Инструкция по установке

Программное обеспечение для IP-камер серии QVC-MiR

2023

Содержание

1. Принятые сокращения

Сокращение	Расшифровка
IP	Internet Protocol (IP, досл. «межсетевой протокол») — маршрутизируемый протокол сетевого уровня стека TCP/IP
TFTP	TFTP (англ. Trivial File Transfer Protocol — простой протокол передачи файлов)
ПК	Персональный компьютер
COM-порт	Последовательный порт интерфейса стандарта RS-232
ПО	Программное обеспечение для IP-камер серии QVC-MiR

2. Введение

Серия IP-видеокамер QVC-MiR — это серия сетевых видеокамер, выполняющих функционал:

- формирование качественного изображения для последующей передачи по сети в видео видео и аудио потока
- формирования видеопотока в стандартных кодеках
- формирование аудиопотока в стандартных кодеках
- передача одновременно потоков данных нескольким клиентам
- три независимых потока разного качества
- доступ пользователя через web-интерфейс для настроек параметров камеры.

Выполнение функционала обеспечивается в режиме 24/7.

Представленные в разных корпусах с разным разрешением камеры серии QVC-MiR могут решать широкий спектр задач по организации видеонаблюдения как внутри, так и вне помещения с разной степенью детализации.

3. Инструкция по установке

3.1 Предварительные требования

ПК с возможностью консольного подключения через COM-порт для управления и IP адресом 192.168.1.1/24, tftp сервер с возможностью доступа к файлам ПО и загрузчика. Коммутатор подключается к ПК при помощи консольного соединения с параметрами 115200/8N1 и по ethernet интерфейсу к ПК с tftpсервером (инструкция по установке ниже).

3.2 Установка

3.2.1 Установка tftp-сервера на Ubuntu

- Установка сервера tftpd и службы openbsd-inetd

```
sudo apt-get install openbsd-inetd tftpd tftp
```

По завершении установки вы увидите сообщения вида:

```
...
Настраивается пакет openbsd-inetd (0.20080125-4ubuntu2) ...
* Stopping internet superserver inetd                    [ OK ]
* Not starting internet superserver: no services enabled

Настраивается пакет tftpd (0.17-17ubuntu1) ...
```

- Настройка tftpd

По умолчанию TFTP сервер настроен на использование директории /srv/tftp. Мы настроим TFTPсервер так, чтобы он использовал для работы директорию /tftpboot. В эту директорию необходимо будет положить файл прошивки.
Отредактируем файл /etc/inetd.conf.

```
sudonano /etc/inetd.conf
```

В файле найдите строки вида:

```
#:BOOT: TFTP service is provided primarily for booting.  Most sites
#      run this only on machines acting as "boot servers."
tftp           dgram   udp    wait    nobody  /usr/sbin/tcpd
/usr/sbin/in.tftpd /srv/tftp
```

Аргумент /srv/tftp команды in.tftpd указывает на каталог в котором будут храниться файлы TFTPсервера. Заменим /srv/tftp на /tftpboot

```
tftp           dgram   udp    wait    nobody  /usr/sbin/tcpd
/usr/sbin/in.tftpd /tftpboot
```

Создадим директорию /tftpboot:

```
sudo mkdir /tftpboot
```

Изменим права доступа:

```
sudo chown -R nobody /tftpboot
```

Чтобы новые настройки вступили в силу, перезапустим службу inetd:

```
sudo /etc/init.d/openbsd-inetd restart
```

На этом установка TFTP сервера завершена.

3.2.2 Установка tftp-сервера на Windows

Бесплатным и простым в установке и использовании сервером tftp является solarwindstftpserver. Скачать его можно [тут](https://www.solarwinds.com/free-tools/free-tftp-server) (https://www.solarwinds.com/free-tools/free-tftp-server), там же есть видео по установке и настройке. Необходимо настроить только директорию, где будет лежать файл прошивки.

4. Уставновка ПО

Последовательность действий по установке ПО:

1. Выключается питание устройства.

2. Файлы ПО (uImage.xz, rootfs.squashfs и qtech.ubifs) копируются в директорию tftp сервера, которую Вы создали при установке.

3. Запускается терминал с параметрами соединения 115200/8N1

4. При нажатой в терминале клавише Enter, подаётся питание на устройство, в консоли терминала ожидается появление SigmaStar #

```
IPL f94373c
D-0a
SPI 54M
128MB
BIST0_0001-OK
Load IPL_CUST from SPINAND
[I]m7

BlSize 00004900
[I]m7
Checksum OK

IPL_CUST f94373c
runUBOOT()
[I]m7
[I]m7
Load BL from SPINAND
-Verify CRC32 passed!
-Decompress XZ
u32HeaderSize=0x00000040
u32Loadsize=0x00029334
decomp_size=0x0007312c
Disable MMU and D-cache before jump to UBOOT▓

U-Boot 2015.01 (Oct 26 2020 - 15:29:57)

Version: I6g#######
I2C:   ready
DRAM:
WARNING: Caches not enabled
SPINAND_I:  SPINAND: _MDrv_SPINAND_GET_INFO: Found SPINAND INFO
(0xEF) (0xAA) (0x21)
SPINAND: board_nand_init: CIS contains part info
128 MiB
MMC:   MStar SD/MMC: 0
In:    serial
Out:   serial
Err:   serial
gpio debug MHal_GPIO_Pad_Set:599
gpio[53] is 0
gpio debug MHal_GPIO_Pad_Set:599
gpio[52] is 0
Net:   MAC Address 00:30:1B:BA:02:DB
Auto-Negotiation...
SigmaStar #
```

```
SigmaStar #
SigmaStar #
```

5. Устанавливаем другие параметры камеры. Команды:

IP-адрес камеры (из подсети ПК):
setenv ipaddr 192.168.1.12

Модель камеры
setenv QTECH_MODEL MIR203

Поддерживаемые модели камеры:
setenv QTECH_SUPPORTED_MODEL "MIR201,MIR203"

Сохраняем введенные значения:
sa

6. Проверяем server ip в переменных uboot. Команда:

printenv

```
SigmaStar # printenv
QTECH_MODEL=MIR203
QTECH_SUPPORTED_MODEL="MIR201,MIR203"
baudrate=115200
bootargs=console=ttyS0,115200       root=/dev/mtdblock2    rootfstype=squashfs    ro    init=/linuxrc
LX_MEM=0x7fc6000 mma_heap=mma_heap_name0,miu=0,sz=0x3300000 mtdparts=nand0:2M(boot),4)
bootcmd=nand read 0x21000000 200000 380000;bootm 0x21000000
bootdelay=0
ethact=sstar_emac
ethaddr=00:30:1b:ba:02:db
ipaddr=192.168.1.12
mtdids=nand0=nand0
mtdparts=mtdparts=nand0:0x200000@0(BOOT),0x380000(KERNEL),0x1800000(ROOTFS),-(UBI)
partition=nand0,0
serverip=192.168.1.1
stderr=serial
stdin=serial
stdout=serial
usb_folder=images
```

Необходимо убедиться, что адрес в строке serverip совпадает с адресом Вашего ПК.

7. Прошивка NAND-памяти. Команды (**модель 203**):

Выделить место под ядро:
setenv mtdparts 'mtdparts=nand0:0x200000@0(BOOT),0x380000(KERNEL),0x1800000(ROOTFS),-(UBI)' sa

SigmaStar # setenv mtdparts 'mtdparts=nand0:0x200000@0(BOOT),0x380000(KERNEL),0x1800000(ROOTFS),-(UBI)'
SigmaStar # sa
Saving Environment to NAND...
Erasing NAND...
Erasing at 0x1e0000 -- 100% complete.
Writing to NAND... OK

Стереть все данные с флеши, на которые указывает UBI и создать разделы:
nand erase.part clean UBI;ubi part UBI;ubi create user_data 800000; ubi create primary 2000000; ubi create secondary

SigmaStar # nand erase.part clean UBI;ubi part UBI;ubi create user_data 800000; ubi create primary 2000000; ubi create secondary

NAND erase.part: device 0 offset 0x1d80000, size 0x6280000
Erasing at 0x7fe0000 -- 100% complete. Cleanmarker written at 0x7fe0000.
Time:5386760 us, speed:19173 KB/s
OK
UBI: parsing mtd_dev string 'mtd=3'
UBI: attaching mtd1 to ubi0
UBI: scanning is finished
UBI: empty MTD device detected
UBI: attached mtd1 (name "mtd=3", size 98 MiB) to ubi0
UBI: PEB size: 131072 bytes (128 KiB), LEB size: 126976 bytes
UBI: min./max. I/O unit sizes: 2048/2048, sub-page size 2048
UBI: VID header offset: 2048 (aligned 2048), data offset: 4096
UBI: good PEBs: 788, bad PEBs: 0, corrupted PEBs: 0
UBI: user volume: 0, internal volumes: 1, max. volumes count: 128
UBI: max/mean erase counter: 1/0, WL threshold: 4096, image sequence number: 0
UBI: available PEBs: 764, total reserved PEBs: 24, PEBs reserved for bad PEB handling: 20
Creating dynamic volume user_data of size 8388608
Creating dynamic volume primary of size 33554432
No size specified -> Using max size (54853632)
Creating dynamic volume secondary of size 54853632

Запись ядра:
tftp ${fileaddr} uImage.xz;nand erase 200000 380000; nand write.e ${fileaddr} 200000 ${filesize}

SigmaStar # tftp ${fileaddr} uImage.xz;nand erase 200000 380000; nand write.e ${fileaddr} 200000 ${filesize}
Using sstar_emac device
TFTP from server 192.168.1.1; our IP address is 192.168.1.12
Filename 'uImage.xz'.
Load address: 0x20006000
Loading: ###
    ###
    2.1 MiB/s
done
Bytes transferred = 1811032 (1ba258 hex)

NAND erase: device 0 offset 0x200000, size 0x380000
Erasing at 0x560000 -- 100% complete.
Time:129359 us, speed:28370 KB/s

OK

NAND write: device 0 offset 0x200000, size 0x1ba258
Time:399874 us, speed:4529 KB/s
 1811032 bytes written: OK

Запись rootfs:

tftp 0x21000000 rootfs.squashfs; nand erase 600000 1800000; nand write.e 0x21000000 600000 ${filesize}

SigmaStar # tftp 0x21000000 rootfs.squashfs; nand erase 600000 1800000; nand write.e 0x21000000 600000 ${filesize}
Using sstar_emac device
TFTP from server 192.168.1.1; our IP address is 192.168.1.12
Filename 'rootfs.squashfs'.
Load address: 0x21000000
Loading: ###
    ###
    ###
    ###
    ###
    ###
    ###
    ###
    ###
    2.1 MiB/s
done
Bytes transferred = 8458240 (811000 hex)

NAND erase: device 0 offset 0x600000, size 0x1800000
Erasing at 0x1de0000 -- 100% complete.
Time:583234 us, speed:43148 KB/s
OK

NAND write: device 0 offset 0x600000, size 0x811000
Time:1799976 us, speed:4699 KB/s
 8458240 bytes written: OK

Запись Qtech Device Manager:

tftp ${fileaddr} qtech.ubifs; ubi write ${fileaddr} primary ${filesize}

SigmaStar # tftp ${fileaddr} qtech.ubifs; ubi write ${fileaddr} primary ${filesize}
Using sstar_emac device
TFTP from server 192.168.1.1; our IP address is 192.168.1.12
Filename 'qtech.ubifs'.
Load address: 0x21000000
Loading: ###
    ###
    ###
    ###
    ###
    ###
    ###
    ###
    ###
    ###
    ###
    ###

```
################################################################
################################################################
################################################################
################################################################
################################################################
#############################
    2.1 MiB/s
done
Bytes transferred = 17649664 (10d5000 hex)
17649664 bytes written to volume primary
```

8. Перезагружаем устройство:

reset

```
SigmaStar # reset
resetting ...
```

5. Обновление через WEB-интерфейс

В дальнейшем обновление производится через WEB-интерфейс файлами вида 20230517_095154_MIR203_1.0.1.bin.

После загрузки устройства, старт системы в терминале можно определить по наличию лога основного системного демона:

```
IPL f94373c
D-0a
SPI 54M
128MB
BIST0_0001-OK
Load IPL_CUST from SPINAND
[I]m7

 BlSize 00004900
[I]m7
Checksum OK

IPL_CUST f94373c
runUBOOT()
[I]m7
[I]m7
Load BL from SPINAND
 -Verify CRC32 passed!
 -Decompress XZ
  u32HeaderSize=0x00000040
  u32Loadsize=0x00029334
  decomp_size=0x0007312c
Disable MMU and D-cache before jump to UBOOT�

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I2C:   ready
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SPINAND: board_nand_init: CIS contains part info
128 MiB
MMC:   MStar SD/MMC: 0
In:    serial
Out:   serial
Err:   serial
gpio debug MHal_GPIO_Pad_Set:599


gpio[53] is 0
gpio debug MHal_GPIO_Pad_Set:599
gpio[52] is 0
Net:   MAC Address 00:30:1B:BA:02:DB
Auto-Negotiation...
Link Status Speed:100 Full-duplex:1
sstar_emac

NAND read: device 0 offset 0x200000, size 0x380000
Time:355707 us, speed:10317 KB/s
 3670016 bytes read: OK
##  Booting kernel from Legacy Image at 21000000 ...
   Image Name:   MVX2##I6gb98f1c8c2KL_LX409####[B
   Image Type:   ARM Linux Kernel Image (lzma compressed)
```

```
  Data Size:    1692056 Bytes = 1.6 MiB
  Load Address: 20008000
  Entry Point:  20008000
  Verifying Checksum ... OK
-usb_stop(USB_PORT0)
-usb_stop(USB_PORT2)
  Uncompressing Kernel Image ...
[XZ] !!!reserved 0x21000000 length=0x 1000000 for xz!!
  XZ: uncompressed size=0x361000, ret=7
OK
ERR: Can't find KIMG header and initrd address, 0x00000000
atags:0x20000000

Starting kernel ...

Booting Linux on physical CPU 0x0
Linux version 4.9.84 (dreddsa@dreddsa-home) (gcc version 8.5.0 (crosstool-NG 1.25.0) ) #2 PREEMPT Tue Apr 11 09:48:25 MSK
2023
CPU: ARMv7 Processor [410fc075] revision 5 (ARMv7), cr=50c53c7d
CPU: div instructions available: patching division code
CPU: PIPT / VIPT nonaliasing data cache, VIPT aliasing instruction cache
early_atags_to_fdt() success
OF: fdt:Machine model: INFINITY6 SSC009B-S01A QFN128
[ERROR] LX_MEM, LX_MEM2, LX_MEM3 should be aligned to 1MB
[ERROR] LX_MEM, LX_MEM2, LX_MEM3 should be aligned to 1MB
[ERROR] LX_MEM, LX_MEM2, LX_MEM3 should be aligned to 1MB
LXmem is 0x7fc6000 PHYS_OFFSET is 0x20000000
Add mem start 0x20000000 size 0x7fc6000!!!!

LX_MEM  = 0x20000000, 0x7fc6000
LX_MEM2 = 0x0, 0x0
LX_MEM3 = 0x0, 0x0
EMAC_LEN= 0x0
DRAM_LEN= 0x0
deal_with_reserve_mma_heap memblock_reserve success mma_config[0].reserved_start=
0x24cc6000

cma: Reserved 2 MiB at 0x24a00000
Memory policy: Data cache writeback
CPU: All CPU(s) started in SVC mode.
Built 1 zonelists in Zone order, mobility grouping on.  Total pages: 32454
Kernel    command    line:    console=ttyS0,115200    root=/dev/mtdblock2    rootfstype=squashfs    ro    LX_MEM=0x7fc6000
mma_heap=mma_heap_name0,miu=0,sz=0x3300000 mtdparts=nand0:2M(boot),4M(1
PID hash table entries: 512 (order: -1, 2048 bytes)
Dentry cache hash table entries: 16384 (order: 4, 65536 bytes)
Inode-cache hash table entries: 8192 (order: 3, 32768 bytes)
Memory: 71620K/130840K available (1992K kernel code, 207K rwdata, 1028K rodata, 108K init, 141K bss, 57172K reserved,
2048K cma-reserved)
Virtual kernel memory layout:
    vector  : 0xffff0000 - 0xffff1000   (   4 kB)
    fixmap  : 0xffc00000 - 0xfff00000   (3072 kB)
    vmalloc : 0xc8000000 - 0xff800000   ( 888 MB)


    lowmem  : 0xc0000000 - 0xc7fc6000   ( 127 MB)
    modules : 0xbf800000 - 0xc0000000   (   8 MB)
     .text : 0xc0008000 - 0xc01fa5a8   (1994 kB)
     .init : 0xc0319000 - 0xc0334000   ( 108 kB)
     .data : 0xc0334000 - 0xc0367d90   ( 208 kB)
     .bss : 0xc0369000 - 0xc038c56c   ( 142 kB)
SLUB: HWalign=64, Order=0-3, MinObjects=0, CPUs=1, Nodes=1
Preemptible hierarchical RCU implementation.
    Build-time adjustment of leaf fanout to 32.
NR_IRQS:16 nr_irqs:16 16
ms_init_main_intc: np->name=ms_main_intc, parent=gic
ms_init_pm_intc: np->name=ms_pm_intc, parent=ms_main_intc
```

ss_init_gpi_intc: np->name=ms_gpi_intc, parent=ms_main_intc
Find CLK_cpupll_clk, hook ms_cpuclk_ops
arm_arch_timer: Architected cp15 timer(s) running at 6.00MHz (virt).
clocksource: arch_sys_counter: mask: 0xffffffffffffff max_cycles: 0x1623fa770, max_idle_ns: 440795202238 ns
sched_clock: 56 bits at 6MHz, resolution 166ns, wraps every 4398046511055ns
Switching to timer-based delay loop, resolution 166ns
console [ttyS0] enabled
Calibrating delay loop (skipped), value calculated using timer frequency.. 12.00 BogoMIPS (lpj=60000)
pid_max: default: 4096 minimum: 301
Mount-cache hash table entries: 1024 (order: 0, 4096 bytes)
Mountpoint-cache hash table entries: 1024 (order: 0, 4096 bytes)
CPU: Testing write buffer coherency: ok
Setting up static identity map for 0x200081c0 - 0x200081f0
devtmpfs: initialized
VFP support v0.3: implementor 41 architecture 2 part 30 variant 7 rev 5
clocksource: jiffies: mask: 0xffffffff max_cycles: 0xffffffff, max_idle_ns: 19112604462750000 ns
futex hash table entries: 16 (order: -4, 448 bytes)
NET: Registered protocol family 16
DMA: preallocated 256 KiB pool for atomic coherent allocations

Version : MVX2##I6gb98f1c8c2KL_LX409####[BR:IPCAM-262_OSD_text_position]#XVM

GPIO: probe end[ss_gpi_intc_domain_alloc] hw:42 -> v:51
[MS_PM_INTC] hw:20 -> v:53
hw-breakpoint: found 5 (+1 reserved) breakpoint and 4 watchpoint registers.
hw-breakpoint: maximum watchpoint size is 8 bytes.
MSYS: INIT DONE. TICK=0x022EA84C
clocksource: Switched to clocksource arch_sys_counter
NET: Registered protocol family 2
TCP established hash table entries: 1024 (order: 0, 4096 bytes)
TCP bind hash table entries: 1024 (order: 2, 20480 bytes)
TCP: Hash tables configured (established 1024 bind 1024)
UDP hash table entries: 128 (order: 0, 6144 bytes)
UDP-Lite hash table entries: 128 (order: 0, 6144 bytes)
NET: Registered protocol family 1
hw perfevents: enabled with armv7_cortex_a7 PMU driver, 5 counters available
workingset: timestamp_bits=30 max_order=15 bucket_order=0
squashfs: version 4.0 (2009/01/31) Phillip Lougher
io scheduler noop registered
io scheduler deadline registered (default)
libphy: Fixed MDIO Bus: probed
PPP generic driver version 2.4.2
NET: Registered protocol family 24
i2c /dev entries driver
1f221000.uart0: ttyS0 at MMIO 0x0 (irq = 39, base_baud = 10800000) is a unknown
1f221200.uart1: ttyS1 at MMIO 0x0 (irq = 40, base_baud = 10800000) is a unknown
URDMA rx_buf=0xC4A42000(phy:0x24A42000) tx_buf=0xC4A43000(phy:0x24A43000) size=0x1000
1f220400.uart2: ttyS2 at MMIO 0x0 (irq = 42, base_baud = 10800000) is a unknown
MSYS: DMEM request: [emac0_buff]:0x00000812
MSYS: DMEM request: [emac0_buff]:0x00000812 success, CPU phy:@0x24A44000, virt:@0xC4A44000
libphy: mdio: probed
mdio_bus mdio-bus@emac0: /soc/emac0/mdio-bus/ethernet-phy@0 has invalid PHY address
mdio_bus mdio-bus@emac0: scan phy ethernet-phy at address 0

mdio_bus mdio-bus@emac0: scan phy ethernet-phy at address 1
mdio_bus mdio-bus@emac0: scan phy ethernet-phy at address 2
mdio_bus mdio-bus@emac0: scan phy ethernet-phy at address 3
mdio_bus mdio-bus@emac0: scan phy ethernet-phy at address 4
mdio_bus mdio-bus@emac0: scan phy ethernet-phy at address 5
mdio_bus mdio-bus@emac0: scan phy ethernet-phy at address 6
mdio_bus mdio-bus@emac0: scan phy ethernet-phy at address 7
mdio_bus mdio-bus@emac0: scan phy ethernet-phy at address 8
mdio_bus mdio-bus@emac0: scan phy ethernet-phy at address 9
mdio_bus mdio-bus@emac0: scan phy ethernet-phy at address 10

mdio_bus mdio-bus@emac0: scan phy ethernet-phy at address 11
mdio_bus mdio-bus@emac0: scan phy ethernet-phy at address 12
mdio_bus mdio-bus@emac0: scan phy ethernet-phy at address 13
mdio_bus mdio-bus@emac0: scan phy ethernet-phy at address 14
mdio_bus mdio-bus@emac0: scan phy ethernet-phy at address 15
mdio_bus mdio-bus@emac0: scan phy ethernet-phy at address 16
mdio_bus mdio-bus@emac0: scan phy ethernet-phy at address 17
mdio_bus mdio-bus@emac0: scan phy ethernet-phy at address 18
mdio_bus mdio-bus@emac0: scan phy ethernet-phy at address 19
mdio_bus mdio-bus@emac0: scan phy ethernet-phy at address 20
mdio_bus mdio-bus@emac0: scan phy ethernet-phy at address 21
mdio_bus mdio-bus@emac0: scan phy ethernet-phy at address 22
mdio_bus mdio-bus@emac0: scan phy ethernet-phy at address 23
mdio_bus mdio-bus@emac0: scan phy ethernet-phy at address 24
mdio_bus mdio-bus@emac0: scan phy ethernet-phy at address 25
mdio_bus mdio-bus@emac0: scan phy ethernet-phy at address 26
mdio_bus mdio-bus@emac0: scan phy ethernet-phy at address 27
mdio_bus mdio-bus@emac0: scan phy ethernet-phy at address 28
mdio_bus mdio-bus@emac0: scan phy ethernet-phy at address 29
mdio_bus mdio-bus@emac0: scan phy ethernet-phy at address 30
mdio_bus mdio-bus@emac0: scan phy ethernet-phy at address 31
[emac_phy_connect][3099] connected mac emac0 to PHY at mdio-bus@emac0:00 [uid=11112222, driver=SStar 10/100 Ethernet Phy]
ms_rtcpwc 1f006800.rtcpwc: rtc core: registered 1f006800.rtcpwc as rtc0
[ms_gpioi2c] sda-gpio=8, scl-gpio=9
[__infinity_wdt_get_clk_rate] of_clk_get failed
check_osc_clk get much clk error from DTS
[SAR] infinity_sar_probe
MSYS: DMEM request: [AESDMA_ENG]:0x00001000
MSYS: DMEM request: [AESDMA_ENG]:0x00001000 success, CPU phy:@0x24A45000, virt:@0xC4A45000
MSYS: DMEM request: [AESDMA_ENG1]:0x00001000
MSYS: DMEM request: [AESDMA_ENG1]:0x00001000 success, CPU phy:@0x24A46000, virt:@0xC4A46000
infinity_aes soc:aesdma: MSTAR AES engine enabled.
cryptodev: driver aesdmadev loaded.
[ms_cpufreq_init] cpu current clk=796917760
[ms_pwm_probe][118] 0xc4761d10
mstar_spinand_probe: mstar_spinand enableClock
MSYS: DMEM request: [BDMA]:0x00000840
MSYS: DMEM request: [BDMA]:0x00000840 success, CPU phy:@0x24A47000, virt:@0xC4A47000
MDrv_SPINAND_Init: Detected ID: MID =c2, DID =12
_dumpNandInformation:warning, Bytes / Page : 2048
_dumpNandInformation:warning, Pages / Block: 64
_dumpNandInformation:warning, Sector/ Page : 512
_dumpNandInformation:warning, Spare / Page : 64
_dumpNandInformation:warning, Current config r:1 w:1 drv:1
mstar_spinand_probe: Magic memcmp pass
mstar_spinand_probe: Get partition (Block 0 : page 1)
mstar_spinand_probe: CIS contains part info
mstar_spinand_probe: Before nand_scan()...
4 cmdlinepart partitions found on MTD device nand0
mstar_spinand_probe: Mtd parts default
Creating 4 MTD partitions on "nand0":
0x000000000000-0x000000200000 : "boot"
0x000000200000-0x000000600000 : "kernel"
0x000000600000-0x000001e00000 : "rootfs"
0x000001e00000-0x000008000000 : "ubifs"
mstar notify driver install successfully
ip_tables: (C) 2000-2006 Netfilter Core Team
NET: Registered protocol family 17
ThumbEE CPU extension supported.
ms_rtcpwc 1f006800.rtcpwc: setting system clock to 2023-05-19 13:24:07 UTC (1684502647)
OF: fdt:not creating '/sys/firmware/fdt': CRC check failed
VFS: Mounted root (squashfs filesystem) readonly on device 31:2.
devtmpfs: mounted
Freeing unused kernel memory: 108K
This architecture does not have kernel memory protection.
random: init: uninitialized urandom read (4 bytes read)

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random: mount: uninitialized urandom read (4 bytes read)
random: mkdir: uninitialized urandom read (4 bytes read)
random: mount: uninitialized urandom read (4 bytes read)
random: mount: uninitialized urandom read (4 bytes read)
random: mount: uninitialized urandom read (4 bytes read)
random: mkdir: uninitialized urandom read (4 bytes read)
random: sh: uninitialized urandom read (4 bytes read)
random: sysctl: uninitialized urandom read (4 bytes read)
vm.overcommit_memory = 1
random: sh: uninitialized urandom read (4 bytes read)
[ss_gpi_intc_domain_alloc] hw:70 -> v:59
usbcore: registered new interface driver usbfs
usbcore: registered new interface driver hub
usbcore: registered new device driver usb
ehci_hcd: USB 2.0 'Enhanced' Host Controller (EHCI) Driver
Mstar_ehc_init version:20180309
Sstar-ehci-1 H.W init
CHIP_FUNCTION SET. ID=4, param=1
Get power-enable-pad from DTS GPIO(64)
[mstar_usb_vbus_control] Enable USB VBUS GPIO(64)
Titania3_series_start_ehc start
[USB] config miu select [70] [e8] [ef] [ef]
[USB] enable miu lower bound address subtraction
[USB] init squelch level 0x2
[USB] no platform_data, device tree coming
[USB][EHC] dma coherent_mask 0xffffffffffffffff mask 0xffffffffffffffff
BC disable
[USB] soc:Sstar-ehci-1 irq --> 45
Sstar-ehci-1 soc:Sstar-ehci-1: EHCI Host Controller
Sstar-ehci-1 soc:Sstar-ehci-1: new USB bus registered, assigned bus number 1
Sstar-ehci-1 soc:Sstar-ehci-1: irq 45, io mem 0xfd284800
usb usb1: New USB device found, idVendor=1d6b, idProduct=0002
usb usb1: New USB device strings: Mfr=3, Product=2, SerialNumber=1
usb usb1: Product: EHCI Host Controller
usb usb1: Manufacturer: Linux 4.9.84 ehci_hcd
usb usb1: SerialNumber: mstar
hub 1-0:1.0: USB hub found
hub 1-0:1.0: 1 port detected
SCSI subsystem initialized
usbcore: registered new interface driver usb-storage
>> [sdmmc] ms_sdmmc Driver Initializing...
>> [sdmmc] ms_sdmmc_probe
>> [sdmmc_0] MIE IRQ: 48
>> [sdmmc_0] CDZ IRQ: 50
>> [sdmmc_0] Err: Faild to request PWR GPIO (17)
>> [sdmmc_0] Enable SDIO Interrupt Mode!
>> [sdmmc_0] Get CD => (1)

>> [sdmmc_0] CDZ... (INS) OK!
>> [sdmmc_0] Int CDZ use Ext GPIO IRQ: (50)
>> [sdmmc_0] Probe Platform Devices...(Ret:0)
>> [sdmmc_1] MIE IRQ: 49
>> [sdmmc_1] CDZ IRQ: 51
>> [sdmmc_1] Err: Faild to request PWR GPIO (0)
>> [sdmmc_1] Enable SDIO Interrupt Mode!
>> [sdmmc_1] Get CD => (0)

>> [sdmmc_1] CDZ... (EJT) OK!
>> [sdmmc_1] Get CD => (0)
>> [sdmmc_1] Int CDZ use Ext GPIO IRQ: (51)
>> [sdmmc_1] Probe Platform Devices...(Ret:0)
>> [sdmmc_0] Found SDIO Device!
>> [sdmmc_0] Set IOS => Clk=48000000 (Real=48000000)
mmc0: new high speed SDHC card at address 0001
mmcblk0: mmc0:0001 00000 29.4 GiB
 mmcblk0: p1
```

>> [sdmmc_0] Get CD => (1)
mhal: loading out-of-tree module taints kernel.
mhal driver init
[CSI]init
[CSI]probe
0request 4 lane IRQ#33
4 lane CSI IP interrupt registered.
[CSI] register driver successvif driver probe
VIF_HANDLE_VIF1: fd263200
VIF_HANDLE_PADTOP: fd203c00
VIF_HANDLE_ISPCLKGEN: fd226600
VIF_HANDLE_CLKGEN: fd207000
VIF_HANDLE_DMABASE: fd000000
[VIF] vif irq interrupt registered #34
regist ok: 36
Create device file. vif_ints,0
venc driver probed
jpe driver probed
[Isp_Driver_Init]
=== [isp_probe] ===
[proval] = 5
[isp_clk_index] = 5
[DrvIsp_Open]
[ISP] Request IRQ: 32, 57
[IspMid_Driver_Init]
=== [ispmid probe] ===
ispsclttl:0
module [sys] init
MI_SYSCFG_SetupMmapLoader default_config_path:/config/config_tool, argv1:/config/load_mmap,argv2:/config/mmap.ini
Function = init_glob_miu_kranges, Line = 603, Insert KProtect for LX @ MIU: 0
Function = init_glob_miu_kranges, Line = 612, [INIT] for LX0 kprotect: from 0x20000000 to 0x27FC6000, using block 0
[CMDQ]init buffer cmdq(0x7fc6000-0xc91a6000-0x1a000)
function:parese_Cmdline,pCmd_Section:0x7fc6000
mm
a_
he
ap
_n
am
e0
   miu=0,sz=3300000 reserved_start=24cc6000
r_front->miuBlockIndex:0,r_front->start_cpu_bus_pa:0x20000000,r_front->start_cpu_bus_pa+r_front->length:0x24cc6000
mi_sys_mma_allocator_create success, heap_base_addr=24cc6000 length=3300000
Sigmastar Module version: project_commit.7c6b78b sdk_commit.bc8c580 build_time.20210709194009
module [ai] init
module [ao] init
module [rgn] init
module [divp] init
module [vpe] init
module [sensor] init
module [vif] init
module [venc] init Dec 14 2020 21:49:47
module [shadow] init
Connect IMX307_HDR_init_driver linear to sensor pad 0
CamOsMutexInit already inited, LR:0xBF8D5BD1
Connect IMX307_HDR_init_driver SEF to vif sensor pad 0
CamOsMutexInit already inited, LR:0xBF8D5BD1
Connect IMX307_HDR_init_driver LEF to sensor pad 0

/ # ubi0: attaching mtd3
ubi0: scanning is finished
ubi0 warning: ubi_eba_init: cannot reserve enough PEBs for bad PEB handling, reserved 16, need 20
ubi0: attached mtd3 (name "ubifs", size 98 MiB)
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: 784, bad PEBs: 0, corrupted PEBs: 0
ubi0: user volume: 3, internal volumes: 1, max. volumes count: 128
ubi0: max/mean erase counter: 24/15, WL threshold: 4096, image sequence number: 0
ubi0: available PEBs: 0, total reserved PEBs: 784, PEBs reserved for bad PEB handling: 16
ubi0: background thread "ubi_bgt0d" started, PID 463
UBI device number 0, total 784 LEBs (99549184 bytes, 94.9 MiB), UBIFS (ubi0:0): background thread "ubifs_bgt0_0" started, PID 464
available 0 LEBs (0 bytes), LEB size 126976 bytes (124.0 KiB)
UBIFS (ubi0:0): recovery needed
UBIFS (ubi0:0): recovery completed
UBIFS (ubi0:0): UBIFS: mounted UBI device 0, volume 0, name "user_data"
UBIFS (ubi0:0): LEB size: 126976 bytes (124 KiB), min./max. I/O unit sizes: 2048 bytes/2048 bytes
UBIFS (ubi0:0): FS size: 7237632 bytes (6 MiB, 57 LEBs), journal size 1015809 bytes (0 MiB, 6 LEBs)
UBIFS (ubi0:0): reserved for root: 341850 bytes (333 KiB)
UBIFS (ubi0:0): media format: w4/r0 (latest is w4/r0), UUID 39870FD4-212C-47F5-B870-D5D592548115, small LPT model
trying primary partition
UBIFS (ubi0:1): background thread "ubifs_bgt0_1" started, PID 467
UBIFS (ubi0:1): recovery needed
UBIFS (ubi0:1): recovery completed
UBIFS (ubi0:1): UBIFS: mounted UBI device 0, volume 1, name "primary"
UBIFS (ubi0:1): LEB size: 126976 bytes (124 KiB), min./max. I/O unit sizes: 2048 bytes/2048 bytes
UBIFS (ubi0:1): FS size: 32251904 bytes (30 MiB, 254 LEBs), journal size 9023488 bytes (8 MiB, 72 LEBs)
UBIFS (ubi0:1): reserved for root: 0 bytes (0 KiB)
UBIFS (ubi0:1): media format: w4/r0 (latest is w4/r0), UUID A4DFC5AC-5905-419B-9475-49E6D7E727A9, small LPT model
INFO[2023-05-19 13:24:17 UTC]sysutils.go:48 New sysutils.New(): model=MIR203 supported=MIR203 sensor=unknown
INFO[2023-05-19 13:24:17 UTC]deviceinfo.go:76 NewDeviceInfo WebHash=f306bf67
INFO[2023-05-19   13:24:17   UTC]deviceinfo.go:94   NewDeviceInfo   DEVICE   INFO::   model:MIR203
web:f306bf67(2023-05-15T18:08:51+09:00) fw:f7e61f80eaeafcc6616ff4e13cbfbc8f467bc225(2
DEBU[2023-05-19 13:24:17 UTC]main.go:31 StartServices adding service rtsp
INFO[2023-05-19 13:24:17 UTC]video_subsession.go:21 NewVideoMediaSubsession 1920x1080
INFO[2023-05-19 13:24:17 UTC]audio_subsession.go:21 NewAudioMediaSubsession f=8000
INFO[2023-05-19 13:24:17 UTC]video_subsession.go:21 NewVideoMediaSubsession 640x480
INFO[2023-05-19 13:24:17 UTC]video_subsession.go:21 NewVideoMediaSubsession 320x240
DEBU[2023-05-19 13:24:17 UTC]main.go:39 StartServices starting service rtsp
DEBU[2023-05-19 13:24:17 UTC]main.go:31 StartServices adding service network
INFO[2023-05-19 13:24:17 UTC]main.go:70 Start start rtsp server on address :554
DEBU[2023-05-19 13:24:17 UTC]main.go:39 StartServices starting service network
DEBU[2023-05-19 13:24:17 UTC]main.go:31 StartServices adding service ddns
DEBU[2023-05-19 13:24:17 UTC]main.go:39 StartServices starting service ddns
DEBU[2023-05-19 13:24:17 UTC]main.go:31 StartServices adding service http
DEBU[2023-05-19 13:24:17 UTC]main.go:39 StartServices starting service http
DEBU[2023-05-19 13:24:17 UTC]main.go:31 StartServices adding service ftp
INFO[2023-05-19 13:24:17 UTC]http.go:193 Start starting WEB service
INFO[2023-05-19 13:24:17 UTC]net.go:57 Start starting network
INFO[2023-05-19 13:24:17 UTC]net.go:65 Start net: STATIC mode
DEBU[2023-05-19 13:24:17 UTC]net.go:411 apply dns: [8.8.8.8 8.8.4.4]
INFO[2023-05-19 13:24:17 UTC]ddns.go:34 Start starting DDNS client
INFO[2023-05-19 13:24:17 UTC]ddns.go:40 Start DDNS service disabled
DEBU[2023-05-19 13:24:17 UTC]main.go:39 StartServices starting service ftp
DEBU[2023-05-19 13:24:17 UTC]main.go:31 StartServices adding service ntp
DEBU[2023-05-19 13:24:17 UTC]main.go:39 StartServices starting service ntp
DEBU[2023-05-19 13:24:17 UTC]main.go:31 StartServices adding service onvif
DEBU[2023-05-19 13:24:17 UTC]main.go:39 random: fast init done
StartServices starting service onvif
DEBU[2023-05-19 13:24:17 UTC]main.go:31 StartServices adding service pppoe
DEBU[2023-05-19 13:24:17 UTC]main.go:39 StartServices starting service pppoe
DEBU[2023-05-19 13:24:17 UTC]main.go:31 StartServices adding s[MS_PM_INTC] hw:4 -> v:60
ervice pwm
DEBU[2023-05-19 13:24:17 UTC]main.go:39 StartServices starting service pwm
DEBU[2023-05-19 13:24:17 UTC]main.go:31 StartServices adding service reset
INFO[2023-05-19 13:24:17 UTC]qweb.go:362 NewQtechWeb Enable proxy 80:/onvif/* requests to onvif
ERRO[2023-05-19 13:24:17 UTC]http.go:129 func3 http server error: open /user_data/server.crt: no such file or directory
INFO[2023-05-19 13:24:17 UTC]ftp.go:91 Start starting FTP service