

Practical-3

AIM: Use the Binwalk tool

1. To check Firmware is encrypted
2. To explore filesystem using linux commands

Step 1 : First download the Firmware [TL-MR3620 & DIR-1260]

Download for TL-MR3620 V1

Product Overview

[TL-MR3620\(EU\)_V1_Datasheet](#)

Manual

[3G4G Router\(EU1-12Languages\)_Quick Installation Guide](#)

[USB Modem Compatibility List for TL-MR3620 V1](#)

[TL-MR3620\(EU\)_V1_Quick Installation Guide](#)

[TL-MR3620\(EU\)_V1_User Guide](#)



AC1350 3G/4G Wireless Dual Band Router
TL-MR3620

Setup Video	FAQ	Firmware	Apps	Compatibility
GPL Code	Emulators			

Firmware

A firmware update can resolve issues that the previous firmware version may have and improve its current performance.

To Upgrade

IMPORTANT: To prevent upgrade failures, please read the following before proceeding with the upgrade process

- **Please upgrade firmware from the local TP-Link official website of the purchase location for your TP-Link device, otherwise it will be against the warranty. Please click [here](#) to change site if necessary.**
- Please verify the hardware version of your device for the firmware version. Wrong firmware upgrade may damage your device and void the warranty. (Normally Vx.0=Vx.6/Vx.8 (eg:V1.0=V1.6/V1.8); Vx.x0=Vx.x6/Vx.x8 (eg:V1.20=V1.26/V1.28)
[How to find the hardware version on a TP-Link device](#)
- **Do NOT turn off the power during the upgrade process, as it may cause permanent damage to the product.**

More ▾

TL-MR3620(EU)_V1_170921		Download
Published Date: 2017-09-21	Language: English	File Size: 9.66 MB

Modifications and Bug Fixes:

Enhancement:

- 1.Enhanced the compatibility with browsers.

Search by product, keyword, model.
Home
Support
Forums
Report Vulnerability
Shop
US
English | French

TechSupport
Consumer Business

Product Registration
Register your product to extend your free support from 30 days to 90 days

Warranty Document
Click here to see this product's warranty document.

First Time Setting Up?
Check out our FAQs, Videos and Quick Install Guides

Contact Support
Get help by chat, email or phone

DIR-1260
AC1200 High Power Gigabit Wi-Fi Router

Downloads
FAQs
Videos

For access to the right downloads, please select the correct hardware revision for your device.

A
How to find the hardware version?

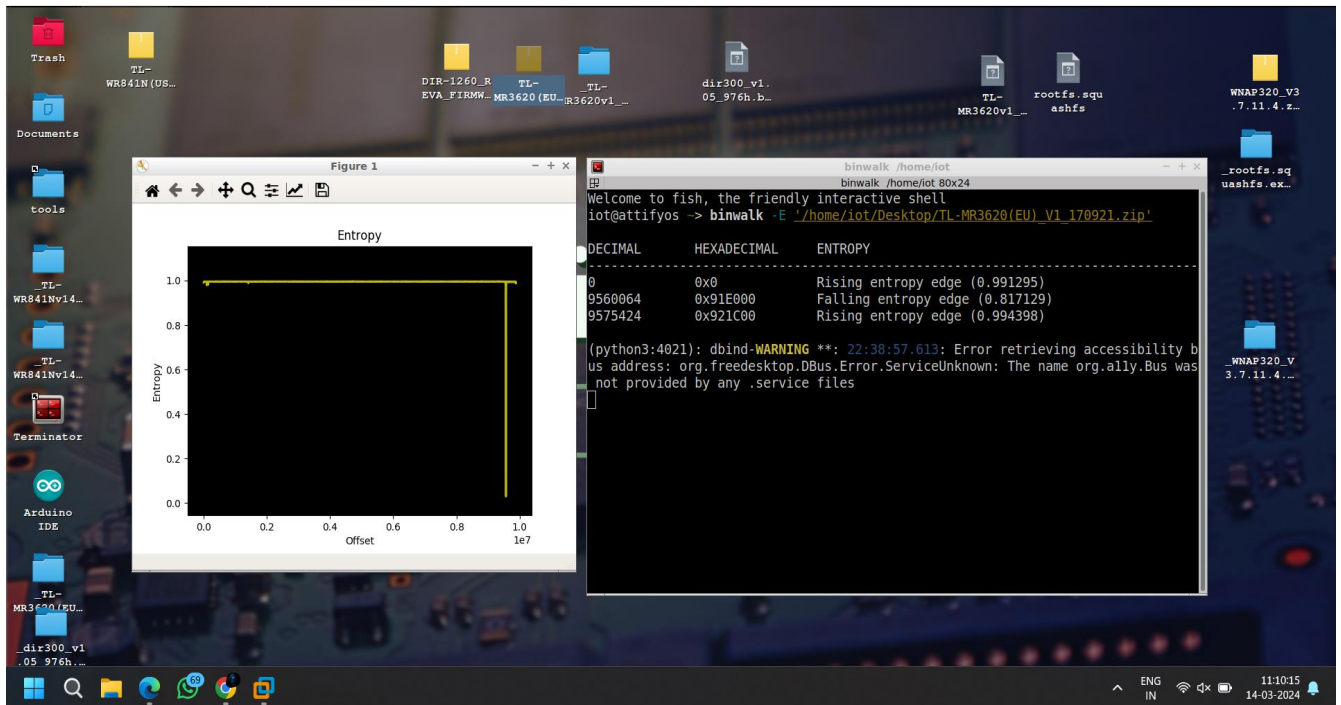
Type	Date		
Security Advisement (1.02B06 Hotfix)	05/06/22	Download	Release Notes
Firmware (1.02B06)	06/30/21	Download	Release Notes
Quick Install Guide (1.00 WW)	12/17/20	Download	
User Manual (1.00 WW)	12/17/20	Download	
Datasheet (1.00 WW)	12/17/20	Download	

[GPL Source Code](#)
[End of Product Life-Cycle](#)
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Step 2 : Use Binwalk tools to check whether firmware is encrypted or not type commands like
[binwalk -E (firmware file)]

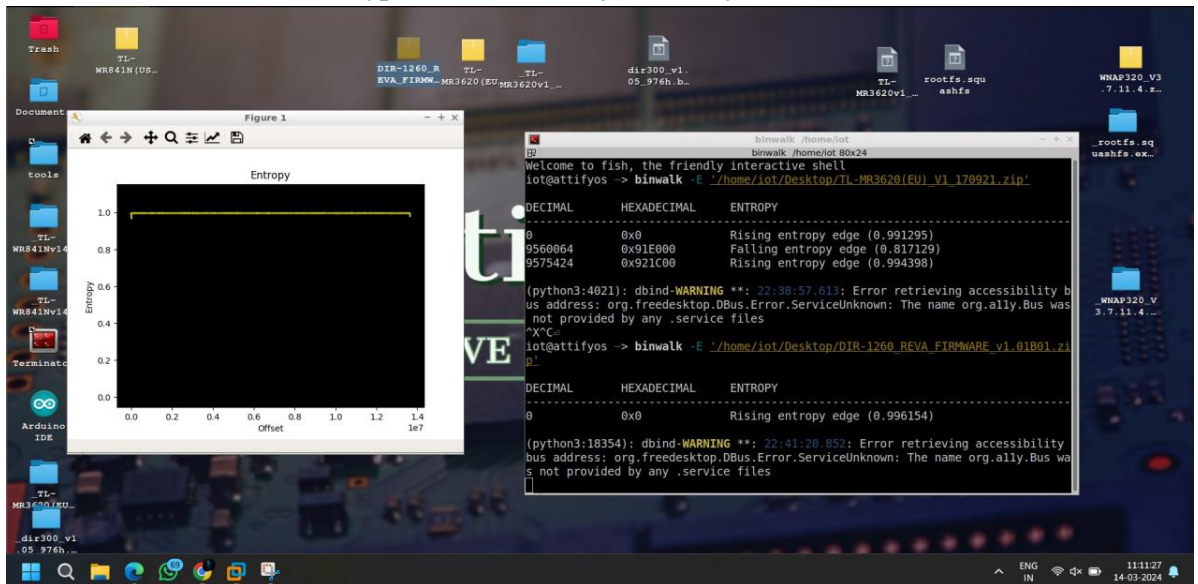
Firmware - [TL-MR3620] This is not encrypted.

Command type- [binwalk -E (firmware file)].

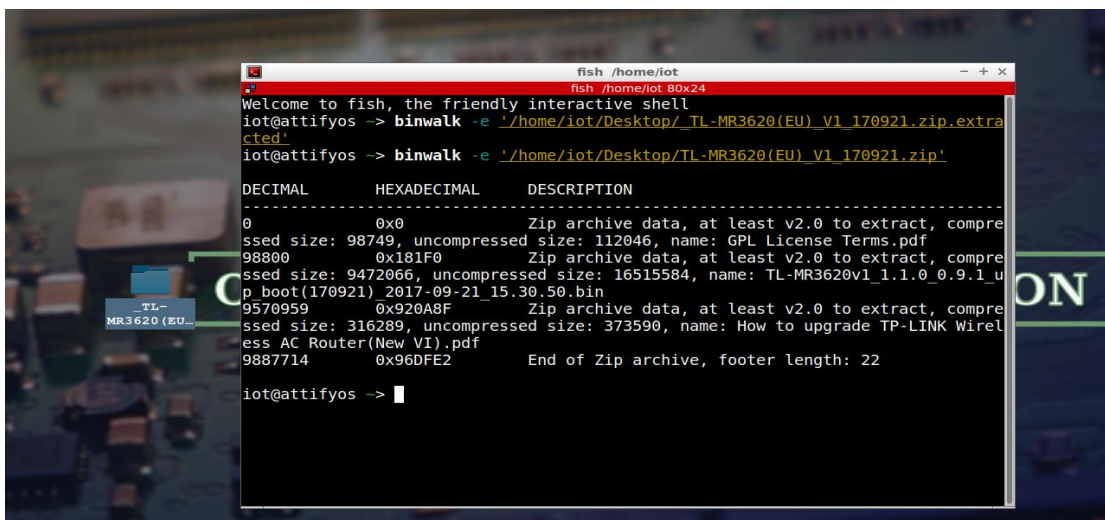


Firmware - [DIR-1260] This is encrypted.

Command type - [binwalk -E (firmware file)].



Step 4 : Then [TL-MR3620] do extract Firmware command type like
[binwalk -e (firmware zip.file)]



Step 5 : Then [TL-MR3620] we go to this firmware file system using the Linux command. **Command type : cd(extracted file)/ls/cd squashfs-root/ls/cd etc/ls/cat passwd.bak** This file shows to username or password of this firmware


```

iot@attifyos ~/Desktop> cd '/home/iot/Desktop/ TL-MR3620v1 1.1.0 0.9.1 up_boot(170921) 2017-09-21_15.30.50.bin.extracted'
iot@attifyos ~/D/ TL-MR3620v1 1.1.0 0.9.1 up_boot(170921) 2017-09-21_15.30.50.bin.extracted> ls
160200.squashfs  20400  20400.7z  4288  4288.7z  squashfs-root/
iot@attifyos ~/D/ TL-MR3620v1 1.1.0 0.9.1 up_boot(170921) 2017-09-21_15.30.50.bin.extracted> cd squashfs-root/
iot@attifyos ~/D/_/squashfs-root> ls
bin/ dev/ etc/ lib/ linuxrc@ mnt/ proc/ sbin/ sys/ tmp/ usr/ var/ web/
iot@attifyos ~/D/_/squashfs-root> cd etc/
iot@attifyos ~/D/_/s/etc> ls
cloud/          fstab*  init.d/  iptables-stop*  minidlna.conf*  passwd@  ppp/      resolv.conf@  services*  tz@  vsftpd_passwd
default_config.xml* group*  inittab*  iqos/          mode_switch.conf.bin  passwd.bak*  reduced_data_model.xml  samba/      support_3g_list  vsftpd.conf
iot@attifyos ~/D/_/s/etc> cat passwd.bak
admin:$1$$iC.dUsGpxNNJGeOmlFio:0:0:root:/bin/sh
dropbear:x:500:500:dropbear:/var/dropbear:/bin/sh
nobody:*:0:0:nobody:/bin/sh
iot@attifyos ~/D/_/s/etc>

```

Step 6 : Then check many more files in the same step.

```

iot@attifyos -> cd '/home/iot/Desktop/ TL-MR3620v1 1.1.0 0.9.1 up_boot(170921) 2017-09-21_15.30.50.bin.extracted'
iot@attifyos ~/D/ TL-MR3620v1 1.1.0 0.9.1 up_boot(170921) 2017-09-21_15.30.50.bin.extracted> ls
160200.squashfs  20400  20400.7z  4288  4288.7z  squashfs-root/
iot@attifyos ~/D/ TL-MR3620v1 1.1.0 0.9.1 up_boot(170921) 2017-09-21_15.30.50.bin.extracted> cd squashfs-root/
iot@attifyos ~/D/_/squashfs-root> ls
bin/ dev/ etc/ lib/ linuxrc@ mnt/ proc/ sbin/ sys/ tmp/ usr/ var/ web/
iot@attifyos ~/D/_/squashfs-root> cd etc/
iot@attifyos ~/D/_/s/etc> ls
cloud/          fstab*  init.d/  iptables-stop*  minidlna.conf*  passwd@  ppp/      resolv.conf@  services*  tz@  vsftpd_passwd
default_config.xml* group*  inittab*  iqos/          mode_switch.conf.bin  passwd.bak*  reduced_data_model.xml  samba/      support_3g_list  vsftpd.conf
iot@attifyos ~/D/_/s/etc> cd ppp/
iot@attifyos ~/D/_/s/e/ppp> ls
chat-gsm-test  chat-gsm-test-anydata  chat-gsm-test-qualcomm  chat-modem-configure  chat-modem-test  disconn-script
iot@attifyos ~/D/_/s/e/ppp>

```

```

17-09-21 15.30.50.bin.extracted'
iot@attifyos ~/D/ TL-MR3620v1 1.1.0 0.9.1 up_boot(170921) 2017-09-21_15.30.50.bin.extracted> ls
160200.squashfs  20400  20400.7z  4288  4288.7z  squashfs-root/
iot@attifyos ~/D/ TL-MR3620v1 1.1.0 0.9.1 up_boot(170921) 2017-09-21_15.30.50.bin.extracted> cd squashfs-root/
iot@attifyos ~/D/_/squashfs-root> ls
bin/ dev/ etc/ lib/ linuxrc@ mnt/ proc/ sbin/ sys/ tmp/ usr/ var/ web/
iot@attifyos ~/D/_/squashfs-root> cd dev/
iot@attifyos ~/D/_/s/dev> ls
dsl_cpe_api/ mei_cpe/ net/ pts/ shm/ switch_api/
iot@attifyos ~/D/_/s/dev>

```

```

iot@attifyos ~/D/_/s/d/net> cd '/home/iot/Desktop/ TL-MR3620v1 1.1.0 0.9.1 up_boot(170921) 2017-09-21_15.30.50.bin.extracted'
iot@attifyos ~/D/ TL-MR3620v1 1.1.0 0.9.1 up_boot(170921) 2017-09-21_15.30.50.bin.extracted> ls
160200.squashfs  20400  20400.7z  4288  4288.7z  squashfs-root/
iot@attifyos ~/D/ TL-MR3620v1 1.1.0 0.9.1 up_boot(170921) 2017-09-21_15.30.50.bin.extracted> cd squashfs-root/
iot@attifyos ~/D/_/squashfs-root> ls
bin/ dev/ etc/ lib/ linuxrc@ mnt/ proc/ sbin/ sys/ tmp/ usr/ var/ web/
iot@attifyos ~/D/_/squashfs-root> cd lib/
iot@attifyos ~/D/_/s/lib> ls
firmware/          libc.so.0@          libxml.so*          libracoona.so.0.0.0*  libusb-0.1.so.4@
ld-uClibc-0.9.33.2.so*  libcurl.so*         liblte.so*          librt-0.9.33.2.so*   libusb-0.1.so.4.4.4*
ld-uClibc.so.0@        libcurl.so.4*       libm-0.9.33.2.so*   librt.so@            libusb-1.0.so@
libcJSON.so*          libcurl.so.4.3.0*   libm.so@            librt.so.0@          libusb-1.0.so.0.0.0*
libcloud-api.a*       libcurl.so*         libm.so.0@          libssl.so@           libusb.so@
libcloud-brd.a*       libdl-0.9.33.2.so*  libntfs-3g.so@     libssl.so.0.9.8*     libutil-0.9.33.2.so*
libcmm.so*            libdl.so@           libntfs-3g.so.83@  libssl.so.1.0.0*     libutil.so@
libcrypto-0.9.33.2.so*  libdl.so.0@         libntfs-3g.so.83.0.0*  libstdc++.so.6@     libutil.so.0@
libcrypto.so@         libgcc_s.so@        libos.so*           libstdc++.so.6.0.16*  libwpa_common.so*
libcrypto.so.0.9.8*   libgcc_s.so.1       libpthread-0.9.33.2.so*  libstdc++.so.6.0.16-gdb.py  libwpa_ctrl.so*
libcrypto.so.1.0.0    libipsec.so@        libpthread.so*      libthreadutil.so*    libxml.so*
libcrypto.so.0@       libipsec.so.0.0.1*  libpthread.so.0@    libuClibc-0.9.33.2.so*  modules/
libc.so*              libipsec.so.29*     libracoona.so.0@    libupnp.so*
iot@attifyos ~/D/_/s/lib>

```

Conclusion: In this Practical, we Know How to Download Firmware and See Firmware encrypted or Not And Firmware are not Encrypted to How to Check the Firmware File system using the Linux command.