



# TP-Link TL-MR6400 v4

**Under Construction!**  
This page is currently under construction. You can edit the article to help completing it.

Write a short, relevant description of the device. Include a technical overview, but avoid marketing buzzwords/useless stuff. Two to four sentences is about right. A picture is good, too. Edit the page to see how to add pictures.

 Any text with a light background (like this one) provides instructions for creating the Details Page. When you have filled in correct/useful information (instead of any template that's there) **remove the instructions, as well as the <WRAP> that encloses it.**





## Getting started with a new Device Page

1. This is an empty template that suggests the information that should be present on a well-constructed Device Page. This means, that **you have to fill it with life and information.**
2. There are several "fixme" tags with text on a light background (like this text) throughout this template. As you fill in the page, remove those tags so that people can judge its completeness.
3. When there are no more "fixme" tags left, delete this one too, along with the <WRAP> that encloses it.

## Keep the articles modular

- Please include only model specific information, omit bla,bla and put everything generic into separate articles
- If you have no time to write certain stuff, link to docs
- base-system should lead the way, do not explain this again
- DO NOT provide a complete howto here! Instead *groom* the general documentation.

## Supported Versions

Brand	Model	Version	Current Release	OEM Info	Forum Search	Technical Data

TP-Link	TL-MR6400	v4	23.05.0	<a href="https://www.tp-link.com/home-networking/3g-4g-router/tl-mr6400/v4/">https://www.tp-link.com/home-networking/3g-4g-router/tl-mr6400/v4/</a> ( <a href="https://www.tp-link.com/home-networking/3g-4g-router/tl-mr6400/v4/">https://www.tp-link.com/home-networking/3g-4g-router/tl-mr6400/v4/</a> )	TL-MR6400 ( <a href="https://forum.openwrt.org/search?q=TL-MR6400">https://forum.openwrt.org/search?q=TL-MR6400</a> )	<a href="#">View/Edit data</a>
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## Hardware Highlights


Model	Version	SoC	CPU MHz	Flash MB	RAM MB	WLAN Hardware	WLAN2.4	WLAN5.0	100M ports	Gbit ports	Modem	USB
TL-MR6400	v4	MediaTek MT7628N	580	8	64	MediaTek MT7628N	b/g/n	-	4		LTE	-

## Installation

Model	Version	Current Release	Firmware OpenWrt Install	Firmware OpenWrt Upgrade	Firmware OEM S
TL-MR6400	v4	23.05.0	<a href="https://downloads.openwrt.org/releases/23.05.0/targets/ramips/mt76x8/openwrt-23.05.0-ramips-mt76x8-tplink_tl-mr6400-v4-squashfs-tftp-recovery.bin">https://downloads.openwrt.org/releases/23.05.0/targets/ramips/mt76x8/openwrt-23.05.0-ramips-mt76x8-tplink_tl-mr6400-v4-squashfs-tftp-recovery.bin</a> ( <a href="https://downloads.openwrt.org/releases/23.05.0/targets/ramips/mt76x8/openwrt-23.05.0-ramips-mt76x8-tplink_tl-mr6400-v4-squashfs-tftp-recovery.bin">https://downloads.openwrt.org/releases/23.05.0/targets/ramips/mt76x8/openwrt-23.05.0-ramips-mt76x8-tplink_tl-mr6400-v4-squashfs-tftp-recovery.bin</a> )	<a href="https://downloads.openwrt.org/releases/23.05.0/targets/ramips/mt76x8/openwrt-23.05.0-ramips-mt76x8-tplink_tl-mr6400-v4-squashfs-sysupgrade.bin">https://downloads.openwrt.org/releases/23.05.0/targets/ramips/mt76x8/openwrt-23.05.0-ramips-mt76x8-tplink_tl-mr6400-v4-squashfs-sysupgrade.bin</a> ( <a href="https://downloads.openwrt.org/releases/23.05.0/targets/ramips/mt76x8/openwrt-23.05.0-ramips-mt76x8-tplink_tl-mr6400-v4-squashfs-sysupgrade.bin">https://downloads.openwrt.org/releases/23.05.0/targets/ramips/mt76x8/openwrt-23.05.0-ramips-mt76x8-tplink_tl-mr6400-v4-squashfs-sysupgrade.bin</a> )	<a href="https://www.tp-link.com/support/dmr6400/v4/#Firmware">https://www.tp-link.com/support/dmr6400/v4/#Firmware</a> ( <a href="https://www.tp-link.com/support/dmr6400/v4/#Firmware">https://www.tp-link.com/support/dmr6400/v4/#Firmw</a> )



## Flash Layout

 *Find out flash layout, then add the flash layout table here (copy, paste, modify the example).*

Please check out the article Flash layout. It contains examples and explanations that describe how to document the flash layout.

## OEM easy installation

Flashing via OEM (TP-Link) web interface does not work.

## OEM installation using the TFTP method

→ [generic.flashing.tftp](#)

You can flash via tftp recovery:


1. serve tftp-recovery image as `tp_recovery.bin` on 192.168.0.225/24
2. connect to any ethernet port
3. power on the device while holding the reset button
4. wait at least 8 seconds before releasing reset button

Specific values needed for tftp

TFTP() server required IP() address	192.168.0.225
Firmware tftp image	Latest OpenWrt release ( <b>NOTE</b> : Name must be "tp_recovery.bin")
How to start TFTP() transfer	power on the device while holding the RESET button
Bootloader TFTP() client IPv4() address	192.168.0.2

## Upgrading OpenWrt

→ generic.sysupgrade

 These are generic instructions. Update with your router's specifics.

### LuCI Web Upgrade Process

- Browse to `http://192.168.1.1/cgi-bin/luci/mini/system/upgrade/` LuCI Upgrade URL()
- Upload image file for sysupgrade to LuCI
- Wait for reboot

### Terminal Upgrade Process

If you don't have a GUI() (LuCI) available, you can alternatively upgrade via the command line. There are two command line methods for upgrading:

- sysupgrade
- mtd

Note: It is important that you put the firmware image into the ramdisk (/tmp) before you start flashing.

#### sysupgrade

- Login as root via SSH() on 192.168.1.1, then enter the following commands:

```
cd /tmp
wget http://downloads.openwrt.org/snapshots/trunk/XXX/xxx.abc
sysupgrade /tmp/xxx.abc
```

#### mtd

If sysupgrade does not support this router, use mtd .

- Login as root via SSH() on 192.168.1.1, then enter the following commands:

```
cd /tmp
wget http://downloads.openwrt.org/snapshots/trunk/XXX/xxx.abc
mtd write /tmp/xxx.abc linux && reboot
```

## Debricking

→ generic.debrick

You could recover a bricked unit using the same `TFTP()` recovery procedure used to flash OpenWrt firmware (see **Installation**).

Credits to user **max.bilo** who wrote this procedure for TP-Link TL-MR6400 v5 on the OpenWrt forum (<https://forum.openwrt.org/t/tl-mr6400-v5-back-to-stock-firmware/87275/9>)

1. Download the firmware from TP-Link website, unzip the file and rename the file into "original.bin";
2. prepare the file using the command:

```
dd if="original.bin" of="tp_recovery.bin" skip=1 bs=512 count=16000
```

3. setup a `TFTP()` server on the PC and place the "tp\_recovery.bin" file in the server directory;
4. configure PC with static `IP()` 192.168.0.225/24;
5. connect the PC to the router via ethernet cable;
6. switch off the router;
7. press and keep pressed the WPS/RESET button;
8. switch on the router and continue keep pressed the WPS/RESET button until the file transfer starts (around 6-7 seconds);
9. release the RESET button and wait for router to restart.

## Failsafe mode

→ failsafe\_and\_factory\_reset

## Basic configuration

→ Basic configuration After flashing, proceed with this.  
Set up your Internet connection, configure wireless, configure USB port, etc.


## Specific Configuration

### Network interfaces

The default network configuration is:

Interface Name	Description	Default configuration
br-lan	<code>LAN()</code> & WiFi	192.168.1.1/24
vlan1 (eth0.1)	<code>LAN()</code> ports (1 to 3)	None
vlan2 (eth0.2)	<code>LAN()/WAN()</code> port	<code>DHCP()</code>
wlan0	WiFi	Disabled

### Switch Ports (for VLANs)

 please check if correct

Port	Switch port
CPU (eth0)	0
<code>LAN()</code> 1	1

Port	Switch port
LAN() 2	2
LAN() 3	3
LAN() 4 / (WAN())	4

## Buttons

→ hardware.button on howto use and configure the hardware button(s). Here, we merely name the buttons, so we can use them in the above Howto.

 Please fill in real values for this device, then remove the EXAMPLEs

The TP-Link TL-MR6400 has the following buttons:

BUTTON	Event
EXAMPLE Reset	reset
EXAMPLE Secure Easy Setup	ses
EXAMPLE No buttons at all.	-

## Hardware

### Info

General	
Brand	TP-Link
Model	TL-MR6400
Versions	v4
Device Type	WiFi Router
Availability	Discontinued
Comments - general	
OpenWrt Support	
Supported Since Commit	<a href="https://git.openwrt.org/?p=openwrt/openwrt.git;a=commit;h=0d65177658dfec9fe99bbad4e37cf44f0642d831">https://git.openwrt.org/?p=openwrt/openwrt.git;a=commit;h=0d65177658dfec9fe99bbad4e37cf44f0642d831</a> ( <a href="https://git.openwrt.org/?p=openwrt/openwrt.git;a=commit;h=0d65177658dfec9fe99bbad4e37cf44f0642d831">https://git.openwrt.org/?p=openwrt/openwrt.git;a=commit;h=0d65177658dfec9fe99bbad4e37cf44f0642d831</a> )
Supported Since Release	21.02.0

Wireless	
WLAN() 2.4GHz	b/g/n
WLAN() 5.0GHz	-
WLAN() Hardware	MediaTek MT7628N
Detachable Antennas	2
Comments - WLAN()	2x detachable antennas for LTE; 2x internal antennas for WLAN
Interfaces	
USB ports	-
SATA ports	-
Serial	Yes
JTAG	¿
Comments - USB & SATA ports	
Misc	
LED count	7

Supported Current Release	23.05.0
Unsupported	
Hardware	
Bootloader	U-Boot
Target	ramips
System-On-Chip	MediaTek MT7628N
CPU MHz()	580
Flash MB()	8
RAM MB()	64
Network	
Ethernet 100M ports	4
Ethernet 1Gbit ports	
Ethernet 2.5Gbit ports	
Switch	MediaTek MT7628N
Modem	LTE
VLAN()	Yes
Comments - network ports	

## Photos

Front:

 Insert photo of front of the casing

Back:

Backside label:



Wireless	
Button count	2
Power supply	9 VDC, 0.85A
Links	
Forum (https://forum.openwrt.org/) Topic URL()	
WikiDevi (https://wikidevi.com/) URL()	
OEM device homepage URL()	https://www.tp-link.com/home-networking/3g-4g-router/tl-mr6400/v4/ (https://www.tp-link.com/home-networking/3g-4g-router/tl-mr6400/v4/)
Firmware OEM Stock URL()	https://www.tp-link.com/support/download/tl-mr6400/v4/#Firmware (https://www.tp-link.com/support/download/tl-mr6400/v4/#Firmware)
Firmware OpenWrt Install URL()	https://downloads.openwrt.org/releases/23.05.0/targets/ramips/mt76x8.23.05.0-ramips-mt76x8-tplink_tl-mr6400-v4-squashfs-tftp-recovery.bin (https://downloads.openwrt.org/releases/23.05.0/targets/ramips/mt76x8.23.05.0-ramips-mt76x8-tplink_tl-mr6400-v4-squashfs-tftp-recovery.bin)
Firmware OpenWrt Upgrade URL()	https://downloads.openwrt.org/releases/23.05.0/targets/ramips/mt76x8.23.05.0-ramips-mt76x8-tplink_tl-mr6400-v4-squashfs-sysupgrade.bin (https://downloads.openwrt.org/releases/23.05.0/targets/ramips/mt76x8.23.05.0-ramips-mt76x8-tplink_tl-mr6400-v4-squashfs-sysupgrade.bin)
Edit the underlying data	View/Edit data

Main PCB:

## Opening the case

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**Note:** This will void your warranty!

The case of the TP-Link TL-MR6400 v4 is composed of 2 pieces:

- Top cover (black)
- Bottom cover (black)

To open:

1. remove the two screws on the bottom cover (they're hidden under the label);
2. use a thin object to unhook the top cover from the bottom cover (there are 10 hooks: see picture).

Putting it back together:

1. put the top cover back on;
2. press until it clicks back nicely to the bottom cover;
3. put back the two screws.

Main PCB:

## Serial

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→ port.serial general information about the serial port, serial port cable, etc.

How to connect to the Serial Port of this specific device:

<b>Serial connection parameters for TP-Link TL-MR6400 v4</b>	115200, 8N1
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## JTAG

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→ port.jtag general information about the JTAG port, JTAG cable, etc.

How to connect to the JTAG Port of this specific device:

**Insert photo of PCB with markings for JTAG port**

## Bootloader mods

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→ bootloader

## Hardware mods

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None so far.

## OEM bootlog

```

-U-Boot 1.3 (May 21 2019 - 10:28:48) Board: Ralink APSoC STAM: 64 MB relocate_code Pointer at: 83bf4000 ***** Software System Reset Occurred ***** gpiomodel=
55054404. gpiomodel2 05550555. #####GPIO CTRL 1 for GPIO 32-64 OUTPUT tmp(0x00001fa0)##### #####GPIO CTRL 1 for GPIO 32-64 INPUT tmp(0x00001fa0)##### flash manufacture id: ef, device id 40
17 find flash: W25Q64BV ===== Ralink UBoot Version: 4.3.0.0 ----- ASIC 7628_MP (Port5<->None) DRAM component: 512 Mbits
DDR, width 16 DRAM bus: 16 bit Total memory: 64 MBytes Flash component: SPI Flash Date:May 21 2019 Time:10:28:48 ===== icache: sets:512, ways:4,
linesz:32 ,total:65536 dcache: sets:256, ways:4, linesz:32 ,total:32768 ##### The CPU freq = 580 MHZ #### estimate memory size =64 Mbytes RESET MT7628 PHY!!!!!! continue to starting system. [] [] 0 disable
switch phyport... 3: System Boot system code via Flash.(0xbc020000) do_bootm:argc=2, addr=0xbc020000 ## Booting image at bc020000 ... Uncompressing Kernel Image ... OK No initrd ## Transferring control to
Linux (at address 8000c150) ... ## Giving linux memsize in MB, 64 Starting kernel ... æ0000000000000000 (usable) Initrd not found or empty - disabling initrd Zone PFN ranges: Normal 0x00000000 -> 0x00004000 Movable zone
start PFN for each node early_node_map[1] active PFN ranges 0: 0x00000000 -> 0x00004000 Built 1 zonelists in Zone order, mobility grouping on. Total pages: 16256 Kernel command line: console=ttys1,115200
root=/dev/mtdblock2 rootfstype=squashfs init=/sbin/init PID hash table entries: 256 (order: -2, 1024 bytes) Dentry cache hash table entries: 8192 (order: 3, 32768 bytes) Inode-cache hash table entries: 4096 (order:
2, 16384 bytes) Primary instruction cache 64kB, VIPT, 4-waylinesize 32 bytes. Primary data cache 32kB, 4-way, PIPT, no aliases, linesize 32 bytes Writing ErrCtl register=00040008 Readback ErrCtl
register=00040008 Memory: 60868k/65536k available (2917k kernel code, 4668k reserved, 715k data, 184k init, 0k highmem) NR_IRQS:128 console [ttyS1] enabled Calibrating delay loop... 386.04 BogoMIPS
(lpj=772096) pid_max: default: 4096 minimum: 301 Mount-cache hash table entries: 512 NET: Registered protocol family 16 RALINK_GPIOMODE = 55054404 RALINK_GPIOMODE = 55044404 **** Xtal 40MHz
**** start PCIe register access RALINK_RSTCTRL = 2400000 RALINK_CLKCFG1 = fdbfffc0 ***** MT7628 PCIe RC mode ***** PCIE0 no card, disable it(RST&CLK) bio: create slab <bio-0> at 0
usbcore: registered new interface driver usbfs usbcore: registered new interface driver hub usbcore: registered new device driver usb Switching to clocksource Ralink SysTick timer NET: Registered protocol family 2
IP route cache hash table entries: 1024 (order: 0, 4096 bytes) TCP established hash table entries: 2048 (order: 2, 16384 bytes) TCP bind hash table entries: 2048 (order: 1, 8192 bytes) TCP: Hash tables configured
(established 2048 bind 2048) TCP reno registered NET: Registered protocol family 1 RT3xxx EHCI/OHCI init. squashfs: version 4.0 (2009/01/31) Phillip Lougher fuse init (API version 7.15) msgmni has been set to
118 io scheduler noop registered io scheduler deadline registered (default) Ralink gpio driver initialized i2cdrv_major = 218 Serial: 8250/16550 driver, 2 ports, IRQ sharing enabled serial8250: ttyS0 at MMIO
0x10000d00 (irq = 21) is a 16550A serial8250: ttyS1 at MMIO 0x10000c00 (irq = 20) is a 16550A brd: module loaded flash manufacture id: ef, device id 40 17 W25Q64BV(ef 40170000 flash_version = 1) (8192
Kbytes) mtd .name = raspi, .size = 0x00800000 (8M) .erasize = 0x00100000 (64K) .numeraseregions = 0 Creating 6 MTD partitions on "raspi": 0x000000000000-0x000000200000 : "boot" 0x000000200000-
0x000000160000 : "kernel" 0x000000160000-0x0000007d0000 : "rootfs" mtd: partition "rootfs" set to be root filesystem 0x0000007d0000-0x0000007e0000 : "config" 0x0000007e0000-0x0000007f0000 : "romfile"
0x0000007f0000-0x000000800000 : "radio" Register flash device:flash0 PPP generic driver version 2.4.2 PPP MPPE Compression module registered NET: Registered protocol family 24 PPTP driver version 0.8.5
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 FM_OUT value: u4FmOut = 131(0x00000083)
FM detection done! loop = 0 SR calibration value u1SrCalVal = 6 rt3xxx-ehci rt3xxx-ehci: Ralink EHCI Host Controller rt3xxx-ehci rt3xxx-ehci: new USB bus registered, assigned bus number 1 rt3xxx-ehci rt3xxx-ehci:
irq 18, io mem 0x101c0000 rt3xxx-ehci rt3xxx-ehci: USB 0.0 started, EHCI 1.00 hub found hub 1-0:1.0: USB hub found hub 1-0:1.0: 1 port detected ohci_hcd: USB 1.1 'Open' Host Controller (OHCI) Driver rt3xxx-ohci rt3xxx-
ohci: RT3xxx OHCI Controller rt3xxx-ohci rt3xxx-ohci: new USB bus registered, assigned bus number 2 rt3xxx-ohci rt3xxx-ohci: irq 18, io mem 0x101c1000 hub 2-0:1.0: USB hub found hub 2-0:1.0: 1 port detected
Mirror/redirect action on u32 classifier Actions configured Netfilter messages via NETLINK v0.30. nf_conntrack version 0.5.0 (951 buckets, 3804 max) GRE over IPv4 demultiplexor driver gre: can't add protocol GRE
over IPv4 tunneling driver ip_tables: (C) 2000-2006 Netfilter Core Team, Type=Linux TCP cubic registered NET: Registered protocol family 10 ip6_tables: (C) 2000-2006 Netfilter Core Team IPv6 over IPv4 tunneling
driver NET: Registered protocol family 17 NET: Registered protocol family 15 Ebtables v2.0 registered 802.1Q VLAN Support v1.8 Ben Greear <greearb@candelatech.com> All bugs added by David S. Miller
<davem@redhat.com> VFS: Mounted root (squashfs filesystem) readonly on device 31:2. Freeing unused kernel memory: 184k freed usb 1-1: new high speed USB device using rt3xxx-ehci and address 2 starting
pid 35, tty "/etc/init.d/rscs": cp: can't stat '/etc/SingleSKU_FCC.dat': No such file or directory SCSI subsystem initialized insmod: can't insert '/lib/modules/kmdir/kernel/drivers/usb/core/usbcore.ko': No such file or
directory Initializing USB Mass Storage driver... scsi0 : usb-storage 1-1:1.5 usbcore: registered new interface driver usb-storage USB Mass Storage support registered. insmod: can't insert
'/lib/modules/kmdir/kernel/drivers/usb/host/ixusb_host.ko': No such file or directory rdm_major = 253 spiflash_iocctl_read, Read from 0x007ef100 length 0x6, ret 0, retlen 0x6 Read MAC from flash(0x7EF100) 50-
ffffffd4-ffffff74-75-ffffffb4 GMAC1_MAC_ADRH -- : 0x0000XXXX GMAC1_MAC_ADRL -- : 0xf704XXXX Ralink APSoC Ethernet Driver Initialization. v3.1 256 rx/tx descriptors allocated, mtu = 1500!
spiflash_iocctl_read, Read from 0x007ef100 length 0x6, ret 0, retlen 0x6 Read MAC from flash(0x7EF100) 50-ffffffd4-ffffff74-75-ffffffb4 GMAC1_MAC_ADRH -- : 0x0000XXXX GMAC1_MAC_ADRL -- : 0xf704XXXX
PROC INIT OK! usbcore: registered new interface driver cdc_wdm [zc] qmi_wwan_bind: in [zc] change dtr 1 spiflash_iocctl_read, Read from 0x007ef100 length 0x6, ret 0, retlen 0x6 Init mac 50-d4-f7-04-XX-XX
qmi_wwan: probe of 1-1:1.0 failed with error -22 [zc] qmi_wwan_bind: in [zc] change dtr 1 spiflash_iocctl_read, Read from 0x007ef100 length 0x6, ret 0, retlen 0x6 Init mac 50-d4-f7-04-XX-XX qmi_wwan: probe of 1-
1:1.1 failed with error -22 qmi_wwan 1-1:1.2: bogus CDC Union: master=0, slave=0 qmi_wwan: probe of 1-1:1.2 failed with error -1 qmi_wwan 1-1:1.3: bogus CDC Union: master=0, slave=0 qmi_wwan: probe of 1-
1:1.3 failed with error -1 qmi_wwan 1-1:1.4: cdc-wdm0: USB WDM device [zc] qmi_wwan_bind: in [zc] change dtr 1 scsi 0:0:0:0: Direct-Access Linux File-Stor Gadget 0318 PQ: 0 ANSI: 2 spiflash_iocctl_read, Read
from 0x007ef100 length 0x6, ret 0, retlen 0x6 Init mac 50-d4-f7-04-XX-XX usbcore: registered new interface driver qmi_wwan sd 0:0:0:0: [sda] 130048 512-byte logical blocks: (66.5 MB/63.5 MiB) sd 0:0:0:0: [sda]
Write Protect is off sd 0:0:0:0: [sda] Assuming drive cache: write through sd 0:0:0:0: [sda] Assuming drive cache: write through sd 0:0:0:0: [sda] Assuming drive cache: write through sd 0:0:0:0: [sda] Attached
SCSI removable disk usbcore: registered new interface driver usbserial USB Serial support registered for generic usbserial_generic 1-1:1.0: generic converter detected usb 1-1: generic converter now attached to
ttyUSB0 usbcore: registered new interface driver usbserial_generic usbserial: USB Serial Driver core dns_init domain_name:tplinkmodem.net L2TP core driver, V2.0 PPPoL2TP kernel driver, V2.0
linux_qmi_qmux_io_pwr_up_init.c: Unable to open wakelock file = /sys/power/wake_lock, error [2:No such file or directory] qmuxd: linux_qmi_read_sysfs_config: couldn't open file
/sys/module/f_rmnnet/parameters/rmnnet_ctl_chqmuxd: linux_qmi_read_sysfs_config: couldn't open /sys/module/rmnnet/parameters/rmnnet_ctl_chlinux_qmi_qmux_if_configure_port_timeout: failed to open SMD timeout
config=/sys/devices/virtual/smdpckt/cdc-wdm0/open_timeout errno [2:No such file or directory]linux_qmi_qmux_if_configure_port_timeout: failed to open SMD timeout config=/sys/devices/virtual/smdpckt/cdc-
wdm0/open_timeout errno [2:No such file or directory]qmi_qmux_open_connection: connection is disabled for conn_id=1 qmuxd: opening connection for conn_id=1 [DATA6_CNTL] failed
qmi_qmux open connection: connection is disabled for conn id=2 qmuxd: opening connection for conn id=2 [DATA7_CNTL] failed qmi_qmux open connection: connection is disabled for conn id=3 qmuxd:

```



```
opening connection for conn_id=3 [DATA8_CNTL] failed qmi_qmux_open_connection: connection is disabled for conn_id=4 qmuxd: opening connection for conn_id=4 [DATA9_CNTL] failed
qmi_qmux_open_connection: connection is disabled for conn_id=5 qmuxd: opening connection for conn_id=5 [DATA12_CNTL] failed qmi_qmux_open_connection: connection is disabled for conn_id=6 qmuxd:
opening connection for conn_id=6 [DATA13_CNTL] failed qmi_qmux_open_connection: connection is disabled for conn_id=7 qmuxd: opening connection for conn_id=7 [DATA14_CNTL] failed
qmi_qmux_open_connection: connection is disabled for conn_id=9 qmuxd: opening connection for conn_id=9 [DATA15_CNTL] failed qmi_qmux_open_connection: connection is disabled for conn_id=10 qmuxd:
opening connection for conn_id=10 [DATA16_CNTL] failed qmi_qmux_open_connection: connection is disabled for conn_id=11 qmuxd: opening connection for conn_id=11 [DATA17_CNTL] failed
qmi_qmux_open_connection: connection is disabled for conn_id=21 qmuxd: opening connection for conn_id=21 [SDIO_DATA1_CNTL] failed qmi_qmux_open_connection: connection is disabled for conn_id=22
qmuxd: opening connection for conn_id=22 [SDIO_DATA2_CNTL] failed qmi_qmux_open_connection: connection is disabled for conn_id=23 qmuxd: opening connection for conn_id=23 [SDIO_DATA3_CNTL] failed
qmi_qmux_open_connection: connection is disabled for conn_id=24 qmuxd: opening connection for conn_id=24 [SDIO_DATA4_CNTL] failed qmi_qmux_open_connection: connection is disabled for conn_id=25
qmuxd: opening connection for conn_id=25 [SDIO_DATA5_CNTL] failed qmi_qmux_open_connection: connection is disabled for conn_id=26 qmuxd: opening connection for conn_id=26 [SDIO_DATA6_CNTL] failed
qmi_qmux_open_connection: connection is disabled for conn_id=27 qmuxd: opening connection for conn_id=27 [SDIO_DATA7_CNTL] failed qmi_qmux_open_connection: connection is disabled for conn_id=28
qmuxd: opening connection for conn_id=28 [SDIO_DATA8_CNTL] failed qmi_qmux_open_connection: connection is disabled for conn_id=29 qmuxd: opening connection for conn_id=29 [MDM_DATA1_CNTL] failed
qmi_qmux_open_connection: connection is disabled for conn_id=30 qmuxd: opening connection for conn_id=30 [MDM_DATA2_CNTL] failed qmi_qmux_open_connection: connection is disabled for conn_id=31
qmuxd: opening connection for conn_id=31 [MDM_DATA3_CNTL] failed qmi_qmux_open_connection: connection is disabled for conn_id=32 qmuxd: opening connection for conn_id=32 [MDM_DATA4_CNTL] failed
qmi_qmux_open_connection: connection is disabled for conn_id=33 qmuxd: opening connection for conn_id=33 [MDM_DATA5_CNTL] failed qmi_qmux_open_connection: connection is disabled for conn_id=34
qmuxd: opening connection for conn_id=34 [MDM_DATA6_CNTL] failed qmi_qmux_open_connection: connection is disabled for conn_id=35 qmuxd: opening connection for conn_id=35 [MDM_DATA7_CNTL] failed
qmi_qmux_open_connection: connection is disabled for conn_id=36 qmuxd: opening connection for conn_id=36 [MDM_DATA8_CNTL] failed qmi_qmux_open_connection: connection is disabled for conn_id=48
qmuxd: opening connection for conn_id=48 [SMUX0] failed qmi_qmux_open_connection: connection is disabled for conn_id=49 qmuxd: opening connection for conn_id=49 [MDM2_DATA1_CNTL] failed
qmi_qmux_open_connection: connection is disabled for conn_id=50 qmuxd: opening connection for conn_id=50 [MDM2_DATA2_CNTL] failed qmi_qmux_open_connection: connection is disabled for conn_id=51
qmuxd: opening connection for conn_id=51 [MDM2_DATA3_CNTL] failed qmi_qmux_open_connection: connection is disabled for conn_id=52 qmuxd: opening connection for conn_id=52 [MDM2_DATA4_CNTL]
failed qmi_qmux_open_connection: connection is disabled for conn_id=53 qmuxd: opening connection for conn_id=53 [MDM2_DATA5_CNTL] failed qmi_qmux_open_connection: connection is disabled for
conn_id=54 qmuxd: opening connection for conn_id=54 [MDM2_DATA6_CNTL] failed qmi_qmux_open_connection: connection is disabled for conn_id=55 qmuxd: opening connection for conn_id=55
[MDM2_DATA7_CNTL] failed qmi_qmux_open_connection: connection is disabled for conn_id=56 qmuxd: opening connection for conn_id=56 [MDM2_DATA8_CNTL] failed [err] syslogd[main --764] syslogd :
syslogd_init Please press Enter to activate this console. [ dm_readFile ] 2042: can not open xml file /var/tmp/pc/reduced_data_model.xml!, about to open file /etc/reduced_data_model.xml [ judgeProductName ]
2214: Device is MR6400V4 [ dm_readFile ] 2042: can not open xml file /var/tmp/pc/reduced_data_model/MR6400V4.xml!, about to open file /etc/reduced_data_model_MR6400V4.xml spiflash_ioctl_read, Read from
0x007d0000 length 0x10000, ret 0, retlen 0x10000 spiflash_ioctl_read, Read from 0x007d0000 length 0x100, ret 0, retlen 0x100 [ dm_loadCfg ] 2421: software version is not match, in config, version = 0 [
judgeProductName ] 2214: Device is MR6400V4 [ dm_readFile ] 2042: can not open xml file /var/tmp/pc/single_band_default_config.xml!, about to open file /etc/single_band_default_config.xml [ parseConfigNode ]
561: Meet unrecognized object node "PhDDNSCfg", skip the node [ parseConfigNode ] 566: Meet unrecognized parameter node "PhDDNSCfg", skip the node [ parseConfigNode ] 561: Meet unrecognized object
node "X_TP_WDSBridge", skip the node [ parseConfigNode ] 561: Meet unrecognized object node "X_FAT: utf8 is not a recommended IO charset for FAT filesystems, filesystem will be case sensitive! TP_IPv6Cfg",
skip the node [ parseConfigNode ] 566: Meet unrecognized parameter node "Language", skip the node [ checkUdiskReady ] 069: [cos] times:0, mount cmd:mount -t auto /dev/sda /tmp/udisk 12 INFO:
src/flowstat_main.c(18) main(): LTE spiflash_ioctl_read, Read from 0x007ef500 length 0x29, ret 0, retlen 0x29 wstat process stspiflash_ioctl_read, Read from 0x007ef100 length 0x6, ret 0, retlen 0x6 arts working!
12 ERROR: Post event to MOBILE server failed, errno = 2 (No such file or directory). [err] syslogd[syslogd_msg_process --653] syslogd : log module is not config 12 ERROR: Client communication with server failed.
[err] syslogd[syslogd_msg_process --653] syslogd : log module is not config 12 ERROR: src/flowstat_manage.c(73) flowstat_get_wwan_tx_rx_statistics(): Get Rx/Tx flow from qmi failed! spiflash_ioctl_read, Read
from 0x007ef200 length 0x4, ret 0, retlen 0x4 spiflash_ioctl_read, Read from 0x00020000 length 0x200, ret 0, retlen 0x200 spiflash_ioctl_read, Read from 0x007ef100 length 0x6, ret 0, retlen 0x6 Raeth v3.1
(Tasklet,SkbRecycle) phy_tx_ring = 0x036e7000, tx_ring = 0xa36e7000 phy_rx_ring0 = 0x036e8000, rx_ring0 = 0xa36e8000 [fe_sw_init:4952]rt305x_esw_init. disable switch phyport... GMAC1_MAC_ADRH -- :
0x000050d4 GMAC1_MAC_ADRL -- : 0xf70475b4 RT305x_ESW: Link Status Changed 13 ERROR: Post event to MOBILE server failed, espiflash_ioctl_read, Read from 0x007ef600 length 0xf, ret 0, retlen 0xf rno =
2 (No such file or directory). 13 ERROR: Client communication with server failed. 13 ERROR: Post event to MOBILE server failed, errno = 2 (No such file or directory). 13 ERROR: Client communication with server
failed. [err] syslogd[syslogd_msg_process --653] syslogd : log module is not config [err] syslogd[syslogd_msg_process --653] syslogd : log module is not config [err] syslogd[syslogd_msg_process --653] syslogd : log
module is not config [err] syslogd[syslogd_msg_process --653] syslogd : log module is not config Query new SMS count success.13 ERROR: New sms count is 0 [err] syslogd[syslogd_msg_process --653] syslogd :
log module is not config 13 USER: Mobile device manager (qmi) initialized OK. Init QMI services..... [err] syslogd[syslogd_msg_process --653] syslogd : log module is not config 13 USER: Start get voice service
object. 13 USER: VOICE Service Object got. [err] syslogd[syslogd_msg_process --653] syslogd : log module is not config [err] syslogd[syslogd_msg_process --653] syslogd : log module is not config 13 USER:
VOICE QMI Client Init successfully, handle is 0x004BBC00. [err] syslogd[syslogd_msg_process --653] syslogd : log module is not config 13 USER: Mobile device manager (qmi) initialized OK. [err]
syslogd[syslogd_msg_process --653] syslogd : log module is not config RT305x_ESW: Link Status Changed 16 USER: The service status is limited. [err] syslogd[syslogd_msg_process --653] syslogd : log module is
not config 16 USER: Not registered, searching! [err] syslogd[syslogd_msg_process --653] syslogd : log module is not config 16 USER: Network type is WCDMA. [err] syslogd[syslogd_msg_process --653] syslogd :
log module is not config 1451606416 ERROR: 0x00000034 QMI_ERR_DEVICE_NOT_READY 1451606416 ERROR: Failed to get smsc address (0). [err] syslogd[syslogd_msg_process --653] syslogd : log module
is not config [err] syslogd[syslogd_msg_process --653] syslogd : log module is not config spiflash_ioctl_read, Read from 0x007ef600 length 0xf, ret 0, retlen 0xf sendto /var/tmp/7 msg 2001 error No such file or
directory ,pid 98 sh: can't create /proc/tplink/eth_vlan: nonexistent directory ioctl: No such device brctl: bridge br0: Invalid argument set if eth0.2 to *not wan dev device eth0.2 entered promiscuous mode device eth0
entered promiscuous mode br0: port 1(eth0.2) entering forwarding state br0: port 1(eth0.2) entering forwarding state set if eth0.3 to *not wan dev device eth0.3 entered promiscuous mode br0: port 2(eth0.3) entering
forwarding state br0: port 2(eth0.3) entering forwarding state set if eth0.4 to *not wan dev device eth0.4 entered promiscuous mode br0: port 3(eth0.4) entering forwarding state br0: port 3(eth0.4) entering forwarding
state set if eth0.5 to *not wan dev device eth0.5 entered promiscuous mode br0: port 4(eth0.5) entering forwarding state br0: port 4(eth0.5) entering forwarding state set if eth0.5 to wan dev [
vlan_addLanPortsIntoBridge ] 512: add lan Port 255 from br0 brctl: bridge br0: Device or resource busy brctl: bridge br0: Device or resource busy brctl: bridge br0: Device or resource busy brctl: bridge br0: Device or
resource busy [ util_judgeProductName ] 661: Device is MR6400V4 ra0 no private ioctls. === pAd = c0c28000, size = 914848 === <- RTMPAllocTxRxRingMemory, Status=0, ErrorValue=0x <-
RTMPAllocAdapterBlock, Status=0 RtmpChipOpsHook(492): Not support for HIF_MT yet! mt7628_init()-> mt7628_init(FW(8a00), HW(8a01), CHIPID(7628)) e2.bin mt7628_init(1135):(2), pChipCap->fw_len(64736)
mt_bcn_buf_init(218): Not support for HIF_MT yet! <-mt7628_init() [ util_judgeProductName ] 661: Device is MR6400V4 [ util_judgeProductName ] 661: Device is MR6400V4 [ util_judgeProductName ] 661: Device is
MR6400V4 [ util_judgeProductName ] 661: Device is MR6400V4 Interface doesn't accept private ioctl... set (8BE2): Network is down [ util_judgeProductName ] 661: Device is MR6400V4 [ util_judgeProductName ]
661: Device is MR6400V4 [ util_judgeProductName ] 661: Device is MR6400V4 [ util_judgeProductName ] 661:shtpAd->ApBootFlag = TRUE Device is MR64TX BCN DESC a211f000 size = 320 00V4 [
```

```
oal_wlRX[0] DESC a2121000 size = 4096 an_ra_lteCoexistRX[1] DESC a2124000 size = 2048 ence ] 6899: Get Curr band err 0. No need to switch channel. [ oal_wlan_ra_lteCoexistence ]cfg_mode=9 6989:
AutoChcfg_mode=9 annelSkipList = wmode_band_equal(): Band Equal! 12;13;52;56;60;6AndesSendCmdMsg: Could not send in band command due to diable fRTMP_ADAPTER_MCU_SEND_IN_BAND_CMD
4;100;104;108;112;116;120;124;12APSDCapable[0]=0 8;132;136;140 APSDCapable[1]=0 APSDCapable[2]=0 APSDCapable[3]=0 APSDCapable[4]=0 APSDCapable[5]=0 APSDCapable[6]=0 APSDCapable[7]=0
APSDCapable[8]=0 APSDCapable[9]=0 APSDCapable[10]=0 APSDCapable[11]=0 APSDCapable[12]=0 APSDCapable[13]=0 APSDCapable[14]=0 APSDCapable[15]=0 Key1Str is Invalid key length(0) or Type(0)
Key1Str is Invalid key length(0) or Type(0) Key2Str is Invalid key length(0) or Type(0) Key2Str is Invalid key length(0) or Type(0) Key3Str is Invalid key length(0) or Type(0) Key3Str is Invalid key length(0) or Type(0)
Key4Str is Invalid key length(0) or Type(0) Key4Str is Invalid key length(0) or Type(0) WscKeyASCI=8 WscKeyASCI=8 load fw image from fw_header_image AndesMTLoadFwMethod1(2261)::pChipCap-
>fw_len(64736) FW Version:1 FW Build Date:20170411104110 CmdAddressLenReq:(ret = 0) CmdFwStartReq: override = 1, address = 1048576 CmdStartDLReq: WiFi FW Download Success
MtAsicDMASchedulerInit(): DMA Scheduler Mode=0(LMAC) efuse_probe: efuse = 10000012 RtmpChipOpsEepromHook::e2p_type=2, inf_Type=4 RtmpEepromGetDefault::e2p_dafault=2
RtmpChipOpsEepromHook: E2P type(2), E2pAccessMode = 2, E2P default = 2 NVM is FLASH mode 1. Phy Mode = 14 exec! spiflash_ioctl_read, Read from 0x007f0000 length 0x400, ret 0, retlen 0x400 eeFlashId
= 0x7628! Country Region from e2p = ffff tssi_1_target_pwr_g_band = 30 2. Phy Mode = 14 3. Phy Mode = 14 NICInitPwrPinCfg(11): Not support for HIF_MT yet! NICInitializeAsic(651): Not support
rtmp_mac_sys_reset () for HIF_MT yet! mt_mac_init()-> MtAsicInitMac()-> mt7628_init_mac_cr()-> MtAsicSetMacMaxLen(1277): Set the Max RxPktLen=450! <--mt_mac_init() WTBL Segment 1 info:
MemBaseAddr/FID:0x28000/0 EntrySize/Cnt:32/128 WTBL Segment 2 info: MemBaseAddr/FID:0x40000/0 EntrySize/Cnt:64/128 WTBL Segment 3 info: MemBaseAddr/FID:0x42000/64 EntrySize/Cnt:64/128 WTBL
Segment 4 info: MemBaseAddr/FID:0x44000/128 EntrySize/Cnt:32/128 AntCfgrInit(2943): Not support for HIF_MT yet! MCS Set = ff ff 00 00 01 MtAsicSetChBusyStat(861): Not support for HIF_MT yet! open DNS
error: No such file or directory [ oal_sys_getOldTZInfo ] 732: Open TZ file error! Fri Jan 1 00:00:21 UTC 2016 Fri Jan 1 00:00:21 UTC 2016 [PMF]ap_pmf_init:: apidx=0, MFPC=0, MFPR=0, SHA256=0
[PMF]RTMPMakeRsnleCap: RSNIE Capability MFPC=0, MFPR=0 [PMF]ap_pmf_init:: apidx=1, MFPC=0, MFPR=0, SHA256=0 MtAsicSetRalinkBurstMode(3145): Not support for HIF_MT yet!
MtAsicSetPiggyBack(796): Not support for HIF_MT yet! reload DPD from flash , 0x9F = [c400] doReload bit7[0] CmdLoadDPDDataFromFlash: Channel = 2, DoReload = 0 MtAsicSetTxPreamble(3124): Not support
for HIF_MT yet! CmdSlotTimeSet:(ret = 0) MtAsicAddSharedKeyEntry(1344): Not support for HIF_MT yet! MtAsicSetPreTbtt(): bss_idx=0, PreTBTT timeout = 0xf0 Main bssid = 50:d4:f7:04:XX:XX <==== rt28xx_init,
Status=0 @@@@ ed_monitor_init : ==> @@@@ ed_monitor_init : <=== mt7628_set_ed_cca: TURN ON EDCCA mac 0x10618 = 0xd7c87d0f, EDCCA_Status=1 sht:pAd->ApBootFlag = FALSE WiFi Startup Cost
(ra0): 3.748s set_ed_chk_proc():ed_chk=0 mt7628_set_ed_cca: TURN OFF EDCCA mac 0x10618 = 0xd7083f0f, EDCCA_Status=0 [ util_judgeProductName ] 661: Device is MR6400V4 [ util_judgeProductName ]
device ra0 entered promiscuous mode 661: Device is br0: port 5(ra0) entering forwarding state MR6400V4 br0: port 5(ra0) entering forwarding state device ra1 entered promiscuous mode Checking 2.4G
caspiflash_ioctl_read, Read from 0x007f0000 length 0x2, ret 0, retlen 0x2 I data... WLAN-Start wNetlinkTool Waiting for Wireless Events from interfaces... swWlanChkAhhErr: netlink to do [ util_judgeProductName ]
661: Device is MR6400V4 [ util_judgeProductName ] 661: Device is MR6400V4 sendto /var/tmp/8 msg 2030 error No such file or directory ,pid 98 wscd: SSDP UDP PORT = 1900 sendto /var/tmp/8 msg 2030 error
No such file or directory ,pid 98 sendto /var/tmp/8 msg 2030 error No such file or directory ,pid 98 [src/cloud_downloadHandler.c:cloud_initPthreadDownloadHandler:241] init download handler success!
[src/cloud_downloadHandler.c:downloadHandler:104] Enter download handler, download firmware from cloud... [src/cloud_downloadHandler.c:downloadHandler:108] wait semaphore to download firmware to
device... sendto /var/tmp/8 msg 2030 error No such file or directory ,pid 98 mmmminit():Total mem size=51364, addr=0x0x446150. *****
TABLE DUMP*****
----- poolhead(40) poolnum dynamictimes chainhead poolend ----- 0x446150 8 0 (nil) 0x4529f4 -
----- index poolhead(20) size blocks free usage ----- 1 0x446178 32 256 256 0 2 0x448590 64 128 128 0 3 0x44a7a8 128 64 64 0 4
0x44c8c0 256 32 32 0 5 0x44e958 512 8 8 0 6 0x44f990 1024 4 4 0 7 0x4509b8 2048 2 2 0 8 0x4519d8 4096 1 1 0 ----- index chainnode(16) magic length prev next -----
----- (nil) ***** sendto /var/tmp/8 msg 2030 error No such file or directory ,pid 98 sendto /var/tmp/9 msg 2004 error No such file or
directory ,pid 98 insmod: can't insert '/lib/modules/kmdir/kernel/drivers/net/tun.ko': No such file or directory insmod: can't insert '/lib/modules/kmdir/kernel/drivers/net/ppp_mppe.ko': No such file or directory lin:
oal_WritePtpVpnFile start! iptables: Bad rule (does a matching rule exist in that chain?). iptables: Bad rule (does a matching rule exist in that chain?). radvd starting [rsl_initWanLteIntfCfgObj 3263] init LTE module,
set flowstat [enableDataLimit 0, enablePaymentDay 0, paymentDay 1, limitation 0, warningPercent 90] [initProfileList 413] LTE Module: profile num [1], default profile [1], active profile [0] [initProfileList 415] DM:
profile num [0], default profile [0], active profile [0] [ getPidFromPidFile ] 112: Can't open file: /var/run/zebra.pid. [ getPidFromPidFile ] 112: Can't open file: /var/run/ripd.pid. iptables: Bad rule (does a matching rule
exist in that chain?). iptables: Bad rule (does a matching rule exist in that chain?). iptables: Bad rule (does a matching rule exist in that chain?). nf_nat_rtp v0.6.21 loading [src/cloud_client.c:initSigIntHandler:104]
init signal handler success! [src/cloud_client.c:cloudClientInit:148] Init cloud-client environment successful. [src/cloud_localMsgHandler.c:cloud_localMsgTask:96] Start cloud local message observer... iptables: Bad
rule (does a matching rule exist in that chain?). ip6tables: Bad rule (does a matching rule exist in that chain?). ip6tables: Bad rule (does a matching rule exist in that chain?). [ util_judgeProductName ] 661: Device is
MR6400V4 [ util_judgeProductName ] 661: Device is MR6400V4 [ rsl_init ] 1614: MR6400 must use single band oid_str.js!! enable switch phyport... Set: phy[0].reg[0] = 3900 Set: phy[1].reg[0] = 3900 Set: phy[2].reg[0] = 3900 Set:
phy[3].reg[0] = 3900 Set: phy[4].reg[0] = 3900 Set: phy[0].reg[0] = 3900 Set: phy[1].reg[0] = 3900 Set: phy[2].reg[0] = 3900 Set: phy[3].reg[0] = 3900 Set:
phy[4].reg[0] = 3900 resetMiiPortV over. Set: phy[0].reg[4] = 01e1 Set: phy[0].reg[0] = 3900 Set: phy[1].reg[4] = 01e1 Set: phy[1].reg[0] = 3900 Set: phy[2].reg[4] = 01e1 Set: phy[2].reg[0] = 3900 Set: phy[3].reg[4] =
01e1 Set: phy[3].reg[0] = 3900 Set: phy[4].reg[4] = 01e1 Set: phy[4].reg[0] = 3900 turn off flow control over. RT305x_ESW: Link Status Changed Generating key, this may take a while... Public key portion is: ssh-rsa
AAAAB3NzaC1yc2EAAAADAQABAAQGCuE6aQT/XXXXXXXXXX/4GcEJLAob+RCCXHlK8D8HmldQOI0pOC7seX5QHWI7T5FKA9PYKLvObMTKM3sm8GzcjhLs4vEwHWuzce4H1DWbeaAol216oYb3J4m0ZUqxnoVG0DjaS
admin@TL-MR6400 Fingerprint: md5 62:09:ed:b4:48:6c:ff:69:40:f9:9a:1e:1e:XX:XX:XX Generating key, this may take a while... open DNS error: No such file or directory Fri Jan 1 00:00:56 UTC 2016 Fri Jan 1
00:01:01 UTC 2016 Public key portion is: ssh-dss
AAAAB3NzaC1kc3MAAACBAIP8Bqpwm2fPbVf09s/huaaTTUyD5RIWefarWp/BEe+uWZJbGD7yiZ3e3cbNeNqoqqTJPIYqu5vwfGSXXXXXXX/SFmiMafu8hWSYZEfNR13d+gayevcoZSpQhyppgPg7GnmpZdFN1uwd5tx49S0Fla:
admin@TL-MR6400 Fingerprint: md5 30:ba:5f:9f:e8:9b:53:d6:ee:75:49:ed:d8:XX:XX:XX starting pid 99, tty "':/sbin/getty -L ttyS1 115200 vt100' TL-MR6400 login: admin Password: 1234 Jan 1 00:01:51 login[99]:
root login on 'ttyS1' ~ #
```

## OpenWrt bootlog

```
U-Boot 1.1.3 (May 21 2019 - 10:28:48) Board: Ralink APSoC DRAM: 64 MB relocate_code Pointer at: 83fb4000 ***** Software System Reset Occurred ***** gpiomode1
55054404. gpiomode2 05550555. #####GPIO CTRL 1 for GPIO 32-64 OUTPUT tmp(0x00001fa0)##### #####GPIO CTRL 1 for GPIO 32-64 INPUT tmp(0x00001fa0)##### flash manufacture id: ef, device id 40
17 find flash: W25Q64BV ===== Ralink UBoot Version: 4.3.0.0 ----- ASIC 7628_MP (Port5<->None) DRAM component: 512 Mbits
DDR, width 16 DRAM bus: 16 bit Total memory: 64 MBytes Flash component: SPI Flash Date:May 21 2019 Time:10:28:48 ===== icache: sets:512, ways:4,
```

linesz:32 ,total:65536 dcache: sets:256, ways:4, linesz:32 ,total:32768 ##### The CPU freq = 580 MHZ ##### estimate memory size =64 Mbytes RESET MT7628 PHY!!!! continue to starting system. 0 0 disable switch phyport... 3: System Boot system code via Flash.(0xbc020000) do\_bootm:argc=2, addr=0xbc020000 ## Booting image at bc020000 ... Uncompressing Kernel Image ... OK No initrd ## Transferring control to Linux (at address 80000000) ... ## Giving linux memsize in MB, 64 Starting kernel ... [ 0.000000] Linux version 5.4.124 (builder@buildhost) (gcc version 8.4.0 (OpenWrt GCC 8.4.0 r16172-2aba3e9784)) #0 Sun Jun 13 22:02:19 2021 [ 0.000000] Board has DDR2 [ 0.000000] Analog PMU set to hw control [ 0.000000] Digital PMU set to hw control [ 0.000000] SoC Type: MediaTek MT7628AN ver:1 eco:2 [ 0.000000] printk: bootconsole [early0] enabled [ 0.000000] CPU0 revision is: 00019655 (MIPS 24Kec) [ 0.000000] MIPS: machine is TP-Link TL-MR6400 v4 [ 0.000000] Initrd not found or empty - disabling initrd [ 0.000000] Primary instruction cache 64kB, VIPT, 4-way, linesize 32 bytes. [ 0.000000] Primary data cache 32kB, 4-way, PIPT, no aliases, linesize 32 bytes [ 0.000000] Zone ranges: [ 0.000000] Normal [mem 0x0000000000000000-0x00000000003fffff] [ 0.000000] Movable zone start for each node [ 0.000000] Early memory node ranges [ 0.000000] node 0: [mem 0x0000000000000000-0x00000000003fffff] [ 0.000000] Initmem setup node 0 [mem 0x0000000000000000-0x00000000003fffff] [ 0.000000] Built 1 zonelists, mobility grouping on. Total pages: 16240 [ 0.000000] Kernel command line: console=ttyS0,115200 rootfstype=squashfs,jffs2 [ 0.000000] Dentry cache hash table entries: 8192 (order: 3, 32768 bytes, linear) [ 0.000000] Inode-cache hash table entries: 4096 (order: 2, 16384 bytes, linear) [ 0.000000] Writing ErrCtl register=00000000 [ 0.000000] Readback ErrCtl register=00000000 [ 0.000000] mem auto-init: stack:off, heap alloc:off, heap free:off [ 0.000000] Memory: 57508K/65536K available (5063K kernel code, 200K rwdta, 632K rodata, 1200K init, 205K bss, 8028K reserved, 0K cma-reserved) [ 0.000000] SLUB: HWalign=32, Order=0-3, MinObjects=0, CPUs=1, Nodes=1 [ 0.000000] NR\_IRQS: 256 [ 0.000000] intc: using register map from devicetree [ 0.000000] random: get\_random\_bytes called from 0x805c4a28 with crng\_init=0 [ 0.000000] CPU Clock: 580MHz [ 0.000000] timer\_probe: no matching timers found [ 0.000000] clocksource: MIPS: mask: 0xffffffff max\_cycles: 0xffffffff, max\_idle\_ns: 6590553264 ns [ 0.000009] sched\_clock: 32 bits at 290MHz, resolution 3ns, wraps every 7405115902ns [ 0.007574] Calibrating delay loop... 385.02 BogoMIPS (lpj=770048) [ 0.045458] pid\_max: default: 32768 minimum: 301 [ 0.050094] Mount-cache hash table entries: 1024 (order: 0, 4096 bytes, linear) [ 0.057110] Mountpoint-cache hash table entries: 1024 (order: 0, 4096 bytes, linear) [ 0.070403] clocksource: jiffies: mask: 0xffffffff max\_cycles: 0xffffffff, max\_idle\_ns: 7645041785100000 ns [ 0.079829] futex hash table entries: 256 (order: -1, 3072 bytes, linear) [ 0.086488] pinctrl core: initialized pinctrl subsystem [ 0.094445] NET: Registered protocol family 16 [ 0.125567] workqueue: max\_active 576 requested for napi\_workq is out of range, clamping between 1 and 512 [ 0.138692] clocksource: Switched to clocksource MIPS [ 0.144929] NET: Registered protocol family 2 [ 0.149345] IP idents hash table entries: 2048 (order: 2, 16384 bytes, linear) [ 0.157168] tcp\_listen\_portaddr\_hash hash table entries: 512 (order: 0, 4096 bytes, linear) [ 0.165284] TCP established hash table entries: 1024 (order: 0, 4096 bytes, linear) [ 0.172655] TCP bind hash table entries: 1024 (order: 0, 4096 bytes, linear) [ 0.179452] TCP: Hash tables configured (established 1024 bind 1024) [ 0.185736] UDP hash table entries: 256 (order: 0, 4096 bytes, linear) [ 0.192064] UDP-Lite hash table entries: 256 (order: 0, 4096 bytes, linear) [ 0.199109] NET: Registered protocol family 1 [ 0.203349] PCI: CLS 0 bytes, default 32 [ 0.211661] workingset: timestamp\_bits=14 max\_order=14 bucket\_order=0 [ 0.226243] squashfs: version 4.0 (2009/01/31) Phillip Lougher [ 0.231886] jffs2: version 2.2 (NAND) (SUMMARY) (LZMA) (RTIME) (CMODE\_PRIORITY) (c) 2001-2006 Red Hat, Inc. [ 0.256792] Block layer SCSI generic (bsg) driver version 0.4 loaded (major 252) [ 0.267195] mt7621\_gpio 10000600.gpio: registering 32 gpios [ 0.272913] mt7621\_gpio 10000600.gpio: registering 32 gpios [ 0.278558] mt7621\_gpio 10000600.gpio: registering 32 gpios [ 0.284241] Serial: 8250/16550 driver, 16 ports, IRQ sharing enabled [ 0.293218] printk: console [ttyS0] disabled [ 0.297419] 10000c00.uartlite: ttyS0 at MMIO 0x10000c00 (irq = 28, base\_baud = 2500000) is a 16550A [ 0.306145] printk: console [ttyS0] enabled [ 0.314554] printk: bootconsole [early0] disabled [ 0.314554] printk: bootconsole [early0] disabled [ 0.325462] spi-mt7621 10000b00.spi: sys\_freq: 193333333 [ 0.349363] spi-nor spi0.0: s25fl064k (8192 Kbytes) [ 0.354403] 4 fixed-partitions partitions found on MTD device spi0.0 [ 0.360859] Creating 4 MTD partitions on "spi0.0": [ 0.365741] 0x0000000000000000-0x00000000200000 : "boot" [ 0.371788] 0x000000020000-0x0000007c0000 : "firmware" [ 0.380663] 2 tplink-fw partitions found on MTD device firmware [ 0.386748] Creating 2 MTD partitions on "firmware": [ 0.391809] 0x000000000000-0x00000001e5b3e : "kernel" [ 0.397988] 0x00000001e5b40-0x0000007a0000 : "rootfs" [ 0.404098] mtd: device 3 (rootfs) set to be root filesystem [ 0.411993] 1 squashfs-split partitions found on MTD device rootfs [ 0.418347] 0x000000500000-0x0000007a0000 : "rootfs\_data" [ 0.424950] 0x0000007c0000-0x0000007d0000 : "config" [ 0.431251] 0x0000007d0000-0x000000800000 : "factory" [ 0.438268] libphy: Fixed MDIO Bus: probed [ 0.455891] rt3050-esw 10110000.esw: link changed 0x00 [ 0.463187] mtk\_soc\_eth 10100000.ethernet eth0: mediatek frame engine at 0xb0100000, irq 5 [ 0.473618] NET: Registered protocol family 10 [ 0.482625] Segment Routing with IPv6 [ 0.486552] NET: Registered protocol family 17 [ 0.491157] bridge: filtering via arp/ip/ip6tables is no longer available by default. Update your scripts to load br\_netfilter if you need this. [ 0.504318] 8021q: 802.1Q VLAN Support v1.8 [ 0.517991] VFS: Mounted root (squashfs filesystem) readonly on device 31:3. [ 0.531987] Freeing unused kernel memory: 1200K [ 0.536614] This architecture does not have kernel memory protection. [ 0.543151] Run /sbin/init as init process [ 1.138695] random: fast init done [ 1.556619] init: Console is alive [ 1.560437] init: - watchdog - [ 2.987876] kmodloader: loading kernel modules from /etc/modules-boot.d/\* [ 3.166889] usbcore: registered new interface driver usbfs [ 3.172577] usbcore: registered new interface driver hub [ 3.178116] usbcore: registered new device driver usb [ 3.189998] ehci\_hcd: USB 2.0 'Enhanced' Host Controller (EHCI) Driver [ 3.198453] ehci-fsl: Freescale EHCI Host controller driver [ 3.205629] ehci-platform: EHCI generic platform driver [ 3.221314] phy phy-10120000.usbphy.0: remote usb device wakeup disabled [ 3.228132] phy phy-10120000.usbphy.0: UTMI 16bit 30MHz [ 3.233445] ehci-platform 101c0000.ehci: EHCI Host Controller [ 3.239319] ehci-platform 101c0000.ehci: new USB bus registered, assigned bus number 1 [ 3.247505] ehci-platform 101c0000.ehci: irq 26, io mem 0x101c0000 [ 3.266712] ehci-platform 101c0000.ehci: USB 2.0 started, EHCI 1.00 [ 3.274109] hub 1-0:1.0: USB hub found [ 3.278460] hub 1-0:1.0: 1 port detected [ 3.288053] ohci\_hcd: USB 1.1 'Open' Host Controller (OHCI) Driver [ 3.295653] ohci-platform: OHCI generic platform driver [ 3.301283] ohci-platform 101c1000.ohci: Generic Platform OHCI controller [ 3.308264] ohci-platform 101c1000.ohci: new USB bus registered, assigned bus number 2 [ 3.316457] ohci-platform 101c1000.ohci: irq 26, io mem 0x101c1000 [ 3.387712] hub 2-0:1.0: USB hub found [ 3.392033] hub 2-0:1.0: 1 port detected [ 3.401976] kmodloader: done loading kernel modules from /etc/modules-boot.d/\* [ 3.419903] init - preinit - [ 3.574963] usb 1-1: new high-speed USB device number 2 using ehci-platform [ 4.442967] random: proc: uninitialized urandom read (4 bytes read) [ 5.018274] random: jshn: uninitialized urandom read (4 bytes read) [ 5.110296] random: jshn: uninitialized urandom read (4 bytes read) Press the [f] key and hit [enter] to enter failsafe mode Press the [1], [2], [3] or [4] key and hit [enter] to select the debug level [ 8.775481] jffs2: notice: (462) jffs2\_build\_xattr\_subsystem: complete building xattr subsystem, 6 of xdatum (0 unchecked, 1 orphan) and 7 of xref (1 dead, 0 orphan) found. [ 8.793195] mount\_root: switching to jffs2 overlay [ 8.804002] overlays: upper fs does not support tmpfile. [ 8.815782] urandom-seed: Seeding with /etc/urandom.seed [ 8.923993] proc: - early - [ 8.927133] proc: - watchdog - [ 9.715858] proc: - watchdog - [ 9.721588] proc: - ubus - [ 9.873356] urandom\_read: 3 callbacks suppressed [ 9.873365] random: ubusd: uninitialized urandom read (4 bytes read) [ 9.904835] random: ubusd: uninitialized urandom read (4 bytes read) [ 9.915404] random: ubusd: uninitialized urandom read (4 bytes read) [ 9.925604] proc: - init - Please press Enter to activate this console. [ 11.018500] kmodloader: loading kernel modules from /etc/modules.d/\* [ 11.068954] usbcore: registered new interface driver cdc\_wdm [ 11.087394] Loading modules backported from Linux version v5.10.42-0-g65859eca4dff [ 11.095157] Backport generated by backports.git v5.10.42-1-0-gbee5c545 [ 11.150395] usbcore: registered new interface driver usbserial\_generic [ 11.157203] usbserial: USB Serial support registered for generic [ 11.201549] xt\_time: kernel timezone is -0000 [ 11.329207] mt76\_wmac 10300000.wmac: ASIC revision: 76280001 [ 11.468594] urngd: v1.0.2 started. [ 11.675527] random: crng init done [ 11.679021] random: 1 urandom warning(s) missed due to ratelimiting [ 12.369032] mt76\_wmac 10300000.wmac: Firmware Version: 20151201 [ 12.375125] mt76\_wmac 10300000.wmac: Build Time: 20151201183641 [ 12.414710] mt76\_wmac 10300000.wmac: firmware init done [ 12.661450] PPP generic driver version 2.4.2 [ 12.681211] NET: Registered protocol family 24 [ 12.706376] qmi\_wwan 1-1:1.4: cdc-wdm0: USB WDM device [ 12.723821] qmi\_wwan 1-1:1.4 wwan0: register 'qmi\_wwan' at usb-101c0000.ehci-1, WWAN/QMI device, 2a:27:f1:7b:01:ab [ 12.734774] usbcore: registered new interface driver qmi\_wwan [ 12.860943] usbcore: registered new interface driver option [ 12.866801] usbserial: USB Serial support registered for GSM modem (1-port) [ 12.898896] kmodloader: done loading kernel modules from /etc/modules.d/\* [ 21.044641] rt3050-esw 10110000.esw: link changed 0x00 [ 24.974684] rt3050-esw 10110000.esw: link changed 0x02 [ 28.427150] br-lan: port 1(eth0.1) entered blocking state [ 28.432702] br-lan: port 1(eth0.1) entered disabled state [ 28.438599] device eth0.1 entered promiscuous mode [ 28.443518] device eth0 entered promiscuous mode [ 28.502878] br-lan: port 1(eth0.1) entered blocking state [ 28.508402] br-lan: port 1(eth0.1) entered forwarding state [ 29.433030] IPV6: ADDRCONF(NETDEV\_CHANGE): br-lan: link becomes ready BusyBox v1.33.1 (2021-06-13 22:02:19 UTC) built-in shell (ash) \_\_\_\_\_ | | .----.----.-----. | | | .----. | | \_ | \_ || | || \_|| \_||

```

_ _ _ _ || _ _ _ _ || _ _ _ _ || _ _ _ _ || _ _ _ _ || W I R E L E S S F R E E D O M ----- OpenWrt 21.02.0-rc3, r16172-2aba3e9784 -----
=== WARNING! ===== There is no root password defined on this device! Use the "passwd" command to set up a new password in order to prevent unauthorized SSH
logins. ----- root@OpenWrt:/#


```

## Notes

*Space for additional notes, links to forum threads or other resources.*

- ...






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 mt7628n  4g  lte  8Flash  64RAM

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