

Status:	CLOSED	Start date:	2023-06-21
Priority:	High	Due date:	
Assignee:	物联网测试组_CDTS 唐霞	% Done:	100%
Category:	SYSTEM	Estimated time:	0.00 hour
Target version:		Found Version:	01.00.C105_20230621_private_user（621DB版本）
Need_Info:	--	Degrated:	No
Resolution:	FIXED	Verified Version:	
Severity:	Major	Fixed Version:	2023-06-30
Reproducibility:	Rarely	Root cause:	接受开机广播慢导致mcu超时
Test Type:	DB-Check		
Description			
【测试步骤】 1.QFIL刷机86版本 2.86版本本地OTA升级到95版本 3.95版本本地OTA升级到最新版本（621DB版本） 【预期结果】 升级到最新版本后，所有功能正常，可正常使用 【测试结果】 副屏网络不可用，中控网络正常；菜单栏没有显示以太网图标			

History

#1 - 2023-06-21 14:27 - 物联网测试组_CDTS 唐霞

PassengerDisplay:/ \$ getprop |grep network

getprop |grep network

[init.svc.neuralnetworks_hal_service]: [running]

[ro.telephony.default_network]: [33,33]

[sys.network.wifi]: [1]

PassengerDisplay:/ \$ ip route

ip route

default via 192.168.4.4 dev wlan4 linkdown

192.168.0.0/24 dev wlan0 proto kernel scope link src 192.168.0.16 linkdown

192.168.1.0/24 dev wlan1 proto kernel scope link src 192.168.1.16 linkdown

192.168.2.0/24 dev wlan2 proto kernel scope link src 192.168.2.16 linkdown

192.168.4.0/24 dev wlan4 proto kernel scope link src 192.168.4.16 linkdown

192.168.8.0/24 dev wlan8 proto kernel scope link src 192.168.8.16 linkdown

192.168.11.0/24 dev wlan11 proto kernel scope link src 192.168.11.16 linkdown

192.168.124.0/24 dev wlan0 proto kernel scope link src 192.168.124.19

PassengerDisplay:/ \$ ifconfig

ifconfig

wlan0 Link encap:UNSPEC Driver cnss_pci

inet addr:192.168.124.19 Bcast:192.168.124.255 Mask:255.255.255.0

inet6 addr: fe80::8445:c8ff:fe2e:d27c/64 Scope: Link

UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1

RX packets:43246 errors:0 dropped:1 overruns:0 frame:0

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TX packets:9475 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:3000
RX bytes:14772333 TX bytes:1817325

vlan0 Link encap:UNSPEC
inet addr:192.168.0.16 Bcast:192.168.0.255 Mask:255.255.255.0
inet6 addr: fe80::347c:7cff:fe00:f64 Scope: Link
UP BROADCAST MULTICAST MTU:1504 Metric:1
RX packets:75 errors:0 dropped:0 overruns:0 frame:0
TX packets:253 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:1000
RX bytes:3150 TX bytes:23144

vlan11 Link encap:UNSPEC
inet addr:192.168.11.16 Bcast:192.168.11.255 Mask:255.255.255.0
inet6 addr: fe80::347c:7cff:fe00:f64 Scope: Link
UP BROADCAST MULTICAST MTU:1504 Metric:1
RX packets:0 errors:0 dropped:0 overruns:0 frame:0
TX packets:174 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:1000
RX bytes:0 TX bytes:18830

eth0 Link encap:UNSPEC Driver lan743x
UP BROADCAST MULTICAST MTU:1504 Metric:1
RX packets:4294967295 errors:4294967291 dropped:4294967295 overruns:0 frame:0
TX packets:4294967295 errors:4294967293 dropped:4294967295 overruns:0 carrier:0
collisions:4294967293 txqueuelen:1000
RX bytes:4294967293 TX bytes:4294967293

vlan4 Link encap:UNSPEC
inet addr:192.168.4.16 Bcast:192.168.4.255 Mask:255.255.255.0
inet6 addr: fe80::347c:7cff:fe00:f64 Scope: Link
UP BROADCAST MULTICAST MTU:1504 Metric:1
RX packets:4069 errors:0 dropped:0 overruns:0 frame:0
TX packets:4436 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:1000
RX bytes:1703904 TX bytes:656815

dummy0 Link encap:UNSPEC
inet6 addr: fe80::b896:11ff:fe9d:e3b6/64 Scope: Link
UP BROADCAST RUNNING NOARP MTU:1500 Metric:1
RX packets:0 errors:0 dropped:0 overruns:0 frame:0
TX packets:104 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:1000
RX bytes:0 TX bytes:14344

vlan1 Link encap:UNSPEC
inet addr:192.168.1.16 Bcast:192.168.1.255 Mask:255.255.255.0
inet6 addr: fe80::347c:7cff:fe00:f64 Scope: Link
UP BROADCAST MULTICAST MTU:1504 Metric:1
RX packets:0 errors:0 dropped:0 overruns:0 frame:0
TX packets:192 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:1000

RX bytes:0 TX bytes:20342

vlan8 Link encap:UNSPEC
inet addr:192.168.8.16 Bcast:192.168.8.255 Mask:255.255.255.0
inet6 addr: fe80::347c:7cff:fe00:f/64 Scope: Link
UP BROADCAST MULTICAST MTU:1504 Metric:1
RX packets:0 errors:0 dropped:0 overruns:0 frame:0
TX packets:176 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:1000
RX bytes:0 TX bytes:19074

lo Link encap:UNSPEC
inet addr:127.0.0.1 Mask:255.0.0.0
inet6 addr: ::1/128 Scope: Host
UP LOOPBACK RUNNING MTU:65536 Metric:1
RX packets:101822 errors:0 dropped:0 overruns:0 frame:0
TX packets:101822 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:1000
RX bytes:10029490 TX bytes:10029490

vlan2 Link encap:UNSPEC
inet addr:192.168.2.16 Bcast:192.168.2.255 Mask:255.255.255.0
inet6 addr: fe80::347c:7cff:fe00:f/64 Scope: Link
UP BROADCAST MULTICAST MTU:1504 Metric:1
RX packets:0 errors:0 dropped:0 overruns:0 frame:0
TX packets:188 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:1000
RX bytes:0 TX bytes:19890

#2 - 2023-06-21 14:34 - 物联网测试组_CDTs 唐霞
- File tlog_iov0201017500006162025411a2305070000003741_000168_0621135653.tar.gz added

#3 - 2023-06-21 14:55 - CD TPM-王祥林
- Assignee changed from CD TPM-王祥林 to CD_BSP 彭文亮

出问题的开机次数是168次。下电后重新上电网络就正常了。

#4 - 2023-06-21 14:55 - CD TPM-王祥林
- Category set to BSP

#5 - 2023-06-21 16:33 - 物联网测试组_CDTs 唐霞

ftp://cdiot@192.168.87.46/Pre_figure/Test_Log/Bug%20%23118872/tlog_iov0201017500006162025411a2305070000003741_000168_0621135319.tar.gz

#6 - 2023-06-24 15:35 - CD TPM-王祥林
- File FSEM_000168_02.zip added

这是168次开机的完整log

经过日志分析

1) 第一个发现是

不但有线网络不正常工作，mcu也在不正常的工作

01-01 08:00:30.288 0 0 I [27.616061] mv2112_setup_work_handler: Try to setup link again! #采用的是临门一脚的方式，因为该MCU来发起信号，确没有等来。

01-01 08:00:30.288 0 0 I : [27.616065] mv2112_setup_forced

01-01 08:00:30.925 0 0 E [28.256316] mv2112_update_link: link 0x4

01-01 08:00:30.925 0 0 I : [28.256328] lan743x 0001:01:00.0 eth0: Link is Up - 100Mbps/Full - flow control off

06-21 11:41:00.795 0 0 I : [108.032553] lan743x 0001:01:00.0 eth0: Link is Down #突然有线网络断连

06-21 11:41:07.794 0 0 I : [115.030810] mv2112_setup_forced #此时MCU突然发来信号，不应该收到。

06-21 11:41:07.794 0 0 I [115.030816] mv2112_setup_forced: Already setup link!

2) 第二个发现

06-21 11:40:56.825 0 0 E [104.062712] msm_pcie_handle_linkdown: PCIe link is down for RC1 #有线网络mac控制器lan743x挂在RC1上.RC1先停止，lan743x随后停止。

06-21 11:41:00.795 0 0 I : [108.032553] lan743x 0001:01:00.0 eth0: Link is Down

经过继续分析，为什么RC1 会 link down：

Event MSM_PCIE_EVENT_LINKDOWN

When the RC hardware detects an abnormal linkdown, an interrupt is generated. 从这句定义来看，是一个硬件发起的异常。

1) 请mcu同事陈宙贤看过之后。认为mcu存在超时重启（mcu未收到MPU正常工作或者显示屏点亮的这一信号），由于mpu已经正常工作，所以后面mcu永远不会收到该信号，mcu会不断的超时重启。

2) 需要祥林看一下，通信层，在dmesg25S时，为何不通；在mcu超时重启后，又通了。通信层，到底好久通的。@王祥林

正常情况下开机时间小于20s。出问题的时候开机时间明显过长，kernel启动完都用了17秒，42秒才进入Launcher。

MCU判断为15秒内没有完成开机就会认为超时了，重新对mpu上电和发送link up信号。

正常log：

/FSEM_000167_0207_0621113301/logcat/000167_persist_00057_700101_080009.log:01-01 08:00:08.376 680 680 I boot_progress_start: 5408
./FSEM_000167_0207_0621113301/logcat/000167_persist_00058_700101_080009.log:01-01 08:00:08.836 680 680 I boot_progress_preload_start: 5868
./FSEM_000167_0207_0621113301/logcat/000167_persist_00059_700101_080009.log:01-01 08:00:09.797 680 680 I boot_progress_preload_end: 6829
./FSEM_000167_0207_0621113301/logcat/000167_persist_00059_700101_080009.log:01-01 08:00:09.984 1519 1519 I boot_progress_system_run: 7016
./FSEM_000167_0207_0621113301/logcat/000167_persist_00059_700101_080009.log:01-01 08:00:10.494 1519 1519 I boot_progress_pms_start: 7526
./FSEM_000167_0207_0621113301/logcat/000167_persist_00060_700101_080010.log:01-01 08:00:10.646 1519 1519 I boot_progress_pms_system_scan_start: 7678
./FSEM_000167_0207_0621113301/logcat/000167_persist_00060_700101_080010.log:01-01 08:00:10.852 1519 1519 I boot_progress_pms_data_scan_start: 7884
./FSEM_000167_0207_0621113301/logcat/000167_persist_00060_700101_080010.log:01-01 08:00:11.688 1519 1519 I boot_progress_pms_scan_end: 8720
./FSEM_000167_0207_0621113301/logcat/000167_persist_00060_700101_080010.log:01-01 08:00:11.764 1519 1519 I boot_progress_pms_ready: 8796
./FSEM_000167_0207_0621113301/logcat/000167_persist_00061_230510_180123.log:05-10 18:01:23.805 1519 1519 I boot_progress_ams_ready: 9889
./FSEM_000167_0207_0621113301/logcat/000167_persist_00063_230621_113249.log:06-21 11:32:49.311 1519 1580 I boot_progress_enable_screen: 11131
./FSEM_000167_0207_0621113301/logcat/000167_persist_00063_230621_113249.log:06-21 11:32:50.358 1519 1580 I wm_boot_animation_done: 12178

异常log：

./FSEM_000168_0208_0621114129/logcat/000168_persist_00094_700101_080021.log:01-01 08:00:19.589 701 701 I boot_progress_start: 16920
./FSEM_000168_0208_0621114129/logcat/000168_persist_00095_700101_080021.log:01-01 08:00:20.106 701 701 I boot_progress_preload_start: 17437
./FSEM_000168_0208_0621114129/logcat/000168_persist_00096_700101_080021.log:01-01 08:00:21.125 701 701 I boot_progress_preload_end: 18456
./FSEM_000168_0208_0621114129/logcat/000168_persist_00096_700101_080021.log:01-01 08:00:21.419 1580 1580 I boot_progress_system_run: 18750

./FSEM_000168_0208_0621114129/logcat/000168_persist_00097_700101_080021.log:01-01 08:00:22.431 1580 1580 I boot_progress_pms_start: 19762
./FSEM_000168_0208_0621114129/logcat/000168_persist_00097_700101_080021.log:01-01 08:00:22.532 1580 1580 I boot_progress_pms_system_scan_start: 19863
./FSEM_000168_0208_0621114129/logcat/000168_persist_00097_700101_080021.log:01-01 08:00:23.801 1580 1580 I boot_progress_pms_data_scan_start: 21133
./FSEM_000168_0208_0621114129/logcat/000168_persist_00098_700101_080025.log:01-01 08:00:30.762 1580 1580 I boot_progress_pms_scan_end: 28093
./FSEM_000168_0208_0621114129/logcat/000168_persist_00098_700101_080025.log:01-01 08:00:30.994 1580 1580 I boot_progress_pms_ready: 28325
./FSEM_000168_0208_0621114129/logcat/000168_persist_00100_230621_055411.log:06-21 05:54:12.116 1580 1580 I boot_progress_ams_ready: 39786
./FSEM_000168_0208_0621114129/logcat/000168_persist_00103_230621_055413.log:06-21 05:54:13.627 1580 1661 I boot_progress_enable_screen: 41297
./FSEM_000168_0208_0621114129/logcat/000168_persist_00103_230621_055413.log:06-21 11:38:58.836 1580 1661 I wm_boot_animation_done: 42153

- 下一步：
- 1.需要调查一下启动慢的原因。
 - 2.修改MCU的超时检查时间。

#10 - 2023-06-27 09:58 - CD_BSP 彭文亮

注：

通过让陈宙贤更改mcu的程序，发现mcu的超时重新上电时序是造成pcie1和 有线网络link is down的直接原因。

#11 - 2023-06-27 18:39 - CD TPM-王祥林

- Category changed from BSP to SYSTEM
- Assignee changed from CD_BSP 彭文亮 to CD SYSTEM-胡兵

旭新

请查一下第168次开机启动慢的原因。

#12 - 2023-06-27 19:16 - CDTS-TEST 周婷

- Assignee changed from CD SYSTEM-胡兵 to CD SYSTEM-夏旭

旭新请分析

#13 - 2023-06-28 17:40 - CD SYSTEM-夏旭

167 开机

kernel

01-01 08:00:05.357 0 0 I init : init first stage started!

01-01 08:00:06.687 0 0 I init : init second stage started!

01-01 08:00:08.516 0 0 I fsck.f2fs: from "4.19.157-perf+" --- 对比

没有找到对应168log

android

行 6235: 01-01 08:00:08.376 680 680 I boot_progress_start: 5408

行 7441: 01-01 08:00:08.836 680 680 I boot_progress_preload_start: 5868

行 9697: 01-01 08:00:09.797 680 680 I boot_progress_preload_end: 6829

行 9778: 01-01 08:00:09.984 1519 1519 I boot_progress_system_run: 7016

行 10720: 01-01 08:00:10.494 1519 1519 I boot_progress_pms_start: 7526

```
行 11045: 01-01 08:00:10.646 1519 1519 | boot_progress_pms_system_scan_start: 7678
          01-01 08:00:10.852 1519 1519 | PackageManager: Finished scanning system apps. Time: 206 ms, packageCount: 135 , timePerPackage: 1 , cached: 136 -- 对比
行 11408: 01-01 08:00:10.852 1519 1519 | boot_progress_pms_data_scan_start: 7884
行 12175: 01-01 08:00:11.688 1519 1519 | boot_progress_pms_scan_end: 8720
          01-01 08:00:11.688 1519 1519 | PackageManager: Time to scan packages: 1.042 seconds --- 对比
行 12384: 01-01 08:00:11.764 1519 1519 | boot_progress_pms_ready: 8796
行 13857: 05-10 18:01:23.805 1519 1519 | boot_progress_ams_ready: 9889
行 17503: 06-21 11:32:49.311 1519 1580 | boot_progress_enable_screen: 11131
```

168

kernel 看起来与f2fs相关

```
01-01 08:00:06.570 0 0 I [ 1.330953] init: init first stage started!
01-01 08:00:06.570 0 0 I [ 2.729393] init: init second stage started!
```

kernel只吐出这些log

```
01-01 08:00:07.715 0 0 I [ 4.885283] fsck.f2fs: from "4.19.157-perf+"
01-01 08:00:09.711 0 0 E [ 6.880052] link_delay_work_func: DTC_ETH: SQI=0, link=0
01-01 08:00:13.919 0 0 I : [ 11.091805] F2FS-fs (dm-21): Adjust unusable cap for checkpoint=disable = 2849170 / 10%
01-01 08:00:14.831 0 0 E [ 12.000055] link_delay_work_func: DTC_ETH: SQI=0, link=0
01-01 08:00:19.176 0 0 W : [ 16.348293] F2FS-fs (dm-21): Start checkpoint disabled!
01-01 08:00:19.178 0 0 I : [ 16.349865] F2FS-fs (dm-21): Mounted with checkpoint version = 2088bb13
01-01 08:00:19.180 0 0 I [ 16.352437] init: Userdata mounted using /vendor/etc/fstab.qcom result : 7 ---- kernel 耗时点
```

android

```
行 12365: 01-01 08:00:19.589 701 701 | boot_progress_start: 16920
行 13836: 01-01 08:00:20.106 701 701 | boot_progress_preload_start: 17437
行 16134: 01-01 08:00:21.125 701 701 | boot_progress_preload_end: 18456
行 16239: 01-01 08:00:21.419 1580 1580 | boot_progress_system_run: 18750
行 17749: 01-01 08:00:22.431 1580 1580 | boot_progress_pms_start: 19762
行 18004: 01-01 08:00:22.532 1580 1580 | boot_progress_pms_system_scan_start: 19863
          01-01 08:00:23.801 1580 1580 | PackageManager: Finished scanning system apps. Time: 1269 ms, packageCount: 136 , timePerPackage: 9 , cached: 0 -- //耗时点
```

点

```
行 18504: 01-01 08:00:23.801 1580 1580 | boot_progress_pms_data_scan_start: 21133
行 19319: 01-01 08:00:30.762 1580 1580 | boot_progress_pms_scan_end: 28093
          01-01 08:00:30.762 1580 1580 | PackageManager: Time to scan packages: 8.231 seconds ---- // 耗时点
行 19551: 01-01 08:00:30.994 1580 1580 | boot_progress_pms_ready: 28325
行 19850: 01-01 08:00:31.333 1580 1580 | SystemServerTiming: StartAlarmManagerService
行 19857: 06-21 05:54:01.001 1580 1580 | SystemServerTiming: StartInputManagerService
// 耗时 看起来是在做dex2oat
行 20034: 06-21 05:54:01.115 1580 1580 | SystemServerTiming: UpdatePackagesIfNeeded
行 20326: 06-21 05:54:11.391 1580 1580 | SystemServerTiming: PerformFstrimIfNeeded
```

```
行 22317: 06-21 05:54:12.116 1580 1580 | boot_progress_ams_ready: 39786
行 28485: 06-21 05:54:13.627 1580 1661 | boot_progress_enable_screen: 41297
```

测试重新验证开机时间 大概在30s 其中差异大部分为pms扫描包相关

```
Z:\home\he\下载\118872\正常\out\000489_merged_logcat_file.log ( 匹配11次 )
行 8064: 01-01 08:00:18.788 700 700 | boot_progress_start: 16129
行 8289: 01-01 08:00:19.054 700 700 | boot_progress_preload_start: 16395
行 11195: 01-01 08:00:20.356 700 700 | boot_progress_preload_end: 17697
行 11400: 01-01 08:00:20.591 1529 1529 | boot_progress_system_run: 17932
行 11864: 01-01 08:00:21.041 1529 1529 | boot_progress_pms_start: 18383
行 12081: 01-01 08:00:21.141 1529 1529 | boot_progress_pms_system_scan_start: 18482
行 12706: 01-01 08:00:22.340 1529 1529 | boot_progress_pms_data_scan_start: 19681
```

行 13384: 01-01 08:00:23.508 1529 1529 I boot_progress_pms_scan_end: 20849
01-01 08:00:23.508 1529 1529 I PackageManager: Time to scan packages: 2.367 seconds
行 13544: 01-01 08:00:23.586 1529 1529 I boot_progress_pms_ready: 20927
行 17091: 06-21 05:54:06.643 1529 1529 I boot_progress_ams_ready: 26796
行 22612: 06-28 17:23:33.981 1529 1642 I boot_progress_enable_screen: 28085

#14 - 2023-06-28 17:57 - 物联网测试组_CDTS 唐霞
- File tlog_iov0201017500006162025411a2212290000001371_000489_0628172736.tar.gz added

#15 - 2023-06-30 15:03 - IoT scm

Gerrit Merge Information :

ID	Project	Branch	Uploader
210945	general/platform/vendor/thundercom m/apps/TCService	Pre_figure_turbox-c2130c-la1.1-qssi12 -dev	wangxl0510@thundersoft.com
AF:MCU-UART:Notify the mcu of the completion of boot when Launcher started.TC-RID: 1201-0206901IssueID: TS-R-BUG-118872Change-Id: I04f44c78c2bc9348300a2a78e8bc429850811fc0			

#16 - 2023-06-30 16:50 - IoT scm

Gerrit Merge Information :

ID	Project	Branch	Uploader
211568	general/platform/vendor/thundercom m/apps/TCService	Pre_figure_turbox-c2130c-la1.1-qssi12 -release_sorp	wangxl0510@thundersoft.com
AF:MCU-UART:Notify the mcu of the completion of boot when Launcher started.TC-RID: 1201-0206901IssueID: TS-R-BUG-118872Change-Id: I04f44c78c2bc9348300a2a78e8bc429850811fc0(cherry picked from commit e2fa8c0fbd01ae3dd09653afb54c5c979dc247f7)			

#17 - 2023-07-04 19:02 - CD SYSTEM-夏旭
- Status changed from New to RESOLVED
- Assignee changed from CD SYSTEM-夏旭 to 物联网测试组_CDTS 唐霞
- % Done changed from 0 to 100
- Resolution changed from -- to FIXED
- Degrated changed from -- to No
- Fixed Version set to 2023-06-30
- Root cause set to 接受开机广播慢导致mcu超时

- 目前进展
- 相关代码已经入库
- 下一步计划
- 等待测试复测

#18 - 2023-07-14 14:51 - 物联网测试组_CDTS 唐霞
- Status changed from RESOLVED to VERIFIED

持续跟踪2周末复现，关闭问题单

#19 - 2023-07-14 14:51 - 物联网测试组_CDTS 唐霞

- Status changed from VERIFIED to CLOSED

Files			
tlog_iov0201017500006162025411a2305070000003741_000168_0621135653.tar.gz	16 MB	2023-06-21	物联网测试组_CDTS 唐霞
FSEM_000168_Q2.zip	13.4 MB	2023-06-24	CD TPM-王祥林
tlog_iov0201017500006162025411a2212290000001371_000489_0628172736.tar.gz	14.1 MB	2023-06-28	物联网测试组_CDTS 唐霞