高通CNSS技术期刊
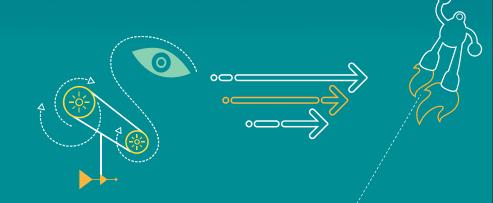
2015/1

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WCN 方案几个WLAN fix

- 非法BSSIndex, CR#681884

  https://www.codeaurora.org/cgit/external/wlan/prima/commit/?id=dde69981dc557f1797c729c7e21ad460c9181129

- HT40兼容性问题，FW CR#775248以及host CR#775312

  https://www.codeaurora.org/cgit/quic/la/platform/vendor/qcom-opensource/wlan/prima/commit/?id=7c1a512df707984c2f3a05ccd5bae5b57db8aff1

- 8939 TCP UL速率低，Iperf测试Rx需要10s才达到峰值，CR#781472

  Init.qcom.rc去掉：

  //setprop net.tcp.delack.wifi 20

WCN 几个FTM测试问题

- 使用命令行测试，一些命令之间应该加些延时
  - insmod 和iwpriv wlan0 ftm 1 之间
  - iwpriv wlan0 ftm 0 和rmmod之间
  - rmmod和insmod之间
- Android L上NV没法从QRCT导出
  - 如果NV是V3版本的，请切回V2版本
  - QDART使用版本4.8.23

8939/8916某些版本WIFI启动慢2.5s问题

- CR779421

    Wcnss_wlan.c，将

    ```
    if (!penv->fw_cal_available && WCNSS_CONFIG_UNSPECIFIED
    != has_calibrated_data && !penv->user_cal_available) {
    while (!penv->user_cal_available && retry++ < 5)
    msleep(500);
    }
    ```

    改为

    ```
    if (!penv->fw_cal_available && 0
    != has_calibrated_data && !penv->user_cal_available) {
    while (!penv->user_cal_available && retry++ < 5)
    msleep(500);
    }
    ```

WCN连接WAPI AP失败fix

○ CR#770318 修改文件CORE/MAC/src/pe/lim/limApi.c

```
/* WEP */    if ( (pBeacon->capabilityInfo.privacy == 1) && (pBeacon->wpaPresent == 0) &&
 (pBeacon->rsnPresent == 0) &&
- ( (pSession->encryptType == eSIR_ED_WEP40) ||
-               (pSession->encryptType == eSIR_ED_WEP104)))
+        ( ( pSession->encryptType == eSIR_ED_WEP40 ) ||
+            ( pSession->encryptType == eSIR_ED_WEP104 )
+#ifdef FEATURE_WLAN_WAPI
+            || ( pSession->encryptType == eSIR_ED_WPI )
+#endif+            ))
return eSIR_TRUE;
```

QCA61x4A WLAN软件版本获取

先在设备上开启WLAN，然后在adb shell下，使用如下命令获取
QCA61x4A 软件版本信息：

root@msm8994:/ # iwpriv wlan0 version

iwpriv wlan0 version

wlan0   version:Host SW:4.4.2.171, FW:0.0.0.51, HW:QCA6174_REV3_2

QCA61x4A WLAN设备MAC地址设置

- 在MSM8994和MDM9x35平台上，QCA61x4A使用softmac的方式来设置WLAN的MAC地址。目前QCA61x4A没有从NV中读取MAC地址的功能。

- Softmac文件位于/persist/wlan_mac.bin

- Softmac文件格式示例如下：
  Intf0MacAddress=00037faabb00
  Intf1MacAddress=08037faabbdd
  END

- 注意：在调试过程中，常常遇到由于MAC地址冲突导致的各种奇怪问题，所以请注意保证设备上softmac文件内容的唯一性。

QCA61x4A WLAN死机分析需要提供的log

Item	Path/Information
memory dump	C:\ProgramData\Qualcomm\QPST\Sahara\Port_COM8
vmlinux	out/target/product/msm8994/obj/KERNEL_OBJ/vmlinux
qca_cld_wlan.ko(elf)	out/target/product/msm8994/obj/vendor/qcom/opensource/wlan/qcacld-2.0/
meta information	M8994AAAAANLYD1024C.1
cnss firmware version	CNSS.SW_RM.2.0-00266-QCARMSWPZ-1

注释：

请确保所有的ELF文件和dump是匹配的

提交蓝牙问题时，请提交分析问题所需的日志文件

○ **所有问题的必要日志: logcat, QXDM**

请参考文档80-Y0513-2来配置QXDM。

○ 各类问题分别需要的其他日志

- 音频问题: btsnoop,OTA

- 互联互通问题: btsnoop, OTA

- 蓝牙认证问题:

  PTS: Virtual Sniffer log, PTS report

  DUT: btsnoop

- 稳定性问题: RAMDUMP, kmsg

- 功耗问题: kmsg, OTA

MSM8994 新基线中的 BTFM.bin

- It is a partition to store NVM and patch files that are downloaded from the BT driver in user space.

- Please sync to Partition.xml, contents.xml, and fastboot_complete.py sent in this meta-release, by referring the Release Notes.

  i.e.

  80-NU306-4 B Release Notes for M8994AAAAANLYD1140

  1.3 Build components and commands

  BTFM Binary only — Sync to Partition.xml, contents.xml, and fastboot_complete.py sent in this meta-release.

最新的蓝牙Android补丁

- 协议栈: external/bluetooth/bluedroid

  - CR#764190: Null checks in threads methods

  https://www.codeaurora.org/cgit/quic/la/platform/external/bluetooth/bluedroid/commit/?h=lp&id=1493ea7c258da9e465123d90ed190c1b4552514d

  - CR#763157: Release Mutex during error condition

  https://www.codeaurora.org/cgit/quic/la/platform/external/bluetooth/bluedroid/commit/?h=lp&id=578cdd030e755661fe58592d0d526b3abdf51469

- Frameworks: frameworks/base

  - CR#761698: Sync Bluetooth Adapter and Manager Service

  https://www.codeaurora.org/cgit/quic/la/platform/frameworks/base/commit/?h=lp&id=ef94d6c610b165b0449e62d80d4481d8706316b6

- 应用: packages/apps/Bluetooth
  - CR#765769: Send the share status of file once transfer is complete

  https://www.codeaurora.org/cgit/quic/la/platform/packages/apps/Bluetooth/commit/?h=lp&id=9acf0403cf8041e0943fd306d6affc242de2f10b

- 应用: packages/apps/Settings
  - CR#762437: Add Manifest configure to fix settings crash

  https://www.codeaurora.org/cgit/quic/la/platform/packages/apps/Settings/commit/?h=lp&id=f5458cda72bdfe7b78cb58329c53bbda9727c6c1

蓝牙组织官网发布 PTS 6.0

https://www.bluetooth.org/en-us/test-qualification/test-tools-overview/profile-tuning-suite

New and Updated Test Suite Support

- Support for TCRL 2014-2

- WSP, WSS, BCS, BMS, ES, CGM, CTS 1.1—new adoptions

- SDP, HID, HID 1.1, BNEP, A2DP 1.3, PAN—new and updated test suites/cases

- Additional support for 4.1: GAP Dual Mode Topology, and GAP and GATT-based LE Privacy.

- Variety of bug fixes across multiple test suites

中国电信AGPS相关CR和配置

- **1. 3个可能影响电信AGPS的CR：**

-
- CR718608: consistent handling on UMTS UP and 1x UP for XTRA downloading trigger in MS-based
- CR742933 fix stop update frequently during navigation(CDMA A-GPS server connection interrupt fix update)
- CR764964 MSB not work due to incorrect session_handle error

-
- **2. Modem NV设置：**

-
- NV1993 = 2 //V2 spec is used.
- NV1994 = 0 //all applications are based on no-trusted.
- NV1995 =65001 //Vx dedicated SMS teleservice identifier =65001

中国电信AGPS相关CR和配置

- NV400 =0 // disable Sending System Parameter Info Msg.
- NV4698 =0x0AC716A5 //AGPS server mpc address:10.199.22.165
- NV4705 = 6066 //mpc port =6066
- NV3520= 0xFFFD //disable OTA seed position
- NV67217:
  Umts_lte_preffered=0,Agps_Rat_Enable_Bitmask=0xFFFF //
  disable UMTS/LTE AGPS preferred.
- NV65811=0 //0 mean run IS801 instead of SUPL on 1x
- NV7165 =0x800
-
- NV1713 = right Tcal value; //TCAL case defined in 80-VM522-2
- NV449 = right RF loss value; ////C/NO case defined in 80-VM522-2

中国电信AGPS相关CR和配置

3. APN设置

在以下APN的APN类型中加入SUPL: CTWAP and CTLTE

4. SIM 卡 OMH位置服务兼容性问题解决方案:

1)在modem目录: build\ms\custxxxxxx.h (xxxxx is build flavor id）:

 #undefine或者删除：FEATURE_UIM_SUPPORT_LBS

2)modem_proc/gps/gnss/pd_comms/pd_comms_tcp/src/pd_comms_tcp_task.c

Change:#define LBS_APP_TYPE   0x00000020

To #define LBS_APP_TYPE   0x00000000

中国电信AGPS相关CR和配置

电信实验室认证（PLTS测试）NV修改:

在现网配置基础上修改以下NV：

NV4698 = 0xC0A80101

NV4705 = 8000

NV3358 = 0; //disable MPC/PDE throttling

NV3520 = 1;   //disable seed position based on network type(country code, cell learning etc);

NV4428 =1； //send SMS over access channel.

NV6264=1054; //adjust GPS week to old GPS week.

NV7165 =0;   //disable XTRA to avoid some unexpected issue on test system.

中国联通AGPS相关CR和配置

- **1.影响联通AGPS的两个CRs:**
-
- CR740924
  After the first final fix, the next fix request is not made during the SUPL-XTRA fallback session
-
  CR764398
  CP NILR still interrupt the MO session after setting NV1920 to disable CP
-
- **2. Android和modem配置取决于客户使用的SUPL服务器**

中国联通AGPS相关CR和配置

- a.如果使用Google非安全连接的服务器:
- 在etc/gps.conf设置
- # supl version 2.0
- SUPL_VER=0x20000
- SUPL_HOST=supl.google.com
  SUPL_PORT=7276
- Modem NV配置
  NV7165 =0x00001200
  NV3758 =0
- NV72533 =1
- NV1930 =2
- NV1920 = 0xFF7F ->0x307   //CP NILR interrupting MO session is seen , disable 2G/3G/4G CP MSA/MSB

中国联通AGPS相关CR和配置

- b. 如果使用谷歌基于SSL的服务器:
- 在AP侧etc/gps.conf设置：
- # supl version 2.0
- SUPL_VER=0x20000
- SUPL_HOST=supl.google.com
  SUPL_PORT=7275

- Modem NV配置：
  NV7165 =0x00001200
  NV3758 =1
- NV72533 =1
- NV1930 =2
- NV1920 = 0xFF7F ->0x307   //CP NILR interrupting MO session is seen , disable 2G/3G/4G CP MSA/MSB

中国联通AGPS相关CR和配置

- 证书要预置在EFS/SUPL文件夹下.
- 注意：从QRD DPM2.0起, 谷歌SUPL服务器根证书已经集成在联通MBN中.

- **3. APN设置：**
- 在以下APN的APN类型中添加SUPL：3GNET

-
- **4. 相关apps notes:**

-
- Intermittent NTP Time Download Failure on Some China Networks
- Application Note
- 80-NP749-1 A

中国联通AGPS相关CR和配置

- **NV7165相关位域的定义：**
- #define NV_GNSS_OEM_FEATURE_MASK_10_REQ_XTRA_DURING_SUPL 0x00000200 /* requesting XTRA download during MO MSB SUPL */
- #define NV_GNSS_OEM_FEATURE_MASK_12_REQ_XTRA_DURING_1XUP 0x00000800 /* requesting XTRA download during MO MSB 1x UP (V2 etc) */
- #define NV_GNSS_OEM_FEATURE_MASK_13_END_SUPL_AFTER_FINAL_FIX 0x00001000 /* End SUPL session with server if final fix is reported to the AP */
- #define NV_GNSS_OEM_FEATURE_MASK_14_SUPL_TDS_LOCID_CFG 0x00002000 /* Configure TD-SCDMA LocationID depending on SUPL server used */

中国移动AGPS相关CR和配置

1. 与移动AGPS相关的两个CR:

CR740924
After the first final fix, the next fix request is not made during the SUPL-XTRA fallback session
CR747513
TDSCDMA Cell ID format compatible design in SUPL for both CMCC SUPL server and Google SUPL server

2. Android和modem配置取决于客户使用的SUPL服务器

中国移动AGPS相关CR和配置

- a. 如果使用谷歌非安全服务器
- AP侧etc/gps.conf
- # supl version 2.0
- SUPL_VER=0x20000
- SUPL_HOST=supl.google.com
  SUPL_PORT=7276

- Modem NV配置
  NV7165 =0x00003200
  NV3758 =0
- NV72533 =1
- NV1930 =2

中国移动AGPS相关CR和配置

- b. 如果使用谷歌基于SSL的服务器
- AP侧etc/gps.conf
- # supl version 2.0
- SUPL_VER=0x20000
- SUPL_HOST=supl.google.com
  SUPL_PORT=7275

  Modem NV配置
  NV7165 =0x00003200
  NV3758 =1
- NV72533 =1
- NV1930 =2

中国移动AGPS相关CR和配置

- 证书要预置在EFS/SUPL文件夹下.
- 注意：从QRD DPM2.0起, 谷歌SUPL服务器根证书已经集成在移动MBN中

- c. 如果使用移动基于SSL的服务器:
- 注：此配置为SUPL1.0，不支持LTE网络
- Setting in etc/gps.conf
- # supl version 1.0
- SUPL_VER=0x10000
- SUPL_HOST=221.176.0.55
  SUPL_PORT=7275
- Setting in modem NV
  NV7165 =0x0x00001200
  NV3758 =1
- NV72533 =1
- NV1930 =2

中国移动AGPS相关CR和配置

- 证书要预置在EFS/SUPL文件夹下.
- 注意：从QRD DPM2.0起, 移动SUPL服务器根证书已经集成在移动MBN中

- **3. APN设置**
- 在以下APN中添加APN类型SUPL：CMNET and CMWAP

- **4. 中国移动AGPS相关的APPS note:**

-
- Intermittent NTP Time Download Failure on Some China Networks
- Application Note
- 80-NP749-1 A
- 注意：如果网络时间下载有问题，请参考此文档

中国移动AGPS相关CR和配置

- 移动(NSN/MOT) 网络互操作问题的 Apps Note
- 80-NL684-1 A
- 注意：此IOT问题只发生在移动NSN服务器上

中国移动AGPS相关CR和配置

- **NV7165相关位域的定义：**
- #define NV_GNSS_OEM_FEATURE_MASK_10_REQ_XTRA_DURING_SUPL 0x00000200 /* requesting XTRA download during MO MSB SUPL */
- #define NV_GNSS_OEM_FEATURE_MASK_12_REQ_XTRA_DURING_1XUP 0x00000800 /* requesting XTRA download during MO MSB 1x UP (V2 etc) */
- #define NV_GNSS_OEM_FEATURE_MASK_13_END_SUPL_AFTER_FINAL_FIX 0x00001000 /* End SUPL session with server if final fix is reported to the AP */
- #define NV_GNSS_OEM_FEATURE_MASK_14_SUPL_TDS_LOCID_CFG 0x00002000 /* Configure TD-SCDMA LocationID depending on SUPL server used */