MODULE 3: SCRIPTING WITH LINUX

In Module 3, we developed a shell script that obtains useful information of the Linux Kernel using the commands execution. All the information derived from functions gets saved in their respective text files. The script extracts information using the functions:

1. Prints Date: This function uses the command “date” to print the current date and time.
2. Number of Processes: This function executes command “ps -aux” to derive all the current executing processes.
3. Kernel name: This function uses the command “uname —-kernel-name” to get the installed kernel name.
4. Kernel Version: This function uses the command “uname —-kernel-version” to get the current installed kernel version which includes the build timestamp and additional information related to the build.
5. Kernel Release: This function uses command “uname —-kernel-release” to get the current release kernel version which gives the major, minor and patch version of the linux kernel.
6. Kernel Messages or Dump: This function uses the command “dmesg” to get the kernel messages or dump which can be helpful to look for kernel related messages like module install or removing of the modules.
7. Current RAM Status: This function uses the command “free -h” gives the current RAM consumption.
8. Current CPU Usage : This function uses the command “top -bn1” and further extracting the information to give the current CPU usage of the OS.
9. Current User: This function uses the command “whoami” to give the information about the current user.
10. Device IP: This function uses the command “ip addr show” to give the information about the device IPs and connection information with networks as well.
11. System Uptime: This function uses the command “uptime” to give the information about the system uptime which is how much time the system is up after the shutdown of kernel boot.

The shell script is designed using two user defined functions

1. run\_commands\_using\_user\_inputs(): This function takes input from the user to execute the command the user wants to and then uses the switch statement cases to run the asked command and saves the output in the text file. This function will be enabled when the user executes the file.
2. run\_commands\_automatically(): This function runs all the commands when the script is executed at boot time.

**Bonus Section:**

The Script gets executed at boot time or start-up and is configured using Crontab. The command used is “crontab –e” to add the job for the crontab. The job added is “@reboot /bin/bash $file\_location/command\_executor.sh > $file\_location/cron\_log.txt 2>&1” to execute and save the logs generated by the job on reboot or startup.

The logs were:

Script Menu:

1: Prints Date

2: Prints the number of processes which are running currently

3: Prints the kernel name

4: Prints the kernel version

5: Prints the Kernel release

6: Prints the kernel dump or messages

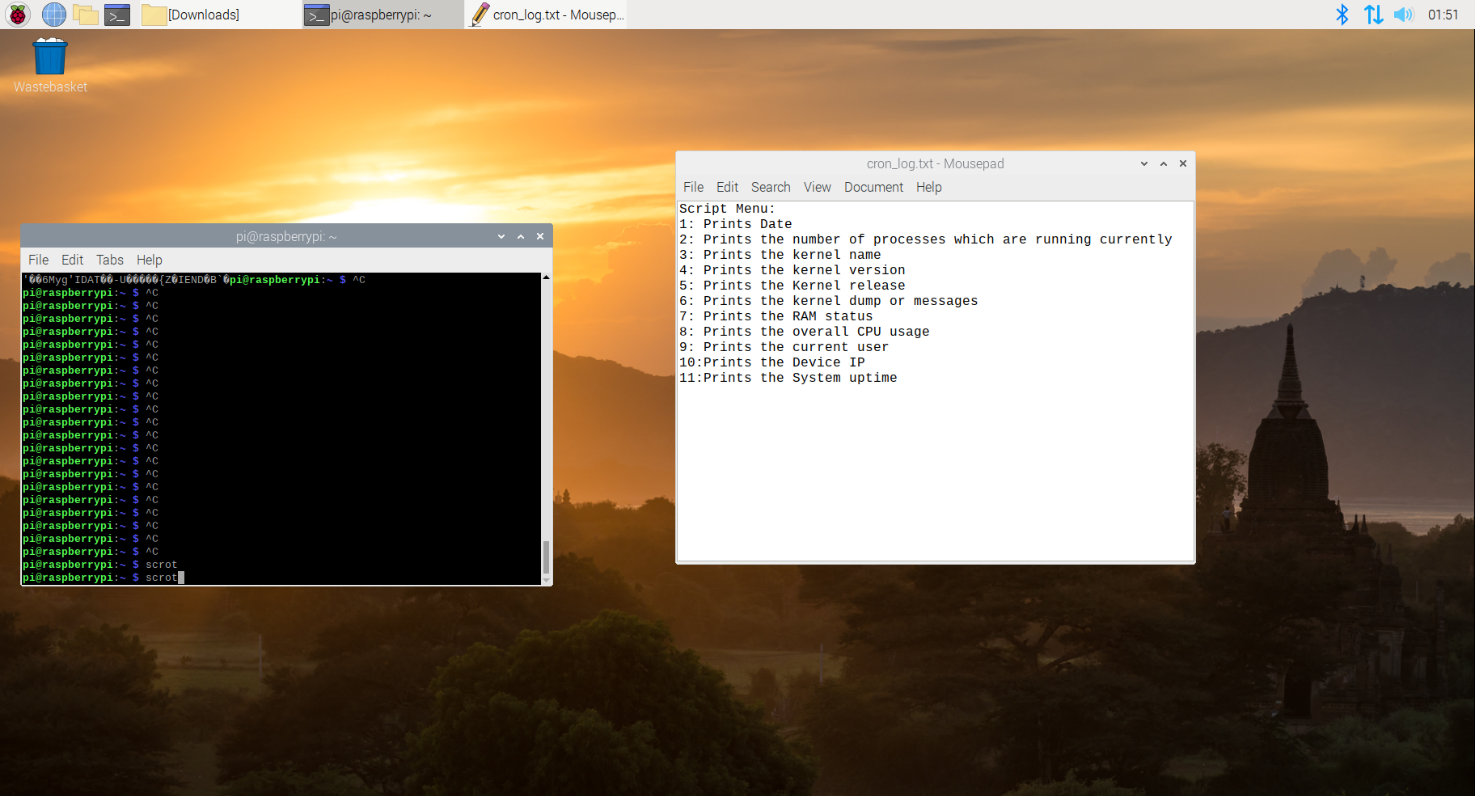
7: Prints the RAM status

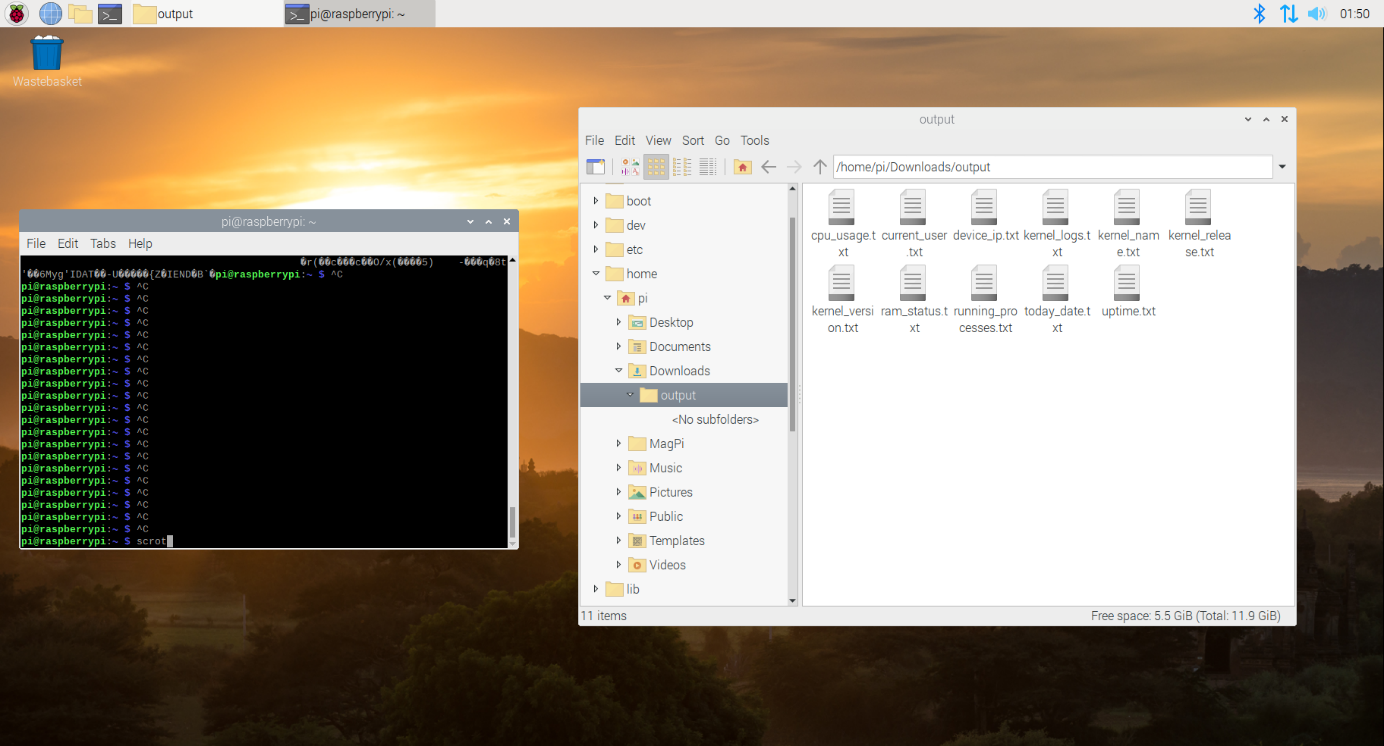
8: Prints the overall CPU usage

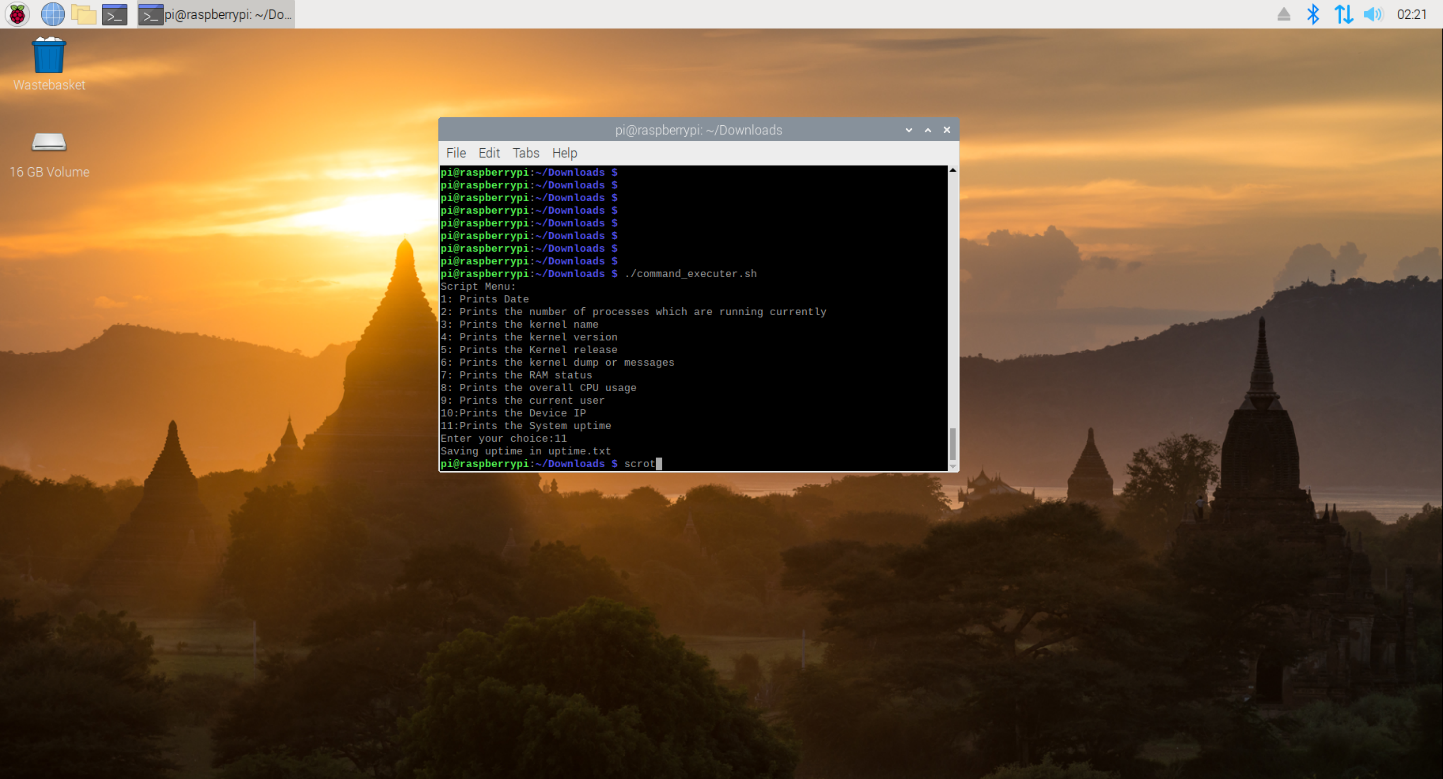
9: Prints the current user

10:Prints the Device IP

11:Prints the System uptime







**Code:**

#!/bin/bash

echo "Script Menu:"

echo "1: Prints Date

2: Prints the number of processes which are running currently

3: Prints the kernel name

4: Prints the kernel version

5: Prints the Kernel release

6: Prints the kernel dump or messages

7: Prints the RAM status

8: Prints the overall CPU usage

9: Prints the current user

10:Prints the Device IP

11:Prints the System uptime"

output\_dir="$HOME/Downloads/output"

mkdir -p "$output\_dir"

run\_commands\_automatically(){

        date > "$output\_dir/today\_date.txt"

        ps -aux > "$output\_dir/running\_processes.txt"

        uname --kernel-name > "$output\_dir/kernel\_name.txt"

        uname --kernel-version > "$output\_dir/kernel\_version.txt"

        uname --kernel-release > "$output\_dir/kernel\_release.txt"

        dmesg > "$output\_dir/kernel\_logs.txt"

        free -h > "$output\_dir/ram\_status.txt"

        top -bn1 | grep "Cpu(s)" | awk '{usage = 100 - $8; printf "Total CPU Usage: %.2f%%\n", usage}' > "$output\_dir/cpu\_usage.txt"

        whoami > "$output\_dir/current\_user.txt"

        ip addr show > "$output\_dir/device\_ip.txt"

        uptime > "$output\_dir/uptime.txt"

}

run\_commands\_using\_user\_inputs(){

        read -p "Enter your choice:" input

        case $input in

                1)

                        echo "Saving today's date in today\_date.txt"

                        date > "$output\_dir/today\_date.txt"

                        ;;

                2)

                        echo "Saving the current processes list in running\_processes.txt"

                        ps -aux > "$output\_dir/running\_processes.txt"

                        ;;

                3)

                        echo "Saving the kernel name in kernel\_name.txt"

                        uname --kernel-name > "$output\_dir/kernel\_name.txt"

                        ;;

                4)

                        echo "Saving Kernel version information in kernel\_version.txt"

                        uname --kernel-version > "$output\_dir/kernel\_version.txt"

                        ;;

                5)

                        echo "Saving Kernel release information in kernel\_release.txt"

                        uname --kernel-release > "$output\_dir/kernel\_release.txt"

                        ;;

                6)

                        echo "Saving Kernel logs in kernel\_logs.txt"

                        dmesg >  "$output\_dir/kernel\_logs.txt"

                        ;;

                7)

                        echo "Saving RAM status in ram\_status.txt"

                        free-h > "$output\_dir/ram\_status.txt"

                        ;;

                8)

                        echo "Saving CPU Usage in cpu\_usage.txt"

                        top -bn1 | grep "Cpu(s)" | awk '{usage = 100 - $8; printf "Total CPU Usage: %.2f%%\n", usage}' > "$output\_dir/cpu\_usage.txt"

                        ;;

                9)

                        echo "Saving the current user in current\_user.txt"

                        whoami > "$output\_dir/current\_user.txt"

                        ;;

                10)

                        echo "Saving Device ip in device\_ip.txt"

                        ip addr show > "$output\_dir/device\_ip.txt"

                        ;;

                11)

                        echo "Saving uptime in uptime.txt"

                        uptime > "$output\_dir/uptime.txt"

                        ;;

                \*)

                        echo "Invalid Choice"

                        ;;

        esac

}

run\_commands\_using\_user\_inputs

run\_commands\_automatically

**Outputs:**

**Today\_date.txt**

Mon 18 Nov 01:44:48 GMT 2024

**Running\_processes.txt**

USER PID %CPU %MEM VSZ RSS TTY STAT START TIME COMMAND

root 1 0.2 0.8 33720 8056 ? Ss 00:40 0:04 /sbin/init splash

root 2 0.0 0.0 0 0 ? S 00:40 0:00 [kthreadd]

root 3 0.0 0.0 0 0 ? I< 00:40 0:00 [rcu\_gp]

root 4 0.0 0.0 0 0 ? I< 00:40 0:00 [rcu\_par\_gp]

root 8 0.0 0.0 0 0 ? I< 00:40 0:00 [mm\_percpu\_wq]

root 9 0.0 0.0 0 0 ? S 00:40 0:00 [ksoftirqd/0]

root 10 0.0 0.0 0 0 ? I 00:40 0:00 [rcu\_sched]

root 11 0.0 0.0 0 0 ? I 00:40 0:00 [rcu\_bh]

root 12 0.0 0.0 0 0 ? S 00:40 0:00 [migration/0]

root 13 0.0 0.0 0 0 ? S 00:40 0:00 [cpuhp/0]

root 14 0.0 0.0 0 0 ? S 00:40 0:00 [cpuhp/1]

root 15 0.0 0.0 0 0 ? S 00:40 0:00 [migration/1]

root 16 0.0 0.0 0 0 ? S 00:40 0:00 [ksoftirqd/1]

root 19 0.0 0.0 0 0 ? S 00:40 0:00 [cpuhp/2]

root 20 0.0 0.0 0 0 ? S 00:40 0:00 [migration/2]

root 21 0.0 0.0 0 0 ? S 00:40 0:00 [ksoftirqd/2]

root 24 0.0 0.0 0 0 ? S 00:40 0:00 [cpuhp/3]

root 25 0.0 0.0 0 0 ? S 00:40 0:00 [migration/3]

root 26 0.0 0.0 0 0 ? S 00:40 0:00 [ksoftirqd/3]

root 29 0.0 0.0 0 0 ? S 00:40 0:00 [kdevtmpfs]

root 30 0.0 0.0 0 0 ? I< 00:40 0:00 [netns]

root 32 0.0 0.0 0 0 ? I 00:40 0:00 [kworker/1:1-events]

root 34 0.0 0.0 0 0 ? S 00:40 0:00 [khungtaskd]

root 35 0.0 0.0 0 0 ? S 00:40 0:00 [oom\_reaper]

root 36 0.0 0.0 0 0 ? I< 00:40 0:00 [writeback]

root 37 0.0 0.0 0 0 ? S 00:40 0:00 [kcompactd0]

root 38 0.0 0.0 0 0 ? I< 00:40 0:00 [crypto]

root 39 0.0 0.0 0 0 ? I< 00:40 0:00 [kblockd]

root 40 0.0 0.0 0 0 ? S 00:40 0:00 [watchdogd]

root 41 0.0 0.0 0 0 ? I< 00:40 0:00 [rpciod]

root 42 0.0 0.0 0 0 ? I< 00:40 0:00 [kworker/u9:0-hci0]

root 43 0.0 0.0 0 0 ? I< 00:40 0:00 [xprtiod]

root 46 0.0 0.0 0 0 ? S 00:40 0:00 [kswapd0]

root 47 0.0 0.0 0 0 ? I< 00:40 0:00 [nfsiod]

root 58 0.0 0.0 0 0 ? I< 00:40 0:00 [kthrotld]

root 59 0.0 0.0 0 0 ? I 00:40 0:00 [kworker/3:1-events]

root 60 0.0 0.0 0 0 ? I< 00:40 0:00 [iscsi\_eh]

root 61 0.0 0.0 0 0 ? I< 00:40 0:00 [dwc\_otg]

root 62 0.0 0.0 0 0 ? I< 00:40 0:00 [DWC Notificatio]

root 64 0.0 0.0 0 0 ? S< 00:40 0:00 [vchiq-slot/0]

root 65 0.0 0.0 0 0 ? S< 00:40 0:00 [vchiq-recy/0]

root 66 0.0 0.0 0 0 ? S< 00:40 0:00 [vchiq-sync/0]

root 67 0.0 0.0 0 0 ? S 00:40 0:00 [vchiq-keep/0]

root 68 0.0 0.0 0 0 ? S< 00:40 0:00 [SMIO]

root 69 0.0 0.0 0 0 ? S 00:40 0:00 [irq/86-mmc1]

root 71 0.0 0.0 0 0 ? I< 00:40 0:00 [mmc\_complete]

root 73 0.0 0.0 0 0 ? I< 00:40 0:00 [kworker/0:1H-mmc\_complete]

root 75 0.0 0.0 0 0 ? S 00:40 0:00 [jbd2/mmcblk0p7-]

root 76 0.0 0.0 0 0 ? I< 00:40 0:00 [ext4-rsv-conver]

root 78 0.0 0.0 0 0 ? I< 00:40 0:00 [ipv6\_addrconf]

root 84 0.0 0.0 0 0 ? I< 00:40 0:00 [kworker/2:1H-kblockd]

root 94 0.0 0.0 0 0 ? I< 00:40 0:00 [kworker/1:2H-kblockd]

root 95 0.0 0.0 0 0 ? I< 00:40 0:00 [kworker/3:2H-kblockd]

root 107 0.0 0.6 19056 6588 ? Ss 00:40 0:00 /lib/systemd/systemd-journald

root 124 0.0 0.0 0 0 ? I 00:40 0:00 [kworker/1:2-events]

root 140 0.0 0.4 18428 3824 ? Ss 00:40 0:01 /lib/systemd/systemd-udevd

root 159 0.0 0.0 0 0 ? S< 00:40 0:00 [SMIO]

root 183 0.0 0.0 0 0 ? I< 00:40 0:00 [mmal-vchiq]

root 184 0.0 0.0 0 0 ? I< 00:40 0:00 [mmal-vchiq]

root 185 0.0 0.0 0 0 ? I< 00:40 0:00 [mmal-vchiq]

root 216 0.0 0.0 0 0 ? I< 00:40 0:00 [cfg80211]

root 220 0.0 0.0 0 0 ? I< 00:40 0:00 [brcmf\_wq/mmc1:0]

root 221 0.0 0.0 0 0 ? S 00:40 0:00 [brcmf\_wdog/mmc1]

systemd+ 271 0.0 0.3 22372 2928 ? Ssl 00:40 0:00 /lib/systemd/systemd-timesyncd

root 312 0.0 0.2 7944 2236 ? Ss 00:40 0:00 /usr/sbin/cron -f

message+ 313 0.0 0.3 6752 3672 ? Ss 00:40 0:00 /usr/bin/dbus-daemon --system --address=systemd: --nofork --nopidfile --systemd-activation --syslog-only

root 317 0.0 0.2 25512 2728 ? Ssl 00:40 0:00 /usr/sbin/rsyslogd -n -iNONE

root 325 0.0 0.6 13000 5728 ? Ss 00:40 0:00 /lib/systemd/systemd-logind

root 327 0.0 0.9 63208 9244 ? Ssl 00:40 0:00 /usr/lib/udisks2/udisksd

root 330 0.0 0.0 3692 772 ? SNs 00:40 0:00 /usr/sbin/alsactl -E HOME=/run/alsa -s -n 19 -c rdaemon

root 337 0.0 0.4 10700 3968 ? Ss 00:40 0:00 /sbin/wpa\_supplicant -u -s -O /run/wpa\_supplicant

root 341 0.0 0.0 27656 80 ? SLsl 00:40 0:00 /usr/sbin/rngd -r /dev/hwrng

avahi 347 0.0 0.2 5772 2544 ? Ss 00:40 0:00 avahi-daemon: running [raspberrypi.local]

nobody 348 0.0 0.2 4320 2024 ? Ss 00:40 0:00 /usr/sbin/thd --triggers /etc/triggerhappy/triggers.d/ --socket /run/thd.socket --user nobody --deviceglob /dev/input/event\*

avahi 387 0.0 0.0 5772 252 ? S 00:40 0:00 avahi-daemon: chroot helper

root 389 0.0 0.2 2896 1908 ? Ss 00:40 0:00 /sbin/dhcpcd -q -b

root 419 0.0 0.6 37500 5772 ? Ssl 00:40 0:00 /usr/sbin/lightdm

root 423 0.0 0.6 37960 5824 ? Ssl 00:40 0:00 /usr/lib/policykit-1/polkitd --no-debug

root 445 0.0 0.3 11080 3320 ? Ss 00:40 0:00 wpa\_supplicant -B -c/etc/wpa\_supplicant/wpa\_supplicant.conf -iwlan0 -Dnl80211,wext

root 467 1.2 7.4 279232 70980 tty7 Rsl+ 00:40 0:18 /usr/lib/xorg/Xorg :0 -seat seat0 -auth /var/run/lightdm/root/:0 -nolisten tcp vt7 -novtswitch

root 468 0.0 0.2 5620 2416 tty1 Ss 00:40 0:00 /bin/login -f

root 485 0.0 0.6 29904 6052 ? Sl 00:40 0:00 lightdm --session-child 14 17

pi 493 0.0 0.7 14660 7336 ? Ss 00:40 0:00 /lib/systemd/systemd --user

pi 496 0.0 0.3 16692 3500 ? S 00:40 0:00 (sd-pam)

pi 507 0.0 1.2 54912 12016 ? Ssl 00:40 0:00 /usr/bin/lxsession -s LXDE-pi -e LXDE

pi 516 0.0 0.3 6544 3448 ? Ss 00:40 0:00 /usr/bin/dbus-daemon --session --address=systemd: --nofork --nopidfile --systemd-activation --syslog-only

root 565 0.0 0.0 2140 128 ? S 00:40 0:00 /usr/bin/hciattach /dev/serial1 bcm43xx 921600 noflow - b8:27:eb:b7:91:c2

root 566 0.0 0.0 0 0 ? I< 00:40 0:00 [kworker/u9:1-hci0]

root 580 0.0 0.4 9808 4260 ? Ss 00:40 0:00 /usr/lib/bluetooth/bluetoothd

pi 597 0.0 0.0 4480 312 ? Ss 00:40 0:00 /usr/bin/ssh-agent x-session-manager

root 604 0.0 0.4 26704 4064 ? Ssl 00:40 0:00 /usr/bin/bluealsa

root 648 0.0 0.0 0 0 ? S< 00:40 0:00 [krfcommd]

pi 670 0.0 0.3 8492 3724 tty1 S+ 00:40 0:00 -bash

pi 674 0.0 0.6 43592 6116 ? Ssl 00:40 0:00 /usr/lib/gvfs/gvfsd

pi 688 0.0 0.5 54508 4884 ? Sl 00:40 0:00 /usr/lib/gvfs/gvfsd-fuse /run/user/1000/gvfs -f -o big\_writes

pi 693 0.1 1.6 63672 15808 ? S 00:40 0:01 openbox --config-file /home/pi/.config/openbox/lxde-pi-rc.xml

pi 696 0.0 1.1 47496 10816 ? Sl 00:40 0:00 lxpolkit

pi 703 0.3 3.0 158620 29308 ? Sl 00:40 0:04 lxpanel --profile LXDE-pi

pi 705 0.3 3.3 150124 31464 ? Sl 00:40 0:04 pcmanfm --desktop --profile LXDE-pi

pi 712 0.0 0.0 4480 312 ? Ss 00:40 0:00 /usr/bin/ssh-agent -s

pi 795 0.0 1.0 79564 9812 ? Ssl 00:40 0:00 /usr/lib/gvfs/gvfs-udisks2-volume-monitor

pi 799 0.0 0.5 26440 5120 ? Sl 00:40 0:00 /usr/lib/menu-cache/menu-cached /run/user/1000/menu-cached-:0

pi 806 0.0 0.7 56204 7184 ? Ssl 00:40 0:00 /usr/lib/gvfs/gvfs-afc-volume-monitor

pi 811 0.0 0.4 40284 4376 ? Ssl 00:40 0:00 /usr/lib/gvfs/gvfs-goa-volume-monitor

pi 815 0.0 0.4 40280 4692 ? Ssl 00:40 0:00 /usr/lib/gvfs/gvfs-mtp-volume-monitor

pi 819 0.0 0.5 41848 4924 ? Ssl 00:40 0:00 /usr/lib/gvfs/gvfs-gphoto2-volume-monitor

pi 826 0.0 0.7 53044 6800 ? Sl 00:40 0:00 /usr/lib/gvfs/gvfsd-trash --spawner :1.4 /org/gtk/gvfs/exec\_spaw/0

pi 1226 4.7 15.4 609944 146964 ? Sl 00:41 1:06 /usr/lib/chromium-browser/chromium-browser-v7 --disable-quic --enable-tcp-fast-open --ppapi-flash-path=/usr/lib/chromium-browser/libpepflashplayer.so --ppapi-flash-args=enable\_stagevideo\_auto=0 --ppapi-flash-version=32.0.0.255 --enable-pinch

pi 1259 0.0 3.6 198344 34412 ? S 00:41 0:00 /usr/lib/chromium-browser/chromium-browser-v7 --type=zygote --ppapi-flash-path=/usr/lib/chromium-browser/libpepflashplayer.so --ppapi-flash-version=32.0.0.255

pi 1261 0.0 0.9 198344 9188 ? S 00:41 0:00 /usr/lib/chromium-browser/chromium-browser-v7 --type=zygote --ppapi-flash-path=/usr/lib/chromium-browser/libpepflashplayer.so --ppapi-flash-version=32.0.0.255

pi 1300 1.9 9.9 383020 93960 ? Sl 00:41 0:27 /usr/lib/chromium-browser/chromium-browser-v7 --type=gpu-process --field-trial-handle=4311187625028835635,5944117903314909822,131072 --gpu-preferences= --service-request-channel-token=2591216263877099602

pi 1305 1.4 7.5 280332 71584 ? Sl 00:41 0:20 /usr/lib/chromium-browser/chromium-browser-v7 --type=utility --field-trial-handle=4311187625028835635,5944117903314909822,131072 --lang=en-GB --service-sandbox-type=network --disable-quic --service-request-channel-token=1227979494178620914 --shared-files=v8\_context\_snapshot\_data:100,v8\_natives\_data:101

root 1819 0.0 0.0 0 0 ? I 00:42 0:00 [kworker/0:3-events]

pi 2435 12.8 13.0 472196 123812 ? Sl 00:43 2:42 /usr/lib/chromium-browser/chromium-browser-v7 --type=renderer --field-trial-handle=4311187625028835635,5944117903314909822,131072 --disable-gpu-compositing --lang=en-GB --enable-offline-auto-reload --enable-offline-auto-reload-visible-only --ppapi-flash-args=enable\_stagevideo\_auto=0 --ppapi-flash-path=/usr/lib/chromium-browser/libpepflashplayer.so --ppapi-flash-version=32.0.0.255 --num-raster-threads=2 --enable-main-frame-before-activation --service-request-channel-token=13393299120171483517 --renderer-client-id=23 --no-v8-untrusted-code-mitigations --shared-files=v8\_context\_snapshot\_data:100,v8\_natives\_data:101

pi 2460 4.7 11.7 384824 111040 ? Sl 00:43 1:00 /usr/lib/chromium-browser/chromium-browser-v7 --type=renderer --field-trial-handle=4311187625028835635,5944117903314909822,131072 --disable-gpu-compositing --lang=en-GB --enable-offline-auto-reload --enable-offline-auto-reload-visible-only --ppapi-flash-args=enable\_stagevideo\_auto=0 --ppapi-flash-path=/usr/lib/chromium-browser/libpepflashplayer.so --ppapi-flash-version=32.0.0.255 --num-raster-threads=2 --enable-main-frame-before-activation --service-request-channel-token=5381269604473399464 --renderer-client-id=24 --no-v8-untrusted-code-mitigations --shared-files=v8\_context\_snapshot\_data:100,v8\_natives\_data:101

root 3177 0.0 0.0 0 0 ? I 00:46 0:00 [kworker/u8:0-events\_unbound]

pi 3553 0.0 0.4 31160 4300 ? Ssl 00:48 0:00 /usr/lib/gvfs/gvfsd-metadata

pi 3619 0.9 3.0 86476 28568 ? Sl 00:48 0:09 lxterminal

pi 3625 0.0 0.4 8516 3856 pts/0 Ss 00:48 0:00 bash

pi 3650 0.0 0.4 26020 4660 ? Sl 00:48 0:00 /usr/lib/dconf/dconf-service

root 4278 0.0 0.0 0 0 ? I 00:50 0:00 [kworker/2:1-mm\_percpu\_wq]

root 5157 0.0 0.0 0 0 ? I< 00:54 0:00 [kworker/0:2H]

root 5502 0.0 0.0 0 0 ? I< 00:55 0:00 [kworker/3:1H]

root 5540 0.0 0.0 0 0 ? I 00:55 0:00 [kworker/0:0-events]

root 5541 0.0 0.0 0 0 ? I 00:55 0:00 [kworker/2:0-mm\_percpu\_wq]

root 5799 0.0 0.0 0 0 ? I< 00:56 0:00 [kworker/2:0H]

root 5909 0.0 0.0 0 0 ? I 00:57 0:00 [kworker/3:0-events]

root 6012 0.0 0.0 0 0 ? I< 00:57 0:00 [kworker/1:1H]

pi 6027 0.0 5.8 315896 55308 ? Sl 00:57 0:00 /usr/lib/chromium-browser/chromium-browser-v7 --type=renderer --field-trial-handle=4311187625028835635,5944117903314909822,131072 --disable-gpu-compositing --lang=en-GB --enable-offline-auto-reload --enable-offline-auto-reload-visible-only --ppapi-flash-args=enable\_stagevideo\_auto=0 --ppapi-flash-path=/usr/lib/chromium-browser/libpepflashplayer.so --ppapi-flash-version=32.0.0.255 --num-raster-threads=2 --enable-main-frame-before-activation --service-request-channel-token=7119645817759370748 --renderer-client-id=34 --no-v8-untrusted-code-mitigations --shared-files=v8\_context\_snapshot\_data:100,v8\_natives\_data:101

root 6279 0.0 0.0 0 0 ? I 00:58 0:00 [kworker/u8:1-events\_unbound]

root 6827 0.0 0.0 0 0 ? I 01:01 0:00 [kworker/2:2-mm\_percpu\_wq]

root 7136 0.0 0.0 0 0 ? I< 01:02 0:00 [kworker/3:0H]

root 7161 0.0 0.0 0 0 ? I 01:02 0:00 [kworker/3:2-mm\_percpu\_wq]

root 7268 0.0 0.0 0 0 ? I< 01:02 0:00 [kworker/0:0H]

root 7642 0.0 0.0 0 0 ? I 01:04 0:00 [kworker/u8:2-events\_unbound]

pi 7913 0.0 0.3 7676 2880 pts/0 S+ 01:05 0:00 /bin/bash ./command\_executer.sh

pi 7915 0.0 0.2 9788 2476 pts/0 R+ 01:05 0:00 ps –aux

**kernal\_name.txt**

Linux

**kernel\_version.txt**

#1270 SMP Tue Sep 24 18:45:11 BST 2019

**kernel\_release.txt**

4.19.75-v7+

**kernel\_logs.txt**

[ 0.000000] Booting Linux on physical CPU 0x0

[ 0.000000] Linux version 4.19.75-v7+ (dom@buildbot) (gcc version 4.9.3 (crosstool-NG crosstool-ng-1.22.0-88-g8460611)) #1270 SMP Tue Sep 24 18:45:11 BST 2019

[ 0.000000] CPU: ARMv7 Processor [410fd034] revision 4 (ARMv7), cr=10c5383d

[ 0.000000] CPU: div instructions available: patching division code

[ 0.000000] CPU: PIPT / VIPT nonaliasing data cache, VIPT aliasing instruction cache

[ 0.000000] OF: fdt: Machine model: Raspberry Pi 3 Model B Rev 1.2

[ 0.000000] Memory policy: Data cache writealloc

[ 0.000000] cma: Reserved 8 MiB at 0x3ac00000

[ 0.000000] On node 0 totalpages: 242688

[ 0.000000] Normal zone: 2133 pages used for memmap

[ 0.000000] Normal zone: 0 pages reserved

[ 0.000000] Normal zone: 242688 pages, LIFO batch:63

[ 0.000000] random: get\_random\_bytes called from start\_kernel+0xac/0x4b4 with crng\_init=0

[ 0.000000] percpu: Embedded 17 pages/cpu s39488 r8192 d21952 u69632

[ 0.000000] pcpu-alloc: s39488 r8192 d21952 u69632 alloc=17\*4096

[ 0.000000] pcpu-alloc: [0] 0 [0] 1 [0] 2 [0] 3

[ 0.000000] Built 1 zonelists, mobility grouping on. Total pages: 240555

[ 0.000000] Kernel command line: coherent\_pool=1M 8250.nr\_uarts=0 bcm2708\_fb.fbwidth=1824 bcm2708\_fb.fbheight=984 bcm2708\_fb.fbswap=1 vc\_mem.mem\_base=0x3ec00000 vc\_mem.mem\_size=0x40000000 console=ttyS0,115200 console=tty1 root=/dev/mmcblk0p7 rootfstype=ext4 elevator=deadline fsck.repair=yes rootwait quiet splash plymouth.ignore-serial-consoles

[ 0.000000] Dentry cache hash table entries: 131072 (order: 7, 524288 bytes)

[ 0.000000] Inode-cache hash table entries: 65536 (order: 6, 262144 bytes)

[ 0.000000] Memory: 939088K/970752K available (8192K kernel code, 629K rwdata, 2176K rodata, 1024K init, 821K bss, 23472K reserved, 8192K cma-reserved)

[ 0.000000] Virtual kernel memory layout:

vector : 0xffff0000 - 0xffff1000 ( 4 kB)

fixmap : 0xffc00000 - 0xfff00000 (3072 kB)

vmalloc : 0xbb800000 - 0xff800000 (1088 MB)

lowmem : 0x80000000 - 0xbb400000 ( 948 MB)

modules : 0x7f000000 - 0x80000000 ( 16 MB)

.text : 0x(ptrval) - 0x(ptrval) (9184 kB)

.init : 0x(ptrval) - 0x(ptrval) (1024 kB)

.data : 0x(ptrval) - 0x(ptrval) ( 630 kB)

.bss : 0x(ptrval) - 0x(ptrval) ( 822 kB)

[ 0.000000] SLUB: HWalign=64, Order=0-3, MinObjects=0, CPUs=4, Nodes=1

[ 0.000000] ftrace: allocating 26399 entries in 78 pages

[ 0.000000] rcu: Hierarchical RCU implementation.

[ 0.000000] NR\_IRQS: 16, nr\_irqs: 16, preallocated irqs: 16

[ 0.000000] arch\_timer: cp15 timer(s) running at 19.20MHz (phys).

[ 0.000000] clocksource: arch\_sys\_counter: mask: 0xffffffffffffff max\_cycles: 0x46d987e47, max\_idle\_ns: 440795202767 ns

[ 0.000007] sched\_clock: 56 bits at 19MHz, resolution 52ns, wraps every 4398046511078ns

[ 0.000019] Switching to timer-based delay loop, resolution 52ns

[ 0.000282] Console: colour dummy device 80x30

[ 0.000300] console [tty1] enabled

[ 0.000344] Calibrating delay loop (skipped), value calculated using timer frequency.. 38.40 BogoMIPS (lpj=192000)

[ 0.000360] pid\_max: default: 32768 minimum: 301

[ 0.000704] Mount-cache hash table entries: 2048 (order: 1, 8192 bytes)

[ 0.000719] Mountpoint-cache hash table entries: 2048 (order: 1, 8192 bytes)

[ 0.001634] CPU: Testing write buffer coherency: ok

[ 0.002093] CPU0: thread -1, cpu 0, socket 0, mpidr 80000000

[ 0.002744] Setting up static identity map for 0x100000 - 0x10003c

[ 0.002892] rcu: Hierarchical SRCU implementation.

[ 0.003683] smp: Bringing up secondary CPUs ...

[ 0.004518] CPU1: thread -1, cpu 1, socket 0, mpidr 80000001

[ 0.005439] CPU2: thread -1, cpu 2, socket 0, mpidr 80000002

[ 0.006299] CPU3: thread -1, cpu 3, socket 0, mpidr 80000003

[ 0.006423] smp: Brought up 1 node, 4 CPUs

[ 0.006434] SMP: Total of 4 processors activated (153.60 BogoMIPS).

[ 0.006440] CPU: All CPU(s) started in HYP mode.

[ 0.006445] CPU: Virtualization extensions available.

[ 0.007421] devtmpfs: initialized

[ 0.020603] VFP support v0.3: implementor 41 architecture 3 part 40 variant 3 rev 4

[ 0.020841] clocksource: jiffies: mask: 0xffffffff max\_cycles: 0xffffffff, max\_idle\_ns: 19112604462750000 ns

[ 0.020860] futex hash table entries: 1024 (order: 4, 65536 bytes)

[ 0.021457] pinctrl core: initialized pinctrl subsystem

[ 0.022319] NET: Registered protocol family 16

[ 0.025336] DMA: preallocated 1024 KiB pool for atomic coherent allocations

[ 0.031051] hw-breakpoint: found 5 (+1 reserved) breakpoint and 4 watchpoint registers.

[ 0.031059] hw-breakpoint: maximum watchpoint size is 8 bytes.

[ 0.031261] Serial: AMBA PL011 UART driver

[ 0.033547] bcm2835-mbox 3f00b880.mailbox: mailbox enabled

[ 0.068484] bcm2835-dma 3f007000.dma: DMA legacy API manager at (ptrval), dmachans=0x1

[ 0.070170] SCSI subsystem initialized

[ 0.070385] usbcore: registered new interface driver usbfs

[ 0.070447] usbcore: registered new interface driver hub

[ 0.070540] usbcore: registered new device driver usb

[ 0.090122] raspberrypi-firmware soc:firmware: Attached to firmware from 2019-09-24 17:37, variant start

[ 0.100367] raspberrypi-firmware soc:firmware: Firmware hash is 6820edeee4ef3891b95fc01cf02a7abd7ca52f17

[ 0.111800] clocksource: Switched to clocksource arch\_sys\_counter

[ 0.201285] VFS: Disk quotas dquot\_6.6.0

[ 0.201367] VFS: Dquot-cache hash table entries: 1024 (order 0, 4096 bytes)

[ 0.201558] FS-Cache: Loaded

[ 0.201770] CacheFiles: Loaded

[ 0.211725] NET: Registered protocol family 2

[ 0.212529] tcp\_listen\_portaddr\_hash hash table entries: 512 (order: 0, 6144 bytes)

[ 0.212565] TCP established hash table entries: 8192 (order: 3, 32768 bytes)

[ 0.212675] TCP bind hash table entries: 8192 (order: 4, 65536 bytes)

[ 0.212861] TCP: Hash tables configured (established 8192 bind 8192)

[ 0.212997] UDP hash table entries: 512 (order: 2, 16384 bytes)

[ 0.213044] UDP-Lite hash table entries: 512 (order: 2, 16384 bytes)

[ 0.213357] NET: Registered protocol family 1

[ 0.213940] RPC: Registered named UNIX socket transport module.

[ 0.213946] RPC: Registered udp transport module.

[ 0.213952] RPC: Registered tcp transport module.

[ 0.213958] RPC: Registered tcp NFSv4.1 backchannel transport module.

[ 0.215660] hw perfevents: enabled with armv7\_cortex\_a7 PMU driver, 7 counters available

[ 0.218659] Initialise system trusted keyrings

[ 0.218847] workingset: timestamp\_bits=14 max\_order=18 bucket\_order=4

[ 0.228638] FS-Cache: Netfs 'nfs' registered for caching

[ 0.229211] NFS: Registering the id\_resolver key type

[ 0.229240] Key type id\_resolver registered

[ 0.229247] Key type id\_legacy registered

[ 0.229263] nfs4filelayout\_init: NFSv4 File Layout Driver Registering...

[ 0.231527] Key type asymmetric registered

[ 0.231536] Asymmetric key parser 'x509' registered

[ 0.231584] Block layer SCSI generic (bsg) driver version 0.4 loaded (major 250)

[ 0.231743] io scheduler noop registered

[ 0.231750] io scheduler deadline registered (default)

[ 0.232004] io scheduler cfq registered

[ 0.232012] io scheduler mq-deadline registered (default)

[ 0.232019] io scheduler kyber registered

[ 0.235168] bcm2708\_fb soc:fb: FB found 1 display(s)

[ 0.285621] Console: switching to colour frame buffer device 228x61

[ 0.314184] bcm2708\_fb soc:fb: Registered framebuffer for display 0, size 1824x984

[ 0.316371] bcm2835-rng 3f104000.rng: hwrng registered

[ 0.316689] vc-mem: phys\_addr:0x00000000 mem\_base=0x3ec00000 mem\_size:0x40000000(1024 MiB)

[ 0.317216] vc-sm: Videocore shared memory driver

[ 0.317540] gpiomem-bcm2835 3f200000.gpiomem: Initialised: Registers at 0x3f200000

[ 0.328445] brd: module loaded

[ 0.338925] loop: module loaded

[ 0.339564] Loading iSCSI transport class v2.0-870.

[ 0.340299] libphy: Fixed MDIO Bus: probed

[ 0.340403] usbcore: registered new interface driver lan78xx

[ 0.340461] usbcore: registered new interface driver smsc95xx

[ 0.340476] dwc\_otg: version 3.00a 10-AUG-2012 (platform bus)

[ 0.368342] dwc\_otg 3f980000.usb: base=(ptrval)

[ 0.568599] Core Release: 2.80a

[ 0.568609] Setting default values for core params

[ 0.568643] Finished setting default values for core params

[ 0.768943] Using Buffer DMA mode

[ 0.768950] Periodic Transfer Interrupt Enhancement - disabled

[ 0.768956] Multiprocessor Interrupt Enhancement - disabled

[ 0.768963] OTG VER PARAM: 0, OTG VER FLAG: 0

[ 0.768983] Dedicated Tx FIFOs mode

[ 0.769469] WARN::dwc\_otg\_hcd\_init:1045: FIQ DMA bounce buffers: virt = bad04000 dma = 0xfad04000 len=9024

[ 0.769495] FIQ FSM acceleration enabled for :

Non-periodic Split Transactions

Periodic Split Transactions

High-Speed Isochronous Endpoints

Interrupt/Control Split Transaction hack enabled

[ 0.769505] dwc\_otg: Microframe scheduler enabled

[ 0.769562] WARN::hcd\_init\_fiq:457: FIQ on core 1

[ 0.769574] WARN::hcd\_init\_fiq:458: FIQ ASM at 80655664 length 36

[ 0.769586] WARN::hcd\_init\_fiq:497: MPHI regs\_base at bb810000

[ 0.769607] dwc\_otg 3f980000.usb: DWC OTG Controller

[ 0.769641] dwc\_otg 3f980000.usb: new USB bus registered, assigned bus number 1

[ 0.769679] dwc\_otg 3f980000.usb: irq 56, io mem 0x00000000

[ 0.769727] Init: Port Power? op\_state=1

[ 0.769733] Init: Power Port (0)

[ 0.769997] usb usb1: New USB device found, idVendor=1d6b, idProduct=0002, bcdDevice= 4.19

[ 0.770009] usb usb1: New USB device strings: Mfr=3, Product=2, SerialNumber=1

[ 0.770018] usb usb1: Product: DWC OTG Controller

[ 0.770027] usb usb1: Manufacturer: Linux 4.19.75-v7+ dwc\_otg\_hcd

[ 0.770037] usb usb1: SerialNumber: 3f980000.usb

[ 0.770672] hub 1-0:1.0: USB hub found

[ 0.770716] hub 1-0:1.0: 1 port detected

[ 0.771324] dwc\_otg: FIQ enabled

[ 0.771330] dwc\_otg: NAK holdoff enabled

[ 0.771335] dwc\_otg: FIQ split-transaction FSM enabled

[ 0.771346] Module dwc\_common\_port init

[ 0.771626] usbcore: registered new interface driver usb-storage

[ 0.771837] mousedev: PS/2 mouse device common for all mice

[ 0.772734] bcm2835-wdt bcm2835-wdt: Broadcom BCM2835 watchdog timer

[ 0.772978] bcm2835-cpufreq: min=600000 max=1200000

[ 0.773446] sdhci: Secure Digital Host Controller Interface driver

[ 0.773452] sdhci: Copyright(c) Pierre Ossman

[ 0.773837] mmc-bcm2835 3f300000.mmcnr: could not get clk, deferring probe

[ 0.774228] sdhost-bcm2835 3f202000.mmc: could not get clk, deferring probe

[ 0.774352] sdhci-pltfm: SDHCI platform and OF driver helper

[ 0.775890] ledtrig-cpu: registered to indicate activity on CPUs

[ 0.776086] hidraw: raw HID events driver (C) Jiri Kosina

[ 0.776260] usbcore: registered new interface driver usbhid

[ 0.776266] usbhid: USB HID core driver

[ 0.777276] vchiq: vchiq\_init\_state: slot\_zero = (ptrval), is\_master = 0

[ 0.779171] [vc\_sm\_connected\_init]: start

[ 0.789001] [vc\_sm\_connected\_init]: end - returning 0

[ 0.790141] Initializing XFRM netlink socket

[ 0.790169] NET: Registered protocol family 17

[ 0.790282] Key type dns\_resolver registered

[ 0.790843] Registering SWP/SWPB emulation handler

[ 0.791507] registered taskstats version 1

[ 0.791525] Loading compiled-in X.509 certificates

[ 0.798868] uart-pl011 3f201000.serial: cts\_event\_workaround enabled

[ 0.798959] 3f201000.serial: ttyAMA0 at MMIO 0x3f201000 (irq = 81, base\_baud = 0) is a PL011 rev2

[ 0.800871] mmc-bcm2835 3f300000.mmcnr: mmc\_debug:0 mmc\_debug2:0

[ 0.800881] mmc-bcm2835 3f300000.mmcnr: DMA channel allocated

[ 0.825183] sdhost: log\_buf @ (ptrval) (fad07000)

[ 0.864707] mmc1: queuing unknown CIS tuple 0x80 (2 bytes)

[ 0.866272] mmc1: queuing unknown CIS tuple 0x80 (3 bytes)

[ 0.867832] mmc1: queuing unknown CIS tuple 0x80 (3 bytes)

[ 0.870634] mmc1: queuing unknown CIS tuple 0x80 (7 bytes)

[ 0.871835] mmc0: sdhost-bcm2835 loaded - DMA enabled (>1)

[ 0.873205] of\_cfs\_init

[ 0.873305] of\_cfs\_init: OK

[ 0.874017] Waiting for root device /dev/mmcblk0p7...

[ 0.933213] mmc0: host does not support reading read-only switch, assuming write-enable

[ 0.935910] mmc0: new high speed SDHC card at address 59b4

[ 0.937277] mmcblk0: mmc0:59b4 SDU1 14.8 GiB

[ 0.941480] mmcblk0: p1 p2 < p5 p6 p7 >

[ 0.943532] random: fast init done

[ 0.974443] EXT4-fs (mmcblk0p7): mounted filesystem with ordered data mode. Opts: (null)

[ 0.974503] VFS: Mounted root (ext4 filesystem) readonly on device 179:7.

[ 0.981967] Indeed it is in host mode hprt0 = 00021501

[ 0.982011] devtmpfs: mounted

[ 1.044607] Freeing unused kernel memory: 1024K

[ 1.046478] mmc1: new high speed SDIO card at address 0001

[ 1.072230] Run /sbin/init as init process

[ 1.191864] usb 1-1: new high-speed USB device number 2 using dwc\_otg

[ 1.192018] Indeed it is in host mode hprt0 = 00001101

[ 1.432172] usb 1-1: New USB device found, idVendor=0424, idProduct=9514, bcdDevice= 2.00

[ 1.432188] usb 1-1: New USB device strings: Mfr=0, Product=0, SerialNumber=0

[ 1.432896] hub 1-1:1.0: USB hub found

[ 1.432987] hub 1-1:1.0: 5 ports detected

[ 1.649840] systemd[1]: System time before build time, advancing clock.

[ 1.751860] usb 1-1.1: new high-speed USB device number 3 using dwc\_otg

[ 1.783474] NET: Registered protocol family 10

[ 1.784866] Segment Routing with IPv6

[ 1.825720] systemd[1]: systemd 241 running in system mode. (+PAM +AUDIT +SELINUX +IMA +APPARMOR +SMACK +SYSVINIT +UTMP +LIBCRYPTSETUP +GCRYPT +GNUTLS +ACL +XZ +LZ4 +SECCOMP +BLKID +ELFUTILS +KMOD -IDN2 +IDN -PCRE2 default-hierarchy=hybrid)

[ 1.826634] systemd[1]: Detected architecture arm.

[ 1.834619] systemd[1]: Set hostname to <raspberrypi>.

[ 1.843178] systemd[1]: Failed to bump fs.file-max, ignoring: Invalid argument

[ 1.882530] usb 1-1.1: New USB device found, idVendor=0424, idProduct=ec00, bcdDevice= 2.00

[ 1.882557] usb 1-1.1: New USB device strings: Mfr=0, Product=0, SerialNumber=0

[ 1.885718] smsc95xx v1.0.6

[ 1.976594] smsc95xx 1-1.1:1.0 eth0: register 'smsc95xx' at usb-3f980000.usb-1.1, smsc95xx USB 2.0 Ethernet, b8:27:eb:1d:3b:68

[ 2.071898] usb 1-1.2: new low-speed USB device number 4 using dwc\_otg

[ 2.169012] systemd[1]: File /lib/systemd/system/systemd-journald.service:12 configures an IP firewall (IPAddressDeny=any), but the local system does not support BPF/cgroup based firewalling.

[ 2.169039] systemd[1]: Proceeding WITHOUT firewalling in effect! (This warning is only shown for the first loaded unit using IP firewalling.)

[ 2.217586] usb 1-1.2: New USB device found, idVendor=30fa, idProduct=2033, bcdDevice= 1.00

[ 2.217603] usb 1-1.2: New USB device strings: Mfr=2, Product=1, SerialNumber=0

[ 2.217613] usb 1-1.2: Product: USB Keyboard

[ 2.217622] usb 1-1.2: Manufacturer: INSTANT

[ 2.223509] input: INSTANT USB Keyboard as /devices/platform/soc/3f980000.usb/usb1/1-1/1-1.2/1-1.2:1.0/0003:30FA:2033.0001/input/input0

[ 2.292510] hid-generic 0003:30FA:2033.0001: input,hidraw0: USB HID v1.10 Keyboard [INSTANT USB Keyboard] on usb-3f980000.usb-1.2/input0

[ 2.297536] input: INSTANT USB Keyboard Consumer Control as /devices/platform/soc/3f980000.usb/usb1/1-1/1-1.2/1-1.2:1.1/0003:30FA:2033.0002/input/input1

[ 2.362132] input: INSTANT USB Keyboard System Control as /devices/platform/soc/3f980000.usb/usb1/1-1/1-1.2/1-1.2:1.1/0003:30FA:2033.0002/input/input2

[ 2.362584] hid-generic 0003:30FA:2033.0002: input,hiddev96,hidraw1: USB HID v1.10 Device [INSTANT USB Keyboard] on usb-3f980000.usb-1.2/input1

[ 2.461893] usb 1-1.3: new low-speed USB device number 5 using dwc\_otg

[ 2.595961] usb 1-1.3: New USB device found, idVendor=30fa, idProduct=0300, bcdDevice= 1.00

[ 2.595976] usb 1-1.3: New USB device strings: Mfr=0, Product=1, SerialNumber=0

[ 2.595986] usb 1-1.3: Product: USB OPTICAL MOUSE

[ 2.600755] input: USB OPTICAL MOUSE as /devices/platform/soc/3f980000.usb/usb1/1-1/1-1.3/1-1.3:1.0/0003:30FA:0300.0003/input/input3

[ 2.601142] hid-generic 0003:30FA:0300.0003: input,hidraw2: USB HID v1.11 Mouse [USB OPTICAL MOUSE ] on usb-3f980000.usb-1.3/input0

[ 2.644592] random: systemd: uninitialized urandom read (16 bytes read)

[ 2.656638] random: systemd: uninitialized urandom read (16 bytes read)

[ 2.657410] systemd[1]: Listening on Syslog Socket.

[ 2.658135] random: systemd: uninitialized urandom read (16 bytes read)

[ 2.658572] systemd[1]: Listening on udev Kernel Socket.

[ 2.659711] systemd[1]: Set up automount Arbitrary Executable File Formats File System Automount Point.

[ 2.665416] systemd[1]: Created slice system-getty.slice.

[ 2.900778] i2c /dev entries driver

[ 3.220929] EXT4-fs (mmcblk0p7): re-mounted. Opts: (null)

[ 3.327564] systemd-journald[107]: Received request to flush runtime journal from PID 1

[ 4.004399] vc\_sm\_cma: module is from the staging directory, the quality is unknown, you have been warned.

[ 4.009514] bcm2835\_vc\_sm\_cma\_probe: Videocore shared memory driver

[ 4.009540] [vc\_sm\_connected\_init]: start

[ 4.017378] [vc\_sm\_connected\_init]: installed successfully

[ 4.020963] media: Linux media interface: v0.10

[ 4.056303] videodev: Linux video capture interface: v2.00

[ 4.091564] bcm2835\_mmal\_vchiq: module is from the staging directory, the quality is unknown, you have been warned.

[ 4.092372] bcm2835\_mmal\_vchiq: module is from the staging directory, the quality is unknown, you have been warned.

[ 4.123173] bcm2835\_v4l2: module is from the staging directory, the quality is unknown, you have been warned.

[ 4.157098] bcm2835\_codec: module is from the staging directory, the quality is unknown, you have been warned.

[ 4.172950] bcm2835-codec bcm2835-codec: Device registered as /dev/video10

[ 4.173006] bcm2835-codec bcm2835-codec: Loaded V4L2 decode

[ 4.181071] bcm2835-codec bcm2835-codec: Device registered as /dev/video11

[ 4.181106] bcm2835-codec bcm2835-codec: Loaded V4L2 encode

[ 4.189219] bcm2835-codec bcm2835-codec: Device registered as /dev/video12

[ 4.189261] bcm2835-codec bcm2835-codec: Loaded V4L2 isp

[ 4.248936] snd\_bcm2835: module is from the staging directory, the quality is unknown, you have been warned.

[ 4.256942] bcm2835\_audio soc:audio: card created with 8 channels

[ 4.563292] cfg80211: Loading compiled-in X.509 certificates for regulatory database

[ 4.737109] cfg80211: Loaded X.509 cert 'sforshee: 00b28ddf47aef9cea7'

[ 4.832394] brcmfmac: F1 signature read @0x18000000=0x1541a9a6

[ 4.852118] brcmfmac: brcmf\_fw\_alloc\_request: using brcm/brcmfmac43430-sdio for chip BCM43430/1

[ 4.852466] usbcore: registered new interface driver brcmfmac

[ 5.064271] brcmfmac: brcmf\_fw\_alloc\_request: using brcm/brcmfmac43430-sdio for chip BCM43430/1

[ 5.064362] brcmfmac: brcmf\_c\_process\_clm\_blob: no clm\_blob available (err=-2), device may have limited channels available

[ 5.065129] brcmfmac: brcmf\_c\_preinit\_dcmds: Firmware: BCM43430/1 wl0: Oct 23 2017 03:55:53 version 7.45.98.38 (r674442 CY) FWID 01-e58d219f

[ 6.921660] random: crng init done

[ 6.921683] random: 7 urandom warning(s) missed due to ratelimiting

[ 7.157603] uart-pl011 3f201000.serial: no DMA platform data

[ 7.164527] 8021q: 802.1Q VLAN Support v1.8

[ 7.524307] Adding 102396k swap on /var/swap. Priority:-2 extents:1 across:102396k SSFS

[ 7.700748] IPv6: ADDRCONF(NETDEV\_UP): wlan0: link is not ready

[ 7.700769] brcmfmac: power management disabled

[ 8.224211] smsc95xx 1-1.1:1.0 eth0: hardware isn't capable of remote wakeup

[ 9.779158] smsc95xx 1-1.1:1.0 eth0: link up, 100Mbps, full-duplex, lpa 0xCDE1

[ 12.119369] Bluetooth: Core ver 2.22

[ 12.119469] NET: Registered protocol family 31

[ 12.119476] Bluetooth: HCI device and connection manager initialized

[ 12.119504] Bluetooth: HCI socket layer initialized

[ 12.119519] Bluetooth: L2CAP socket layer initialized

[ 12.119563] Bluetooth: SCO socket layer initialized

[ 12.148364] Bluetooth: HCI UART driver ver 2.3

[ 12.148373] Bluetooth: HCI UART protocol H4 registered

[ 12.148427] Bluetooth: HCI UART protocol Three-wire (H5) registered

[ 12.148569] Bluetooth: HCI UART protocol Broadcom registered

[ 12.446636] Bluetooth: BNEP (Ethernet Emulation) ver 1.3

[ 12.446645] Bluetooth: BNEP filters: protocol multicast

[ 12.446660] Bluetooth: BNEP socket layer initialized

[ 12.559418] Bluetooth: RFCOMM TTY layer initialized

[ 12.559440] Bluetooth: RFCOMM socket layer initialized

[ 12.559467] Bluetooth: RFCOMM ver 1.11

[ 12.996947] fuse init (API version 7.27)

**ram\_status.txt**

total used free shared buff/cache available

Mem: 926Mi 314Mi 179Mi 39Mi 432Mi 514Mi

Swap: 99Mi 0B 99Mi

**cpu\_usage.txt**

Total CPU Usage: 7.10%

**current\_user.txt**

pi

**device\_ip.txt**

eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500

inet 10.0.0.172 netmask 255.255.255.0 broadcast 10.0.0.255

inet6 2601:281:8000:3d20::cf13 prefixlen 128 scopeid 0x0<global>

inet6 fe80::ec4c:fd2e:8efe:be8c prefixlen 64 scopeid 0x20<link>

inet6 2601:281:8000:3d20:124c:abf4:e4f9:8ac1 prefixlen 64 scopeid 0x0<global>

ether b8:27:eb:1d:3b:68 txqueuelen 1000 (Ethernet)

RX packets 30328 bytes 28515247 (27.1 MiB)

RX errors 0 dropped 0 overruns 0 frame 0

TX packets 19226 bytes 9560604 (9.1 MiB)

TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536

inet 127.0.0.1 netmask 255.0.0.0

inet6 ::1 prefixlen 128 scopeid 0x10<host>

loop txqueuelen 1000 (Local Loopback)

RX packets 0 bytes 0 (0.0 B)

RX errors 0 dropped 0 overruns 0 frame 0

TX packets 0 bytes 0 (0.0 B)

TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

wlan0: flags=4099<UP,BROADCAST,MULTICAST> mtu 1500

ether b8:27:eb:48:6e:3d txqueuelen 1000 (Ethernet)

RX packets 0 bytes 0 (0.0 B)

RX errors 0 dropped 0 overruns 0 frame 0

TX packets 0 bytes 0 (0.0 B)

TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

**uptime.txt**

01:05:04 up 24 min, 2 users, load average: 0.10, 0.07, 0.17