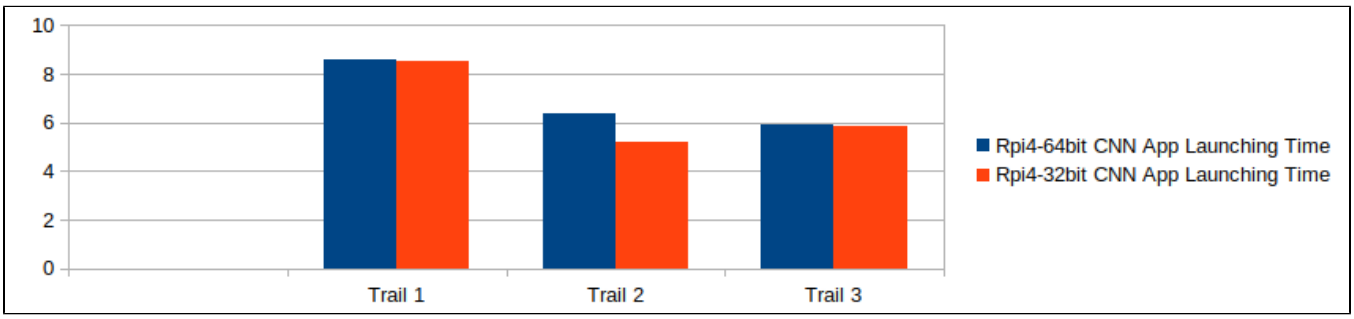
RPI4 - 64 bit vs 32 bit Performance Report

Performance Output:

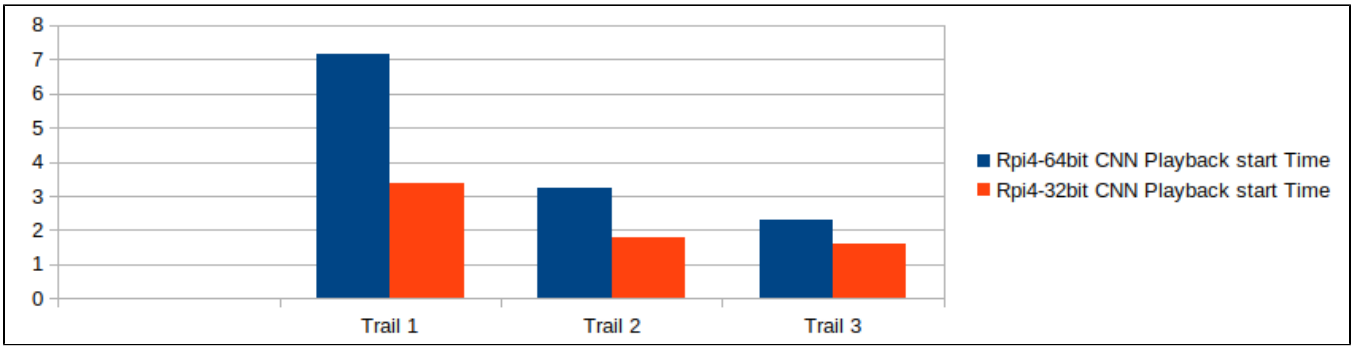
Memory_Chart

- **APP Launching Time Performance Between RPI4 64bit vs 32bit**



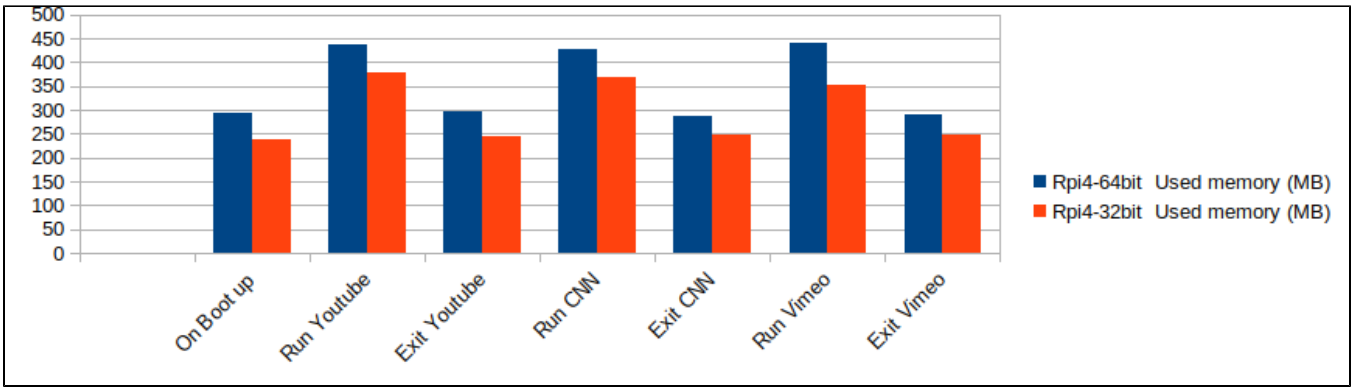
Tested trails	Rpi4-64bit CNN App Launching Time	Rpi4-32bit CNN App Launching Time
Trail 1	8.58	8.5
Trail 2	6.35	5.17
Trail 3	5.93	5.88

- **Playback Start Time Performance Between RPI4 64bit vs 32bit**



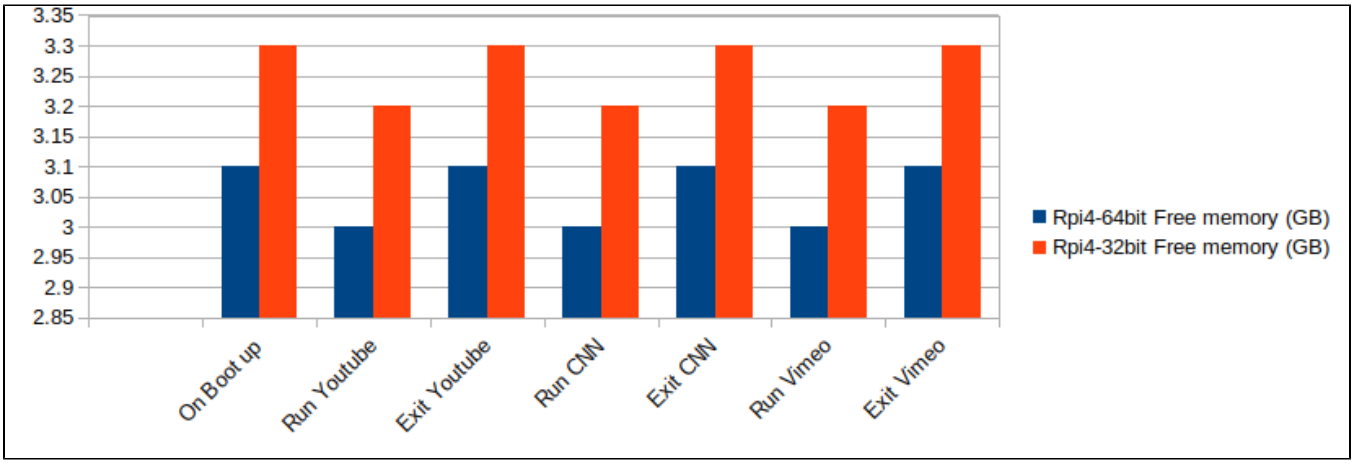
Tested trails	Rpi4-64bit CNN Playback start Time	Rpi4-32bit CNN Playback start Time
Trail 1	7.15	3.35
Trail 2	3.21	1.81
Trail 3	2.3	1.6

- **Used Memory Comparision Between RPI4 64bit vs 32bit**



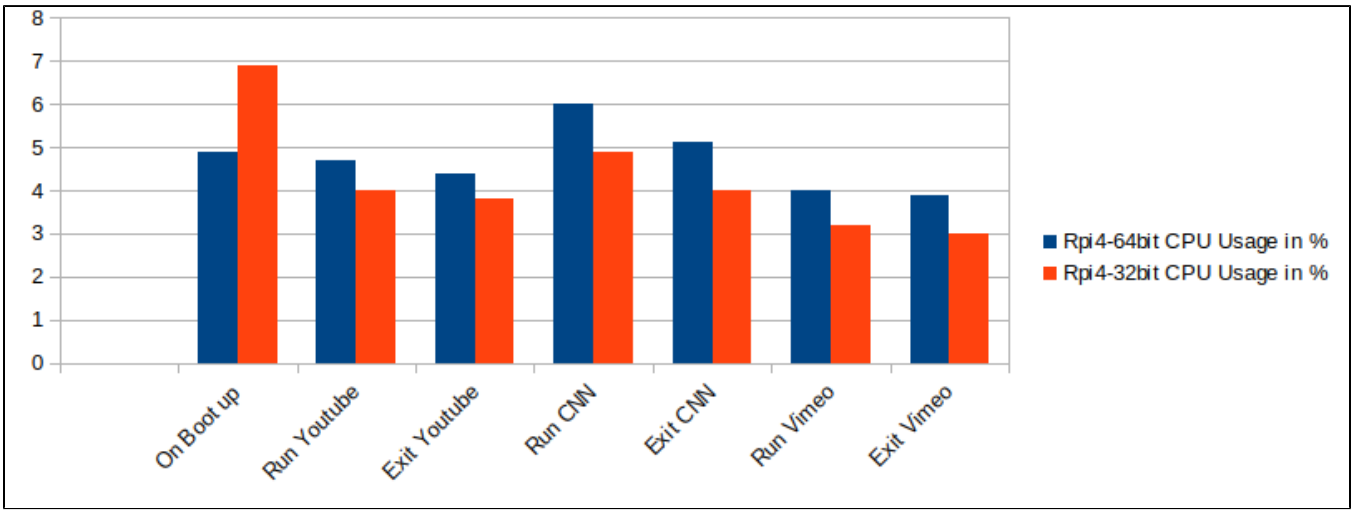
Tested Sequence	Rpi4-64bit Used memory (MB)	Rpi4-32bit Used memory (MB)
On Boot up	294	238
Run Youtube	438	377
Exit Youtube	296	246
Run CNN	428	368
Exit CNN	288	249
Run Vimeo	440	352
Exit Vimeo	289	249

- **Free Memory Comparision Between RPI4 64bit vs 32bit**



Tested Sequence	Rpi4-64bit Free memory (GB)	Rpi4-32bit Free memory (GB)
On Boot up	3.1	3.3
Run Youtube	3	3.2
Exit Youtube	3.1	3.3
Run CNN	3	3.2
Exit CNN	3.1	3.3
Run Vimeo	3	3.2
Exit Vimeo	3.1	3.3

- **CPU Usage Comparision Between RPI4 64bit vs 32bit**



Test Steps	Rpi4-64bit CPU Usage in %	Rpi4-32bit CPU Usage in %
On Boot up	4.9	6.9
Run Youtube	4.7	4
Exit Youtube	4.4	3.8
Run CNN	6	4.9
Exit CNN	5.1	4
Run Vimeo	4	3.2
Exit Vimeo	3.9	3

App launching and Playback start time

App launching and playback start Time				
S.no	**Tested Apps**	**Tested Cases**	**RPI4-64Bit Output**	**RPI4-32Bit Output**
1	Device Bootup	Bootup time (till UI loads on the TV screen) [Hard reboot]	**Trail 1:** 01 min 05 Sec **Trail 2:** 01 min 04 Sec **Trail 3:** 58.66 Sec	**Trail 1:** 52.33 sec **Trail 2:** 55.09 sec **Trail 3:** 55.87 sec
2	Youtube	App Launching Time	**Trail 1:** 07.50 sec **Trail 2:** 04.95 sec **Trail 3:** 04.45 sec	**Trail 1:** 06.33 sec **Trail 2:** 05.06 sec **Trail 3:** 04.66 sec
3		Playback Start Time for selected Content	**Trail 1:** 04.05 sec **Trail 2:** 02.66 sec **Trail 3:** 03.85 sec	**Trail 1:** 03.60 sec **Trail 2:** 02.45 sec **Trail 3:** 02.50 sec
4	CNN	App Launching Time	**Trail 1:** 08.58 sec **Trail 2:** 06.35 sec **Trail 3:** 05.93 sec	**Trail 1:** 08.50 sec **Trail 2:** 05.17 sec **Trail 3:** 05.88 sec
5		Playback Start Time for selected Content	**Trail 1:** 07.15 sec **Trail 2:** 03.21 sec **Trail 3:** 02.30 sec	**Trail 1:** 03.35 sec **Trail 2:** 01.81 sec **Trail 3:** 01.60 sec
6	Vimeo	App Launching Time	**Trail 1:** 10.80 sec **Trail 2:** 11.86 sec **Trail 3:** 11.28 sec	**Trail 1:** 10.71 sec **Trail 2:** 10.11 sec **Trail 3:** 09.28 sec
7		Playback Start Time for selected Content	**Trail 1:** 04.70 sec **Trail 2:** 05.70 sec **Trail 3:** 03.46 sec	**Trail 1:** 04.25 sec **Trail 2:** 05.01 sec **Trail 3:** 04.10 sec

Perfromance Status for 64bit

S. No	Tested Sequence	Free Memory	Used Memory	Output for below commands		
				ps aux --sort -rss	top	free -lh

1	On boot up	3.1 GB	294 MB	USER PID %CPU %MEM VSZ RSS TTY STAT START TIME COMMAND root 2222 4.9 5.0 40027984 196020 ? SLl 09:41 0:45 /usr/bin/WPEWebProcess 3 18 libWPEBackend-default.so -1 root 1265 4.0 1.0 1411260 41716 ? Ssl 09:40 0:37 /usr/bin/WPEFramework -b root 2221 0.2 0.9 38332768 37376 ? SLl 09:41 0:01 /usr/bin/WPENetworkProcess 2 15 root 2211 0.5 0.8 38607564 32664 ? Sl 09:41 0:04 WPEProcess -l libWPEFrameworkWebKitBrowserImpl.so -c WebKitImplementation -C root 689 0.2 0.3 714044 14784 ? Ssl 09:40 0:02 /usr/bin/tr69hostif -c /etc/mgrlist.conf -p 10999 -s 11999 -d /etc/debug.ini root 1461 0.0 0.3 244272 13680 ? Sl 09:40 0:00 WPEProcess -l libWPEFrameworkTextToSpeech.so -c TextToSpeechImplementation -C root 956 0.0 0.3 393068 13152 ? Ssl 09:40 0:00 /usr/bin/controlMgr root 309 0.0 0.2 99976 11624 ? Ssl 09:40 0:00 /usr/bin/websocket-ipplayer root 11737 0.0 0.2 169136 11104 ? Sl 09:48 0:00 /usr/bin/xdiscovery /etc/xdiscovery.conf root 1160 0.2 0.2 1565884 10516 ? Sl 09:40 0:02 /usr/bin/rmfStreamer --config /opt/rmfconfig.ini --debugconfig /etc/debug.ini blercu 617 0.0 0.2 120204 10392 ? Ssl 09:40 0:00 /usr/sbin/BleRcuDaemon --verbose --noconsole --journald root 1317 0.2 0.2 314944 9788 ? Ssl 09:40 0:02 /usr/bin/btMgrBus root 1064 0.0 0.2 262720 9452 ? Ssl 09:40 0:00 /usr/bin/netsrvmgr --debugconfig /etc/debug.ini --configFilePath /etc/netsrvm root 1015 0.0 0.2 165620 8768 ? Ssl 09:40 0:00 /usr/bin/pwrMgrMain non-root 834 1.8 0.2 100204 8516 ? Rsl 09:40 0:17 /usr/bin/irMgrMain root 298 0.0 0.2 12140 8416 ? Ss 09:40 0:00 /usr/sbin/snmpd -Ls0-6d -a -f root 535 0.0 0.1 181912 7768 ? Ssl 09:40 0:00 /usr/bin/dsMgrMain non-root 1084 0.0 0.1 88088 7552 ? Ssl 09:40 0:00 /usr/bin/ledmgr root 1 2.0 0.1 157208 7516 ? Ss 09:40 0:19 /sbin/init root 349 0.0 0.1 91824 7064 ? Ssl 09:40 0:00 /usr/bin/mfrMgrMain root 1075 0.0 0.1 91824 7044 ? Ssl 09:40 0:00 /usr/bin/deepSleepMgrMain root 2020 0.0 0.1 322596 6592 ? Sl 09:41 0:00 /usr/bin/parodus --hw-mac=E45F01095C9A --webpa-ping-time=180 --webpa-interfac root 497 0.0 0.1 89876 6440 ? Ssl 09:40 0:00 /usr/bin/sysMgrMain	PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND 1265 root 20 0 1411260 41848 26652 S 4.0 1.1 0:39.04 WPEFramework 2222 root 20 0 38.174g 198100 84716 S 3.3 5.1 0:47.22 WPEWebProcess 834 non-root 20 0 100204 8516 7472 S 1.7 0.2 0:17.87 irMgrMain 20122 root 20 0 5436 2696 2116 R 1.0 0.1 0:00.16 top 1317 root 20 0 314944 9788 5464 S 0.7 0.3 0:02.78 btMgrBus 13 root 20 0 0 0 0 I 0.3 0.0 0:03.64 rcu_preempt 92 root 20 0 0 0 0 I 0.3 0.0 0:00.57 kworker/1:3-eve 121 root 20 0 30848 6296 5136 S 0.3 0.2 0:07.54 systemd-journal 196 root -2 0 0 0 0 S 0.3 0.0 0:02.72 v3d_bin 197 root -2 0 0 0 0 S 0.3 0.0 0:03.39 v3d_render 344 non-root 20 0 94524 5444 4744 S 0.3 0.1 0:00.19 audiocapturemgr 1160 root 20 0 1565884 10516 8704 S 0.3 0.3 0:02.18 rmfStreamer	total used free shared buff /cache available Mem: 3.7G 294M 3.1G 34M 294M 3.3G Low: 3.7G 588M 3.1G High: 0B 0B 0B Swap: 0B 0B 0B
2	Launch Youtube	3.0 GB	438 MB	USER PID %CPU %MEM VSZ RSS TTY STAT START TIME COMMAND root 2442 4.7 5.0 40021240 196940 ? SLl 13:27 0:39 /usr/bin/WPEWebProcess 3 18 libWPEBackend-default.so -1 root 18110 47.8 4.3 10806732 170808 ? Sl 13:40 0:27 WPEProcess -l libWPEFrameworkCobaltImpl.so -c CobaltImplementation -C Cobalt root 1143 4.0 1.0 1551236 42148 ? Ssl 13:27 0:35 /usr/bin/WPEFramework -b root 2441 0.1 0.9 38332828 37220 ? SLl 13:27 0:01 /usr/bin/WPENetworkProcess 2 15 root 2424 0.5 0.8 38607564 32904 ? Sl 13:27 0:04 WPEProcess -l libWPEFrameworkWebKitBrowserImpl.so -c WebKitImplementation -C root 737 0.2 0.3 640340 14176 ? Ssl 13:27 0:02 /usr/bin/tr69hostif -c /etc/mgrlist.conf -p 10999 -s 11999 -d /etc/debug.ini root 2306 0.0 0.3 244260 13608 ? Sl 13:27 0:00 WPEProcess -l libWPEFrameworkTextToSpeech.so -c TextToSpeechImplementation -C root 1038 0.0 0.3 393164 13032 ? Ssl 13:27 0:00 /usr/bin/controlMgr root 12246 0.0 0.2 169136 11128 ? Sl 13:35 0:00 /usr/bin/xdiscovery /etc/xdiscovery.conf root 1255 0.2 0.2 1565884 10320 ? Sl 13:27 0:02 /usr/bin/rmfStreamer --config /opt/rmfconfig.ini --debugconfig /etc/debug.ini root 2275 0.2 0.2 314816 9864 ? Ssl 13:27 0:02 /usr/bin/btMgrBus root 291 0.0 0.2 98244 9732 ? Ssl 13:27 0:00 /usr/bin/websocket-ipplayer blercu 597 0.0 0.2 120204 9596 ? Ssl 13:27 0:00 /usr/sbin/BleRcuDaemon --verbose --noconsole --journald root 283 0.0 0.2 12140 8672 ? Ss 13:27 0:00 /usr/sbin/snmpd -Ls0-6d -a -f root 1042 0.0 0.2 165708 8656 ? Ssl 13:27 0:00 /usr/bin/pwrMgrMain non-root 895 1.8 0.2 100204 8224 ? Ssl 13:27 0:16 /usr/bin/irMgrMain root 667 0.0 0.2 181912 7816 ? Ssl 13:27 0:00 /usr/bin/dsMgrMain root 1092 0.0 0.1 262696 7768 ? Ssl 13:27 0:00 /usr/bin/netsrvmgr --debugconfig /etc/debug.ini --configFilePath /etc/netsrvm root 1 2.0 0.1 157224 7560 ? Ss 13:27 0:18 /sbin/init non-root 1120 0.0 0.1 88088 7524 ? Ssl 13:27 0:00 /usr/bin/ledmgr root 1102 0.0 0.1 91824 7092 ? Ssl 13:27 0:00 /usr/bin/deepSleepMgrMain	PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND 18110 root 20 0 10.306g 188292 52824 S 26.1 4.8 0:41.59 Cobalt 1143 root 20 0 1551236 42148 26468 S 7.3 1.1 0:38.72 WPEFramework 895 non-root 20 0 100204 8224 7180 S 2.0 0.2 0:17.05 irMgrMain 2442 root 20 0 38.230g 196504 84568 S 2.0 5.0 0:40.45 WPEWebProcess 19414 root 20 0 5436 2668 2088 R 1.3 0.1 0:00.32 top 1 root 20 0 157224 7560 4760 S 1.0 0.2 0:19.02 systemd 75 root 20 0 0 0 0 I 0.7 0.0 0:01.84 kworker/u8:1-ev 81 root 1 -19 0 0 0 S 0.7 0.0 0:00.35 vchiq-slot/0 119 root 20 0 29184 5656 4668 S 0.7 0.1 0:07.00 systemd-journal	total used free shared buff /cache available Mem: 3.7G 438M 3.0G 47M 337M 3.2G Low: 3.7G 776M 3.0G High: 0B 0B 0B Swap: 0B 0B 0B
3	Exit Youtube	3.1 GB	296 MB	USER PID %CPU %MEM VSZ RSS TTY STAT START TIME COMMAND root 2442 4.4 5.0 40164412 196708 ? SLl 13:27 0:43 /usr/bin/WPEWebProcess 3 18 libWPEBackend-default.so -1 root 1143 4.3 1.0 1550900 42160 ? Ssl 13:27 0:43 /usr/bin/WPEFramework -b root 2441 0.1 0.9 38332828 37220 ? SLl 13:27 0:01 /usr/bin/WPENetworkProcess 2 15 root 2424 0.4 0.8 38607564 32904 ? Sl 13:27 0:04 WPEProcess -l libWPEFrameworkWebKitBrowserImpl.so -c WebKitImplementation -C root 737 0.2 0.3 640340 14176 ? Ssl 13:27 0:02 /usr/bin/tr69hostif -c /etc/mgrlist.conf -p 10999 -s 11999 -d /etc/debug.ini root 2306 0.0 0.3 244260 13608 ? Sl 13:27 0:00 WPEProcess -l libWPEFrameworkTextToSpeech.so -c TextToSpeechImplementation -C root 1038 0.0 0.3 393164 13032 ? Ssl 13:27 0:00 /usr/bin/controlMgr root 12246 0.0 0.2 169136 11128 ? Sl 13:35 0:00 /usr/bin/xdiscovery /etc/xdiscovery.conf root 1255 0.2 0.2 1565884 10320 ? Sl 13:27 0:02 /usr/bin/rmfStreamer --config /opt/rmfconfig.ini --debugconfig /etc/debug.ini root 2275 0.3 0.2 314816 9864 ? Ssl 13:27 0:02 /usr/bin/btMgrBus root 291 0.0 0.2 98244 9732 ? Ssl 13:27 0:00 /usr/bin/websocket-ipplayer blercu 597 0.0 0.2 120204 9596 ? Ssl 13:27 0:00 /usr/sbin/BleRcuDaemon --verbose --noconsole --journald root 283 0.0 0.2 12140 8672 ? Ss 13:27 0:00 /usr/sbin/snmpd -Ls0-6d -a -f root 1042 0.0 0.2 165708 8656 ? Ssl 13:27 0:00 /usr/bin/pwrMgrMain non-root 895 1.8 0.2 100204 8224 ? Ssl 13:27 0:18 /usr/bin/irMgrMain root 667 0.0 0.2 181912 7816 ? Ssl 13:27 0:00 /usr/bin/dsMgrMain	PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND 1143 root 20 0 1550900 42292 26632 S 4.0 1.1 0:44.81 WPEFramework 2442 root 20 0 38.358g 196960 84596 S 3.0 5.1 0:45.00 WPEWebProcess 895 non-root 20 0 100204 8224 7180 S 1.3 0.2 0:19.55 irMgrMain 21900 root 20 0 5436 2672 2096 R 1.0 0.1 0:00.13 top 5 root 20 0 0 0 0 I 0.3 0.0 0:00.90 kworker/0:0-eve 13 root 20 0 0 0 0 I 0.3 0.0 0:04.02 rcu_preempt 75 root 20 0 0 0 0 I 0.3 0.0 0:01.92 kworker/u8:1-ev 119 root 20 0 29184 6448 5460 S 0.3 0.2 0:07.75 systemd-journal 179 root -2 0 0 0 0 S 0.3 0.0 0:02.98 v3d_bin 180 root -2 0 0 0 0 S 0.3 0.0 0:03.87 v3d_render 1255 root 20 0 1565884 10320 8520 S 0.3 0.3 0:02.47 rmfStreamer 2424 root 20 0 36.819g 32904 27080 S 0.3 0.8 0:04.88 ResidentApp	total used free shared buff /cache available Mem: 3.7G 296M 3.1G 33M 324M 3.3G Low: 3.7G 620M 3.1G High: 0B 0B 0B Swap: 0B 0B 0B
4	Launch CNN	3.0 GB	428 MB	USER PID %CPU %MEM VSZ RSS TTY STAT START TIME COMMAND root 7599 31.9 4.6 39931176 182516 ? SLl 13:57 0:26 /usr/bin/WPEWebProcess 3 18 libWPEBackend-default.so -1 root 2376 6.0 4.6 38724376 180208 ? Sl 13:53 0:19 /usr/bin/WPEWebProcess 3 18 libWPEBackend-default.so -1 root 1491 5.5 1.1 1550492 42904 ? Ssl 13:52 0:18 /usr/bin/WPEFramework -b root 7598 11.8 1.0 37874204 39388 ? RLl 13:57 0:09 /usr/bin/WPENetworkProcess 2 15 root 2370 0.4 0.9 39119228 36868 ? SLl 13:53 0:01 /usr/bin/WPENetworkProcess 2 15 root 2360 0.4 0.8 38607564 32856 ? Sl 13:53 0:01 WPEProcess -l libWPEFrameworkWebKitBrowserImpl.so -c WebKitImplementation -C root 7583 1.0 0.8 38606508 31564 ? Sl 13:57 0:00 WPEProcess -l libWPEFrameworkWebKitBrowserImpl.so -c WebKitImplementation -C root 770 0.4 0.3 640260 14252 ? Ssl 13:52 0:01 /usr/bin/tr69hostif -c /etc/mgrlist.conf -p 10999 -s 11999 -d /etc/debug.ini root 2272 0.0 0.3 244256 13736 ? Sl 13:53 0:00 WPEProcess -l libWPEFrameworkTextToSpeech.so -c TextToSpeechImplementation -C root 961 0.0 0.3 393032 13216 ? Ssl 13:52 0:00 /usr/bin/controlMgr root 1076 0.3 0.3 1565884 11964 ? Sl 13:52 0:01 /usr/bin/rmfStreamer --config /opt/rmfconfig.ini --debugconfig /etc/debug.ini root 1012 0.0 0.2 169136 11084 ? Sl 13:52 0:00 /usr/bin/xdiscovery /etc/xdiscovery.conf blercu 634 0.0 0.2 120204 10324 ? Ssl 13:52 0:00 /usr/sbin/BleRcuDaemon --verbose --noconsole --journald root 1955 0.3 0.2 314816 9860 ? Ssl 13:53 0:01 /usr/bin/btMgrBus	PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND 7599 root 20 0 38.146g 178024 90104 R 43.8 4.6 0:42.24 WPEWebProcess 7598 root 20 0 36.120g 43452 28108 R 22.0 1.1 0:15.92 WPENetworkProce 1491 root 20 0 1550492 43056 27120 S 11.5 1.1 0:24.18 WPEFramework 1 root 20 0 157088 7428 4756 S 6.2 0.2 0:13.06 systemd 237 message+ 20 0 5532 4024 2400 S 3.6 0.1 0:04.94 dbus-daemon 894 non-root 20 0 100204 8396 7352 S 3.6 0.2 0:08.46 irMgrMain 2376 root 20 0 36.933g 186016 85488 S 2.0 4.8 0:20.86 WPEWebProcess 121 root 20 0 35060 9116 7956 S 1.6 0.2 0:04.51 systemd-journal 344 root 20 0 6336 3720 3316 S 1.6 0.1 0:01.77 systemd-logind 10095 root 20 0 5436 2732 2144 R 1.6 0.1 0:00.14 top	total used free shared buff /cache available Mem: 3.7G 428M 3.0G 55M 313M 3.2G Low: 3.7G 741M 3.0G High: 0B 0B 0B Swap: 0B 0B 0B

5	Exit CNN	3.1 GB	288 MB	USER PID %CPU %MEM VSZ RSS TTY STAT START TIME COMMAND root 2376 5.1 4.9 38731500 191080 ? SLl 13:53 0:22 /usr/bin/WPEWebProcess 3 18 libWPEBackend-default.so -1 root 1491 5.8 1.0 1550480 42268 ? Ssl 13:52 0:25 /usr/bin/WPEFramework -b root 2370 0.3 0.9 39119228 36860 ? SLl 13:53 0:01 /usr/bin/WPENetworkProcess 2 15 root 2360 0.3 0.8 38607564 32848 ? Sl 13:53 0:01 WPEProcess -l libWPEFrameworkWebKitBrowserImpl.so -c WebKitImplementation -C root 770 0.3 0.3 640260 14252 ? Ssl 13:52 0:01 /usr/bin/tr69hostif -c /etc/mgrlist.conf -p 10999 -s 11999 -d /etc/debug.ini root 2272 0.0 0.3 244256 13736 ? Sl 13:53 0:00 WPEProcess -l libWPEFrameworkTextToSpeech.so -c TextToSpeechImplementation -C root 961 0.0 0.3 393032 13216 ? Ssl 13:52 0:00 /usr/bin/controlMgr root 1076 0.3 0.3 1565884 11968 ? Sl 13:52 0:01 /usr/bin/rmfStreamer --config /opt/rmfconfig.ini --debugconfig /etc/debug.ini root 1012 0.0 0.2 169136 11084 ? Sl 13:52 0:00 /usr/bin/xdiscovery /etc/xdiscovery.conf blercu 634 0.0 0.2 120204 10324 ? Ssl 13:52 0:00 /usr/sbin/BleRcuDaemon --verbose --noconsole --journald root 1955 0.3 0.2 314816 9860 ? Ssl 13:53 0:01 /usr/bin/btMgrBus root 301 0.0 0.2 98208 9812 ? Ssl 13:52 0:00 /usr/bin/websocket-ipplayer root 121 1.0 0.2 35060 9380 ? Ss 13:52 0:04 /lib/systemd/systemd-journald root 1347 0.0 0.2 165708 8736 ? Ssl 13:52 0:00 /usr/bin/pwrMgrMain root 292 0.0 0.2 12140 8500 ? Ss 13:52 0:00 /usr/sbin/snmpd -Ls0-6d -a -f non-root 894 2.0 0.2 100204 8396 ? Ssl 13:52 0:09 /usr/bin/irMgrMain	PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND 1491 root 20 0 1550480 42796 26816 S 3.6 1.1 0:50.32 WPEFramework 2376 root 20 0 37.398g 193524 85728 R 3.0 5.0 0:45.28 WPEWebProcess 894 non-root 20 0 100204 8396 7352 S 1.7 0.2 0:20.71 irMgrMain 1 root 20 0 157088 7428 4756 S 0.7 0.2 0:22.28 systemd 121 root 20 0 30960 6920 5756 S 0.7 0.2 0:08.31 systemd-journal 2360 root 20 0 36.819g 32804 27052 S 0.7 0.8 0:04.80 ResidentApp 21878 root 20 0 5436 2716 2144 R 0.7 0.1 0:00.10 top 13 root 20 0 0 0 0 I 0.3 0.0 0:04.29 rcu_preempt	total used free shared buff /cache available Mem: 3.7G 288M 3.1G 35M 294M 3.4G Low: 3.7G 583M 3.1G High: 0B 0B 0B Swap: 0B 0B 0B
6	Launch Vimeo	3.0 GB	440 MB	USER PID %CPU %MEM VSZ RSS TTY STAT START TIME COMMAND root 2376 4.0 4.9 39214764 193888 ? SLl 13:53 0:47 /usr/bin/WPEWebProcess 3 18 libWPEBackend-default.so -1 root 22563 22.5 4.3 40045164 169696 ? SLl 14:11 0:18 /usr/bin/WPEWebProcess 3 18 libWPEBackend-default.so -1 root 1491 4.7 1.1 1616028 43440 ? Ssl 13:52 0:57 /usr/bin/WPEFramework -b root 22562 3.0 0.9 38849052 38260 ? SLl 14:11 0:02 /usr/bin/WPENetworkProcess 2 15 root 2370 0.1 0.9 39119228 36860 ? SLl 13:53 0:01 /usr/bin/WPENetworkProcess 2 15 root 2360 0.4 0.8 38607564 32788 ? Sl 13:53 0:04 WPEProcess -l libWPEFrameworkWebKitBrowserImpl.so -c WebKitImplementation -C root 22552 0.7 0.8 38606508 31312 ? Sl 14:11 0:00 WPEProcess -l libWPEFrameworkWebKitBrowserImpl.so -c WebKitImplementation -C root 770 0.2 0.3 640260 14252 ? Ssl 13:52 0:02 /usr/bin/tr69hostif -c /etc/mgrlist.conf -p 10999 -s 11999 -d /etc/debug.ini root 2272 0.0 0.3 244256 13736 ? Sl 13:53 0:00 WPEProcess -l libWPEFrameworkTextToSpeech.so -c TextToSpeechImplementation -C root 961 0.0 0.3 393032 13216 ? Ssl 13:52 0:00 /usr/bin/controlMgr root 1076 0.2 0.3 1565884 12368 ? Sl 13:52 0:03 /usr/bin/rmfStreamer --config /opt/rmfconfig.ini --debugconfig /etc/debug.ini root 11994 0.0 0.2 169136 11088 ? Sl 14:00 0:00 /usr/bin/xdiscovery /etc/xdiscovery.conf blercu 634 0.0 0.2 120204 10324 ? Ssl 13:52 0:00 /usr/sbin/BleRcuDaemon --verbose --noconsole --journald root 1955 0.3 0.2 314816 9860 ? Ssl 13:53 0:03 /usr/bin/btMgrBus root 301 0.0 0.2 98208 9812 ? Ssl 13:52 0:00 /usr/bin/websocket-ipplayer	PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND 22563 root 20 0 38.182g 169084 80764 S 17.2 4.3 0:23.01 WPEWebProcess 1491 root 20 0 1616028 43440 27112 S 6.3 1.1 0:58.76 WPEFramework 22562 root 20 0 37.049g 38368 27632 S 3.6 1.0 0:03.08 WPENetworkProce 894 non-root 20 0 100204 8396 7352 S 2.0 0.2 0:23.49 irMgrMain 2376 root 20 0 37.398g 191156 85816 S 1.3 4.9 0:48.23 WPEWebProcess 24257 root 20 0 5436 2672 2096 R 1.0 0.1 0:00.08 top 7 root 20 0 0 0 0 I 0.7 0.0 0:02.09 kworker/u8:0-ev 22552 root 20 0 36.818g 31312 25948 S 0.7 0.8 0:00.78 LightningApp	total used free shared buff /cache available Mem: 3.7G 440M 3.0G 49M 310M 3.2G Low: 3.7G 751M 3.0G High: 0B 0B 0B Swap: 0B 0B 0B
7	Exit Vimeo	3.1 GB	289 MB	USER PID %CPU %MEM VSZ RSS TTY STAT START TIME COMMAND root 2376 3.9 4.6 39206212 179424 ? SLl 13:53 0:50 /usr/bin/WPEWebProcess 3 18 libWPEBackend-default.so -1 root 1491 4.8 1.0 1616016 42620 ? Ssl 13:52 1:01 /usr/bin/WPEFramework -b root 2370 0.1 0.9 39119228 36856 ? SLl 13:53 0:01 /usr/bin/WPENetworkProcess 2 15 root 2360 0.4 0.8 38607564 32780 ? Sl 13:53 0:05 WPEProcess -l libWPEFrameworkWebKitBrowserImpl.so -c WebKitImplementation -C root 770 0.2 0.3 640260 14252 ? Ssl 13:52 0:02 /usr/bin/tr69hostif -c /etc/mgrlist.conf -p 10999 -s 11999 -d /etc/debug.ini root 2272 0.0 0.3 244256 13736 ? Sl 13:53 0:00 WPEProcess -l libWPEFrameworkTextToSpeech.so -c TextToSpeechImplementation -C root 961 0.0 0.3 393032 13216 ? Ssl 13:52 0:00 /usr/bin/controlMgr root 1076 0.2 0.3 1565884 12368 ? Sl 13:52 0:03 /usr/bin/rmfStreamer --config /opt/rmfconfig.ini --debugconfig /etc/debug.ini root 11994 0.0 0.2 169136 11088 ? Sl 14:00 0:00 /usr/bin/xdiscovery /etc/xdiscovery.conf blercu 634 0.0 0.2 120204 10324 ? Ssl 13:52 0:00 /usr/sbin/BleRcuDaemon --verbose --noconsole --journald root 1955 0.3 0.2 314816 9860 ? Ssl 13:53 0:04 /usr/bin/btMgrBus root 301 0.0 0.2 98208 9812 ? Ssl 13:52 0:00 /usr/bin/websocket-ipplayer root 121 0.7 0.2 35060 8736 ? Ss 13:52 0:09 /lib/systemd/systemd-journald root 1347 0.0 0.2 165708 8736 ? Ssl 13:52 0:00 /usr/bin/pwrMgrMain	PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND 1491 root 20 0 1616016 42752 26416 S 4.0 1.1 1:03.02 WPEFramework 1 root 20 0 157088 7428 4756 S 3.6 0.2 0:25.78 systemd 2376 root 20 0 37.390g 182608 85828 S 3.3 4.7 0:51.61 WPEWebProcess 237 message+ 20 0 5532 4024 2400 S 2.3 0.1 0:11.62 dbus-daemon 894 non-root 20 0 100204 8396 7352 S 2.0 0.2 0:25.37 irMgrMain 121 root 20 0 35060 9000 7836 S 1.0 0.2 0:09.76 systemd-journal 344 root 20 0 6336 3720 3316 S 0.7 0.1 0:04.26 systemd-logind 377 root 20 0 91824 7028 6036 S 0.7 0.2 0:00.24 mfrMgrMain 25864 root 20 0 5436 2704 2128 R 0.7 0.1 0:00.10 top 13 root 20 0 0 0 0 I 0.3 0.0 0:05.25 rcu_preempt 183 root -2 0 0 0 0 S 0.3 0.0 0:04.05 v3d_bin 185 root -2 0 0 0 0 S 0.3 0.0 0:05.31 v3d_render 770 root 20 0 640260 14252 10184 S 0.3 0.4 0:02.89 tr69hostif 1076 root 20 0 1565884 12368 9548 S 0.3 0.3 0:03.39 rmfStreamer 2360 root 20 0 36.819g 32780 27052 S 0.3 0.8 0:05.39 ResidentApp	total used free shared buff /cache available Mem: 3.7G 289M 3.1G 36M 297M 3.3G Low: 3.7G 587M 3.1G High: 0B 0B 0B Swap: 0B 0B 0B

Performance Status for 32bit

S. No	Tested Sequence	Free Memory	Used Memory	Output for below commands		
				ps aux --sort -rss	top	free -lh

1	On boot up	3.3 GB	238 MB	USER PID %CPU %MEM VSZ RSS TTY STAT START TIME COMMAND root 1996 6.9 4.0 377160 160592 ? RLl 07:51 0:14 /usr/bin/WPEWebProcess 3 17 libWPEBackend-default.so -1 root 1170 3.8 0.7 222712 28952 ? Ssl 07:51 0:08 /usr/bin/WPEFramework -b root 1988 0.4 0.6 237528 25168 ? SLl 07:51 0:00 /usr/bin/WPENetworkProcess 2 14 root 1863 0.5 0.5 181468 21224 ? Sl 07:51 0:01 WPEProcess -l libWPEFrameworkWebKitBrowserImpl.so -c WebKitImplementation -C Re root 1059 0.0 0.2 60732 10056 ? Ssl 07:51 0:00 /usr/bin/controlMgr root 106 1.3 0.2 21364 9576 ? Ss 07:51 0:03 /lib/systemd/systemd-journald root 829 0.5 0.2 121264 9340 ? Ssl 07:51 0:01 /usr/bin/tr69hostif -c /etc/mgrlist.conf -p 10999 -s 11999 -d /etc/debug.ini -w root 1171 0.2 0.2 251828 9112 ? Sl 07:51 0:00 /usr/bin/rmfStreamer --config /opt/rmfconfig.ini --debugconfig /etc/debug.ini root 1551 0.0 0.2 42860 8936 ? Sl 07:51 0:00 WPEProcess -l libWPEFrameworkTextToSpeech.so -c TextToSpeechImplementation -C o root 1158 0.0 0.2 40948 8876 ? Sl 07:51 0:00 /usr/bin/xdiscovery /etc/xdiscovery.conf root 415 0.3 0.2 29576 8708 ? Ssl 07:51 0:00 /usr/bin/websocket-ipplayer root 1245 0.0 0.2 41068 8364 ? Ssl 07:51 0:00 /usr/bin/xcal-device /etc/xdevice.conf blercu 411 0.0 0.2 48996 8156 ? Ssl 07:51 0:00 /usr/sbin/BleRcuDaemon --verbose --noconsole --journald root 1208 0.2 0.2 51172 8120 ? Ssl 07:51 0:00 /usr/bin/btMgrBus root 1157 0.0 0.1 62700 7072 ? Ssl 07:51 0:00 /usr/bin/netsrvmgr --debugconfig /etc/debug.ini --configFilePath /etc/netsrvmgr root 1081 0.0 0.1 29108 6504 ? Ssl 07:51 0:00 /usr/bin/pwrMgrMain non-root 929 1.7 0.1 28164 6312 ? Ssl 07:51 0:03 /usr/bin/irMgrMain root 747 0.1 0.1 45448 6088 ? Ssl 07:51 0:00 /usr/bin/dsMgrMain root 1138 0.0 0.1 19720 5916 ? Ssl 07:51 0:00 /usr/bin/deepSleepMgrMain	PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND 888 root 20 0 76012 2176 1544 S 7.3 0.1 0:19.38 rdk_tdk_agent_p 817 root 20 0 31960 4896 4328 S 3.6 0.1 0:09.86 rdk_tdk_agent_p 1170 root 20 0 222712 29084 19508 S 3.3 0.7 0:09.79 WPEFramework 1996 root 20 0 377364 160844 61620 S 3.3 4.1 0:16.10 WPEWebProcess 1 root 20 0 24876 5556 3632 S 1.7 0.1 0:12.09 systemd 929 non-root 20 0 28164 6312 5548 S 1.7 0.2 0:04.62 irMgrMain 7472 root 20 0 3664 2104 1636 R 1.3 0.1 0:00.23 top 7 root 20 0 0 0 0 I 0.7 0.0 0:00.85 kworker/u8:0-ev 106 root 20 0 29560 7416 6400 S 0.7 0.2 0:03.46 systemd-journal 1863 root 20 0 181468 21220 17856 S 0.7 0.5 0:01.39 ResidentApp	total used free shared buff /cache available Mem: 3.7G 238M 3.3G 33M 188M 3.4G Low: 639M 80M 559M High: 3.1G 346M 2.8G Swap: 0B 0B 0B
2	Run Youtube	3.2 GB	377 MB	USER PID %CPU %MEM VSZ RSS TTY STAT START TIME COMMAND root 1996 4.0 4.2 379792 165844 ? SLl 07:51 0:33 /usr/bin/WPEWebProcess 3 17 libWPEBackend-default.so -1 root 17277 40.5 3.6 460484 145172 ? Sl 08:04 0:27 WPEProcess -l libWPEFrameworkCobaltImpl.so -c CobaltImplementation -C Cobalt -r root 1170 4.0 0.7 231092 30612 ? Ssl 07:51 0:33 /usr/bin/WPEFramework -b root 1988 0.1 0.6 237528 25252 ? SLl 07:51 0:01 /usr/bin/WPENetworkProcess 2 14 root 1863 0.3 0.5 181468 21496 ? Sl 07:51 0:03 WPEProcess -l libWPEFrameworkWebKitBrowserImpl.so -c WebKitImplementation -C Re root 829 0.2 0.2 121264 10888 ? Ssl 07:51 0:01 /usr/bin/tr69hostif -c /etc/mgrlist.conf -p 10999 -s 11999 -d /etc/debug.ini -w root 1059 0.0 0.2 60732 10056 ? Ssl 07:51 0:00 /usr/bin/controlMgr root 106 0.8 0.2 29560 9536 ? Ss 07:51 0:07 /lib/systemd/systemd-journald root 1171 0.2 0.2 251828 9136 ? Sl 07:51 0:01 /usr/bin/rmfStreamer --config /opt/rmfconfig.ini --debugconfig /etc/debug.ini root 1551 0.0 0.2 42860 8936 ? Sl 07:51 0:00 WPEProcess -l libWPEFrameworkTextToSpeech.so -c TextToSpeechImplementation -C o root 11864 0.0 0.2 40956 8888 ? Sl 07:59 0:00 /usr/bin/xdiscovery /etc/xdiscovery.conf root 415 0.1 0.2 29576 8708 ? Ssl 07:51 0:00 /usr/bin/websocket-ipplayer root 14662 0.0 0.2 41064 8232 ? Ssl 08:01 0:00 /usr/bin/xcal-device /etc/xdevice.conf blercu 411 0.0 0.2 48996 8156 ? Ssl 07:51 0:00 /usr/sbin/BleRcuDaemon --verbose --noconsole --journald root 1208 0.2 0.2 51172 8120 ? Ssl 07:51 0:02 /usr/bin/btMgrBus root 1157 0.0 0.1 62700 7072 ? Ssl 07:51 0:00 /usr/bin/netsrvmgr --debugconfig /etc/debug.ini --configFilePath /etc/netsrvmgr root 1081 0.0 0.1 29108 6504 ? Ssl 07:51 0:00 /usr/bin/pwrMgrMain	PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND 17277 root 20 0 433172 114844 41128 S 48.7 2.9 0:43.82 Cobalt 888 root 20 0 76012 2176 1544 S 8.6 0.1 1:06.83 rdk_tdk_agent_p 1170 root 20 0 231092 29696 19252 S 7.2 0.8 0:36.51 WPEFramework 817 root 20 0 31960 4896 4328 S 4.3 0.1 0:33.71 rdk_tdk_agent_p 929 non-root 20 0 28164 6312 5548 S 2.0 0.2 0:15.70 irMgrMain 1996 root 20 0 381112 167160 61748 S 1.6 4.3 0:34.02 WPEWebProcess 19113 root 20 0 3648 2184 1664 R 1.3 0.1 0:00.20 top 1 root 20 0 24876 5556 3632 S 1.0 0.1 0:20.76 systemd 106 root 20 0 29560 9932 8912 S 0.7 0.3 0:07.65 systemd-journal	total used free shared buff /cache available Mem: 3.7G 377M 3.2G 46M 230M 3.3G Low: 639M 112M 527M High: 3.1G 496M 2.6G Swap: 0B 0B 0B
3	Exit Youtube	3.3 GB	246 MB	USER PID %CPU %MEM VSZ RSS TTY STAT START TIME COMMAND root 1996 3.8 4.3 384696 170636 ? SLl 07:51 0:35 /usr/bin/WPEWebProcess 3 17 libWPEBackend-default.so -1 root 1170 4.2 0.7 230920 29748 ? Ssl 07:51 0:38 /usr/bin/WPEFramework -b root 1988 0.1 0.6 237528 25252 ? SLl 07:51 0:01 /usr/bin/WPENetworkProcess 2 14 root 1863 0.3 0.5 181468 21492 ? Sl 07:51 0:03 WPEProcess -l libWPEFrameworkWebKitBrowserImpl.so -c WebKitImplementation -C Re root 829 0.2 0.2 121264 10888 ? Ssl 07:51 0:02 /usr/bin/tr69hostif -c /etc/mgrlist.conf -p 10999 -s 11999 -d /etc/debug.ini -w root 106 0.8 0.2 29560 10376 ? Ss 07:51 0:07 /lib/systemd/systemd-journald root 1059 0.0 0.2 60732 10056 ? Ssl 07:51 0:00 /usr/bin/controlMgr root 1171 0.2 0.2 251828 9136 ? Sl 07:51 0:02 /usr/bin/rmfStreamer --config /opt/rmfconfig.ini --debugconfig /etc/debug.ini root 1551 0.0 0.2 42860 8936 ? Sl 07:51 0:00 WPEProcess -l libWPEFrameworkTextToSpeech.so -c TextToSpeechImplementation -C o root 11864 0.0 0.2 40956 8888 ? Sl 07:59 0:00 /usr/bin/xdiscovery /etc/xdiscovery.conf root 415 0.0 0.2 29576 8708 ? Ssl 07:51 0:00 /usr/bin/websocket-ipplayer blercu 411 0.0 0.2 48996 8156 ? Ssl 07:51 0:00 /usr/sbin/BleRcuDaemon --verbose --noconsole --journald root 1208 0.3 0.2 51172 8120 ? Ssl 07:51 0:02 /usr/bin/btMgrBus root 1157 0.0 0.1 62700 7072 ? Ssl 07:51 0:00 /usr/bin/netsrvmgr --debugconfig /etc/debug.ini --configFilePath /etc/netsrvmgr root 1081 0.0 0.1 29108 6504 ? Ssl 07:51 0:00 /usr/bin/pwrMgrMain non-root 929 1.8 0.1 28164 6312 ? Ssl 07:51 0:16 /usr/bin/irMgrMain	PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND 888 root 20 0 76012 2176 1544 S 6.9 0.1 1:13.09 rdk_tdk_agent_p 817 root 20 0 31960 4896 4328 S 3.6 0.1 0:36.85 rdk_tdk_agent_p 1170 root 20 0 230920 29748 19236 S 3.6 0.8 0:39.96 WPEFramework 1996 root 20 0 383100 168332 61788 S 3.6 4.3 0:36.63 WPEWebProcess 929 non-root 20 0 28164 6312 5548 S 1.3 0.2 0:17.15 irMgrMain 20640 root 20 0 3648 2116 1600 R 1.0 0.1 0:00.08 top 1810 root 20 0 0 0 0 D 0.7 0.0 0:01.48 kworker/u8:3+ev 1863 root 20 0 181468 21488 18080 S 0.7 0.5 0:03.52 ResidentApp	total used free shared buff /cache available Mem: 3.7G 246M 3.3G 34M 218M 3.4G Low: 639M 82M 557M High: 3.1G 382M 2.8G Swap: 0B 0B 0B
4	Run CNN	3.2 GB	368 MB	USER PID %CPU %MEM VSZ RSS TTY STAT START TIME COMMAND root 5148 4.9 4.1 378132 164644 ? SLl 08:11 0:10 /usr/bin/WPEWebProcess 3 17 libWPEBackend-default.so -1 root 8327 17.2 3.6 461376 141832 ? SLl 08:13 0:13 /usr/bin/WPEWebProcess 3 17 libWPEBackend-default.so -1 root 8325 5.0 0.9 238980 39264 ? SLl 08:13 0:03 /usr/bin/WPENetworkProcess 2 14 root 1215 5.0 0.7 231672 30692 ? Ssl 08:09 0:17 /usr/bin/WPEFramework -b root 5147 0.6 0.6 235624 26640 ? SLl 08:11 0:01 /usr/bin/WPENetworkProcess 2 14 root 5137 0.2 0.5 184168 21692 ? Sl 08:11 0:00 WPEProcess -l libWPEFrameworkWebKitBrowserImpl.so -c WebKitImplementation -C Re root 8311 0.8 0.5 183112 20784 ? Sl 08:13 0:00 WPEProcess -l libWPEFrameworkWebKitBrowserImpl.so -c WebKitImplementation -C Li root 1459 0.2 0.2 252596 10420 ? Sl 08:09 0:00 /usr/bin/rmfStreamer --config /opt/rmfconfig.ini --debugconfig /etc/debug.ini root 909 0.3 0.2 113172 10356 ? Ssl 08:09 0:01 /usr/bin/tr69hostif -c /etc/mgrlist.conf -p 10999 -s 11999 -d /etc/debug.ini -w root 1090 0.0 0.2 60724 9996 ? Ssl 08:09 0:00 /usr/bin/controlMgr root 1392 0.0 0.2 42860 9096 ? Sl 08:09 0:00 WPEProcess -l libWPEFrameworkTextToSpeech.so -c TextToSpeechImplementation -C o root 1120 0.0 0.2 40956 8840 ? Sl 08:09 0:00 /usr/bin/xdiscovery /etc/xdiscovery.conf root 108 1.1 0.2 29456 8832 ? Ss 08:09 0:04 /lib/systemd/systemd-journald root 445 0.2 0.2 29512 8804 ? Ssl 08:09 0:00 /usr/bin/websocket-ipplayer root 1349 0.3 0.2 51304 8500 ? Ssl 08:09 0:01 /usr/bin/btMgrBus	PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND 8327 root 20 0 453860 134200 65964 S 8.5 3.4 0:24.17 WPEWebProcess 972 root 20 0 76012 2244 1612 S 7.5 0.1 0:32.88 rdk_tdk_agent_p 897 root 20 0 31960 4840 4272 S 3.9 0.1 0:16.57 rdk_tdk_agent_p 1215 root 20 0 231672 30956 19960 S 3.3 0.8 0:21.51 WPEFramework 1001 non-root 20 0 28164 6308 5544 S 2.0 0.2 0:07.80 irMgrMain 1 root 20 0 24800 5428 3632 S 1.6 0.1 0:14.97 systemd 364 message+ 20 0 3760 2952 1740 S 1.3 0.1 0:04.19 dbus-daemon 5148 root 20 0 382356 168864 63224 S 1.0 4.3 0:11.90 WPEWebProcess 10541 root 20 0 3648 2180 1660 R 1.0 0.1 0:00.27 top 108 root 20 0 29456 9200 8264 S 0.7 0.2 0:04.73 systemd-journal 8311 root 20 0 183112 20780 17452 S 0.7 0.5 0:01.04 LightningApp	total used free shared buff /cache available Mem: 3.7G 368M 3.2G 57M 212M 3.3G Low: 639M 118M 521M High: 3.1G 463M 2.7G Swap: 0B 0B 0B

5	Exit CNN	3.3 GB	249 MB	USER PID %CPU %MEM VSZ RSS TTY STAT START TIME COMMAND root 5148 4.0 4.3 384560 171040 ? SLl 08:11 0:12 /usr/bin/WPEWebProcess 3 17 libWPEBackend-default.so -1 root 1215 5.1 0.7 232684 30952 ? Ssl 08:09 0:22 /usr/bin/WPEFramework -b root 5147 0.4 0.6 235624 26636 ? SLl 08:11 0:01 /usr/bin/WPENetworkProcess 2 14 root 5137 0.1 0.5 184168 21688 ? Sl 08:11 0:00 WPEProcess -l libWPEFrameworkWebKitBrowserImpl.so -c WebKitImplementation -C Re root 1459 0.2 0.2 252596 10424 ? Sl 08:09 0:01 /usr/bin/rmfStreamer --config /opt/rmfconfig.ini --debugconfig /etc/debug.ini root 909 0.3 0.2 113172 10372 ? Ssl 08:09 0:01 /usr/bin/tr69hostif -c /etc/mgrlist.conf -p 10999 -s 11999 -d /etc/debug.ini -w root 1090 0.0 0.2 60724 9996 ? Ssl 08:09 0:00 /usr/bin/controlMgr root 108 1.0 0.2 29456 9452 ? Ss 08:09 0:04 /lib/systemd/systemd-journald root 1392 0.0 0.2 42860 9096 ? Sl 08:09 0:00 WPEProcess -l libWPEFrameworkTextToSpeech.so -c TextToSpeechImplementation -C o root 1120 0.0 0.2 40956 8840 ? Sl 08:09 0:00 /usr/bin/xdiscovery /etc/xdiscovery.conf root 445 0.1 0.2 29512 8804 ? Ssl 08:09 0:00 /usr/bin/websocket-ipplayer root 1349 0.3 0.2 51304 8500 ? Ssl 08:09 0:01 /usr/bin/btMgrBus root 9059 0.0 0.2 41068 8344 ? Ssl 08:14 0:00 /usr/bin/xcal-device /etc/xdevice.conf	PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND 972 root 20 0 76012 2244 1612 S 6.9 0.1 0:38.47 rdk_tdk_agent_p 897 root 20 0 31960 4840 4272 S 3.6 0.1 0:19.40 rdk_tdk_agent_p 1215 root 20 0 231660 30020 19024 S 3.3 0.8 0:24.21 WPEFramework 5148 root 20 0 384508 171168 63248 S 3.3 4.4 0:14.18 WPEWebProcess 1001 non-root 20 0 28164 6308 5544 S 1.6 0.2 0:09.10 irMgrMain 12078 root 20 0 3652 2120 1660 R 1.0 0.1 0:00.20 top 108 root 20 0 29092 9856 8960 S 0.7 0.3 0:05.25 systemd-journal 181 root -2 0 0 0 0 S 0.7 0.0 0:02.31 v3d_render 5137 root 20 0 184168 21684 18108 S 0.7 0.6 0:00.74 ResidentApp 237 root 20 0 0 0 0 D 0.3 0.0 0:01.07 kworker/u8:3+ev	total used free shared buff /cache available Mem: 3.7G 249M 3.3G 35M 191M 3.4G Low: 639M 82M 557M High: 3.1G 358M 2.8G Swap: 0B 0B 0B
6	Run Vimeo	3.2 GB	352 MB	USER PID %CPU %MEM VSZ RSS TTY STAT START TIME COMMAND root 5148 3.2 4.3 384044 171492 ? SLl 08:11 0:24 /usr/bin/WPEWebProcess 3 17 libWPEBackend-default.so -1 root 18190 20.9 3.0 433140 121856 ? SLl 08:22 0:15 /usr/bin/WPEWebProcess 3 17 libWPEBackend-default.so -1 root 1215 4.7 0.7 231672 30040 ? Ssl 08:09 0:41 /usr/bin/WPEFramework -b root 18189 2.9 0.7 229468 28812 ? SLl 08:22 0:02 /usr/bin/WPENetworkProcess 2 14 root 5147 0.2 0.6 235624 26628 ? SLl 08:11 0:01 /usr/bin/WPENetworkProcess 2 14 root 5137 0.2 0.5 184168 21984 ? Sl 08:11 0:01 WPEProcess -l libWPEFrameworkWebKitBrowserImpl.so -c WebKitImplementation -C Re root 18179 0.7 0.5 183112 20932 ? Sl 08:22 0:00 WPEProcess -l libWPEFrameworkWebKitBrowserImpl.so -c WebKitImplementation -C Li root 1459 0.2 0.2 252596 10444 ? Sl 08:09 0:01 /usr/bin/rmfStreamer --config /opt/rmfconfig.ini --debugconfig /etc/debug.ini root 909 0.2 0.2 113172 10372 ? Ssl 08:09 0:01 /usr/bin/tr69hostif -c /etc/mgrlist.conf -p 10999 -s 11999 -d /etc/debug.ini -w root 1090 0.0 0.2 60724 9996 ? Ssl 08:09 0:00 /usr/bin/controlMgr root 108 0.8 0.2 29400 9816 ? Ss 08:09 0:07 /lib/systemd/systemd-journald root 1392 0.0 0.2 42860 9096 ? Sl 08:09 0:00 WPEProcess -l libWPEFrameworkTextToSpeech.so -c TextToSpeechImplementation -C o root 445 0.0 0.2 29512 8804 ? Ssl 08:09 0:00 /usr/bin/websocket-ipplayer root 11897 0.0 0.2 40956 8764 ? Sl 08:17 0:00 /usr/bin/xdiscovery /etc/xdiscovery.conf root 1349 0.3 0.2 51304 8500 ? Ssl 08:09 0:02 /usr/bin/btMgrBus	PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND 18190 root 20 0 433952 122532 57160 S 17.4 3.1 0:25.27 WPEWebProcess 972 root 20 0 76012 2244 1612 S 7.9 0.1 1:12.93 rdk_tdk_agent_p 1215 root 20 0 231672 30172 19148 S 5.3 0.8 0:44.68 WPEFramework 18189 root 20 0 229468 28232 19284 S 4.3 0.7 0:03.38 WPENetworkProce 897 root 20 0 31960 4840 4272 S 3.6 0.1 0:36.72 rdk_tdk_agent_p 1001 non-root 20 0 28164 6308 5544 S 1.6 0.2 0:17.11 irMgrMain 5148 root 20 0 384308 171912 63400 S 1.3 4.4 0:25.29 WPEWebProcess 20373 root 20 0 3648 2096 1576 R 1.3 0.1 0:00.19 top 72 root 1 -19 0 0 0 S 0.7 0.0 0:01.55 vchiq-slot/0 108 root 20 0 29400 10272 9368 S 0.7 0.3 0:08.03 systemd-journal 18179 root 20 0 183112 20932 17596 S 0.7 0.5 0:00.94 LightningApp	total used free shared buff /cache available Mem: 3.7G 352M 3.2G 49M 206M 3.3G Low: 639M 108M 531M High: 3.1G 450M 2.7G Swap: 0B 0B 0B
7	Exit Vimeo	3.3 GB	249 MB	USER PID %CPU %MEM VSZ RSS TTY STAT START TIME COMMAND root 5148 3.0 4.3 384328 171920 ? SLl 08:11 0:25 /usr/bin/WPEWebProcess 3 17 libWPEBackend-default.so -1 root 1215 4.7 0.7 231660 30168 ? Ssl 08:09 0:45 /usr/bin/WPEFramework -b root 5147 0.1 0.6 235624 26628 ? SLl 08:11 0:01 /usr/bin/WPENetworkProcess 2 14 root 5137 0.2 0.5 184168 21972 ? Sl 08:11 0:01 WPEProcess -l libWPEFrameworkWebKitBrowserImpl.so -c WebKitImplementation -C Re root 108 0.8 0.2 29400 10528 ? Ss 08:09 0:08 /lib/systemd/systemd-journald root 1459 0.2 0.2 252596 10456 ? Sl 08:09 0:02 /usr/bin/rmfStreamer --config /opt/rmfconfig.ini --debugconfig /etc/debug.ini root 909 0.2 0.2 113172 10372 ? Ssl 08:09 0:01 /usr/bin/tr69hostif -c /etc/mgrlist.conf -p 10999 -s 11999 -d /etc/debug.ini -w root 1090 0.0 0.2 60724 9996 ? Ssl 08:09 0:00 /usr/bin/controlMgr root 1392 0.0 0.2 42860 9096 ? Sl 08:09 0:00 WPEProcess -l libWPEFrameworkTextToSpeech.so -c TextToSpeechImplementation -C o root 445 0.0 0.2 29512 8804 ? Ssl 08:09 0:00 /usr/bin/websocket-ipplayer root 11897 0.0 0.2 40956 8764 ? Sl 08:17 0:00 /usr/bin/xdiscovery /etc/xdiscovery.conf root 1349 0.3 0.2 51304 8500 ? Ssl 08:09 0:02 /usr/bin/btMgrBus root 20209 0.2 0.2 41060 8248 ? Ssl 08:24 0:00 /usr/bin/xcal-device /etc/xdevice.conf	PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND 972 root 20 0 76012 2244 1612 S 6.9 0.1 1:25.77 rdk_tdk_agent_p 897 root 20 0 31960 4840 4272 S 3.6 0.1 0:43.18 rdk_tdk_agent_p 1215 root 20 0 231660 30564 19540 S 3.6 0.8 0:50.85 WPEFramework 5148 root 20 0 384440 171088 63488 S 3.6 4.4 0:31.08 WPEWebProcess 1001 non-root 20 0 28164 6308 5544 S 1.7 0.2 0:20.10 irMgrMain 23028 root 20 0 3648 2152 1636 R 1.0 0.1 0:00.25 top 1459 root 20 0 252596 10460 8188 S 0.7 0.3 0:02.51 rmfStreamer 5137 root 20 0 184168 21964 18332 S 0.7 0.6 0:02.65 ResidentApp	total used free shared buff /cache available Mem: 3.7G 249M 3.3G 35M 193M 3.4G Low: 639M 83M 555M High: 3.1G 358M 2.8G Swap: 0B 0B 0B

Tested Image:

- **RPI4 - 32 bit**

```
root@raspberrypi4-rdk-hybrid:~# cat /version.txt
imagename:rdk-generic-hybrid-wpe-image_TDK_nightly-20220817-dunfell_20220817075045
BRANCH=nightly-20220817-dunfell
YOCTO_VERSION=dunfell
VERSION=4.08.17.22
SPIN=0
BUILD_TIME="2022-08-17 07:50:45"
Generated on Wed Aug 17  07:50:45 UTC 2022
JENKINS_JOB=0
JENKINS_BUILD_NUMBER=0
```

- **RPI4 - 64 bit**

```
root@raspberrypi4-64-rdk-hybrid:~# cat /version.txt
imagename:rdk-generic-hybrid-wpe-image_rdk-next_20220718090514
BRANCH=rdk-next
YOCTO_VERSION=dunfell
VERSION=4.07.18.22
SPIN=0
BUILD_TIME="2022-07-18 09:05:14"
Generated on Mon Jul 18  09:05:14 UTC 2022
JENKINS_JOB=0
JENKINS_BUILD_NUMBER=0
```

Network Speed:

- Tested this performance with **["DOWNLOAD 93.82Mbps & UPLOAD 93.96Mbps"]** Network Speed.

Test Report:

- **Performance Analysis-RPI4-64bit&RPI4-32bit.xls**