksource  
NET: Registered protocol family 2  
IP route cache hash table entries: 4096 (order: 2, 16384 bytes)  
TCP established hash table entries: 16384 (order: 5, 131072 bytes)  
TCP bind hash table entries: 16384 (order: 4, 65536 bytes)  
TCP: Hash tables configured (established 16384 bind 16384)  
TCP reno registered  
UDP hash table entries: 256 (order: 0, 4096 bytes)  
UDP-Lite hash table entries: 256 (order: 0, 4096 bytes)  
NET: Registered protocol family 1  
RPC: Registered named UNIX socket transport module.  
RPC: Registered udp transport module.  
RPC: Registered tcp transport module.  
RPC: Registered tcp NFSv4.1 backchannel transport module.  
PCI: CLS 32 bytes, default 32  
Unpacking initramfs...  
Freeing initrd memory: 2668K  
PMU: registered new PMU device of type 0  
Todo: mknod /dev/buttons c 253 0  
Armada XP hwmon thermal sensor initialized.  
futex hash table entries: 256 (order: -1, 3072 bytes)  
VFS: Disk quotas dquot\_6.5.2  
Dquot-cache hash table entries: 1024 (order 0, 4096 bytes)  
Installing knfsd (copyright (C) 1996 okir@monad.swb.de).  
JFFS2 version 2.2. (NAND) © 2001-2006 Red Hat, Inc.  
fuse init (API version 7.16)  
SGI XFS with ACLs, security attributes, large block/inode numbers, no debug enabled  
SGI XFS Quota Management subsystem  
Btrfs loaded  
msgmni has been set to 247  
async\_tx: api initialized (async)  
io scheduler noop registered  
io scheduler deadline registered (default)  
io scheduler cfq registered  
mv\_xor\_shared mv\_xor\_shared.0: Marvell shared XOR driver  
mv\_xor\_shared mv\_xor\_shared.1: Marvell shared XOR driver  
mv\_xor mv\_xor.0: Marvell XOR: ( crc32c )  
mv\_xor mv\_xor.1: Marvell XOR: ( xor )  
mv\_xor mv\_xor.2: Marvell XOR: ( cpy )  
mv\_xor mv\_xor.3: Marvell XOR: ( fill cpy )  
Serial: 8250/16550 driver, 2 ports, IRQ sharing disabled  
serial8250.0: ttyS0 at MMIO 0xd0012000 (irq = 41) is a 16550A

console [ttyS0] enabled  
loop: module loaded  
ahci 0000:01:01.0: version 3.0  
PCI: enabling device 0000:01:01.0 (0146 -> 0147)  
ahci 0000:01:01.0: AHCI 0001.0000 32 slots 4 ports 6 Gbps 0xf impl SATA mode  
ahci 0000:01:01.0: flags: 64bit ncq snth led only pmp fbs pio slum part sxs  
scsi0 : ahci  
scsi1 : ahci  
scsi2 : ahci  
scsi3 : ahci  
ata1: SATA max UDMA/133 abar m2048@0xe2010000 port 0xe2010100 irq 224  
ata2: SATA max UDMA/133 abar m2048@0xe2010000 port 0xe2010180 irq 224  
ata3: SATA max UDMA/133 abar m2048@0xe2010000 port 0xe2010200 irq 224  
ata4: SATA max UDMA/133 abar m2048@0xe2010000 port 0xe2010280 irq 224  
sata\_mv sata\_mv.0: version 1.28  
sata\_mv sata\_mv.0: slots 32 ports 2  
scsi4 : sata\_mv  
scsi5 : sata\_mv  
ata5: SATA max UDMA/133 irq 55  
ata6: SATA max UDMA/133 irq 55  
Rounding down aligned max\_sectors from 4294967295 to 4294967288  
mvSFlashInit ERROR: Unknown SPI flash device!  
ERROR: sflash\_probe - Failed to initialize the SFlash.  
armada-nand armada-nand.0: Initialize HAL based NFC in 8bit mode with DMA Disabled using  
BCH 4bit ECC  
NAND device: Manufacturer ID: 0xad, Chip ID: 0xf1 (Hynix NAND 128MiB 3,3V 8-bit)  
Bad block table found at page 65472, version 0x01  
Bad block table found at page 65408, version 0x01  
nand\_read\_bbt: Bad block at 0x0000006e0000  
mtd: no mtd-id  
5 cmdlinepart partitions found on MTD device armada-nand  
Creating 5 MTD partitions on "armada-nand":  
0x000000000000-0x000000180000 : "u-boot"  
0x000000180000-0x0000001a0000 : "u-boot-env"  
0x000000200000-0x000000800000 : "uImage"  
0x000000800000-0x000000c00000 : "minirootfs"  
0x000000c00000-0x0000008000000 : "ubi"  
mv\_eth\_probe: port\_mask=0x3, cpu\_mask=0x1  
0 - Base 0x00000000 , Size = 0x20000000.  
4 - Base 0xf2000000 , Size = 0x02000000.  
8 - Base 0xe0000000 , Size = 0x02000000.  
9 - Base 0xf1100000 , Size = 0x00100000.  
10 - Base 0xe2000000 , Size = 0x02000000.

11 - Base 0xf1200000 , Size = 0x00100000.  
12 - Base 0xd0000000 , Size = 0x00100000.  
14 - Base 0xf0000000 , Size = 0x01000000.  
23 - Base 0xf5000000 , Size = 0x01000000.  
25 - Base 0xc8010000 , Size = 0x00010000.  
o 2 Giga ports supported  
o SKB recycle supported (Enabled)  
o NETA acceleration mode 1  
o RX Queue support: 8 Queues \* 512 Descriptors  
o TX Queue support: 8 Queues \* 512 Descriptors  
o GSO supported  
o GRO supported  
o Receive checksum offload supported  
o Transmit checksum offload supported  
o Driver ERROR statistics enabled

o Loading network interface(s)

o Port 0 is connected to Linux netdevice  
giga p=0: mtu=1500, mac=d002be44  
o eth0, ifindex = 2, GbE port = 0

o Port 1 is connected to Linux netdevice  
giga p=1: mtu=1500, mac=d002be44  
o eth1, ifindex = 3, GbE port = 1

bonding: Ethernet Channel Bonding Driver: v3.7.1 (April 27, 2011)

sky2: driver version 1.28

tun: Universal TUN/TAP device driver, 1.6

tun: (C) 1999-2004 Max Krasnyansky <maxk@qualcomm.com>

ehci\_hcd: USB 2.0 'Enhanced' Host Controller (EHCI) Driver

ehci\_marvell ehci\_marvell.0: Marvell Orion EHCI

ehci\_marvell ehci\_marvell.0: new USB bus registered, assigned bus number 1

ehci\_marvell ehci\_marvell.0: irq 45, io base 0xfbb50100

ehci\_marvell ehci\_marvell.0: USB 2.0 started, EHCI 1.00

hub 1-0:1.0: USB hub found

hub 1-0:1.0: 1 port detected

ehci\_marvell ehci\_marvell.1: Marvell Orion EHCI

ehci\_marvell ehci\_marvell.1: new USB bus registered, assigned bus number 2

ehci\_marvell ehci\_marvell.1: irq 46, io base 0xfbb51100

ata1: SATA link down (SStatus 0 SControl 300)

ehci\_marvell ehci\_marvell.1: USB 2.0 started, EHCI 1.00

hub 2-0:1.0: USB hub found



hub 2-0:1.0: 1 port detected  
ata2: SATA link down (SStatus 0 SControl 300)  
ata4: SATA link down (SStatus 0 SControl 300)  
ata3: SATA link down (SStatus 0 SControl 300)  
xhci\_hcd 0000:00:01.0: xHCI Host Controller  
xhci\_hcd 0000:00:01.0: new USB bus registered, assigned bus number 3  
Fresco Logic Linux Patch : 20  
ata5: SATA link down (SStatus 0 SControl F300)  
xHCI xhci\_add\_endpoint called for root hub  
xHCI xhci\_check\_bandwidth called for root hub  
hub 3-0:1.0: USB hub found  
hub 3-0:1.0: 2 ports detected  
xhci\_hcd 0000:00:01.0: xHCI Host Controller  
xhci\_hcd 0000:00:01.0: new USB bus registered, assigned bus number 4  
xHCI xhci\_add\_endpoint called for root hub  
xHCI xhci\_check\_bandwidth called for root hub  
hub 4-0:1.0: USB hub found  
hub 4-0:1.0: 2 ports detected  
usbcore: registered new interface driver usblp  
Initializing USB Mass Storage driver...  
usbcore: registered new interface driver usb-storage  
USB Mass Storage support registered.  
usbcore: registered new interface driver ums-datafab  
usbcore: registered new interface driver ums-freecom  
usbcore: registered new interface driver ums-jumpshot  
usbcore: registered new interface driver ums-sddr09  
usbcore: registered new interface driver ums-sddr55  
i2c /dev entries driver  
usb 1-1: new high-speed USB device number 2 using ehci\_marvell  
pca953x 0-0023: interrupt support not compiled in  
rtc-isl12057 0-0068: chip found, driver version 0.1  
rtc (null): invalid alarm value: 1900-1-26 0:0:0  
rtc-isl12057 0-0068: rtc core: registered rtc-isl12057 as rtc0  
rtc-isl12057 0-0068: rtc power failure detected, please set clock.  
md: raid0 personality registered for level 0  
md: raid1 personality registered for level 1  
md: raid10 personality registered for level 10  
md: raid6 personality registered for level 6  
md: raid5 personality registered for level 5  
md: raid4 personality registered for level 4  
device-mapper: ioctl: 4.23.0-iocpl (2012-07-25) initialised: dm-devel@redhat.com  
Registered led device: backup  
Registered led device: power

Registered led device: SATA1\_PRESENT  
Registered led device: SATA2\_PRESENT  
Registered led device: SATA3\_PRESENT  
Registered led device: SATA4\_PRESENT  
usbcore: registered new interface driver usbhid  
usbhid: USB HID core driver  
IPv4 over IPv4 tunneling driver  
ip\_tables: (C) 2000-2006 Netfilter Core Team  
TCP cubic registered  
NET: Registered protocol family 10  
ip6\_tables: (C) 2000-2006 Netfilter Core Team  
NET: Registered protocol family 17  
802.1Q VLAN Support v1.8  
Registering the dns\_resolver key type  
VFP support v0.3: implementor 56 architecture 2 part 20 variant 9 rev 6  
HDD\_pwrctl\_init  
SATA1 is not detected.  
SATA2 is not detected.  
SATA3 is not detected.  
SATA4 is not detected.  
Request the irq HDDpwrctrl success.  
registered taskstats version 1  
rtc-isl12057 0-0068: setting system clock to 2017-09-26 01:41:38 UTC (1506390098)  
ata6: SATA link down (SStatus 0 SControl F300)  
Freeing init memory: 164K  
scsi6 : usb-storage 1-1:1.0  
Just power off HDD(4).  
Just power off HDD(3).  
Just power off HDD(2).  
Just power off HDD(1).  
scsi 6:0:0:0: Direct-Access SanDisk Extreme 0001 PQ: 0 ANSI: 6  
sd 6:0:0:0: [sda] 61282631 512-byte logical blocks: (31.3 GB/29.2 GiB)  
sd 6:0:0:0: [sda] Write Protect is off  
sd 6:0:0:0: [sda] Mode Sense: 53 00 00 08  
sd 6:0:0:0: [sda] Write cache: disabled, read cache: enabled, doesn't support DPO or FUA  
sda: sda1  
sd 6:0:0:0: [sda] Attached SCSI removable disk  
pool #0: pkt\_size=1536, buf\_size=1632 - 8192 of 8192 buffers added  
eth0: link up  
eth0: started  
eth0: no IPv6 routers present  
# cat /proc/partitions  
major minor #blocks name

```
31 0 1536 mtdblock0
31 1 128 mtdblock1
31 2 6144 mtdblock2
31 3 4096 mtdblock3
31 4 118784 mtdblock4
8 0 30641315 sda
8 1 30641314 sda1
# mount -t ubifs /dev/ubi0_0 /mnt
mount: mounting /dev/ubi0_0 on /mnt failed: Invalid argument
# ls -la
drwx----- 3 0 Sep 25 21:14 .
drwxrwxrwx 19 0 Sep 25 19:42 ..
-rw----- 1 67 Sep 25 21:15 .ash_history
-rw-r--r-- 1 0 Jun 11 2013 .bash_history
-rw-r--r-- 1 175 Jun 11 2013 .bash_logout
-rw-r--r-- 1 161 Jun 11 2013 .bash_profile
drwxr-xr-x 2 0 Dec 20 2016 .ssh
# pwd
/root
# cd /
# ls
bin dev etc home init lib lib32 media mnt opt proc root run
sbin sys sysroot tmp u
# mount -t ubifs /dev/ubi0_0 /mnt
mount: mounting /dev/ubi0_0 on /mnt failed: Invalid argument
# modprobe ufsd
modprobe: module 'ufsd' not found
# modprobe --help
BusyBox v1.21.1 (2014-10-06 23:20:18 PDT) multi-call binary.
```

Usage: modprobe [-qfwrsv] MODULE [symbol=value]...

```
# cd etc
# ls -la
drwxr-xr-x 9 0 Sep 25 19:42 .
drwxrwxrwx 19 0 Sep 25 19:42 ..
-rw-r--r-- 1 8 Jun 11 2013 TZ
-rw-r--r-- 1 6 Jun 11 2013 filesystems
drwxr-xr-x 3 0 Dec 20 2016 frontview
-rw-r--r-- 1 466 Jun 11 2013 fstab
-rw-r--r-- 1 49 Nov 14 2016 fw_env.config
-rw-r--r-- 1 49 Nov 15 2016 fw_env.config.alpine
```

```
-rw-r--r-- 1 250 Jun 11 2013 group
-rw-r--r-- 1 4 Sep 25 19:42 hostid
-rw-r--r-- 1 11 Apr 28 2015 hostname
-rw-r--r-- 1 41 Apr 28 2015 hosts
drwxr-xr-x 2 0 Dec 20 2016 ifplugd
drwxr-xr-x 2 0 Jan 23 2015 init.d
-rw-r--r-- 1 1086 Jun 11 2013 inittab
-rw-r--r-- 1 1180 Jun 11 2013 inputrc
-rw-r--r-- 1 22 Apr 28 2015 issue
-rw-r--r-- 1 0 Apr 28 2015 ld.so.conf
drwxr-xr-x 2 0 Jun 11 2013 ld.so.conf.d
drwxr-xr-x 3 0 Dec 20 2016 lvm
-rw-r--r-- 1 779 Apr 28 2015 mdev.conf
-rw-r--r-- 1 569 Jun 11 2013 mke2fs.conf
drwxr-xr-x 8 0 Dec 20 2016 network
-rw-r--r-- 1 53 Jun 11 2013 nsswitch.conf
-rw-r--r-- 1 95 Apr 28 2015 os-release
-rw-r--r-- 1 68 Apr 30 2015 os_version
-rw-r--r-- 1 596 Jun 11 2013 passwd
-rw-r--r-- 1 1836 Jun 11 2013 profile
-rw-r--r-- 1 1195 Jun 11 2013 protocols
-rw-r--r-- 1 512 Jun 11 2013 random-seed
-rw-r--r-- 1 29 Sep 25 19:42 resolv.conf
-rw-r--r-- 1 352 Jun 11 2013 securetty
drwxr-xr-x 2 0 Feb 4 2014 sensors.d
-rw-r--r-- 1 10191 Feb 4 2014 sensors3.conf
-rw-r--r-- 1 10877 Jun 11 2013 services
-rw----- 1 359 Jun 11 2013 shadow
-rwxr-xr-x 1 5753 Feb 4 2014 smartd_warning.sh
```

```
# cd ..
```

```
# cd proc
```

```
# ls -la
```

```
dr-xr-xr-x 67 0 Dec 31 1969 .
drwxrwxrwx 19 0 Sep 25 19:42 ..
dr-xr-xr-x 8 0 Sep 25 21:14 1
dr-xr-xr-x 8 0 Sep 25 21:14 182
dr-xr-xr-x 8 0 Sep 25 21:14 184
dr-xr-xr-x 8 0 Sep 25 21:14 186
dr-xr-xr-x 8 0 Sep 25 21:14 1914
dr-xr-xr-x 8 0 Sep 25 21:14 1918
dr-xr-xr-x 8 0 Sep 25 21:14 1919
dr-xr-xr-x 8 0 Sep 25 21:14 192
dr-xr-xr-x 8 0 Sep 26 01:54 1932
```

dr-xr-xr-x	8	0 Sep 25 21:14 199
dr-xr-xr-x	8	0 Sep 25 21:14 2
dr-xr-xr-x	8	0 Sep 25 21:14 204
dr-xr-xr-x	8	0 Sep 25 21:14 222
dr-xr-xr-x	8	0 Sep 25 21:14 223
dr-xr-xr-x	8	0 Sep 25 21:14 235
dr-xr-xr-x	8	0 Sep 25 21:14 236
dr-xr-xr-x	8	0 Sep 25 21:14 237
dr-xr-xr-x	8	0 Sep 25 21:14 240
dr-xr-xr-x	8	0 Sep 25 21:14 241
dr-xr-xr-x	8	0 Sep 25 21:14 242
dr-xr-xr-x	8	0 Sep 25 21:14 244
dr-xr-xr-x	8	0 Sep 25 21:14 245
dr-xr-xr-x	8	0 Sep 25 21:14 261
dr-xr-xr-x	8	0 Sep 25 21:14 262
dr-xr-xr-x	8	0 Sep 25 21:14 3
dr-xr-xr-x	8	0 Sep 25 21:14 340
dr-xr-xr-x	8	0 Sep 25 21:14 343
dr-xr-xr-x	8	0 Sep 25 21:14 346
dr-xr-xr-x	8	0 Sep 25 21:14 349
dr-xr-xr-x	8	0 Sep 25 21:14 354
dr-xr-xr-x	8	0 Sep 25 21:14 355
dr-xr-xr-x	8	0 Sep 25 21:14 366
dr-xr-xr-x	8	0 Sep 25 21:14 369
dr-xr-xr-x	8	0 Sep 25 21:14 375
dr-xr-xr-x	8	0 Sep 25 21:14 376
dr-xr-xr-x	8	0 Sep 25 21:14 377
dr-xr-xr-x	8	0 Sep 25 21:14 378
dr-xr-xr-x	8	0 Sep 25 21:14 379
dr-xr-xr-x	8	0 Sep 25 21:14 380
dr-xr-xr-x	8	0 Sep 25 21:14 381
dr-xr-xr-x	8	0 Sep 25 21:14 382
dr-xr-xr-x	8	0 Sep 25 21:14 383
dr-xr-xr-x	8	0 Sep 25 21:14 384
dr-xr-xr-x	8	0 Sep 25 21:14 392
dr-xr-xr-x	8	0 Sep 25 21:14 397
dr-xr-xr-x	8	0 Sep 25 21:14 4
dr-xr-xr-x	8	0 Sep 25 21:14 402
dr-xr-xr-x	8	0 Sep 25 21:14 407
dr-xr-xr-x	8	0 Sep 25 21:14 412
dr-xr-xr-x	8	0 Sep 25 21:14 468
dr-xr-xr-x	8	0 Sep 25 21:14 478
dr-xr-xr-x	8	0 Sep 25 21:14 490

```

dr-xr-xr-x  8      0 Sep 25 21:14 491
dr-xr-xr-x  8      0 Sep 25 21:14 6
dr-xr-xr-x  8      0 Sep 25 21:14 7
dr-xr-xr-x  8      0 Sep 25 21:14 8
dr-xr-xr-x  2      0 Sep 26 01:54 AuroraL2
--w--w--w-  1      0 Sep 26 01:54 LCD
---x--x--x  1      0 Sep 26 01:54 LCDstatus
-rw-rw-rw-  1      0 Sep 26 01:54 board_type
-r--r--r--  1      0 Sep 26 01:54 buddyinfo
dr-xr-xr-x  5      0 Sep 26 01:54 bus
-r--r--r--  1      0 Sep 26 01:54 cgroups
-r--r--r--  1      0 Sep 26 01:54 cmdline
-r--r--r--  1      0 Sep 26 01:54 consoles
dr-xr-xr-x  2      0 Sep 26 01:54 cpu
-r--r--r--  1      0 Sep 26 01:54 cpuinfo
-r--r--r--  1      0 Sep 26 01:54 crypto
-r--r--r--  1      0 Sep 26 01:54 devices
-r--r--r--  1      0 Sep 26 01:54 diskstats
dr-xr-xr-x  2      0 Sep 26 01:54 driver
-r--r--r--  1      0 Sep 26 01:54 execdomains
-r--r--r--  1      0 Sep 26 01:54 filesystems
dr-xr-xr-x 10      0 Sep 26 01:54 fs
-r--r--r--  1      0 Sep 26 01:54 interrupts
-r--r--r--  1      0 Sep 26 01:54 iomem
-r--r--r--  1      0 Sep 26 01:54 ioports
dr-xr-xr-x 274    0 Sep 26 01:54 irq
-r--r--r--  1      0 Sep 26 01:54 kallsyms
-r--r--r--  1      0 Sep 26 01:54 key-users
-r-----  1      0 Sep 26 01:54 kmsg
-r-----  1      0 Sep 26 01:54 kpagecount
-r-----  1      0 Sep 26 01:54 kpageflags
-r--r--r--  1      0 Sep 26 01:54 loadavg
-r--r--r--  1      0 Sep 26 01:54 locks
-r--r--r--  1      0 Sep 26 01:54 mdstat
-r--r--r--  1      0 Sep 26 01:54 meminfo
-r--r--r--  1      0 Sep 26 01:54 misc
-r--r--r--  1      0 Sep 26 01:54 modules
lrwxrwxrwx  1      11 Sep 26 01:54 mounts -> self/mounts
-r--r--r--  1      0 Sep 26 01:54 mtd
-r-----  1      0 Sep 26 01:54 mv_dump_cp15
lrwxrwxrwx  1      8 Sep 26 01:54 net -> self/net
-r--r--r--  1      0 Sep 26 01:54 pagetypeinfo
-r--r--r--  1      0 Sep 26 01:54 partitions

```

```

-rw-r--r-- 1 0 Sep 26 01:54 power_off_mode2
-rw-rw-rw- 1 0 Sep 26 01:54 resource_dump
-r--r--r-- 1 0 Sep 26 01:54 sched_debug
lrwxrwxrwx 1 64 Sep 25 19:41 self -> 1932
-rw-r--r-- 1 0 Sep 26 01:54 slabinfo
-rw-rw-rw- 1 0 Sep 26 01:54 soc_type
-r--r--r-- 1 0 Sep 26 01:54 softirqs
-r--r--r-- 1 0 Sep 26 01:54 stat
-r--r--r-- 1 0 Sep 26 01:54 swaps
dr-xr-xr-x 1 0 Sep 25 19:41 sys
--w----- 1 0 Sep 26 01:54 sysrq-trigger
dr-xr-xr-x 2 0 Sep 26 01:54 sysvipc
-r--r--r-- 1 0 Sep 26 01:54 timer_list
dr-xr-xr-x 4 0 Sep 26 01:54 tty
-r--r--r-- 1 0 Sep 26 01:54 uptime
-r--r--r-- 1 0 Sep 26 01:54 version
-r----- 1 0 Sep 26 01:54 vmallocinfo
-r--r--r-- 1 0 Sep 26 01:54 vmstat
-r--r--r-- 1 0 Sep 26 01:54 zoneinfo

```

# cat /proc/partitions

major minor #blocks name

```

31 0 1536 mtdblock0
31 1 128 mtdblock1
31 2 6144 mtdblock2
31 3 4096 mtdblock3
31 4 118784 mtdblock4
8 0 30641315 sda
8 1 30641314 sda1

```

# ls -la

```

dr-xr-xr-x 67 0 Dec 31 1969 .
drwxrwxrwx 19 0 Sep 25 19:42 ..
dr-xr-xr-x 8 0 Sep 25 21:14 1
dr-xr-xr-x 8 0 Sep 25 21:14 182
dr-xr-xr-x 8 0 Sep 25 21:14 184
dr-xr-xr-x 8 0 Sep 25 21:14 186
dr-xr-xr-x 8 0 Sep 25 21:14 1914
dr-xr-xr-x 8 0 Sep 25 21:14 1918
dr-xr-xr-x 8 0 Sep 25 21:14 1919
dr-xr-xr-x 8 0 Sep 25 21:14 192
dr-xr-xr-x 8 0 Sep 27 20:07 1934
dr-xr-xr-x 8 0 Sep 25 21:14 199
dr-xr-xr-x 8 0 Sep 25 21:14 2

```

dr-xr-xr-x	8	0 Sep 25 21:14 204
dr-xr-xr-x	8	0 Sep 25 21:14 222
dr-xr-xr-x	8	0 Sep 25 21:14 223
dr-xr-xr-x	8	0 Sep 25 21:14 235
dr-xr-xr-x	8	0 Sep 25 21:14 236
dr-xr-xr-x	8	0 Sep 25 21:14 237
dr-xr-xr-x	8	0 Sep 25 21:14 240
dr-xr-xr-x	8	0 Sep 25 21:14 241
dr-xr-xr-x	8	0 Sep 25 21:14 242
dr-xr-xr-x	8	0 Sep 25 21:14 244
dr-xr-xr-x	8	0 Sep 25 21:14 245
dr-xr-xr-x	8	0 Sep 25 21:14 261
dr-xr-xr-x	8	0 Sep 25 21:14 262
dr-xr-xr-x	8	0 Sep 25 21:14 3
dr-xr-xr-x	8	0 Sep 25 21:14 340
dr-xr-xr-x	8	0 Sep 25 21:14 343
dr-xr-xr-x	8	0 Sep 25 21:14 346
dr-xr-xr-x	8	0 Sep 25 21:14 349
dr-xr-xr-x	8	0 Sep 25 21:14 354
dr-xr-xr-x	8	0 Sep 25 21:14 355
dr-xr-xr-x	8	0 Sep 25 21:14 366
dr-xr-xr-x	8	0 Sep 25 21:14 369
dr-xr-xr-x	8	0 Sep 25 21:14 375
dr-xr-xr-x	8	0 Sep 25 21:14 376
dr-xr-xr-x	8	0 Sep 25 21:14 377
dr-xr-xr-x	8	0 Sep 25 21:14 378
dr-xr-xr-x	8	0 Sep 25 21:14 379
dr-xr-xr-x	8	0 Sep 25 21:14 380
dr-xr-xr-x	8	0 Sep 25 21:14 381
dr-xr-xr-x	8	0 Sep 25 21:14 382
dr-xr-xr-x	8	0 Sep 25 21:14 383
dr-xr-xr-x	8	0 Sep 25 21:14 384
dr-xr-xr-x	8	0 Sep 25 21:14 392
dr-xr-xr-x	8	0 Sep 25 21:14 397
dr-xr-xr-x	8	0 Sep 25 21:14 4
dr-xr-xr-x	8	0 Sep 25 21:14 402
dr-xr-xr-x	8	0 Sep 25 21:14 407
dr-xr-xr-x	8	0 Sep 25 21:14 412
dr-xr-xr-x	8	0 Sep 25 21:14 468
dr-xr-xr-x	8	0 Sep 25 21:14 478
dr-xr-xr-x	8	0 Sep 25 21:14 490
dr-xr-xr-x	8	0 Sep 25 21:14 491
dr-xr-xr-x	8	0 Sep 25 21:14 6



```

dr-xr-xr-x  8      0 Sep 25 21:14 7
dr-xr-xr-x  8      0 Sep 25 21:14 8
dr-xr-xr-x  2      0 Sep 27 20:07 AuroraL2
--w--w--w-  1      0 Sep 27 20:07 LCD
---x--x--x  1      0 Sep 27 20:07 LCDstatus
-rw-rw-rw-  1      0 Sep 27 20:07 board_type
-r--r--r--  1      0 Sep 27 20:07 buddyinfo
dr-xr-xr-x  5      0 Sep 27 20:07 bus
-r--r--r--  1      0 Sep 27 20:07 cgroups
-r--r--r--  1      0 Sep 27 20:07 cmdline
-r--r--r--  1      0 Sep 27 20:07 consoles
dr-xr-xr-x  2      0 Sep 27 20:07 cpu
-r--r--r--  1      0 Sep 27 20:07 cpuinfo
-r--r--r--  1      0 Sep 27 20:07 crypto
-r--r--r--  1      0 Sep 27 20:07 devices
-r--r--r--  1      0 Sep 27 20:07 diskstats
dr-xr-xr-x  2      0 Sep 27 20:07 driver
-r--r--r--  1      0 Sep 27 20:07 execdomains
-r--r--r--  1      0 Sep 27 20:07 filesystems
dr-xr-xr-x 10      0 Sep 27 20:07 fs
-r--r--r--  1      0 Sep 27 20:07 interrupts
-r--r--r--  1      0 Sep 27 20:07 iomem
-r--r--r--  1      0 Sep 27 20:07 ioports
dr-xr-xr-x 274    0 Sep 27 20:07 irq
-r--r--r--  1      0 Sep 27 20:07 kallsyms
-r--r--r--  1      0 Sep 27 20:07 key-users
-r-----  1      0 Sep 27 20:07 kmsg
-r-----  1      0 Sep 27 20:07 kpagecount
-r-----  1      0 Sep 27 20:07 kpageflags
-r--r--r--  1      0 Sep 27 20:07 loadavg
-r--r--r--  1      0 Sep 27 20:07 locks
-r--r--r--  1      0 Sep 27 20:07 mdstat
-r--r--r--  1      0 Sep 27 20:07 meminfo
-r--r--r--  1      0 Sep 27 20:07 misc
-r--r--r--  1      0 Sep 27 20:07 modules
lrwxrwxrwx  1      11 Sep 27 20:07 mounts -> self/mounts
-r--r--r--  1      0 Sep 27 20:07 mtd
-r-----  1      0 Sep 27 20:07 mv_dump_cp15
lrwxrwxrwx  1      8 Sep 27 20:07 net -> self/net
-r--r--r--  1      0 Sep 27 20:07 pagetypeinfo
-r--r--r--  1      0 Sep 27 20:07 partitions
-rw-r--r--  1      0 Sep 27 20:07 power_off_mode2
-rw-rw-rw-  1      0 Sep 27 20:07 resource_dump

```

```

-r--r--r-- 1      0 Sep 27 20:07 sched_debug
lrwxrwxrwx 1      64 Sep 25 19:41 self -> 1934
-rw-r--r-- 1      0 Sep 27 20:07 slabinfo
-rw-rw-rw- 1      0 Sep 27 20:07 soc_type
-r--r--r-- 1      0 Sep 27 20:07 softirqs
-r--r--r-- 1      0 Sep 27 20:07 stat
-r--r--r-- 1      0 Sep 27 20:07 swaps
dr-xr-xr-x 1      0 Sep 25 19:41 sys
--w----- 1      0 Sep 27 20:07 sysrq-trigger
dr-xr-xr-x 2      0 Sep 27 20:07 sysvipc
-r--r--r-- 1      0 Sep 27 20:07 timer_list
dr-xr-xr-x 4      0 Sep 27 20:07 tty
-r--r--r-- 1      0 Sep 27 20:07 uptime
-r--r--r-- 1      0 Sep 27 20:07 version
-r----- 1      0 Sep 27 20:07 vmallocinfo
-r--r--r-- 1      0 Sep 27 20:07 vmstat
-r--r--r-- 1      0 Sep 27 20:07 zoneinfo
# pwd
/proc
# cd /
# ls -la
drwxrwxrwx 19      0 Sep 25 19:42 .
drwxrwxrwx 19      0 Sep 25 19:42 ..
-rw-r--r-- 1     12 Sep 25 19:42 .os_status
drwxr-xr-x  2      0 Dec 20 2016 bin
drwxr-xr-x  6      0 Sep 25 19:41 dev
drwxr-xr-x  9      0 Sep 25 19:42 etc
drwxr-xr-x  3      0 Dec 20 2016 home
-rwxr-xr-x  1    8148 Dec 20 2016 init
drwxr-xr-x  3      0 Dec 20 2016 lib
lrwxrwxrwx  1      3 Dec 20 2016 lib32 -> lib
drwxr-xr-x  2      0 Jun 11 2013 media
drwxr-xr-x  2      0 Jun 11 2013 mnt
drwxr-xr-x  2      0 Jun 11 2013 opt
dr-xr-xr-x 67      0 Dec 31 1969 proc
drwx----- 3      0 Sep 25 21:14 root
drwxr-xr-x  2      0 Sep 25 19:41 run
drwxr-xr-x  2      0 Dec 20 2016 sbin
drwxr-xr-x 12      0 Sep 25 19:41 sys
drwxr-xr-x  2      0 Jun 11 2013 sysroot
drwxrwxrwt  2      0 Sep 25 19:42 tmp
drwxr-xr-x  6      0 Dec 20 2016 usr
drwxr-xr-x  6      0 Dec 20 2016 var

```

```

# cat init
#!/bin/sh
# $Revision: 1.9 $
DBG="/dev/null"
mount -t proc proc /proc
mount -t sysfs sysfs /sys
mount -t devpts devpts /dev/pts
echo 3 > /proc/sys/kernel/printk
mdev -s
debug="no"

netup() {
  ifconfig lo up
  addr=168
  connected="no"
  for eth in /sys/class/net/eth? ; do
    nic=$(basename $eth)
    ifconfig $nic up
    RETRY=0
    while [ $RETRY -lt 8 ]; do
      if udhcpc -q -n -i $nic; then
        connected=$nic
        break 2
      fi
      RETRY=$((RETRY+1))
      usleep 250000
    done
    if [ $RETRY -eq 8 ]; then
      echo "##### DHCP fail for $nic, use static ip 192.168.168.$addr"
      ifconfig $nic 192.168.168.$addr
    fi
    addr=$((addr+1))
  done
  if [ $connected != "no" ]; then
    IP=`ifconfig $nic | grep "inet " | awk '{print $2}'|cut -f2 -d:`
  else
    IP=`ifconfig eth0 | grep "inet " | awk '{print $2}'|cut -f2 -d:`
  fi
}

sethotid() {
  mac3=`ifconfig eth0 | grep "HWaddr" | awk '{print $5}' | cut -f3 -d:`
  mac4=`ifconfig eth0 | grep "HWaddr" | awk '{print $5}' | cut -f4 -d:`
}

```

```
mac5=`ifconfig eth0 | grep "HWaddr" | awk '{print $5}' | cut -f5 -d:`  
mac6=`ifconfig eth0 | grep "HWaddr" | awk '{print $5}' | cut -f6 -d:`
```

```
mac3=$((0x${mac3} & 0x7f))
```

```
# ten to 0x
```

```
mac3=`echo $mac3 | awk '{printf("%0x\n",$0)}'`
```

```
echo "Hostid: ${mac3}${mac4}${mac5}${mac6}"
```

```
echo -ne "\x${mac6}\x${mac5}\x${mac4}\x${mac3}" > /etc/hostid
```

```
}
```

```
rescue_shell() {
```

```
  echo "Booting into debug mode..."
```

```
  netup
```

```
  sethotid
```

```
  telnetd
```

```
  echo "TELNET Mode" > /.os_status
```

```
  cat /proc/cpuinfo | grep -q -i Annapurna && cp -a -f /etc/fw_env.config.alpine /etc/fw_env.config
```

```
  if [ $debug = "yes" ]; then
```

```
    PORT=`rnutl remote_access -p`
```

```
    echo "Support: $PORT" > /.os_status
```

```
    rnutl remote_access -b
```

```
    echo "IP: $IP"
```

```
    echo "PORT: $PORT"
```

```
  fi
```

```
  if [ -e /proc/LCD ]; then
```

```
    echo '1 " DEBUG: $PORT "' > /proc/LCD
```

```
    echo '2 " $IP "' > /proc/LCD
```

```
  fi
```

```
  raidard
```

```
  exec /bin/ash
```

```
}
```

```
show_error() {
```

```
  echo "ERROR: ${1}!"
```

```
  rescue_shell
```

```
}
```

```
find_boot_device() {
```

```

echo -n "Searching for internal boot flash device..."
for i in `seq 1 60`; do
    # This should be the path for the internal nand flash
    BOOT_FLASH=ubi0_0
    [ -c "/dev/${BOOT_FLASH}" ] && break
    usleep 250000
done
if [ $i -eq 60 ]; then
    echo "Did not find boot flash!"
    show_error "Could not find internal flash device!"
fi
mdev -s
echo "mtd rootfs: $BOOT_FLASH"
BOOT_FLASH="/dev/${BOOT_FLASH}"
}
find_RN25_external_boot_device() {
    echo -n "Searching for external boot flash device..."
    for j in `seq 1 60`; do
        # This should be the path for the front SDCARD port
        for mb in /sys/block/mmcblk?; do
            EXTERNAL_FLASH=$(basename $mb)
            if grep -q ${EXTERNAL_FLASH}p1 /proc/partitions; then
                mdev -s
                if ! mount -t vfat /dev/${EXTERNAL_FLASH}p1 /sysroot >/dev/null 2>/dev/null; then
                    rm -f /dev/${EXTERNAL_FLASH}p1
                    continue
                fi
                IMAGE=`ls /sysroot/ReadyNASOS-*--arm.img 2>/dev/null | head -n1`
                if [ ! -s "$IMAGE" ]; then
                    umount /sysroot
                    continue
                fi
                break
            fi
        done
        [ -s "$IMAGE" ] && break
        usleep 250000
    done
    if [ $j -eq 60 ]; then
        echo "Could not find RN25 external boot flash!"
        show_error "Could not find RN25 external flash device!"
    fi
    umount /sysroot
}

```

```

echo "$EXTERNAL_FLASH"
EXTERNAL_FLASH="/dev/${EXTERNAL_FLASH}"
}

find_external_boot_device() {
echo -n "Searching for external boot flash device..."
found="no"
for i in `seq 1 60`; do
mdev -s
# This should be the path for the front USB port
# try mount raw device first
for sd in /sys/block/sd?; do
EXTERNAL_FLASH=$(basename $sd)
if ! mount -t vfat /dev/${EXTERNAL_FLASH} /sysroot >/dev/null 2>/dev/null; then
continue
fi
IMAGE=`ls /sysroot/ReadyNASOS-*-arm.img 2>/dev/null | head -n1`
if [ ! -s "$IMAGE" ]; then
umount /sysroot
continue
fi
found="yes"
break
done
# try mount partition 1 ~ 4
if [ $found = 'no' ];then
for p in `seq 1 4`; do
for sd in /sys/block/sd?; do
dev=$(basename $sd)
EXTERNAL_FLASH=$dev$p
if ! mount -t vfat /dev/${EXTERNAL_FLASH} /sysroot >/dev/null 2>/dev/null; then
continue
fi
IMAGE=`ls /sysroot/ReadyNASOS-*-arm.img 2>/dev/null | head -n1`
if [ ! -s "$IMAGE" ]; then
umount /sysroot
continue
fi
break 2
done
done
done
fi
[ -s "$IMAGE" ] && break

```

```

    usleep 250000
done
if [ $i -eq 60 ]; then
    echo "Could not find external boot flash!"
    show_error "Could not find external flash device!"
fi
umount /sysroot
echo "$EXTERNAL_FLASH"
EXTERNAL_FLASH="/dev/${EXTERNAL_FLASH}"
}

update_flash() {
    MD5SUM=$(dd if=$IMAGE bs=16384 count=1 2>/dev/null | grep -a info:: | sed -e
's/. *md5sum=/' -e 's/,.*//')
    if ! [ "$MD5SUM" = "$(dd if=$IMAGE bs=16384 skip=1 2>/dev/null | md5sum | awk '{ print $1 }'"
]; then
        show_error "flash image checksum does not match!"
    fi
    [ ! -d /tmp/flash ] && mkdir /tmp/flash
    cd /tmp/flash
    dd if=$IMAGE bs=16384 skip=1 2>/dev/null | tar x || show_error "OS image extraction failed!"

    for fl in /sysroot/u-boot-${SYSTYPE}-*; do
        [ -f $fl ] || break
        cp -f $fl /tmp/flash
        echo "done"
    done

    for fl in /tmp/flash/u-boot-${SYSTYPE}-*; do
        [ -f $fl ] || break
        FLNAME=$(basename $fl)
        flash_erase /dev/mtd0 0 0
        nandwrite -p /dev/mtd0 ./$FLNAME
        echo "done"
    done

    for fl in /tmp/flash/kernel.${SYSTYPE}; do
        [ -f $fl ] || break
        FLNAME=$(basename $fl)
        flash_erase /dev/mtd2 0 0
        nandwrite -p /dev/mtd2 ./$FLNAME
    done

    if [ ! -f /tmp/flash/kernel.${SYSTYPE} ]; then

```

```

if [ $$SYSTYPE = "rn202" -o $$SYSTYPE = "rn204" -o $$SYSTYPE = "rn212" -o $$SYSTYPE =
"rn214" ]; then
    #Alpine series
    if [ -f /tmp/flash/kernel.alpine ]; then
        cp -f /tmp/flash/kernel.alpine /tmp/flash/kernel
    fi
fi
if [ -f /tmp/flash/kernel ]; then
    flash_erase /dev/mtd2 0 0
    nandwrite -p /dev/mtd2 ./kernel
fi
fi

```

```

for fl in /tmp/flash/initrd*; do
    [ -f $fl ] || break
    FLNAME=$(basename $fl)
    flash_erase /dev/mtd3 0 0
    nandwrite -p /dev/mtd3 ./${FLNAME}
done
ROOT=`ls /tmp/flash/root* | head -n1`
[ -s "$ROOT" ] && cp $ROOT /boot_flash || show_error "could not update flash device!"
sync
umount /boot_flash
umount /sysroot
cd /
}

```

```

format_mtd4() {

    echo -n "Internal flash crashed, format it..."
    ubidetach -m 4
    flash_erase /dev/mtd4 0 0
    sleep 1
    ubiattach /dev/ubi_ctrl -m 4
    sleep 1
    ubimkvol /dev/ubi0 -N rootfs -m
    sleep 1
    echo "done"
}

```

```

write_flash() {

    mdev -s

```



```

## find external boot usb device
if [ $SYSTYPE = "rn25" -o $SYSTYPE = "s2000" -o $SYSTYPE = "folio" ]; then
    find_RN25_external_boot_device
    mount -t vfat ${EXTERNAL_FLASH}p1 /sysroot || show_error "could not mount external flash"
else
    find_external_boot_device
    mount -t vfat ${EXTERNAL_FLASH} /sysroot || show_error "could not mount external flash"
fi

if [ -f /sysroot/NTGR_DEBUG.* ]; then
    echo "Found debug flag file"
    debug="yes"
    umount /sysroot
    rescue_shell
fi

#internal mtd rootfs
if ubiattach /dev/ubi_ctrl -m 4; then
    echo "Internal flash attached"
else
    format_mtd4
fi
mdev -s
find_boot_device

[ ! -d /boot_flash ] && mkdir /boot_flash

if mount -t ubifs ${BOOT_FLASH} /boot_flash; then
    rm -f /boot_flash/root.tlz
fi
mdev -s

IMAGE=`ls /sysroot/ReadyNASOS-*-arm.img | head -n1`
[ -s "$IMAGE" ] || show_error "no source flash image found"
echo -n "Writing internal nand flash device..."
update_flash
echo "done"
}

echo "Start to run USB Recovery..."

if [ -e /proc/LCD ]; then
    echo '1 " ReadyNAS "' > /proc/LCD

```

```
echo '2 " USB Recovery "' > /proc/LCD
fi
```

```
if [ -z $SYSTYPE ]; then
  SYSTYPE=$(cat /proc/cmdline | grep bdtype | sed -e 's/. *bdtype=//')
```

```
fi
```

```
if [ -z $SYSTYPE ]; then
  show_error "Get systype failed!"
```

```
else
```

```
  echo "Get systype=$SYSTYPE"
```

```
fi
```

```
# handle 2120v2
```

```
[ $SYSTYPE = "rn2120-v2" ] && SYSTYPE="rn2120"
```

```
write_flash
```

```
/sbin/poweroff -f
```

```
# ubiattach /dev/ubi0_0
```

```
ubiattach: error!: MTD device to attach was not specified (use -h for help)
```

```
# ubiattach --help
```

```
ubiattach version 1.5.0 - a tool to attach MTD device to UBI.
```

Usage: ubiattach [<UBI control device node file name>]

[-m <MTD device number>] [-d <UBI device number>] [-p <path to device>]

[--mtdn=<MTD device number>] [--devn=<UBI device number>]

[--dev-path=<path to device>]

UBI control device defaults to /dev/ubi\_ctrl if not supplied.

Example 1: ubiattach -p /dev/mtd0 - attach /dev/mtd0 to UBI

Example 2: ubiattach -m 0 - attach MTD device 0 (mtd0) to UBI

Example 3: ubiattach -m 0 -d 3 - attach MTD device 0 (mtd0) to UBI

and create UBI device number 3 (ubi3)

-d, --devn=<number> the number to assign to the newly created UBI device  
(assigned automatically if this is not specified)

-p, --dev-path=<path> path to MTD device node to attach

-m, --mtdn=<number> MTD device number to attach (alternative method, e.g  
if the character device node does not exist)

-O, --vid-hdr-offset VID header offset (do not specify this unless you really  
know what you are doing, the default should be optimal)

-h, --help print help message

-V, --version print program version

```
# ubiattach -p /dev/ubi0_0
```

```
libubi: error!: cannot stat "/dev/ubi0_0"
```

```
error 2 (No such file or directory)
```

```
ubiattach: error!: cannot attach "/dev/ubi0_0"  
error 2 (No such file or directory)
```

```
# cat /proc/partitions
```

```
major minor #blocks name
```

```
31    0    1536 mtdblock0  
31    1     128 mtdblock1  
31    2    6144 mtdblock2  
31    3    4096 mtdblock3  
31    4   118784 mtdblock4  
8     0  30641315 sda  
8     1  30641314 sda1
```

```
# mount -t vfat /dev/sda1 /sysroot
```

```
# mount
```

```
rootfs on / type rootfs (rw)
```

```
proc on /proc type proc (rw,noatime,nodiratime)
```

```
sysfs on /sys type sysfs (rw,noatime,nodiratime)
```

```
devpts on /dev/pts type devpts (rw,noatime,nodiratime,mode=600)
```

```
/dev/sda1 on /sysroot type vfat
```

```
(rw,noatime,nodiratime,mask=0022,dmask=0022,codepage=cp437,ioccharset=iso8859-1,shortname=mixed,errors=remount-ro)
```

```
# chroot /sysroot bash
```

```
chroot: can't execute 'bash': No such file or directory
```

```
# chroot /sysroot
```

```
chroot: can't execute '/bin/sh': No such file or directory
```

```
# cd /sysroot
```

```
# ls -la
```

```
drwxr-xr-x  3  16384 Dec 31  1969 .  
drwxrwxrwx 19     0 Sep 25 19:42 ..  
-rwxr-xr-x  1     0 Sep  3 15:02 NTGR_USBBOOT_INFO.txt  
drwxr-xr-x  2  16384 Sep  3 13:22 System Volume Information  
-rwxr-xr-x  1 2733998 Sep  3 15:02 initrd-recovery.gz  
-rwxr-xr-x  1 3159060 Sep  3 15:02 ulmage-recovery
```

```
# umount /sysroot
```

```
umount: can't unmount /sysroot: Device or resource busy
```

```
# cd /
```

```
# umount /sysroot
```

```
# mount
```

```
rootfs on / type rootfs (rw)
```

```
proc on /proc type proc (rw,noatime,nodiratime)
```

```
sysfs on /sys type sysfs (rw,noatime,nodiratime)
```

```
devpts on /dev/pts type devpts (rw,noatime,nodiratime,mode=600)
```

```
# mount -t vfat /dev/sda1 /mnt
```

```
# cd /mnt
# ls -lah
drwxr-xr-x  3 16.0K Dec 31 1969 .
drwxrwxrwx 19   0 Sep 25 19:42 ..
-rwxr-xr-x  1   0 Sep  3 15:02 NTGR_USBBOOT_INFO.txt
drwxr-xr-x  2 16.0K Sep  3 13:22 System Volume Information
-rwxr-xr-x  1 2.6M Sep  3 15:02 initrd-recovery.gz
-rwxr-xr-x  1 3.0M Sep  3 15:02 ulmage-recovery
#
```